



BRUCE KING
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT
Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-2850

JUDITH M. ESPINOSA
SECRETARY

RON CURRY
DEPUTY SECRETARY

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

September 9, 1992

Col. Ira L. Hester, USAF
Commander, 49 Support Group
Holloman Air Force Base, New Mexico 88330

**RE: REMEDIATION OF 9 JULY 92 JP-4 FUEL SPILL: 11 AUGUST 92 LETTER
FROM HENSEL PHELPS CONSTRUCTION COMPANY**

Dear Colonel Hester:

On July 15, 1992, the Hazardous and Radioactive Materials Bureau (HRMB) of the New Mexico Environment Department (NMED) issued Holloman Air Force Base (HAFB) an Emergency Permit under HWMR-6, Part IX, Section 901, 40 CFR 270.61 for the remediation of JP-4 contaminated soil. Based on subsequent documentation received from Holloman and Hensel Phelps Construction Company, it appears that conditions of the Emergency Permit have been violated.

HRMB received a report submitted by Hensel Phelps Construction Co. on 14 August 92. Because the report is written in a manner unacceptable for HRMB review, it has not yet been determined for certain whether or not any Emergency Permit conditions have been violated. However, the following deficiencies, if not violations, have been noted:

- condition B.1 of the permit specifies that the horizontal and vertical extent of hazardous constituents be determined by a soil gas survey prior to excavation of JP-4 contaminated soil;
- the qualifications of the person responsible to conduct the required soil gas survey have not been adequately documented;

September 9, 1992

HAFB

Pg. 2

- a specific proposal for a soil gas study is not immediately evident;
- based on the plan map, the sampling points do not appear adequate to define the vertical or horizontal extent of contamination;

All conditions of this permit are enforceable under 74-4-10 NMSA, 1978 and under HWRM-6, Part IX, Section 901. NMED is returning the report sent August 11, and requiring that HAFB submit a new report detailing exactly what remedial activities have been conducted to the date of your receipt of this letter, and presenting all data collected in a formal, organized manner. The new report must address HAFB's compliance with the conditions of the Emergency Permit and the deficiencies listed above. It also must be submitted to HRMB within 15 days of your receipt of this letter. After the new report is received, NMED will coordinate with HAFB any actions necessary for HAFB to meet the Emergency Permit conditions.

If there are any questions regarding NMED's requirements or any other issue involving this matter, please contact Ms. Stephanie Stoddard or Mr. Steve Alexander at 827-4308 or 827-4313.

Sincerely,



Benito Garcia, Chief

Hazardous and Radioactive Materials Bureau

Enclosure.

xc: Mr. Thomas Manning, AFCEE
Mr. Roger Wilkson, HAFB CE
Mr. Steve Alexander, HRMB
Mr. David Morgan, NMED

But you should be AWARE OF ALL
ACTIVITIES ON THE BASES. PLEASE
RETURN TO: Et



**Hensel Phelps
Construction Co.**

SOUTHWEST DISTRICT
16021 N. IH-35
Pflugerville, Texas 78660
P.O. Box 15547
Austin, Texas 78761-5547
(512) 251-2411
(512) 251-8023 FAX
August 11, 1992



CS

State of New Mexico
Environment Department
Hazardous and Radioactive Materials Bureau
PO Box 26110
Santa Fe, NM 87502

Attn: Benito Garcia/Edward Horst

Dear Sirs:

The following narrative outlines the events leading to and involving the remediation of the JP-4 spill at Holloman Air Force Base per the Emergency Permit dated July 15, 1992.

Immediately after the spill was detected, a berm was placed to contain the spill in a strip approximately 20' x 320' (see attachment "A"). On July 10, 1992, David Fitzpatrick of IHP Industrial, Inc., took soil samples per directions from Sargents, Haskins & Beckwith to them for TCLP testing (attachment "B").

Lee Nelson (HPCC) and Max Johnson (COE) coordinated with HRMB personnel to approve Hensel Phelps Safety Engineer, David Thiel, to oversee the remediation. David Thiel's qualifications are that he has attended an OSHA, 40 hour, Hazardous Materials Training Course (see attachment "C"). The state also agreed that Hensel Phelps' H.N.U. Photoionization Detector with a 10.2 eV probe was satisfactory. Once these agreements were made, a meeting was scheduled with Hensel Phelps/David Thiel, Corps of Engineer's/Max Johnson, and Base Environmental's/Roger Wilkson, at the spill site to formulate a plan for the soil gas study and the limits for soil removal. Attached are the notes of that meeting held on July 21, 1992 and subsequent notes of the testing that was done (see attachment "D").

