

October 25, 2005

HDR Alaska, Inc.  
2525 C Street  
Anchorage, Alaska 99503

Attn: Mr. Dan Simpson

Fax: 274-2022

**RE: INITIAL SITE ASSESSMENT ADDENDUM, DOWLING ROAD EXTENSION PROJECT, ANCHORAGE, ALASKA**

This letter report is an addendum to Shannon & Wilson's November 2004 *Initial Site Assessment, Dowling Road Extension, Anchorage, Alaska*, report. This work is being conducting in support of the Environmental Impact Study (EIS) that HDR Alaska, Inc. (HDR) is conducting for the Dowling Road Extension and Reconstruction Project.

Ten sites were identified in the Initial Site Assessment as having the potential to impact the Dowling Road Extension project area. This project consisted of reviewing the available Alaska Department of Environmental Conservation (ADEC) files for each of these sites. The file review included researching underground storage tank (UST), leaking UST (LUST), and contaminated sites documents. The purpose of this project was to provide additional information about potential environmental impacts associated with the ten sites identified during our Initial Site Assessment.

The project was performed under Amendment 1 of Shannon & Wilson's Subconsultant Agreement with HDR. The amendment was authorized on September 9, 2005 by Mr. Duane Hippe, Senior Vice President of HDR. The work was conducted in general accordance with our January 18, 2005 proposal.

**SITE AND PROJECT DESCRIPTION**

The overall project consists of three different conceptual plans to extend Dowling Road west to Minnesota Drive. All three extensions are located between International Airport Drive to the north, Old Seward Highway to the east, Raspberry Road to the south, and Minnesota Drive to the west. The proposed alignments are designated as "Frontage Road", "Rovenna Concept", and "Rovenna/Frontage Road". The project area is shown in Figure 1. Because the proposed alignments overlap in some areas, and for simplicity in this report, the three concepts are broken down and referred to as lettered sections. The sections are as follows:

- Section A** Dowling Road from Old Seward Highway to Rovenna Street.
- Section B** Dowling Road from Rovenna Street directly west to Minnesota Drive.
- Section C** Minnesota Drive between West Dowling Road and International Airport Drive.
- Section D** Minnesota Drive between West Dowling and Raspberry Road.
- Section E** Raspberry Road between the Minnesota Bypass and C Street.
- Section F** Rovenna Street between Dowling Road and Raspberry Road.

Using these sections the three proposed alignments are broken down as follows:

- |                              |                            |
|------------------------------|----------------------------|
| <b>Frontage Road</b>         | Sections A, B, C, D, and E |
| <b>Rovenna Concept</b>       | Sections A, E, and F       |
| <b>Rovenna/Frontage Road</b> | Section A, B, C, E, and F  |

Construction within the Dowling Road Extension is likely to be limited within 50 feet of centerline and extending to a maximum of 15 feet below the ground surface (bgs). The purpose of this project was to further evaluate the likelihood of encountering contamination during construction activities within the vicinity of the ten sites identified during the Initial Site Assessment.

#### **ADEC FILE REVIEW**

According to ADEC files, of the ten sites, eight are UST sites, five are LUST sites, and six are contaminated sites. The following is a summary of the ten parcels researched as part of the ADEC file review.

#### **877 Dowling Road**

The parcel located at 877 Dowling Road is a registered UST and LUST site. The property is located northeast of the intersection of Dowling Road and Old Seward Highway. According to the ADEC records, one 2,000-gallon gasoline tank and one 1,000-gallon gasoline tank were removed from the ground in 1998. The closer of the two tanks was located about 300 feet northeast of the intersection of Dowling Road and Old Seward Highway. Impacted soil was encountered during the removal of the tanks.

Three monitoring wells were installed in the vicinity of the tanks. Groundwater impacted with gasoline range organics (GRO) and benzene was encountered in a well located near the northeast corner of the property. Groundwater samples collected from a well located southwest

and downgradient of the impacted well did not contain petroleum hydrocarbons. In October 2000, the ADEC approved reducing the frequency of groundwater monitoring at the site. Information pertaining to additional groundwater monitoring events was not present in the ADEC files.

