



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 377TH AIR BASE WING (AFMC)

12/13/93  
RECEIVED

02 DEC 1993

Mr Ed Horst  
New Mexico Environmental Department  
Hazardous and Radioactive Waste Bureau  
525 Camino de Los Marquez  
Post Office Box 26110  
Santa Fe, New Mexico 87502-6110  
505/827-4307

- Reference: a. Proposed Removal Action at KAFB Building 30110  
("Mercury Spill Site")
- b. LATA Report, "Soil Sampling and Analysis Report III,  
Mercury Contamination Site" (Sep 93)

Dear Mr Horst

This letter is a follow-up to my referenced proposal for a Removal Action at the "Mercury Spill Site" (KAFB Building 30110), east of Pennsylvania Avenue, south of the Equestrian Center on Kirtland Air Force Base.

Additional analysis and all TCLP results indicate that no RCRA Subtitle C - regulated levels of Mercury are present at this location. The outfall soil and debris inside the discharge pipe contain the highest levels of total Mercury. TCLP sample results from these areas are as follows:

Inside Discharge			
Pipe:	Total Hg	TCLP Hg	pH
Albuchem 102093-9A	159 mg/1	0.0227 mg/1	8.34
Outfall:			
Assaigai 93-09-060-16A	NA	0.0545 mg/1	NA
Assaigai 93-09-060-13A	NA	0.00071 mg/1	NA
Albuchem 102093-9B	56.8 mg/1	0.0016 mg/1	7.92
Albuchem 101493-9/4	14.1 mg/1	0.00094 mg/1	8.05

Other samples in the decon pads and background show no significant levels of Total Mercury or TCLP Mercury (Albuchem 102093-9C-F).



We propose to pursue the activities outlined in my referenced letter with disposal as Non-RCRA Subtitle D material in the Rio Rancho Landfill.

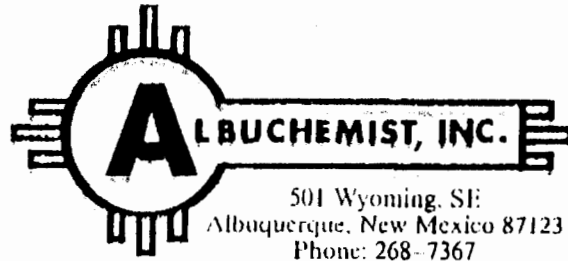
Note that our proposed decontamination methods for the interior of KAFB 30110 are validated by AlbuChem 102093-9G, H and I.

Finally, standing water (samples J, K, and Sump) shows no significant Total Mercury. This water will be discharged into POTW with City of Albuquerque permission.

  
Walter S Darr III  
Chief Compliance

- 2 Atch  
1. AlbuChemist 102093-9  
2. Assaigai 93-09-060

Previously sent: LATA Report  
AlbuChemist 101493-9



FAX: (505) 265-4325

DATE: October 27, 1993  
LAB. NO. 102093-9

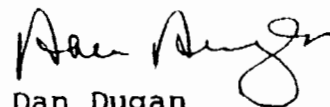
FOR: ~~Perma-Fix, Inc.~~  
Attention: Tim Kimball  
~~7928 Ranchitos Loop, NE~~  
  
Albuquerque, NM 87113

SAMPLE: ~~12 samples - KAFB~~

DATE DELIVERED: October 20, 1993

RESULTS:

(see attached sheets)

BY:   
CHEMIST: Dan Dugan

766P

Samples were extracted in accordance with the toxicity characteristic leaching procedure (40 CFR Pt. 268, 7-1-89 & App IX). All results are reported in mg/liter of the extract.

Analyte	Method	A	B	C	D
Arsenic	7060				
Barium	7080				
Benzene	8240				
Cadmium	7131				
Carbon tetrachloride	8240				
Chlordane	8250				
Chlorobenzene	8240				
Chloroform	8240				
Chromium	7190				
o-Cresol	8040				
m-Cresol	8040				
p-Cresol	8040				
2,4-D	8150				
1,4-Dichlorobenzene	8250				
1,2-Dichloroethane	8240				
1,1-Dichloroethylene	8240				
2,4-Dinitrotoluene	8250				
Endrin	8250				
Heptachlor (& hydroxide)	8250				
Hexachlorobenzene	8250				
Hexachlorobutadiene	8250				
Hexachloroethane	8250				
Lead	7420				
Lindane	8250				
Mercury	7471	0.0227	0.0016	.00026	<0.0002
Methoxychlor	8250				
Methyl ethyl ketone	8240				
Nitrobenzene	8250				
Pentachlorophenol	8250				
Pyridine	8250				
Selenium	7741				
Silver	7760				
Tetrachloroethylene	8240				
Toxaphene	8250				
Trichloroethylene	8240				
2,4,5-Trichlorophenol	8250				
2,4,6-Trichlorophenol	8250				
2,4,5-TP (Silvex)	8150				
Vinyl chloride	8240				
pH		8.34	7.92	8.80	9.12

A - KAFB 30110, 6" Inside Outfall, 10/19/93, 1415

B - KAFB 30110, 14' West of Outfall, 10/19/93, 1420

C - KAFB 30110, SE Corner of South Pit, 10/19/93, 1425

D - KAFB 30110, Background, 90' West of North Wall of 30110,  
10/19/93, 1430

ALBUCHEMIST, INC.

