AR_N00247_000011
NTC SAN DIEGO
SSIC NO. 5090.3.A

Bechtel

401 West A Street
Suite 1000
San Diego, CA 92101-7905

CLEAN II Program
Bechtel Job No. 22214
Contract No. N68711-92-D-4670
File Code: 0313

IN REPLY REFERENCE: CTOs-0046 and 0082

DCN 0122

December 4, 1995

Department of the Navy
Southwest Division
Naval Facilities Engineering Command
Code 1813.JO
1220 Pacific Highway, Room 135
San Diego, CA 92132-5187

Attention: Mr. Paul Kennedy
Contracting Officer

Subject: Addendum to Investigation Derived Waste Disposal for Site Nos. 5 and 6 [CTO-0046 and POI Nos. 7, 20, 26, 28, 29, 46, 48, 57, and 62 [CTO-0082]

Dear Mr. Kennedy:

In executing the Focused Site Inspection (FSI) for CTO 0046 and Site Assessment (SA) for CTO 0082 at the Naval Training Center (NTC) San Diego, we have accumulated approximately 34 drums of investigation derived waste (IDW). The waste streams to be disposed consist of 15 drums of well purge, rinseate, and decontamination water; 18 drums of soil cuttings; and one drum of plastic sheeting formerly used to construct the decontamination pad. Analytical results reported by the IT Corporation (our waste classification and disposal subcontractor) indicate composite samples from both waste streams generated have met the criteria of a non-hazardous waste as set forth by the Code of Federal Regulations (CFR-40) and the California Code of Regulations (CCR) Title 22. In addition, soil and water samples passed the aquatic toxicity test and do not contain metals which exceed STLC regulatory levels.

The drums containing liquid meet the requirements for discharge to the city sewer. The soil drums having met non-hazardous waste criteria will be segregated into two groups based on laboratory findings. Drums containing or potentially containing non-hazardous, low concentrations of DDT originating from the NTC Golf Course at Site 6 and POI 57 will be isolated and transported to a Class I disposal facility. Apparently, DDT has been and continues to be a sensitive topic of concern for the RAB. As a matter of public perception, should portions of NTC become available for sale in the future, it would be in the Navy's best interest not to

dispose of soil with low levels of DDT on-site. The remaining soil drums meet requirements for disposal at the NTC Inactive Landfill.

The attached letter from the IT Corporation includes a table which identifies the approximate costs for transportation and disposal of these waste streams to a number of different disposal facilities. The lowest cost option for disposal of liquids is to discharge on-site to the city sewer. The disposal option for solids is to transport 12 soil drums and one drum containing plastic sheeting off-site to a Class I disposal facility. The remaining six soil drums will be disposed of on-site. Assuming that you select the disposal sites as described above, the total estimated cost is approximately $7,500 for subcontractor services, including mobilization, fieldwork, and demobilization.

We are prepared to initiate the removal and disposal of the waste identified above as soon as the Navy provides direction as to the desired disposal alternatives. If you have any questions, please contact William Felix the CTOL at (619) 687-8819.

Very truly yours,

J. A. Moe
Program Manager

JAM

cc: Thomas Macchiarella, SWDIV, NTC RPM, (1832.TM)
Phillip Dyck, NTC, BEC, (1832.PD)
John Rogers, SWDIV, (18C2)

Attachments: IT Corporation Letter

INTERNATIONAL TECHNOLOGY CORPORATION

November 21, 1995

Mr. Steve ~~Awik~~ Kwik
Bechtel National, Inc.
401 West "A" Street, Suite 1000
San Diego, California 92101

Subject: NAVY CLEAN II CTO- 46, 82 (NAVAL TRAINING CENTER)
IDW SOIL AND WATER DISPOSAL OPTIONS

Dear Steve:

IT Corporation (IT) has sampled the Investigation Derived Waste (IDW) soil and water drums at the Naval Training Center for disposal characterization. One composite soil sample was collected from approximately 20 drums containing contaminated soil from well development drilling. Another composite sample was collected from approximately 20 drums containing well purge water and decontamination water. The samples were analyzed by the following analytical test methods:

EPA Method 8240	Volatile Organic Compounds
EPA Method 8270	Semi-Volatile Organic Compounds
EPA Method 8080	Organochlorine Pesticides and PCBs
EPA Method 418.1	Recoverable Petroleum Hydrocarbons
STLC/ CAM Metals	Soluble Threshold Limit Concentration Metals
TTLC/ CAM Metals	Total Threshold Limit Concentration Metals
96-Hour Bioassay	Aquatic Toxicity Test

The analytical results indicate that both composite samples do not appear to contain any compounds that are regulated under Code of Federal Regulations (CFR-40) or California Code of Regulations (CCR) Title 22, hazardous waste regulations. Specifically, the samples do not contain any metals exceeding the STLC regulatory levels and the samples both passed the 96-hour aquatic toxicity test.

Mr. Steve ~~Awik~~ Kwik
Bechtel National, Inc.
November 21, 1995
Page 2

There are several options available to the Navy for disposal of the IDW soil and water drums. The following table is a comparison of the different disposal options and the estimated costs associated with each option.

Disposal options for the soil:

	Disposal Cost	Transportation Costs
Disposal on-site at the inactive landfill	$0*	$0/ load
Class III (Non-Hazardous Landfill)	$400 +$10 - $85/ton**	$500/ load
Class I (Hazardous Landfill)	$91/ ton	$1310/ load
Thermal recycling:		
TPS Technologies	$55/ ton	$1390/ load
Sonas Earth Sciences	$38/ ton	$1650/ load
American Remediation Tech.	$50/ ton	$1390/ load

* A dumping fee may be attached to the permit granted by the Navy
** Includes dumping fee required by the facility

The lowest cost option for the Navy would be to obtain permission from the Navy to dump the soil on-site at the inactive landfill. This will eliminate the need to contract outside services for transportation and disposal.