Although impacted groundwater likely remains at the site, it does not appear likely that the site has impacted the proposed Dowling Road Extension project area.

### **6010 Old Seward Highway**

A Tesoro filling station, formerly Williams Express Store No. 2021 is located at 6010 Old Seward Highway. Two 12,000-gallon gasoline USTs and associated dispensers are currently located approximately 25 feet south of Dowling Road. This site has been used for vehicle fueling operations since before 1972. Previous reports show that up to thirteen USTs have at one time been installed and abandoned, closed in-place or removed from the ground at the site.

The property is also listed as a LUST site. Impacted soil and groundwater has been identified at the site. Groundwater contamination has been documented migrating off-site, into the Dowling Road Right-of-Way (ROW) and onto the adjacent parcel to the north. Groundwater samples collected in March 2005, indicated that groundwater impacted with diesel range organics (DRO), GRO, and aromatic volatile organics (BTEX) is present south of Dowling Road, within the ROW area. In addition, RRO impacted groundwater is present west of Old Seward Highway, within the ROW area. The depth to groundwater in this area is generally between 17 feet to 28 feet below ground surface.

Due to the depths at which the impacted groundwater is present, it is possible but unlikely that impacted groundwater and/or soil will be encountered during the proposed Dowling Road Extension project.

### **6028 MacKay Street**

World Equipment, Inc., formerly Denali Fuel, is located at 6028 MacKay Street. According to ADEC records, this parcel is a UST site. Reportedly, one 8,000-gallon diesel UST was removed from the site in 1992. The former location of the UST was not shown in the ADEC files. According the ADEC records, the UST was not properly registered or decommissioned. The ADEC filed a Compliance Order by Consent against Work Equipment Company in January 1999. The Compliance Order indicated that the ADEC was requiring World Equipment to either upgrade the tank or properly close the tank. Based on the ADEC files it is unclear if these issues were resolved. Information regarding tank closure or site assessment activities release was not

included in the ADEC records. Due to insufficient data, there is a potential this site may impact the Dowling Road Extension project area.

#### **1300 West Dowling Road**

The parcel is listed as an active contaminated site on the ADEC database. According to the ADEC, diesel contamination from former operations has been identified at the site. The ADEC could not locate the file regarding the site. In addition, the information listed for the site in the ADEC database is for a separate site. The ADEC project manager for this site, Ms. Eileen Olson, was contacted regarding the site. Ms. Olson does not know the location of the project file, which part of the ADEC database is correct, and does not know the extent of contamination at the site. Without further information, there is a potential this site may impact the Dowling Road Extension project area.

#### **1200 West Dowling Road**

Alaska Steel is located at 1200 West Dowling Road. According to ADEC records, this parcel is listed as a UST site. One 1,000-gallon diesel UST was removed from the ground in 1998. The former location of the tank was not included in the ADEC files. It is unknown whether site assessment activities were conducted, as required by regulation, during the UST closure activities. Due to insufficient information, there is a potential this site may impact the Dowling Road Extension project area.

#### **5601 Minnesota Drive**

The Chugach Electric Association Operations Yard, located at 5601 Minnesota Drive (currently Electron Drive), is listed as a registered UST, LUST, and contaminated site. According to the ADEC database, one 10,000-gallon gasoline tank and one 10,000-gallon diesel tank are present at the site. In addition, four tanks have been removed from the site and one has been closed in-place. An as-built drawing also shows three aboveground storage tanks (ASTs) label 'Fuel Tank' at the site. An accurate scale is not provided on the drawing. Apparently, the ASTs have been removed from the site.

According to the ADEC files, it appears that the contaminated site and LUST events listed for the site are the same incident. During tank removal activities in 1988, impacted soil was encountered. The impacted soil was removed and the site was closed by the ADEC in August 1988. Minimal records concerning the site cleanup activities were available in the ADEC files. Due to site closure, it is unlikely this site will impact the Dowling Road extension project area.

