

November 22, 1994

Ms. Caroline Kwan, Project Manager
USEPA Region II
26 Federal Plaza, Room 737
New York, NY 10278

Re: Sampling Procedures and Waste-Classification Analytical Results of Drill Cuttings, Tutu Wells Site, St. Thomas, U.S. Virgin Islands

Dear Ms. Kwan:

On behalf of *de maximis, inc.*, Designated Coordinator for the Tutu Environmental Investigation Committee (TEIC), Geraghty & Miller, Inc. has prepared this submittal regarding sampling of drill cuttings from the Phase II Remedial Investigation (RI) on June 29, 1994 from the Tutu Wells Site, St. Thomas, U.S. Virgin Islands. The analytical parameters included USEPA Toxicity Characteristic Leachate Procedure (TCLP) and Resource Conservation and Recovery Act (RCRA) waste characteristic parameters (e.g., ignitability and corrosivity).

Two composite samples of the drilling material were collected, with each sample representing one-half of the total material (approximately 60 drums). Each sample was retrieved with a stainless steel spoon and placed in a stainless steel bowl. After collecting a representative portion, the material was mixed in the bowl and immediately transferred to the sample containers.

As shown on the accompanying tables, all analytical results were below method detection limits with the exception of cadmium at 0.011 parts per million (ppm) in sample DS-2. This value is well below the TCLP regulatory limit of 1 ppm (40 CFR Part 261). No other TCLP parameters were detected. The results for other waste characteristic parameters were also indicative of non-hazardous material. The material was non-ignitable and the corrosivity was within the non-hazardous range of between 2 to 12.5 pH units. Reactive cyanide and reactive sulfide were below the method detection limits. Therefore, the drill cuttings are classified as non-hazardous.

TUT 006 0564

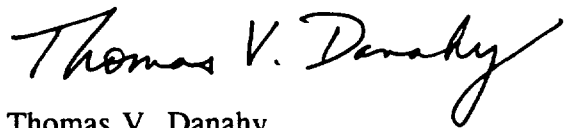
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Since this material is non-hazardous, it should be disposed of as a non-hazardous solid waste. The TEIC will coordinate the proper disposal of this non-hazardous solid waste with the USEPA and Virgin Islands Department of Planning and Natural Resources. Your assistance would be greatly appreciated. If you have any questions, please call.

Sincerely,

GERAGHTY & MILLER, INC.



Thomas V. Danahy
Senior Scientist/Project Manager



Daniel Nachman
Vice President/Project Officer

c: Geoff Siebel, *de maximis, inc.*
Paul Ryan, Texaco
Leonard Reed, DPNR
Adrian Schotroff, DPNR

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Table 2. Concentrations of Toxicity Characteristic Leaching Procedure Base Neutral and Acid Extractable Organic Compounds in Composite Drum Samples Collected in June 1994 at the Tutu Wells Site, St. Thomas, U.S. Virgin Islands.

Sample ID: DS-1		DS-2	
Analyte	Date:	29-Jun-94	29-Jun-94
m & p-Cresol(s)		0.05 U	0.05 U
o-Cresol		0.05 U	0.05 U
1,4-Dichlorobenzene		0.05 U	0.05 U
2,4-Dinitrotoluene		0.05 U	0.05 U
Hexachlorobenzene		0.05 U	0.05 U
Hexachlorobutadiene		0.05 U	0.05 U
Hexachloroethane		0.05 U	0.05 U
Nitrobenzene		0.05 U	0.05 U
Pentachlorophenol		0.25 U	0.25 U
Pyridine		0.1 U	0.1 U
2,4,5-Trichlorophenol		0.25 U	0.25 U
2,4,6-Trichlorophenol		0.05 U	0.05 U

Analyte concentrations in milligrams per liter (parts per million [ppm]).

Analyses were performed by Enseco- East of Somerset, New Jersey, using USEPA Method 8270 and Toxicity Characteristic Leaching Procedure.

U The compound was analyzed for, but not detected at the corresponding reporting limits.

TUT 006 0546

Table 3. Concentrations of Toxicity Characteristic Leaching Procedure Pesticides and Herbicides in Composite Drum Samples Collected in June 1994 at the Tutu Wells Site, St. Thomas, U.S. Virgin Islands.

Analyte	Sample ID: DS-1		DS-2	
	Date:	29-Jun-94	29-Jun-94	
gamma-BHC (Lindane)		0.0005 U	0.0005 U	
Chlordane		0.005 U	0.005 U	
Endrin		0.001 U	0.001 U	
Heptachlor (and its epoxide)		0.0005 U	0.0005 U	
Methoxychlor		0.005 U	0.005 U	
Toxaphene		0.05 U	0.05 U	
2,4-D		0.005 U	0.005 U	
2,4,5-TP (Silvex)		0.001 U	0.001 U	

Analyte concentrations in milligrams per liter (parts per million [ppm]).

Analyses were performed by Enseco- East of Somerset, New Jersey, using standard U.S. Environmental Protection Agency methodology and Toxicity Characteristic Leaching Procedure.

U The compound was analyzed for, but not detected at the corresponding reporting limits.

TUT 006 0567

Table 4. Concentrations of Toxicity Characteristic Leaching Procedure Metals in Composite Drum Samples Collected in June 1994 at the Tutu Wells Site, St. Thomas, U.S. Virgin Islands.

Analyte	Sample ID: DS-1		DS-2	
	Date:	29-Jun-94	29-Jun-94	
Arsenic		0.1 U	0.1 U	
Barium		1 U	1 U	
Cadmium		0.005 U	0.005 U	
Chromium		0.01 U	0.011	
Lead		0.05 U	0.05 U	
Mercury		0.0002 U	0.0002 U	
Selenium		0.2 U	0.2 U	
Silver		0.01 U	0.01 U	

Analyte concentrations in milligrams per liter (parts per million [ppm]).

Analyses were performed by Enseco- East of Somerset, New Jersey, using standard U.S. Environmental Protection Agency methodology and Toxicity Characteristic Leaching Procedure.

U The analyte was analyzed for, but not detected at the corresponding reporting limits.

TUT 006 0568

Table 1. Concentrations of Toxicity Characteristic Leaching Procedure Volatile Organic Compounds in Composite Drum Samples Collected in June 1994 at the Tutu Wells Site, St. Thomas, U.S. Virgin Islands.

Analyte	Sample ID: DS-1		DS-2	
	Date:	29-Jun-94	29-Jun-94	
Benzene		0.12 U	0.12 U	
Carbon tetrachloride		0.12 U	0.12 U	
Chlorobenzene		0.12 U	0.12 U	
Chloroform		0.12 U	0.12 U	
1,2-Dichloroethane		0.12 U	0.12 U	
1,1-Dichloroethene		0.12 U	0.12 U	
2-Butanone		0.25 U	0.25 U	
Tetrachloroethene		0.12 U	0.12 U	
Trichloroethene		0.12 U	0.12 U	
Vinyl chloride		0.25 U	0.25 U	

Analyte concentrations in milligrams per liter (parts per million [ppm]).

Analyses were performed by Enseco- East of Somerset, New Jersey, using USEPA Method 8240 and Toxicity Characteristic Leaching Procedure.

U The compound was analyzed for, but not detected at the corresponding reporting limits.

TUT 006 0569