Due to the low ppm levels detected at the spill site and the storage site, another meeting was scheduled at the site with David Thiel, Max Johnson, and Roger Wilkson for August 3, 1992. At that meeting we walked the site and discussed the soil test levels. We agreed that the remediation was satisfactory pending state approval.

Danley Construction Company will restore the site once we receive HRMB approval.

Sincerely,

David K. Thiel
Safety Engineer
Hensel Phelps Construction

Max Johnson
Contracting Officer
U.S. Army C.O.E.

Roger Wilkson
HAFB
Base Environmental
Performance



7-9-92

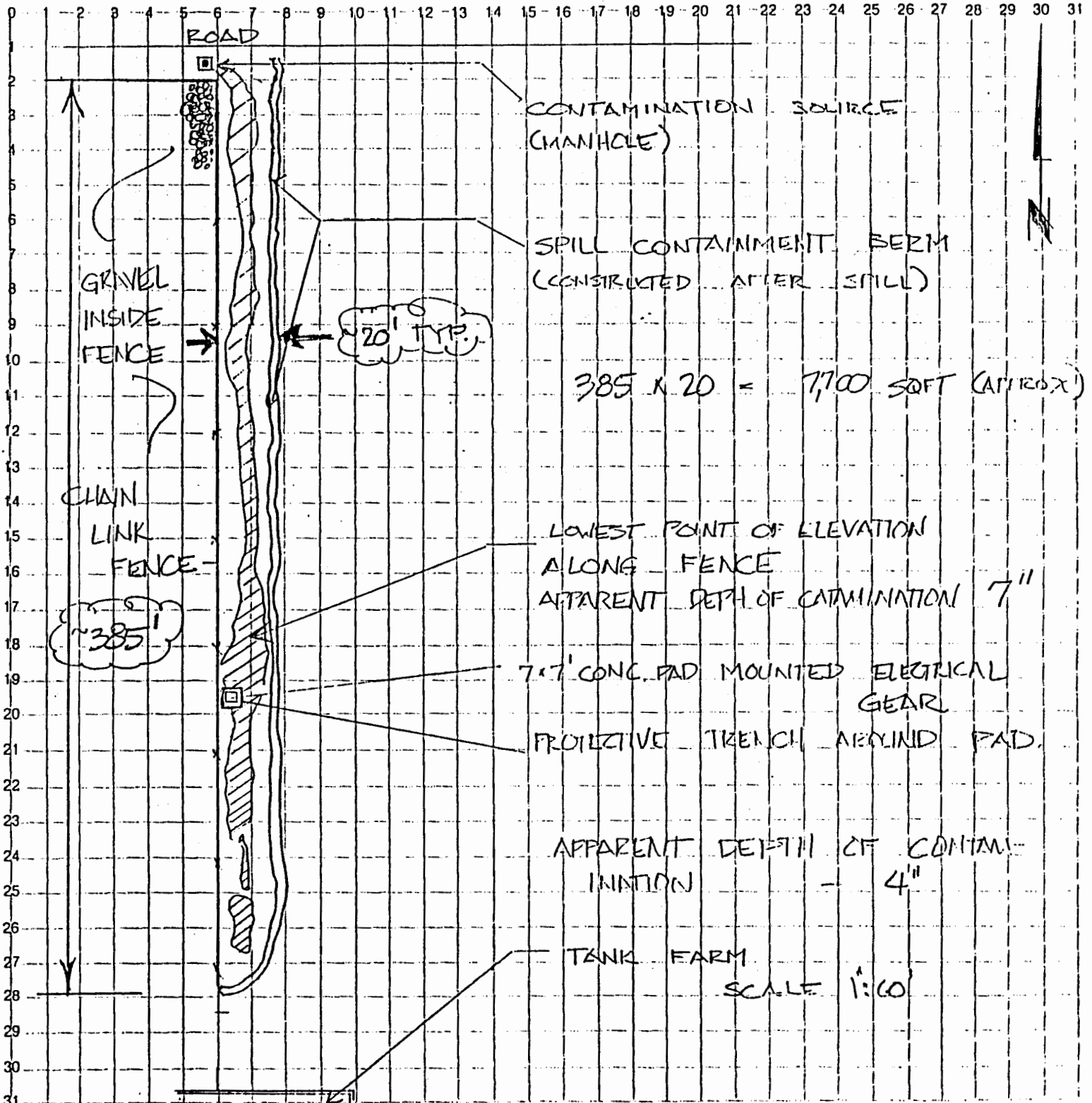
For action to

Date

Job No

For info to

Your action or reply is required on or before





August 6, 1992

IHP Industrial, Inc.
 1701 South 8th
 St. Joseph, Missouri 64502

SHB Job No. E92-4068

Attention: Mr. Wally Dale
 Mr. David Fitzpatrick

Re: Results of TCLP Analyses of Soil Material
 JP-4 Fuel Spill
 Holloman Air Force Base, New Mexico

Gentlemen:

On July 10, 1992, Sergeant, Hauskins and Beckwith Geotechnical Engineers, Inc. (SHB) received from IHP Industrial, Inc., 4 soil samples of material removed from the JP-4 jet fuel spill area at Holloman Air Force Base. The samples were submitted to Westech Laboratories, Inc. in El Paso, Texas for analysis of TCLP organic volatiles and TCLP lead. The four samples were composited before being analyzed at the laboratory.

The analytical results are tabulated below:

ANALYTICAL RESULTS OF COMPOSITE SOIL MATERIAL

