

**INSTALLATION RESTORATION
PROGRAM
TECHINCAL MEMORANDUM FOR
FIELD INVESTIGATION AT
IRP SITES NO. 1 AND NO. 2
VOLUME II
APPENDICES A-J
183rd FIGHTER WING
ILLINOIS AIR NATIONAL GUARD
CAPITAL MUNICIPAL AIRPORT
SPRINGFIELD, ILLINOIS
JUNE 1997**



19970916 139

DTIC QUALITY INSPECTED 2

Prepared For
**ANG/CEVR
ANDREWS AFB, MARYLAND**

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 074-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE Aug 97	3. REPORT TYPE AND DATE COVERED	
4. TITLE AND SUBTITLE Installation Restoration Program Technical Memorandum for Field Investigation at IRP Sites No. 1 and No. 2, Vol 2, 183 rd Fighter Wing, Illinois Air National Guard, Capital Municipal Airport, Springfield, Illinois			5. FUNDING NUMBERS	
6. AUTHOR(S) Operational Technologies Corporation			8. PERFORMING ORGANIZATION REPORT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Operational Technologies Corporation, 4100 N.W. Loop 410, Suite 230, San Antonio, TX 78229-4253			10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) ANG/CEVR 3500 Fetchet Ave Andrews AFB MD 20762-5157			11. SUPPLEMENTARY NOTES	
12a. DISTRIBUTION/AVAILABILITY STATEMENT unlimited distribution			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 Words) The Installation Restoration Program was initiated by the Air National Guard (ANG) to evaluate potential contamination to the environment caused by past practices at its installations. Two sites were identified at Capital Municipal Airport during the 1990 Preliminary Assessment; the Petroleum, Oils and Lubricants Storage Area (Site 1) and the Old Fire Training Area (Site 2). Information gathered during a 1996 Site Investigation on both sites and 1995 Site Investigation Addendum for Site 2 did not provide adequate information for decision-making. This Field Investigation was designed to fill data gaps. The Tech Memo recommends Site 1 proceed to a No Further Action Decision Document, and Site 2 proceed to an Engineering Evaluation/Cost Analysis (EE/CA). No further field effort is necessary to complete the EE/CA. Vol 1 contains the main text of the report. Vol 2 contains the supporting data.				
14. SUBJECT TERMS Installation Restoration Program, Air National Guard, Capital Municipal Airport, Illinois			15. NUMBER OF PAGES Vol 2 = ~200 pgs	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT General	18. SECURITY CLASSIFICATION OF THIS PAGE General	19. SECURITY CLASSIFICATION OF ABSTRACT General	20. LIMITATION OF ABSTRACT none	

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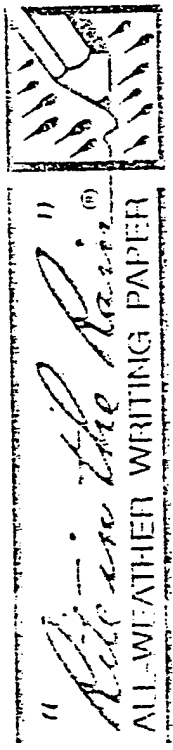
**ANG/CEVR
ANDREWS AFB, MARYLAND**

Prepared By

**Operational Technologies Corporation
4100 N.W. Loop 410, Suite 230
San Antonio, Texas 78229-4253
(210) 731-0000**

APPENDIX A
FIELD DOCUMENTATION

1342-6486-1



599-6353

Name: *Kathryn Pritchett*
 Address: *Operational Technologies Corp.*

Phone: *1-800-677-8072*

Project: *Capital EE/CA*
1315-269/4A

"Life in the Rain" - a unique all-weather writing surface created to shed water and to enhance the written message. Make it possible to write cheap, legible field data in any kind of weather.

J. J. DARRIG CORPORATION
 TACOMA, WA 98401-3693 USA

IF YOU KNOW	MULTIPLY BY	TO FIND
LENGTH		
inches	2.540	centimeters
feet	30.480	centimeters
yards	0.914	meters
miles	1.609	kilometers
millimeters	0.039	inches
centimeters	0.393	inches
meters	3.280	feet
kilometers	1.093	yards
	0.621	miles
WEIGHT		
ounces	28.350	grams
pounds	0.453	kilograms
grams	0.035	ounces
kilograms	2.204	pounds
VOLUME		
fluid ounces	29.573	milliliters
pints	0.473	liters
quarts	0.946	liters
gallons (U.S.)	3.785	liters
milliliters	0.033	fluid ounces
liters	1.056	quarts
	0.264	gallons (U.S.)
TEMPERATURE		
°C = (°F - 32) x .555		
°F = (°C x 1.8) + 32		
Lengths		
inches	Decimals of foot	Millimeters
1/16	.0052	1.5875
1/8	.0104	3.1750
3/16	.0156	4.7625
1/4	.0210	6.3500
5/16	.0260	7.9350
Temperatures		
3.8	0.313	9.5850
1/2	.0417	12.7800
5/8	.0521	15.8750
3/4	.0625	19.0500
7/8	.0729	22.3250
Distances		
1"	0.0254	63.5000
2"	.0508	127.0000
3"	.0762	190.5000
4"	.1016	254.0000
5"	.1270	317.5000
Weights		
6"	.5000	152.4000
7"	.5833	177.0000
8"	.6667	203.2000
9"	.7500	228.6000
10"	.8333	254.0000
11"	.9167	279.4000
1 foot	1.0000	304.8000



(314) 945-2624

CONTENTS

PAGE	REFERENCE	DATE
	Lt. Deborah Hamrick Environmental Coordinator (217) 757-1361 (355) Fax	
	Tim Franke - Chief of Public Safety (217) 788-1080	
	Eric Frankel - Facility Manager (217) 788-1060	
	JULIE /-800-892-0123 Optech Cell Phone (210)	
	Geotech Hanson Engineer Dan Analysia (217) 788-2450 Kenno	
	Drellane Hart Environmental Terry Hark (314)	
	Analysia NYTEST Lab (514) 625-5500 X512	
	Public Office Joe Dorken (516) 867-6239	
	Sharon Greil 98-278-8512	

10 us women Tuesday

weather: Sunny, mid 30's.
0600 Meet - job synd, for for
breakfast & pre-mob meeting

0700 Depart Hotel

0725 Arrived at the 183rd FW -
ILANOs to meet Lt. Deborah

Hamrick

0745 Arrived at Capital Airport
Public Safety for training to
obtain ID (for access to the area
near the the Charlie Ruff). —

Trainer Mike Buehler

0900 Called JULIE /-800-892-0123

Ticket # 3450375 1/8 hrs. — will
set up by 1500 today.

0905 Eric Frankel - Facility Manager

and Lt. Deborah Hamrick at

Public Safety. Per Eric Frankel, need
to contact CWLP (City wide, lights, &

Power) - electric line re: CILCO.

(Central Illinois Co.) for gas to.

will over locations.

950 Per Lt. Deborah Hamrick, Capt

Cable called to notify clearance.

th. p. 1st

1/10/96

7/10/96

(3)

955 Called. CILCO - will meet at
in ~ 15 mins. ~~at~~

1000 Called. CWLP - will meet wed
in ~ 30 mins.

1023 Per Joe Augustitis (#490),
clean with gas - CILCO

1025 Per Fred Groves (#214) -
clean with water - CWLP

1045 Per Mike Brownlow (#114) -
clean with electric - CWLP

1210 Called Ameritech paper
527-7539 - left message
+ telephone ~~at~~

1215 Returned call - will meet
at 1400 - Ameritech ~~at~~

1400 - Sandy Rade -
Ameritech (telephone)
- She will make TOK if cleared
Ordered 5 barricades
with flags from Warring
Lites off Pop Allina 525-0190
flags 2.50 each → \$12.00 bag
\$40.00 for barricades. They
will drop them off before noon
tomorrow at the Public Safety Bldg. - direct.

-- need to call tomorrow to
provide Mastercard #. ~~at~~

1500 - Sandy Rade with Ameritech called
to approve clearance of location

1525 Called Hayes / 600-352-0183
to ~~order~~ order another explosionmeter

The explosionmeter (MX 241) that
was sent did not work properly -
very ~~inaccurate~~ readings; the alarm
would not cease, would not calibrate
properly, and the charger was not working
either. Talked to Carol Flory,
Investigation return # 21666.
They will ship a MX 251 for am
delivery.

1630 Depart base.

R

K. R. ...

(4) 11 December 1986
Wednesday

0700 Weather: cloudy, 50's, light rain.
Report hotel.

0725 Arrived at airport to pick up
minivan (avis) - confirm confirmation

15820679-USA
Arrived at base.

0744 Tried to contact Russ Cason
(Optech) to assist me on getting our
account cleared with An-Site (for the
Hemitt Data Logger). Left message.

Jeff Davis (An-Site) had left message
yesterday that our account is on hold and
the Hemitt will not be shipped out
until it is cleared. Informed
Russ Cason that I tried to meet with
Martha Fucci (Optech) but she was busy.

0750 Called Warning Sites of Alamos
to ask them to drop off barricades
at the tank Charlie Range instead
of Public Safety. Need to call back
about insuring Optech.

