SUPPLEMENTAL SITE EXPLORATION

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

TRI WESTERN SYNDICATED
INVESTMENTS, INC.

ENVIRONMENTAL
ASSOCIATES, INC.

1380 - 112th Avenue Northeast, Suite 300
Bellevue, Washington 98004
(425) 455-9025 Office
(888) 453-5394 Toll Free
(425) 455-2316 Fax

June 2, 2010

JN-20209-1X

Mr. Colin Radford
Tri Western Syndicated Investments, Inc.
10423 Main Street, Suite #4
Bellevue, Washington 98004

RE: **SUPPLEMENTAL SITE EXPLORATION**
Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Gentlemen:

As a supplement to subsurface investigations previously conducted by this firm, Environmental Associates, Inc. (EAI) has completed sampling and testing at thirteen (13) additional localities on the subject property to evaluate the environmental quality of soil and groundwater. This report, performed in accordance with the terms and conditions of our proposal dated April 7, 2010, summarizes the findings of this latest effort in the context of the sampling and testing work which preceded it.

Project Background

In the Fall of 2009, the subject property was identified by attorneys for the south and west-adjacent parcel ownership (Bayview) as a potential source of dry-cleaning solvents reportedly discovered in soil beneath their client's parcel. Subsequently, a series of on-site explorations have been performed in an effort to evaluate the assertion made by Bayview.

In January 2010, four (4) groundwater monitoring wells were installed on the subject property at the locations identified as MW-1 through MW-4 on the attached site plans (Plates 2 and 3). Sampling and laboratory analysis confirmed that the dry-cleaning solvent tetrachloroethene (PCE) was present in the groundwater west of the dry-cleaners at concentrations above Washington State Department of Ecology (WDOE) target compliance levels for unrestricted land use (Method-A). A westerly groundwater flow direction was deduced suggesting that the subject site cleaners was a potential source for the solvent. Further on-site explorations were recommended.

In March 2010, prior to proceeding directly to additional on-site soil and groundwater sampling, the Client authorized EAI to perform a preliminary video survey of the then known sanitary sewer line along the east side of the building. Results of that survey suggested that the sewer was constructed of segmented concrete pipe, which could be susceptible to leakage at joints. In several locations along the sewer, potential off-sets and pull-apart features were observed. EAI concluded that the subject sewer line could possibly be a source for a release of solvent.

During the March 2010 sewer survey, samples of various process water samples were collected from around the dry-cleaners, including samples of the municipal water supply. Although chlorinated solvents were not detected in any of the samples collected, chloroform was confirmed to exist in the municipal water supply. Chloroform is a byproduct from the use of chlorine as a disinfectant in the local water supply. The presence of chloroform in some of the groundwater samples lead to speculation that the source of the solvent release may be associated with discharge of municipal water, which in turn directed focus to the on-site sanitary sewer. Confirmation that the municipal water supply has chloroform present in similar concentrations to that detected in the groundwater only strengthened the inference that the solvent release might be associated with a sewer discharge.

Scope of Work

Upon reviewing the sewer survey data with the Client, a work plan that initially included ten (10) additional on-site soil borings was mutually agreed upon as the next step in assessing current environmental conditions on the subject property. As outlined in EAI's April 7, 2010 proposal, the plan provided for the following:

- Make a follow-up effort to further trace the western floor drain to its discharge point within the on-site sanitary sewer system.

- Initially plan to drill ten (10) temporary Strataprobe borings for the purpose of collecting soil and groundwater samples at those locations. Five (5) of the borings were to be completed along the eastern sanitary sewer alignment proximal to locations where the video survey noted possible off-sets or separations in the segmented pipe and/or low spots where standing water or solvents could pool. The remaining five (5) borings were to be placed around and in close proximity to the old and current dry-cleaning machine. Upon discovering a western sanitary sewer line, EAI obtained Client approval to add three (3) additional borings to the exploration program, for a total of 13 borings.

- Collect and field screen soil samples recovered during boring completion.

- Collect representative groundwater samples from each boring.

- Submit selected soil samples and all recovered groundwater samples to the project laboratory to be analyzed for chlorinated volatile organic compounds (CVOCs) by EPA test method 8260.

- Prepare a written summary report documenting field methods, observations, findings, and conclusions.

Supplemental Sewer Survey

At the time of the March 2010 sewer survey, a floor drain was observed along the west wall of the dry-cleaners between the old and current dry-cleaning machines as noted on Plates 2 and 3. The drain was too narrow to "snake" a locating beacon line down, and at the time it was postulated that this drain might connect to lines serving the boiler room and/or the bathrooms. During a subsequent meeting with the Client, it was decided that a dye test would be beneficial in establishing the flow route, or at least the discharge point of the western floor drain.

On April 21, 2010, EAI returned to the site with our utility location team to conduct the dye-test. The video camera was inserted down the east side sewer line and pushed to the first "T" connection with the boiler room drain. A jug of dyed water was then poured down the western floor drain. After a reasonable time passed without observing a colored flow with the video camera, the camera was advanced to the next "T" intersection (near the restroom) and the dye test was repeated. Once again dyed water was not observed flowing into the east side sewer.

Based on these results, consideration was given to the possibility that the western floor drain may not be connected to the eastern sewer, but rather could be served by a separate line. Ground penetrating radar (GPR) was then used along the western exterior of the building. The GPR unit located a suspected sewer line protruding from the building proximal to the western floor drain. The line appeared to connect with a north-south oriented pipe that appeared to line up with where the eastern sewer line was tracked to eventually leave the property at the north property line. The video camera was pushed back through the eastern line to the point where it left the property. This time a connection was observed that had not been apparent during the previous March 2010 survey. Holding the camera at this new intersection, the dye-test was again repeated and this time after a couple minutes, colored water was noted flowing through the intersection.

Where the western sewer crosses in front of the dry-cleaners drive-through lane, the GPR displayed what could be a couple of "side lines" tying into the north-south oriented main line. These "side lines" lead to the corner of the building and the western column holding up the canopy, and may conceivably represent roof drains that may be connected to the western side sewer.

From the GPR data the western line appear to lie just a couple feet below the ground surface near where the western floor drain appears to connect to the exterior line. The exterior line then appears to increase in depth toward the north property line. While the slope and dye test suggests that this line drains to the north, the southern extent of the line has not been conclusively established.

According to the Client, the southern addition to the subject building was added a couple years after the northern section and its roof drains discharge to the ground surface and the bathrooms are all on the east side of the building and appear to discharge to the eastern sewer line. Although the GPR equipment noted a suspected pipe oriented north-south off the west side of the southern part of the building, approximately in line with the western line off the north section of the building, it is unknown if the two are interconnected.

No clean-outs or other readily accessible points were found for the western line (north or south sections), therefore a video survey of this additional line was not performed, so some uncertainty obviously exists regarding the western line's exact layout and construction details. Adding to this uncertainty, the southern section of the building is a couple feet lower in elevation than the northern section which, to maintain a consistent northerly flow gradient, would likely require the western line at the mid point of the building to be buried deeper that it appears to be from the GPR data.

Based upon visual review and upon geophysical observations, and further taking into account the preceding discussion, Plates 2 and 3 reflect the inferred layout of the sewer line(s) that appears to run north-south along the western side of the building. For simplicity of discussion, the remaining report refers to the entire north-south oriented line on the west side of the building as the western sewer alignment.

With the discovery of the western sewer line, EAI recommended an expansion of the site exploration plan to include three (3) additional borings to be placed along the western sewer alignment. The Client agreed and authorized the additional work.

Supplemental Strataprobe Borings

Beginning on May 23, 2010 and ending on May 26, 2010, thirteen (13) Strataprobe borings were made at the approximate locations depicted on Plates 2 and 3. Only one (1) of the 13 borings could not be completed. Boring SP-2 along the eastern sanitary sewer encountered an unmarked and unlocated water line. The water line was found to be of PVC construction and therefore was not located by either the public or private utility locators. Damage to the line was minimal and the Client's maintenance crew promptly repaired the line. Due to the presence of other utilities in the area of SP2, no off-sets were attempted.

The exterior borings were all completed with a limited access, tractor-mounted, hydraulic, direct-push, Strataprobe drill rig. For interior borings SP-5, SP-6, and SP-7, the drilling unit was removed from the tractor and manually maneuvered into position and temporarily bolted to the concrete floor.

At each boring location, continuous soil cores were recovered in 3 to 4 foot sections. Drilling continued to depths between 11 and 12 feet below the ground surface, which generally corresponded to the depth at which denser glacial till was encountered. Deeper explorations were not contemplated for this phase of study given the inherent torque and stem pressure limitations of the limited access rig.

