


# Memorandum

**To:** Ted Vore, Director, Public Works  
**CC:** AET Contract file 2005  
**From:** Jerry Wright, Superintendent, Solid Waste Operations  
**Date:** 12/2/2004  
**Re:** **2005** Renewal of contract with American Engineering Testing Inc.



Please find attached the renewal of the American Engineering Testing, Inc. contract for the budget year 2005. AET was selected to begin the environmental testing in 2002 on a five year span, contract renewable on an annual basis. They were selected after a consultant selection process at that time. The intent of the five year program was to obtain, from one firm and laboratory, a five year series of testing data. This is essential in being able to detect trends, and similar items. After the five year period of time is over, I anticipate in reviewing and conducting another set of interviews with environmental firms. The contract is \$57,415.30 and the paying departments are budgeted for environmental testing as follows:

Department	Line item	Budget
7102 Landfill	4225	\$45,000
7103 MRF	4225	\$50,000
Total		\$95,000

If you would place on the next available Public Works Committee meeting agenda I would appreciate it very much. If you have any questions, please give me a call.

**COPY**



AMERICAN  
ENGINEERING  
TESTING, INC.

COPY

CONSULTANTS  
• GEOTECHNICAL  
• MATERIALS  
• ENVIRONMENTAL

November 22, 2004

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

Subject: Proposal For Sampling, Analysis, and Reporting  
Related to 2005 Environmental Monitoring and Soils Testing  
Rapid City Landfill  
Rapid City, South Dakota

Dear Mr. Wright:

American Engineering Testing, Inc. (AET) is pleased to provide this proposal for Contract Renewal for Sampling, Analysis and Reporting Related to Environmental Monitoring at the Rapid City Landfill for the year 2005. As requested, costs for observation and testing of soils, quarterly methane monitoring, and additional analysis for yard waste have been included in this proposal.

As per your request, I have attached the following documents required to initiate the contract renewal.

- A contract authorization for services in 2005. 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 purpose and work scope for the 2005 monitoring plan to include additional work scope for quarterly field screening and reporting for methane from twelve permanent methane monitoring wells, and soils testing. As we understand it, there will be no other significant changes from the 2004 monitoring plan.
- An estimate of costs to perform the services as required in the work scope.
- A copy of AET's "General Terms and Conditions."
- A Certificate of Liability Insurance naming the City of Rapid City as additional insured.

*Proposal for Sampling, Analysis and Reporting  
Related to 2005 Environmental Monitoring  
Rapid City Landfill, Rapid City, South Dakota*

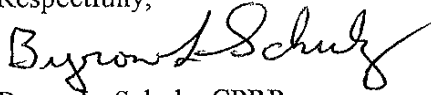
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*November 22, 2004*

Thank you for considering AET to provide professional services to the Rapid City Landfill for the year 2005.

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

November 22, 2004

**PROPOSAL FOR SAMPLING, ANALYSIS, AND REPORTING  
RELATED TO 2005 ENVIRONMENTAL MONITORING  
RAPID CITY LANDFILL  
RAPID CITY, SOUTH DAKOTA**

November 22, 2004

**AUTHORIZATION**

**FOR THE CLIENT:**

Client: City of Rapid City, Rapid City Landfill

Authorized Signature: \_\_\_\_\_ /

Typed Name: Jim Shaw ATTEST: James Preston

Title: Mayor Finance Officer

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

(SEAL)

**ACCEPTANCE**

**FOR AMERICAN ENGINEERING TESTING, INC:**

Authorized Signature: Byron L. Schulz

Typed Name: Byron L. Schulz

Title: Project Manager

Date: 11/24/04

BLS

APPROVED AS TO FORM  
CITY ATTORNEY'S OFFICE

Paul [Signature] 12-8-04  
Attorney Date

### **PURPOSE AND SCOPE OF WORK TO BE PERFORMED**

The purpose of our work on the project will be to assist the City of Rapid City in Compliance with the Administrative Rules of South Dakota and Environmental Protection Agency regulations specified in 40 CFR Parts 257 and 258, "Solid Waste Disposal Facility Criteria," October 9, 1991, and 40 CFR Part 503, "Standards for the Use or Disposal of Sewage Sludge"

In order to accomplish the above purpose we propose to provide professional services to the City of Rapid City in the form of labor, equipment, supplies, insurance, and other necessary work components necessary to perform the following tasks for Rapid City's Solid Waste Operations Division:

1. Field sampling surface water discharges, wastewater discharges and groundwater monitoring wells;
2. Laboratory analysis of surface water samples, wastewater samples, groundwater samples, petroleum contaminated soil samples, yard waste compost samples and municipal solid waste/biosolids co-compost samples; and
3. Evaluation of the groundwater statistical baseline data and completion of the annual groundwater monitoring report.
4. Field screening of permanent methane monitoring wells.
5. Environmental evaluation of test results for municipal solid waste/biosolids co-compost sampling for compliance with 40 CFR Part 503.

