



1221 Thames Drive
Concord, California 94518
(510) 682-7200 FAX 682-8360

ENVIRONMENTAL
PROTECTION

95 MAY 10 PM 2:33

May 2, 1995

Ms. Susan Hugo
Alameda County Health Agency
Division of Environmental Protection
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Subject: ONE Color Communications Underground Tank

Dear Susan:

Pursuant to our telephone conversation, I am enclosing the laboratory data for the underground tank contents that was found in the basement of the ONE facility. We have found no facility plans that indicate the tank was used in any former process. In addition, we found no pipes leading into or out of the tank using ground penetrating radar. In all probability, the tank may have been a wastewater tank with the contents being flushed down the drain when full.

In summary, the tank contents contains no chemicals at the hazardous waste threshold level and produced a 96 hr LC50 greater than 750 mg/l in accordance with Title 22, Section 66261.24.

Summary of Metal Analysis for Tank Contents

concentrations in mg/l

antimony	ND	mercury	0.064 ^v
arsenic	ND	molybdenum	ND
barium	0.2 ✓ 1.01	nickel	ND
beryllium	ND	selenium	ND
cadmium	ND	silver	ND
chromium	0.4	thallium	ND
cobalt	0.04	vanadium	0.01
copper	1.4	zinc	3.4
lead	1.4		

The first set of samples collected on November 9 and reported on November 28, 1994 were



Ms. Susan Hugo
Alameda County Health Agency
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nondetectable for organic chemicals by EPA Method 8240 and Method 8270. A second set of samples were collected on February 10, 1995 and were analyzed by EPA Method 8270. Tentatively Identified Compounds (TICs) were requested from the laboratory for identification. Di-n-butylphtalate was identified at 1.2 mg/l. in the sample. This compound was not identified during the first set of sampling and may be an artifact in that plasticizers are often found in environmental samples. No other compounds were identified.

TPH as diesel was found at 24 mg/l and TPH as kerosene at 20 mg/l in the tank contents. These concentrations were quantified from one point kerosene and motor oil curves. The concentrations of TPH in the tank contents are significantly less than what has been found in the soil in the general vicinity of ONE.

We have enclosed the results of all chemical analyses of the tank contents to date.

It is our intention to close the tank in place. We are quite willing to install slant borings for the purpose of determining if the tank has leaked, but we have no specific target analytes to test for in the soil.

Due to the fire that occurred at the ONE facility in early January, 1995, ONE is on a fast track to refurbish their building. This includes closing the tank in place with permission from the County. We would appreciate your prompt attention to this matter.

Very truly yours,
BLOCK ENVIRONMENTAL SERVICES, INC

A handwritten signature in black ink, appearing to read "Ronald M. Block". The signature is fluid and cursive, written over the typed name.

Ronald M. Block, Ph.D.
President

cc: Gary Leach-ONE



REPORT OF LABORATORY ANALYSIS

Oakland National Engraving
1001 42nd St.
Oakland, CA 94608

January 04, 1995
PACE Project Number: 441229506

Attn: Mr. Gary Leach

Client Reference: Acid Neutralization Rm.

PACE Sample Number:
Date Collected:
Date Received:

70 0457440
By Client
12/29/94
One-1

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

EXTRACTABLE FUELS EPA 3510/8015			
Extractable Fuels, as Diesel	mg/L	1.25	24 01/03/95
Extractable Fuels, as Kerosene	mg/L	7.50	20 (1) 01/03/95

These data have been reviewed and are approved for release.

Darrell C. Cain
Darrell C. Cain
Regional Director



ENVIRONMENTAL REPORT OF LABORATORY ANALYSIS
POLLUTION

95 MAY 10 PM 2:33

November 28, 1994

Mr. Gary Leach
Oakland National Engraving
1001 42nd St.
Oakland, CA 94608

RE: PACE Project No. 441110.513
Client Reference: Acid Neutralization UST

Dear Mr. Leach:

Enclosed is the report of laboratory analyses for samples received
November 10, 1994.

Footnotes are given at the end of the report.

If you have any questions concerning this report, please feel free
to contact us.

Sincerely,

Ronald M. Chew
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

Oakland National Engraving
1001 42nd St.
Oakland, CA 94608

November 28, 1994
PACE Project Number: 441110513

Attn: Mr. Gary Leach

Client Reference: Acid Neutralization UST

PACE Sample Number: 70 0440394
Date Collected: By Client
Time Collected: 10:00
Date Received: 11/10/94
Client Sample ID: ONE-1

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Arsenic (EPA Method 7060, Furnace AAS)	mg/L	0.005	ND	11/16/94
Flash Point, Closed Cup	Degrees C	20	>60	11/17/94
Mercury (EPA Method 7470, Cold Vapor AA)	mg/L	0.001	0.064	11/16/94
Selenium (EPA Method 7740, Furnace AAS)	mg/L	0.005	ND	11/17/94
pH (Units at 25 Degrees Celsius)	Units	0.10	8.94	11/10/94

CAM METALS IN AQUEOUS MATRIX, ICP SCAN

Antimony (EPA Method 6010/200.7, ICP)	mg/L	0.06	ND	11/21/94
Barium (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.20	11/21/94
Beryllium (EPA Method 6010/200.7, ICP)	mg/L	0.007	ND	11/21/94
Cadmium (EPA Method 6010/200.7, ICP)	mg/L	0.005	ND	11/21/94
Chromium (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.04	11/21/94
Cobalt (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.04	11/21/94
Copper (EPA Method 6010/200.7, ICP)	mg/L	0.01	1.4	11/21/94
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	1.4	11/21/94
Molybdenum (EPA Method 6010/200.7, ICP)	mg/L	0.02	ND	11/21/94
Nickel (EPA Method 6010/200.7, ICP)	mg/L	0.02	ND	11/21/94
Silver (EPA Method 6010/200.7, ICP)	mg/L	0.01	ND	11/21/94
Thallium (EPA Method 6010/200.7, ICP)	mg/L	0.2	ND	11/21/94
Vanadium (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.01	11/21/94
Zinc (EPA Method 6010/200.7, ICP)	mg/L	0.01	3.4	11/21/94

ORGANIC ANALYSIS

VOLATILE ORGANICS, EPA METHOD 8240 GC/MS

Chloromethane	ug/L	10	ND	11/16/94
Vinyl Chloride	ug/L	10	ND	11/16/94
Bromomethane	ug/L	10	ND	11/16/94
Chloroethane	ug/L	10	ND	11/16/94
Trichlorofluoromethane	ug/L	5	ND	11/16/94



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

PACE Sample Number: 70 0440394
Date Collected: By Client
Time Collected: 10:00
Date Received: 11/10/94
Client Sample ID: ONE-1

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

VOLATILE ORGANICS, EPA METHOD 8240 GC/MS

1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	5	ND	11/16/94
2-Butanone (MEK)	ug/L	50	ND	11/16/94
1,1-Dichloroethene	ug/L	5	ND	11/16/94
Carbon Disulfide	ug/L	5	ND	11/16/94
Acetone	ug/L	50	ND	11/16/94
Methylene Chloride	ug/L	5	ND	11/16/94
trans-1,2-Dichloroethene	ug/L	5	ND	11/16/94
1,1-Dichloroethane	ug/L	5	ND	11/16/94
Chloroform	ug/L	5	ND	11/16/94
1,1,1-Trichloroethane	ug/L	5	ND	11/16/94
1,2-Dichloroethane	ug/L	5	ND	11/16/94
Vinyl Acetate	ug/L	50	ND	11/16/94
cis-1,2-Dichloroethene	ug/L	5	ND	11/16/94
Carbon Tetrachloride	ug/L	5	ND	11/16/94
Benzene	ug/L	5	ND	11/16/94
1,2-Dichloropropane	ug/L	5	ND	11/16/94
Trichloroethene (TCE)	ug/L	5	ND	11/16/94
Bromodichloromethane	ug/L	5	ND	11/16/94
2-Chloroethyl Vinyl Ether	ug/L	10	ND	11/16/94
trans-1,3-Dichloropropene	ug/L	5	ND	11/16/94
4-Methyl-2-pentanone (MIBK)	ug/L	50	ND	11/16/94
Toluene	ug/L	5	ND	11/16/94
cis-1,3-Dichloropropene	ug/L	5	ND	11/16/94
1,1,2-Trichloroethane	ug/L	5	ND	11/16/94
Dibromochloromethane	ug/L	5	ND	11/16/94
2-Hexanone	ug/L	50	ND	11/16/94
Tetrachloroethene	ug/L	5	ND	11/16/94
Chlorobenzene	ug/L	5	ND	11/16/94
Ethylbenzene	ug/L	5	ND	11/16/94
Bromoform	ug/L	5	ND	11/16/94
Xylene(s) Total	ug/L	5	ND	11/16/94