Disposal options for the water:

Disposal Site	Profile Fee	Disposal Cost	Transportation Costs
On-site disposal*	$0	$0	$0
Crosby & Overton	$252	0.32/gal	1234/load
Norris Env.	$0	1.26/gal	1234/load
Rollins Env.	$252	1.29/gal	1234/load
Demenno/Kerdoon	$189	0.38/ gal	1234/load

* A dumping fee may be attached to the permit granted by the Navy

The lowest cost option for the Navy would be to dump the water on-site into a sanitary sewer. This will eliminate the need to contract outside services for transportation and disposal.

IT appreciates the opportunity to provide hazardous waste management services for Bechtel National, Inc. If you have any questions regarding the analytical results for soil and water at Navy Clean CTO-46 and 82 at the Naval Training Center or would like to discuss the disposal options, please call me at (310) 830-1781, extension 348.

Sincerely,

IT CORPORATION

Tony Bolliger
Field Chemist

TB:ss

Quanterra Environmental Services

CAM METALS
TTLC (Total)

Client Name: International Technology Corporation
Client ID: NTC46-1
LAB ID: 115775-0001-SA
Matrix: SOLID Sampled: 06 NOV 95 Received: 07 NOV 95
Authorized: 07 NOV 95 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	DIL	RL	Units	Method	Prep Date	Analyzed Date
Antimony	ND		1.0	6.0	mg/kg	SW6010	14 NOV 95	16 NOV 95
Barium	30.2		1.0	1.0	mg/kg	SW6010	14 NOV 95	16 NOV 95
Beryllium	ND		1.0	0.20	mg/kg	SW6010	14 NOV 95	16 NOV 95
Cadmium	ND		1.0	0.50	mg/kg	SW6010	14 NOV 95	16 NOV 95
Chromium	6.6		1.0	1.0	mg/kg	SW6010	14 NOV 95	16 NOV 95
Cobalt	2.9		1.0	1.0	mg/kg	SW6010	14 NOV 95	16 NOV 95
Copper	3.9		1.0	2.0	mg/kg	SW6010	14 NOV 95	16 NOV 95
Lead	5.2		1.0	5.0	mg/kg	SW6010	14 NOV 95	16 NOV 95
Molybdenum	ND		1.0	2.0	mg/kg	SW6010	14 NOV 95	16 NOV 95
Nickel	ND		1.0	4.0	mg/kg	SW6010	14 NOV 95	16 NOV 95
Silver	ND		1.0	1.0	mg/kg	SW6010	14 NOV 95	16 NOV 95
Thallium	ND		1.0	50.0	mg/kg	SW6010	14 NOV 95	16 NOV 95
Vanadium	17.0		1.0	1.0	mg/kg	SW6010	14 NOV 95	16 NOV 95
Zinc	21.6		1.0	2.0	mg/kg	SW6010	14 NOV 95	16 NOV 95

ND = Not Detected

Quanterra Environmental Services

METALS

Client Name: International Technology Corporation
Client ID: NTC46-1
LAB ID: 115775-0001-SA
Matrix: SOLID Sampled: 06 NOV 95 Received: 07 NOV 95
Authorized: 07 NOV 95 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	DIL	RL	Units	Method	Prep Date	Analyzed Date
Arsenic	1.9		1.0	0.50	mg/kg	SW7062	14 NOV 95	17 NOV 95
Mercury	ND		1.0	0.10	mg/kg	SW7471	17 NOV 95	17 NOV 95
Selenium	ND		1.0	0.50	mg/kg	SW7742	14 NOV 95	16 NOV 95

ND = Not Detected

Quanterra Environmental Services

METALS
California Title 22 (Title 26) Protocol
STLC Data Sheet (Citrate Buffer Leachate)

Client Name: International Technology Corporation
Client ID: NTC46-1
LAB ID: 115775-0001-SA
Matrix: SOLID Sampled: 06 NOV 95 Received: 07 NOV 95
Authorized: 07 NOV 95 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	DIL	RL	Units	Method	Prep Date	Analyzed Date
Antimony	ND		1.0	0.60	mg/L	SW6010	09 NOV 95	14 NOV 95
Arsenic	ND		1.0	1.0	mg/L	SW6010	09 NOV 95	14 NOV 95
Barium	2.2		1.0	0.10	mg/L	SW6010	09 NOV 95	14 NOV 95
Beryllium	ND		1.0	0.020	mg/L	SW6010	09 NOV 95	14 NOV 95
Cadmium	ND		1.0	0.050	mg/L	SW6010	09 NOV 95	14 NOV 95
Chromium	ND		1.0	0.10	mg/L	SW6010	09 NOV 95	14 NOV 95
Cobalt	ND		1.0	0.10	mg/L	SW6010	09 NOV 95	14 NOV 95
Copper	ND		1.0	0.20	mg/L	SW6010	09 NOV 95	14 NOV 95
Lead	ND		1.0	0.50	mg/L	SW6010	09 NOV 95	14 NOV 95
Molybdenum	ND		1.0	0.20	mg/L	SW6010	09 NOV 95	14 NOV 95
Nickel	ND		1.0	0.40	mg/L	SW6010	09 NOV 95	14 NOV 95
Silver	ND		1.0	0.10	mg/L	SW6010	09 NOV 95	14 NOV 95
Thallium	ND		1.0	5.0	mg/L	SW6010	09 NOV 95	14 NOV 95
Vanadium	0.20		1.0	0.10	mg/L	SW6010	09 NOV 95	14 NOV 95
Zinc	1.6		1.0	0.20	mg/L	SW6010	09 NOV 95	14 NOV 95
Mercury	ND		1.0	0.010	mg/L	SW7470	14 NOV 95	15 NOV 95
Selenium	ND		1.0	0.00500	mg/L	SW7742	09 NOV 95	13 NOV 95

