



AMERICAN  
ENGINEERING  
TESTING, INC.

CONSULTANTS  
• GEOTECHNICAL  
• MATERIALS  
• ENVIRONMENTAL

July 7, 2005

Mr. Jerry Wright  
City of Rapid City  
300 Sixth Street  
Rapid City, SD 57701

Subject: Proposal For Chloride Investigation  
Rapid City Landfill  
Rapid City, South Dakota

Dear Mr. Wright:

American Engineering Testing, Inc. (AET) is pleased to provide this proposal for the subject services. As requested, costs for services provided by AET and Legette, Brashears and Graham, Inc. (LBG), consultation with Dr. Arden Davis and laboratory services have been included in this proposal.

I have attached the following documents required to initiate the contract:

- A contract authorization. For your convenience, I have signed and attached two copies of the authorization. Please sign both copies, return one to me and keep the other for your records.
- A work plan for the chloride investigation. Please note that the work plan was previously submitted to and approved by Ms. Vonni Kallemeyn of the South Dakota Department of Environment and Natural Resources.
- An estimate of costs to perform the services outlined in the work plan.
- A copy of AET's "General Terms and Conditions."

If you have any questions or require additional information, please call us at (605) 388-0029.

Respectfully,

Byron L. Schulz, CPRR  
Environmental Scientist  
Project Manager

**PROPOSAL FOR CHLORIDE INVESTIGATION  
RAPID CITY LANDFILL  
RAPID CITY, SOUTH DAKOTA**

**July 7, 2005**

**AUTHORIZATION**

**FOR THE CLIENT:**

**Client:** City of Rapid City, Rapid City Landfill

**Authorized Signature:** \_\_\_\_\_

**Typed Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**ACCEPTANCE**

**FOR AMERICAN ENGINEERING TESTING, INC:**

**Authorized Signature:** Byron L. Schulz

**Typed Name:** Byron L. Schulz

**Title:** Project Manager

**Date:** July 7, 2005

BLS

**PROPOSAL FOR CHLORIDE INVESTIGATION  
RAPID CITY LANDFILL  
RAPID CITY, SOUTH DAKOTA**

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**Title:** Project Manager

**Date:** July 7, 2005

BLS

**WORK PLAN**  
**RAPID CITY LANDFILL CHLORIDE INVESTIGATION**  
**Prepared by Legette, Brashears and Graham, Inc. (LBG)**  
**and American Engineering Testing Inc. (AET)**

LBG recommends that the soils be analyzed for the concentration of soluble anions/cations; the leachate for chloride, bromide, sulfates, calcium, manganese, sodium, potassium, iron, bicarbonates; and the groundwater for the same analytes as the leachate plus Oxygen-18 and deuterium isotopes.

The first geochemical step will be the soil sampling and analysis for soluble anions/cations presented below as Phase I, Task 5. If this shows an abundance of soluble species, that data may be sufficient to disallow the use of chlorides as a valid indicator for release detection and Phases II and III may not be required. If not, Phase II will be performed to look at the liquid chemistry.

**Phase I**

Task 1 - AET will collect existing data from Rapid City Landfill files on previous geological investigations and forward the data to LBG. LBG will consolidate and evaluate the data in the context of this assessment.

Task 2 - LBG will perform a literature search on geochemistry of formations.

Task 3 - LBG will prepare geological cross-section(s).

Task 4 - AET will contact SDDOT to obtain chemistry of road salts used in the vicinity of the Landfill and the South Dakota Geological Survey for information they may have collected on road salts potentially impacting groundwater. AET will collect road salt samples, soil and groundwater samples in the vicinity of the downgradient wells and groundwater samples from the downgradient wells and submit for analysis for soluble anions/cations and constituents identified in road salts.

Task 5 - AET will advance four soil borings in similar geological formations at locations adjacent to, but outside the potential influence of, the landfill and submit select samples of the weathered shale from each boring for analysis for soluble anions/cations.

Task 6 - AET will obtain GPS coordinates for all existing groundwater monitoring wells.