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

PACE Sample Number:	70 0440394
Date Collected:	By Client
Time Collected:	10:00
Date Received:	11/10/94
Client Sample ID:	ONE-1

Parameter	Units	MDL		DATE ANALYZED
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ORGANIC ANALYSIS

VOLATILE ORGANICS, EPA METHOD 8240 GC/MS

Styrene	ug/L	5	ND	11/16/94
1,1,2,2,-Tetrachloroethane	ug/L	5	ND	11/16/94
1,3-Dichlorobenzene	ug/L	5	ND	11/16/94
1,4-Dichlorobenzene	ug/L	5	ND	11/16/94
1,2-Dichlorobenzene	ug/L	5	ND	11/16/94
1,2-Dichloroethane-d4 (Surrog. Recovery) %			107	11/16/94
Toluene-d8 (Surrogate Recovery) %			93	11/16/94
4-Bromofluorobenzene (Surrog.Recovery) %			94	11/16/94

EXTRACTABLE ORGANICS BY EPA 8270 (GC/MS)

Phenol	ug/L	200	ND	11/21/94
bis(2-Chloroethyl)ether	ug/L	200	ND	11/21/94
2-Chlorophenol	ug/L	200	ND	11/21/94
1,3-Dichlorobenzene	ug/L	200	ND	11/21/94
1,4-Dichlorobenzene	ug/L	200	ND	11/21/94
Benzyl Alcohol	ug/L	400	ND	11/21/94
1,2-Dichlorobenzene	ug/L	200	ND	11/21/94
2-Methylphenol	ug/L	200	ND	11/21/94
bis(2-Chloroisopropyl)ether	ug/L	200	ND	11/21/94
4-Methylphenol	ug/L	200	ND	11/21/94
n-Nitroso-di-n-propylamine	ug/L	200	ND	11/21/94
Hexachloroethane	ug/L	200	ND	11/21/94
Nitrobenzene	ug/L	200	ND	11/21/94
Isophorone	ug/L	200	ND	11/21/94
2-Nitrophenol	ug/L	200	ND	11/21/94
2,4-Dimethylphenol	ug/L	200	ND	11/21/94
bis(2-Chloroethoxy)methane	ug/L	200	ND	11/21/94
2,4-Dichlorophenol	ug/L	200	ND	11/21/94
1,2,4-Trichlorobenzene	ug/L	200	ND	11/21/94
Naphthalene	ug/L	200	ND	11/21/94
Benzoic Acid	ug/L	1000	ND	11/21/94



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

PACE Sample Number: 70 0440394
Date Collected: By Client
Time Collected: 10:00
Date Received: 11/10/94
Client Sample ID: ONE-1

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>		<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

EXTRACTABLE ORGANICS BY EPA 8270 (GC/MS)

4-Chloroaniline	ug/L	400	ND	11/21/94
Hexachlorobutadiene	ug/L	200	ND	11/21/94
4-Chloro-3-methylphenol	ug/L	400	ND	11/21/94
2-Methylnaphthalene	ug/L	200	ND	11/21/94
Hexachlorocyclopentadiene	ug/L	200	ND	11/21/94
2,4,6-Trichlorophenol	ug/L	200	ND	11/21/94
2,4,5-Trichlorophenol	ug/L	200	ND	11/21/94
2-Chloronaphthalene	ug/L	200	ND	11/21/94
2-Nitroaniline	ug/L	1000	ND	11/21/94
Dimethylphthalate	ug/L	200	ND	11/21/94
Acenaphthylene	ug/L	200	ND	11/21/94
2,6-Dinitrotoluene	ug/L	200	ND	11/21/94
3-Nitroaniline	ug/L	1000	ND	11/21/94
Acenaphthene	ug/L	200	ND	11/21/94
2,4-Dinitrophenol	ug/L	1000	ND	11/21/94
4-Nitrophenol	ug/L	1000	ND	11/21/94
Dibenzofuran	ug/L	200	ND	11/21/94
2,4-Dinitrotoluene	ug/L	200	ND	11/21/94
Diethylphthalate	ug/L	200	ND	11/21/94
Fluorene	ug/L	200	ND	11/21/94
4-Chlorophenyl-phenylether	ug/L	200	ND	11/21/94
4-Nitroaniline	ug/L	1000	ND	11/21/94
4,6-Dinitro-2-methylphenol	ug/L	1000	ND	11/21/94
n-Nitrosodiphenylamine	ug/L	200	ND	11/21/94
4-Bromophenyl-phenylether	ug/L	200	ND	11/21/94
Hexachlorobenzene	ug/L	200	ND	11/21/94
Pentachlorophenol	ug/L	1000	ND	11/21/94
Phenanthrene	ug/L	200	ND	11/21/94
Anthracene	ug/L	200	ND	11/21/94
Di-n-butylphthalate	ug/L	200	ND	11/21/94
Fluoranthene	ug/L	200	ND	11/21/94



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November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

PACE Sample Number: 70 0440394
Date Collected: By Client
Time Collected: 10:00
Date Received: 11/10/94
Client Sample ID: ONE-1


<u>Parameter</u>	<u>Units</u>	<u>MDL</u>		<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

EXTRACTABLE ORGANICS BY EPA 8270 (GC/MS)

Pyrene	ug/L	200	H1 ND	11/21/94
Butylbenzylphthalate	ug/L	200	ND	11/21/94
Benzo(a)anthracene	ug/L	200	ND	11/21/94
3,3'-Dichlorobenzidine	ug/L	400	ND	11/21/94
Chrysene	ug/L	200	ND	11/21/94
bis(2-Ethylhexyl)phthalate	ug/L	200	ND	11/21/94
Di-n-octylphthalate	ug/L	200	ND	11/21/94
Benzo(b)fluoranthene	ug/L	200	ND	11/21/94
Benzo(k)fluoranthene	ug/L	200	ND	11/21/94
Benzo(a)pyrene	ug/L	200	ND	11/21/94
Indeno(1,2,3-cd)pyrene	ug/L	200	ND	11/21/94
Dibenzo(a,h)anthracene	ug/L	200	ND	11/21/94
Benzo(g,h,i)perylene	ug/L	200	ND	11/21/94
2-Fluorophenol (surrogate)	%		86	11/21/94
Phenol-d6 (surrogate)	%		114	11/21/94
Nitrobenzene-d5 (surrogate)	%		140	11/21/94
2-Fluorobiphenyl (surrogate)	%		93	11/21/94
2,4,6-Tribromophenol (surrogate)	%		70	11/21/94
Terphenyl-d14 (surrogate)	%		51	11/21/94
Date Extracted			11/18/94	

These data have been reviewed and are approved for release.


Darrell C. Cain
Regional Director



REPORT OF LABORATORY ANALYSIS

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FOOTNOTES
for pages 1 through 5

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

> Greater than reported value.
HI Sample was diluted due to high levels of hydrocarbons present.
MDL Method Detection Limit
ND Not detected at or above the MDL.



REPORT OF LABORATORY ANALYSIS

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FOOTNOTES
for pages 1 through 5

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

> Greater than reported value.
HI Sample was diluted due to high levels of hydrocarbons present.
MDL Method Detection Limit
ND Not detected at or above the MDL.



REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

Arsenic (EPA Method 7060, Furnace AAS)
Batch: 70 36309
Samples: 70 0440394

METHOD BLANK AND SAMPLE DUPLICATE:

Parameter	Units	MDL	Method Blank	700439124	Duplicate of 70 0439124	RPD
Arsenic (EPA Method 7060, Furnace AAS)	mg/L	0.005	ND	0.017	0.017	0%

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	700439124	Spike	Spike Recv	Spike Dupl Recv	RPD
Arsenic (EPA Method 7060, Furnace AAS)	mg/L	0.005	0.017	0.040	88%	88%	0%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Arsenic (EPA Method 7060, Furnace AAS)	mg/L	0.005	0.040	93%	93%	0%



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

Flash Point, Closed Cup
Batch: 70 36350
Samples: 70 0440394

SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	700440394	Duplicate of	
Flash Point, Closed Cup	Degrees C	20	ONE-1 70 70	70 0440394	RPD
			>60	>60	

LABORATORY CONTROL SAMPLE:

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	Reference Value	Recv
Flash Point, Closed Cup	Degrees C	20	25	100%



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

Mercury (EPA Method 7470, Cold Vapor AA)
Batch: 70 36319
Samples: 70 0440394

METHOD BLANK AND SAMPLE DUPLICATE:

Parameter	Units	MDL	Method Blank	700440807	Duplicate of 70 0440807	RPD
Mercury (EPA Method 7470, Cold Vapor AA)	mg/L	0.0002	ND	ND	ND	NC

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	700440807	Spike	Spike Recv	Spike Dupl Recv	RPD
Mercury (EPA Method 7470, Cold Vapor AA)	mg/L	0.0002	ND	0.0010	103%	96%	7%

LABORATORY CONTROL SAMPLE:

Parameter	Units	MDL	Reference Value	Recv
Mercury (EPA Method 7470, Cold Vapor AA)	mg/L	0.0002	0.0010	104%



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

Selenium (EPA Method 7740, Furnace AAS)
Batch: 70 36332
Samples: 70 0440394

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Selenium (EPA Method 7740, Furnace AAS)	mg/L	0.005	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dup1 Recv	RPD
Selenium (EPA Method 7740, Furnace AAS)	mg/L	0.005	0.0100	111%	98%	12%



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

pH (Units at 25 Degrees Celsius)
Batch: 70 36119
Samples: 70 0440394

SAMPLE DUPLICATE:

Parameter	Units	MDL	700439027	Duplicate of 70 0439027	RPD
pH (Units at 25 Degrees Celsius)	Units	0.10	7.12	7.06	1%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dup1 Recv	RPD
pH (Units at 25 Degrees Celsius)	Units	0.10	7.00	100%	99%	1%



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

CAM METALS IN AQUEOUS MATRIX, ICP SCAN
Batch: 70 36452
Samples: 70 0440394

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Antimony (EPA Method 6010/200.7, ICP)	mg/L	0.06	ND
Barium (EPA Method 6010/200.7, ICP)	mg/L	0.01	ND
Beryllium (EPA Method 6010/200.7, ICP)	mg/L	0.007	ND
Cadmium (EPA Method 6010/200.7, ICP)	mg/L	0.005	ND
Chromium (EPA Method 6010/200.7, ICP)	mg/L	0.01	ND
Cobalt (EPA Method 6010/200.7, ICP)	mg/L	0.01	ND
Copper (EPA Method 6010/200.7, ICP)	mg/L	0.01	ND
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	ND
Molybdenum (EPA Method 6010/200.7, ICP)	mg/L	0.02	ND
Nickel (EPA Method 6010/200.7, ICP)	mg/L	0.02	ND
Silver (EPA Method 6010/200.7, ICP)	mg/L	0.01	ND
Thallium (EPA Method 6010/200.7, ICP)	mg/L	0.2	ND
Vanadium (EPA Method 6010/200.7, ICP)	mg/L	0.01	ND
Zinc (EPA Method 6010/200.7, ICP)	mg/L	0.01	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Antimony (EPA Method 6010/200.7, ICP)	mg/L	0.06	0.5	91%	93%	2%
Barium (EPA Method 6010/200.7, ICP)	mg/L	0.01	2.0	96%	96%	0%
Beryllium (EPA Method 6010/200.7, ICP)	mg/L	0.007	0.05	98%	101%	3%
Cadmium (EPA Method 6010/200.7, ICP)	mg/L	0.005	0.05	83%	89%	7%
Chromium (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.2	97%	97%	0%
Cobalt (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.5	98%	99%	1%
Copper (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.25	94%	96%	2%
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	0.5	101%	100%	1%
Molybdenum (EPA Method 6010/200.7, ICP)	mg/L	0.02	1.0	94%	95%	1%
Nickel (EPA Method 6010/200.7, ICP)	mg/L	0.02	0.5	94%	97%	3%
Silver (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.05	89%	89%	0%
Thallium (EPA Method 6010/200.7, ICP)	mg/L	0.2	2.0	95%	95%	0%
Vanadium (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.5	97%	98%	1%
Zinc (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.5	96%	98%	2%



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

EXTRACTABLE ORGANICS BY EPA 8270 (GC/MS)

Batch: 70 36398
Samples: 70 0440394

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Phenol	ug/L	10	ND
bis(2-Chloroethyl)ether	ug/L	10	ND
2-Chlorophenol	ug/L	10	ND
1,3-Dichlorobenzene	ug/L	10	ND
1,4-Dichlorobenzene	ug/L	10	ND
Benzyl Alcohol	ug/L	20	ND
1,2-Dichlorobenzene	ug/L	10	ND
2-Methylphenol	ug/L	10	ND
bis(2-Chloroisopropyl)ether	ug/L	10	ND
4-Methylphenol	ug/L	10	ND
n-Nitroso-di-n-propylamine	ug/L	10	ND
Hexachloroethane	ug/L	10	ND
Nitrobenzene	ug/L	10	ND
Isophorone	ug/L	10	ND
2-Nitrophenol	ug/L	10	ND
2,4-Dimethylphenol	ug/L	10	ND
bis(2-Chloroethoxy)methane	ug/L	10	ND
2,4-Dichlorophenol	ug/L	10	ND
1,2,4-Trichlorobenzene	ug/L	10	ND
Naphthalene	ug/L	10	ND
Benzoic Acid	ug/L	50	ND
4-Chloroaniline	ug/L	20	ND
Hexachlorobutadiene	ug/L	10	ND
4-Chloro-3-methylphenol	ug/L	20	ND
2-Methylnaphthalene	ug/L	10	ND
Hexachlorocyclopentadiene	ug/L	10	ND
2,4,6-Trichlorophenol	ug/L	10	ND
2,4,5-Trichlorophenol	ug/L	10	ND
2-Chloronaphthalene	ug/L	10	ND
2-Nitroaniline	ug/L	50	ND
Dimethylphthalate	ug/L	10	ND
Acenaphthylene	ug/L	10	ND



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

EXTRACTABLE ORGANICS BY EPA 8270 (GC/MS)

Batch: 70 36398
Samples: 70 0440394

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Phenol	ug/L	10	ND
bis(2-Chloroethyl)ether	ug/L	10	ND
2-Chlorophenol	ug/L	10	ND
1,3-Dichlorobenzene	ug/L	10	ND
1,4-Dichlorobenzene	ug/L	10	ND
Benzyl Alcohol	ug/L	20	ND
1,2-Dichlorobenzene	ug/L	10	ND
2-Methylphenol	ug/L	10	ND
bis(2-Chloroisopropyl)ether	ug/L	10	ND
4-Methylphenol	ug/L	10	ND
n-Nitroso-di-n-propylamine	ug/L	10	ND
Hexachloroethane	ug/L	10	ND
Nitrobenzene	ug/L	10	ND
Isophorone	ug/L	10	ND
2-Nitrophenol	ug/L	10	ND
2,4-Dimethylphenol	ug/L	10	ND
bis(2-Chloroethoxy)methane	ug/L	10	ND
2,4-Dichlorophenol	ug/L	10	ND
1,2,4-Trichlorobenzene	ug/L	10	ND
Naphthalene	ug/L	10	ND
Benzoic Acid	ug/L	50	ND
4-Chloroaniline	ug/L	20	ND
Hexachlorobutadiene	ug/L	10	ND
4-Chloro-3-methylphenol	ug/L	20	ND
2-Methylnaphthalene	ug/L	10	ND
Hexachlorocyclopentadiene	ug/L	10	ND
2,4,6-Trichlorophenol	ug/L	10	ND
2,4,5-Trichlorophenol	ug/L	10	ND
2-Chloronaphthalene	ug/L	10	ND
2-Nitroaniline	ug/L	50	ND
Dimethylphthalate	ug/L	10	ND
Acenaphthylene	ug/L	10	ND



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

EXTRACTABLE ORGANICS BY EPA 8270 (GC/MS)

Batch: 70 36398
Samples: 70 0440394

METHOD BLANK:

Parameter	Units	MDL	Method Blank
2,6-Dinitrotoluene	ug/L	10	ND
3-Nitroaniline	ug/L	50	ND
Acenaphthene	ug/L	10	ND
2,4-Dinitrophenol	ug/L	50	ND
4-Nitrophenol	ug/L	50	ND
Dibenzofuran	ug/L	10	ND
2,4-Dinitrotoluene	ug/L	10	ND
Diethylphthalate	ug/L	10	ND
Fluorene	ug/L	10	ND
4-Chlorophenyl-phenylether	ug/L	10	ND
4-Nitroaniline	ug/L	50	ND
4,6-Dinitro-2-methylphenol	ug/L	50	ND
n-Nitrosodiphenylamine	ug/L	10	ND
4-Bromophenyl-phenylether	ug/L	10	ND
Hexachlorobenzene	ug/L	10	ND
Pentachlorophenol	ug/L	50	ND
Phenanthrene	ug/L	10	ND
Anthracene	ug/L	10	ND
Di-n-butylphthalate	ug/L	10	ND
Fluoranthene	ug/L	10	ND
Pyrene	ug/L	10	ND
Butylbenzylphthalate	ug/L	10	ND
Benzo(a)anthracene	ug/L	10	ND
3,3'-Dichlorobenzidine	ug/L	20	ND
Chrysene	ug/L	10	ND
bis(2-Ethylhexyl)phthalate	ug/L	10	ND
Di-n-octylphthalate	ug/L	10	ND
Benzo(b)fluoranthene	ug/L	10	ND
Benzo(k)fluoranthene	ug/L	10	ND
Benzo(a)pyrene	ug/L	10	ND
Indeno(1,2,3-cd)pyrene	ug/L	10	ND
Dibenzo(a,h)anthracene	ug/L	10	ND



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

EXTRACTABLE ORGANICS BY EPA 8270 (GC/MS)

Batch: 70 36398
Samples: 70 0440394

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Benzo(g,h,i)perylene	ug/L	10	ND
2-Fluorophenol (surrogate)	%		88
Phenol-d6 (surrogate)	%		91
Nitrobenzene-d5 (surrogate)	%		93
2-Fluorobiphenyl (surrogate)	%		84
2,4,6-Tribromophenol (surrogate)	%		78
Terphenyl-d14 (surrogate)	%		81

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Phenol	ug/L	10	150	78%	65%	18%
2-Chlorophenol	ug/L	10	150	77%	63%	20%
1,4-Dichlorobenzene	ug/L	10	100	76%	63%	19%
n-Nitroso-di-n-propylamine	ug/L	10	100	89%	88%	1%
1,2,4-Trichlorobenzene	ug/L	10	100	82%	75%	9%
4-Chloro-3-methylphenol	ug/L	20	150	82%	79%	4%
Acenaphthene	ug/L	10	100	84%	87%	4%
4-Nitrophenol	ug/L	50	150	100%	95%	5%
2,4-Dinitrotoluene	ug/L	10	100	111%	108%	3%
Pentachlorophenol	ug/L	50	150	98%	95%	3%
Pyrene	ug/L	10	100	55%	60%	9%



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

VOLATILE ORGANICS, EPA METHOD 8240 GC/MS
Batch: 70 36325
Samples: 70 0440394

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Chloromethane	ug/L	10	ND
Vinyl Chloride	ug/L	10	ND
Bromomethane	ug/L	10	ND
Chloroethane	ug/L	10	ND
Trichlorofluoromethane	ug/L	5	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	5	ND
2-Butanone (MEK)	ug/L	50	ND
1,1-Dichloroethene	ug/L	5	ND
Carbon Disulfide	ug/L	5	ND
Acetone	ug/L	50	ND
Methylene Chloride	ug/L	5	ND
trans-1,2-Dichloroethene	ug/L	5	ND
1,1-Dichloroethane	ug/L	5	ND
Chloroform	ug/L	5	ND
1,1,1-Trichloroethane	ug/L	5	ND
1,2-Dichloroethane	ug/L	5	ND
Vinyl Acetate	ug/L	50	ND
cis-1,2-Dichloroethene	ug/L	5	ND
Carbon Tetrachloride	ug/L	5	ND
Benzene	ug/L	5	ND
1,2-Dichloropropane	ug/L	5	ND
Trichloroethene (TCE)	ug/L	5	ND
Bromodichloromethane	ug/L	5	ND
2-Chloroethyl Vinyl Ether	ug/L	10	ND
trans-1,3-Dichloropropene	ug/L	5	ND
4-Methyl-2-pentanone (MIBK)	ug/L	50	ND
Toluene	ug/L	5	ND
cis-1,3-Dichloropropene	ug/L	5	ND
1,1,2-Trichloroethane	ug/L	5	ND
Dibromochloromethane	ug/L	5	ND
2-Hexanone	ug/L	50	ND
Tetrachloroethene	ug/L	5	ND



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

VOLATILE ORGANICS, EPA METHOD 8240 GC/MS
Batch: 70 36325
Samples: 70 0440394

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Chlorobenzene	ug/L	5	ND
Ethylbenzene	ug/L	5	ND
Bromoform	ug/L	5	ND
Xylene(s) Total	ug/L	5	ND
Styrene	ug/L	5	ND
1,1,2,2,-Tetrachloroethane	ug/L	5	ND
1,3-Dichlorobenzene	ug/L	5	ND
1,4-Dichlorobenzene	ug/L	5	ND
1,2-Dichlorobenzene	ug/L	5	ND
1,2-Dichloroethane-d4 (Surrog. Recovery)	%		106
Toluene-d8 (Surrogate Recovery)	%		96
4-Bromofluorobenzene (Surrog.Recovery)	%		97

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
1,1-Dichloroethene	ug/L	5	20	105%	103%	2%
Benzene	ug/L	5	20	93%	93%	0%
Trichloroethene (TCE)	ug/L	5	20	104%	107%	3%
Toluene	ug/L	5	20	97%	104%	7%
Chlorobenzene	ug/L	5	20	94%	93%	1%



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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FOOTNOTES
for pages 7 through 17

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

> Greater than reported value.
MDL Method Detection Limit
NC No calculation due to value below detection limit.
ND Not detected at or above the MDL.
RPD Relative Percent Difference



44110.513

Ron Chew (415)883-6100

58872

CHAIN-OF-CUSTODY RECORD - Analytical Request

Client Oakland National Engraving (O.N.E.)

Report To: Gary Leach

Pace Client No. CN 781653

Address 1001 42nd Street

Bill To: O.N.E.

Pace Project Manager Ron Chew

(*) Oakland, CA 94608

P.O. # / Billing Reference

Pace Project No.

Phone (510)450-7224

Project Name / No.

*Requested Due Date:

Sampled By (PRINT):

Sampler Signature

Date Sampled

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	PRESERVATIVES				ANALYSES REQUEST					REMARKS	
						UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA 8240	8240	8270	CAN-METALL	FLASH POINT	PH		
1	Liquid ONE-1	10:00	Liquid	440814	3	X				X						Containers present same sample - only one analysis for each method requested
2	GNE-1	10:00	Liquid		2	X				X	X	X				
3	GNE-1	10:00	Liquid		1			X		X						
4																
5																
6																
7																
8																

COOLER NOS.	BAILERS	SHIPMENT METHOD		ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
		OUT / DATE	RETURNED / DATE					
					<i>Ron Chew</i>	<i>Ron Chew</i>	11/9/99	10:00
					<i>Ron Chew</i>	<i>Ron Chew</i>	11/9/99	4:45

Additional Comments
Please call Ron Chew at (510) 682-7220
if any questions

Courier Recd at : 4:00



ENVIRONMENTAL
PROTECTION

REPORT OF LABORATORY ANALYSIS

95 MAY 10 PM 2:33

November 28, 1994

Mr. Gary Leach
Oakland National Engraving
1001 42nd St.
Oakland, CA 94608

RE: PACE Project No. 441110.513
Client Reference: Acid Neutralization UST

Dear Mr. Leach:

Enclosed is the report of laboratory analyses for samples received November 10, 1994.