Upon retrieval of each sample core, representative soil samples were promptly collected in accordance with EPA recommend sampling methodology 5035A (Washington State Department of Ecology - Memorandum #5) for volatile organic compound analysis. Additionally EAI collected representative sample "splits" to be utilized for field screening.

Field screening consisted of placing a small quantity of sample soil into a sealable baggy. Upon allowing the sealed samples to equilibrate for approximately 15 to 20 minutes, a photo-ionization detector (PID) was used to measure the concentration of volatile organic compounds in the sample baggy's "head space." The VOC field screening measurements for each recovered soil sample along with a general description of the geologic materials encountered are noted on boring logs included with this report as Attachment-A.

Shallow groundwater was encountered at all completed boring locations. Groundwater "grab" samples were collected from each completed boring by inserting a temporary well screen. A peristaltic pump was then used to recover the groundwater and transfer it to laboratory prepared glassware.

In an effort to preserve sample integrity, all collected samples were stored on-site in an insulated chest maintained at or below 4 degrees centigrade, and were transported to the project laboratory in this condition. Each sample was clearly identified with respect to project, boring number, date, time, etc. EPA-recommended sample management protocol, including maintenance of chain-of- custody documentation, was observed at each stage of the project.

Subsurface Conditions and Sample Selection

Subsurface soil stratification was relatively uniform across the study area and generally consisted of an upper 2 to 4 feet of organic, weathered glacial till (soil horizon), overlying several more feet of soft to medium dense weathered or reworked till. The weathered till in some locations simply grades downward into denser more competent glacial till by depths of 9 to 11 feet below the ground surface. At other locations, the contact between the weathered till and unweathered till appeared to be more distinct. The underlying unweathered glacial till appears to be acting as an aquitard, creating an overlying perched groundwater bearing zone. Depths to groundwater within the perched zone ranged between 5 to 6 feet below the ground surface.

PID field screening detected VOCs in soil samples recovered from borings placed in and around the older and current dry-cleaning machines and along the western sewer alignment.

Consistent with the agreed scope of work, EAI selected a single soil sample from each boring for laboratory analysis. For most of the borings, the selected soil sample was from the upper few feet of soil (above the water table). At boring locations SP8, SP9, SP10, and SP13 deeper soil samples were selected for initial laboratory analysis. At locations SP8, 9, and 10, this deeper interval was selected due to the suspected bottom depth of the adjacent geophysical anomaly and sewer line. A deeper soil sample from SP-13 was selected due to the distance from the dry-cleaner and lack of a PID detection in any of the recovered soil samples from that boring. The groundwater samples from all of the completed borings were selected for laboratory analysis.

Laboratory Analysis, Results, and Discussion

The project laboratory analyzed a total of 12 soil samples and 12 groundwater samples for chlorinated volatile organic compounds (CVOCs) by EPA test method 8260B.

Soil Results & Discussion

The soil sampling results are presented in Table 1, attached to this report. Of the 12 soil samples analyzed, the dry-cleaning solvent perchloroethene (PCE - also known as "perc" or tetrachloroethene) was detected at concentrations above the laboratory's minimum detection limit of 20 parts per billion (ppb) or 0.02 parts per million (ppm). Of the 11 detections of PCE, ten (10) samples contained PCE at a concentration above the WDOE' s Method-A target compliance level of 50 ppb (or 0.05 ppm), intended for unrestricted land use. The concentrations of PCE detected in the selected soil samples are listed in Table 1 and are also graphically noted on Plate 2, PCE Distribution in Soil.

Contour lines of inferred "equal concentration" are depicted on Plate 2. These contour lines are solid in areas were the density of data points is relatively high. The contour lines are dashed in areas where uncertainty remains elevated and could potentially be further refined by completing additional explorations. Specifically, the depicted 100 ppb contour line within the dry-cleaner's interior space and the majority of the concentration contour lines north of the building between SP9 and SP11 may include artificial exaggerations due to the lack of data points between the western and eastern explored areas. Despite these nuances in interpolation methodology, at least two (2) potential contaminant source areas appear to be apparent in the developed data set.

The suspected "primary" source area appears to exist in a broad arch encompassing the western interior floor drain area and extending northerly along the western sanitary sewer alignment. This inferred "hot-spot" in soil is graphically represented as the area in "red tinting" on Plate 2.

A "lesser" potential source area in soil also appears to exist in the vicinity of the geophysical anomaly and extending northwest along the eastern sewer alignment to the vicinity of SP10. This area may also be contributing to the overall site impact and is represented by orange tinting on Plate 2.

Although PCE was detected in soil marginally above the WDOE target compliance level east of the boiler room, the eastern sanitary sewer alignment, south of the geophysical anomaly and "backdoor" exterior area of the cleaners does not appear to be a significant release / source area, at least not to the extent of the previously discussed areas of the property.

The highest concentration of PCE detected in soil to date is at location SP11, along the western sewer line. This location was of particular interest and was selected for exploration due to the geophysical survey noting possible tributary lines (possibly from roof drains) that may tie into the main sewer line in this area, and with all the connections, a greater chance for leakage may exist in this section of line. Additionally, the SP11 area appears to be directly up-gradient from on-site monitoring well MW-3, which in January 2010 had the highest detected concentration of PCE in the shallow groundwater.

Groundwater Results & Discussion

Groundwater results are presented in Table 2 and are graphically included on Plate 3, PCE Distribution in Groundwater. Dissolved concentrations of PCE were detected in all 12 groundwater samples. Eleven (11) of the 12 samples contained PCE at concentrations above the WDOE's target compliance level of 5 ppb, ranging between 5.1 and 230 ppb.

Similar to the format of the map for soil, Plate 3 contains interpolated contour lines for PCE concentrations detected in the groundwater samples. Additionally, as with the soil data, the dashed contour lines on Plate 3 represent areas were the contour lines may be skewed due to limited data between distant points. This effect is most notable for the area north of the subject building, between SP9 and SP11.

A comparison of the groundwater data on Plate 3 to the soil distribution data on Plate 2, depicts a strong correlation, where the highest concentration of dissolved PCE in the Strataprobe groundwater samples appear to be focused around the floor-drain and western sanitary sewer alignment. As with the soil distribution, a lesser "hot spot" also appear to exist in the vicinity of the geophysical anomaly and SP10.

Another observation of potential significance is the elevated concentration of dissolved PCE in the groundwater at SP13 to the southwest of the dry cleaners. Whereas the concentration of PCE in soil did not appear to extend significantly toward the south, this elevated concentration of dissolved PCE at SP13 may be an indication that the sewer alignment is acting as a preferential pathway for impacted groundwater migration, which in turn may explain the elevated concentration of PCE in groundwater at MW-2.

It may be noted that the concentrations of PCE reported for the Strataprobe groundwater samples collected as part of this current phase of study may not be directly comparable with the previously obtained groundwater samples from the four (4) on-site permanent groundwater monitoring wells as the strataprobe samples were collected from temporary borings from a relatively narrow vertical profile of the water-bearing zone. That said, comparison of the relative concentrations between strataprobe boring locations and correlation between the groundwater data and the soil data, remains extremely useful in developing a meaningful understanding of spatial variations in contaminant distribution.

As with the January 2010 monitoring well groundwater samples, chloroform was detected in eight (8) of the 12 Strataprobe groundwater grab samples. As discussed earlier, chloroform is typically present in municipal water supplies as a byproduct of disinfection using chlorine. Its' presence in the groundwater can often be attributed to infiltration of municipal water into the subsurface. The highest concentrations of chloroform appear to correlate with borings made around the interior dray-cleaning machines and the western floor drain / sanitary sewer alignment. During EAI's various site visits, the floor in the south southwestern corner / dry-cleaning machine area appeared to be chronically wet due to leakage from various steam lines. Such accumulations of water would likely discharge to the observed western floor drain. In short, the chloroform data also suggests that the floor drain / western sewer line may be a primary release /source area for the environmental impairments encountered.

Conclusions

EAI's previous Preliminary Site Exploration report, dated February 5, 2010, opined that the subject property dry-cleaners was a probable source for the chlorinated solvents detected in soil on the adjacent Bayview property. Relying upon the expanded on-site findings to date, it appears more conclusive that a release of PCE has occurred associated with the on-site dry-cleaning operation. Presently two (2) probable source areas / release points are inferred to exist as follows:

- The primary source area with the highest concentrations of PCE detected in soil to date included a broad area along the western sanitary sewer line and western interior floor drain, as approximated on attached Plate 2, PCE Distribution in Soil, site plan. The north-south orientated sewer line also appears to be acting as a preferential flow path for contaminant migration, which may bring about a wider north-south component to the geometry of the groundwater plume emanating from this source area. The probable release mechanism appears to be discharge down the western floor drain, with subsequent leakage along sanitary sewer joints or defects. Some secondary penetration of the concrete floor by solvents around the dry-cleaning machinery may also be contributing. Future remediation efforts would be well served to focus on all of these areas of the property.