PARAMETER	RESULT	DETECTION LIMIT	EPA TCLP GUIDELINES
LEAD (TCLP)	0.38 mg/L*	0.10 mg/L	5.0 mg/L
BENZENE	<0.25 mg/L	0.25 mg/L	0.5 mg/L
CARBON TETRACHLORIDE	<0.25 mg/L	0.25 mg/L	0.5 mg/L
CHLOROBEZENE	<50.0 mg/L	50.0 mg/L	100.0 mg/L
CHLOROFORM	< 8.0 mg/L	3.0 mg/L	6.0 mg/L
1,2 - DICHLOROETHANE	<0.25 mg/L	0.25 mg/L	0.5 mg/L
1,1 - DICHLOROETHYLENE	<0.35 mg/L	0.35 mg/L	0.7 mg/L
METHYL ETHYL KETONE	<100.0 mg/L	100.0 mg/L	200.0 mg/L
TETRACHLOROETHYLENE	<0.35 mg/L	0.35 mg/L	0.7 mg/L
TRICHLOROETHYLENE	<0.25 mg/L	0.25 mg/L	0.5 mg/L
VINYL CHLORIDE	<0.1 mg/L	0.1 mg/L	0.2 mg/L

*mg/L (milligrams-per-Liter) equivalent to parts-per-million (ppm)

REPLY TO: 1817 E. MISSOURI, EL PASO, TEXAS 79902

PHOENIX
 (602) 272-8848
 FAX 272-7239

TUCSON
 (602) 792-2778
 FAX 888-0014

ALBUQUERQUE
 (505) 864-0850
 FAX 864-1694

SALT LAKE CITY
 (801) 266-0720
 FAX 266-0727

EL PASO
 (915) 542-0046
 FAX 542-0078

RENO/SPARKS
 (702) 331-2375
 FAX 331-4153

DENVER/LAKEWOOD
 (303) 763-8432
 FAX 763-8012

**Results of TCLP Analyses of Soil Material
JP-4 Fuel Spill
Holloman Air Force Base, New Mexico
SHB Job No. E92-4068**

As shown on the above table, no TCLP results above EPA TCLP criteria were reported.

The laboratory report and chain-of-custody documentation are attached. If you have any questions regarding these results, please call us at (915) 542-0046.

Respectfully submitted,

Sergent, Hauskins and Beckwith
Geotechnical Engineers, Inc.

By: *Gary Curtiss*
Gary Curtiss

Reviewed by: *Jamie R. Barnes*
Jamie R. Barnes, C.P.G.