Task 7 - LBG will prepare groundwater contours based on GPS coordinates and GIS overlays of topographical maps.

Task 8 - AET and LBG will report on the progress of Phase I with recommendations. The report will include consultation with Dr. Arden Davis.

## **Phase II**

Task 1 - AET will collect groundwater and leachate samples and submit for analysis for analytes which may define differences in the chemistry of geological formations.

Task 2 - AET and LBG will report on the progress of Phase II with recommendations. The report will include consultation with Dr. Arden Davis.

## **Phase III**

Task 1 - As a next step, pending results of the above investigation, AET will install two data collection wells, one north and one south of the landfill, in the same geological formations as the downgradient wells 1-8-19AD2, 1- 8-19DA1 and 1-8-19DD for the purpose of groundwater chemistry comparison with the downgradient wells.

Task 2 - AET and LBG will report on the progress of Phase III with recommendations. The report will include consultation with Dr. Arden Davis.

**COST ESTIMATE - RAPID CITY LANDFILL CHLORIDE INVESTIGATION**

Services provided by American Engineering Testing, Inc. (AET) and Leggett, Brashears &amp; Graham, Inc. (LBG)

**PHASE I****Task 1 - Collect Existing Data From Landfill on Previous Geological Investigations (AET)**

Project Manager					
Travel Time	0.75	hours	@ \$	65.00	= \$ 48.75
Pickup Mileage	16	miles	@ \$	0.45	= \$ 7.20
Collect Data	12	hours	@ \$	65.00	= \$ 780.00
Review Data and Forward to LBG	4	hours	@ \$	65.00	= \$ 260.00
<b>SUB TOTAL - Task I (AET)</b>					<b>\$ 1,095.95</b>

**Task 1 - Evaluation and Consolidation of Data Supplied by AET (LBG)**

Principal					
	36	hours	@	\$140.00	= \$ 5,040.00
Hydrologist II					
	4	hours	@	\$75.00	= \$ 300.00
Support					
	4	hours	@	\$50.00	= \$ 200.00
L.B.G Markup (2%)					
					= \$ 110.80
<b>SUB TOTAL - Task I (LBG)</b>					<b>\$ 5,650.80</b>

**Task 2 - Literature Search - Geochemistry of Formations (LBG)**

Principal					
	8	hours	@	\$140.00	= \$ 1,120.00
Hydrologist I					
	16	hours	@	\$65.00	= \$ 1,040.00
Support					
	2	hours	@	\$50.00	= \$ 100.00
L.B.G Markup (2%)					
					= \$ 45.20
<b>SUB TOTAL - Task 2</b>					<b>\$ 2,305.20</b>

**Task 3 - Prepare Geological Cross-section(s) (LBG)**

Principal					
	8	hours	@	\$140.00	= \$ 1,120.00
Hydrologist I					
	16	hours	@	\$65.00	= \$ 1,040.00
Draft					
	4	hours	@	\$55.00	= \$ 220.00
Support					
	2	hours	@	\$50.00	= \$ 100.00
L.B.G Markup (2%)					
					= \$ 49.60
<b>SUB TOTAL - Task 3</b>					<b>\$ 2,529.60</b>

**Task 4 - Investigate Possible Impacts of Road Salts (AET)**

## Direct Push Drilling Services (1-person crew)

Preparation, Loading/Unloading					
	2	hours	@	\$50.00	= \$ 100.00
Travel Time (1 round trip)					
	1.5	hours	@	\$50.00	= \$ 75.00
Mileage (1 round trip and on-site)					
	20	miles	@	\$0.68	= \$ 13.60
Soil Boring (3 soil borings to 15 to 25 feet below grade with continuous sampling)					
	6	hours	@	\$110.00	= \$ 660.00
Collect Soil and Groundwater Samples From Direct Push Borings					
	1.5	hours	@	\$110.00	= \$ 165.00
Abandon Soil Borings					
	1	hours	@	\$50.00	= \$ 50.00

