Chenette Associates, P.C.
Bernard X. Chenette, P.E.

Permitting
Project Management
Construction Management

69 Plateau Dr. - Berlin
Barre, VT 05641-2333
phone 802.476.6406
fax 802.479.2681
mobile 802.793.9686

bchenette@aol.com

February 8, 2001

Bill Roberts
Agency of Natural Resources
Waste Management Division
Sites Management Section
103 South Main Street/West Office
Waterbury, VT 05671-0404

RE: BERLIN TOWN GARAGE (SMS SITE #93-1427)

Dear Bill:

The Town of Berlin has requested that I respond to your letter to Gary Richardson dated February 1, 2001.

Please find enclosed copy of the Level II ESA report dated February 9, 1998 for the Town Garage. I assisted with the field work on this report when I was with Provan & Lorber.

Please let us know if anything more is needed.

Sincerely,

Bernard X. Chenette, P.E.
Principal

cc: Gary Richardson
Paul Irons

Copy to: BXC

Provan & Lorber, Inc.
ENGINEERS AND PLANNERS

Project No. 97451.12
February 9, 1998

Town of Berlin
Select Board
Post Office Box 2375
Montpelier, Vermont
ATTN: Mr. Paul Irons

SUBJECT: LEVEL II ENVIRONMENTAL SITE ASSESSMENT AND UST INVESTIGATION REPORT At the Berlin Town Garage, Berlin, Vermont

Dear Mr Irons:

PROVAN & LORBER, INC. has completed the Level II Environmental Site Assessment (ESA) at the above referenced site in Berlin, Vermont. The scope of work was based on our November 13, 1997 proposal and completed under our signed agreement of December 12, 1997.

SUBSURFACE INVESTIGATION

Subsurface investigations were conducted on December 22, 1997. Soil borings were completed by Green Mountain Boring of East Barre, Vermont under the direct supervision of a PROVAN & LORBER geologist. Boring locations were selected based on field reconnaissance to determine the likely ground water flow direction. Three soil borings were completed. The Site Sketch depicts the soil boring locations (Appendix A). All three borings terminated at refusal on presumed bedrock. One soil boring was located in the assumed up-gradient direction from the former UST with respect to groundwater flow, while the two others were placed in the estimated down-gradient direction. The soil borings are labeled SB-1, SB-2 and SB-3. The up-gradient boring, SB-1, was advanced to 9 ft. The two down-gradient borings. SB-2 and SB-3, were advanced to a depth of 20 ft. and 19.5 ft., respectively. The overburden consisted of a very dense, dry, poorly sorted compacted till. Groundwater was not encountered above the refusal depth at any of the three locations.

Soil borings were advanced using 4 inch hollow stem augers. Split-spoon soil samples were collected at five-foot depth intervals. A visual inspection of grain-size distribution and moisture content was determined for each sample. This information was used to classify stratigraphy and depth to the groundwater table. Soil samples were also inspected for visual evidence of contamination and for standard headspace analysis. Headspace analysis consisted of placing a volume of soil into either a polybag or glass jar and allowing the vapors to accumulate for a 30 minute period at ambient temperatures.

A sample of the vapors was extracted and the concentration of ionizable compounds measured in parts per million using a Thermo Environmental Instruments, Inc., Model 580B, organic vapor meter (OVM), calibrated to an isobutylene standard. This information was used to establish the presence and vertical distribution of contamination. No staining was noted in any of the soils examined. Head space analysis did not identify detectable VOC in any of the samples. Monitoring wells were not installed due to the consistently dry nature of the soils encountered. It is possible that the bedrock encountered is at the apex of a "knob" that diverts groundwater around the site. Since groundwater was not encountered, composite soil samples were collected at each boring.

PROVAN & LORBER, INC. completed the environmental sampling in accordance with standard operating procedures. Laboratory analysis performed consisted of Total Petroleum Hydrocarbons (TPH) by EPA Method 8100 and Polyaromatic Hydrocarbons (PAH) by EPA Method 8270.

Soil Quality Results

Laboratory analysis has determined that PAH and TPH concentrations in all samples collected were non-detectable. **Appendix B** contains the validated laboratory reports from the State of Vermont Department of Environmental Conservation Laboratory.

Stockpile Screening Results

The 9 cubic yard soil stockpile on site was screened using the Model 580B OVM. Sample points are shown on the **Site Sketch (Appendix A).** The sample points were created by plunging a steel bar into the stockpile to a depth of at least 12". The OVM probe was then inserted in the void created by the bar and any organic vapors were recorded. Screening results for all sampling points were non-detectable.

SENSITIVE RECEPTORS SURVEY

A site receptors survey was conducted on December 22, 1997. The survey consisted of screening the ambient air in the basements and sumps of homes and businesses within a 1000 ft. radius of the site. The screening was conducted using the Model 580 OVM described above. No organic vapors were detected at the properties accessed. **Figure 1 (Appendix C)** lists the occupants within the receptor area and the concentration observed. Concentrations are in parts per million (ppm) and are noted under the property occupant. Not all properties could be accessed.

CONCLUSIONS

Subsurface investigations and laboratory analysis showed no presence of soil contamination associated with the former diesel UST. Groundwater was not encountered and all soil borings terminated on apparent bedrock. The site soils are very dense and dry. These conditions greatly reduce the threat of contaminant migration. Diesel fuel is moderately viscous and will not migrate far from a subsurface spill area without the aid of groundwater. It appears the contaminated soil associated with the release from the former UST has been effectively removed from the excavation. Given this, the potential impact to groundwater has been greatly reduced.