### **Anticipated Work Items**

#### ***Surface Water:***

1. Providing qualified personnel for surface water discharge sampling with a minimum of one-hour notice. This is estimated to occur eight times per year during high precipitation months.
2. Picking up prepared sample bottles, trip blanks, etc. from state-certified lab and returning all to lab upon completion of sampling with a properly completed chain-of-custody.
3. Grab samples to be collected weekly during discharge from Outfall 001. Analytes include: TSS, pH, BOD<sub>5</sub>, cd, cu, pb, hg, zn, as, crIII, crVI, se, ag, hardness, phenol, toluene, ammonia, DO, and temperature.
4. Grab samples to be collected three times during the first week of the discharge and once per week thereafter from Outfall 002. Analytes include: pb, TSS, pH, BTEX, Naphthalene and hardness.
5. Sampling for whole effluent toxicity testing on Outfall 002 quarterly during a discharge. This is a two species test consisting of five dilutions and a control. *For the*

*purposes of this proposal we have budgeted for two whole effluent toxicity tests per year.*

6. Measuring field pH and temperature at time of sampling. Temperature will be measured with a thermistor, a mercury-filled, or dial type thermometer. Readings will be recorded to the nearest whole degree Celsius. The date and time will be recorded on field logs and chain-of-custody.
7. pH will be taken within 15 minutes of sample collection with a pH meter. The pH meter will be read to .01 SU, be equipped with a temperature compensation adjustment, and be capable of simultaneous calibration to two points on the pH scale bracketing the expected pH.
8. If a visual sheen is observed during sampling, a grab sample for TPH will be taken. This applies to Outfalls 001 & 002. If no sheen is present, a TPH sample is not required. *For the purposes of this proposal we have not budgeted for TPH analysis of Outfalls 1 and 2. However, a unit rate for the analysis has been provided, should it be required.*
9. Metals analysis will be performed on a "Total Recoverable" basis and hardness will be measured in the laboratory.
10. Analytical results will be reported to the Rapid City Landfill, 300 6<sup>th</sup> Street, Rapid City, SD 57701.
11. Copies of the field logs, including visual observations and field measurements, will be forwarded to the Rapid City Landfill, 300 6<sup>th</sup> Street, Rapid City, SD 57701 within 72 hours of the sampling event.

**Wastewater:**

1. Providing qualified personnel for required wastewater testing with a minimum of two hours notice of a discharge. This is estimated to occur 15 times per year. Occurrence may increase with greater precipitation or future operational changes.
2. Picking up prepared sample bottles, trip blanks, etc. from state-certified lab and returning all to lab upon completion of sampling with a properly completed chain-of-custody.
3. Grab samples to be collected once per batch discharge from aerated leachate pond. Analytes include: total as, cd, cr, crVI, cu, pb, hg, ni, se, ag, zn, O&G, BOD, TSS, field pH, and temperature. Batch discharges are usually complete within 12 hours of start.
4. Field pH will be taken within 10 minutes after sample collection.
5. Analytical results will be reported in mg/l, except for pH in standard units. Analysis will include the date of analysis, the analyst's initials, and a list of analysis method numbers used, as approved by 40 CFR 136.
6. Notifying Landfill personnel immediately if field pH readings are 5.0 SU or less.

7. Analysis results will be reported to the Rapid City Landfill, 300 6th Street, Rapid City, SD 57701 in the units listed under number 5 of this section,
8. Copies of the field logs, including visual observations and field measurements, will be forwarded to the Rapid City Landfill, 300 6th Street, Rapid City, SD 57701 within 72 hours of the sampling event.