- A secondary source area appears to exist in the north-northeast quadrant of the property in the vicinity of the "geophysical anomaly" and extending northwesterly along the sewer alignment toward boring SP10, also presented on Plate 2. Moderately elevated concentrations of PCE in soils in this area appear to be producing moderately impacted groundwater across the northern part of the property. This area of impacted groundwater likely merges and commingles with the previously discussed primary source area. The method by which solvents have accumulated in this particular area remains unconfirmed, although some form of conveyance through the sanitary sewer system and interaction with the "geophysical anomaly" (perhaps a component of an older sewer system) is suspected. Future remediation efforts may require some attention to this secondary source area.

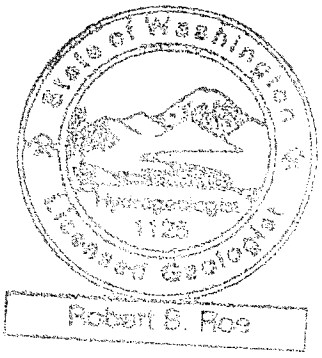
Discussion and evaluation of specific remediation approaches and interim response actions that may be implemented is currently ongoing with the Client and their representatives. Given the tentative evolving nature of those discussions, the details of those discussions are not included here.

Limitations

This report has been prepared in accordance with the directives of Tri Western Syndicated Investments for specific application to this project in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area. This document is for the exclusive of Tri Western Syndicated Investments, Inc., its members, and its appointed representatives. Information with respect to subsurface environmental conditions relies solely upon sampling and testing conducted at separated sampling localities and environmental conditions may vary between those localities or at other locations, depths, and/or media. No other warranty, expressed or implied, is made here. If new information is acquired or developed in future site work Environmental Associates, Inc., must be retained to reevaluate the conclusions of this letter report and to provide amendments as required.

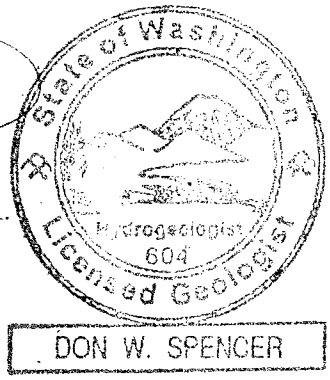
We appreciate the opportunity to be of service on this project and trust that the information provided here is fully responsive to your needs. If you have any questions or we may be of additional service, please do not hesitate to contact us.

Respectfully submitted,
ENVIRONMENTAL ASSOCIATES, INC.



Robert B. Roe, M.Sc., P.G.
Project Manager/Hydrogeologist

License: 1125 (Washington)



Don W. Spencer, M.Sc., P.G., R.E.A.
Principal

License: 604 (Washington)
License: 11464 (Oregon)
License: 876 (California)
License: 5195 (Illinois)
License: 0327 (Mississippi)

Attachments:

Table 1 - Chlorinated VOCs - Soil Sampling Results
Table 2 - Chlorinated VOCs - Groundwater Sampling Results

Plate 1 - Vicinity / Topographic Map
Plate 2 - PCE Distribution In Soil
Plate 3 - PCE Distribution In Groundwater

Attachment-A: Boring Logs
Attachment-B: Laboratory Reports

TABLE 1 - Chlorinated VOCs - Soil Sampling Results
All results and limits in parts per billion (ppb)

Boring / Sample Name	Sample Depth	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride
SP1-3-5	3 to 5 feet	***55***	<20	<50	<50	<50
SP3-3-5	3 to 5 feet	***2,900***	<20	<50	<50	<50
SP4-3-5	3 to 5 feet	***64***	<20	<50	<50	<50
SP5-3-5	3 to 5 feet	***390***	<20	<50	<50	<50
SP6-3-5	3 to 5 feet	***910***	<20	<50	<50	<50
SP7-3-5	3 to 5 feet	***180***	<20	<50	<50	<50
SP8-7-8	7 to 8 feet	40	<20	<50	<50	<50
SP9-7-8	7 to 8 feet	***110***	<20	<50	<50	<50
SP10-7-8	7 to 8 feet	***78***	<20	<50	<50	<50
SP11-3-4	3 to 4 feet	***21,000***	<20	<50	<50	<50
SP12-3-4	3 to 4 feet	***5,600***	23	<50	<50	<50
SP13-7-8	7 to 8 feet	<20	<20	<50	<50	<50
Reporting Limit [3]		20	20	50	50	50
Cleanup Level for Unrestricted Land Use (Method-A)[4]		50	30	---	---	---
Cleanup Level - Direct Contact (Method-B)[5]		1,900	2,500	800,000	1,600,000	670

Notes:
1 - "ND" denotes analyte not detected at or above listed Reporting Limit.
2- "NA" denotes sample not analyzed for specific analyte.
3- "Reporting Limit" represents the laboratory lower quantitation limit.
4- Method A soil cleanup levels for unrestricted land use as published in the Model Toxics Control Act (MTCA) 173-340-WAC, Table 740-1. Amended February 12, 2001.
5- Method-B soil cleanup levels for the "direct contact (ingestion) pathway", as published in Ecology's CLARC database.

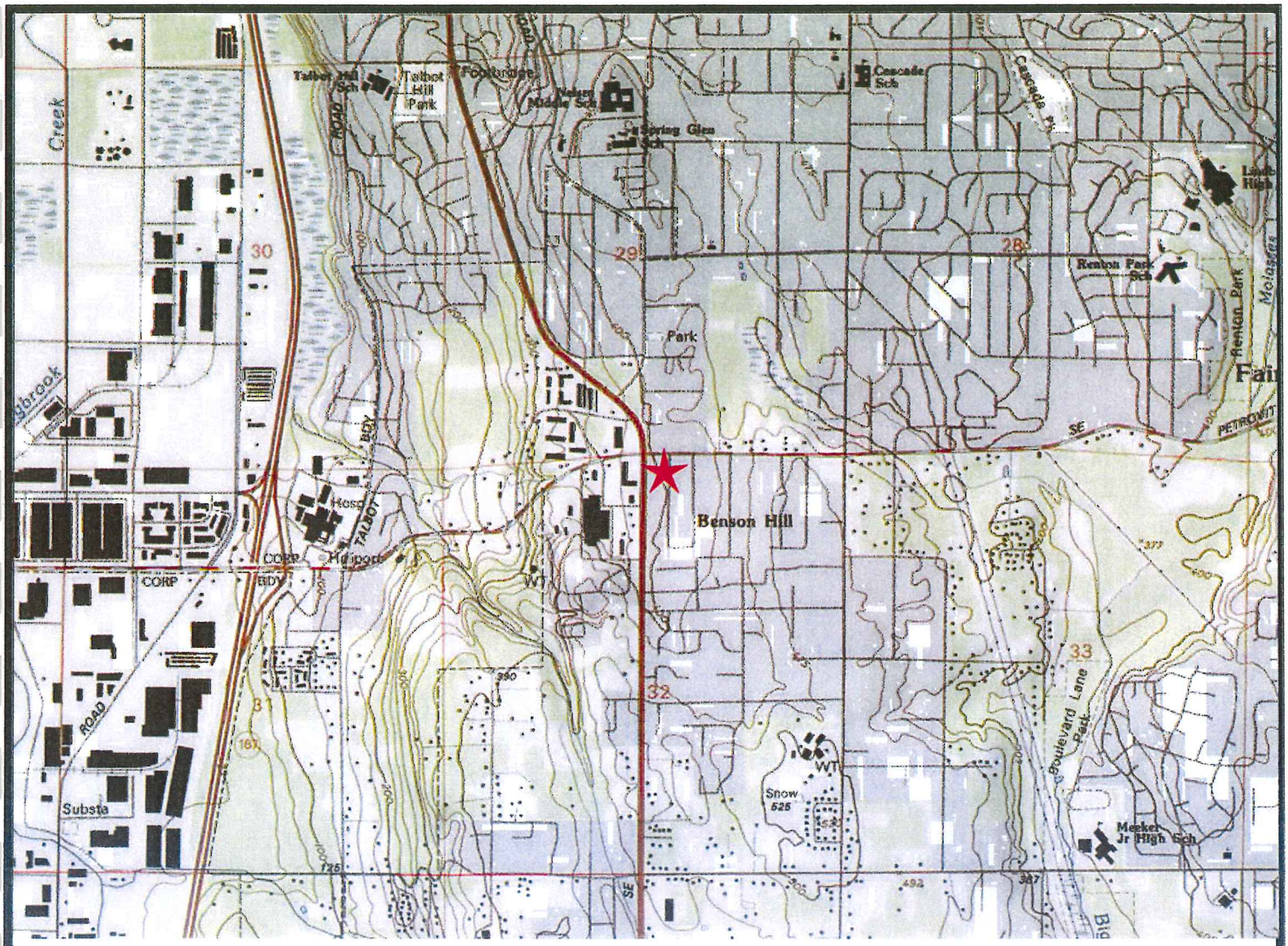
Bold and Italics denotes concentrations above existing MTCA Method A or B soil cleanup levels.