The site receptor survey indicated that no detectable VOC was identified in the basements and sumps of those properties accessed.

No detectable VOC was identified by field screening methods in the nine cubic yards of petroleum contaminated soil stockpiled on site, therefore the soil can be spread on site. This is in accordance with the State of Vermont Department of Natural Resources, Waste Management Division's letter to PROVAN & LORBER, INC. of December 9, 1997. A copy of this letter is included in **Appendix D.**

No further investigations are warranted at this time. If you have further questions, please feel free to contact us.

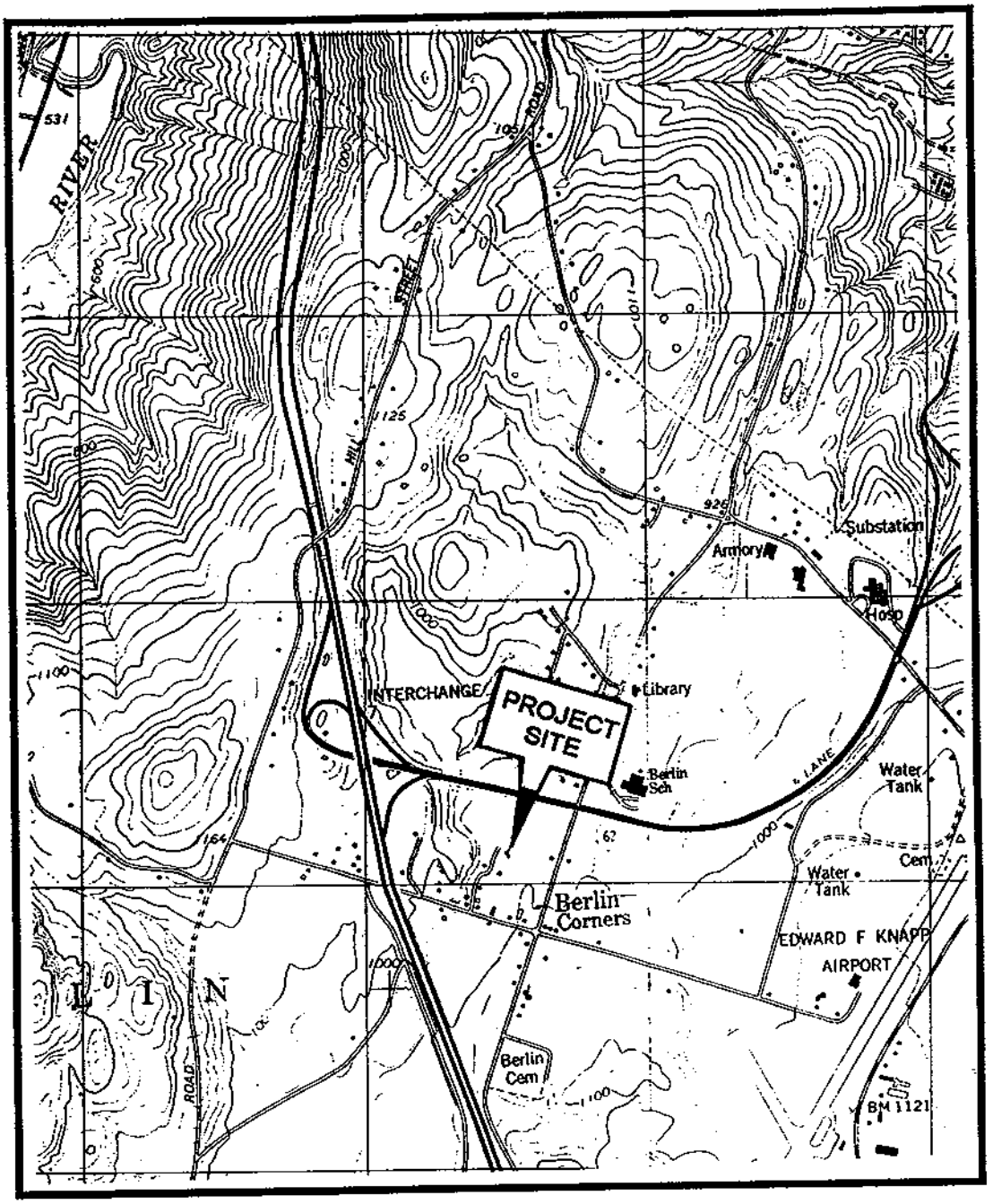
Sincerely,
PROVAN & LORBER, INC.

Hugh P. Donaghey
Project Geologist

HPD
Appendices

c:\project\97451\berlin\0298

APPENDIX A



NORTH

SOURCE: USGS 1967. 7.5' Topographic Quadrangle. BARRE WEST, VT. Scale: 1" = 2000'.

PROVAN & LORBER, INC.