**Petroleum Contaminated Soils:**

1. Analyze soil samples for total petroleum hydrocarbons. Samples may contain gasoline, diesel, JP4 or JP8. There are estimated to be 24 samples per year for analysis.
2. Forward results to the Rapid City Landfill, 300 6th Street Rapid City, SD 57701.
3. Fax results upon request by the landfill.

**Groundwater:**

1. Providing qualified personnel for semi-annual groundwater monitoring.
2. Picking up prepared sample bottles, trip blanks, etc. from a state-certified lab and returning all to lab upon completion of sampling with a properly completed chain-of-custody.
3. Utilizing all appropriate QA/QC practices for field sampling of groundwater.
4. Measuring groundwater elevations prior to purging wells. *Groundwater elevations will be measured semi-annually, during April and October, on the 17 wells which have been previously measured to obtain data for inferred groundwater contours.*
5. Collecting samples from each well with a disposable bailer.
6. Sampling wells 1-8-19 cdd2, 1-8-19ddd1, 1-8-19ddd2, 1-8-19dab1, 1-8-19dab2, 1-8-19cab1 and 1-8-19da2 semi-annually, during April and October, for 40 CFR Part 258, Appendix I VOCs and metals (filtered and unfiltered), and indicator parameters (iron, total organic carbon, chloride, manganese, sulfate, biological oxygen demand, chemical oxygen demand, ammonia, field pH, field temperature, and field conductivity). *It should be noted that 1-8-19 cdd2, 1-8-19ddd2 and 1-8-19 dab2 will likely contain inadequate quantities of groundwater to facilitate sampling for the above parameters; however, 1-8-19ddd2 will be sampled for Appendix I VOC's if it contains sufficient quantities of groundwater to facilitate sampling for this parameter. For the purposes of this proposal we have budgeted for the sampling of the above seven wells during the April and October sampling events.*
7. Sampling wells 1-8-19dd and 1-8-19dc semi-annually, during April and October, for 40 CFR Part 258 Appendix I VOCs only (no metals) and indicator parameters.
8. Sampling wells 1-8-19da1, 1-8-19ad2 and 1-8-19ad1 annually, during October, for 40CFR Part 258, Appendix I VOCs (no metals) and semi-annually, during April and October, for indicator parameters.
9. Sampling well 1-8-19ca2 annually during October for 40CFR Part 258, Appendix I

- VOCs (no metals) and annually, during October, for indicator parameters.
10. Completing an annual report summarizing and evaluating the groundwater monitoring data for the year 2004. This report will be completed and submitted to the City of Rapid City Landfill no later than February 15, 2005. This report will discuss the applicable items in 40 CFR Part 258.53, Sections a through i. It will contain all field logs. Upon review and approval by the Landfill, three final copies will be submitted to the Rapid City Landfill, 300 6th Street, Rapid City, SD 57701
  11. Arranging and facilitating an annual meeting, during the first two weeks of November in 2005, with City of Rapid City Landfill representatives, appropriate AET staff and subcontractors. This meeting will evaluate the previous year's overall performance, evaluate tasks, propose new tasks, as necessary and summarize revisions to the contract for 2006.
  12. Electronic files related to the groundwater monitoring statistical analysis and annual report shall be maintained and provided to the City of Rapid City upon request.

***Yard Waste Compost Samples:***

1. Analyze yard waste compost samples for carbon to nitrogen ratio. There are estimated to be 60 samples per year for analysis. Sample collection and transport to laboratory will be done by landfill personnel.
2. Analyze yard waste compost samples, four 3/8 inch and four 3/4 inch per year for pH, total soluble salts (conductivity), nutrient content (total N, P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O, Ca, Mg), moisture content, organic matter content, maturity (respiration rate) and stability (germination rate). Fecal coliform and trace metals (As, Cd, Cr, Cu, Pb, Hg, Mo, Ni, Se and Zn) must be analyzed for once every six months on each product.
3. Fax preliminary results to the Rapid City Landfill within 15 days of sample receipt (fax 394-6843).
4. Forward final results to the Rapid City Landfill, 300 6th Street, Rapid City, SD 57701.