0835 Tried to contact Russ Cason &
Muel Dobson - left messages. Submit
An-Site account. Contacted John
[redacted] [redacted] [redacted]

Wednesday

1005 Called Joe Doleary (NYT)
to assure that bottles for
water samples will be here tomorrow
- Joe will check again.

1012 Called Hansen Engineering -
left message with Dan Kerner
about CoC & delivery of samples
on Friday.

1020 Calibrated PID - EI
Det erminator SN 48961-26
Aurbitzlama 100 ppm
Methanol - Pesticide Grade
Fisher Scientific A 450-Y
CAS 67-561 Lot # 963952
DI water ASTM Type II

Report Grade
CAS No. 7732-18-5
RCCA Chemical Co. Arlington
Lot. NY41

1055 Hunt Max Timmion w/ IIA
Environmental Probe Wm. Fleet
1105 Escort children to Charlie Range
Garage - Site 2 - setting up
Survey pad.

1130 Drillers are filling water tank on trailer (plastic tank - clean) with potable water source located on south side of Hanger A near Charlie Ramp

1230 Return to base to load tables & pick up explosives at receiving from HAZCO
 MX251 9/01058-142
 Industrial Scientific
 Pentons - 50% LEL
 Lot # 47176 HAZCO

1305 Arrived at Site 2 - (Max Timmer make Unflexel started decontaminating augers, chipping, other equipment by the following procedure:
 Steam clean with potable water
 Completed decontamination.
 Drill rig moved to MX2018

1355 Health & Safety Meeting
 Keith Pridemore

1415 Jerry Castille on site

1507 Started drilling

1508 0-2' interval 0 ppm

1520 5-7' interval 0 ppm

1540 10-12' interval 0.2 ppm

GC receiving samples collect for each interval - (1) 40 - NE COR (2) 2" x 6" brass sleeve

1605 VULS (8240) APMS (6010/7000) Geo Tech samples

6-7 Report site

10.5-12.0 Jerry Castille called

2/6/5 Haysco about agree (for groundwater sampling) - need to return because it is the wrong size. Reorder - the proper size. Authorization # 81169

1725 Shipped explosionmeter & Haysco to Haysco - 2682455952 bill recipient Airbill # 2 boxes - authorization # 8116

1745 Arrived at HAZCO's historic Keith Pridemore

(8)

1/21/76

Thursday

Weather; 40's rain predicted

545 Depart hotel

630 Arrived at base

650 GATHK Calibrated PID

As per procedure started on page 5 of this field logbook. Calibrated explosion meter as

per procedure stated on page 6 of this logbook.

705 Arrived on Site 2 -

MW 201B location to set up

Note: Stainless steel, split-

spoon samplers were discontaminated

by the following potP procedure;
• scrubbed with a stiff brush using Alconol™ and potable water mixture.

• rinsed with potable water
• rinsed with DI water (ASTM

Type II)

• rinsed with pesticide-grade methanol.

• allowed to air dry.

Pre cleaned brass liner (new)

we used ~~water~~ DI water and ~~methanol~~

(1)

745 Health & Safety meeting

Hart & ENVIR (Max Tinnin)

Optec (Mike Umphlett)

(Jerry Castillo)

(Kathryn Periwet)

755 Started drilling

Auger down to 15' BLS

756 15-17' interval, Optec

805 Auger to 20'

788/0 20-22' interval 0.5 ppm

815 Auger to 25' - difficult

drilling

825 25-27' interval - refusal

842 Auger refusal - weathered

shaly ls - grey (104251)

TD 26.5' BLS.

WL. 17.4' BLS.

PVC Schedule 40 riser 10' 0.5"

4 screen 0.25" slot 10' 4" cap

23' riser 30 - 26 → 4 sticky

10' screen 70% TD well

Movie Filtration media

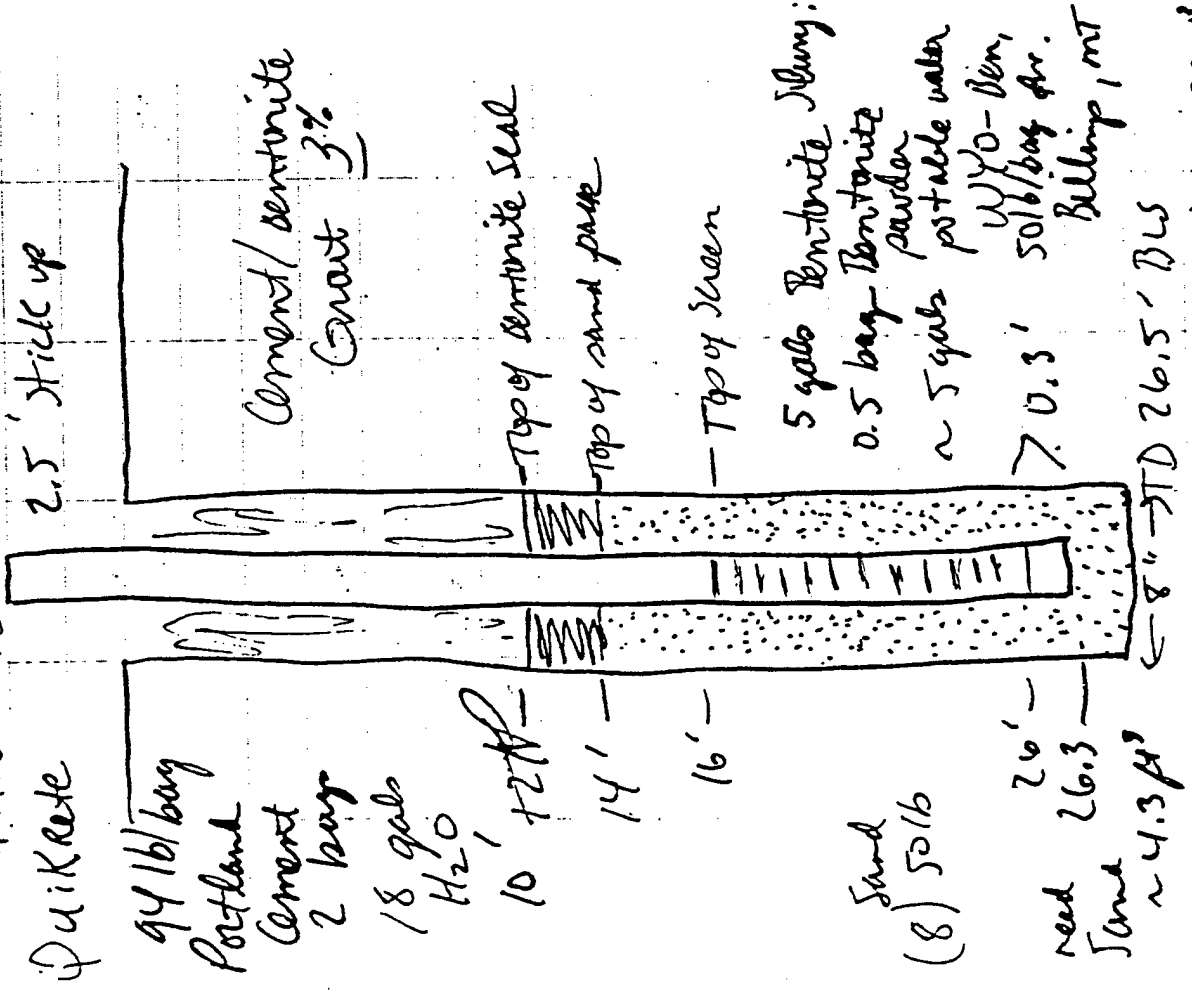
coarse sand - 20/40 grade

50 lb bags

with ~~water~~ DI water

(3) 4" bumper post

MW 201B



2.5' thick top

94 lb bag Portland Cement

Cement/bentonite Grout 3%

2 bags cement

Top of bentonite seal

Top of sand paste

Top of screen

5 gals Bentonite Slurry;
0.5 bag Bentonite powder
~ 5 gals potable water
WYO-Den, 50lb/bag Ar.
7 0.3' Bellings, MIT

Sand (8) 50lb

need 26.3' Sand ~ 4.3 ft³ ← 8" STD 26.5' BWS

$$Vol_{BH} = V_8'' - V_2'' \text{ (per ft.)} = 0.33 \text{ ft}^3$$

$$V_8'' = \pi (0.33 \text{ ft})^2 = 0.35 \text{ ft}^3 \text{ (per ft.)}$$

$$V_2'' = \pi (0.083)^2 = 0.02 \text{ ft}^3 \text{ (per ft.)}$$

~1/55 Completed monitor well construction - clay surface completion except pad & painting post.

12/20/96 Started decontaminating drill

12/30 rig, augers, & other equipment washed by steam cleaning.

1/55 - moved soil cuttings drums to decon area.

Soil Samples collected for GC field screening mws 201B

12/11/96 { 0-2', 0PP 5-7', 10-12', 15-17', 20-22', 25-26.5'

12/12/96 {

Confirmation Samples VOC (8240) PPM (6010/700)

Geotechnical Samples

12/11/96 { 6-7', 10-12.5' 10.5-12.0

12/12/96 { 15-17', 15.5-17'

1/350 Finished decontaminating.