Copies: Addressee (3)



**Westtech
Laboratories
Inc.**

7 Cat / West, No. 100
El Paso, Texas 79935
(915) 592-3591 • fax 592-3594

CLIENT **Sergent, Hauskins, & Beckwith**
Attn: **Jamie Barnes**
1617 Missouri St.
El Paso, TX 79902

SAMPLE NO. : 6201834
INVOICE NO.: 62120562
REPORT DATE: 07-29-92
REVIEWED BY: *[Signature]*
PAGE : 1 OF 1

CLIENT SAMPLE ID : E92-4068-01
SAMPLE TYPE: Soil
SAMPLED BY: D. Fitzpatrick
SUBMITTED BY: Gary Curtiss
SAMPLE SOURCE: Holloman AFB
ANALYST: I. Hrabovsky

AUTHORIZED BY : **Jamie Barnes**
CLIENT P.O. : E92-4068
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-13-92
EXTRACTION DATE: --
ANALYSIS DATE .: 07-23-92

Organic TCLP Volatiles

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Benzene	<0.25	mg/L	0.25
Carbon tetrachloride	<0.25	mg/L	0.25
Chlorobenzene	<50.	mg/L	50.
Chloroform	<3.0	mg/L	3.0
1,2-Dichloroethane	<0.25	mg/L	0.25
1,1-Dichloroethylene	<0.35	mg/L	0.35
Methyl ethyl ketone	<100.	mg/L	100.
Tetrachloroethylene	<0.35	mg/L	0.35
Trichloroethylene	<0.25	mg/L	0.25
Vinyl Chloride	<0.1	mg/L	0.1



**Westech
Laboratories
Inc.**

10737 Gateway West, No. 100
El Paso, Texas 79935
(915) 592-3591 • fax 592-3594

CLIENT Sargent, Hauskins, & Beckwith
Attn: Jamie Barnes
1617 Missouri St.
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AUTHORIZED BY : Jamie Barnes
CLIENT P.O. : E92-4068
SAMPLE DATE : 07-10-92
SUBMITTAL DATE : 07-13-92
EXTRACTION DATE: --

TCLP Metals

D A T A T A B L E

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Detection Limit</u>	<u>Analysis Date</u>
Lead (TCLP)	0.38	mg/L	0.10	07-24-92

URGENT, HAUSKINS & BECKWITH
 ENGINEERING & ENVIRONMENTAL SERVICES
 PHOENIX - TUCSON
 QUENDE - BACTLAVE CITY - EL PASO - DENVER - MEXICO CITY

1617 E. MISSOURI, EL PASO, TEXAS 79902

TO LABORATORY: WESTECH
 ADDRESS: _____
 PHONE: _____
 CONTACT PERSON: RANDY PECK

RECEIVED AUG - 3 1992

Chain of Custody

DATE 7/10/92 PAGE 1 OF 1

CT NAME: JET FUEL RELEASE

JOB NO: E92-4068

SITE LOCATION: Hellman AFB

SAMPLERS (SIGNATURE) (PHONE NO.)

David Fitzpatrick 505-479-2364

ANALYSES REQUESTED

SAMPLE I.D.	DATE	TIME	MATRIX	LAB I.D.	HALOGENATED 801/8010 VOLATILES	AROMATIC 802/8020 VOLATILES	TPH 418.1	ORGANOCHLORINE PESTICIDES & PCB'S 808/8080	TPH MODIFIED 8015	PRIORITY POLLUTANT METALS (TCLP)	BULK ASBESTOS (PLM)	TCLP	Volatiles 8260 (benzene)	(LEAD)	Per James 7-10-92	NO.	NO. OF CONTAINERS	
																		6201834
E92-4068-01	7/10/92	-	SOIL									X						4
E92-4068-02	"		"									X						
E92-4068-04	"		"									X						
E92-4068-03	"		"									X						