***Municipal Solid Waste/Biosolids Co-compost Samples:***

1. Analyze co-compost samples for fecal coliform (MPN/g of total dry solids), carbon-to-nitrogen ratio (CN) and trace metals (As, Cd, Cr, Cu, Pb, Hg, Ni, Se and Zn). There will be an estimated 25 samples taken during the first six months of operation. After the first six months, this sampling may be dropped. Sample collection and transport to laboratory will be done by MRF or wastewater personnel. Purpose of samples is to follow process from the Dano discharge conveyor, to mid-bay, to end of primary. Sample collection rate is once per 14 days. All samples are to be composited.
2. Analyze one co-compost sample for dioxin on or about September first. Sample



3. must be collected from the secondary building prior to refining  
Analyze for fecal coliform after refining, 14 days before release to public. Seven grab samples will be taken, one every two days. The result will be the arithmetic mean of these seven samples. Approximately 100 samples will be analyzed for fecal coliform.
4. Analyze composite sample for specific oxygen uptake rate (SOUR - mg of oxygen per hour per gram of total solids (dry weight basis)) at the time the seventh fecal coliform grab is taken. About 15 samples will be analyzed for SOUR annually
5. Analysis of co-compost after refining for compost council standards (pH, soluble salts (conductivity), total N, P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O, Ca, Mg, moisture content, maturity, stability, carbon-to-nitrogen ratio (ammonia, total Kjehldahl) and trace metals ((As, Cd, Cr, Cu, Pb, Hg, Ni, Se and Zn)
6. Analysis of co-compost after refining for salmonella. Up to 20 samples will be analyzed for salmonella annually.
7. Forward two copies of all final results. One copy to the Rapid City Landfill, Attn: Jerry Wright, 300 6<sup>th</sup> Street, Rapid City, SD 57701 and the second copy to Rapid City Water Reclamation, Attn: Bob Druckery, 300 6<sup>th</sup> Street, Rapid City, SD 57701 .

***Quarterly Methane Monitoring:***

1. Providing qualified personnel and equipment for field screening for methane from existing permanent methane monitoring wells.
2. Copies of the field logs, including visual observations and field measurements, will be forwarded to the Rapid City Landfill, 300 6th Street, Rapid City, SD 57701 within 5 working days of the monitoring event.
3. Submitting an annual letter report summarizing the results of the above activities.

***Environmental Evaluation of Municipal Solid Waste/Biosolids Co-compost Sampling:***

1. Review analytical results from co-compost sampling for compliance with 40 CFR, Part 503.
2. Submitting a letter report summarizing the results of the above review.

***Observation and Testing of Soils:***

1. Providing qualified personnel and equipment to perform permeability, proctor, gradation and atterberg limits testing, as requested.
2. Reporting results of above tests within five working days of the test completion date.

**SAMPLING, ANALYSIS<sup>1</sup> AND REPORTING RELATED TO ENVIRONMENTAL MONITORING-RC LANDFILL (2005)**

*Subcontractor-Energy Labs*

**SURFACE WATER (Outfall 001 and Outfall 002)**

**Surface Water- Outfall 001 (8 events)**

Preparation, Loading/Unloading	1	hours	@ \$	50.00	= \$	50.00
Pickup Mileage	13	miles	@ \$	0.45	= \$	5.85
Travel Time	0.75	hours	@ \$	50.00	= \$	37.50
Site Time	1	hours	@ \$	50.00	= \$	50.00
Sample Prep. (pickup/return samples to lab)	0.25	hours	@ \$	50.00	= \$	12.50
Sampling Equipment (gloves, ice)	1	events	@ \$	5.00	= \$	5.00
Equipment rental (pH/temp)	1	events	@ \$	25.00	= \$	25.00
Reporting	1	hours	@ \$	60.00	= \$	60.00
Project Management	0.5	hours	@ \$	65.00	= \$	32.50
Laboratory Services <sup>2</sup>						
As, Cd, Cr, Cu, Pb, Hg, Se, Ag, Zn, Ammonia, CrIII, CrVI, Hardness, BOD, DO, pH, Phenol, TSS, Toluene, TPH	1	samples	@ \$	310.00	= \$	310.00
Chemistry Markup (includes invoice processing fee, interest on fees paid)					= \$	15.50