Kathy Pothollett

12/12/196

(12)

Moved to MW 2020
0-2' interval 0.5 ppm

(2) 2"x6" brass sleeves (1415)
GC (8240) 0-0.5' Dup.
ppms (6010/7000)

Auger to 5'
5-7' interval 9.4 ppm
GC
GeoTech 5.5-7
dup
problem
other

(3) 2"x6" brass sleeves (1425)
10-12 interval 0.1 ppm
GC
GeoTech 10.5-12
XP

(1435) wet 15-17' interval 0.1 ppm
GC
w.c. ~ 72.75
20-22' interval 14.1365
GC 21.5 refusal at 21.5'

(1515) 25-26' interval 0.1 ppm
weathered shaly ls
Auger refusal 25.9'
water rise in hole ~ 14' OLS.

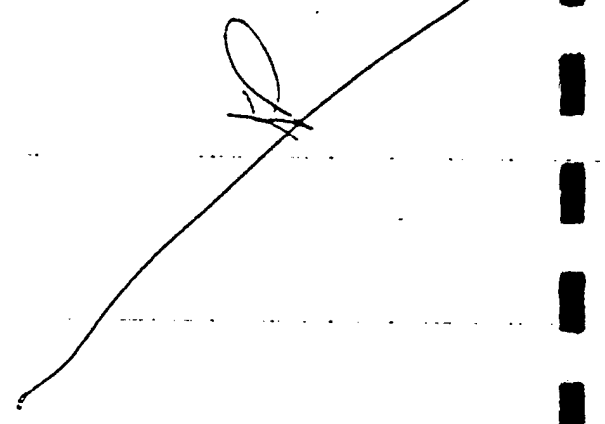
1555 Report Site 2

1630 contact Agency Burger with

12/12/196

(12)

Boyer Engineering to set up a date & time to meet the surveyor next week. She refers me to Gary Cartwright (Chief Surveyor). He plans to meet us at 0830 at the Charlie Kumpf area on Monday. He needs information from past surveying of the existing monitor well at site. I told him that I would research the information from the SI Report (Site 2) and pass it on to him by tomorrow afternoon.
170 Depart base.



weather: High 20's; highs expected
 in the mid 40's; sunny
 6:15 Depart hotel
 7:25 Arrived at base
 7:30 Arrived at Site 2

Health & Safety meeting
 max Timmer

Myke Campbell
 Kathy Pittwell

W.L. 7.1' BLS
 MW 202B

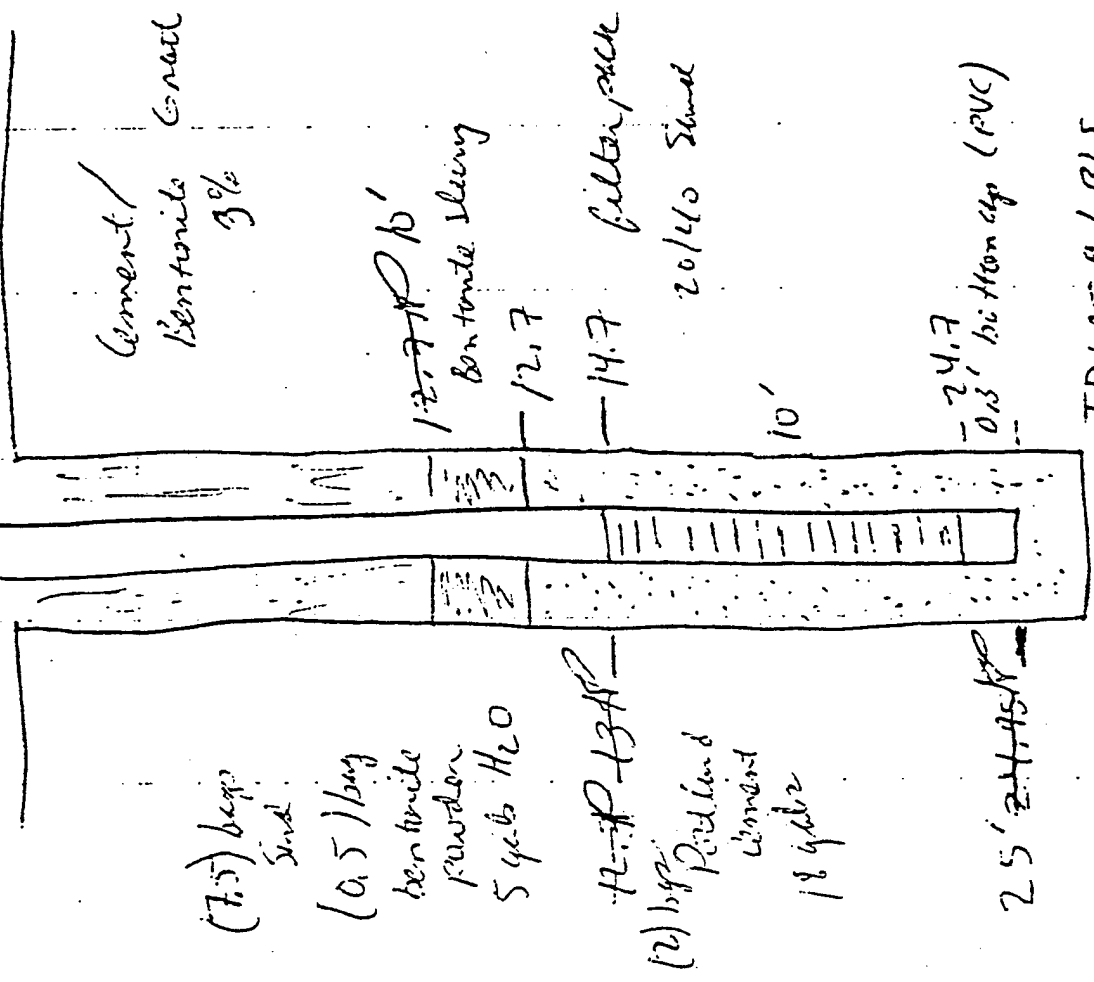
Screened interval
~~5.5 - 25.5~~

Total 30.5'

(2) 10.05' udr PVC schedule
 (1) 10.4' screen, ~~cut~~ 40 slot
 includes 0.7' bottom cap
 0.3

Schedule 40 PVC
 2" X 10' 0.01 slot - screen
 Campbell MonoFlex
 1-800-257-5783
 flush threaded
 Envs - wrapped

800 MW 202B } 2.5' sticky



TD: 25.9' BLS

X
 Kathy Pittwell

1/11/10

(16)

830 Collected equipment removable
2-ROF from the stainless-
steel, split spoon.

2-ROF

(3) 40-ml WA H₂O VOC (8010/2020)
(1) 500-ml poly HNO₃ metals-PPMs (6010/4000)

Supplies - bottles
40-ml HCL WA (VOCs)

68 500-ml HNO₃ poly (PPMs)

910 - Contacted Amy Genety (NYTEST
to P. Wichita, KS office to
confirm that (1) 40-ml WA for
VOCs and (1) 500-ml poly HNO₃
for PPMs. (2) 2" x 6" brass
screws needed (soil) for WC
& PPMs - that will cover the

MS/MSD & duplicate. Confirmed
addresses for shipment and that
we will be shipping samples today.
Called NYTEST to order

8 trip stainless & extra labels,
K7229DF Corp # for

Enterprise

1000 Annist well installation

attach / site-
N attach / site-

7000-TOTAP Surface completion - bumper
7075P part of protected practice
waiting.

1045 Collected field blank
from water tank (drillers)
2-FB01

(3) 40-ml WA H₂O VOC (8010/8020) PPMs (6010/700)

(1) 500-ml poly HNO₃ PPMs (6010/700)
morning drum

1000-1030
1030-1200
1200 Decontaminating drilling,
equipment, & other equipment by
Steam cleaning.

1375 Completed wet H₂O samples
completion on MW202B

1430 Completed surface
completion on MW201B

1515 Relinquished soil samples for
geotechnical analyses (see follow)
to Hanson Engineering (Springfield, IL)
- delivered by Joe Synd, Jr.

MW201B - 10.5 - 12.0

MW201B - 15.5 - 17.0

MW202B - 5.5 - 7.0

MW202B - 10.5 - 12.0

46

- Analyzed by the following parameters and methods
- pH (ASTM D 4972)
- Organic Carbon Content (ASTM D 2974)
- Vertical Hydraulic Conductivity (ASTM D 5084)
- Moisture Content (ASTM D 2216)
- Soil Dry Density (ASTM D 2937)
- Grain Size Analysis (ASTM D 422)
- Combined sieve & hydrometer
- Relinquished soil samples for Laboratory Analysis (as follows) to NYTEST Environmental
- MW 201B-0-0.5 MS/MSD
- MW 202B-0-0.5 Dye.
- 2 - RB01 equipment rinacate blank
- 2 - FB01 Field blank
- 2 - TB01 Trip blank
- Soil VOCs (SW 8240)
- PPMs (SW 6010/7000)
- Water VOCs (SW 6010/7000)
- PPMs (SW 6010/7000)
- Fed. Ex Air bill # 3272719321
- GC returned to I. E. M.S.
- Fed Ex Air Bill # 7494583143

11630

1 total
2 boxes

K-11 P. 1-1974

1 box
Returnable explosimeter (MX 251)
4 regulators
Fed. Ex Air bill # 3272719332
1 box
Sent GC information (overhead)
letter to Mark Escobar
package Fed. Ex Air bill # 3272719306
17/0 Depart Fed. Ex

[Large handwritten signature]

Kathryn Patchell

(20)

12/16/96

Monday

Weather: cloudy, 20's, highs in the 30's, snow expected

0600 Depart Hotel

0655 Arrived at base

Joe Boyd, Jr.