ND = Not Detected

Quanterra Environmental Services

Total Petroleum Hydrocarbons, Recoverable
Method EPA 418.1

Client Name: International Technology Corporation
Client ID: NTC46-1
LAB ID: 115775-0001-SA
Matrix: SOLID Sampled: 06 NOV 95 Received: 07 NOV 95
Authorized: 07 NOV 95 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	DIL	RL	Units	Method	Prep Date	Analyzed Date
TPH, Recoverable	100		2.0	20	mg/kg	EPA 418.1	NA	20 NOV 9

Quanterra Environmental Services

Volatile Organic Compounds
Method 8260

Client Name: International Technology Corporation
Client ID: NTC46-1
LAB ID: 115775-0001-SA
Matrix: SOLID Sampled: 06 NOV 95 Received: 07 NOV 95
Authorized: 07 NOV 95 Prepared: 13 NOV 95 Analyzed: 13 NOV 95
Instrument: PTGC/MS Dilution: 1.0

Parameter	Result	Qualifier	RL	Units
Chloromethane	ND		10	ug/kg
Bromomethane	ND		10	ug/kg
Vinyl chloride	ND		10	ug/kg
Chloroethane	ND		10	ug/kg
Methylene chloride	ND		5.0	ug/kg
Acetone	ND		10	ug/kg
Carbon disulfide	ND		5.0	ug/kg
Trichlorofluoromethane	ND		5.0	ug/kg
1,1-Dichloroethene	ND		5.0	ug/kg
1,1-Dichloroethane	ND		5.0	ug/kg
1,2-Dichloroethene (cis/trans)	ND		5.0	ug/kg
Chloroform	ND		5.0	ug/kg
1,2-Dichloroethane	ND		5.0	ug/kg
2-Butanone	ND		10	ug/kg
1,1,1-Trichloroethane	ND		5.0	ug/kg
Carbon tetrachloride	ND		5.0	ug/kg
Vinyl acetate	ND		10	ug/kg
Bromodichloromethane	ND		5.0	ug/kg
1,2-Dichloropropane	ND		5.0	ug/kg
cis-1,3-Dichloropropene	ND		5.0	ug/kg
Trichloroethene	ND		5.0	ug/kg
Dibromochloromethane	ND		5.0	ug/kg
1,1,2-Trichloroethane	ND		5.0	ug/kg
Benzene	ND		5.0	ug/kg
trans-1,3-Dichloropropene	ND		5.0	ug/kg
2-Chloroethyl vinyl ether	ND		10	ug/kg
Bromoform	ND		5.0	ug/kg
4-Methyl-2-pentanone	ND		10	ug/kg
2-Hexanone	ND		10	ug/kg
Tetrachloroethene	ND		5.0	ug/kg
1,1,2,2-Tetrachloroethane	ND		5.0	ug/kg
Toluene	ND		5.0	ug/kg
Chlorobenzene	ND		5.0	ug/kg
Ethylbenzene	ND		5.0	ug/kg
Styrene	ND		5.0	ug/kg
Xylenes (total)	ND		5.0	ug/kg

Surrogate	Recovery		Acceptable Range
1,2-Dichloroethane-d4	94	%	80 - 120
Toluene-d8	102	%	81 - 117
Bromofluorobenzene	88	%	74 - 121

ND = Not Detected

Quanterra Environmental Services

Semivolatile Organic Compounds
Method 8270

Client Name: International Technology Corporation
Client ID: NTC46-1
LAB ID: 115775-0001-SA
Matrix: SOLID Sampled: 06 NOV 95 Received: 07 NOV 95
Authorized: 07 NOV 95 Prepared: 08 NOV 95 Analyzed: 13 NOV 95
Instrument: GC/MS Dilution: 1.0

Parameter	Result	Qualifier	RL	Units
Phenol	ND		0.33	mg/kg
bis(2-Chloroethyl) ether	ND		0.33	mg/kg
2-Chlorophenol	ND		0.33	mg/kg
1,3-Dichlorobenzene	ND		0.33	mg/kg
1,4-Dichlorobenzene	ND		0.33	mg/kg
Benzyl alcohol	ND		0.33	mg/kg
1,2-Dichlorobenzene	ND		0.33	mg/kg
2-Methylphenol	ND		0.33	mg/kg
bis(2-Chloroisopropyl)-ether	ND		0.33	mg/kg
3/4-Methylphenol	ND		0.33	mg/kg
N-Nitroso-di-n-propylamine	ND		0.33	mg/kg
Hexachloroethane	ND		0.33	mg/kg
Nitrobenzene	ND		0.33	mg/kg
Isophorone	ND		0.33	mg/kg
2-Nitrophenol	ND		0.33	mg/kg
2,4-Dimethylphenol	ND		0.33	mg/kg
Benzoic acid	ND		1.7	mg/kg
bis(2-Chloroethoxy)-methane	ND		0.33	mg/kg
2,4-Dichlorophenol	ND		0.33	mg/kg
1,2,4-Trichlorobenzene	ND		0.33	mg/kg
Naphthalene	ND		0.33	mg/kg
4-Chloroaniline	ND		0.33	mg/kg
Hexachlorobutadiene	ND		0.33	mg/kg
4-Chloro-3-methylphenol	ND		0.33	mg/kg
2-Methylnaphthalene	ND		0.33	mg/kg
Hexachlorocyclopentadiene	ND		0.33	mg/kg
2,4,6-Trichlorophenol	ND		0.33	mg/kg
2,4,5-Trichlorophenol	ND		1.7	mg/kg
2-Chloronaphthalene	ND		0.33	mg/kg
2-Nitroaniline	ND		1.7	mg/kg
Dimethyl phthalate	ND		0.33	mg/kg
Acenaphthylene	ND		0.33	mg/kg
3-Nitroaniline	ND		1.7	mg/kg
Acenaphthene	ND		0.33	mg/kg
2,4-Dinitrophenol	ND		1.7	mg/kg
4-Nitrophenol	ND		1.7	mg/kg
Dibenzofuran	ND		0.33	mg/kg
2,4-Dinitrotoluene	ND		0.33	mg/kg
2,6-Dinitrotoluene	ND		0.33	mg/kg
Diethyl phthalate	ND		0.33	mg/kg
4-Chlorophenyl phenyl ether	ND		0.33	mg/kg
Fluorene	ND		0.33	mg/kg
4-Nitroaniline	ND		1.7	mg/kg
4,6-Dinitro-2-methylphenol	ND		1.7	mg/kg
N-Nitrosodiphenylamine	ND		0.33	mg/kg
4-Bromophenyl phenyl ether	ND		0.33	mg/kg