**SUB TOTAL - Surface Water-Outfall 001 Per Event**

**\$ 603.85**

**TOTAL - Surface Water-Outfall 001 (8 events)**

**\$ 4,830.80**

**Surface Water- Outfall 002 (3 events, 2 of which are combined w/ Outfall 001)**

Preparation, Loading/Unloading	1	hours	@ \$	50.00	= \$	50.00
Pickup Mileage	13	miles	@ \$	0.45	= \$	5.85
Travel Time	0.5	hours	@ \$	50.00	= \$	25.00
Site Time	0.75	hours	@ \$	50.00	= \$	37.50
Sample Prep. (pickup/return samples to lab)	0.25	hours	@ \$	50.00	= \$	12.50
Sampling Equipment (gloves, ice)	1	events	@ \$	5.00	= \$	5.00
Equipment rental (pH/temp)	1	events	@ \$	25.00	= \$	25.00
Reporting	1	hours	@ \$	60.00	= \$	60.00
Project Management	0.5	hours	@ \$	65.00	= \$	32.50

**SUB TOTAL - Surface Water-Outfall 002 Per Event**

**\$ 253.35**

Laboratory Services<sup>2</sup>

TSS, Pb, Hardness, BTEX & Naph	3	samples	@ \$	120.00	= \$	360.00
Whole Effluent Toxicity (estimate 2 samples per year) <sup>3</sup>	2	samples	@ \$	700.00	= \$	1,400.00
Chemistry Markup (includes invoice processing fee, interest on fees paid)					= \$	88.00

**SUB TOTAL - Laboratory Services - Outfall 002 Per Year**

**\$ 1,848.00**

**TOTAL - Surface Water-Outfall 002 (3 events)**

**\$ 2,608.05**

**WASTE WATER (15 events)**

Preparation, Loading/Unloading	1	hours	@ \$	50.00	= \$	50.00
Pickup Mileage	13	miles	@ \$	0.45	= \$	5.85
Travel Time	0.75	hours	@ \$	50.00	= \$	37.50
Site Time	1	hours	@ \$	50.00	= \$	50.00
Sample Prep. (pickup/return samples to lab)	0.25	hours	@ \$	50.00	= \$	12.50
Sampling Equipment (gloves, ice)	1	events	@ \$	5.00	= \$	5.00
Equipment rental (pH/temp)	1	events	@ \$	25.00	= \$	25.00
Reporting	1	hours	@ \$	60.00	= \$	60.00
Project Management	0.5	hours	@ \$	65.00	= \$	32.50

Laboratory Services

As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Ag, Zn, CrVI, O & G, BOD, TSS	1	samples	@ \$	197.00	= \$	197.00
Chemistry Markup (includes invoice processing fee, interest on fees paid)					= \$	9.85

**SUB TOTAL - Waste Water- Per Event**

**\$ 485.20**

**TOTAL - Waste Water(15 events)**

**\$ 7,278.00**

**GROUND WATER (April/October events, annual report and meeting)****Semi-Annual Event (April)**

Preparation, Loading/Unloading (two-man crew)	1	hours	@ \$	100.00	= \$	100.00
Pickup Mileage	13	miles	@ \$	0.45	= \$	5.85
Travel Time (two man crew)	1	hours	@ \$	100.00	= \$	100.00
Site Time (two man crew)	8	hours	@ \$	100.00	= \$	800.00
Sample Prep. (pickup/return samples to lab)	0.5	hours	@ \$	50.00	= \$	25.00
Sampling Equipment (gloves, ice, bailers)	13	samples	@ \$	10.00	= \$	130.00
Equipment rental (pH/temp/conductivity, interface probe)	1	events	@ \$	50.00	= \$	50.00
Project Management	1	hours	@ \$	65.00	= \$	65.00
Laboratory Services						
(App. 1 Filtered & Unfiltered Metals & VOCs, TOC, Cl, SO <sub>4</sub> , BOD, COD, ammonia) <sup>4</sup>	7	samples	@ \$	461.00	= \$	3,227.00
(App. 1 VOCs, TOC, Cl, SO <sub>4</sub> , BOD, COD, ammonia, dissolved Fe & Mn) <sup>5</sup>	2	samples	@ \$	216.00	= \$	432.00
(TOC, Cl, SO <sub>4</sub> , BOD, COD, ammonia, dissolved Fe & Mn) <sup>6</sup>	3	samples	@ \$	111.00	= \$	333.00
Equipment Blank, VOCs	1	samples	@ \$	0.00	= \$	0.00
Chemistry Markup (includes invoice processing fee, interest on fees paid)					= \$	199.60