Rudy Amadoro

Jerry Castillo

Kathy Priddeth

Health & Safety Meetings

(Early Antacid)

Brian Nicholson

Chris ~~Connerman~~

Jason Snydman

on site - Site 2

- Walked over site with

surveyors

MW 201B - Development

PID 0.2 ppm

BG 0 ppm

W.L. 12.57 ft BTOC

TD. 28.04 ft BTOC

10:10 silty Started purging

$V_{well}(2'') = (0.163)(V_{15.17 ft}) = 2.5 gal.$

$V_{pack}(8'') = (2.61)(12.5 ft)(0.30) = 9.7 gal.$

12/16/96

(41)

V_{well} in pack section = $(0.163)(12.3 ft) = 2.9 gal$
9.6 - 2 = 7.6 gal
+ 2.5 gal → 10.3 gal

X 3 ⇒ 30.9 gal

Time	Gals	pH	Temp.	Cond.	Clarity
11:09	27.5	12.6	7.01	733	Clarity very cloudy
11:12	27.5	12.8	7.11	735	
11:18	31	12.9	7.12	733	↓

Stopped purging

MW 202B - Development

PID: 0 ppm

BG: 0 ppm

W.L.: 7.34 ft BTOC

TD: 27.40 ft BTOC

$V_{water} = 20.16 gal$

$V_{well} = (0.163)(20.06 ft) = 3.3 gal$

$V_{pack} = (7.61)(13.2 ft)(0.30) = 10.3 gal - 1.7 gal$

V_{well} in the pack = $(0.163)(10.5 ft) = 1.7 gal$

8.6 gal + 3.3 gal = 11.9 gal

X 3 → 35.7 gal

1335 - 1337 HR Start purging

Initial gals 0

7:57 12.8 1003

1412 13.5 gal → purged day.

1412 13.5 gal → purged day.

1412 13.5 gal → purged day.

1412 13.5 gal → purged day.

1412 13.5 gal → purged day.

22

1430 Started pumping
 1445 Stopped pumping - pumped dry
 20 gal
 1505 Started pumping
 1520 Stopped pumping - need battery
 in Harbor - 26.5 gal
 1552 Started pumping
 1609 Stopped pumping - 36 gal
 Tena
 1600 Cake pH 11.00 7.99 cloudy
 32 12 6.4 11.00
 35 12 7.0 11.00
 1609 36 12 7.0 11.00
 1340 Bill ~~Heardberg~~ (HAZWRAP)
 arrived on site
 1615 Depart site.
 1700 Depart base.

Weather: Cloudy 20's
 0630 Depart Hotel
 0730 Arrived at base
 0830 Health & Safety Meeting

Joe Oyd, Jr.
 Rudy Inlandondo
 Jerry Castillo
 Kathy Pittwell
 Bill ~~Heardberg~~ Heiberg
 Arrived at site 2

Bayer Engineering on site
 Brian Nicholson
 Chris Conderman
 Jason Sutherland

1700 Located surface water/sediment sampling location, 2-5W02/2-50
 - Placed stake at shore of pond
 directly down gradient of pond
 → need sample ~ 2-3' into pond
 ~ 945 Located surface water/sediment sampling location, 2-5W02/2-50
 - Placed stake at shore of pond
 directly - need sample ~ 10 ft (middle of pond).

Kathy Pittwell

12/17/96

Pink eye Hermit Party
Cannisto from Bill Hermit

• Yesterday that didn't have
(Section 8.4.3) plastic sheeting
around monitor well. (mw101)

• collected WCs last on
mw101.

• Ice bags were not double
bagged. also need more
ice.

• Jerry was bottle slippy
with water during development
(mw202B).

• Tank was running when
collecting samples (mw201).

COC - NYTest - 12/16/96
1500

↓
VOCs (Swiss) MW102 - Gw03
PPMs (Swiss) MW103 - Gw03
MW104 - Gw03
mw101 - Gw03

↓
VOCs (Swiss) TB-05 - kinsate blank
Tap blank 2" bailer (disposal)

Fed Ex air Bill 3970017366

(24)

1130
1471F
1254

171100

COC - NYTEST

12/17/96
1400

↓
VOCs (8010/8020) MW 203 - Gw04
PPMs (6010/6020) MW 201 - Gw04
MW 202 - Gw04

↓
VOCs (8010/8020) 2 FB 02 - field blank - same. with
TB -11. - Tap blank

1615 Depart base -

RP

K... P...

K... P...

12/18/64 Wednesday

Weather: 10° to 20° high today,

cloudy, snow flurries expected
0615 Depart hotel

0730 arrived on base

- Bill Healey called at 0610
at the hotel to inform me that
he will be departing Springfield
this morning to avoid flight delay
(due to weather).

0745 Called Sharon Gell (ANGRC/
CEVR) to request collecting
the surface-water and sediment samples
in April due to ice (1/4" thick)
on the ponds. The samples collected
in spring will be representative of
the spring run-off and the worst-case
scenario. She agreed that the
surface-water and sediment samples
should be collected during the second
groundwater sampling event (April).

I informed her that we need
to consider the IDW analysis
for the pore settings and down water
since it was not in the mob. SOW.

Kathleen Phillips

She informed me that she had
put that task into the rewritten
mob. SOW and she thought that
the money needed for the analyses
were added in the last proposal
prior to the re-justification. I told
her that the IDW analysis cost was
not considered because it was not
in the SOW.

She stated Joe Byrd, Jr. and
Randy Ansdorff to collect IDW
from one soil sample per (2) drums
representing the Peer borehole
- (1) 802 clean wide-mouth jar and
- (1) 802 clean wide-mouth jar and
- (1) 802 clean wide-mouth jar and
- (1) 802 clean wide-mouth jar and

2 deep water drums
• one water sample per down water
drum - VOCs (Sw 8010/8100)
PPMs (Sw 6010/7000)

They will collect groundwater samples
from MW 201B & MW 202B. Jerry
Castillo will collect the IDW sample
water-level measurements that will be
collected this afternoon by Joe Byrd, Jr.
and Randy Ansdorff.

Kathleen Phillips

(28)
0825

12/18/96

Health & Safety meeting

Joe Byrd, Jr.
Rudy Anadondo
Jenny Costello
Kathy Sutchott

Joe Byrd, Jr. and
Rudy Anadondo depart home
for Site 2

Arrived at Site 2
Jenny Costello & Kathy
Sutchott

Boyer Engineering on site
Brian Nickelson

Chris Condemnon
Jason Singsam

Finished sampling MW 201B
Collected field blank -

ASTM Type II DI water - Site 2
2 - FBO's

(3) 40 ml WOA HCl (SW 8010/8020)
(1) 500 ml Poly HNO₃ (SW 6010/7000)

1000 I DW drum inventory
1045 Arrived at MW 201B
Slurry Test

111111

W.L. 12.78 ft BTOC
T.D. 27.80 ft BTOC

ID 6121 - injection test
L.W. 14.76

J.L. 14.75
Start test 6:00

1127 Called Eric Frankel with
1130 Public Safety for the Capital
Airport Authority to discuss the
following:

- Asked him if we need the lighted
barriers with the flags around the
IDW drums on the Charlie Range - yes,
to avoid an aircraft from hitting
the drums with their wings.

- Asked him if we can keep the
drums (one at each location) that
we located at MW 201B & MW 202
located at the well until April
after for the second sampling event,
- tell you - need to document in a
letter.

Asked him if he can check the Charlie
R. me please

1435 Collected - Decor - P6
 13) 40 ml VOA HCl (6/10/00)
 11) 500 ml Rly HNO₃ (6/10/00)
 1445 collected - Decor - D7

same as above
 1555 Collected - Decor - D8
 same as above

1505 Contact Jay Sorely
 (NYTEST) to check on sample
 delivery.

deliverable on Tuesday
 10°C - MW101
 MW102
 MW103
 MW104
 Z-RB02

- cancelled analysis for those
 samples. need to re-sample.
 1520 Start test - 20222
 MW202B - Withdrawn

1602 36 min 0.04
 44 min 0.01
 50 min 0.01

1660 Stopped test
 Kathy Pritchard

1144 18 min 0.01
 1150 24 0.04
 1156 30 0.05
 1159 Stopped test

ID. 20122 - withdrawal
 test
 ref. 0.0

1203 Start test
 1214 10 min 0.15
 12 min 0.11
 24 min 0.03
 28 min 0.03
 36 min 0.03

Stopped test
 1350 MW2020 - 5 Lug Test
 W.L. 6.78 pt BT0C
 TD. 27.40 pt BT0C

1405 set + manual injection test
 ID. 20221
 W.L. 6.68
 W.L. 6.72

1410 Start test set ref 0.0
 1423 26 min - 6.03
 36 min - 6.01
 52 0.00

Stopped test
 P...