ND = Not Detected

Quanterra Environmental Services

Semivolatile Organic Compounds
Method 8270 (cont.)

Client Name: International Technology Corporation
Client ID: NTC46-1
LAB ID: 115775-0001-SA
Matrix: SOLID Sampled: 06 NOV 95 Received: 07 NOV 95
Authorized: 07 NOV 95 Prepared: 08 NOV 95 Analyzed: 13 NOV 95
Instrument: GC/MS Dilution: 1.0

Parameter	Result	Qualifier	RL	Units
Hexachlorobenzene	ND		0.33	mg/kg
Pentachlorophenol	ND		1.7	mg/kg
Phenanthrene	ND		0.33	mg/kg
Anthracene	ND		0.33	mg/kg
Di-n-butyl phthalate	ND		0.33	mg/kg
Fluoranthene	ND		0.33	mg/kg
Pyrene	ND		0.33	mg/kg
Butyl benzyl phthalate	ND		0.33	mg/kg
3,3'-Dichlorobenzidine	ND		0.67	mg/kg
Benzo(a)anthracene	ND		0.33	mg/kg
bis(2-Ethylhexyl)-phthalate	ND		0.33	mg/kg
Chrysene	ND		0.33	mg/kg
Di-n-octyl phthalate	ND		0.33	mg/kg
Benzo(b)fluoranthene	ND		0.33	mg/kg
Benzo(k)fluoranthene	ND		0.33	mg/kg
Benzo(a)pyrene	ND		0.33	mg/kg
Indeno(1,2,3-c,d)pyrene	ND		0.33	mg/kg
Dibenz(a,h)anthracene	ND		0.33	mg/kg
Benzo(g,h,i)perylene	ND		0.33	mg/kg

Surrogate	Recovery		Acceptable Range
2-Fluorophenol	70	%	42 - 114
Phenol-d5	81	%	42 - 105
Nitrobenzene-d5	70	%	36 - 121
2-Fluorobiphenyl	77	%	38 - 102
2,4,6-Tribromophenol	69	%	30 - 135
Terphenyl-d14	81	%	29 - 125

ND = Not Detected

Quanterra Environmental Services

Organochlorine Pesticides and Polychlorinated Biphenyls
Method 8080

Client Name: International Technology Corporation
Client ID: NTC46-1
LAB ID: 115775-0001-SA
Matrix: SOLID Sampled: 06 NOV 95 Received: 07 NOV 95
Authorized: 07 NOV 95 Prepared: 08 NOV 95 Analyzed: 16 NOV 95
Instrument: PCB/PEST Dilution: 1.0

Parameter	Result	Qualifier	RL	Units
alpha-BHC	ND		1.7	ug/kg
beta-BHC	ND		1.7	ug/kg
delta-BHC	ND		1.7	ug/kg
gamma-BHC (Lindane)	ND		1.7	ug/kg
Aldrin	ND		1.7	ug/kg
Heptachlor	ND		1.7	ug/kg
Heptachlor epoxide	ND		1.7	ug/kg
Endosulfan I	ND		1.7	ug/kg
Dieldrin	ND		3.3	ug/kg
4,4'-DDE	ND		3.3	ug/kg
Endrin	ND		3.3	ug/kg
Endosulfan II	ND		3.3	ug/kg
4,4'-DDD	ND		3.3	ug/kg
Endosulfan sulfate	ND		3.3	ug/kg
4,4'-DDT	3.3		3.3	ug/kg
Methoxychlor	ND		17	ug/kg
Endrin aldehyde	ND		3.3	ug/kg
alpha-Chlordane	ND		1.7	ug/kg
gamma-Chlordane	ND		1.7	ug/kg
Toxaphene	ND		170	ug/kg
Aroclor 1016	ND		33	ug/kg
Aroclor 1221	ND		33	ug/kg
Aroclor 1232	ND		33	ug/kg
Aroclor 1242	ND		33	ug/kg
Aroclor 1248	ND		33	ug/kg
Aroclor 1254	ND		33	ug/kg
Aroclor 1260	ND		33	ug/kg

Surrogate	Recovery		Acceptable Range
2,4,5,6-Tetrachloro-m-xylene	86	%	60 - 150
Decachlorobiphenyl	109	%	60 - 150

ND = Not Detected

LABORATORY REPORT

Aquatic Testing Laboratories
"dedicated to providing quality aquatic toxicity testing"
4350 Transport Street, Unit 107
Ventura, CA 93003
(805) 650-0546 FAX (805) 650-0756
CA DOHS ELAP Cert. No.: 1775

Date: November 14, 1995

Client: Quanterra
1721 S. Grand Ave.
Santa Ana, CA 92705
Attn: Dion Beckwith

Laboratory No.: A-95110905-001/002
Project No.: 115775-001/002
Project Name: IT Corp/ Bechtel CTO 4682

Sample Control: The samples were received by ATL in a chilled state and chain of custody record attached.