**SUB TOTAL - Semi Annual Event (April)****\$ 5,467.45****Semi-Annual Event (October)**

Preparation, Loading/Unloading (two-man crew)	1	hours	@ \$	100.00	= \$	100.00
Pickup Mileage	13	miles	@ \$	0.45	= \$	5.85
Travel Time (two man crew)	1	hours	@ \$	100.00	= \$	100.00
Site Time (two man crew)	8	hours	@ \$	100.00	= \$	800.00
Sample Prep. (pickup/return samples to lab)	0.5	hours	@ \$	50.00	= \$	25.00
Sampling Equipment (gloves, ice, bailers)	13	samples	@ \$	10.00	= \$	130.00
Equipment rental (pH/temp/conductivity, interface probe)	1	events	@ \$	50.00	= \$	50.00
Project Management	1	hours	@ \$	65.00	= \$	65.00
Laboratory Services						
(App. 1 Filtered & Unfiltered Metals & VOCs, TOC, Cl, SO <sub>4</sub> , BOD, COD, ammonia) <sup>4</sup>	7	samples	@ \$	461.00	= \$	3,227.00
(App. 1 VOCs, TOC, Cl, SO <sub>4</sub> , BOD, COD, ammonia, dissolved Fe & Mn) <sup>7</sup>	6	samples	@ \$	216.00	= \$	1,296.00
Equipment Blank, VOCs	1	samples	@ \$	0.00	= \$	0.00
Chemistry Markup (includes invoice processing fee, interest on fees paid)					= \$	226.15

**SUB TOTAL - Semi Annual Event (October)****\$ 6,025.00****Annual Report and Meeting**

Report Preparation (annual report with statistical analysis)

Project Manager	4	hours	@ \$	65.00	= \$	260.00
Staff Professional (annual report)	32	hours	@ \$	60.00	= \$	1,920.00
Staff Professional (statistical analysis)	16	hours	@ \$	60.00	= \$	960.00
Draftsperson	3	hours	@ \$	40.00	= \$	120.00
Clerical	2	hours	@ \$	30.00	= \$	60.00
Senior Review	2	hours	@ \$	85.00	= \$	170.00

Annual Meeting

Project Manager (arrange and coordinate meeting)	1	hours	@ \$	65.00	= \$	65.00
Project Manager (attend meeting)	2	hours	@ \$	65.00	= \$	130.00
Staff Professional (attend meeting)	2	hours	@ \$	60.00	= \$	120.00

**SUB TOTAL - Annual Report and Meeting****\$ 3,805.00****TOTAL - Groundwater - Apr/Oct events, Annual Report and Meeting****\$ 15,297.45****PETROLEUM CONTAMINATED SOILS**

Laboratory analysis (TPH-G,BTEX,MTBE,Naph or TPH-FO,Naph)	1	samples	@ \$	65.00	= \$	65.00
Chemistry Markup (includes invoice processing fee, interest on fees paid)					= \$	3.25

**SUB TOTAL - Petroleum Contaminated Soils -Per Sample****\$ 68.25****TOTAL - Petroleum Contaminated Soils (24 samples)****\$ 1,638.00**

**YARD WASTE COMPOST SAMPLES**

## Laboratory Services

C-N Ratio	60	samples	@	\$ 35.00	=	\$ 2,100.00
pH, cond., total N, P <sub>2</sub> O <sub>5</sub> , K <sub>2</sub> O, Ca, Mg, Moisture/Org. matter, resp/germ. rate	8	samples	@	\$ 235.00	=	\$ 1,880.00
Fecal coliform and Trace Metals(As,Cd,Cr,Cu, Pb, Hg, Ni, Se, Zn)	4	samples	@	\$ 132.00	=	\$ 528.00
Chemistry Markup (includes invoice processing fee, interest on fees paid)					=	\$ 225.40