32)

12/10/94

12/11/94

(33)

Surveyors (Boyer Engineering)
provided surveying topography
& sampling locations at site 2

COC - NYTEST

MW 201B - GW01

MW 202B - GW01

MW 202A - GW01 Dup. MW 202B

2 - FB03 - field blank DI water

TB-08 - Trip Blank

DCON - D6 } Decon water

DCON - D7 } water

DCON - D8 }

TB-15 Trip Blank

Depart base

RP

Weather: 4°F, snow predicted
higher in 10's. 24°F wind chill

06/15 Depart hotel

07/15 arrived at base

07/25 calibrated P.I.D as per
page 5 of this field logbook.

Calibrated Horizon SN# 000453

Auto Calibration Solution / 00-4

Arrived at site 2 to

collect I DW soil colling

Jerry Castillo

Kathy Stoddert

Health & Safety meeting

Joe Boyd, Jr.

Rudy Amadoro

Jerry Castillo

Kathy Stoddert

Joe Boyd, Jr. 4 Rudy Amadoro

depart PL body for site 1 to

resample MW101, MW102, MW103,

at MW104, also 2 - P802 -

remnants blank for 2" disposable

bailey (MW101),

collect I-DW soil colling
Duna 1 & 2

MW 201 B
Ruth Stoddert

905

1750

905 IDW-1-2

(2) 802 clean white - month per

TCLP VOCs (SW 8240)

TCLP PPMs (SW 6010/7000)

915

IDW-3-4 MW 2008 soil

same as above withing drums 344

Decontaminated stainless-steel hand auger with the following

procedure:

- scrubbed with bleach/2M
- all ~~portals~~ potable water
- rinse with potable water
- rinse with pesticide-grade methanol
- rinse with DI water (ASTM Type II)
- air dry - then wrapped in al foil (shiny side out).

— could not use hand auger

do collect IDW soil samples because the soil was frozen solid. Chipped soil with clean hammer to break up frozen soil then placed in jar.

K-11 P. 1. 1. 1. 1.

Informed John Morris, He instructed to please hold on analyses for IDW soil until Tuesday (as we can work out cost of TCLP analyses)

925 Depart Site 2

Contact Jay Coffey Genetec (NYTEST) (316) 945-2624

to check on samples shipped yesterday for today's delivery.

- Aformed run of IDW soil samples (2) for TCLP analyses - VOC's & PPMs will be ship today with groundwater samples.
- The IDW ~~soil~~ soil samples will have a hold until Tuesday (12/23/96) and/or until cost for analyses have been approved.
- need to talk to Joe Dockery on cost.
- need to call back in 30 minutes for information on sample delivery.

1055

Called Warning bites of Illinois - 525-0190 - left

message

K-11 P. 1. 1. 1. 1.

(36)

12/19/96

1/35 Called Jay Genety (NYTEST)

- Samples are okay - 2°C
- keep 500-ml Roly HNO3
COC - NYTEST

2- RB02 - Nitrate blank -
MW102-GW04 2" ~~triple~~ digestible
blanks

MW103-GW04
MW104-GW04
MW101-GW04

IDW-1-2 Hold analysis
IDW-3-4 ↓

TB-08 - Trip Blank
FedEx Air Bill: 74 700 17333

- Packing Supplies
1550 Arrived at Capital
Airport Authority Public Safety
personal check

12/10/96
\$ 85.00
15.00
3 100.00

process & 20.00
keep 80.00 - Return to me

1645 Depart Fed EX
RP

Hermit Environmental Data

logger SE1000C

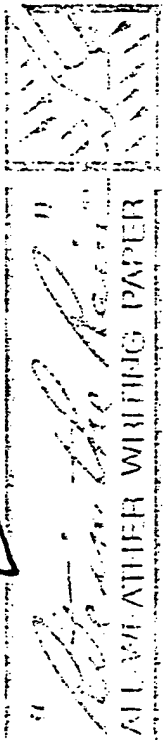
Serial #1KC-852

Transducer PXD-260

Serial # 204585

k in Th P _{in Altav}

32511



Name Joe Byrd, Jr

Address

Phone

1315-269

Project CAPITAL AIRPORT

At. Deborah HAMRICK

183RD FTR GP @ CAP. AIRPORT

3101 J. DAVID JONES PRKWAY

SPRINGFIELD, ILL 62707-5000

(217) 757-1361

When you buy this paper, you are helping to support the education of our children. Please contact your local school board for more information.

J. L. DARRING COMPANY
Lynchburg, VA 24504

IF YOU KNOW EACH OTHER TO FIND

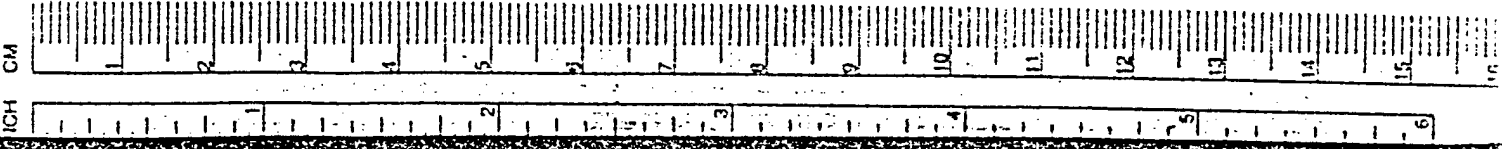
LENGTH	INCHES	FEET	YARDS	MILES	CENTIMETERS	METERS	KILOMETERS
	2.540	0.305	0.914	1.609	6.350	2.012	1.219
	0.025	0.003	0.009	0.016	0.254	0.081	0.051
	0.003	0.000	0.001	0.002	0.076	0.025	0.016
	0.000	0.000	0.000	0.000	0.000	0.000	0.000

WEIGHT	OUNCES	POUNDS	GRAMS	KILOGRAMS	TONNES
	28.350	1.361	707.000	784.000	0.893
	0.035	0.002	2.205	2.425	0.003
	0.005	0.000	0.350	0.393	0.000
	0.000	0.000	0.000	0.000	0.000

VOLUME	FLUID OUNCES	GALLONS (U.S.)	LITERS	CUBIC METERS
	29.573	0.704	20.819	0.237
	0.473	0.012	13.908	0.001
	0.946	0.024	27.816	0.003
	1.892	0.048	55.632	0.006
	3.784	0.096	111.264	0.012
	7.568	0.192	222.528	0.024
	15.136	0.384	445.056	0.048
	30.272	0.768	890.112	0.096

TEMPERATURE	°C	°F
	0	32
	10	50
	20	68
	30	86
	40	104
	50	122
	60	140
	70	158
	80	176
	90	194
	100	212

INCHES	DECIMALS OF FOOT	MILS
1/16	0.062	1.5875
1/8	0.125	3.1750
3/16	0.188	4.7625
1/4	0.250	6.3500
5/16	0.312	7.9375
3/8	0.375	9.5250
7/16	0.438	11.1125
1/2	0.500	12.7000
9/16	0.562	14.2875
5/8	0.625	15.8750
11/16	0.688	17.4625
3/4	0.750	19.0500
13/16	0.812	20.6375
7/8	0.875	22.2250
15/16	0.938	23.8125
1	1.000	25.4000
1 1/16	1.062	26.9875
1 1/8	1.125	28.5750
1 1/4	1.188	30.1625
1 3/8	1.250	31.7500
1 1/2	1.312	33.3375
1 5/8	1.375	34.9250
1 3/4	1.438	36.5125
1 7/8	1.500	38.1000
2	1.562	39.6875



1342-6486-1

CONTENTS

PAGE	REFERENCE	DATE
AIR	1-800-224-	7724
Accu	1-800-442-	5290
Eagle	1-800-331-	7425
Fisher	1-800-532-	7474
M.S.	1-800-332-	0435
HAZCO	1-800-766-	7000
Fisher	684-	7373
Analytical		
Series		

GC STANDARD IS A CUSTOM MIX AT
 2,000 PPM in MeOH of:
 ① Vinyl Chloride, ② cis-1,2-DCE, ③ 1,2-DCA,
 ④ Benzene, ⑤ TCE, ⑥ Toluene, ⑦ PCE, ⑧ Ethylbenzene, ⑨ m-p-Xylene, ⑩ o-Xylene.

ARRIVE: 1:32
 Pkg Nb: TWA 7086
 Rudy

11

10 Dec 96

0700 leave hotel
 On BASE
 Meet w/ Lt. HAMRICK.
 UNLOAD Equipment
 Set up GC.
 leave BASE.
 AT Hotel.

11 Dec 96

0700 leave hotel.
 0720 AT AVIS to get MINIVAN.
 0735 On BASE. Go to PZ and
 begin GC set-up and Baild
 STANDARDS.
 0845 Go to get supplies.
 0950 On BASE.

632

1700

AccuStandard Inc.



S-3586

Custom VOC Mix
 2000 µg/mL in MeOH
 Lot: A6120007
 Exp. 01/01/98

25 Schinon Park • New Haven, CT 06511
 Phone 800-442-5290 • 203-786-5290

1 mL

For Research Use Only

CARCINOGENIC
 MADE IN THE USA

Storage: REFRIGERATE
 11 comps.

WD
 Entwiss
 J. Byrd

1020	CARRIER GAS Flow	1/2 liter/min
—	GC OVEN Temp	500°C
—	GAIN	1000
—	Injection Vol.	100 µl
—	Analysis Time	600 sec
—	Window	10%
1025	100 PPB STANDARD	
—	Good Run. Set LIBRARY	
1111	1 PPM STANDARD	
—	Good Run. Set LIBRARY.	