TABLE 2 - Chlorinated VOCs - Groundwater Sampling Results
All results and limits in parts per billion (ppb)

Monitoring Well	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethen	Vinyl Chloride	Chloroform
SP1	***5.1***	<1	<1	<1	<0.2	<1
SP3	***110***	<1	<1	<1	<0.2	3.3
SP4	***13***	<1	<1	<1	<0.2	4.8
SP5	***76***	<1	<1	<1	<0.2	7.0
SP6	***44***	<1	<1	<1	<0.2	7.1
SP7	***140***	<1	<1	<1	<0.2	1.9
SP8	4.9	<1	<1	<1	<0.2	1.4
SP9	***70***	<1	<1	<1	<0.2	<1
SP10	***40***	1	<1	<1	<0.2	<1
SP11	***110***	<1	<1	<1	<0.2	<1
SP12	***230***	<1	<1	<1	<0.2	3.0
SP13	***180***	<1	<1	<1	<0.2	*8.7*
Reporting Limit[3]	1	1	1	1	0.2	1
Existing Cleanup Level[4]	5 (A)	5 (A)	80 (B)	160 (B)	0.2 (A)	7.2 (B)

Notes:
1 - "ND" denotes analyte not detected at or above listed Reporting Limit.
2- "NA" denotes sample not analyzed for specific analyte.
3- "Reporting Limit" represents the laboratory lower quantitation limit.
4- Method A or B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC, amended 2/12/01.

Bold and Italics denotes concentrations above existing MTCA Method A groundwater cleanup levels.



USGS: 7.5 Minute Quadrangle: Renton, Washington
Contour Interval: 25 feet

Scale

0 — 1/2 Mile — 1

★ Subject Property Location

Inferred groundwater flow direction based upon the local topographical gradient in the vicinity of the subject property.

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue NE, Suite 300
Bellevue, Washington 98004

VICINITY / TOPOGRAPHIC MAP

Mac's One Hour Cleaners
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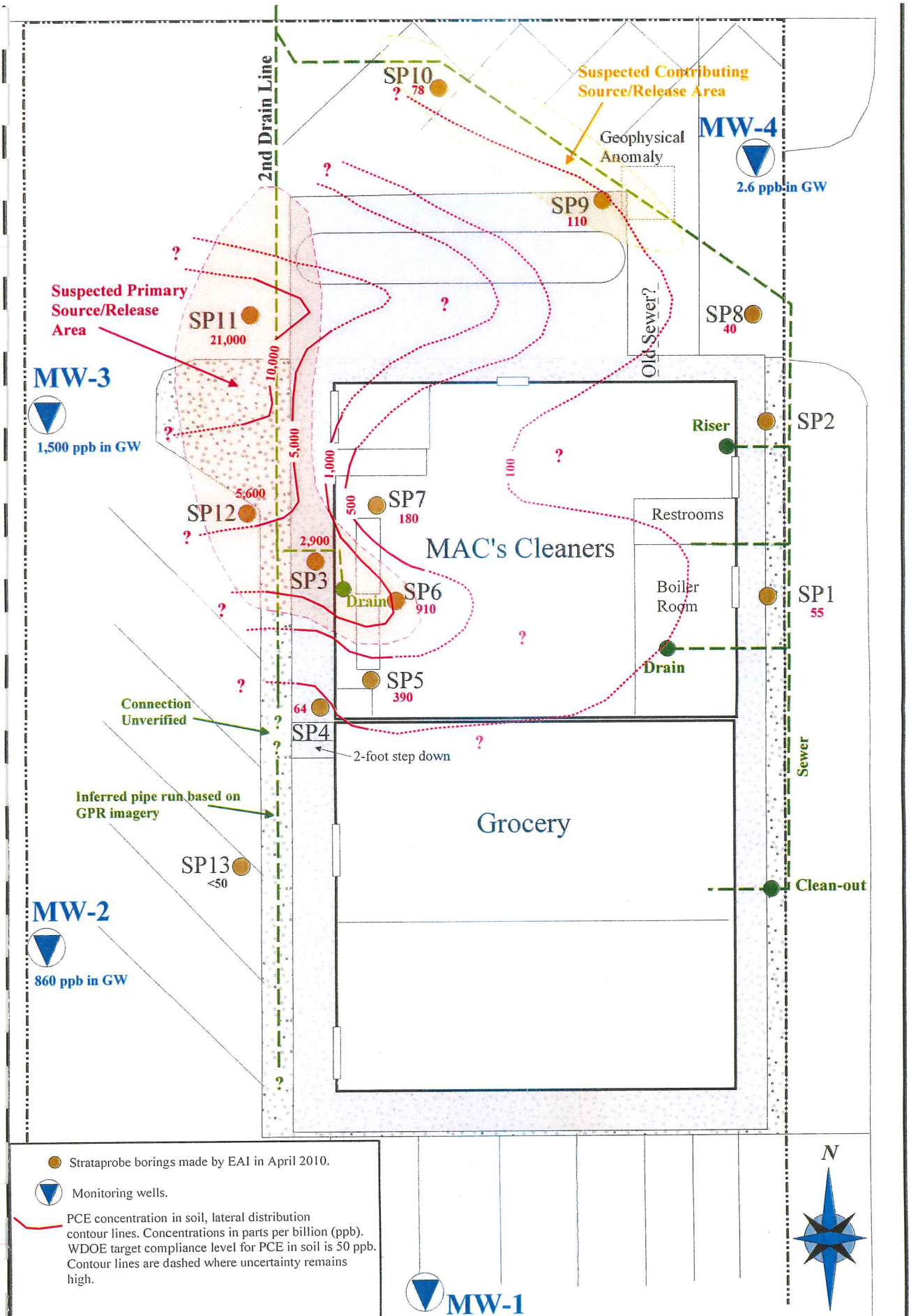
Job Number:	*Date:*		*Plate:*
JN-20209-1X	April 2010		1



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1380 - 112th Avenue N.E., Suite 300
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PCE Distribution in Soil

Job Number: | Date: | Scale: 11x17 original | Plate:

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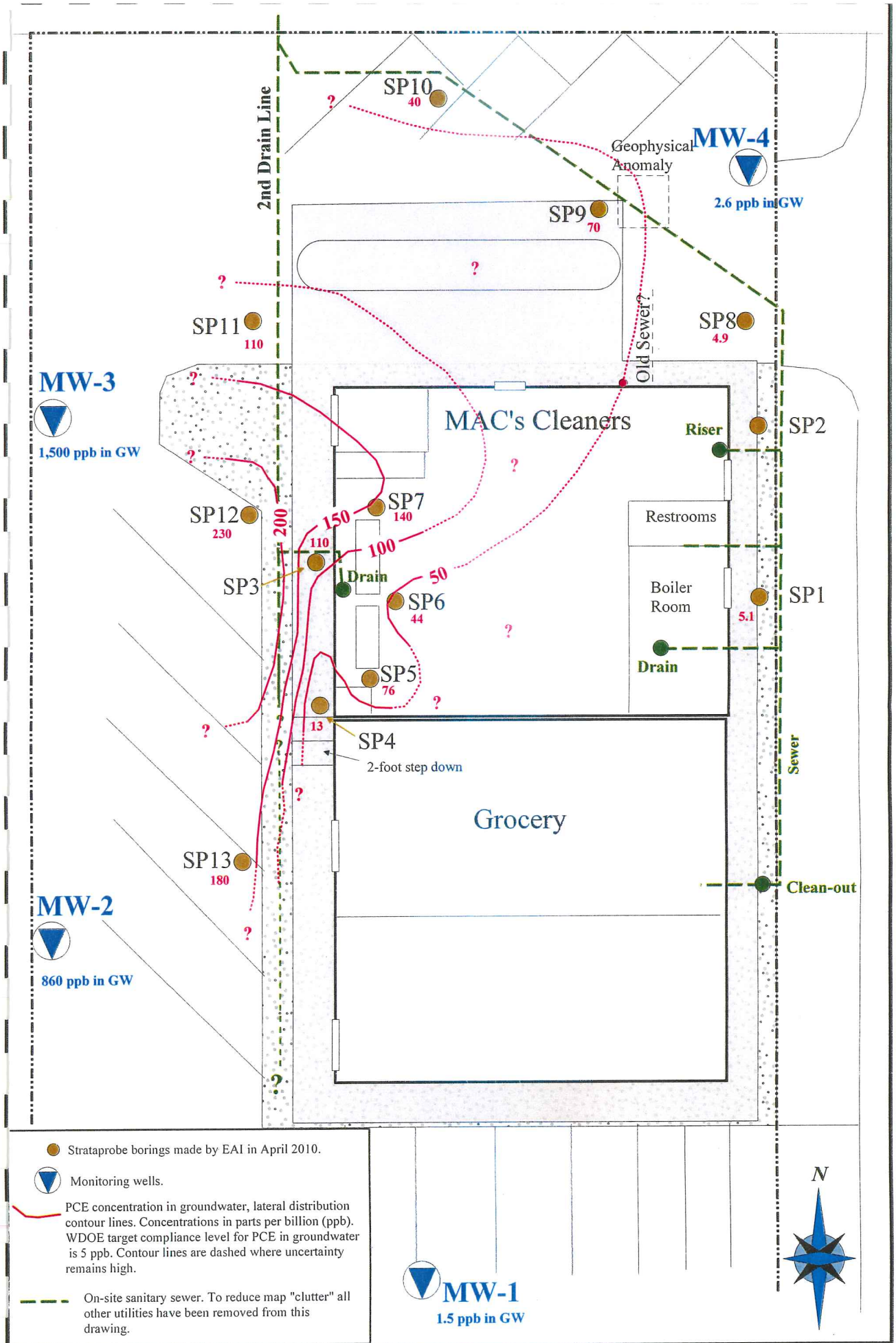