**TOTAL - Yard Waste Compost Samples****\$ 4,733.40****ADDITIONAL ANALYSIS YARD WASTE**

## Laboratory Services

Total Metals Digestion	1	samples	@	\$ 10.00	=	\$ 10.00
Bacteria, Fecal Coliform	1	samples	@	\$ 15.00	=	\$ 15.00
Herbicides, Chlorinated	1	samples	@	\$ 200.00	=	\$ 200.00
NaHCO <sub>3</sub> Soil Extract (P-Olsen prep)	1	samples	@	\$ 0.00	=	\$ 0.00
NH <sub>4</sub> AC Soil Extraction (Potassium prep)	1	samples	@	\$ 5.00	=	\$ 5.00
pH	1	samples	@	\$ 10.00	=	\$ 10.00
Phosphorous-Olsen	1	samples	@	\$ 7.50	=	\$ 7.50
Digestion, Total Metals (prep included in original landfill bid)	1	samples	@	\$ 0.00	=	\$ 0.00
Metals, Available (Potassium)	1	samples	@	\$ 10.00	=	\$ 10.00
Metals, Total by ICP (add metals Ca, Cu, Mg, Mo, Ni, Se, Zn)	1	samples	@	\$ 70.00	=	\$ 70.00
Solids Content	1	samples	@	\$ 5.00	=	\$ 5.00
TCLP Extraction, Non-volatiles	1	samples	@	\$ 75.00	=	\$ 75.00
TCLP Metals by ICP (lead)	1	samples	@	\$ 10.00	=	\$ 10.00
Chemistry Markup (includes invoice processing fee, interest on fees paid)					=	\$ 20.88

**SUB TOTAL - Petroleum Contaminated Soils -Per Suite****\$ 438.38****TOTAL - Additional Analysis Yard Waste ( 4 suites)****\$ 1,753.50****MUNICIPAL SOLID WASTE/BIOSOLIDS CO-COMPOST SAMPLES**

## Laboratory Services

Fecal coliform, C-N Ratio and Trace Metals(As,Cd,Cr,Cu, Pb, Hg, Ni, Se, Zn)	25	samples	@	\$ 167.00	=	\$ 4,175.00
Dioxin	1	samples	@	\$ 625.00	=	\$ 625.00
Fecal Coliform (after refining)	100	samples	@	\$ 25.00	=	\$ 2,500.00
Specific O <sub>2</sub> Uptake Rate (SOUR)	15	samples	@	\$ 50.00	=	\$ 750.00
pH, cond., total N, P <sub>2</sub> O <sub>5</sub> , K <sub>2</sub> O, Ca, Mg, Moisture, Maturity, C-N Ratio, Trace Metals	12	samples	@	\$ 347.00	=	\$ 4,164.00
Salmonella	20	samples	@	\$ 100.00	=	\$ 2,000.00
Chemistry Markup (includes invoice processing fee, interest on fees paid)					=	\$ 710.70

**TOTAL - Municipal Solid Waste/Biosolids Co-Compost Samples****\$ 14,924.70****QUARTERLY METHANE MONITORING (2004 Permanent Methane Wells)****Four Quarterly Events (Field Screening for Methane)**

Preparation, Loading/Unloading	4	hours	@	\$ 50.00	=	\$ 200.00
Pickup Mileage	52	miles	@	\$ 0.45	=	\$ 23.40
Travel Time	4	hours	@	\$ 50.00	=	\$ 200.00
Site Time	12	hours	@	\$ 50.00	=	\$ 600.00
Equipment rental (Combustible Gas Indicator)	4	events	@	\$ 50.00	=	\$ 200.00
Reporting	8	hours	@	\$ 60.00	=	\$ 480.00
Project Management	2	hours	@	\$ 65.00	=	\$ 130.00

**TOTAL - Municipal Solid Waste/Biosolids Co-Compost Samples****\$ 1,833.40****ENVIRONMENTAL EVALUATION OF MSW BIOSOLIDS CO-COMPOST TEST RESULTS FOR COMPLIANCE WITH 503 REGULATIONS**

Data Review	8	hours	@	\$ 60.00	=	\$ 480.00
Reporting	4	hours	@	\$ 60.00	=	\$ 240.00

**TOTAL - Municipal Solid Waste/Biosolids Co-Compost 503 Compliance Review****\$ 720.00**

**OBSERVATION AND TESTING OF SOILS**

Permeability Tests	3	tests	@	\$	150.00	=	\$	450.00
Proctor Tests	3	tests	@	\$	125.00	=	\$	375.00
Gradation Tests	3	hours	@	\$	60.00	=	\$	180.00
Atterberg Limits	3	tests	@	\$	60.00	=	\$	180.00
Field Technician	8	hours	@	\$	44.00	=	\$	352.00
Reporting	3	hours	@	\$	36.00	=	\$	108.00
Project Management	2	hours	@	\$	76.50	=	\$	153.00
<b>TOTAL - Observation and Testing of Soils</b>							<b>\$</b>	<b>1,798.00</b>

**TOTAL COST** **\$ 57,415.30**

<sup>1</sup> Analytical services by Energy Laboratories.