Engineers and Planners

Figure 1 - Site Locus Map

BERLIN TOWN GARAGE
BERLIN, VERMONT

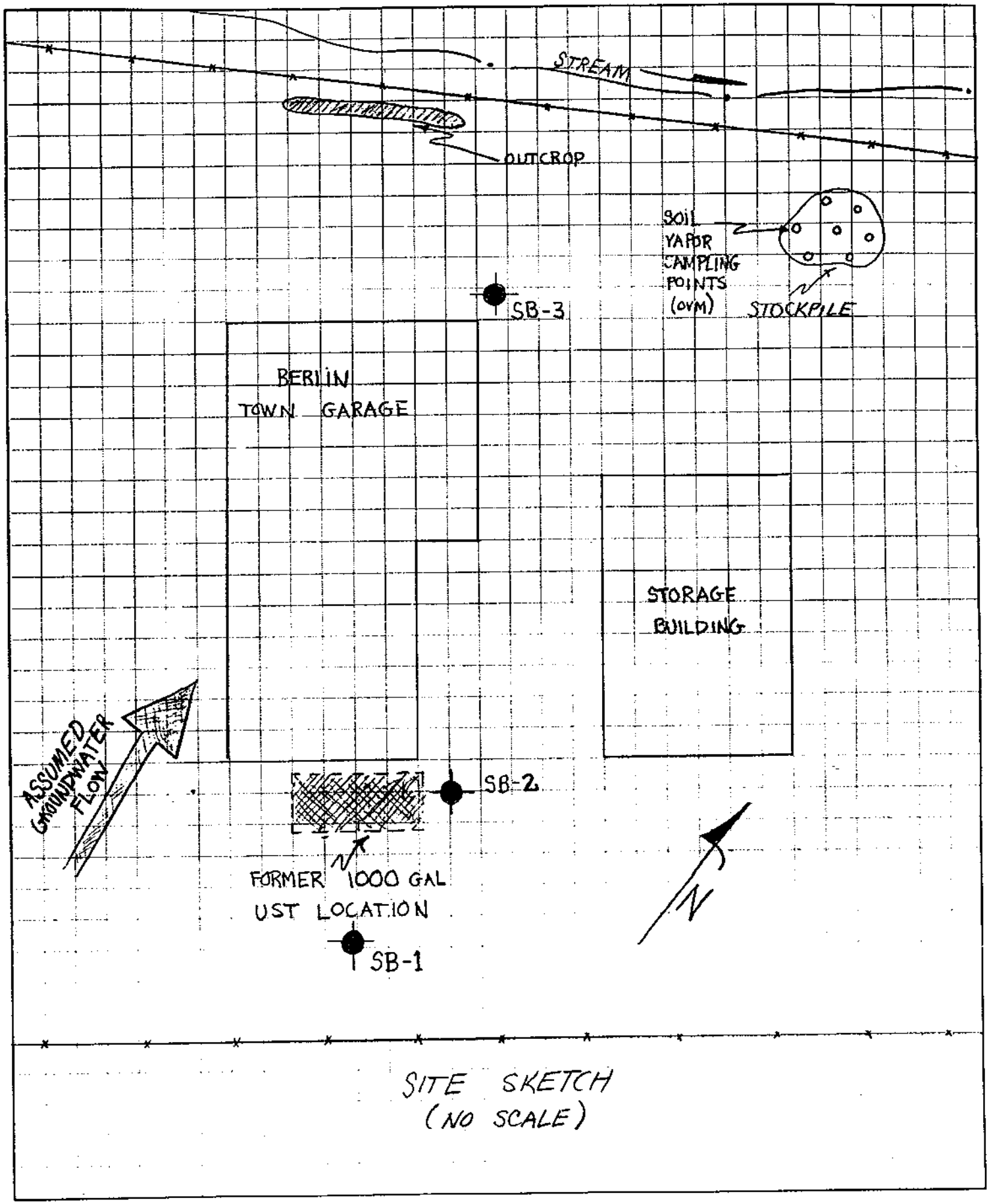
Project No. 97451

Feb-98

APPENDIX B

Provan & Lorber Inc.
(603) 746-3220 Contoocook NH
(603) 444-6301 Littleton NH
(802) 229-1442 Montpelier, VT

JOB TOWN OF BERLIN - TOWN GARAGE
JOB # 974-51
CALCULATED BY HPD DATE 02-04-98
CHECKED BY _____ DATE _____
SHEET NO. _____ OF _____



SITE SKETCH
(NO SCALE)

GREEN MOUNTAIN BORING

PO Box 218 ° East Barre, Vermont 05649 ° 802 476-5073

TO: Provan and Lorber
7 Main Street
Montpelier, VT 05602
Attn.: Mike Chenette

PROJECT NAME: Berlin Town Garage

LOCATION: Berlin, VT

GMB JOB #: 97-159

SHEET:	1
DATE:	12/22/97
HOLE #:	SB-1
LINE & STA.	
OFFSET:	none

Ground Water Observations			
At None at 0 hours	Type	Augers	Split Spoon
	Size I.D.	4.25"	13/8"
At at hours	Hammer Wt.		140#
	Hammer Fall		30"

Surface Elev.:	
Date Started:	12/22/97
Date Completed:	12/22/97
Boring Foreman:	Ron Garneau
Inspector:	
Soils Eng.:	

LOCATION OF BORING: As staked

Depth	Casing Blows Per Foot	Sample Depths From/To	Type of Sample	Blows per 6" on Sampler	Moisture Density or Consist.	Strata Change Elev.	Soil Identification	Sample No.	Sample Rec.	Sample Pen
							Augered to 8.5'			
							Auger refusal on stone			
							No contamination			