### **Minnesota Drive & International Airport Road**

The ROW at Minnesota Drive and International Airport Road is listed as a closed contaminated site. In 1992, prior to construction activities at the intersection of Minnesota Drive and International Airport Road, impacted soil and groundwater was encountered northeast of the intersection. The impacted soil and groundwater was encountered in the vicinity of a buried aviation fuel pipeline. Analytical data from groundwater monitoring in 1993 and 1998 indicated that contamination was no longer present at the site. The site was granted site closure by the ADEC in 1998.

Based on figures located in the ADEC files, the contaminated site was located at the intersection of Minnesota Boulevard and International Airport Road which is northwest of Minnesota Street (currently Electron Drive), which is part of the planned extension project. Therefore, this contaminated site is not located within the planned Dowling Road Extension project area. It is noted that a release from the buried fuel pipeline, north of International Airport Road, could potentially impact the Dowling Road Extension project area.

### **6831 Arctic Boulevard**

National Bank of Alaska (currently Wells Fargo) is located at 6831 Arctic Boulevard. The parcel is listed as a UST, LUST, and contaminated site. One 5,000-gallon diesel tank, one 12,000-gallon diesel tank and one 2,000-gallon diesel tank have been removed from the site.

In 1996, impacted soil was encountered at the site during UST piping upgrade activities associated with the 5,000-gallon diesel tank. The release is listed in the LUST and contaminated site database. The tank was located approximately 120 feet south of Raspberry Road. Subsequent soil sampling indicated that impacted soil above the applicable cleanup levels is no longer present at the site. In a letter dated August 20, 2005, the ADEC granted the tank site a 'No Further Action' status. Therefore, it is unlikely that this release would impact the Dowling Road Extension project area.

Impacted soil was also encountered during the removal of a 1,000-gallon heating oil tank in 2003. The tank was located on the southern portion of the property. Three monitoring wells were installed in the vicinity of the former tank. Groundwater samples collected from the wells in 2004 and 2005 contained DRO and/or benzene in excess of the applicable cleanup levels. The localized groundwater flow direction was measured toward the south. Based on the groundwater flow direction, it is unlikely that the impacted groundwater or soil associated with this former UST would impact the Dowling Road Extension project area.

Dowling Road Extension Project, Anchorage, Alaska

October 25, 2005

Page 6

**6800 Arctic Boulevard**

According to ADEC records, 6800 Arctic Boulevard is listed as a UST, LUST, and contaminated site. The ADEC database indicates that four 500-gallon gasoline USTs were formerly located at the site. The ADEC files indicated that five tanks, with capacities ranging from 1,500-gallons to 2,000-gallons were removed from the ground between 1989 and 1991. The files also indicate that the tanks contained diesel, leaded gasoline, and unleaded gasoline. In 1991, impacted soil was encountered during the removal of a 2,000-gallon diesel tank. Reportedly, the release was related to tank overfills. The impacted material was excavated and stockpiled onsite. Subsequent sampling indicated that the stockpile did not contain contaminant concentrations in excess of the applicable cleanup levels. The site was granted Site Closure in October 1992. It is unlikely this site will impact the Dowling Road extension project area.

**6400 Rovenna Street**

According to the ADEC database, the former Alaska Seafood International (ASI) property located at 6400 Rovenna Street is a registered UST, LUST, and contaminated site. Various cleanup and assessment activities have been conducted at the site. According to the ADEC UST database, two USTs were formerly located at the site. The tanks consisted of a 10,000-gallon diesel UST and a 2,500-gallon gasoline UST. During the removal of the USTs in 1995, impacted soil and groundwater was encountered. The tanks were located near the northern corner of the existing ASI building, approximately 400 feet west of Rovenna Street.