Footnotes are given at the end of the report.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

Ronald M. Chew
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

Oakland National Engraving
1001 42nd St.
Oakland, CA 94608

November 28, 1994
PACE Project Number: 441110513

Attn: Mr. Gary Leach

Client Reference: Acid Neutralization UST ✓

PACE Sample Number: 70 0440394
Date Collected: By Client
Time Collected: 10:00
Date Received: 11/10/94
Client Sample ID: ONE-1
Parameter

Units MDL DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Arsenic (EPA Method 7060, Furnace AAS)	mg/L	0.005	ND	11/16/94
Flash Point, Closed Cup	Degrees C	20	>60	11/17/94
Mercury (EPA Method 7470, Cold Vapor AA)	mg/L	0.001	0.064	11/16/94
Selenium (EPA Method 7740, Furnace AAS)	mg/L	0.005	ND	11/17/94
pH (Units at 25 Degrees Celsius)	Units	0.10	8.94	11/10/94

CAM METALS IN AQUEOUS MATRIX, ICP SCAN

Antimony (EPA Method 6010/200.7, ICP)	mg/L	0.06	ND	11/21/94
Barium (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.20	11/21/94
Beryllium (EPA Method 6010/200.7, ICP)	mg/L	0.007	ND	11/21/94
Cadmium (EPA Method 6010/200.7, ICP)	mg/L	0.005	ND	11/21/94
Chromium (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.04	11/21/94
Cobalt (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.04	11/21/94
Copper (EPA Method 6010/200.7, ICP)	mg/L	0.01	1.4	11/21/94
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	1.4	11/21/94
Molybdenum (EPA Method 6010/200.7, ICP)	mg/L	0.02	ND	11/21/94
Nickel (EPA Method 6010/200.7, ICP)	mg/L	0.02	ND	11/21/94
Silver (EPA Method 6010/200.7, ICP)	mg/L	0.01	ND	11/21/94
Thallium (EPA Method 6010/200.7, ICP)	mg/L	0.2	ND	11/21/94
Vanadium (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.01	11/21/94
Zinc (EPA Method 6010/200.7, ICP)	mg/L	0.01	3.4	11/21/94

ORGANIC ANALYSIS

VOLATILE ORGANICS, EPA METHOD 8240 GC/MS

Chloromethane	ug/L	10	ND	11/16/94
Vinyl Chloride	ug/L	10	ND	11/16/94
Bromomethane	ug/L	10	ND	11/16/94
Chloroethane	ug/L	10	ND	11/16/94
Trichlorofluoromethane	ug/L	5	ND	11/16/94



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

PACE Sample Number: 70 0440394
Date Collected: By Client
Time Collected: 10:00
Date Received: 11/10/94
Client Sample ID: ONE-1

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>		<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

VOLATILE ORGANICS, EPA METHOD 8240 GC/MS

1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	5	ND	11/16/94
2-Butanone (MEK)	ug/L	50	ND	11/16/94
1,1-Dichloroethene	ug/L	5	ND	11/16/94
Carbon Disulfide	ug/L	5	ND	11/16/94
Acetone	ug/L	50	ND	11/16/94
Methylene Chloride	ug/L	5	ND	11/16/94
trans-1,2-Dichloroethene	ug/L	5	ND	11/16/94
1,1-Dichloroethane	ug/L	5	ND	11/16/94
Chloroform	ug/L	5	ND	11/16/94
1,1,1-Trichloroethane	ug/L	5	ND	11/16/94
1,2-Dichloroethane	ug/L	5	ND	11/16/94
Vinyl Acetate	ug/L	50	ND	11/16/94
cis-1,2-Dichloroethene	ug/L	5	ND	11/16/94
Carbon Tetrachloride	ug/L	5	ND	11/16/94
Benzene	ug/L	5	ND	11/16/94
1,2-Dichloropropane	ug/L	5	ND	11/16/94
Trichloroethene (TCE)	ug/L	5	ND	11/16/94
Bromodichloromethane	ug/L	5	ND	11/16/94
2-Chloroethyl Vinyl Ether	ug/L	10	ND	11/16/94
trans-1,3-Dichloropropene	ug/L	5	ND	11/16/94
4-Methyl-2-pentanone (MIBK)	ug/L	50	ND	11/16/94
Toluene	ug/L	5	ND	11/16/94
cis-1,3-Dichloropropene	ug/L	5	ND	11/16/94
1,1,2-Trichloroethane	ug/L	5	ND	11/16/94
Dibromochloromethane	ug/L	5	ND	11/16/94
2-Hexanone	ug/L	50	ND	11/16/94
Tetrachloroethene	ug/L	5	ND	11/16/94
Chlorobenzene	ug/L	5	ND	11/16/94
Ethylbenzene	ug/L	5	ND	11/16/94
Bromoform	ug/L	5	ND	11/16/94
Xylene(s) Total	ug/L	5	ND	11/16/94



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

PACE Sample Number: 70 0440394
Date Collected: By Client
Time Collected: 10:00
Date Received: 11/10/94
Client Sample ID: ONE-1

Parameter	Units	MDL		DATE ANALYZED
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ORGANIC ANALYSIS

VOLATILE ORGANICS, EPA METHOD 8240 GC/MS

Styrene	ug/L	5	ND	11/16/94
1,1,2,2,-Tetrachloroethane	ug/L	5	ND	11/16/94
1,3-Dichlorobenzene	ug/L	5	ND	11/16/94
1,4-Dichlorobenzene	ug/L	5	ND	11/16/94
1,2-Dichlorobenzene	ug/L	5	ND	11/16/94
1,2-Dichloroethane-d4 (Surrog. Recovery)	%		107	11/16/94
Toluene-d8 (Surrogate Recovery)	%		93	11/16/94
4-Bromofluorobenzene (Surrog.Recovery)	%		94	11/16/94

EXTRACTABLE ORGANICS BY EPA 8270 (GC/MS)

Phenol	ug/L	200	ND	11/21/94
bis(2-Chloroethyl)ether	ug/L	200	ND	11/21/94
2-Chlorophenol	ug/L	200	ND	11/21/94
1,3-Dichlorobenzene	ug/L	200	ND	11/21/94
1,4-Dichlorobenzene	ug/L	200	ND	11/21/94
Benzyl Alcohol	ug/L	400	ND	11/21/94
1,2-Dichlorobenzene	ug/L	200	ND	11/21/94
2-Methylphenol	ug/L	200	ND	11/21/94
bis(2-Chloroisopropyl)ether	ug/L	200	ND	11/21/94
4-Methylphenol	ug/L	200	ND	11/21/94
n-Nitroso-di-n-propylamine	ug/L	200	ND	11/21/94
Hexachloroethane	ug/L	200	ND	11/21/94
Nitrobenzene	ug/L	200	ND	11/21/94
Isophorone	ug/L	200	ND	11/21/94
2-Nitrophenol	ug/L	200	ND	11/21/94
2,4-Dimethylphenol	ug/L	200	ND	11/21/94
bis(2-Chloroethoxy)methane	ug/L	200	ND	11/21/94
2,4-Dichlorophenol	ug/L	200	ND	11/21/94
1,2,4-Trichlorobenzene	ug/L	200	ND	11/21/94
Naphthalene	ug/L	200	ND	11/21/94
Benzoic Acid	ug/L	1000	ND	11/21/94



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

PACE Sample Number: 70 0440394
Date Collected: By Client
Time Collected: 10:00
Date Received: 11/10/94
Client Sample ID: ONE-1

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>		<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

EXTRACTABLE ORGANICS BY EPA 8270 (GC/MS)

4-Chloroaniline	ug/L	400	H1 ND	11/21/94
Hexachlorobutadiene	ug/L	200	ND	11/21/94
4-Chloro-3-methylphenol	ug/L	400	ND	11/21/94
2-Methylnaphthalene	ug/L	200	ND	11/21/94
Hexachlorocyclopentadiene	ug/L	200	ND	11/21/94
2,4,6-Trichlorophenol	ug/L	200	ND	11/21/94
2,4,5-Trichlorophenol	ug/L	200	ND	11/21/94
2-Chloronaphthalene	ug/L	200	ND	11/21/94
2-Nitroaniline	ug/L	1000	ND	11/21/94
Dimethylphthalate	ug/L	200	ND	11/21/94
Acenaphthylene	ug/L	200	ND	11/21/94
2,6-Dinitrotoluene	ug/L	200	ND	11/21/94
3-Nitroaniline	ug/L	1000	ND	11/21/94
Acenaphthene	ug/L	200	ND	11/21/94
2,4-Dinitrophenol	ug/L	1000	ND	11/21/94
4-Nitrophenol	ug/L	1000	ND	11/21/94
Dibenzofuran	ug/L	200	ND	11/21/94
2,4-Dinitrotoluene	ug/L	200	ND	11/21/94
Diethylphthalate	ug/L	200	ND	11/21/94
Fluorene	ug/L	200	ND	11/21/94
4-Chlorophenyl-phenylether	ug/L	200	ND	11/21/94
4-Nitroaniline	ug/L	1000	ND	11/21/94
4,6-Dinitro-2-methylphenol	ug/L	1000	ND	11/21/94
n-Nitrosodiphenylamine	ug/L	200	ND	11/21/94
4-Bromophenyl-phenylether	ug/L	200	ND	11/21/94
Hexachlorobenzene	ug/L	200	ND	11/21/94
Pentachlorophenol	ug/L	1000	ND	11/21/94
Phenanthrene	ug/L	200	ND	11/21/94
Anthracene	ug/L	200	ND	11/21/94
Di-n-butylphthalate	ug/L	200	ND	11/21/94
Fluoranthene	ug/L	200	ND	11/21/94