(3)

1"

- 1143 10 PPM STANDARD.
- NO Good.
- 1201 10 PPM STANDARD.
- NO Good. Reset GC.
- 1219 Turn off GC. let it cool.
Reset GC.
- 1332 100 PPB STANDARD.
- 1336 6000 Airport to get Jersey C.
- DRP him off w/ K.P.
- Return to P-Z. Continue to
- calibrate GC.
- Good Run for 100 PPB
- 1451 1 PPM BTANDARD.
- NO GOOD.
- 1508 1 PPM STANDARD.
- Set LIBRARY.
- 1531 10 PPM STANDARD.
- Set LIBRARY.
- 1553 AIR BLANK-1.
- 1602 AIR BLANK-2.
- 1610 AIR BLANK-3.
- 1619 AIR BLANK-4.
- 1627 AIR BLANK-5.
- 1636 AIR BLANK-6.

(4)

- 1643 AIR BLANK-7.
- Mess w/ GC.
- 1740 leave Base. Secure P-Z.
- 1800 AT Hotel.

J. Byrd

12 Dec 96

2545 Lemme hotel.
 — Breakfast (0.4)
 2630 On Base. Set up GC.
 — Build 100 PPM, 1 PPM, 10 PPM
 — STANDARDS. Will list ANALYZES
 — ACCORDING TO NUMBERS IN FRONT OF
 — This notebook.

CARRIER GAS FLOW — 8.5 μ l/min
 GC OVEN TEMP — 50°C
 GAIN — 1,000
 INJECTION VOL — 10 μ l
 ANALYSIS TIME — 600 sec
 WINDOW — 10%

0724 100 PPB STANDARD.
 — NO GOOD.
 0756 100 PPM STANDARD.
 — Good Run. Set LIBRARY.
 0823 1 PPM STANDARD.
 — Set LIBRARY
 0842 10 PPM STANDARD.
 — Set LIBRARY
 0859 AIR BLANK - 1
 ① 12 ppb, ② 25 ppb, ③ 3 ppb, ④ 8 ppb,
 ⑤ 4 ppb, ⑥ 12 ppb, ⑦ 13 ppb, ⑧ 30 ppb,

0912 Set Auto Run to Flood
 — Column. Calculate Minimum
 — Detection Limits (MDL's).

0944 AIR BLANK - 2.
 ① 12 ppb, ② 35 ppb, ③ ND
 ④ 3 ppb, ⑤ 1 ppb, ⑥ 3 ppb
 ⑦ 3 ppb, ⑧ 7 ppb, ⑨ 9 ppb
 ⑩ ND.

1007 AIR BLANK - 3.
 ① 8 ppb, ② 20 ppb, ③ ND, ④ ND
 ⑤ ND, ⑥ ND, ⑦ ND, ⑧ 1 ppb
 ⑨ 1 ppb, ⑩ ND.

1018 AIR BLANK - 4.
 ① 20 ppb, ② ND, ③ 21 ppb, ④ 22 ppb, ⑤ 25 ppb
 ⑥ 29 ppb, ⑦ 20 ppb, ⑧ 39 ppb, ⑨ 53 ppb, ⑩ 1 ppb

1033 AIR BLANK - 5.
 ① 16 ppb, ② ND, ③ 19 ppb, ④ 4 ppb, ⑤ ND
 ⑥ 1 ppb, ⑦ 1 ppb, ⑧ 2 ppb, ⑨ 3 ppb, ⑩ ND
 1052 AIR BLANK - 6.
 ① 10, ② ND, ③ ND, ④ ND, ⑤ ND
 ⑥ ND, ⑦ ND, ⑧ ND, ⑨ ND, ⑩ ND

1104 AIR BLANK - 7.
 ① 7 ppb, ② ND, ③ ND, ④ ND, ⑤ ND
 ⑥ ND, ⑦ ND, ⑧ ND, ⑨ ND, ⑩ ND

John R

1119 MW-201B 0.0'-0.5' 10g
 1) 17ppb 2) ~~17ppb~~ 3) 22ppb 4) 7ppb 5) 1ppb
 6) ND 7) ND 8) 1ppb 9) ND 10) ND

1131 MW-201B 5.0'-7.0' 10g
 1) 21ppb 2) ~~17ppb~~ 3) 36ppb 4) 14ppb 5) 16ppb
 6) 11ppb 7) 7ppb 8) 4ppb 9) 6ppb 10) ND

1144 MW-201B 10.0'-12.0' 10g
 1) 23ppb 2) ~~17ppb~~ 3) 26ppb 4) ND 5) 2ppb
 6) ND 7) ND 8) ND 9) ND 10) ND

1157 100 PPB STAND ARD.
 Recalibrate to 100 PPB.

1217 AIR BLANK-8.
 1) ~~10ppb~~ 2) ~~10ppb~~ 3) ND 4) ND 5) ND
 6) ND 7) ND 8) ND 9) ND 10) ND
 Goto Site to confer w/KP.
 Get samples.

1320 AT P-2. Prepare samples.

1333 MW-201B 15'-17' 10g
 1) 11ppb 2) ~~17ppb~~ 3) ND 4) ND 5) ND
 6) ND 7) ND 8) ND 9) ND 10) ND

1346 MW-201B 20'-22' 10g
 1) 14ppb 2) ~~17ppb~~ 3) ND 4) ND 5) ND
 6) ND 7) ND 8) ND 9) ND 10) ND

1403 MW-201B 25'-26.5' 10g
 1) 13ppb 2) ~~17ppb~~ 3) 9ppb 4) ND 5) ND
 6) ND 7) ND 8) ND 9) ND 10) ND

1415 Goto Site to get samples.
 Prepare samples.

1443 MW-202B 0'-2' 10g
 1) 15ppb 2) ~~17ppb~~ 3) 10ppb 4) ND 5) ND
 6) ND 7) ND 8) ND 9) ND 10) ND

1458 MW-202B 5'-7' 10g
 1) 17ppb 2) ~~17ppb~~ 3) 7ppb 4) ND 5) 20ppb
 6) 87ppb 7) 257ppb 8) 443ppb 9) 70ppb 10) 515ppb

1514 1 PPM. STANDARD.
 RECALIBRATE

1530 AIR BLANK-9.
 1) 14ppb 2) ~~17ppb~~ 3) 7ppb 4) 15ppb 5) 2ppb
 6) 1ppb 7) 2ppb 8) 5ppb 9) 19ppb 10) ND

1542 AIR BLANK-10.
 1) 10ppb 2) ~~17ppb~~ 3) ND 4) ND 5) ND
 6) ND 7) ND 8) ND 9) ND 10) ND

1554 MW-202B Reshot 5'-7' 10g
 1) 19ppb 2) ~~17ppb~~ 3) ND 4) 29ppb 5) 55ppb
 6) 156ppb 7) 655ppb 8) 1290ppb 9) 253ppb 10) 199ppb

SPB 2/1/10

1621 MW-202B 10'-12' 10g
 1) 23 ppb 2) — 3) 13 ppb 4) 8 ppb 5) 16 ppb
 6) 20 ppb 7) 16 ppb 8) 10 ppb 9) ND 10) ND

1637 MW-202B 15'-17' 10g
 1) 37 ppb 2) ~~36 ppb~~ 3) 39 ppb 4) 10 ppb 5) 31 ppb
 6) ~~44 ppb~~ 7) 49 ppb 8) 30 ppb 9) ND 10) 20 ppb

1653 MW-202B 20'-22' 10g
 1) 18 ppb 2) — 3) 2 ppb 4) ND 5) ND
 6) ND 7) ND 8) 1 ppb 9) ND 10) ND

1706 MW-202B 25'-27' 10g
 1) 21 ppb 2) — 3) 35 ppb 4) ND 5) ND
 6) ND 7) ND 8) ND 9) ND 10) ND

1719 10 PPB STANDARD.
 1) 35 ppb 2) — 3) 34 ppb 4) 19 ppb 5) 28 ppb
 6) 22 ppb 7) 18 ppb 8) 11 ppb 9) 27 ppb 10) 8 ppb

1731 100 PPB STANDARD
 1) 108 ppb 2) — 3) 91 ppb 4) 94 ppb 5) 89 ppb
 6) 82 ppb 7) 81 ppb 8) 82 ppb 9) 168 ppb 10) 138 ppb

— Shut down GC. Secure BLDG. P-2.
 1747 Leave Base.
 1805 At Hotel.

John R. ...