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PCE Distribution in Groundwater

Job Number: | Date: | Scale: | Plate:

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

ATTACHMENT-A

Boring Logs

WDOE Well Tag:
Lat:
Long:

BORING SP-1

TOC Elevation:
GS Elevation:

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION	Sample	Field Screening (PID) Observations
0		Damp		SM	Concrete pavement, gravel-base. Sand, fine to medium sand, with silt and gravel, organic, dark-brown. Probable soil horizon.		
5		Moist ▼ Wet		SM	Silty-Gravely-Sand, fine to medium sand, with silt, and gravel, glacial till matrix, olive-brown, soft, lenses of fine sand. Suspected weathered / reworked glacial till.	SP1-3-4 SP1-7-8	0.0 0.0
10		Damp Moist Damp		SM	Glacial Till , silt, sand, and gravel in a glacial till matrix, olive-brown, dense, significantly harder drilling..	SP1-11-12	0.0
15					Boring terminated at 12 feet. Depth to groundwater approximately 5 to 6 feet below the ground surface.		
20							
25							
30							
35							
40							

Sampler: Continuous Strataprobe Macro-Core.
Driller: ESN - Limited Access Rig (LAR).

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Bellevue, Washington 98004

Boring SP-1

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Job Number:	Date:	Logged by:	Plate:
JN-20209-1X	4/23/2010	RBR	A-1

WDOE Well Tag:
Lat:
Long:

BORING SP-2

TOC Elevation:
GS Elevation:

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION	Sample	Field Screening (PID) Observations
0					Boring terminated at 1 foot upon encountering an unmarked water line.		
5							
10							
15							
20							
25							
30							
35							
40							

Sampler: Continuous Strataprobe Macro-Core.
Driller: ESN - Limited Access Rig (LAR).

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue NE, Suite 300
Bellevue, Washington 98004

Boring SP-2

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Job Number:	Date:	Logged by:	Plate:
JN-20209-1X	4/23/2010	RBR	A-2

WDOE Well Tag:
Lat:
Long:

BORING SP-3

TOC Elevation:
GS Elevation:

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION	Sample	Field Screening (PID) Observations
0		Damp		SM	Concrete pavement, gravel-base. Sand, fine to medium sand, with silt and gravel, organic, dark-brown. Probable soil horizon.	SP3-3-4	0.0
5		Moist ▼ Moist/ Wet		SM	Sand, Silt, fine to medium sand, with silt and minor gravel, glacial till matrix, olive-brown, soft, lenses of fine sand. Suspected weathered / reworked glacial till.	SP3-4-5 SP3-7-8	0.7 0.0
10		Wet			*Becoming denser glacial-till.*	SP3-10-11	0.0
15					Boring terminated at 11 feet. Depth to groundwater approximately 5 to 6 feet below the ground surface.		
20							
25							
30							
35							
40							

Sampler: Continuous Strataprobe Macro-Core.
Driller: ESN - Limited Access Rig (LAR).

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue NE, Suite 300
Bellevue, Washington 98004

Boring SP-3

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Job Number:	Date:	Logged by:	Plate:
JN-20209-1X	4/23/2010	RBR	A-3

WDOE Well Tag:
Lat:
Long:

BORING SP-4

TOC Elevation:
GS Elevation:

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION	Sample	Field Screening (PID) Observations
0		Damp		SM	Concrete pavement, gravel-base. Sand, fine to medium sand, with silt and gravel, organic, dark-brown. Mottled iron staining and carbonized woody detritus. Probable soil horizon.		2.8
		Moist				SP4-3-5	3.4
5		▼ Wet		SM	Sand, Silt, fine to medium sand, with silt and minor gravel. Suspected weathered / reworked glacial till.	SP4-7-8	4.4
		Moist		SM	Glacial Till , silt, sand, and gravel in a glacial till matrix, olive-brown, dense, significantly harder drilling..		
10		Damp				SP4-10-11	4.6
					Boring terminated at 11 feet. Depth to groundwater approximately 5 to 6 feet below the ground surface.		
15							
20							
25							
30							
35							
40							

Sampler: Continuous Strataprobe Macro-Core.
Driller: ESN - Limited Access Rig (LAR).

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue NE, Suite 300
Bellevue, Washington 98004

Boring SP-4

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Job Number:	Date:	Logged by:	Plate:
JN-20209-1X	4/23/2010	RBR	A-4

WDOE Well Tag:
Lat:
Long:

BORING SP-5

TOC Elevation:
GS Elevation:

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION	Sample	Field Screening (PID) Observations
0		Damp		SM	Concrete pavement, gravel-base. Sand, fine to medium sand, with silt and gravel, organic, dark-brown.		0.6
5		Moist ▼ Wet		SM	Sand, Silt, fine to medium sand, with silt and minor gravel. Suspected weathered / reworked glacial till.	SP5-3-5 SP5-7-8	1.2 3.0
10		Moist		SM	Glacial Till , silt, sand, and gravel in a glacial till matrix, olive-brown, dense, significantly harder drilling..	SP5-10-11	2.0
15					Boring terminated at 11 feet. Depth to groundwater approximately 5 to 6 feet below the ground surface.		
20							
25							
30							
35							
40							

Sampler: Continuous Strataprobe Macro-Core.
Driller: ESN - Limited Access Rig (LAR).

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue NE, Suite 300
Bellevue, Washington 98004

Boring SP-5

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Job Number:	Date:	Logged by:	Plate:
JN-20209-1X	4/23/2010	RBR	A-5

WDOE Well Tag:
Lat:
Long:

TOC Elevation:
GS Elevation:

BORING SP-6

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION	Sample	Field Screening (PID) Observations
0					Concrete pavement, Sand layer.		
		Damp		SM	Sand, fine to medium sand, with silt and gravel, organic, dark-brown.		3.9
						SP6-3-5	3.8
5		Moist ▼		SM	Sand, Silt, fine to medium sand, with silt and minor gravel. Suspected weathered / reworked glacial till.		
		Wet				SP6-7-8	2.6
10		Moist		SM	*Becomes denser/firmer glacial till*	SP6-10-11	2.8
					Boring terminated at 11 feet. Depth to groundwater approximately 5 to 6 feet below the ground surface.		
15							
20							
25							
30							
35							
40							

Sampler: Continuous Strataprobe Macro-Core.
Driller: ESN - Limited Access Rig (LAR).

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue NE, Suite 300
Bellevue, Washington 98004

Boring SP-6

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Job Number:	Date:	Logged by:	Plate:
JN-20209-1X	4/23/2010	RBR	A-6

WDOE Well Tag:
Lat:
Long:

BORING SP-7

TOC Elevation:
GS Elevation:

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION	Sample	Field Screening (PID) Observations
0					Concrete pavement, Sand layer.		
		Damp		SM	Sand, fine to medium sand, with silt and gravel, organic, dark-brown.		4.2
						SP7-3-5	3.8
5		Moist ▼			*Poor recovery, red-brown sand, with minor silt.*		
		Wet		SM		SP7-7-8	3.2
		Moist			Glacial Till , silt, sand, and gravel in a glacial till matrix, olive-brown, dense, significantly harder drilling..		
10				SM		SP7-10-11	2.4
					Boring terminated at 11 feet.		
					Depth to groundwater approximately 5 to 6 feet below the ground surface.		
15							
20							
25							
30							
35							
40							

Sampler: Continuous Strataprobe Macro-Core.
Driller: ESN - Limited Access Rig (LAR).