<sup>2</sup> Analytical cost for TPH analysis @ \$45.00/sample (if sheen is present) is not included in estimate.

<sup>3</sup> Analysis will be subcontracted by Energy Labs to BC Laboratories, Inc. of Tempe, AZ.

<sup>4</sup> Sampling @ wells 1-8-19cdd2, ddd1, ddd2, dab1, dab2, cab1 and da2 (cdd2, ddd2 and dab2 will likely not have enough H<sub>2</sub>O to sample).

<sup>5</sup> Sampling @ wells 1-8-19dc and dd.

<sup>6</sup> Sampling @ wells 1-8-19da1, ad2, and ad1

<sup>7</sup> Sampling @ wells 1-8-19dc, dd, da1, ad2, ca2 and ad1

# ACORD CERTIFICATE OF LIABILITY INSURANCE

CSR AT  
AMERI-1

DATE (MM/DD/YYYY)  
11/19/04

<b>PRODUCER</b> St Paul Agency Inc 245 E Roselawn Ave Ste 31 St Paul MN 55117-1943 Phone: 651-488-0789 Fax: 651-488-0989		RECEIVED NOV 22 2004 BY: <i>CAH</i>	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
<b>INSURED</b> AMERICAN CONSULTING SERVICES INC/AMERICAN ENGINEERING TESTING INC/AM PETROGRAPHIC INC/AM EQUIPMENT LEASING INC 550 Cleveland Ave N St Paul MN 55114-1804			<b>INSURERS AFFORDING COVERAGE</b>	<b>NAIC #</b>
		INSURER A:	ST PAUL TRAVELERS	24775
		INSURER B:		
		INSURER C:		
		INSURER D:		
		INSURER E:		

## COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS

INSR ADD'L LTR	INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A		GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	P630539K8896TIL05	01/01/04	01/01/05	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 100000
						MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	\$ 50000 \$ 5000 \$ 1000000 \$ 1000000 \$ 1000000
A		AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	P810797K9140TIL05	01/01/04	01/01/05	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	\$ 1000000 \$ \$ \$
		GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY. EA ACC AGG	\$ \$ \$
		EXCESS/UMBRELLA LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE DEDUCTIBLE RETENTION \$				EACH OCCURRENCE AGGREGATE	\$ \$ \$ \$
A		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	POUB709K909305 MN/WI/SD/FL	01/01/04	01/01/05	WC STATU-TORY LIMITS OTH-ER E L EACH ACCIDENT E L DISEASE - EA EMPLOYEE E L DISEASE - POLICY LIMIT	\$ 100000 \$ 100000 \$ 500000
		OTHER					

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

## CERTIFICATE HOLDER

## CANCELLATION

CITY OF RAPID CITY 300 6TH ST RAPID CITY SD 57701	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL <u>30</u> DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES. AUTHORIZED REPRESENTATIVE
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*[Handwritten Signature]*

**AMERICAN ENGINEERING TESTING, INC.**  
**SERVICE AGREEMENT**  
**TERMS AND CONDITIONS**

**SECTION 1 - RESPONSIBILITIES**

1.1 - The party to whom the proposal/contract is addressed is the Client of American Engineering Testing, Inc (AET).

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. Also, 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 will not be responsible for directing or supervising the work of others, unless specifically authorized in writing.

1.4 - Work by AET often includes sampling at specific locations. Inherent with such sampling is variation 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 person.

1.6 - Should changed conditions be alleged, Client agrees to notify AET before evidence of 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 project records prepared by AET will remain the property of AET. AET shall retain these records for a period of three years following submission of the report, during which period the project records can be made available to the 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, Property Damage 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.

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 - LITIGATION REIMBURSEMENT**

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 11 - MUTUAL INDEMNIFICATION**

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

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

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

## **SECTION 12 - LIMITATION OF LIABILITY**

Client agrees to limit AET's liability to Client arising from professional acts, errors or omissions, such that the total aggregate liability of AET shall not exceed AET's project fee.

## **SECTION 13 - TERMINATION**

After seven 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 14 - SEVERABILITY**

Any 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 15 - 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.