Ground Surface to 8.5' | Used 4.25" Augers: Then Auger refusal on stone

SUMMARY: Earth Boring 8.5' Rock Coring Samples 0 **HOLE #** **SB-1**

GREEN MOUNTAIN BORING

PO Box 218 ° East Barre, Vermont 05649 ° 802 476-5073

TO: Provan and Lorber
7 Main Street
Montpelier, VT 05602
Attn.: Mike Chenette

PROJECT NAME: Berlin Town Garage

LOCATION: Berlin, VT

GMB JOB #: 97-159

SHEET:	2
DATE:	12/22/97
HOLE #:	SB-2
LINE & STA.	
OFFSET:	none

Ground Water Observations			Surface Elev.:
At None at 0 hours	Type	Augers	Split Spoon	Date Started: 12/22/97
	Size I.D.	4.25"	13/8"	Date Completed: 12/22/97
At at hours	Hammer Wt.		140#	Boring Foreman: Ron Garneau
	Hammer Fall		30"	Inspector:
				Soils Eng.:

LOCATION OF BORING: As staked

Depth	Casing Blows Per Foot	Sample Depths From/To	Type of Sample	Blows per 6" on Sampler	Moisture Density or Consist.	Strata Change Elev.	Soil Identification	Sample No. Rec.	Sample Pen	
							Augered to 20'			
							Auger refusal on stone			
							No contamination			

Ground Surface to 20' | Used 4.25" Augers: Then Auger refusal on stone

SUMMARY: Earth Boring 20' Rock Coring Samples 0 **HOLE #** **SB-2**

GREEN MOUNTAIN BORING

PO Box 218 ° East Barre, Vermont 05649 ° 802 476-5073

TO: Provan and Lorber
7 Main Street
Montpelier, VT 05602
Attn.: Mike Chenette

PROJECT NAME: Berlin Town Garage

LOCATION: Berlin, VT

GMB JOB #: 97-159

SHEET:	2
DATE:	12/22/97
HOLE #:	SB-3
LINE & STA.	
OFFSET:	none

Ground Water Observations				Surface Elev.:	
	Type	Augers	Split Spoon	Date Started:	12/22/97
At None at 0 hours	Size I.D.	4.25"	13/8"	Date Completed:	12/22/97
	Hammer Wt.		140#	Boring Foreman:	Ron Garneau
At at hours	Hammer Fall		30"	Inspector:	
				Soils Eng.:	

LOCATION OF BORING: As staked

Depth	Casing Blows Per Foot	Sample Depths From/To	Type of Sample	Blows per 6" on Sampler	Moisture Density or Consist.	Strata Change Elev.	Soil Identification	Sample No.	Sample Pen Rec.	
							Augered to 19.5'			
							Auger refusal on stone			
							No contamination			

Ground Surface to 19.5' | Used 4.25" Augers: Then Auger refusal on stone

SUMMARY: Earth Boring 19.5' Rock Coring Samples 0 **HOLE #** SB-3

APPENDIX C

1/29/98 Department of Environmental Conservation Laboratory
Method 8270 - Semivolatile Organics in Solids GJD

Lab Id: 31017 Report To: Bernard Chenette Phone: 229-1442 Date Collected: 12/22/97
Location: Berlin, SB-3 Program: 41 1427 Chain of Custody? No

Notes: Samples collected in Mason jars, with wax paper lining.

Date Analyzed: 1/21/98 Over hold? No Dilution: 1 Date extracted: 12/29/97
Sample wt.: 11.3 g Percent extract. 100 Percent moisture: 17

Parameter	Units are ug/kg dw PQL	Result	Remark Code	Rel % Diff.	Spiked Dups ?	Percent Recovery
Hexachlorobenzene	500	N.D.				
Pentachlorophenol	2000	N.D.				
Phenanthrene	500	N.D.				
Anthracene	500	N.D.				
Di-n-butylphthalate	1000	N.D.				
Fluoranthene	500	N.D.				
Pyrene	500	N.D.				
Butyl benzyl phthalate	1000	N.D.				
Benzo[a]anthracene	500	N.D.				
Chrysene	500	N.D.				
3,3'-Dichlorobenzidine	5000	N.D.				
Bis(2-ethylhexyl)phthalate	1000	N.D.				
Benzo[b]fluoranthene	500	N.D.				
Benzo[k]fluoranthene	500	N.D.				
Di-n-octylphthalate	500	N.D.				
Benzo[a]pyrene	500	N.D.				
Indeno[1,2,3,cd]pyrene	500	N.D.				
Dibenz[a,h]anthracene	500	N.D.				
Benzo[g,h,i]perylene	500	N.D.				

Surrogate Percent Recoveries (S=Surrogate recovery out of range)

Fluorophenol	47%	Phenol-D6.	49%	Nitrobenzene-D5. . . .	75%
2-Fluorobiphenyl . . .	64%	2,3,6-Tribromophenol .	68%	4-Terphenyl-D14. . . .	72%

Notes:

Remarks: E=Estimated Value J=Value may be in Error O=Value outside Standard Curve

1/29/98 Department of Environmental Conservation Laboratory
Method 8270 - Semivolatile Organics in Solids GJD

Lab Id: 31017 Report To: Bernard Chenette Phone: 229-1442 Date Collected: 12/22/97
Location: Berlin, SB-3 Program: 41 1427 Chain of Custody? No

Notes: Samples collected in Mason jars, with wax paper lining.