## Equipment Services

CGI/Multi-gas Monitor					
	1	days	@	\$25.00	= \$ 25.00
Photoionization Detector					
	1	days	@	\$75.00	= \$ 75.00
Steam Cleaner Rental					
	1	days	@	\$100.00	= \$ 100.00
Sampling Equipment (PVC soil sample liners)					
	24	each	@	\$2.00	= \$ 48.00

## Personnel Services

Staff Professional					
Preparation, Loading/Unloading					
	1	hours	@	\$60.00	= \$ 60.00
Travel Time					
	1.5	hours	@	\$60.00	= \$ 90.00
Mileage (1 round trip and on-site)					
	20	miles	@	\$0.45	= \$ 9.00
On-site Time (utility locates/drilling/soil and groundwater sampling )					
	10	hours	@	\$60.00	= \$ 600.00
Project Manager					
Project Management					
	2	hours	@	\$65.00	= \$ 130.00
Search for Information on Road Salts Impacts to Groundwater					
	4	hours	@ \$	65.00	= \$ 260.00
Obtain Information on Chemistry of Road Salts From SDDOT					
	1	hours	@ \$	65.00	= \$ 65.00
Review Data and Forward to LBG					
	4	hours	@ \$	65.00	= \$ 260.00

## Laboratory Services

Soluble Anions/Cations and road salt constituents: Soil					
	12	each	@		= \$ 0.00

Soluble Anions/Cations and road salt constituents: Water	6	each	@	= \$	0.00
Chemistry Markup- 3%				\$	0.00
<b>SUB TOTAL - Task 4</b>				<b>\$</b>	<b>2,785.60</b>

### Task 5 - Soil Borings, Soil Sampling and Analysis for Anions/Cations (AET)

Direct Push Drilling Services (1-person crew)					
Preparation, Loading/Unloading	2	hours	@	\$50.00 = \$	100.00
Travel Time (1 round trip)	1.5	hours	@	\$50.00 = \$	75.00
Mileage (1 round trip and on-site)	20	miles	@	\$0.68 = \$	13.60
Soil Boring (4 soil borings to 15 to 25 feet below grade with continuous sampling)	8	hours	@	\$110.00 = \$	880.00
Abandon Soil Borings	1	hours	@	\$50.00 = \$	50.00
Equipment Services					
Photoionization Detector Rental	1	days	@	\$75.00 = \$	75.00
Steam Cleaner Rental	1	days	@	\$100.00 = \$	100.00
Sampling Equipment (PVC soil sample liners)	24	each	@	\$2.00 = \$	48.00
Personnel Services					
Project Manager					
Project Management	4	hours	@	\$65.00 = \$	260.00
Staff Professional					
Preparation, Loading/Unloading	1	hours	@	\$60.00 = \$	60.00
Travel Time	1.5	hours	@	\$60.00 = \$	90.00
Mileage (1 round trip and on-site)	20	miles	@	\$0.45 = \$	9.00
On-site Time (utility locates/drilling/soil sampling )	8	hours	@	\$60.00 = \$	480.00
Laboratory Services					
Soluble Anions/Cations: Soil	16	samples	@	= \$	0.00
Chemistry Markup- 3%				\$	0.00
<b>SUB TOTAL - Task 5</b>				<b>\$</b>	<b>2,240.60</b>

### Task 6 - Obtain GPS Coordinates For Existing Groundwater Monitoring Wells (AET)

Field GPS Services (2-person crew)					
Preparation, Loading/Unloading	1	hours	@	\$100.00 = \$	100.00
Travel Time (1 round trip)	1.5	hours	@	\$100.00 = \$	150.00
Mileage (1 round trip and on-site)	30	miles	@	\$0.68 = \$	20.40
Field Mapping and Groundwater Elevations	6	hours	@	\$100.00 = \$	600.00
Equipment Services					
Trimble GPS and Software	1	days	@	\$180.00 = \$	180.00
Personnel Services					
Project Manager					
Project Management	4	hours	@	\$65.00 = \$	260.00
<b>SUB TOTAL - Task 6</b>				<b>\$</b>	<b>1,310.40</b>

