



Environmental
PRODUCTS & SERVICES, INC.

242 Stafford Street, Worcester, MA 01603 (508) 754-8100, FAX (508) 754-4277, (800) 977-4557

September 21, 1998

Mr. Robert Haslam
State of Vermont - Dept. of Environmental Conservation
103 South Main Street
Waterbury, VT 05671

RE: Proposed Site Closure activities.
Ms. Lisa Doering property, Jericho, VT - WMD Site No.: 98-2398

Dear Mr. Haslam:

Environmental Products & Services, Inc. (EPS) is pleased to provide this cost estimate to close out remedial measures at the above identified Site. Based on a July 21, 1998 letter prepared by you and submitted to Ms. Lisa Doering, passive collection activities at the subject site were terminated in late August 1998. As a follow up to the remedial activities, EPS proposes the following activities to close out this site. These activities are being proposed to address possible concerns associated with groundwater entering the former impacted areas and the potential for any residual vapors to enter the basement.

Scope of Services

EPS proposes the following activities as a means to address residual groundwater flooding and the potential for vapors to enter the basement area.

- Construct a french drain system around the inside perimeter of the basement with the drain system sloped to discharge to an existing sump located in the northeast corner of the basement. The french drain would be constructed of a four inch diameter schedule 40 perforated drainage pipe bedded in 3/4" stone. The existing sump would be enhanced by the installation of a thirty five gallon poly drum which would serve the drainage collection point and house the sump pump. An existing sump pump currently in use at the residence would be used to serve as the transfer pump. Discharges from the transfer pump would be directed through a buried four inch drain line to a natural drainage swale located in the northwest corner of the property. Spoils removed from the basement during the installation of the french drain system will be left on-site in a location to be designated by the homeowner.
- Once the french drain system is constructed a six inch thick bed of 3/4" crushed stone would be placed over the earthen floor and french drain to serve as either a temporary floor or as a bearing plane for a concrete basement floor to be poured.

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- Once the gravel floor/underdrain system is installed, a concrete floor can be installed over the crushed stone to act as a vapor barrier. (In order to ensure the integrity of the concrete floor, the french drain system or a similar means for removing groundwater entering the basement should be installed prior to the installation of the concrete. If an impermeable or semi permeable barrier is installed in the basement without a means to remove groundwater during periods of high groundwater tables, then the barrier will be subject to degradation/failure due to hydrostatic pressure).

During a site visit conducted on September 15, 1998, small pools of separate phase fuel oil was observed in standing water located adjacent to the original release point and within a small bermed area in the lower portion of the basement (on the eastern side of a rock wall separating the room where the release occurred from the room where the furnace is located). Based on the observance of this fuel oil, the high water table in the basement and the number and location of support columns throughout the basement it appears highly likely that some fuel oil remains trapped in inaccessible portions of the basement. Depending on the presence and level of groundwater in the basement during the heating season, it appears likely that vapors will be present in the basement if measures are not taken to seal the impacted portions of the basement.

Proposed Fees

The above presented scope of work could be completed for the following fees:

- | | |
|--|-------------|
| • Installation of a french drain system
(Price presented is based on the installation of up to 130 linear feet of perforated drain pipe within the basement and installation of up to 150 feet of discharge line in the front yard. Price does include backfilling the installed pipe but does not include restoration of the front lawn (topsoil/loam and seed). | \$ 1,500.00 |
| • Installation of a six inch thick $\frac{3}{4}$ " gravel floor | \$ 1,222.50 |
| • Installation of a four inch thick concrete floor over an area of 775 square feet (Includes the room where the release occurred and the room with the furnace). | \$ 1,700.00 |
- 611
840
2611.25
41,422.50

The above price presented for the concrete floor is an estimate and may be subject to change due to extenuating circumstances at the site (such as necessity to get a concrete pump truck to place the concrete in the basement). The above pricing is based on the use of concrete shoots or similar means to move materials into the basement area. If material can not be moved into the basement via mechanical means additional costs may be incurred. Installation of the concrete floor would



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provide a vapor barrier over the impacted areas and minimize any chance of vapors from residual fuel oil entering the basement during instances where the basement area might be placed under a limited vacuum (furnace is operating).

Proposed Schedule

EPS is prepared to initiate the above presented scope of work within two weeks from receipt of the signed proposal. Completion of the scope of work activities is expected to be completed within two weeks from the start of on-site activities. The actual completion timeframe will be contingent on the availability of necessary subcontractors and equipment.

Project Terms and Conditions

Work will conform to all local, state, and federal regulations. If this job is quoted, any disposal or other work beyond the scope of work described above, unless agreed to in writing, will be billed at the current Time and Material rates.

This quotation is valid for 30 days from the above date and subject to verification thereafter. Applicable taxes are separate items. Standard payment terms are cash in advance, Visa/MasterCard, or phased billing with credit approval on net 10 days. Service charges may be imposed at 1.5 percent per month on all past due balances. The customer will be responsible for all costs of collection, including, but not limited to, reasonable attorney's fees, court costs, and collection service fees.

The customer agrees to indemnify, exonerate, and hold Environmental Products & Services, Inc. harmless against loss, damage, or expense, by reasons of suits, claims, demands, judgements, and causes of action for personal injury, death, or property damage rising out of or in any way in consequence of the performance of all work undertaken by Environmental Products & Services, Inc. except that in no instance shall the customer be held responsible for any liability claim demand or cause of action attributable solely to the negligence of Environmental Products & Services, Inc.

If you are in agreement with this proposal, please sign below and return a copy for our files.

This proposal is understood and accepted:

By: _____

Title: _____

Date: _____



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If you have any questions regarding the above presented information please contact the undersigned @ (800) 977 - 4557. EPS appreciates this opportunity to assist with the remediation of this fuel oil release and looks forward to the expeditious completion of on-site activities.

Very truly yours,

ENVIRONMENTAL PRODUCTS & SERVICES, INC.

Robert J. Flatley, Regional Senior Project Engineer
Worcester Office

RJF/
Jericho4.doc

cc: Ms. Lisa Doering
Mr. Steve Singer, EPS