Date Analyzed: 1/21/98 Over hold? No Dilution: 1 Date extracted: 12/29/97
Sample wt.: 11.3 g Percent extract. 100 Percent moisture: 17

Parameter	Units are ug/kg dw PQL	Result	Remark Code	Rel % Diff.	Spiked Dups ?	Percent Recovery
N-Nitrosodimethylamine	500	N.D.				
Aniline	500	N.D.				
Phenol	500	N.D.				
Bis(2-chloroethyl)ether	500	N.D.				
2-Chlorophenol	1000	N.D.				
1,3-Dichlorobenzene	500	N.D.				
1,4-Dichlorobenzene	500	N.D.				
1,2-Dichlorobenzene	500	N.D.				
Benzylalcohol	1000	N.D.				
2-Methylphenol	500	N.D.				
Bis(2-chloroisopropyl)ether	500	N.D.				
Hexachloroethane	500	N.D.				
4-Methylphenol	500	N.D.				
N-Nitroso-di-n-propylamine	500	N.D.				
Nitrobenzene	500	N.D.				
Isophorone	500	N.D.				
2-Nitrophenol	1000	N.D.				
2,4-Dimethylphenol	500	N.D.				
Bis(2-chloroethoxy)methane	500	N.D.				
2,4-Dichlorophenol	1000	N.D.				
1,2,4-Trichlorobenzene	500	N.D.				
Naphthalene	500	N.D.				
Benzoic acid	5000	N.D.				
4-Chloroaniline	500	N.D.				
Hexachlorobutadiene	500	N.D.				
4-Chloro-3-methylphenol	1000	N.D.				
2-Methylnaphthalene	500	N.D.				
Hexachlorocyclopentadiene	500	N.D.				
2,4,6-Trichlorophenol	1000	N.D.				
2,4,5-Trichlorophenol	1000	N.D.				
2-Chloronaphthalene	500	N.D.				
2-Nitroaniline	2000	N.D.				
Acenaphthylene	500	N.D.				
Dimethylphthalate	1000	N.D.				
2,6-Dinitrotoluene	1000	N.D.				
Acenaphthene	500	N.D.				
3-Nitroaniline	5000	N.D.				
2,4-Dinitrophenol	5000	N.D.				
Dibenzofuran	500	N.D.				
2,4-Dinitrotoluene	1000	N.D.				
4-Nitrophenol	5000	N.D.				
Fluorene	500	N.D.				
4-Chlorophenyl phenyl ether	500	N.D.				
Diethylphthalate	1000	N.D.				
4-Nitroaniline	5000	N.D.				
4,6-Dinitro-2-methylphenol	5000	N.D.				
N-Nitrosodiphenylamine	500	N.D.				
Azobenzene	500	N.D.				
4-Bromophenyl phenyl ether	500	N.D.				

Remarks: E=Estimated Value J=Value may be in Error O=Value outside Standard Curve

1/29/98

Department of Environmental Conservation Laboratory
Method 8015 - Total Petroleum Hydrocarbons: Solids

GJD

Lab Id: 31017 Report To: Bernard Chenette Phone: 229-1442 Date Collected: 12/22/97
Location: Berlin, SB-3 Program: 41 1427 Chain of Custody? No

Notes: Samples collected in Mason jars, with wax paper lining.

Date Analyzed: 1/13/98 Over hold? No Dilution: 1 Date extracted: 12/29/97
Sample wt.: 11.3 g Percent extract. 100 Percent moisture: 17

Parameter	Units are mg/kg dw PQL	Result	Remark Code	Rel % Diff.	Spiked Dups ?	Percent Recovery
Total Petroleum Hydrocarbons	.1	N.D.		1	Y	68

Notes:

Remarks: E=Estimated Value J=Value may be in Error O=Value outside Standard Curve

1/29/98 Department of Environmental Conservation Laboratory
Method 8270 - Semivolatile Organics in Solids GJD

Lab Id: 31016 Report To: Bernard Chenette Phone: 229-1442 Date Collected: 12/22/97
Location: Berlin SB-2 Program: 41 1427 Chain of Custody? No

Notes: Samples collected in Mason jars, with wax paper lining.

Date Analyzed: 1/21/98 Over hold? No Dilution: 1 Date extracted: 12/29/97
Sample wt.: 10.4 g Percent extract. 100 Percent moisture: 10

Parameter	Units are ug/kg dw PQL	Result	Remark Code	Rel % Diff.	Spiked Dups ?	Percent Recovery
Hexachlorobenzene	500	N.D.				
Pentachlorophenol	2000	N.D.				
Phenanthrene	500	N.D.				
Anthracene	500	N.D.				
Di-n-butylphthalate	1000	N.D.				
Fluoranthene	500	N.D.				
Pyrene	500	N.D.				
Butyl benzyl phthalate	1000	N.D.				
Benzo[a]anthracene	500	N.D.				
Chrysene	500	N.D.				
3,3'-Dichlorobenzidine	5000	N.D.				
Bis(2-ethylhexyl)phthalate	1000	N.D.				
Benzo[b]fluoranthene	500	N.D.				
Benzo[k]fluoranthene	500	N.D.				
Di-n-octylphthalate	500	N.D.				
Benzo[a]pyrene	500	N.D.				
Indeno[1,2,3,cd]pyrene	500	N.D.				
Dibenz[a,h]anthracene	500	N.D.				
Benzo[g,h,i]perylene	500	N.D.				

Surrogate Percent Recoveries (S=Surrogate recovery out of range)

Fluorophenol	51%	Phenol-D6.	52%	Nitrobenzene-D5. . . .	92%
2-Fluorobiphenyl . . .	71%	2,3,6-Tribromophenol .	70%	4-Terphenyl-D14. . . .	71%

Notes:

Remarks: E=Estimated Value J=Value may be in Error O=Value outside Standard Curve

1/29/98 Department of Environmental Conservation Laboratory
Method 8270 - Semivolatile Organics in Solids GJD

Lab Id: 31016 Report To: Bernard Chenette Phone: 229-1442 Date Collected: 12/22/97
Location: Berlin SB-2 Program: 41 1427 Chain of Custody? No

Notes: Samples collected in Mason jars, with wax paper lining.