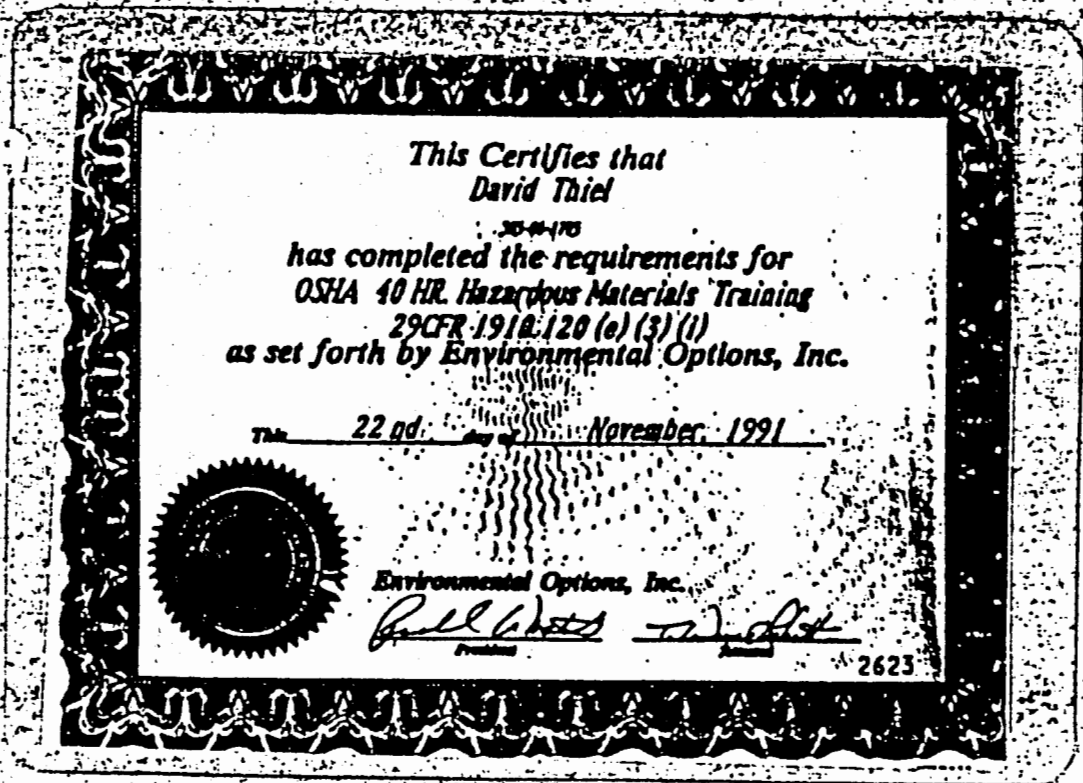
Composite per James

one sample per James

PROJECT INFORMATION	SAMPLE RECEIPT
PROJECT MANAGER <u>VRB</u>	TOTAL NO. OF CONTAINERS
SHIPPING I.D. NO.	CHAIN OF CUSTODY SEALS
VIA: <u>HAND DELIVER</u>	REC'D GOOD CONDITION/COLD
P.O. <u>1</u>	CONFORMS TO RECORD
	LAB NO.

SPECIAL INSTRUCTIONS/COMMENTS:
CONTACT PROJ. MGR PROC R ANALYSIS
-will call lab on 7/14 with specific

RELINQUISHED BY <u>David Fitzpatrick</u> 6:00pm (SIGNATURE) (TIME) <u>David Fitzpatrick</u> (PRINTED NAME) (DATE) 7-10-92 <u>IHP Industrial inc</u> (COMPANY)	RELINQUISHED BY <u>JAMIE BARNES</u> 3:14 (SIGNATURE) (TIME) <u>JAMIE BARNES</u> 7/13/92 (PRINTED NAME) (DATE) <u>SHB</u> (COMPANY)	RELINQUISHED BY <u>Gary Curtiss</u> 1703 (SIGNATURE) (TIME) <u>Gary Curtiss</u> 7/13/92 (PRINTED NAME) (DATE) <u>SHB</u> (COMPANY)
RECEIVED BY <u>JAMIE BARNES</u> 6:10 (SIGNATURE) (TIME) <u>JAMIE BARNES</u> 7-10-92 (PRINTED NAME) (DATE) <u>SHB</u> (COMPANY)	RECEIVED BY <u>Gary Curtiss</u> 3:14 (SIGNATURE) (TIME) <u>Gary Curtiss</u> 7/13/92 (PRINTED NAME) (DATE) <u>SHB</u> (COMPANY)	RECEIVED BY (LABORATORY) <u>Randy R. Peck</u> 1703 (SIGNATURE) (TIME) <u>Randy R. Peck</u> 7/10/92 (PRINTED NAME) (DATE)



*This Certifies that
David Thiel*

*has completed the requirements for
OSHA 40 HR. Hazardous Materials Training
29CFR 1910.120 (e) (3) (1)
as set forth by Environmental Options, Inc.*

The 22nd day of November 1991



Environmental Options, Inc.

[Signature]
President

2623

IHP Spill Remediation

On 7-21-92 @ ≈ 1400 David Thiel, Mark Baver
 (HPCC) MAX Johnson (COE) and Roger Wilkson
 (HAFB Environmental) met at the site of
 the spill immediately north of the fuel farm.