Date Sampled: 11/06/95
Date Received: 11/09/95
Dates Tested: 11/09/95 to 11/14/95

Sample Analysis: The following analyses were performed on your sample:

CCR Title 22 - FHM Hazardous Waste Screen Bioassay

Attached are the test data generated from the analysis of your samples.

Result Summary:

ATL Lab No.	Quanterra ID.	Sample ID.	Results
A-95110905-001	115775-001	NTC46-1	PASSED (LC50 > 750 mg/l)
A-95110905-002	115775-002	NTC46-2	PASSED (LC50 > 750 mg/l)

Quality Control: Reviewed and approved by:

Joseph A. LeMay, Laboratory Director

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of the Laboratory's name for advertising or publicity purpose without authorization is prohibited.

F HEAD MINNOW HAZARDOUS WAS SCREEN BIOASSAY

Lab No.: A95110905-001

Client/ID: Quantera 115775-001
NTC 46-1

TEST SUMMARY

Species: Pimephales promelas.
Fish length (mm): av: 34; min: 32; max: 36.
Fish weight (gm): av: .162; min: .146; max: .173.
Test Protocol: Calif. F&G/DOHS 1988.
Test type: Static.
Test chamber volume 10 l.
Mixing method: Mechanical shaking.
Acclimation/dilution water: Reconstituted soft water (hardness 40-48 mg/l $CaCO_3$).
Aeration: Single bubble through narrow-bore tube.

Source: Thomas Fish.
Date fish received: 10-31-95.
Regulations: CCR Title 22.
Endpoints: LC50 at 96 hrs.
Temperature: 20 +/- 2°C.
Number of replicates: 2.
Number of fish per chamber: 10.
QA/QC Batch No.: RT951109.

TEST DATA

	INITIAL			24 Hr				48 Hr				72 Hr				96 Hr			
DATE/TIME	11-10-95 1100			11-11-95 1200				11-12-95 1000				11-13-95 11:40				11-14-95 1100			
ANALYST:	LM			LM				LM				TGM				LM			
	°C	DO	pH	°C	DO	pH	#D	°C	DO	pH	#D	°C	DO	pH	#D	°C	DO	pH	#D
CONT A	19.8	8.8	8.0	19.7	6.4	7.6	0	19.5	6.5	7.7	0	19.9	6.6	7.6	0	20.8	8.2	7.9	0
CONT B	19.8	8.8	8.0	19.6	6.5	7.5	0	19.5	6.5	7.7	0	19.9	6.7	7.8	0	20.4	8.2	7.9	0
400 A	19.9	8.9	8.3	20.0	8.4	7.7	0	19.7	8.1	7.7	0	20.0	7.8	7.6	0	20.2	7.9	7.3	1
400 B	19.8	8.9	8.3	20.0	8.5	7.7	0	19.7	8.3	7.8	0	19.9	8.2	7.6	0	20.2	8.5	7.3	0
750 A	19.8	9.0	8.3	20.0	8.6	7.7	0	19.7	8.3	7.9	0	19.9	7.9	7.6	0	20.1	8.4	7.3	0
750 B	19.7	9.1	8.3	19.9	8.5	7.7	0	19.7	7.6	7.8	0	19.9	5.9	7.6	0	20.1	8.6	7.3	0

Comments:

ADDITIONAL WATER CHEMISTRIES

	CONTROL	
	Alk.	Hard
0 hr	28	42
96hr	30	40

	HIGH CONC.	
	Alk.	Hard
0 hr	28	41
96hr	30	42

RESULTS

Total Number Dead	
CONTROL	0 /20
400 mg/l	1 /20
750 mg/l	0 /20

X	PASSED	LC50 > 750 mg/l	(<40% dead in 750 mg/l conc.)
–	FAILED	≥40% dead in 750	(Definitive Test Recommended)
–	FAILED	LC50 < 400 mg/l	(>60% dead in 400 mg/l conc.)

Quanterra Environmental Services

CAM METALS
TTLC (Total)

Client Name: International Technology Corporation
Client ID: NTC46-2
LAB ID: 115775-0002-SA
Matrix: WATER Sampled: 06 NOV 95 Received: 07 NOV 95
Authorized: 07 NOV 95 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	DIL	RL	Units	Method	Prep Date	Analyzed Date
Antimony	ND	G	2.0	0.12	mg/L	SW6010	13 NOV 95	14 NOV 95
Arsenic	ND	G	2.0	0.20	mg/L	SW6010	13 NOV 95	14 NOV 95
Barium	1.3	G	2.0	0.020	mg/L	SW6010	13 NOV 95	14 NOV 95
Beryllium	0.0072	G	2.0	0.0040	mg/L	SW6010	13 NOV 95	14 NOV 95
Cadmium	ND	G	2.0	0.010	mg/L	SW6010	13 NOV 95	14 NOV 95
Chromium	0.50	G	2.0	0.020	mg/L	SW6010	13 NOV 95	14 NOV 95
Cobalt	1.1	G	2.0	0.020	mg/L	SW6010	13 NOV 95	14 NOV 95
Copper	0.26	G	2.0	0.040	mg/L	SW6010	13 NOV 95	14 NOV 95
Lead	0.14	G	2.0	0.10	mg/L	SW6010	13 NOV 95	14 NOV 95
Molybdenum	ND	G	2.0	0.040	mg/L	SW6010	13 NOV 95	14 NOV 95
Nickel	0.20	G	2.0	0.080	mg/L	SW6010	13 NOV 95	14 NOV 95
Selenium	ND	G	2.0	0.40	mg/L	SW6010	13 NOV 95	14 NOV 95
Silver	0.022	G	2.0	0.020	mg/L	SW6010	13 NOV 95	14 NOV 95
Thallium	ND	G	2.0	1.0	mg/L	SW6010	13 NOV 95	14 NOV 95
Vanadium	0.73	G	2.0	0.020	mg/L	SW6010	13 NOV 95	14 NOV 95
Zinc	1.2	G	2.0	0.040	mg/L	SW6010	13 NOV 95	14 NOV 95