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue NE, Suite 300
Bellevue, Washington 98004

Boring SP-7

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Job Number:	Date:	Logged by:	Plate:
JN-20209-1X	4/23/2010	RBR	A-7

WDOE Well Tag:
Lat:
Long:

BORING SP-8

TOC Elevation:
GS Elevation:

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION	Sample	Field Screening (PID) Observations
0		Damp		SM	Asphalt pavement, sand - gravel fill layer.		
5		Moist ▼ Moist/ Wet		SM	Silty-Gravely-Sand, fine to medium sand, with silt, and gravel, glacial till matrix, olive-brown, soft, lenses of fine sand. Suspected weathered / reworked glacial till.	SP8-3-5 SP8-7-8	0.0 0.0
10		Wet		SM	*Till becomes denser with the occasional prescience of seepage zones.*	SP8-10-11	0.0
15					Boring terminated at 11 feet. Depth to groundwater approximately 5 to 6 feet below the ground surface.		
20							
25							
30							
35							
40							

Sampler: Continuous Strataprobe Macro-Core.
Driller: ESN - Limited Access Rig (LAR).

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue NE, Suite 300
Bellevue, Washington 98004

Boring SP-8

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Job Number:	Date:	Logged by:	Plate:
JN-20209-1X	4/26/2010	RBR	A-8

WDOE Well Tag:
Lat:
Long:

BORING SP-9

TOC Elevation:
GS Elevation:

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION	Sample	Field Screening (PID) Observations
0		Damp		SM	Asphalt pavement, sand, silt, gravel, organic, dark brown, weathered till.		
5		Moist ▼ Wet		SM	Silty-Gravely-Sand, fine to medium sand, with silt, and gravel, glacial till matrix, olive-brown, soft, lenses of fine sand. Suspected weathered / reworked glacial till.	SP9-3-5 SP9-7-8	0.0 0.0
10		Damp/ Moist		SM	Glacial Till , silt, sand, and gravel in a glacial till matrix, olive-brown, dense.	SP9-10-11	0.0
15					Boring terminated at 11 feet. Depth to groundwater approximately 5 to 6 feet below the ground surface.		
20							
25							
30							
35							
40							

Sampler: Continuous Strataprobe Macro-Core.
Driller: ESN - Limited Access Rig (LAR).

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue NE, Suite 300
Bellevue, Washington 98004

Boring SP-9

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Job Number:	Date:	Logged by:	Plate:
JN-20209-1X	4/26/2010	RBR	A-9

WDOE Well Tag:
Lat:
Long:

BORING SP-10

TOC Elevation:
GS Elevation:

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION	Sample	Field Screening (PID) Observations
0		Damp		SM	Asphalt pavement, sand, silt, gravel, organic, dark brown, weathered till.	SP10-3-5	0.0
5		Wet		SM	Silty-Gravely-Sand, fine to medium sand, with silt, and gravel, glacial till matrix, olive-brown, soft, lenses of fine sand. Suspected weathered / reworked glacial till.	SP10-7-8	0.0
10		Wet			*Till becomes denser with the occasional prescience of seepage zones.*	SP10-10-11	0.0
15					Boring terminated at 11 feet. Depth to groundwater approximately 5 to 6 feet below the ground surface.		
20							
25							
30							
35							
40							

Sampler: Continuous Strataprobe Macro-Core.
Driller: ESN - Limited Access Rig (LAR).

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue NE, Suite 300
Bellevue, Washington 98004

Boring SP-10

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Job Number:	Date:	Logged by:	Plate:
JN-20209-1X	4/26/2010	RBR	A-10

WDOE Well Tag:
Lat:
Long:

BORING SP-11

TOC Elevation:
GS Elevation:

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION	Sample	Field Screening (PID) Observations
0		Damp		SM	Asphalt pavement, sand, silt, gravel, organic, dark brown, weathered till.	SP11-3-5	13.0
5		▼ Wet		SM	Silty-Gravely-Sand, fine to medium sand, with silt, and gravel, glacial till matrix, olive-brown, soft, lenses of fine sand. Suspected weathered / reworked glacial till.	SP11-7-8	0.0
10		Wet/ Moist			*Till becomes denser.*	SP11-10-11	0.0
15					Boring terminated at 11 feet. Depth to groundwater approximately 5 to 6 feet below the ground surface.		
20							
25							
30							
35							
40							

Sampler: Continuous Strataprobe Macro-Core.
Driller: ESN - Limited Access Rig (LAR).

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue NE, Suite 300
Bellevue, Washington 98004

Boring SP-11

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Job Number:	Date:	Logged by:	Plate:
JN-20209-1X	4/26/2010	RBR	A-11

WDOE Well Tag:
Lat:
Long:

BORING SP-12

TOC Elevation:
GS Elevation:

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION	Sample	Field Screening (PID) Observations
0		Damp		(F)	Asphalt pavement, sand, gravel fill.		
		Damp		SM	Sand, fine to medium sand, with gravel, organic.	SP12-3-5	0.0
5		▼ Wet		SM	Silty-Gravely-Sand, fine to medium sand, with silt, and gravel, glacial till matrix, olive-brown, soft, lenses of fine sand. Suspected weathered / reworked glacial till.	SP12-7-8	0.0
10		Wet			*Till becomes denser.*	SP12-10-11	0.0
15					Boring terminated at 11 feet. Depth to groundwater approximately 5 to 6 feet below the ground surface.		
20							
25							
30							
35							
40							

Sampler: Continuous Strataprobe Macro-Core.
Driller: ESN - Limited Access Rig (LAR).

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue NE, Suite 300
Bellevue, Washington 98004

Boring SP-12

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Job Number:	Date:	Logged by:	Plate:
JN-20209-1X	4/26/2010	RBR	A-12

WDOE Well Tag:
Lat:
Long:

BORING SP-13

TOC Elevation:
GS Elevation:

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION	Sample	Field Screening (PID) Observations
0		Damp		(F)	Asphalt pavement, sand, silt, gravel, organic.		
		Damp		SP	Sand, fine sand, silty, minor gravel. *Pea-gravel layer encountered*	SP13-3-5	0.0
5		▼ Wet		SM	Silty-Gravely-Sand, fine to medium sand, with silt, and gravel, glacial till matrix, olive-brown, soft, lenses of fine sand. Suspected weathered / reworked glacial till.	SP13-7-8	0.0
10		Moist		SM	Glacial Till , silt, sand, and gravel in a glacial till matrix, olive-brown, dense.	SP13-10-11	0.0
					Boring terminated at 11 feet. Depth to groundwater approximately 5 to 6 feet below the ground surface.		
15							
20							
25							
30							
35							
40							

Sampler: Continuous Strataprobe Macro-Core.
Driller: ESN - Limited Access Rig (LAR).

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue NE, Suite 300
Bellevue, Washington 98004

Boring SP-13

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Job Number:	Date:	Logged by:	Plate:
JN-20209-1X	4/26/2010	RBR	A-13

ATTACHMENT-B

Laboratory Reports

ESN NORTHWEST
Environmental Services Network

May 25, 2010

Rob Roe
Environmental Associates
1380 112th Avenue NE, Suite 300
Bellevue, WA 98004

Dear Mr. Roe:

Please find enclosed the analytical data report for the Mac's 1 Hour Cleaners Project in Renton, Washington. Probe services were conducted on May 23 & 26, 2010. Soil and water samples were analyzed for Chlorinated VOC's by Method 8260 on May 27 – 29, 2010.

The results of these analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. A copy of the invoice for this work is also enclosed for your records.