Perma-Fix, Inc.  
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Samples were extracted in accordance with the toxicity characteristic leaching procedure (40 CFR Pt. 268, 7-1-89 & App IX). All results are reported in mg/liter of the extract.

Analyte	Method	E	F
Arsenic	7060		
Barium	7080		
Benzene	8240		
Cadmium	7131		
Carbon tetrachloride	8240		
Chlordane	8250		
Chlorobenzene	8240		
Chloroform	8240		
Chromium	7190		
o-Cresol	8040		
m-Cresol	8040		
p-Cresol	8040		
2,4-D	8150		
1,4-Dichlorobenzene	8250		
1,2-Dichloroethane	8240		
1,1-Dichloroethylene	8240		
2,4-Dinitrotoluene	8250		
Endrin	8250		
Heptachlor (& hydroxide)	8250		
Hexachlorobenzene	8250		
Hexachlorobutadiene	8250		
Hexachloroethane	8250		
Lead	7420		
Lindane	8250		
Mercury	7471	<0.0002	<0.0002
Methoxychlor	8250		
Methyl ethyl ketone	8240		
Nitrobenzene	8250		
Pentachlorophenol	8250		
Pyridine	8250		
Selenium	7741		
Silver	7760		
Tetrachloroethylene	8240		
Toxaphene	8250		
Trichloroethylene	8240		
2,4,5-Trichlorophenol	8250		
2,4,6-Trichlorophenol	8250		
2,4,5-TP (Silvex)	8150		
Vinyl chloride	8240		
pH		8.92	9.25

E - KAFB 30110, South Pile of Outfall Shoulder, 10/19/93, 1435  
F - KAFB 30110, East Decon Pad, 10/19/93, 1432

ALBUCHEMIST, INC.

Quality Assurance Requirements:

- A. All data is maintained and available for reference.
- B. One blank for every ten extractions in a particular extraction vessel is run to detect "memory" effects.
- C. Matrix spike data (October 11, 1993):

Regulatory	Analyte	Recovery (%)	Method of standard additions
5.0	Arsenic	80.	n/r
100.	Barium	99.	n/r
0.5	Benzene	92.	n/r
1.0	Cadmium	89.	n/r
0.5	Carbon tetrachloride	95.	n/r
0.03	Chlordane	96.	n/r
100.	Chlorobenzene	104.	n/r
6.0	Chloroform	104.	n/r
5.0	Chromium	101.	n/r
200.	o-Cresol	86.	n/r
200.	m-cresol	93.	n/r
200.	p-cresol	98.	n/r
10.	2,4-D	110.	n/r
7.5	1,4-Dichlorobenzene	108.	n/r
0.5	1,2-Dichloroethane	110.	n/r
0.7	1,1-Dichloroethylene	106.	n/r
0.13	2,4-Dinitrotoluene	90.	n/r
0.02	Endrin	83.	n/r
0.008	Heptachlor	84.	n/r
3.0	Hexachlorobenzene	88.	n/r
0.5	Hexachlorobutadiene	84.	n/r
3.0	Hexachloroethane	95.	n/r
5.0	Lead	97.	n/r
0.4	Lindane	85.	n/r
0.2	Mercury	92.	n/r
10.	Methoxychlor	89.	n/r
200.	Methyl ethyl ketone	110.	n/r
2.0	Nitrobenzene	80.	n/r
100.	Pentachlorophenol	95.	n/r
5.0	Pyridine	80.	n/r
1.0	Selenium	92.	n/r
5.0	Silver	93.	n/r
0.7	Tetrachloroethylene	109.	n/r
0.5	Toxaphene	89.	n/r
0.5	Trichloroethylene	111.	n/r
400.	2,4,5-Trichlorophenol	80.	n/r
2.0	2,4,6-Trichlorophenol	85.	n/r
1.0	2,4,5-TP (Silvex)	82.	n/r
0.2	Vinyl chloride	107.	n/r

D. TCLP extraction and extract analysis is performed in accordance with the following schedule:

<u>Parameters</u>	<u>TCLP extraction</u>	<u>Extract analysis</u>
volatiles	14 days	14 days
semi-volatiles	40 days	40 days
mercury	28 days	28 days
other metals	180 days	180 days

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Metals listed below were analyzed using the specified method after dissolution/digestion using the following method. Results are reported in mg/kg.