G = Reporting Limit elevated due to sample matrix interference.
ND = Not Detected

Quanterra Environmental Services

METALS
(Water - Total)

Client Name: International Technology Corporation
Client ID: NTC46-2
LAB ID: 115775-0002-SA
Matrix: WATER Sampled: 06 NOV 95 Received: 07 NOV 95
Authorized: 07 NOV 95 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	DIL	RL	Units	Method	Prep Date	Analyzed Date
Mercury	ND		1.0	0.00050	mg/L	SW7470	20 NOV 95	20 NOV 9

ND = Not Detected

Quanterra Environmental Services

METALS
California Title 22 (Title 26) Protocol
STLC Data Sheet (Citrate Buffer Leachate)

Client Name: International Technology Corporation
Client ID: NTC46-2
LAB ID: 115775-0002-SA
Matrix: WATER Sampled: 06 NOV 95 Received: 07 NOV 95
Authorized: 07 NOV 95 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	DIL	RL	Units	Method	Prep Date	Analyzed Date
Antimony	ND		1.0	0.60	mg/L	SW6010	10 NOV 95	15 NOV 95
Arsenic	ND		1.0	1.0	mg/L	SW6010	10 NOV 95	15 NOV 95
Barium	ND		1.0	0.10	mg/L	SW6010	10 NOV 95	15 NOV 95
Beryllium	ND		1.0	0.020	mg/L	SW6010	10 NOV 95	15 NOV 95
Cadmium	ND		1.0	0.050	mg/L	SW6010	10 NOV 95	15 NOV 95
Chromium	ND		1.0	0.10	mg/L	SW6010	10 NOV 95	15 NOV 95
Cobalt	ND		1.0	0.10	mg/L	SW6010	10 NOV 95	15 NOV 95
Copper	ND		1.0	0.20	mg/L	SW6010	10 NOV 95	15 NOV 95
Lead	ND		1.0	0.50	mg/L	SW6010	10 NOV 95	15 NOV 95
Molybdenum	ND		1.0	0.20	mg/L	SW6010	10 NOV 95	15 NOV 95
Nickel	ND		1.0	0.40	mg/L	SW6010	10 NOV 95	15 NOV 95
Silver	ND		1.0	0.10	mg/L	SW6010	10 NOV 95	15 NOV 95
Thallium	ND		1.0	5.0	mg/L	SW6010	10 NOV 95	15 NOV 95
Vanadium	ND		1.0	0.10	mg/L	SW6010	10 NOV 95	15 NOV 95
Zinc	ND		1.0	0.20	mg/L	SW6010	10 NOV 95	15 NOV 95
Mercury	ND		1.0	0.010	mg/L	SW7470	20 NOV 95	20 NOV 95
Selenium	ND		1.0	0.00500	mg/L	SW7742	10 NOV 95	13 NOV 95

ND = Not Detected

Quanterra Environmental Services

Total Petroleum Hydrocarbons, Recoverable
Method 418.1

Client Name: International Technology Corporation
Client ID: NTC46-2
LAB ID: 115775-0002-SA
Matrix: WATER Sampled: 06 NOV 95 Received: 07 NOV 95
Authorized: 07 NOV 95 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	DIL	RL	Units	Method	Prep Date	Analyzed Date
TPH, Recoverable	ND	R	3.7	3.7	mg/L	418.1	NA	20 NOV 95

R = Reporting limit elevated due to sample volume limitations.
ND = Not Detected

Quanterra Environmental Services

Volatile Organic Compounds
Method 8260

Client Name: International Technology Corporation
Client ID: NTC46-2
LAB ID: 115775-0002-SA
Matrix: WATER Sampled: 06 NOV 95 Received: 07 NOV 95
Authorized: 07 NOV 95 Prepared: 14 NOV 95 Analyzed: 14 NOV 95
Instrument: PTGC/MS Dilution: 1.0

Parameter	Result	Qualifier	RL	Units
Chloromethane	ND		10	ug/L
Bromomethane	ND		10	ug/L
Vinyl chloride	ND		10	ug/L
Chloroethane	ND		10	ug/L
Methylene chloride	11		5.0	ug/L
Acetone	13		10	ug/L
Carbon disulfide	ND		5.0	ug/L
Trichlorofluoromethane	ND		5.0	ug/L
1,1-Dichloroethene	ND		5.0	ug/L
1,1-Dichloroethane	ND		5.0	ug/L
1,2-Dichloroethene (cis/trans)	ND		5.0	ug/L
Chloroform	ND		5.0	ug/L
1,2-Dichloroethane	ND		5.0	ug/L
2-Butanone	ND		10	ug/L
1,1,1-Trichloroethane	ND		5.0	ug/L
Carbon tetrachloride	ND		5.0	ug/L
Vinyl acetate	ND		10	ug/L
Bromodichloromethane	ND		5.0	ug/L
1,2-Dichloropropane	ND		5.0	ug/L
cis-1,3-Dichloropropene	ND		5.0	ug/L
Trichloroethene	ND		5.0	ug/L
Dibromochloromethane	ND		5.0	ug/L
1,1,2-Trichloroethane	ND		5.0	ug/L
Benzene	ND		5.0	ug/L
trans-1,3-Dichloropropene	ND		5.0	ug/L
2-Chloroethyl vinyl ether	ND		10	ug/L
Bromoform	ND		5.0	ug/L
4-Methyl-2-pentanone	ND		10	ug/L
2-Hexanone	ND		10	ug/L
Tetrachloroethene	ND		5.0	ug/L
1,1,2,2-Tetrachloroethane	ND		5.0	ug/L
Toluene	ND		5.0	ug/L
Chlorobenzene	ND		5.0	ug/L
Ethylbenzene	ND		5.0	ug/L
Styrene	ND		5.0	ug/L
Xylenes (total)	ND		5.0	ug/L