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

PACE Sample Number: 70 0440394
Date Collected: By Client
Time Collected: 10:00
Date Received: 11/10/94
Client Sample ID: ONE-1

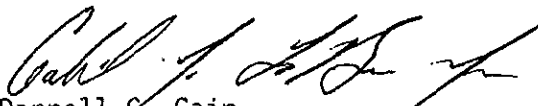
<u>Parameter</u>	<u>Units</u>	<u>MDL</u>		<u>DATE ANALYZED</u>
------------------	--------------	------------	--	----------------------

ORGANIC ANALYSIS

EXTRACTABLE ORGANICS BY EPA 8270 (GC/MS)

Pyrene	ug/L	200	H1 ND	11/21/94
Butylbenzylphthalate	ug/L	200	ND	11/21/94
Benzo(a)anthracene	ug/L	200	ND	11/21/94
3,3'-Dichlorobenzidine	ug/L	400	ND	11/21/94
Chrysene	ug/L	200	ND	11/21/94
bis(2-Ethylhexyl)phthalate	ug/L	200	ND	11/21/94
Di-n-octylphthalate	ug/L	200	ND	11/21/94
Benzo(b)fluoranthene	ug/L	200	ND	11/21/94
Benzo(k)fluoranthene	ug/L	200	ND	11/21/94
Benzo(a)pyrene	ug/L	200	ND	11/21/94
Indeno(1,2,3-cd)pyrene	ug/L	200	ND	11/21/94
Dibenzo(a,h)anthracene	ug/L	200	ND	11/21/94
Benzo(g,h,i)perylene	ug/L	200	ND	11/21/94
2-Fluorophenol (surrogate)	%		86	11/21/94
Phenol-d6 (surrogate)	%		114	11/21/94
Nitrobenzene-d5 (surrogate)	%		140	11/21/94
2-Fluorobiphenyl (surrogate)	%		93	11/21/94
2,4,6-Tribromophenol (surrogate)	%		70	11/21/94
Terphenyl-d14 (surrogate)	%		51	11/21/94
Date Extracted			11/18/94	

These data have been reviewed and are approved for release.


Darrell G. Cain
Regional Director



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

Arsenic (EPA Method 7060, Furnace AAS)
Batch: 70 36309
Samples: 70 0440394

METHOD BLANK AND SAMPLE DUPLICATE:

Parameter	Units	MDL	Method Blank	700439124	Duplicate of 70 0439124	RPD
Arsenic (EPA Method 7060, Furnace AAS)	mg/L	0.005	ND	0.017	0.017	0%

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	700439124	Spike	Spike Recv	Spike Dupl Recv	RPD
Arsenic (EPA Method 7060, Furnace AAS)	mg/L	0.005	0.017	0.040	88%	88%	0%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Arsenic (EPA Method 7060, Furnace AAS)	mg/L	0.005	0.040	93%	93%	0%



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

Mercury (EPA Method 7470, Cold Vapor AA)
Batch: 70 36319
Samples: 70 0440394

METHOD BLANK AND SAMPLE DUPLICATE:

Parameter	Units	MDL	Method Blank	700440807	Duplicate of 70 0440807	RPD
Mercury (EPA Method 7470, Cold Vapor AA)	mg/L	0.0002	ND	ND	ND	NC

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	700440807	Spike	Spike Recv	Spike Dupl Recv	RPD
Mercury (EPA Method 7470, Cold Vapor AA)	mg/L	0.0002	ND	0.0010	103%	96%	7%

LABORATORY CONTROL SAMPLE:

Parameter	Units	MDL	Reference Value	Recv
Mercury (EPA Method 7470, Cold Vapor AA)	mg/L	0.0002	0.0010	104%



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

Selenium (EPA Method 7740, Furnace AAS)
Batch: 70 36332
Samples: 70 0440394

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Selenium (EPA Method 7740, Furnace AAS)	mg/L	0.005	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dup1 Recv	RPD
Selenium (EPA Method 7740, Furnace AAS)	mg/L	0.005	0.0100	111%	98%	12%



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

pH (Units at 25 Degrees Celsius)
Batch: 70 36119
Samples: 70 0440394

SAMPLE DUPLICATE:

Parameter	Units	MDL	700439027	Duplicate of 70 0439027	RPD
pH (Units at 25 Degrees Celsius)	Units	0.10	7.12	7.06	1%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dup1 Recv	RPD
pH (Units at 25 Degrees Celsius)	Units	0.10	7.00	100%	99%	1%



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

CAM METALS IN AQUEOUS MATRIX, ICP SCAN
Batch: 70 36452
Samples: 70 0440394

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Antimony (EPA Method 6010/200.7, ICP)	mg/L	0.06	ND
Barium (EPA Method 6010/200.7, ICP)	mg/L	0.01	ND
Beryllium (EPA Method 6010/200.7, ICP)	mg/L	0.007	ND
Cadmium (EPA Method 6010/200.7, ICP)	mg/L	0.005	ND
Chromium (EPA Method 6010/200.7, ICP)	mg/L	0.01	ND
Cobalt (EPA Method 6010/200.7, ICP)	mg/L	0.01	ND
Copper (EPA Method 6010/200.7, ICP)	mg/L	0.01	ND
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	ND
Molybdenum (EPA Method 6010/200.7, ICP)	mg/L	0.02	ND
Nickel (EPA Method 6010/200.7, ICP)	mg/L	0.02	ND
Silver (EPA Method 6010/200.7, ICP)	mg/L	0.01	ND
Thallium (EPA Method 6010/200.7, ICP)	mg/L	0.2	ND
Vanadium (EPA Method 6010/200.7, ICP)	mg/L	0.01	ND
Zinc (EPA Method 6010/200.7, ICP)	mg/L	0.01	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dup1 Recv	RPD
Antimony (EPA Method 6010/200.7, ICP)	mg/L	0.06	0.5	91%	93%	2%
Barium (EPA Method 6010/200.7, ICP)	mg/L	0.01	2.0	96%	96%	0%
Beryllium (EPA Method 6010/200.7, ICP)	mg/L	0.007	0.05	98%	101%	3%
Cadmium (EPA Method 6010/200.7, ICP)	mg/L	0.005	0.05	83%	89%	7%
Chromium (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.2	97%	97%	0%
Cobalt (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.5	98%	99%	1%
Copper (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.25	94%	96%	2%
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	0.5	101%	100%	1%
Molybdenum (EPA Method 6010/200.7, ICP)	mg/L	0.02	1.0	94%	95%	1%
Nickel (EPA Method 6010/200.7, ICP)	mg/L	0.02	0.5	94%	97%	3%
Silver (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.05	89%	89%	0%
Thallium (EPA Method 6010/200.7, ICP)	mg/L	0.2	2.0	95%	95%	0%
Vanadium (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.5	97%	98%	1%
Zinc (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.5	96%	98%	2%



REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

EXTRACTABLE ORGANICS BY EPA 8270 (GC/MS)

Batch: 70 36398
Samples: 70 0440394

METHOD BLANK:

Parameter	Units	MDL	Method Blank
2,6-Dinitrotoluene	ug/L	10	ND
3-Nitroaniline	ug/L	50	ND
Acenaphthene	ug/L	10	ND
2,4-Dinitrophenol	ug/L	50	ND
4-Nitrophenol	ug/L	50	ND
Dibenzofuran	ug/L	10	ND
2,4-Dinitrotoluene	ug/L	10	ND
Diethylphthalate	ug/L	10	ND
Fluorene	ug/L	10	ND
4-Chlorophenyl-phenylether	ug/L	10	ND
4-Nitroaniline	ug/L	50	ND
4,6-Dinitro-2-methylphenol	ug/L	50	ND
n-Nitrosodiphenylamine	ug/L	10	ND
4-Bromophenyl-phenylether	ug/L	10	ND
Hexachlorobenzene	ug/L	10	ND
Pentachlorophenol	ug/L	50	ND
Phenanthrene	ug/L	10	ND
Anthracene	ug/L	10	ND
Di-n-butylphthalate	ug/L	10	ND
Fluoranthene	ug/L	10	ND
Pyrene	ug/L	10	ND
Butylbenzylphthalate	ug/L	10	ND
Benzo(a)anthracene	ug/L	10	ND
3,3'-Dichlorobenzidine	ug/L	20	ND
Chrysene	ug/L	10	ND
bis(2-Ethylhexyl)phthalate	ug/L	10	ND
Di-n-octylphthalate	ug/L	10	ND
Benzo(b)fluoranthene	ug/L	10	ND
Benzo(k)fluoranthene	ug/L	10	ND
Benzo(a)pyrene	ug/L	10	ND
Indeno(1,2,3-cd)pyrene	ug/L	10	ND
Dibenzo(a,h)anthracene	ug/L	10	ND



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

EXTRACTABLE ORGANICS BY EPA 8270 (GC/MS)

Batch: 70 36398
Samples: 70 0440394

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Benzo(g,h,i)perylene	ug/L	10	ND
2-Fluorophenol (surrogate)	%		88
Phenol-d6 (surrogate)	%		91
Nitrobenzene-d5 (surrogate)	%		93
2-Fluorobiphenyl (surrogate)	%		84
2,4,6-Tribromophenol (surrogate)	%		78
Terphenyl-d14 (surrogate)	%		81

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Phenol	ug/L	10	150	78%	65%	18%
2-Chlorophenol	ug/L	10	150	77%	63%	20%
1,4-Dichlorobenzene	ug/L	10	100	76%	63%	19%
n-Nitroso-di-n-propylamine	ug/L	10	100	89%	88%	1%
1,2,4-Trichlorobenzene	ug/L	10	100	82%	75%	9%
4-Chloro-3-methylphenol	ug/L	20	150	82%	79%	4%
Acenaphthene	ug/L	10	100	84%	87%	4%
4-Nitrophenol	ug/L	50	150	100%	95%	5%
2,4-Dinitrotoluene	ug/L	10	100	111%	108%	3%
Pentachlorophenol	ug/L	50	150	98%	95%	3%
Pyrene	ug/L	10	100	55%	60%	9%



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

VOLATILE ORGANICS, EPA METHOD 8240 GC/MS
Batch: 70 36325
Samples: 70 0440394

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Chloromethane	ug/L	10	ND
Vinyl Chloride	ug/L	10	ND
Bromomethane	ug/L	10	ND
Chloroethane	ug/L	10	ND
Trichlorofluoromethane	ug/L	5	ND
1,1,2-Trichlor-1,2,2-trifluoroethane	ug/L	5	ND
2-Butanone (MEK)	ug/L	50	ND
1,1-Dichloroethene	ug/L	5	ND
Carbon Disulfide	ug/L	5	ND
Acetone	ug/L	50	ND
Methylene Chloride	ug/L	5	ND
trans-1,2-Dichloroethene	ug/L	5	ND
1,1-Dichloroethane	ug/L	5	ND
Chloroform	ug/L	5	ND
1,1,1-Trichloroethane	ug/L	5	ND
1,2-Dichloroethane	ug/L	5	ND
Vinyl Acetate	ug/L	50	ND
cis-1,2-Dichloroethene	ug/L	5	ND
Carbon Tetrachloride	ug/L	5	ND
Benzene	ug/L	5	ND
1,2-Dichloropropane	ug/L	5	ND
Trichloroethene (TCE)	ug/L	5	ND
Bromodichloromethane	ug/L	5	ND
2-Chloroethyl Vinyl Ether	ug/L	10	ND
trans-1,3-Dichloropropene	ug/L	5	ND
4-Methyl-2-pentanone (MIBK)	ug/L	50	ND
Toluene	ug/L	5	ND
cis-1,3-Dichloropropene	ug/L	5	ND
1,1,2-Trichloroethane	ug/L	5	ND
Dibromochloromethane	ug/L	5	ND
2-Hexanone	ug/L	50	ND
Tetrachloroethene	ug/L	5	ND



REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

VOLATILE ORGANICS, EPA METHOD 8240 GC/MS
Batch: 70 36325
Samples: 70 0440394

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Chlorobenzene	ug/L	5	ND
Ethylbenzene	ug/L	5	ND
Bromoform	ug/L	5	ND
Xylene(s) Total	ug/L	5	ND
Styrene	ug/L	5	ND
1,1,2,2,-Tetrachloroethane	ug/L	5	ND
1,3-Dichlorobenzene	ug/L	5	ND
1,4-Dichlorobenzene	ug/L	5	ND
1,2-Dichlorobenzene	ug/L	5	ND
1,2-Dichloroethane-d4 (Surrog. Recovery)	%		106
Toluene-d8 (Surrogate Recovery)	%		96
4-Bromofluorobenzene (Surrog.Recovery)	%		97

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
1,1-Dichloroethene	ug/L	5	20	105%	103%	2%
Benzene	ug/L	5	20	93%	93%	0%
Trichloroethene (TCE)	ug/L	5	20	104%	107%	3%
Toluene	ug/L	5	20	97%	104%	7%
Chlorobenzene	ug/L	5	20	94%	93%	1%



REPORT OF LABORATORY ANALYSIS

Mr. Gary Leach
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FOOTNOTES
for pages 7 through 17

November 28, 1994
PACE Project Number: 441110513

Client Reference: Acid Neutralization UST

> Greater than reported value.
MDL Method Detection Limit
NC No calculation due to value below detection limit.
ND Not detected at or above the MDL.
RPD Relative Percent Difference



44110.513

Ron Chew (415)883-6100

58872

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client Oakland National Engraving (O.N.E.)
 Address 1001 42nd Street
 (~~XXXXXXXXXXXX~~) Oakland, CA 94608
 Phone (510)450-7224

Report To: Gary Leach
 Bill To: O.N.E.
 P.O. # / Billing Reference _____
 Project Name / No. _____

Pace Client No. CN 781653
 Pace Project Manager Ron Chew
 Pace Project No. _____
 *Requested Due Date: _____

Sampled By (PRINT): _____

Sampler Signature _____ Date Sampled _____

NO. OF CONTAINERS	PRESERVATIVES				ANALYSES REQUEST
	UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA 824D	
					824D
					827D
					CAM-11 Metall
					Flash Point
					PH

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA 824D	ANALYSES REQUEST	REMARKS
1	Liquid ONE-1	10:00	Liquid	440814	3	X				X	Customer present
2	GNE-1	10:00	Liquid	440814	2	X				X X X	SAME SAMPLE -
3	GNE-1	10:00	Liquid	440814	1		X			X	only one
4											analysis for
5											each method
6											requested
7											
8											

COOLER NOS.	BAILERS	SHIPMENT METHOD	ITEM NUMBER
OUT / DATE	RETURNED / DATE		

RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
<i>[Signature]</i>	<i>[Signature]</i>	11/9/94	10:00
<i>[Signature]</i>	<i>[Signature]</i>	11/9/94	4:45

Additional Comments
 Please call Ron Block at (510) 682-7200
 if any questions
 Courier Recd at : 4.0°

BES

BLOCK ENVIRONMENTAL SERVICES
Laboratory Division

ENVIRONMENTAL
PROTECTION

2455 Estand Way
Pleasant Hill, CA 94523
(510) 686-3215 FAX 686-0399

Date: November 17, 1994
3:10 PM 2:33

To: Ms. Gary Leach
One Color Communications
1001 42 nd Street
Oakland, CA 94608

From: Phyllis Riboni
Chronic and Acute Effluent
Testing Specialist

Julianne C. Fegley
Laboratory Coordinator

Subject: Aquatic Toxicity Testing Results for Hazardous Waste Testing
P.O.#verbal

SAMPLE MATRIX AND I.D.: One water sample #13121 (ONE1). ✓

TREATMENT DILUTIONS (mg/L): 250, 500, 750 and Control run in soft carbon filtered tap water mixed with deionized water of 40-48 mg/L hardness and in duplicate with 10 fish/6 L tank and 20 fish/treatment.

TESTING PERIOD: Received 11/10/94; Tested 11/11/94 - 11/15/94.

BIOASSAY TEST(S): Fathead minnow (*Pimephales promelas*) 96-hour static Hazardous Waste Toxicity.