\_\_\_\_\_ method 3005  
XX method 3010  
\_\_\_\_\_ method 3020  
\_\_\_\_\_ method 3040  
\_\_\_\_\_ method 3050

Sample	Mercury (7471)
A	159.
B	56.8
C	0.116
D	0.148
E	0.390
F	0.022

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All results are reported in micrograms:

Sample	Mercury
G	16.6 ?
H	0.39
I	0.67

- G - KAFB 30110, SW Corner South Wall, Nitric Wipe, 10/19/93, 1440
- H - KAFB 30110, Wipe after Sodium Thiosulfate Decon, 10/19/93, 1441
- I - KAFB, SW Corner South Wall after Nitric Solution Decon, 10/19/93, 1442



ALBUCHEMIST, INC.

Perma-Fix, Inc.  
October 27, 1993  
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Metals listed below were analyzed using the specified method after dissolution/digestion using the following method. Results are reported in mg/l.

\_\_\_\_\_ method 3005  
XX method 3010  
\_\_\_\_\_ method 3020  
\_\_\_\_\_ method 3040  
\_\_\_\_\_ method 3050

Sample	Mercury (7470)
J	0.00050
K	0.00041
Sump	0.00039

J - KAFB 30110, North Pad, 10/19/93, 1450  
K - KAFB 30110, South Pad, 10/19/93, 1450  
Sump - KAFB Bldg. 30110, 10/22/93, 1645

Assaigai Analytical Labs  
 7300 Jefferson NE  
 Albuquerque, NM 87109

Attn: MARLEAH M. MARTIN  
 Phone: (505) 345-8964

PHILLIPS LABORATORY/EMD  
 3651 LOWERY AVE. SE  
 ALBUQUERQUE, NM 87117-5777

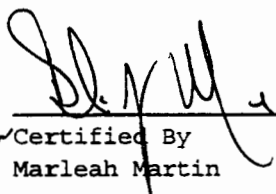
Order #: 93-09-060  
 Date: 09/21/93 10:58  
 Work ID: RE-ANALYSIS FOR WO#:8080-1-2A  
 Date Received: 09/10/93  
 Date Completed: 09/17/93  
 Client Code: PHI08

Attn: MARSHA CARRA/WALTER DARR  
 Invoice Number:

SAMPLE IDENTIFICATION

<u>Sample</u> <u>Number</u>	<u>Sample</u> <u>Description</u>	<u>Sample</u> <u>Number</u>	<u>Sample</u> <u>Description</u>
01	K17 16A	02	K17 13A

ND = None Detected D\_F = Dilution Factor NT = Not Tested  
 B = Analyte was present in the blank J = Estimated value  
 E = Estimated Value, Concentration exceeds calibration range  
 MULTIPLY THE LIMIT BY THE DILUTION FACTOR.

  
 Certified By  
 Marleah Martin



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REPORT

Work Order # 93-09-060

Received: 09/10/93

Results By Test

TEST CODE	Sample <u>01</u>	Sample <u>02</u>
default units	(entered units)	(entered units)
PRCTSX	N/A	N/A
% (Percent)		
TCLPXX	N/A	N/A
N/A		
TCVHGK	N/A	N/A
N/A		



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REPORT

Work Order # 93-09-060

Received: 09/10/93

Results by Sample

SAMPLE ID K17 16A FRACTION 01A TEST CODE WCVHG NAME MERCURY (CVAA)/EPA 245.1  
Date & Time Collected 07/19/93 14:37:00 Category SOIL

PARAMETER	RESULT	LIMIT	D_F	DATE_EXT	DATE_ANAL
Mercury	<u>0.0545</u>	<u>0.00020</u>	<u>10</u>	<u>09/16/93</u>	<u>09/16/93</u>

Notes and Definitions for this Report:

ANALYST KHUNITS mg/LBATCH\_ID WCVAA-084COMMENTS RESULT REFLECTS TCLP METALS ANALYSIS

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REPORT

Work Order # 93-09-060

Received: 09/10/93

Results by Sample

SAMPLE ID K17 13AFRACTION 02A TEST CODE WCVHG NAME MERCURY (CVAA)/EPA 245.1Date & Time Collected 07/19/93 14:39:00Category SOIL

PARAMETER	RESULT	LIMIT	D_F	DATE_EXT	DATE_ANAL
Mercury	<u>0.0007</u>	<u>0.00020</u>	<u>1.0</u>	<u>09/14/93</u>	<u>09/14/93</u>

Notes and Definitions for this Report:

ANALYST KHUNITS mg/LBATCH\_ID WCVAA-083COMMENTS RESULT REFLECTS TCLP METALS ANALYSIS