



Daniel B. Stephens & Associates, Inc.

Summary of Tests Performed

Laboratory Sample Number	Initial Soil Properties ¹ (θ , ρ_d , ϕ)	Saturated Hydraulic Conductivity ²		Moisture Characteristics ³				Unsaturated Hydraulic Conductivity	Particle Size ⁴			Effective Porosity	Particle Density	Air Permeability	1/3, 15 Bar Water Holding Capacity	Atterberg Limits	Proctor Compaction
		CH	FH	HC	PP	TH	WP		RH	DS	WS						
RE16-98-0100	X		X	X	X	X	X	X									
RE16-98-0101	X		X	X	X	X	X	X									
RE16-98-0102	X	X		X	X	X	X	X									
RE16-98-0103	X		X	X	X	X	X	X									
RE16-98-0104	X		X	X	X	X	X	X									
RE16-98-0105	X		X	X	X	X	X	X									
RE16-98-0106	X	X		X	X	X	X	X									
RE16-98-0107	X		X	X	X	X	X	X									
RE16-98-0108	X		X	X	X	X	X	X									

¹ θ = Initial moisture content, ρ_d = Dry bulk density, ϕ = Calculated porosity

² CH = Constant head, FH = falling head

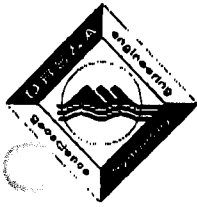
³ HC = Hanging column, PP = Pressure plate, TH = Thermocouple psychrometer, WP = Water activity meter, RH = Relative humidity box

⁴ DS = Dry sieve, WS = Wet sieve, H = Hydrometer

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Daniel B. Stephens & Associates, Inc.

Invoice

Daniel B. Stephens & Associates, Inc. Hydrologic Testing and Research Laboratory

Invoice To: Accounts Payable
Los Alamos National Laboratory
TA 3 Bldg 271 DP O1U
Los Alamos, NM 87545

Remit To: Daniel B. Stephens & Associates, Inc.
Attn: Accounts Receivable
P.O. Box 565
Albuquerque, NM 87103
(505) 822-9400

Invoice No.: 989095
Invoice Date: January 20, 1999
Terms: Net 30 days
Project No.: 8844.01
Reference: G50250018
Services For: October - January

Hours or Quantity	Description of Articles Provided or Services Performed	Unit	Unit Price	Sales Amount
9	Hydraulic Properties Package, including: <ul style="list-style-type: none">• Sample preparation• Initial volumetric moisture content• Dry bulk density• Calculated total porosity• Saturated hydraulic conductivity• Moisture characteristics (7 pts.)• Calculated unsaturated hydraulic conductivity	Test	\$550/test	\$4,950.00
18	Sample Preparation	Hour	\$50/hr	\$900.00
			Subtotal	\$5,850.00
			Gross Receipts Tax (5.8125%)	\$340.03
			Total Amount Due This Invoice	<u>\$6,190.03</u>

Approved by: _____