### Task 7 - Prepare Groundwater Contours (LBG)

Principal	2	hours	@	\$140.00 = \$	280.00
Senior Hydrologist	16	hours	@	\$88.00 = \$	1,408.00
Draft	4	hours	@	\$55.00 = \$	220.00
Support	2	hours	@	\$50.00 = \$	100.00
LBG Markup (2%)				= \$	40.16
<b>SUB TOTAL - Task 7</b>				<b>\$</b>	<b>2,048.16</b>

### Task 8 - Phase I Report (LBG)

Principal	24	hours	@	\$140.00 = \$	3,360.00
Senior Hydrologist	6	hours	@	\$88.00 = \$	528.00
Hydrologist I	8	hours	@	\$65.00 = \$	520.00
Draft	2	hours	@	\$55.00 = \$	110.00
Support	3	hours	@	\$50.00 = \$	150.00
Expenses	1	each	@	\$490.00 = \$	490.00
LBG Markup (2%)				= \$	103.16
<b>SUB TOTAL - Task 8 (LBG)</b>				<b>\$</b>	<b>5,261.16</b>

### Task 8 - Phase I Report (AET)

Report Preparation

Project Manager	12	hours	@	\$65.00	= \$	780.00
Staff Professional	30	hours	@	\$60.00	= \$	1,800.00
Draftsperson	2	hours	@	\$40.00	= \$	80.00
Clerical	2	hours	@	\$30.00	= \$	60.00
Senior Review	4	hours	@	\$85.00	= \$	340.00
Consultation with Dr. Arden Davis	6	hours	@	\$100.00	= \$	600.00
<b>SUB TOTAL - Task 8 (AET)</b>					<b>\$</b>	<b>3,660.00</b>

**TOTAL COST- PHASE I** **\$ 28,887.47**

**PHASE II**

**Task 1 - Collect Groundwater and Leachate Samples for Laboratory Analysis (AET)**

Collect Groundwater Samples From Select Existing Monitoring Wells (2-person crew)

Preparation, Loading/Unloading	1.5	hours	@	\$100.00	= \$	150.00
Travel Time (1 round trip)	1.5	hours	@	\$100.00	= \$	150.00
Mileage (1 round trip and on-site)	20	miles	@	\$0.68	= \$	13.60
On-Site Time	6	hours	@	\$110.00	= \$	660.00
Sample Preparation (pickup/return samples to lab)	1	hours	@	\$50.00	= \$	50.00

Equipment Services

Groundwater Quality Multi-Meter	1	days	@	\$80.00	= \$	80.00
Interface Probe	1	days	@	\$25.00	= \$	25.00
Sampling Equipment (gloves, ice and bailers)	6	each	@	\$10.00	= \$	60.00

Personnel Services

Project Manager						
Project Management	2	hours	@	\$65.00	= \$	130.00

Collect Leachate Samples From Select Locations Using Direct Push Unit (1-person crew)

Preparation, Loading/Unloading	2	hours	@	\$50.00	= \$	100.00
Travel Time (1 round trip)	1.5	hours	@	\$50.00	= \$	75.00
Mileage (1 round trip and on-site)	20	miles	@	\$0.68	= \$	13.60
Soil Boring (3 soil borings to 15 to 25 feet below grade with continuous sampling)	4.5	hours	@	\$110.00	= \$	495.00
Collect Leachate Samples From Direct Push Borings	3	hours	@	\$50.00	= \$	150.00
Abandon Soil Borings	1	hours	@	\$50.00	= \$	50.00

Equipment Services

CGI/Multi-gas Monitor	1	days	@	\$25.00	= \$	25.00
Photoionization Detector Rental	1	days	@	\$75.00	= \$	75.00
Steam Cleaner Rental	1	days	@	\$100.00	= \$	100.00
Sampling Equipment (PVC soil sample liners)	16	each	@	\$2.00	= \$	32.00

Personnel Services

Project Manager						
Project Management	2	hours	@	\$65.00	= \$	130.00
Staff Professional						
Preparation, Loading/Unloading	1	hours	@	\$60.00	= \$	60.00
Travel Time	1.5	hours	@	\$60.00	= \$	90.00
Mileage (1 round trip and on-site)	20	miles	@	\$0.45	= \$	9.00
On-site Time (drilling and groundwater sampling)	7.5	hours	@	\$60.00	= \$	450.00