0615 Leave Hotel.
 Breakfast (0.5)
 0725 On Base.
 Build STANDARDS, CALIBRATE GC.
 0830 10 PPB BTEX STANDARD.
 Set LIBRARY.
 0849 AIR BLANK-1.
 ● ALL NON-DETECTS.
 0901 AIR BLANK-2.
 ● ALL NON-DETECTS.
 0913 10 PPB BTEX STANDARD.
 ● Benzene 11.6 ppb
 ● Toluene 10.1 ppb
 ● E-BENZENE 10.2 ppb
 ● m,p-XYLENE 20.8 ppb
 ● o-XYLENE 10.5 ppb
 0927 POPCORN OIL
 ● Toluene 0.85 ppb
 0939 AIR BLANK-3
 ● ALL NON-DETECTS.
 0951 10 PPB BTEX STANDARD.
 ● Benzene 19.5 ppb

13 Dec 96

(11)

- Toluene 11.3 ppb
- E-Benzene 8.6 ppb
- M,P-Xylene 17.0 ppb
- O-Xylene 8.6 ppb
- Recalibrate
- 1009 AIR BLANK-4.
- ALL NON-DETECTS.
- 1021 DI WATER.
- Toluene 0.85 ppb
- M,P-Xylene 1.13 ppb
- 1033 DIET COKE.
- Benzene 5.73 ppb
- Toluene 0.22 ppb
- O-Xylene 1.71 ppb
- 1045 10 PPB BTEX STANDARD.
- Benzene 9.78 ppb
- Toluene 11.57 ppb
- E-Benzene 14.19 ppb
- M,P-Xylene 29.11 ppb
- O-Xylene 15.19 ppb
- Recalibrate.
- 1100 AIR BLANK-5.
- ALL NON-DETECTS.

13 Dec 96

(12)

- 1112 BLACK COFFEE.
- Benzene 5.7 ppb
- Toluene 3.6 ppb
- 1127 METHANOL.
- Benzene 7.4 ppb
- Toluene 3.05 ppb
- M,P-Xylene 1.74 ppb
- 1140 10 PPB BTEX STANDARD.
- Benzene 22.6 ppb
- Toluene 21.8 ppb
- E-Benzene 18 ppb
- M,P-Xylene 18 ppb
- O-Xylene 18 ppb
- Recalibrate.
- 1300 AIR BLANK-6.
- ALL NON-DETECTS.
- 1313 MARKS-A-LOT.
- Toluene 3.3 ppb
- E-Benzene 20.6 ppb
- M,P-Xylene 68.2 ppb
- O-Xylene 62.3 ppb
- 1326 MW-201B 5'-7' '09.
- ALL NON-DETECTS.

116 DEC 70

116 DEC 76

16

15

MONDAY

- 0600 leave Hotel.
- Breakfast. (0.5)
- 0700 On Base
- Waiting for Lt. Hamrick to
- open BLDG. P-2.
- 0715 Lt. Hamrick opens P-2.
- Gather sampling supplies, label
- bottles.
- 0830 Go to Site 1.
- Drop off stuff. Go get drum
- & ice.
- 0900 AT MW-102 for purg & k
- sampling.
- 1012 AT MW-103.
- 1115 Done. Go get bolt-cutter.
- lunch
- 1300 AT MW-104.
- 1341 Done
- 1344 AT MW-101.
- 1430 Done. Go to P-2 to pack
- ice chest.
- 1542 Go to get kitty litter.
- 1630 Done

1700 AT Hotel.

[Handwritten signature]

TUESDAY

- 0630 leave hotel.
- Break fast. Buy Ice.
- 0730 ON BASE. Prepare bottles
- for sampling.
- 0830 60 to Site Z.
- 0856 AT MW-203. Purge & Sample.
- 0945 Done
- ~~1000 MW-201. J.B.~~
- 1000 Stop and collect Field Blank
- before, & FREEZES.
- 1020 AT MW-201. Purge & Sample.
- 1100 Done. Go get gloves.
- 1110 AT MW-202. Purge & Sample.
- 1205 Done.
- lunch.
- 1253 AT P.Z. Fill out C-O-C.
- Pack samples for FEDEX
- Call Air Products for pick-up
- of Air Bottle.
- #14801
- 1500 Drop off Air bottle at shipping
- Coget Absorbant.
- 1545 AT FEDEX.

1630 AT Hotel

W. J. W. R.

(17)

- 0615 Leave Hotel.
- Breakfast.
- 0720 On Base.
- Pack & prepare for sampling.
- 0840 Goto Site 2. Purge & Sample.
- 0935 Done. Goto MW-202B.
- Purge, Sample, Take Dap.
- 1040 Done.
- Goto P-2.
- 1115 Go get baggies & ice.
- lunch
- 1300 At Site 1 for water level
- measure ment.
- 1340 Done. Goto Site 2.
- Take water levels.
- 1450 Done.
- Goto P-2. Pack samples.
- Prepare for tomorrow
- sampling.
- 0745 Leave Base. Goto FEDEx
- 1805 AT FEDEx
- 1830 AT HOTEL

JB 4/24/42

JB 4/24/42

Thursday

- 0615 leave hotel.
- ~~0630~~ Breakfast.
- Get Ice.
- 0715 ON BASE. PACK VAN FOR SAMPLING.
- 0823 Goto Site 1 to Purge & sample MW-102.
- 0930 Purge & Sample MW-103.
- 0940 Goto P-2.
- 1000 Goto Site 1. Sample & Purge MW-104.
- 1040 Goto MW-101 to Purge & Sample.
- 1108 Done Sampling. Goto P-2 to pack equipment for shipment.
- 1240 lunch.
- 1400 Packing stuff.
- 1545 Leave Base. Goto Security to turn in passes/badges.
- 1550 Goto FEDEX.
- 1620 AT FEDEX.
- 1644 Done at FEDEX.

WJB ydgr

1700 At Hotel.

WJB ydgr

(23)

~~Handwritten scribbles and lines, possibly including the name "Bryant" and some illegible text.~~

(24)

Tuesday -

- ① TAKE WATER LEVELS
- ② SURFACE WATER SAMPLES
 - A) 2 SAM, 1 DEP, 1 MS/MSD
- ③ Sediment
 - A) 2 SAM, 1 DEP, 1 MS/MSD
 - B) 1 Rinsate thru 8.5 sieve

102
103
104
101
RB
FB

Wednesday

- ① GW Sample Site 1
 - A) 4 SAM, 1 RB, 1 FB
- ② GW Sample @ Site 2?

203
201

Thursday

- ① GW Sample
 - A) 5 SAM, 1 Dep

201B
202+F
202B+Dep

MONDAY

(25)

31 Mar 97

0600 Leave house

1400 Arr Hotel

All Supplies bought.
All Passes & Security done

[Handwritten signature]
8 hrs

Tuesday
4-1-97

(26)

0600 Leave hotel

0640 Arr Base

Unpack stuff
Prepare Labels & Bottles

★ SW-03 is the DUPLICATE
★ for SW-01. ★ ★ ★

★ SD-03 is the DUPLICATE
★ for SD-01. ★ ★ ★

0831 Deviation: Will use Lab
Supplied Glass Jars for same
Sediment samples. Will use
Glass Jars for 4 Samples.

0853 Leave P-2 to begin water
Level Readings.

0905	MW-102	3.88'	B70C
0902	PZ-103	6.08'	"
0913	MW-103	7.71'	"
0915	PZ-102	7.67'	"
0910	MW-104	7.18'	"
0918	MW-101	8.03'	"
0908	PZ-101	6.16'	"
0120	Done @ Site 1.		

[Handwritten wavy line]

(27) 4-1-97

0928 Out Site 2
 0930 PZ-204 8.05' BTOC
 0932 PZ-206 7.63' "
 0934 PZ-205 6.64' "
 0945 PZ-201 8.76' "
 1023 MW-202 5.68' "
 1021 MW-202B 6.25' "
 0956 PZ-203 8.39' "
 0951 PZ-202 ~~AB~~ 5.61' "
 1016 MW-202 ~~AB~~ 10.81' "
 091014 MW-202 ~~AB~~ 11.46' "
 1000 Goto P-2 to check on more keys. The keys are not opening 900 above ground wells.
 1005 Get more keys from Capt. Harvick
 1010 Back @ Site 2.
 1025 Done with water levels. Check what.
 1026 MW-203 8.53' BTOC
 1027 NOW, Done w/ wk @ Site 2.
 1045 Get ice chest & bottles for SW/SD sampling.
 Get ice and lunch

AB

11/1/97

(28)

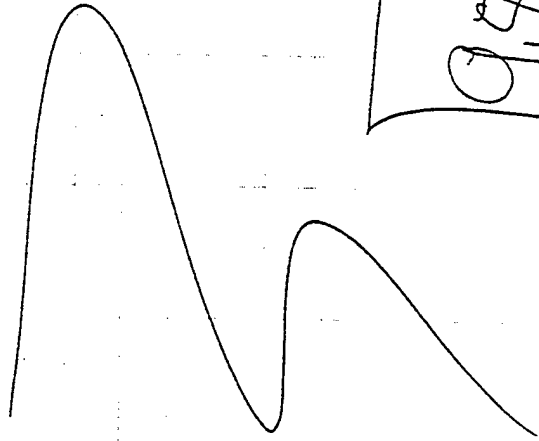
1200 at Site 2 for SD/SW sampling.
 1205 Take Brass Slam Knock Blank.
 1215 Take SW-01.
 1220 Take SW-03.
 1225 Take SD-01
 1230 Take SD-03
 1240 Done at SD-01/03 Site goto SD-02 Site.
 1250 Take SW-02
 1255 Take MS/MSD
 1300 Take SD-02
 1305 Take MS/MSD-SD
 1320 Done. Goto P-2 to Clean up washes.
 Pack ice chest & full ant C-O-C.
 Full ant Bottle Labels for tomorrow.
 Jungs Recon of Brass Slams:
 Wash with Alconox, Rinse w/ Potable water, Rinse w/ D.I Water, Rinse w/ Methanol, allow to air dry.