ESN Northwest appreciates the opportunity to have provided analytical services to Environmental Associates for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Michael A. Korosec

Michael A. Korosec
President

1210 Eastside Street SE, Suite 200 • Olympia, Washington 98501 • 360.459.4670 • FAX 360.459.3432
www.esnnw.com • info@esnnw.com

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc
MAC'S CLEANERS PROJECT
Client Project #JN-202-09X1
Renton, Washington

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Chlorinated Volatile Organic Compounds in Soil by Method 8260

Analytical Results

8260B Chlorinated, µg/kg		**MTH BLK**	**LCS**	**SP1-3-5**	**SP3-3-5**	**SP4-3-5**	**SP5-3-5**	**SP6-3-5**
Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	04/23/10	04/23/10	04/23/10	04/23/10	04/23/10	04/23/10	04/23/10
Date analyzed	Limits	04/29/10	04/29/10	04/29/10	04/29/10	04/29/10	04/29/10	04/29/10
Dichlorodifluoromethane	50	nd		nd	nd	nd	nd	nd
Chloromethane	50	nd		nd	nd	nd	nd	nd
Vinyl chloride	50	nd		nd	nd	nd	nd	nd
Chloroethane	50	nd		nd	nd	nd	nd	nd
Trichlorofluoromethane	50	nd		nd	nd	nd	nd	nd
1,1-Dichloroethene	50	nd	124%	nd	nd	nd	nd	nd
Methylene chloride	20	nd		nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	50	nd		nd	nd	nd	nd	nd
1,1-Dichloroethane	50	nd		nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	50	nd		nd	nd	nd	nd	nd
2,2-Dichloropropane	50	nd		nd	nd	nd	nd	nd
Chloroform	50	nd		nd	nd	nd	nd	nd
Bromochloromethane	50	nd		nd	nd	nd	nd	nd
1,1,1-Trichloroethane	50	nd		nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	50	nd		nd	nd	nd	nd	nd
1,1-Dichloropropene	50	nd		nd	nd	nd	nd	nd
Carbon tetrachloride	50	nd		nd	nd	nd	nd	nd
Trichloroethene (TCE)	20	nd	110%	nd	nd	nd	nd	nd
1,2-Dichloropropane	50	nd		nd	nd	nd	nd	nd
Bromodichloromethane	50	nd		nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	50	nd		nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	50	nd		nd	nd	nd	nd	nd
1,1,2-Trichloroethane	50	nd		nd	nd	nd	nd	nd
1,3-Dichloropropane	50	nd		nd	nd	nd	nd	nd
Dibromochloromethane	50	nd		nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	20	nd		**55**	**2,900**	**64**	**390**	**910**
Chlorobenzene	50	nd	103%	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	50	nd		nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	50	nd		nd	nd	nd	nd	nd
1,2,3-Trichloropropane	50	nd		nd	nd	nd	nd	nd
2-Chlorotoluene	50	nd		nd	nd	nd	nd	nd
4-Chlorotoluene	50	nd		nd	nd	nd	nd	nd
1,3-Dichlorobenzene	50	nd		nd	nd	nd	nd	nd
1,4-Dichlorobenzene	50	nd		nd	nd	nd	nd	nd
1,2-Dichlorobenzene	50	nd		nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	50	nd		nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	50	nd		nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	50	nd		nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	50	nd		nd	nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		101%	105%	101%	101%	103%	101%	104%
Toluene-d8		107%	96%	106%	105%	107%	104%	106%
4-Bromofluorobenzene		109%	97%	107%	108%	109%	107%	108%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc
MAC'S CLEANERS PROJECT
Client Project #JN-202-09X1
Renton, Washington

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1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Chlorinated Volatile Organic Compounds in Soil by Method 8260

Analytical Results

8260B Chlorinated, µg/kg		SP7-3-5	SP8-7-8	SP9-7-8	SP10-7-8	SP11-3-4	SP12-3-4	SP13-7-8
Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	04/23/10	04/26/10	04/26/10	04/26/10	04/26/10	04/26/10	04/26/10
Date analyzed	Limits	04/29/10	04/29/10	04/29/10	04/30/10	04/30/10	04/30/10	04/30/10
Dichlorodifluoromethane	50	nd	nd	nd	nd	nd	nd	nd
Chloromethane	50	nd	nd	nd	nd	nd	nd	nd
Vinyl chloride	50	nd	nd	nd	nd	nd	nd	nd
Chloroethane	50	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	50	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	50	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	20	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	50	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	50	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	50	nd	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	50	nd	nd	nd	nd	nd	nd	nd
Chloroform	50	nd	nd	nd	nd	nd	nd	nd
Bromochloromethane	50	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	50	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	50	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	50	nd	nd	nd	nd	nd	nd	nd
Carbon tetrachloride	50	nd	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	20	nd	nd	nd	nd	nd	23	nd
1,2-Dichloropropane	50	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	50	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	50	nd	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	50	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	50	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	50	nd	nd	nd	nd	nd	nd	nd
Dibromochloromethane	50	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	20	**180**	**40**	**110**	**78**	**21,000**	**5,600**	nd
Chlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	50	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	50	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	50	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	50	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	50	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	50	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	50	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	50	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		101%	99%	102%	103%	103%	106%	105%
Toluene-d8		107%	106%	104%	104%	104%	103%	104%
4-Bromofluorobenzene		108%	108%	110%	108%	108%	107%	107%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc
MAC'S CLEANERS PROJECT
Client Project #JN-202-09X1
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(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Chlorinated Volatile Organic Compounds in Soil by Method 8260

Analytical Results

8260B Chlorinated, µg/kg		**MS**	**MSD**	**RPD**
Matrix				
Date extracted	Reporting	04/26/10	04/26/10	
Date analyzed	Limits	04/29/10	04/29/10	
Dichlorodifluoromethane	50			
Chloromethane	50			
Vinyl chloride	50			
Chloroethane	50			
Trichlorofluoromethane	50			
1,1-Dichloroethene	50	71%	71%	0%
Methylene chloride	20			
trans-1,2-Dichloroethene	50			
1,1-Dichloroethane	50			
cis-1,2-Dichloroethene	50			
2,2-Dichloropropane	50			
Chloroform	50			
Bromochloromethane	50			
1,1,1-Trichloroethane	50			
1,2-Dichloroethane (EDC)	50			
1,1-Dichloropropene	50			
Carbon tetrachloride	50			
Trichloroethene (TCE)	20	88%	91%	3%
1,2-Dichloropropane	50			
Bromodichloromethane	50			
cis-1,3-Dichloropropene	50			
trans-1,3-Dichloropropene	50			
1,1,2-Trichloroethane	50			
1,3-Dichloropropane	50			
Dibromochloromethane	50			
Tetrachloroethene (PCE)	20			
Chlorobenzene	50	90%	89%	1%
1,1,1,2-Tetrachloroethane	50			
1,1,2,2-Tetrachloroethane	50			
1,2,3-Trichloropropane	50			
2-Chlorotoluene	50			
4-Chlorotoluene	50			
1,3-Dichlorobenzene	50			
1,4-Dichlorobenzene	50			
1,2-Dichlorobenzene	50			
1,2-Dibromo-3-Chloropropane	50			
1,2,4-Trichlorobenzene	50			
Hexachloro-1,3-butadiene	50			
1,2,3-Trichlorobenzene	50			

Surrogate recoveries			
Dibromofluoromethane	99%	100%	
Toluene-d8	99%	98%	
4-Bromofluorobenzene	102%	103%	

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc
MAC'S CLEANERS PROJECT
Client Project #JN-202-09X1
Renton, Washington

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Chlorinated Volatile Organic Compounds in Water by Method 8260

Analytical Results

8260B Chlorinated, µg/L		MTH BLK	LCS	SP1	SP3	SP4	SP5	SP6
Matrix	Reporting	Water	Water	Water	Water	Water	Water	Water
Date analyzed	Limits	04/28/10	04/28/10	04/27/10	04/28/10	04/28/10	04/28/10	04/28/10
Dichlorodifluoromethane	1.0	nd		nd	nd	nd	nd	nd
Chloromethane	1.0	nd		nd	nd	nd	nd	nd
Vinyl chloride	0.2	nd		nd	nd	nd	nd	nd
Chloroethane	1.0	nd		nd	nd	nd	nd	nd
Trichlorofluoromethane	1.0	nd		nd	nd	nd	nd	nd
1,1-Dichloroethene	1.0	nd	104%	nd	nd	nd	nd	nd
Methylene chloride	1.0	nd		nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd		nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd	nd
2,2-Dichloropropane	1.0	nd		nd	nd	nd	nd	nd
Chloroform	1.0	nd		nd	**3.3**	**4.8**	**7.0**	**7.1**
Bromochloromethane	1.0	nd		nd	nd	nd	nd	nd
1,1,1-Trichloroethane	1.0	nd		nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd		nd	nd	nd	nd	nd
1,1-Dichloropropene	1.0	nd		nd	nd	nd	nd	nd
Carbon tetrachloride	1.0	nd		nd	nd	nd	nd	nd
Trichloroethene (TCE)	1.0	nd	114%	nd	nd	nd	nd	nd
1,2-Dichloropropane	1.0	nd		nd	nd	nd	nd	nd
Bromodichloromethane	1.0	nd		nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd	nd
1,1,2-Trichloroethane	1.0	nd		nd	nd	nd	nd	nd
1,3-Dichloropropane	1.0	nd		nd	nd	nd	nd	nd
Dibromochloromethane	1.0	nd		nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	1.0	nd		**5.1**	**110**	**13**	**76**	**44**
Chlorobenzene	1.0	nd	108%	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd	nd
1,2,3-Trichloropropane	1.0	nd		nd	nd	nd	nd	nd
2-Chlorotoluene	1.0	nd		nd	nd	nd	nd	nd
4-Chlorotoluene	1.0	nd		nd	nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd		nd	nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd		nd	nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd		nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloroprop:	1.0	nd		nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd		nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	1.0	nd		nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd		nd	nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		105%	103%	103%	106%	108%	106%	109%
Toluene-d8		106%	95%	108%	107%	106%	107%	103%
4-Bromofluorobenzene		108%	99%	105%	109%	107%	109%	109%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc
MAC'S CLEANERS PROJECT
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Renton, Washington