Surrogate	Recovery		Acceptable Range
1,2-Dichloroethane-d4	99	%	80 - 120
Toluene-d8	99	%	88 - 110
Bromofluorobenzene	103	%	86 - 115

ND = Not Detected

Quanterra Environmental Services

Semivolatile Organic Compounds
Method 8270

Client Name: International Technology Corporation
Client ID: NTC46-2
LAB ID: 115775-0002-SA
Matrix: WATER Sampled: 06 NOV 95 Received: 07 NOV 95
Authorized: 07 NOV 95 Prepared: 08 NOV 95 Analyzed: 11 NOV 95
Instrument: GC/MS Dilution: 4.0

Parameter	Result	Qualifier	RL	Units
Phenol	ND	R	40	ug/L
bis(2-Chloroethyl) ether	ND	R	40	ug/L
2-Chlorophenol	ND	R	40	ug/L
1,3-Dichlorobenzene	ND	R	40	ug/L
1,4-Dichlorobenzene	ND	R	40	ug/L
Benzyl alcohol	ND	R	40	ug/L
1,2-Dichlorobenzene	ND	R	40	ug/L
2-Methylphenol	ND	R	40	ug/L
bis(2-Chloroisopropyl)-ether	ND	R	40	ug/L
3/4-Methylphenol	ND	R	40	ug/L
N-Nitroso-di-n-propylamine	ND	R	40	ug/L
Hexachloroethane	ND	R	40	ug/L
Nitrobenzene	ND	R	40	ug/L
Isophorone	ND	R	40	ug/L
2-Nitrophenol	ND	R	40	ug/L
2,4-Dimethylphenol	ND	R	40	ug/L
Benzoic acid	ND	R	200	ug/L
bis(2-Chloroethoxy)-methane	ND	R	40	ug/L
2,4-Dichlorophenol	ND	R	40	ug/L
1,2,4-Trichlorobenzene	ND	R	40	ug/L
Naphthalene	ND	R	40	ug/L
4-Chloroaniline	ND	R	40	ug/L
Hexachlorobutadiene	ND	R	40	ug/L
4-Chloro-3-methylphenol	ND	R	40	ug/L
2-Methylnaphthalene	ND	R	40	ug/L
Hexachlorocyclopentadiene	ND	R	40	ug/L
2,4,6-Trichlorophenol	ND	R	40	ug/L
2,4,5-Trichlorophenol	ND	R	200	ug/L
2-Chloronaphthalene	ND	R	40	ug/L
2-Nitroaniline	ND	R	200	ug/L
Dimethyl phthalate	ND	R	40	ug/L
Acenaphthylene	ND	R	40	ug/L
3-Nitroaniline	ND	R	200	ug/L
Acenaphthene	ND	R	40	ug/L
2,4-Dinitrophenol	ND	R	200	ug/L
4-Nitrophenol	ND	R	200	ug/L
Dibenzofuran	ND	R	40	ug/L
2,4-Dinitrotoluene	ND	R	40	ug/L
2,6-Dinitrotoluene	ND	R	40	ug/L
Diethyl phthalate	ND	R	40	ug/L
4-Chlorophenyl phenyl ether	ND	R	40	ug/L
Fluorene	ND	R	40	ug/L
4-Nitroaniline	ND	R	200	ug/L
4,6-Dinitro-2-methylphenol	ND	R	200	ug/L
N-Nitrosodiphenylamine	ND	R	40	ug/L

R = Reporting limit elevated due to sample volume limitations.
ND = Not Detected

Quanterra Environmental Services

Semivolatile Organic Compounds
Method 8270 (cont.)

Client Name: International Technology Corporation
Client ID: NTC46-2
LAB ID: 115775-0002-SA
Matrix: WATER Sampled: 06 NOV 95 Received: 07 NOV 95
Authorized: 07 NOV 95 Prepared: 08 NOV 95 Analyzed: 11 NOV 95
Instrument: GC/MS Dilution: 4.0

Parameter	Result	Qualifier	RL	Units
4-Bromophenyl phenyl ether	ND	R	40	ug/L
Hexachlorobenzene	ND	R	40	ug/L
Pentachlorophenol	ND	R	200	ug/L
Phenanthrene	ND	R	40	ug/L
Anthracene	ND	R	40	ug/L
Di-n-butyl phthalate	ND	R	40	ug/L
Fluoranthene	ND	R	40	ug/L
Pyrene	ND	R	40	ug/L
Butyl benzyl phthalate	ND	R	40	ug/L
3,3'-Dichlorobenzidine	ND	R	80	ug/L
Benzo(a)anthracene	ND	R	40	ug/L
bis(2-Ethylhexyl)-phthalate	ND	R	40	ug/L
Chrysene	ND	R	40	ug/L
Di-n-octyl phthalate	ND	R	40	ug/L
Benzo(b)fluoranthene	ND	R	40	ug/L
Benzo(k)fluoranthene	ND	R	40	ug/L
Benzo(a)pyrene	ND	R	40	ug/L
Indeno(1,2,3-c,d)pyrene	ND	R	40	ug/L
Dibenz(a,h)anthracene	ND	R	40	ug/L
Benzo(g,h,i)perylene	ND	R	40	ug/L

Surrogate	Recovery		Acceptable Range
2-Fluorophenol	37	%	21 - 100
Phenol-d5	22	%	10 - 94
Nitrobenzene-d5	61	%	38 - 115
2-Fluorobiphenyl	75	%	43 - 116
2,4,6-Tribromophenol	74	%	25 - 131
Terphenyl-d14	89	%	21 - 134