Date Analyzed: 1/21/98 Over hold? No Dilution: 1 Date extracted: 12/29/97
Sample wt.: 10.4 g Percent extract. 100 Percent moisture: 10

Parameter	Units are ug/kg dw PQL	Result	Remark Code	Rel % Diff.	Spiked Dups ?	Percent Recovery
N-Nitrosodimethylamine	500	N.D.				
Aniline	500	N.D.				
Phenol	500	N.D.				
Bis(2-chloroethyl)ether	500	N.D.				
2-Chlorophenol	1000	N.D.				
1,3-Dichlorobenzene	500	N.D.				
1,4-Dichlorobenzene	500	N.D.				
1,2-Dichlorobenzene	500	N.D.				
Benzylalcohol	1000	N.D.				
2-Methylphenol	500	N.D.				
Bis(2-chloroisopropyl)ether	500	N.D.				
Hexachloroethane	500	N.D.				
4-Methylphenol	500	N.D.				
N-Nitroso-di-n-propylamine	500	N.D.				
Nitrobenzene	500	N.D.				
Isophorone	500	N.D.				
2-Nitrophenol	1000	N.D.				
2,4-Dimethylphenol	500	N.D.				
Bis(2-chloroethoxy)methane	500	N.D.				
2,4-Dichlorophenol	1000	N.D.				
1,2,4-Trichlorobenzene	500	N.D.				
Naphthalene	500	N.D.				
Benzoic acid	5000	N.D.				
4-Chloroaniline	500	N.D.				
Hexachlorobutadiene	500	N.D.				
4-Chloro-3-methylphenol	1000	N.D.				
2-Methylnaphthalene	500	N.D.				
Hexachlorocyclopentadiene	500	N.D.				
2,4,6-Trichlorophenol	1000	N.D.				
2,4,5-Trichlorophenol	1000	N.D.				
2-Chloronaphthalene	500	N.D.				
2-Nitroaniline	2000	N.D.				
Acenaphthylene	500	N.D.				
Dimethylphthalate	1000	N.D.				
2,6-Dinitrotoluene	1000	N.D.				
Acenaphthene	500	N.D.				
3-Nitroaniline	5000	N.D.				
2,4-Dinitrophenol	5000	N.D.				
Dibenzofuran	500	N.D.				
2,4-Dinitrotoluene	1000	N.D.				
4-Nitrophenol	5000	N.D.				
Fluorene	500	N.D.				
4-Chlorophenyl phenyl ether	500	N.D.				
Diethylphthalate	1000	N.D.				
4-Nitroaniline	5000	N.D.				
4,6-Dinitro-2-methylphenol	5000	N.D.				
N-Nitrosodiphenylamine	500	N.D.				
Azobenzene	500	N.D.				
4-Bromophenyl phenyl ether	500	N.D.				

Remarks: E=Estimated Value J=Value may be in Error O=Value outside Standard Curve

1/29/98 Department of Environmental Conservation Laboratory
Method 8015 - Total Petroleum Hydrocarbons: Solids GJD

Lab Id: 31016 Report To: Bernard Chenette Phone: 229-1442 Date Collected: 12/22/97
Location: Berlin SB-2 Program: 41 1427 Chain of Custody? No

Notes: Samples collected in Mason jars, with wax paper lining.

Date Analyzed: 1/13/98 Over hold? No Dilution: 1 Date extracted: 12/29/97
Sample wt.: 10.4 g Percent extract. 100 Percent moisture: 10

Parameter	Units are mg/kg dw PQL	Result	Remark Code	Rel % Diff.	Spiked Dups ?	Percent Recovery
Total Petroleum Hydrocarbons	.1	N.D.				

Notes:

Remarks: E=Estimated Value J=Value may be in Error O=Value outside Standard Curve

1/29/98 Department of Environmental Conservation Laboratory
Method 8270 - Semivolatile Organics in Solids GJD

Lab Id: 31015 Report To: Bernard Chenette Phone: 229-1442 Date Collected: 12/22/97
Location: Berlin, SB-1 Program: 41 1427 Chain of Custody? No

Notes: Samples collected in Mason jars, with wax paper lining.

Date Analyzed: 1/21/98 Over hold? No Dilution: 1 Date extracted: 12/29/97
Sample wt.: 10.9 g Percent extract. 100 Percent moisture: 13

Parameter	Units are ug/kg dw PQL	Result	Remark Code	Rel % Diff.	Spiked Dups ?	Percent Recovery
Hexachlorobenzene	500	N.D.				
Pentachlorophenol	2000	N.D.				
Phenanthrene	500	N.D.				
Anthracene	500	N.D.				
Di-n-butylphthalate	1000	N.D.				
Fluoranthene	500	N.D.				
Pyrene	500	N.D.				
Butyl benzyl phthalate	1000	N.D.				
Benzo[a]anthracene	500	N.D.				
Chrysene	500	N.D.				
3,3'-Dichlorobenzidine	5000	N.D.				
Bis(2-ethylhexyl)phthalate	1000	N.D.				
Benzo[b]fluoranthene	500	N.D.				
Benzo[k]fluoranthene	500	N.D.				
Di-n-octylphthalate	500	N.D.				
Benzo[a]pyrene	500	N.D.				
Indeno[1,2,3,cd]pyrene	500	N.D.				
Dibenz[a,h]anthracene	500	N.D.				
Benzo[g,h,i]perylene	500	N.D.				