As documented in an April 9, 2004 Site Status letter by the ADEC, impacted soil, surface water, and groundwater was first encountered at the site in 1992. Potential sources included a fuel dispenser island, a used oil tanker truck, and a drum storage area. The soil, surface water, and/or groundwater contained petroleum hydrocarbons and/or solvents. Additional information concerning these releases was not available at the ADEC. The status letter lists additional contaminant sources, including USTs, an aboveground storage tank (AST), an equipment washdown area, and miscellaneous surface spills.

Impacted soil has been excavated and removed from the site and numerous borings and monitoring wells have been installed at the site. The latest borings/wells indicate that impacted soil and groundwater is no longer present at the site. Therefore, it is unlikely this site will impact the Dowling Road Extension project area. However, it is noted that the ADEC has not closed the site and considers the cleanup and/or assessment of the site as ongoing.

### **CONCLUSIONS**

To date, the final Dowling Road extension project has not been determined. Within the three concepts under review, ten parcels have been identified as UST, LUST, and/or contaminated sites.

As stated previously, due to the lack of information regarding contamination at and in the vicinity of parcels located at 6028 MacKay Street, 1200 West Dowling Road, and 1300 West Dowling Road, there is a potential that impacted soil from these sites will be encountered during the Dowling Road extension project.

Based on our experience at similar sites, it is our opinion that it is unlikely that contamination will be encountered during construction activities adjacent to the remaining seven sites.

### **CLOSURES AND LIMITATIONS**

This report was prepared for the exclusive use of our clients and their representatives in the study of this site. The findings we have presented within this report are based on limited research. They should not be construed as a definite conclusion regarding the soil and groundwater at these sites. The data presented in this report should be considered representative of the time of our site assessment. Changes in site conditions can occur with time, because of natural forces or human activity. In addition, changes in government codes, regulations, or laws may occur. Because of such changes beyond our control, our observations and interpretations may need to be revised.

Shannon & Wilson has prepared and included in Attachment 1 "Important Information About Your Environmental Site Assessment/Evaluation Report" to assist you and others in understanding the use and limitations of our reports. You are advised that various state and federal agencies (ADEC, EPA, etc.) may require the reporting of this information. Shannon & Wilson does not assume the responsibility for reporting these findings and therefore, has not, and will not, disclose the results of this study, unless specifically requested and authorized to do so.

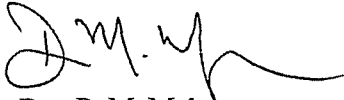
Dowling Road Extension Project, Anchorage, Alaska  
October 25, 2005  
Page 8

**SHANNON & WILSON, INC.**

We appreciate this opportunity to be of service and your continued confidence in our firm. If you have questions or comments concerning this submittal, please call Stafford Glashan, P.E. or the undersigned at (907) 561-2120.