METHODS: Hazardous waste aquatic toxicity test protocol is based on "Standard Methods for the Examination of Water and Wastewater", 18th Edition, American Public Health Association, 1992; California's Title 22 Code, Section #66261.24(a)(6); "Static Acute Bioassay Procedures for Hazardous Waste Samples" (Polisini and Miller, 1988), California Department of Fish and Game; and as certified by the State of California's Department of Toxic Substance Control (CA. EPA).

SUMMARY:

Fathead minnow 96-hour percent survival in the Control was 95%.
Fathead minnow 96-hour percent survival in the test concentrations was 90% for 250 mg/L, 85% for 500 mg/L and 85% for 750 mg/L.

The 96-hour LC50 >750 mg/L for sample #13121 (ONE1).

The transcribed data sheets and chain-of-custody for this test are enclosed. If you have any questions concerning this report please contact Linda Mortensen, Hazardous Waste and Acute Effluent Testing Specialist, at the lab (510) 686-3215.

BES Laboratory Division
 2455 Estand Way
 Pleasant Hill, CA 94523
 (510) 686-3215

STATIC ACUTE BIOASSAY
 Hazardous Waste Test
 Fathead Minnow



CLIENT: One Color Communications ATTENTION: Gary Leach
 SAMPLE ID#: 13121 SAMPLE DESCRIPTION: Water TESTING DATES: 11/11/94 to 11/15/94
 CLIENT ID#: One1

TEST CONCENTRATION mg/L	11/11/94 INITIAL				11/12/94 24-HOUR				11/13/94 48-HOUR				11/15/94 72-HOUR				11/16/94 96-HOUR, FINAL			
	Live	pH	DO	Temp	Live	pH	DO	Temp	Live	pH	DO	Temp	Live	pH	DO	Temp	Live	pH	DO	Temp
			mg/L	° C			mg/L	° C			mg/L	° C			mg/L	° C			mg/L	° C
Control-A	10	7.8	7.9	19.4	10	7.5	7.5	20.9	10	7.5	7.3	19.5	9	7.4	9.2	20.0	9	7.5	7.4	19.9
Control-B	10	7.8	7.6	19.4	10	7.3	8.4	21.0	10	7.3	8.0	19.5	10	7.5	9.2	20.0	10	7.4	7.0	19.9
250-A	10	7.6	8.1	19.0	10	7.1	8.2	21.4	10	7.4	8.0	19.4	10	7.2	9.0	20.0	10	6.9	5.9	20.3
250-B	10	7.7	8.1	19.0	10	7.1	7.6	21.4	10	7.3	8.9	19.3	9	7.1	9.0	20.3	8	6.9	5.9	20.4
500-A	10	7.7	8.1	18.9	10	7.0	7.4	21.4	10	7.2	8.3	19.0	10	7.0	8.9	20.4	9	7.0	5.8	20.0
500-B	10	7.8	7.9	19.0	10	7.0	7.6	21.4	10	7.1	8.2	19.0	9	7.0	8.9	20.2	8	6.9	5.8	20.1
750-A	10	7.8	7.9	19.1	9	7.0	7.6	21.4	9	7.1	8.2	18.9	8	7.0	8.8	20.1	8	7.1	6.1	19.8
750-B	10	7.8	7.7	19.1	9	7.1	7.7	21.4	9	7.0	8.1	18.9	9	7.0	8.8	20.2	9	7.1	6.1	19.9

96-hr. LC50: > 750 mg/L

95% Confidence Limits: NA

96-hr. Final Percent Survival: Control = 95%; 250 mg/L = 90%; 500 mg/L = 85%; 750 mg/L = 85%

Remarks: Initial Alkalinity, Hardness (mg/L): Control = 35,48; 750 mg/L = 32,46

Final Alkalinity, Hardness (mg/L): Control = 37,51; 750 mg/L = 30,37

Total vol/replicate: (L) = 6

Test Supervisor: [Signature]

Verification: [Signature]

BES Laboratory Division
 2455 Estand Way
 Pleasant Hill, CA 94523
 (510) 686-3215

STATIC ACUTE BIOASSAY
 Hazardous Waste Test
 Fathead Minnow

CLIENT: ONE COLOR COMMUNICATIONS ATTENTION: GARY LEACH
 SAMPLE ID#: 13121 SAMPLE DESCRIPTION: WATER TESTING DATES: 11/11/94 to 11/15/94
 CLIENT ID#:

	11/11 1650 INITIAL AM				11/12 1120 24-HOUR AM				11/13/94 11:00 48-HOUR AM				11/14/94 1110 72-HOUR AM				11/15/94 1303 96-HOUR, FINAL AM			
TEST CONCENTRATION	Live	pH	DO	Temp	Live	pH	DO	Temp	Live	pH	DO	Temp	Live	pH	DO	Temp	Live	pH	DO	Temp
mg/L			mg/L	°C			mg/L	°C			mg/L	°C			mg/L	°C			mg/L	°C
Control-A	10	7.8	7.9	19.4	10	7.5	7.5	20.9	10	7.5	7.3	19.5	9	7.4	9.0	20.0	9	7.5	7.4	19.9
Control-B	10	7.8	7.6	19.4	10	7.3	8.4	21.0	10	7.3	8.0	19.5	10	7.5	9.0	20.0	10	7.4	7.0	19.9
250-A	10	7.6	8.1	19.0	10	7.1	8.8	21.4	10	7.4	8.0	19.4	10	7.2	9.0	20.0	10	6.9	5.9	20.3
250-B	10	7.7	8.1	19.0	10	7.1	7.6	21.4	10	7.3	8.4	19.3	10	7.1	9.0	20.3	10	6.9	5.9	20.4
500-A	10	7.7	8.1	18.9	10	7.0	7.4	21.4	10	7.2	8.3	19.0	10	7.0	8.9	20.4	10	7.0	5.8	20.0
500-B	10	7.8	7.9	19.0	10	7.0	7.6	21.4	10	7.1	8.2	19.0	9	7.0	8.9	20.3	9	6.9	5.8	20.1
750-A	10	7.8	7.9	19.1	9	7.0	7.6	21.4	9	7.1	8.2	19.9	8	7.0	8.9	20.1	8	7.1	6.1	19.8
750-B	10	7.8	7.7	19.1	9	7.1	7.7	21.4	9	7.0	8.1	19.9	9	7.0	8.9	20.3	9	7.1	6.1	19.9

96-hr. LC50: 7750 mg/L
 95% Confidence Limits: NA
 96-hr. Final Percent Survival: Control = 95%; 250 mg/L = 70%; 500 mg/L = 85%; 750 mg/L = 85%

Remarks: Initial Alkalinity, Hardness (mg/L): Control = 35.4; 750 mg/L = 12.4
Final Alkalinity, Hardness (mg/L): Control = 37.5; 750 mg/L = 30.37
FISH STOCK DATE 11-7-94

Total vol/replicate: (L) = 6

Test Supervisor: [Signature] Verification: [Signature]



**BLOCK ENVIRONMENTAL SERVICES
FISH BIOASSAY MEASUREMENTS**

Fathead Minnow

For: One Color Communications

Sample ID#:	<u>13121</u>	Stock Date:	<u>11/7/94</u>
Client ID#:	<u>ONE1</u>		

Average Length:	<u>30.3</u>	<u>mm SL</u>	Average Weight:	<u>0.438</u>	<u>g</u>
Standard D. (S):	<u>2.95</u>	<u>mm SL</u>	Standard D. (S):	<u>0.115</u>	<u>g</u>
Maximum Length:	<u>36.0</u>	<u>mm SL</u>	Maximum Weight:	<u>0.62</u>	<u>g</u>
Minimum Length:	<u>26.0</u>	<u>mm SL</u>	Minimum Weight:	<u>0.24</u>	<u>g</u>

Fish Length (mm SL)	
1.	<u>26.0</u>
2.	<u>31.0</u>
3.	<u>31.0</u>
4.	<u>36.0</u>
5.	<u>32.0</u>
6.	<u>28.0</u>
7.	<u>28.0</u>
8.	<u>28.0</u>
9.	<u>33.0</u>
10.	<u>30.0</u>

Fish Weight (g)	
1.	<u>0.24</u>
2.	<u>0.52</u>
3.	<u>0.41</u>
4.	<u>0.62</u>
5.	<u>0.38</u>
6.	<u>0.41</u>
7.	<u>0.38</u>
8.	<u>0.39</u>
9.	<u>0.61</u>
10.	<u>0.42</u>

Remarks:

Measured: 11/7/94