Surrogate Percent Recoveries (S=Surrogate recovery out of range)

Fluorophenol	52%	Phenol-D6.	52%	Nitrobenzene-D5. . . .	92%
2-Fluorobiphenyl . . .	70%	2,3,6-Tribromophenol .	69%	4-Terphenyl-D14. . . .	76%

Notes:

Remarks: E=Estimated Value J=Value may be in Error O=Value outside Standard Curve

1/29/98 Department of Environmental Conservation Laboratory
Method 8270 - Semivolatile Organics in Solids GJD

Lab Id: 31015 Report To: Bernard Chenette Phone: 229-1442 Date Collected: 12/22/97
Location: Berlin, SB-1 Program: 41 1427 Chain of Custody? No

Notes: Samples collected in Mason jars, with wax paper lining.

Date Analyzed: 1/21/98 Over hold? No Dilution: 1 Date extracted: 12/29/97
Sample wt.: 10.9 g Percent extract. 100 Percent moisture: 13

Parameter	Units are ug/kg dw PQL	Result	Remark Code	Rel % Diff.	Spiked Dups ?	Percent Recovery
N-Nitrosodimethylamine	500	N.D.				
Aniline	500	N.D.				
Phenol	500	N.D.				
Bis(2-chloroethyl)ether	500	N.D.				
2-Chlorophenol	1000	N.D.				
1,3-Dichlorobenzene	500	N.D.				
1,4-Dichlorobenzene	500	N.D.				
1,2-Dichlorobenzene	500	N.D.				
Benzylalcohol	1000	N.D.				
2-Methylphenol	500	N.D.				
Bis(2-chloroisopropyl)ether	500	N.D.				
Hexachloroethane	500	N.D.				
4-Methylphenol	500	N.D.				
N-Nitroso-di-n-propylamine	500	N.D.				
Nitrobenzene	500	N.D.				
Isophorone	500	N.D.				
2-Nitrophenol	1000	N.D.				
2,4-Dimethylphenol	500	N.D.				
Bis(2-chloroethoxy)methane	500	N.D.				
2,4-Dichlorophenol	1000	N.D.				
1,2,4-Trichlorobenzene	500	N.D.				
Naphthalene	500	N.D.				
Benzoic acid	5000	N.D.				
4-Chloroaniline	500	N.D.				
Hexachlorobutadiene	500	N.D.				
4-Chloro-3-methylphenol	1000	N.D.				
2-Methylnaphthalene	500	N.D.				
Hexachlorocyclopentadiene	500	N.D.				
2,4,6-Trichlorophenol	1000	N.D.				
2,4,5-Trichlorophenol	1000	N.D.				
2-Chloronaphthalene	500	N.D.				
2-Nitroaniline	2000	N.D.				
Acenaphthylene	500	N.D.				
Dimethylphthalate	1000	N.D.				
2,6-Dinitrotoluene	1000	N.D.				
Acenaphthene	500	N.D.				
3-Nitroaniline	5000	N.D.				
2,4-Dinitrophenol	5000	N.D.				
Dibenzofuran	500	N.D.				
2,4-Dinitrotoluene	1000	N.D.				
4-Nitrophenol	5000	N.D.				
Fluorene	500	N.D.				
4-Chlorophenyl phenyl ether	500	N.D.				
Diethylphthalate	1000	N.D.				
4-Nitroaniline	5000	N.D.				
4,6-Dinitro-2-methylphenol	5000	N.D.				
N-Nitrosodiphenylamine	500	N.D.				
Azobenzene	500	N.D.				
4-Bromophenyl phenyl ether	500	N.D.				

Remarks: E=Estimated Value J=Value may be in Error O=Value outside Standard Curve

1/29/98 Department of Environmental Conservation Laboratory
Method 8015 - Total Petroleum Hydrocarbons: Solids GJD

Lab Id: 31015 Report To: Bernard Chenette Phone: 229-1442 Date Collected: 12/22/97
Location: Berlin, SB-1 Program: 41 1427 Chain of Custody? No