Using HPCC's Photoionization Detector (HNU)
 w/ 10.2 eV probe calibrated on 7-21-92 @ 1330
 with Isobutylene to 40 ppm at 9.8 span.
 We dug several shallow test holes
 2" to 4" deep. Although the odor of JP-4
 was present in the soil only 1/2 to 1
 ppm above background was detected.
 Including a head space test taken using
 a plastic bag.

We agreed that I would dig test
 holes ^{at least} to the depth of visual contamination
 at 1/2 50' intervals along the center line
 of the contaminated strip. DANLEY is to
~~remove no less than 2"~~ Readings will be
 taken w/ the HNU at the test holes prior
 to removing any soil. Then DANLEY Construction

[Faint, mostly illegible handwritten notes at the bottom of the page, possibly bleed-through or additional notes.]

agree that acceptable levels have been obtained then the stored soil will be removed to the approved base dump site. The ~~spill~~ spill site will be restored.

7-23-92

The HNU was calibrated at 1300 hrs. Then 2 background checks were made. One outside HPCC office @ 3.9 ppm*. Another near the intersection of MATADOR and Eagle Keepers roads @ 3.8 ppm.

9 test holes approx. 12" deep were dug. Two on each side of the mahole and 7 in line along the center of the spill strip. Visually contamination appeared to be in a thin crust about 1" deep. Apparently the caliche prevented penetration. Of the 9 test holes all but 2 were statistically at background (zero) Station #4 opposite the Northmost Power pole Read 9 ppm and

[Faint, mostly illegible handwritten notes at the bottom of the page]

7-27-92

0900 Danley started building ^{the} berm and by the end of the day had ~~the~~ the 30x300 strip removed. 8" to 10" were removed in 200 ~~sq~~ areas at stations #4 and #8.

7-28-92

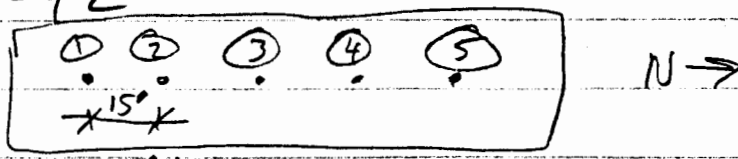
Danley removed soil and gravel at the manhole area. The test station areas were monitored at ground level - nothing above background was detected. No odor of JP-4 was evident until w/ a couple hundred feet +/- of the fuel farm tanks. My guess is the odor was from vented gas from the tanks. I detected no odor in the soil.

PT 1 1/2 hrs

The soil at the storage area smells strongly of JP-4 and reads from 6 to 10 ppm.

7-29-92

office BACKG. 4.1
F.F. - B.G. 4.2



①	Peak 16	Avg 9.2	each test w/ new soil
②			

DT 3 hrs
Lomic w/B.H.
2 hr

Area around ④+⑤ tested in a radius around the hot spot to determine the limits. I then had HPCC + DANLEY equip. Remove additional soil.

Both hot spots are around the 2 new power poles. My conclusion is that the SP-4 seeped into and puddled around the softer disturbed soil.

0900 hrs

7-30-92

office B.G. - 4.4

1 1/2 hrs

- ① 7.8 7.8
- ② 18.5 11.5
- ③ 7.0 7.5
- ④ 6.5 5.2
- ⑤ 6.6 6.9

F.F. - B.G. 4.4

1400 hrs

Spill Area checked by head space test because of wind blown vapors from the fuel farm

1 hr.

- ① 7.5 ⑤ 3.9 ⑨ 4.0
- ② 4.8 ⑥ 4.0
- ③ 4.0 ⑦ 4.0
- ④ 4.0 ⑧ 4.0

0730 hrs

8-10-92

By Head Space

O.B.G-4.2

F.F. B.G-4.0

- ① 3.9
 - ② 4.1
 - ③ 4.0
 - ④ 3.9
 - ⑤ 3.9
-

- ① 4.0
- ② 4.0
- ③ Evidently Bulb on probe burned out
- ④ as meter went to LO and goes
- ⑤ to 0 when probe is removed. Battery
- ⑥ shows full charge.
- ⑦
- ⑧
- ⑨

7-23-92 11. H. 65

Background 3.80

B. H.



Hensel Phelps Construction Co.