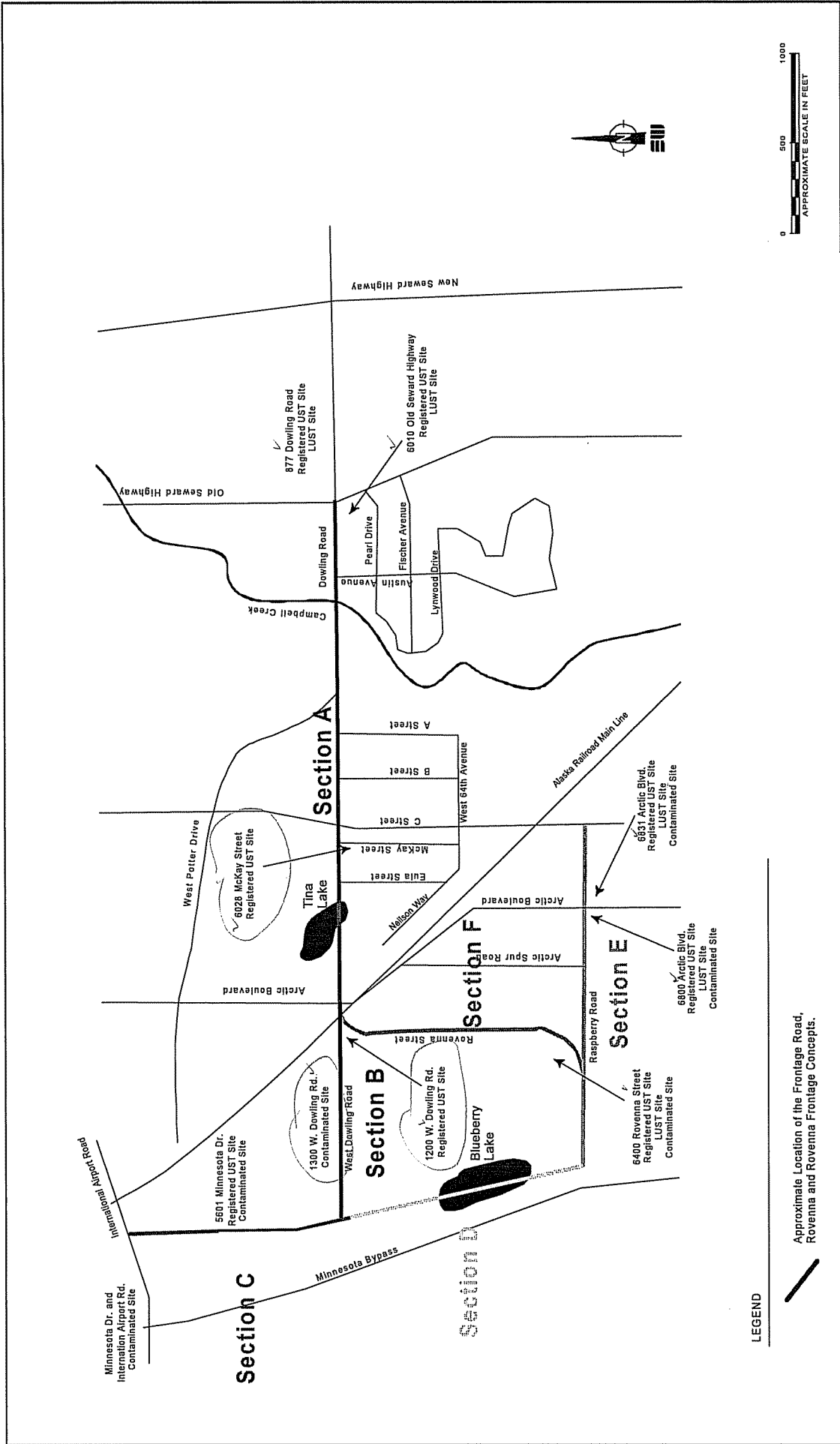
Sincerely,

**SHANNON & WILSON, INC.**



Dan P. McMahon  
Sr. Environmental Scientist

Enc: Figure 1 and Attachment 1



Dowling Road Extension  
Anchorage, Alaska

**SITE PLAN**

October 2005 32-1-16881-2

**SHANNON & WILSON, INC.**  
Geotechnical & Environmental Consultants

**Fig. 1**

Map Adapted from Media Ventures, Inc., 2002

**ATTACHMENT 1**

**IMPORTANT INFORMATION ABOUT YOUR**

**ENVIRONMENTAL SITE ASSESSMENT/EVALUATION REPORT**



## **Important Information About Your Environmental Site Assessment/Evaluation Report**

### **ENVIRONMENTAL SITE ASSESSMENTS/EVALUATIONS ARE PERFORMED FOR SPECIFIC PURPOSES AND FOR SPECIFIC CLIENTS.**

This report was prepared to meet the needs you specified with respect to your specific site and your risk management preferences. Unless indicated otherwise, we prepared your report expressly for you and for the purposes you indicated. No one other than you should use this report for any purpose without first conferring with us. No one is authorized to use this report for any purpose other than that originally contemplated without our prior written consent.

The findings and conclusions documented in this site assessment/evaluation have been prepared for specific application to this project and have been developed 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 this area. The conclusions presented are based on interpretation of information currently available to us and are made within the operational scope, budget, and schedule constraints of this project. No warranty, express or implied, is made.