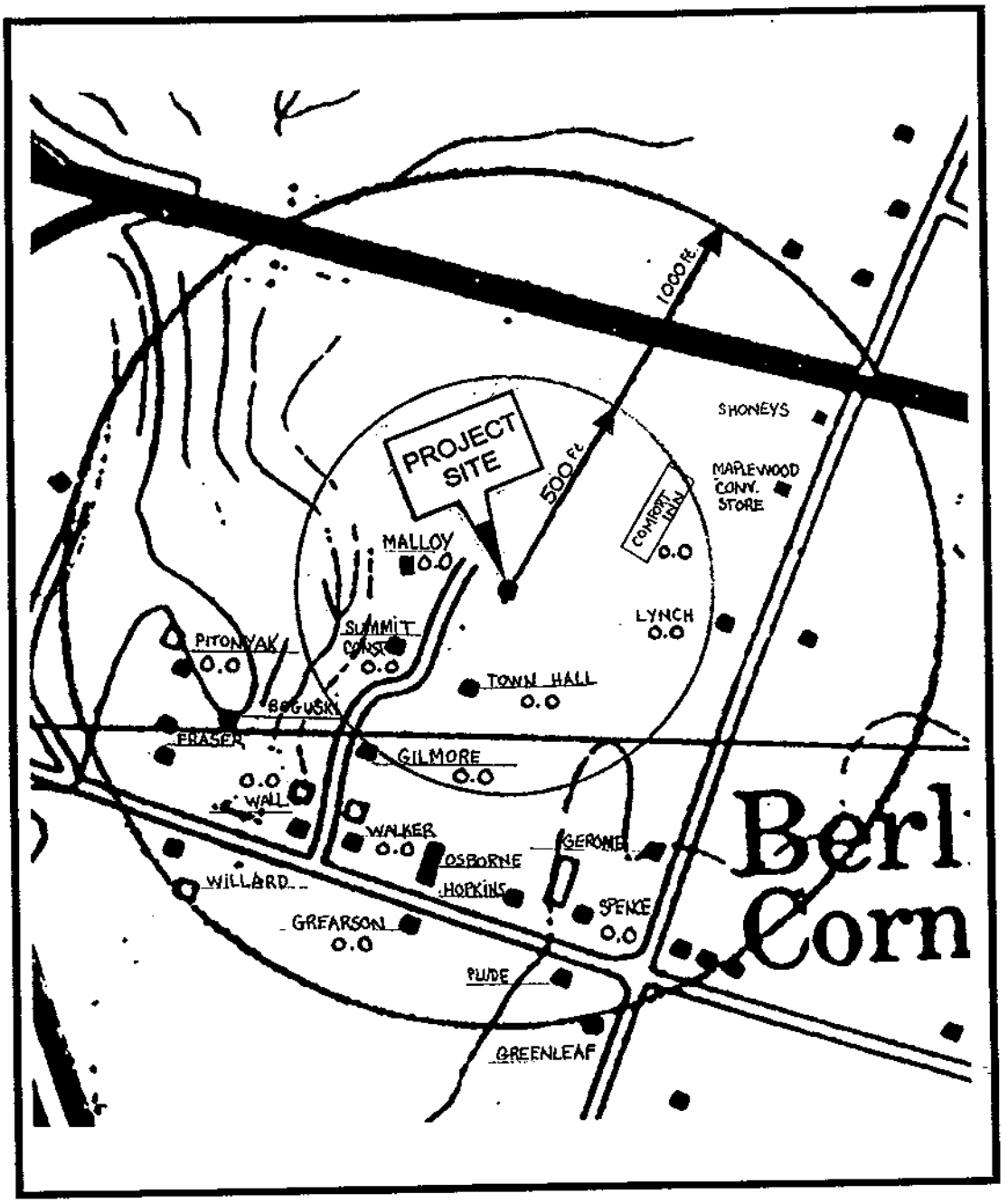
Notes: Samples collected in Mason jars, with wax paper lining.

Date Analyzed: 1/13/98 Over hold? No Dilution: 1 Date extracted: 12/29/97
Sample wt.: 10.9 g Percent extract. 100 Percent moisture: 13

Parameter	Units are mg/kg dw PQL	Result	Remark Code	Rel % Diff.	Spiked Dups ?	Percent Recovery
Total Petroleum Hydrocarbons	.1	N.D.				

Notes:

Remarks: E=Estimated Value J=Value may be in Error O=Value outside Standard Curve



NORTH

SOURCE: USGS 1967. 7.5' Topographic Quadrangle.
BARRE WEST, VT. Scale: 1" = 2000'.

PROVAN & LORBER, INC.

Engineers and Planners

Figure 1 - Site Receptors Map

BERLIN TOWN GARAGE
BERLIN, VERMONT

Project No. 97451

Feb-98

APPENDIX D

TERRY —

State of Vermont

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation
Waste Management Division
103 South Main Street/West Office
Waterbury, Vermont 05671-0404
(802) 241-3888
FAX (802) 241-3296

Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Environmental Conservation
State Geologist
RELAY SERVICE FOR THE HEARING IMPAIRED
1-800-253-0191 TDD>Voice
1-800-253-0195 Voice>TDD

December 9, 1997

MR BERNIE CHENETTE
PROVAN & LORBER, INC
7 MAIN STREET
MONTPELIER, VT 05602

Dear Mr. Chenette:

The Waste Management Divisions (WMD) has reviewed the work plan you submitted for the Berlin Town Garage project. The work plan addresses the investigation required to identify the potential for adverse impacts from releases from the diesel tank removed from the site in 1993.

The scope of services proposes the installation of three monitoring wells. The WMD considers four monitoring wells a minimum for accurately determining the direction of groundwater flow. Additionally, due to the span of four years since the tank was removed, it may be necessary to install more wells to be certain that no contaminants have migrated from the original source area. Of the minimum four wells one must be placed in the source area.

With regard to the proposed analytical methods the WMD offers the following options for consideration, these are just options. The analysis of the soils collected during boring is not considered necessary, the main concern being groundwater contamination. The WMD would accept data from the field screening of soils alone with analysis for Total Petroleum Hydrocarbons, TPH, (e.g. EPA method 8015) should there be a high field positive. By the same token, initial analysis for TPH with a follow-up of compound specific testing (EPA Method 8270) if the TPH is high.

The nine cubic yards of petroleum contaminated soils on site can, if the field screening by PID shows non-detect, be spread on site. This would not require laboratory analysis of the soils. If, however, the Town wishes to move the soils off-site, in that case analytical samples would be required.

The WMD concurs with the proposed scope of work and accepts the cost estimate of $3,695 as presented in the work plan, understanding that additional wells will add to this cost. Please proceed with this work as soon as possible.

If you have any questions please feel free to call.

Sincerely,

Maria Stadlmayer

Maria Stadlmayer, Site Manager
Waste Management Division

cc: Shirley Fortier, Town of Berlin