Laboratory Services

Soluble Anions/Cations: Water	6	samples	@		= \$	0.00
Chemistry Markup- 3%					= \$	0.00

**SUB TOTAL - Task 1** **\$ 3,173.20**

**Task 2 - Phase II Report (LBG)**

Principal	24	hours	@	\$140.00	= \$	3,360.00
Senior Hydrologist	6	hours	@	\$88.00	= \$	528.00
Hydrologist I	8	hours	@	\$65.00	= \$	520.00
Draft	8	hours	@	\$55.00	= \$	440.00
Support	3	hours	@	\$50.00	= \$	150.00
LBG Markup (2%)					= \$	99.96

**SUB TOTAL - Task 2 (LBG)** **\$ 5,097.96**

**Task 2 - Phase II Report (AET)**

Report Preparation



TOTAL COST- PHASE III	\$ 12,831.11
LABORATORY SERVICES (ESTIMATED COST NOT TO EXCEED) - PHASE I, II, AND III <sup>1</sup>	\$ 5,000.00
TOTAL COST - PHASE I,II, AND III	\$ 58,049.74

**SECTION 1 - RESPONSIBILITIES**

**1.1** - The party to whom the proposal/contract is addressed is considered the Client of American Engineering Testing, Inc. (AET). The terms and conditions stated are binding, upon acceptance, on the Client, its successors, assignees, joint ventures and third-party beneficiaries. **Oral proposal acceptance or authorizing purchase orders from the Client are considered formal acceptance of AET's terms and conditions.**

**1.2** - Prior to AET performing work, Client will provide AET with all information that may affect the cost, progress, safety and performance of the work. This includes, but is not limited to, information on proposed and existing construction, all pertinent sections of contracts between Client and property owner, site safety plans or other documents which may control or affect AET's work. If new information becomes available during AET's work, Client will provide such information to AET in a timely manner. Failure of client to timely notify AET of changes to the project including, but not limited to, location, elevation, loading, or configuration of the structure or improvement will constitute a release of any liability of AET. Client will provide a representative for timely answers to project-related questions by AET.

**1.3** - Work by AET will not relieve other persons of their responsibility to perform work according to the contract documents or specifications, and AET will not be held responsible for work or omissions by Client and other persons. AET does not perform construction management, general contracting or surveying services and our presence on site does not constitute any assumption of those responsibilities. AET will not be responsible for directing or supervising the work of others, unless specifically authorized and agreed to in writing.

**1.4** - Work by AET often includes sampling at specific locations. Inherent with such sampling is variation of conditions between sampling locations. Client recognizes this uncertainty and the associated risk, and acknowledges that opinions developed by AET, based on the samples, are qualified to that extent.

**1.5** - AET is not responsible for interpretations or modifications of AET's recommendations by other persons.

**1.6** - Should changed conditions be alleged, Client agrees to notify AET before evidence of alleged change is no longer accessible for evaluation.

**SECTION 2 - SITE ACCESS AND RESTORATION**

**2.1** - Client will furnish AET safe and legal site access.

**2.2** - It is understood by Client that in the normal course of the work, some damage to the site or materials may occur. AET will take reasonable precautions to minimize such damage. Restoration of the site is the responsibility of the Client.

**SECTION 3 - SAFETY**

**3.1** - Client shall inform AET of any known or suspected hazardous materials or unsafe conditions at the work site. If, during the course of AET's work, such materials or conditions are discovered, AET reserves the right to take measures to protect AET personnel and equipment or to immediately terminate services. Client shall be responsible for payment of such additional protection costs.

**3.2** - AET shall only be responsible for safety of AET employees at the work site. The Client or other persons shall be responsible for the safety of all other persons at the site.

**SECTION 4 - SAMPLES**

**4.1** - Client is responsible for informing AET of any known or suspected hazardous materials prior to submittal to AET. All samples obtained by, or submitted to, AET remain the property of the Client during and after the work. Any known or suspected hazardous material samples will be returned to the Client at AET's discretion.