### **OUR REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.**

Our environmental site assessment is based on several factors and may include (but not be limited to): reviewing public documents to chronicle site ownership for the past 30, 40, or more years; investigating the site's regulatory history to learn about permits granted or citations issued; determining prior uses of the site and those adjacent to it; reviewing available topographic and real estate maps, historical aerial photos, geologic information, and hydrologic data; reviewing readily available published information about surface and subsurface conditions; reviewing federal and state lists of known and potentially contaminated sites; evaluating the potential for naturally occurring hazards; and interviewing public officials, owners/operators, and/or adjacent owners with respect to local concerns and environmental conditions.

Except as noted within the text of the report, no sampling or quantitative laboratory testing was performed by us as part of this site assessment. Where such analyses were conducted by an outside laboratory, Shannon & Wilson relied upon the data provided and did not conduct an independent evaluation regarding the reliability of the data.

### **CONDITIONS CAN CHANGE.**

Site conditions, both surface and subsurface, may be affected as a result of natural processes or human influence. An environmental site assessment/evaluation is based on conditions that existed at the time of the evaluation. Because so many aspects of a historical review rely on third party information, most consultants will refuse to certify (warrant) that a site is free of contaminants, as it is impossible to know with absolute certainty if such a condition exists. Contaminants may be present in areas that were not surveyed or sampled, or may migrate to areas that showed no signs of contamination at the time they were studied.

Unless your consultant indicates otherwise, your report should not be construed to represent geotechnical subsurface conditions at or adjacent to the site and does not provide sufficient information for construction-related activities. Your report also should not be used following floods, earthquakes, or other acts of nature; if the size or configuration of the site is altered; if the location of the site is modified; or if there is a change of ownership and/or use of the property.

**INCIDENTAL DAMAGE MAY OCCUR DURING SAMPLING ACTIVITIES.**

Incidental damage to a facility may occur during sampling activities. Asbestos and lead-based paint sampling often require destructive sampling of pipe insulation, floor tile, walls, doors, ceiling tile, roofing, and other building materials. Shannon & Wilson does not provide for paint repair. Limited repair of asbestos sample locations are provided. However, Shannon & Wilson neither warrants repairs made by our field personnel, nor are we held liable for injuries or damages as a result of those repairs. If you desire a specific form of repair, such as those provided by a licensed roofing contractor, you need to request the specific repair at the time of the proposal. The owner is responsible for repair methods that are not specified in the proposal.

**READ RESPONSIBILITY CLAUSES CAREFULLY.**

Environmental site assessments/evaluations are less exact than other design disciplines because they are based extensively on judgment and opinion, and there may not have been any (or very limited) investigation of actual subsurface conditions. Wholly unwarranted claims have been lodged against consultants. To limit this exposure, consultants have developed a number of clauses for use in their contracts, reports, and other documents. These responsibility clauses are not exculpatory clauses designed to transfer the consultant's liabilities to other parties; rather, they are definitive clauses that identify where responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses may appear in this report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

Consultants cannot accept responsibility for problems that may develop if they are not consulted after factors considered in their reports have changed, or conditions at the site have changed. Therefore, it is incumbent upon you to notify your consultant of any factors that may have changed prior to submission of the final assessment/evaluation.

An assessment/evaluation of a site helps reduce your risk, but does not eliminate it. Even the most rigorous professional assessment may fail to identify all existing conditions.

**ONE OF THE OBLIGATIONS OF YOUR CONSULTANT IS TO PROTECT THE SAFETY, HEALTH, PROPERTY, AND WELFARE OF THE PUBLIC.**

If our environmental site assessment/evaluation discloses the existence of conditions that may endanger the safety, health, property, or welfare of the public, we may be obligated under rules of professional conduct, statutory law, or common law to notify you and others of these conditions.

The preceding paragraphs are based on information provided by the  
ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland