1st JP4 Site

file HAFB red 92

cc in JP-4 File

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

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 qualificiations are that he has attended an OSHA, 40 hour, Hazardous Materials Training Course (see attachment "C"). The state also agreed that Hensel Phelp's H.N.U. Photoionization Detector with a 10.2 eV probe was satisfactory. Once these agreements were made, a meeting was scheduled with Hensel Phelp's/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	for Max Johnson	Roger Wilkson
Safety Engineer	Contracting Officer	HAFB
Hensel Phelps Construction	U.S. Army C.O.E.	Base Environmental Performance

Hensel Phelps Construction Co.

Memo

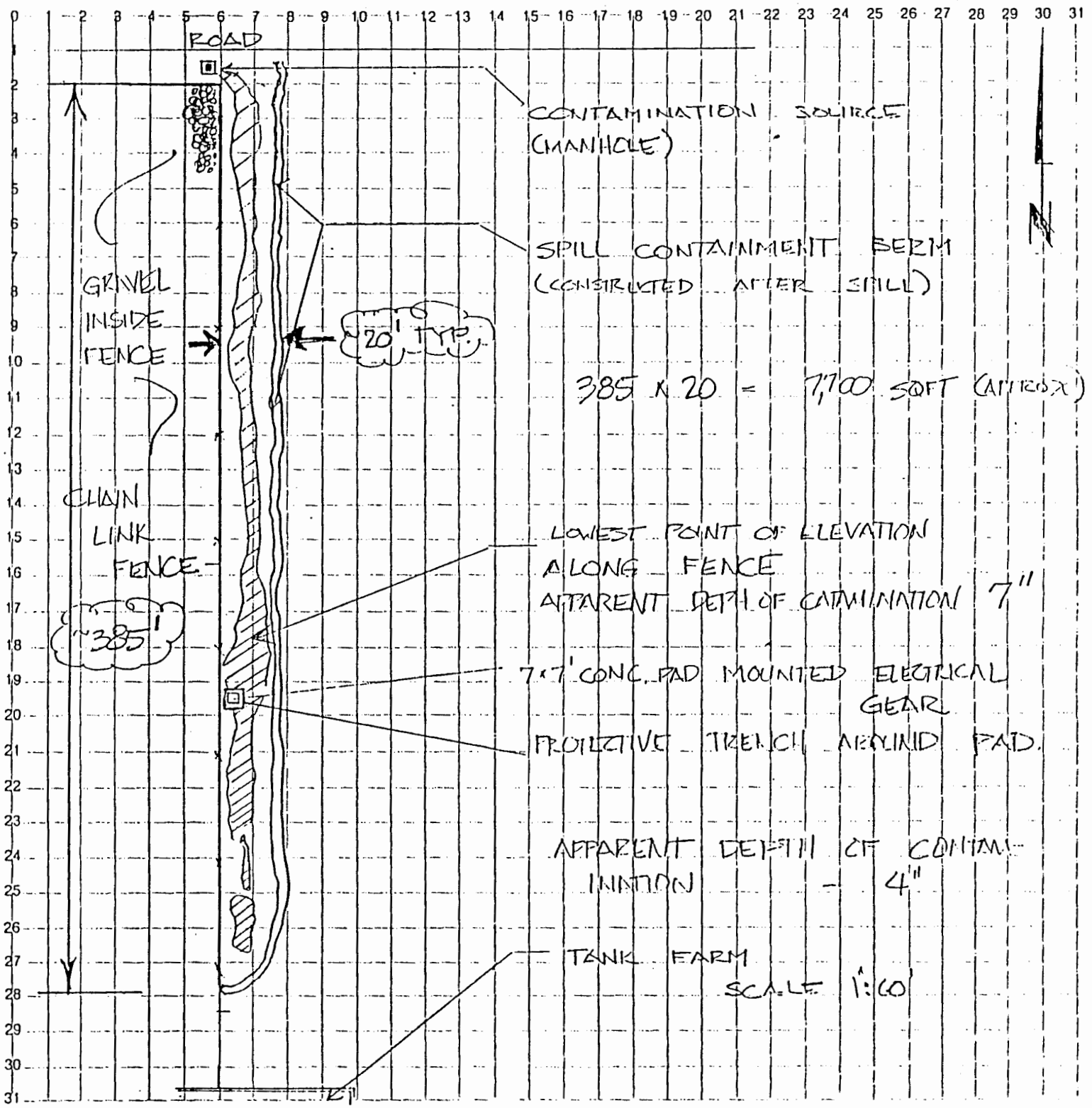
For action to

Date 7-9-92

Job No

For info to

Your action or reply is required on or before



Performance!

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, Sergent, 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
CHLOROBENZENE	<50.0 mg/L	50.0 mg/L	100.0 mg/L
CHLOROFORM	< 3.0 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)

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)

Westech Laboratories Inc.
10737 ...eway 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:
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

DATA TABLE

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

(1) Copy to Client

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

CLIENT Sergent, Hauskins, & Beckwith
Attn: Jamie Barnes
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SAMPLE TYPE .....: Soil
SAMPLED BY .....: D. Fitzpatrick
SUBMITTED BY ....: Gary Curtiss
SAMPLE SOURCE ...: Holloman AFB

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

TCLP Metals

DATA TABLE

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

(1) Copy to Client

[redacted]

TO LABORATORY: WESTECH

ADDRESS:

PHONE:

CONTACT PERSON: RANDY PECK

RECEIVED AUG - 3 1992

Chain of Custody

DATE 7/10/92 PAGE 1 OF 1

ERGENT, HAUSKINS & BECKWITH
ENGINEERING & ENVIRONMENTAL SERVICES
PHOENIX - TUCSON
QUERQUE - SALT LAKE CITY - EL PASO - RENO/SPARKS - DENVER - MEXICO CITY

1617 E. MISSOURI, EL PASO, TEXAS 79902

ECT NAME: JET FUEL RELEASE

JOB NO: E92-4068

SITE LOCATION: Holloman AFB

SAMPLERS (SIGNATURE): X David Fitzpatrick (PHONE NO.) 505-479-2364

SAMPLE I.D.	DATE	TIME	MATRIX	LAB I.D.	HALOGENATED 601/8010 VOLATILES	AROMATIC 602/8020 VOLATILES	TPH 418.1	ORGANOCHLORINE PESTICIDES & PCB'S 608/8080	TPH MODIFIED 8015	PRIORITY POLLUTANT METALS (TCLP)	BULK ASBESTOS (PLM)	TCLP volatiles 8260 (benzene) (LEAD) per Jamie 7-16-92						NUMBER OF CONTAINERS
E92-4068-01	7/10/92	—	SOIL									X		6201834				4
E92-4068-02	"		"									X	one sample per Jamie	~~6201835~~				
E92-4068-04	"		"									X		~~6201836~~				
E92-4068-03	"		"									X		~~6201837~~				

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

SPECIAL INSTRUCTIONS/COMMENTS:

CONTACT PRJ. MGR PRIOR TO ANALYSIS

-will call lab on 7/14 with specific

RELINQUISHED BY 1.	RELINQUISHED BY 2.	RELINQUISHED BY 3.
X David Fitzpatrick 6:10 pm	3:14	Gary Curtiss 1703
(SIGNATURE) (TIME)	(SIGNATURE) (TIME)	(SIGNATURE) (TIME)
David Fitzpatrick	JAMIE BARNES 7/13/92	Gary Curtiss 7/13/92
(PRINTED NAME) (DATE) 7-10-92	(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
IHP Industrial inc	CRB	SHB
(COMPANY)	(COMPANY)	(COMPANY)

RECEIVED BY 1.	RECEIVED BY 2.	RECEIVED BY (LABORATORY) 3.
6:10	Gary Curtiss 3:14	1703
(SIGNATURE) (TIME)	(SIGNATURE) (TIME)	(SIGNATURE) (TIME)
JAMIE BARNES 7-10-92	Gary Curtiss 7/13/92	Randy R. Peck 7/13/92
(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
SHB	SHB	

ATTACHMENT "C"

This Certifies that
David Thiel
[illegible]
has completed the requirements for
OSHA 40 HR. Hazardous Materials Training
29CFR 1910.120 (e) (3) (i)
as set forth by Environmental Options, Inc.

This 22nd *day of* November, 1991

Environmental Options, Inc.

President *Assistant*

2623

Attachment "D"

IHP Spill Remediation

On 7-21-92 @ ≈1400 David Thiel, Mark Bauer (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 at SP-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 to at least the depth of visual contamination at +/- 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 is to Remove no less than 2" of soil to the depth of visual contamination. The soil is to be spread for Aeration in a lined Berm on an abandoned Road 100 +/- yds NE. from the spill area. The limits of removal are +/- 500 ft South of the North most manhole, and 30' ~~from~~ on the East side of the chain link fence approximately 380 feet long. After Removal the test stations will be monitored again. The contaminated/bermed soil will be monitored. When the soil has aired out sufficiently, we will meet again if we

agree that acceptable levels have been obtained then the stored soil will be Removed to the approved base dump site. The 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 Keeper Roads @ 3.8 ppm.

9 test holes approx. 12" deep were dug. Two on each side of the manhole 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 #8 near the transformer Read 6.2 ppm See sketch and photos

*Note: the HNU is not zero'ed for background So if a reading of 4ppm background is taken then a spill reading of 10 ppm is taken, the Net effect of the spill Test is actually 6ppm.

7-27-92
0900 Danley started building the berm and by the end of the day had [redacted] the 30 X 380 strip removed. 8" to 10" were removed in 200 ☆ areas at stations #4 and #8.

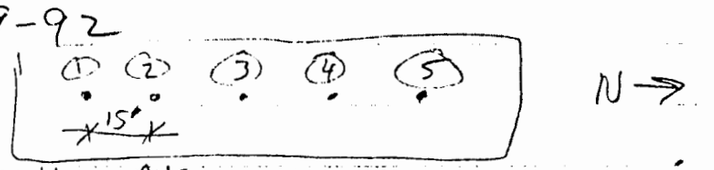
7-28-92
Danley removed soil and gravel at the manhole area. The test station areas were montored at ground level - nothing above background was detected. No odor of JP-4 was evident until w/I a couple hundred feet +/- of the fuel farm tanks. My guess is the odor was from vented gas from the tanks. I detected no odor in the soil.

PT 1½ 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



	Peak	AVG
1	16	9.2
2	6.4	
3	5.8	5.2
4	4.8	
5	6.8	6.5

each test w/ new soil exposed, montored for 1 minute

Spill Area

1	4.1	—
2	4.1	—
3	5.5	4.8
4	19	10
5	5.2	4.5
6	7.5	7.5
7	4.8	4.4
8	21	10
9	4.5	4.2

getting whiffs of JP-4 odor from blowing fuel tanks

Area around (4) + (8) tested in a radius around the hot spot to determine the limits. I then had HPCC + Danley equip. Remove additional soil.

OT 3 hrs
Lonnie w/B.H.
2 hr

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
F.F. - B.G. 4.4

1½ 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

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

0700 hrs
8-3-92

By Head space

office - B.G - 4.0
F F B.G - 4.0

(1) 3.9
(2) 4.2
(3) 3.9
(4) 3.9
(5) 3.9

(all but station # (2) no change in meter when probe inserted into Bottle)

---

(1) 4.0 (5) 4.0 (9) 4.0
(2) 4.0 (6) 4.0
(3) 3.9 (7) 4.0
(4) 3.9 (8) 4.0

(virtually no change in meter when probe inserted in bottle

0730 hrs 8-10-92 By Head Space O.B.G - 4.2
F.T. 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 <0 and goes
(5) to 0 when probe is removed. Battery
(6) shows full charge.
(7)
(8)
(9)

7-23-92 M.H. 65 ① - 3.90 ④ 9.00 ⑥ 4.5 ⑧ 6.20
Background 3.80 @ B.H. ② - ~~4.10~~ ⑤ 4.25 ⑦ 4.5 ⑨ 4.20
③ - 4.05

Hensel Phelps Construction Co.

Memo

For action to

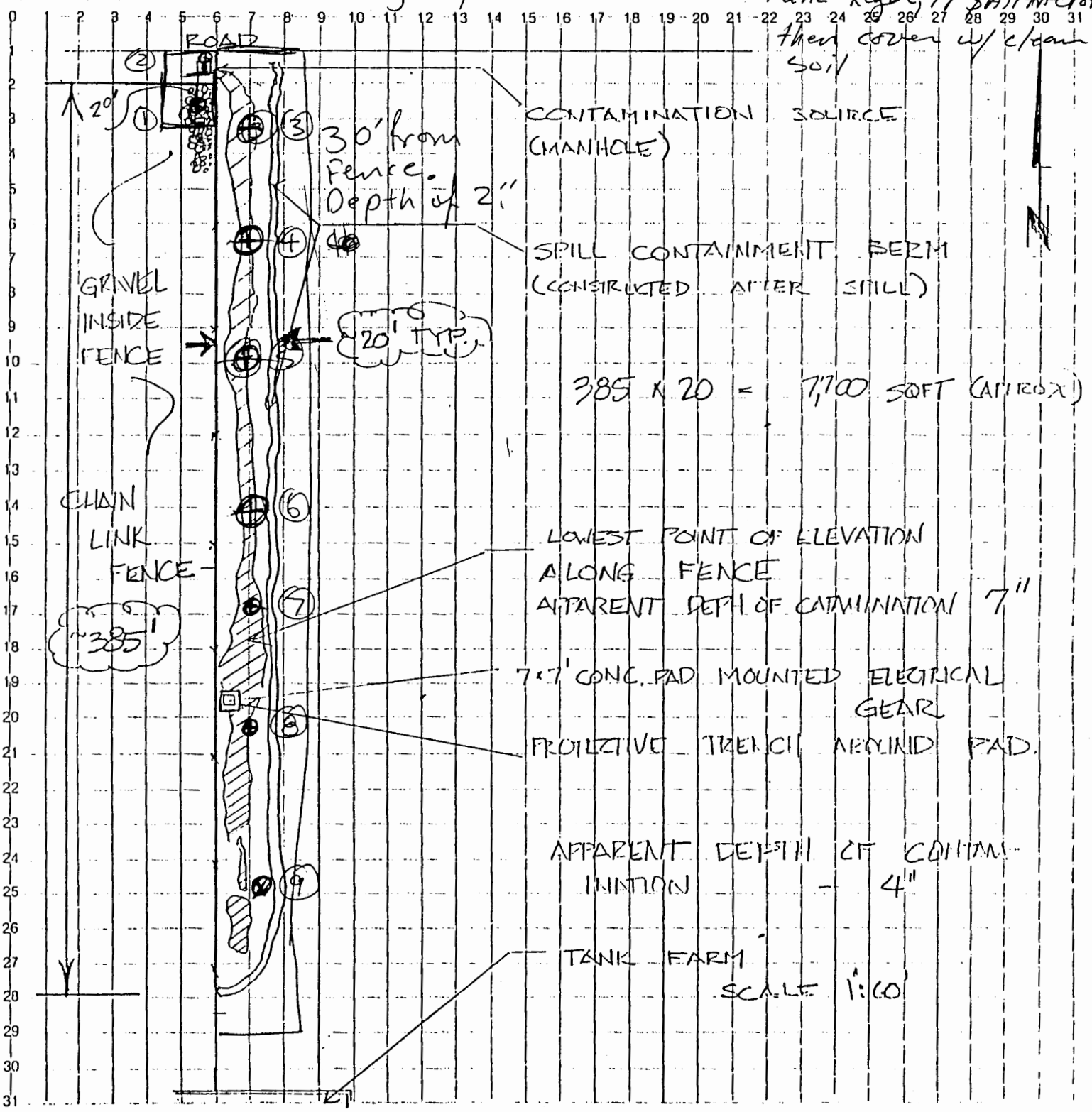
Date 7-9-92

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 HPC and Roger, if satisfactory then cover w/ clean soil



Performance!