**4.2** - Non-hazardous samples will be held for 30 days and then discarded unless, within 30 days' of the report date, the Client provides a written request that AET store or ship the samples, at the Client's expense.

**SECTION 5 - PROJECT RECORDS**

The original project records prepared by AET will remain the property of AET. AET shall retain these original records for a period of three years following submission of the report, during which period the project records can be made available to Client at AET's office at reasonable times.

**SECTION 6 - STANDARD OF CARE**

AET will perform services consistent with the level of care and skill normally performed by other firms in the profession at the time of this service and in this geographic area, under similar budgetary constraints. No other warranty is implied or intended.

**SECTION 7 - INSURANCE**

AET carries Worker's Compensation, Comprehensive General Liability, Automobile Liability and Professional Liability insurance. AET will furnish certificates of insurance to Client upon request.

**SECTION 8 - DELAYS**

If AET work delays are caused by Client, work of others, strikes, natural causes, weather, or other items beyond AET's control, a reasonable time extension for performance of work shall be granted, and AET shall receive an equitable fee adjustment.

**SECTION 9 - PAYMENT, INTEREST AND BREACH**

9.1 - Invoices are due on receipt. Client will inform AET of invoice questions or disagreements within 15 days of invoice date; unless so informed, invoices are deemed correct.

BLS 7/14/05 9.2 - Client agrees to pay interest on unpaid invoice balances at a rate of 1.5% per month or the maximum allowed by law, whichever is less, beginning 30 days after invoice date.

9.3 - If any invoice remains unpaid for 60 days, such non-payment shall be a material breach of this agreement. As a result of such material breach, AET may, at its sole option, terminate all duties to the Client or other persons, without liability.

9.4 - Client will pay all AET collection expenses and attorney fees relating to past due fees which the Client owes under this agreement.

**SECTION 10 - MEDIATION**

BLS 7/14/05 10.1 - Client and AET agree that any claim, dispute or other matter in question arising out of or related to this Agreement shall be subject to mediation as a condition precedent to arbitration or the institution of legal or equitable proceedings by either party.

BLS 7/14/05 10.2 - Unless Client and AET mutually agree otherwise, mediation shall be in accordance with the Construction Industry Mediation Rules of the American Arbitration Association. Request for mediation shall be in writing and the parties shall share the mediator's fee and any filing fees equitably. The mediator shall be acceptable to both parties and shall have experience in commercial construction matters.

**SECTION 11 - LITIGATION REIMBURSEMENT**

BLS 7/14/05 Payment of AET costs for Client lawsuits against AET which are dismissed or are judged substantially in AET's favor will be the Client's responsibility. Applicable costs include, but are not limited to, attorney and expert witness fees, court costs, and AET costs.

**SECTION 12 - MUTUAL INDEMNIFICATION**

12.1 - AET agrees to hold harmless and indemnify Client from and against liability arising out of AET's negligent performance of the work, subject to Section 13 and any other limitations, other indemnifications or other provisions Client and AET have agreed to in writing.

12.2 - Client agrees to hold harmless and indemnify AET from and against liability arising out of Client's negligent conduct, subject to any limitations, other indemnifications or other provisions Client and AET have agreed to in writing.

12.3 - If Client has indemnity agreement with other persons, the Client shall include AET as a beneficiary.

**SECTION 13 - LIMITATION OF LIABILITY**

BLS 7/14/05 Client agrees to limit AET's liability to Client arising from negligent acts, errors or omissions, such that the total liability of AET shall not exceed \$10,000 or shall not exceed the project fees, whichever is greater. the limits of any insurance coverage

**SECTION 14 - TERMINATION**

After 7 days written notice, either party may elect to terminate work for justifiable reasons. In this event, the Client shall pay for all work performed, including demobilization and reporting costs to complete the file.

**SECTION 15 - SEVERABILITY**

Any provisions of this agreement later held to violate a law or regulation shall be deemed void, and all remaining provisions shall continue in force. However, Client and AET will in good faith attempt to replace an invalid or unenforceable provision with one that is valid and enforceable, and which comes as close as possible to expressing the intent of the original provision.

**SECTION 16 - GOVERNING LAW**

BLS 7/14/05 This Agreement shall be construed, and the rights of the parties shall be determined, in accordance with the Laws of the State of ~~North Dakota~~ South Dakota, 7th Judicial Circuit, Rapid City, Penn. Co.

**SECTION 17 - ENTIRE AGREEMENT**

This agreement, including attached appendices, is the entire agreement between AET and Client. This agreement nullifies any previous written or oral agreements, including purchase/work orders. Any modifications to this agreement must be in writing.

**SUBSURFACE BORING SUPPLEMENT  
TO TERMS AND CONDITIONS**

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Page 1 of 1

**SECTION 1 - UNDERGROUND UTILITY AND STRUCTURE CLEARANCE**

**1.1** - It is necessary that borings, excavations and other penetrations be located such that they maintain a minimum safe distance from underground utilities or other man-made objects. Client shall advise AET of all utilities that service or are located on the site, as well as any underground improvements located on the site. AET will contact state notification centers, where available, or individual utility owners where a state notification center is not available prior to drilling.

**1.2** - Public utility owners may not provide the locating service on private property. In such situations, the Client is responsible for location of such utilities prior to drilling.

**1.3** - The property owner may have private underground improvements which cannot be cleared through the state notification center or public utility owners. The Client is responsible for location of these improvements.

**1.4** - AET will not be responsible for any damages to "non-located" or incorrectly located underground utilities or other man-made improvements.

**SECTION 2 - SITE RESTORATION**

**2.1** - Client accepts that in the normal course of field exploration work, certain types of damage to the site may occur which are inherent with this type of work, such as tire indentations to lawns and landscape areas. It is the responsibility of AET to take reasonable precautions to minimize such damage. It is also AET's responsibility to patch boreholes placed through pavement or slab areas after performance of borings. Otherwise, restoration of the site is the responsibility of the client.

**SECTION 3 - CONTAMINATION**

**3.1** - Client acknowledges and accepts that unavoidable contamination risks may be associated with AET's subsurface drilling, sampling and installation of monitoring devices. Risks include, but are not limited to, cross contamination created by linking contaminated zones to uncontaminated zones during the drilling process; containment and proper disposal of known or suspected hazardous materials, drill cuttings and drill fluids; and decontamination of equipment and disposal and replacement of contaminated consumables. Client and AET agree that the discovery of unanticipated actual or suspected hazardous materials may make it necessary for AET to take immediate measures, including regulatory notification, to protect human health and safety, and/or the environment. Client and AET also agree that the discovery of such materials constitutes a changed condition which may result in added costs to the Client, and may require a renegotiation of work scope or termination of services.

**3.2** - Pursuant to risks set forth in Section 3.1, which are inherent with AET's work performed on the Client's behalf, Client agrees to hold harmless and indemnify AET from and against liability associated with contamination resulting therefrom.

**SECTION 4 - LOST EQUIPMENT**

Equipment lost in bore holes may be required to be retrieved or properly abandoned by government agencies. Client agrees to pay AET all costs related to retrieving and/or abandoning such equipment at AET fee schedule rates, unless agreed otherwise.

**SECTION 5 - LIMITATIONS OF SUBSURFACE EXPLORATION**

Client recognizes that unavoidable risks occur whenever engineering or related disciplines are applied to identify subsurface conditions. Variations in soil conditions usually occur between and beyond sampled/tested locations. Even a comprehensive sampling and testing program performed in accordance with a professional standard of care may fail to detect certain conditions, because the variability of conditions cannot be seen. For similar reasons, actual environmental, geologic and geotechnical conditions that AET characterizes to exist between sampling points may differ significantly from those that actually exist. The passage of time also must be considered, and Client recognizes that, due to natural occurrences or direct or indirect human activities at the site or distant from it, actual conditions discovered may change. Client recognizes that nothing can be done to eliminate the risks associated with these limitations.