R = Reporting limit elevated due to sample volume limitations.
ND = Not Detected

Quanterra Environmental Services

Organochlorine Pesticides and Polychlorinated Biphenyls
Method 8080

Client Name: International Technology Corporation
Client ID: NTC46-2
LAB ID: 115775-0002-SA
Matrix: WATER Sampled: 06 NOV 95 Received: 07 NOV 95
Authorized: 07 NOV 95 Prepared: 09 NOV 95 Analyzed: 16 NOV 95
Instrument: PCB/PEST Dilution: 4.0

Parameter	Result	Qualifier	RL	Units
alpha-BHC	ND	R	0.20	ug/L
beta-BHC	ND	R	0.20	ug/L
delta-BHC	ND	R	0.20	ug/L
gamma-BHC (Lindane)	ND	R	0.20	ug/L
Aldrin	ND	R	0.20	ug/L
Heptachlor	ND	R	0.20	ug/L
Heptachlor epoxide	ND	R	0.20	ug/L
Endosulfan I	ND	R	0.20	ug/L
Dieldrin	ND	R	0.40	ug/L
4,4'-DDE	ND	R	0.40	ug/L
Endrin	ND	R	0.40	ug/L
Endosulfan II	ND	R	0.40	ug/L
4,4'-DDD	ND	R	0.40	ug/L
Endosulfan sulfate	ND	R	0.40	ug/L
4,4'-DDT	ND	R	0.40	ug/L
Endrin aldehyde	ND	R	0.40	ug/L
Methoxychlor	ND	R	2.0	ug/L
alpha-Chlordane	ND	R	0.20	ug/L
gamma-Chlordane	ND	R	0.20	ug/L
Toxaphene	ND	R	20	ug/L
Aroclor 1016	ND	R	4.0	ug/L
Aroclor 1221	ND	R	4.0	ug/L
Aroclor 1232	ND	R	4.0	ug/L
Aroclor 1242	ND	R	4.0	ug/L
Aroclor 1248	ND	R	4.0	ug/L
Aroclor 1254	ND	R	4.0	ug/L
Aroclor 1260	ND	R	4.0	ug/L

Surrogate	Recovery		Acceptable Range	
2,4,5,6-Tetrachloro-m-xylene	92	%	60 - 150	
Decachlorobiphenyl	37	%	60 - 150	I

I = Surrogate recovery outside of limits due to sample matrix interference.
R = Reporting limit elevated due to sample volume limitations.
ND = Not Detected

F..HEAD MINNOW HAZARDOUS WAS.. SCREEN BIOASSAY

Lab No.: A95110905-002

Client/ID: Quantera 115775-002
NTC 46-2

TEST SUMMARY

Species: Pimephales promelas.
Fish length (mm): av: 34; min: 32; max: 36.
Fish weight (gm): av: .162; min: .46; max: .73.
Test Protocol: Calif. F&G/DOHS 1988.
Test type: Static.
Test chamber volume 10 l.
Mixing method: Mechanical shaking.
Acclimation/dilution water: Reconstituted soft water (hardness 40-48 mg/l $CaCO_3$).
Aeration: Single bubble through narrow-bore tube.

Source: Thomas Fish.
Date fish received: 10-31-95.
Regulations: CCR Title 22.
Endpoints: LC50 at 96 hrs.
Temperature: 20 +/- 2°C.
Number of replicates: 2.
Number of fish per chamber: 10.
QA/QC Batch No.: RT951109.

TEST DATA

	INITIAL			24 Hr				48 Hr				72 Hr				96 Hr			
DATE/TIME	11-10-95 1100			11-11-95 1200				11-12-95 1000				11-13-95 11:40				11-14-95 1100			
ANALYST:	LM			LM				[illegible]				TSM				LM			
	°C	DO	pH	°C	DO	pH	#D	°C	DO	pH	#D	°C	DO	pH	#D	°C	DO	pH	#D
CONT A	19.8	8.8	8.0	19.7	6.4	7.6	0	19.5	6.5	7.7	0	19.9	6.6	7.6	0	20.8	8.2	7.5	0
CONT B	19.8	8.8	8.0	19.6	6.5	7.5	0	19.5	6.5	7.7	0	19.9	6.7	7.8	0	20.4	8.2	7.5	0
400 A	19.8	8.9	8.3	20.1	8.4	7.7	0	19.8	7.0	7.7	0	20.1	8.1	7.7	0	20.3	8.2	7.3	0
400 B	19.8	9.0	8.2	20.1	8.4	7.7	0	19.8	8.2	7.7	0	19.9	7.8	7.7	0	20.2	8.2	7.3	0
750 A	19.7	9.1	8.2	20.0	8.5	7.7	0	19.7	8.2	7.7	0	19.9	8.2	7.7	0	20.1	8.7	7.4	0
750 B	19.7	9.1	8.2	19.9	8.5	7.7	0	19.7	8.5	7.8	0	19.9	8.0	7.7	0	20.1	8.4	7.4	0

Comments:

ADDITIONAL WATER CHEMISTRIES

	CONTROL	
	Alk.	Hard
0 hr	28	42
96hr	30	40

	HIGH CONC.	
	Alk.	Hard
0 hr	27	41
96hr	29	40

RESULTS

Total Number Dead		
CONTROL	0	/20
400 mg/l	0	/20
750 mg/l	0	/20

X	PASSED	LC50 > 750 mg/l	(<40% dead in 750 mg/l conc.)
	FAILED	≥40% dead in 750	(Definitive Test Recommended)
—	FAILED	LC50 < 400 mg/l	(>60% dead in 400 mg/l conc.)

AR_N00247_000011
NTC SAN DIEGO
SSIC NO. 5090.3.A

INVESTIGATION DERIVED WASTE DISPOSAL FOR SITES 5 AND 6

THIS DOCUMENT WAS NOT SUBMITTED TO THE RESTORATION RECORD FILE.

FOR ADDITIONAL INFORMATION, CONTACT:

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