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Olympia, WA 98501
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lab@esnnw.com

Analysis of Chlorinated Volatile Organic Compounds in Water by Method 8260

Analytical Results

8260B Chlorinated, µg/L		SP7	SP8	SP9	SP10	SP11	SP12	SP13
Matrix	Reporting	Water	Water	Water	Water	Water	Water	Water
Date analyzed	Limits	04/28/10	04/28/10	04/28/10	04/28/10	04/28/10	04/28/10	04/28/10
Dichlorodifluoromethane	1.0	nd	nd	nd	nd	nd	nd	nd
Chloromethane	1.0	nd	nd	nd	nd	nd	nd	nd
Vinyl chloride	0.2	nd	nd	nd	nd	nd	nd	nd
Chloroethane	1.0	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	1.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	1.0	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	1.0	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	1.0	nd	nd	nd	nd	nd	nd	nd
Chloroform	1.0	**1.9**	nd	**1.4**	nd	nd	**3.0**	**8.7**
Bromochloromethane	1.0	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	1.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	1.0	nd	nd	nd	nd	nd	nd	nd
Carbon tetrachloride	1.0	nd	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	1.0	nd	nd	nd	**1.0**	nd	nd	nd
1,2-Dichloropropane	1.0	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	1.0	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	1.0	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	1.0	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	1.0	nd	nd	nd	nd	nd	nd	nd
Dibromochloromethane	1.0	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	1.0	**140**	**4.9**	**70**	**40**	**110**	**230**	**180**
Chlorobenzene	1.0	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	1.0	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	1.0	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	1.0	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloroprop	1.0	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd	nd	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	1.0	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		108%	108%	109%	106%	105%	106%	106%
Toluene-d8		106%	104%	106%	104%	108%	105%	106%
4-Bromofluorobenzene		110%	107%	109%	105%	105%	106%	105%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

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Analysis of Chlorinated Volatile Organic Compounds in Water by Method 8260

Analytical Results

8260B Chlorinated, µg/L		MS	MSD	RPD
Matrix	Reporting	Water	Water	Water
Date analyzed	Limits	04/27/10	04/27/10	
Dichlorodifluoromethane	1.0			
Chloromethane	1.0			
Vinyl chloride	0.2			
Chloroethane	1.0			
Trichlorofluoromethane	1.0			
1,1-Dichloroethene	1.0	99%	87%	13%
Methylene chloride	1.0			
trans-1,2-Dichloroethene	1.0			
1,1-Dichloroethane	1.0			
cis-1,2-Dichloroethene	1.0			
2,2-Dichloropropane	1.0			
Chloroform	1.0			
Bromochloromethane	1.0			
1,1,1-Trichloroethane	1.0			
1,2-Dichloroethane (EDC)	1.0			
1,1-Dichloropropene	1.0			
Carbon tetrachloride	1.0			
Trichloroethene (TCE)	1.0	108%	110%	2%
1,2-Dichloropropane	1.0			
Bromodichloromethane	1.0			
cis-1,3-Dichloropropene	1.0			
trans-1,3-Dichloropropene	1.0			
1,1,2-Trichloroethane	1.0			
1,3-Dichloropropane	1.0			
Dibromochloromethane	1.0			
Tetrachloroethene (PCE)	1.0			
Chlorobenzene	1.0	94%	97%	3%
1,1,1,2-Tetrachloroethane	1.0			
1,1,2,2-Tetrachloroethane	1.0			
1,2,3-Trichloropropane	1.0			
2-Chlorotoluene	1.0			
4-Chlorotoluene	1.0			
1,3-Dichlorobenzene	1.0			
1,4-Dichlorobenzene	1.0			
1,2-Dichlorobenzene	1.0			
1,2-Dibromo-3-Chloroprop:	1.0			
1,2,4-Trichlorobenzene	1.0			
Hexachloro-1,3-butadiene	1.0			
1,2,3-Trichlorobenzene	1.0			

Surrogate recoveries			
Dibromofluoromethane	92%	97%	
Toluene-d8	89%	90%	
4-Bromofluorobenzene	92%	90%	

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST, INC. Environmental Services Network

CHAIN-OF-CUSTODY RECORD

CLIENT: _____

ADDRESS: _____

PHONE: _____ FAX: _____

CLIENT PROJECT #: _____ PROJECT MANAGER: _____

DATE: _____ PAGE _____ OF _____

PROJECT NAME: _____

LOCATION: _____

COLLECTOR: _____ DATE OF COLLECTION _____

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: TPH-HCID	TPH - DIESEL & OIL	TPH - GASOLINE	BTEX	VOC 8260CL	VOC 8260	SemiVol 8270	PAH's 8270	PCB's 8082	CL Pesticides 8081	RCRA 8 Metals	MTCA 5 Metals	Pb	Asbestos-PLM	GRO Suite	DRO Suite	WO Suite			NOTES	Total Number of Containers	Laboratory Note Number
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RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ ESN DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

Turn Around Time: 24 HR 48 HR 5 DAY

ESN NORTHWEST, INC. Environmental Services Network

CHAIN-OF-CUSTODY RECORD

CLIENT: _____ DATE: _____ PAGE _____ OF _____

ADDRESS: _____ PROJECT NAME: _____

PHONE: _____ FAX: _____ LOCATION: _____

CLIENT PROJECT #: _____ PROJECT MANAGER: _____ COLLECTOR: _____ DATE OF COLLECTION _____

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: TPH-HCID	TPH - DIESEL & OIL	TPH - GASOLINE	BTEX	VOC 8260CL	VOC 8260	Semivol 8270	PAH's 8270	PCB's 8082	CL Pesticides 8081	RCRA 8 Metals	MTCA 5 Metals	Pb	Asbestos-PLM	GRO Suite	DRO Suite	WO Suite			NOTES	Total Number of Containers	Laboratory Note Number
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RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ ESN DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

Turn Around Time: 24 HR 48 HR 5 DAY

ESN NORTHWEST, INC. Environmental Services Network

CHAIN-OF-CUSTODY RECORD

CLIENT: _____ DATE: _____ PAGE _____ OF _____

ADDRESS: _____ PROJECT NAME: _____

PHONE: _____ FAX: _____ LOCATION: _____

CLIENT PROJECT #: _____ PROJECT MANAGER: _____ COLLECTOR: _____ DATE OF COLLECTION _____

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: TPH-HCID	TPH - DIESEL & OIL	TPH - GASOLINE	BTEX	VOC 8260CL	VOC 8260	SemiVol 8270	PAH's 8270	PCB's 8082	CL Pesticides 8081	RCRA 8 Metals	MTCA 5 Metals	Pb	Asbestos-PLM	GRO Suite	DRO Suite	WO Suite			NOTES	Total Number of Containers	Laboratory Note Number
1.																										
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RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ ESN DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

Turn Around Time: 24 HR 48 HR 5 DAY

ESN NORTHWEST, INC. Environmental Services Network

Olympia: (360) 459-4670
Bellevue: (360) 957-9872

CHAIN-OF-CUSTODY RECORD

CLIENT: _____ DATE: _____ PAGE _____ OF _____

ADDRESS: _____ PROJECT NAME: _____

PHONE: _____ FAX: _____ LOCATION: _____

CLIENT PROJECT #: _____ PROJECT MANAGER: _____ COLLECTOR: _____ DATE OF COLLECTION _____

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: TPH-HCID	VOA 8021B BTEX	VOA 8260	TPH-Gasoline	TPH-Diesel	TPH-Diesel & Oil	SemiVol 8270	PAH's 8270	PCB's 8082	CL Pesticides 8081	RCRA 8 Metals	MTCA 5 Metals	Pb	Asbestos-PLM	GRO Suite	DRO Suite	WO Suite	NOTES	Total Number of Containers	Laboratory Note Number
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SAMPLE DISPOSAL INSTRUCTIONS

☐ *ESN DISPOSAL @ $2.00 each* ☐ *Return* ☐ *Pickup*

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

Turn Around Time: 24 HR 48 HR 5 DAY