① - 4.70 ④ 4.00 ⑥ 4.5 ⑧ 6.20
 ② - 4.05 ⑤ 4.2 ⑦ 4.5 ⑨ 4.20

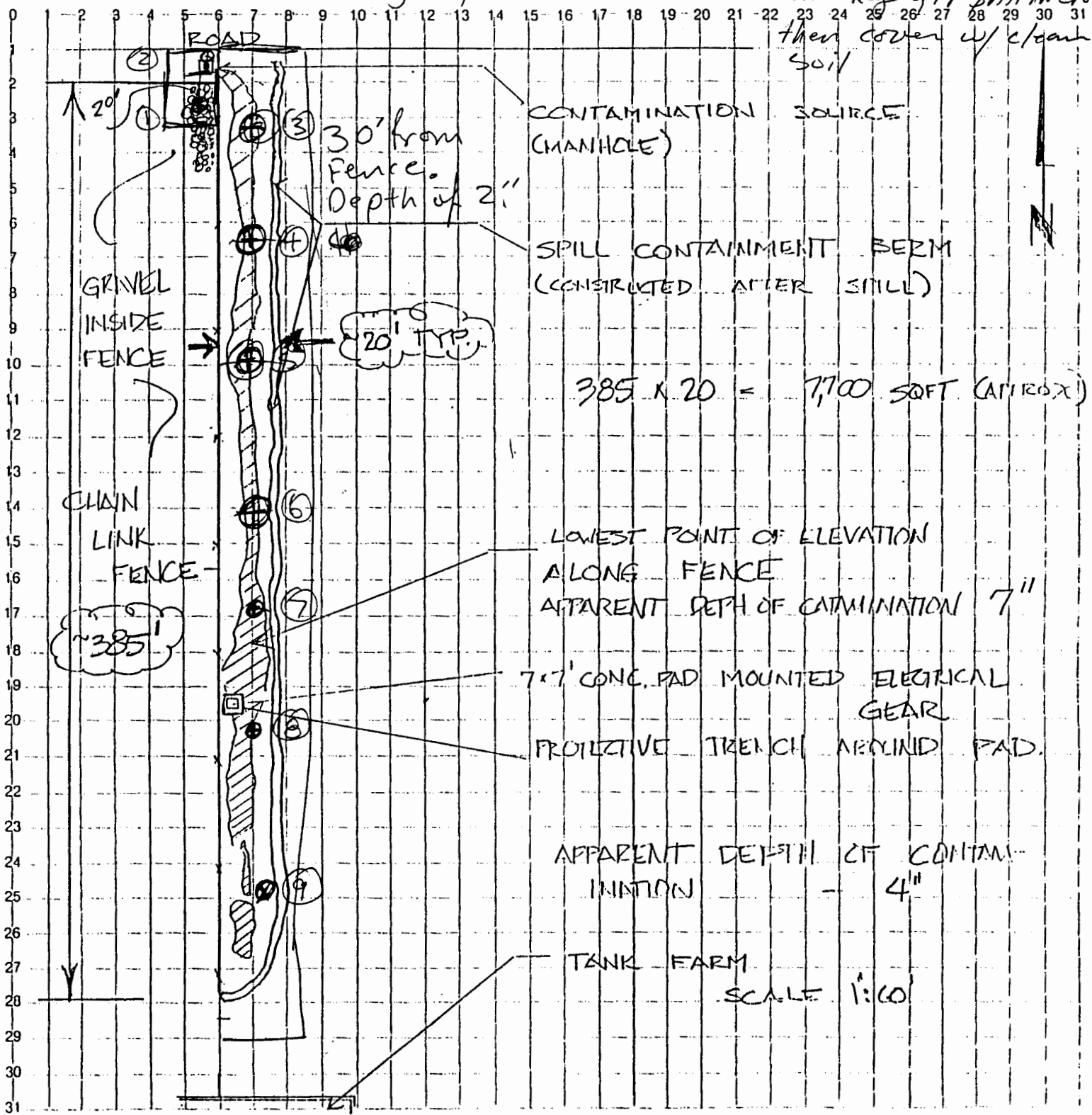
Memo

7-9-92

For action to _____ Date _____ Job No _____

For info to _____ Your action or reply is required on or before _____

Test station before starting every 50', remove 2" test/inspect visually by Hfe and Roger if satisfactory then cover w/ clean soil



Performance!