Jungs

(29)

4/1/97

Sediment Sampling Method:
 Brass sleeve - Cap one end of
 Brass sleeve, go to sample
 site, which is away top layer
 of organics, stick B.S. in
 Mud until even with
 Mud. and twist & remove
 sideways.
 The same with sample
 Bottle
 Leave Base, Go FEDEX
 Done @ FEDEX
 at Hotel



9/1/97

WEDNESDAY

(30)

2 April 97

0630 Leave Hotel
 0730 On Base
 Calibrate PID & HORBAS.
 Prepare. Exc Today's Sample
 0840 At MW-102 to Page &
 Sample.

0850 Take Field BLANK
 0855 Take Bailex Rinstate.
 0900 Begin Purging MW-102

VOL	Cond	Temp	pH
1.5	0.750	10.9	6.84
3.0	0.686	10.0	6.99
4.5	0.894	10.1	7.02
6.0	0.713	10.2	7.00
7.5	0.711	10.1	6.99

0918 Done Purging
 0925 Sample MW-102.
 Go to MW-103

0940 Begin Purging MW-103

VOL	Cond	Temp	pH
1	0.636	11.2	7.13
2	0.632	10.9	7.11
3	0.634	10.8	7.09
4	0.632	10.8	7.08

9/1/97

2 April 97

(31)

0950	Done purging			
0955	Take Sample MW-103			
1000	Done Sampling			
	Go to MW-104			
1044	Begin Purging MW-104			
	VOL	Cond	Temp	pH
1046	1.0	1.21	11.2	6.87
1047	2.0	1.21	10.8	6.89
1049	3.0	1.22	10.8	6.93
1051	4.0	1.22	10.7	6.94
1052	Done Purging			
1100	Sample MW-104			
	Go to MW-101			
1111	Begin Purging MW-101			
	VOL	Cond	Temp	pH
1114	1.0	1.03	11.4	6.93
1116	2.0	1.01	11.0	6.97
1117	3.0	0.99	11.0	6.99
1119	4.0	0.97	11.1	6.98
1120	Done Purging			
1125	Sample MW-101			
1130	Done @ MW-101			
	hunch			

J. Byrd Jr

2 April 97

(32)

		Water Level	Total Depth
1334	PZ-203	8.57'	11.24'
1339	PZ-201	8.58'	14.99'
1343	PZ-205	6.64'	20.87'
1347	PZ-206	7.65'	22.54'
1349	PZ-204	8.14'	32.12'
1355	PZ-202	6.09'	11.68'
	Co's Site I		
1406	PZ-103	6.12'	10.74'
1411	PZ-101	6.19'	11.51'
1415	PZ-102	7.76'	11.75'
	Done		
	Co's P-2 to Prepare		
	sample for shipment		
1535	Leave Base for FedEx		
1600	Done @ FedEx		
	Get Car		
1620	at Hotel		

9.5

3 April 97

(33)

0700 Leave Hotel
 0748 On Base
 Prepare for Sampling
 Calibrate I.D. & Horiba
 At MW-203 to Purge & Sample
 0812 Begin Purging MW-203

VOL	pH	Cond	Temp
1.5	6.71	0.515	11.1
3.0	6.93	0.493	10.1
4.5	7.03	0.504	10.1
6.0	7.04	0.511	10.1

0901 Done Purging MW-203
 0903 Sample MW-203
 0912 Done at MW-203.
 0915 At MW-202.
 0923 Begin Purging MW-202

VOL	Temp	Cond	pH
1.5	9.6	0.910	7.03
3.0	8.9	0.747	7.03
4.5	8.9	0.758	7.04
6.0	9.1	0.747	6.98

0925 Done Purging
 0935 Sample MW-202

JB

3 April 97

(34)

Take filtered and unfiltered
 PPM sample. The filter is
 a 6EO Tech "Diapora A Filter"
 0.45 micron, #GDO95700
 1000 Done @ MW-202
 1017 Begin Purging MW-202B

VOL	pH	Temp	Cond
3.5	6.87	11.8	1.07
7.0	6.87	11.8	1.07
10.5	7.0	12.0	1.10

1042 Done Purging MW-202B
 1050 Take Sample MW-202B
 1055 Take Sample MW-202A, which
 is a dup of MW-202B,
 Done @ MW-202 cluster
 Close & Seal all drums
 inside secure area
 1125 At MW-201 cluster
 1134-48 Begin Purging MW-201

VOL	pH	Temp	Cond
1.0	7.22	11.4	0.644
2.0	7.13	10.7	0.645
3.0	7.12	10.6	0.685
4.0	7.10	10.5	0.644

1138
 1140
 1142
 1143

JB

13 April 97

(32)

1145 Done purging MW-201
 1151 Sample MW-201
 1155 Done @ MW-201
 1157 Begin purging MW-201B

	VOL	Temp	Cond	pH
1206	3.0	12.3	0.677	7.18
1212	6.0	12.4	0.673	7.17
1217	9.0	12.3	0.677	7.13

1220 Done purging MW-201B
 1227 Sample MW-201B
 1235 Done at Site 2. All dams are locked and secure.
 Lunch
 1330 At P-2 packaging all equipment, samples and staff for shipment.
 Leave Base. Go to FEDEX.
 1551 Done @ FEDEX
 1600 At Hotel.

9 hrs

(35)

MEASUREMENT CONVERSIONS

IF YOU KNOW MULTIPLY BY TO FIND

LENGTH

inches	2.540	centimeters
feet	30.480	centimeters
yards	0.914	meters
miles	1.609	kilometers
millimeters	0.039	inches
centimeters	0.393	inches
meters	3.280	feet
kilometers	1.093	yards
	0.621	miles

WEIGHT

ounces	28.350	grams
pounds	0.453	kilograms
grams	0.035	ounces
kilograms	2.204	pounds

VOLUME

fluid ounces	29.573	milliliters
pints	0.473	liters
quarts	0.946	liters
gallons (U.S.)	3.785	liters
milliliters	0.033	fluid ounces
liters	1.056	quarts
	0.264	gallons (U.S.)

TEMPERATURE

*C = (°F - 32) x .555
 *F = (°C x 1.8) + 32

Inches	Decimals of foot	Milli-meters
1/16	.0625	1.5875
1/8	.1250	3.1750
3/16	.1875	4.7625
1/4	.2500	6.3500
5/16	.3125	7.9375
3/8	.3750	9.5250
1/2	.5000	12.7000
5/8	.6250	15.8750
3/4	.7500	19.0500
7/8	.8750	22.2250
1"	1.0000	25.4000
2"	2.0000	50.8000
3"	3.0000	76.2000
4"	4.0000	101.6000
5"	5.0000	127.0000
6"	6.0000	152.4000
7"	7.0000	177.8000
8"	8.0000	203.2000
9"	9.0000	228.6000
10"	10.0000	254.0000
11"	11.0000	279.4000
1 foot	12.0000	304.8000



"Rite in the Rain"
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Project CAPITOL AIRPORT (ILLINOIS A
SPRINGFIELD, ILL
183 FIGHTER WING
1315-296

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0840 ARRIVE @ DRUM STORAGE AREA
 & PICK UP 1-55 GAL DRUM
 FOR PURGE WATER.

0845 DEPART DRUM STORAGE AREA
 TO GET

0855 ARRIVE @ GAS STATION
 GAS & BAGS OF ICE.

0905 ARRIVE @ SITE 1, MW-102
 SET-UP AROUND FLUSH MOUNT.

0920 START PURGE

~~0984 END PURGE R.A.~~

0950 START SAMPLING R.A.

0955 END SAMPLING R.A.

PARAMETER (FIELD)

Temp	PH	Cond	Gals	CLARITY
0934 12.7°C	6.96	.738	3	lt. BROWN
0937 12.9°C	7.00	.730	3.5	"
0940 13.0°C	7.01	.733	4	"
0943 13.0°C	7.03	.735	4.5	"

END PURGE

0950 START SAMPLING

0955 END SAMPLING, COLLECT 3
 VOA VIALS (VOCs - 8010/8020)
 & 1-500ml PLASTIC (6010/7000)

1005 DEPART & SET UP @ WELL

P. N. 1. 1

MW-103 (SITE 1)

Temp.	PH	Cond.	Gals	CLARITY
1030 START PURGE				
1034 12.6°C	7.17	.693	2.5	CLOUZY/PA
1037 13.1°C	7.15	.705	3	"
1040 13.3°C	7.14	.704	3.5	"
1043 13.1°C	7.13	.701	4	"
1040 END PURGE				
1045 START SAMPLING				
1050 END SAMPLING				
COLLECTED VOCs (8010/8020) VOA				
& 1-500ml PLASTIC (6010/7000)				
1100 DEPART WELL MW-103				
1105 ARRIVE BACK AT BLOG. P-2				
TO GET BOLT-CUTTERS TO				
CUT LOCKS. NEED NEW LOCKS				
1130 BREAK FOR LUNCH				
1230 END LUNCH				
1255 ARRIVE @ WELL MW-104				
SET-UP.				
1312 START PURGE				
1315 Temp	PH	Cond.	Gals	CLARITY
1317 12.9°C	6.84	1.18	2	SLIGHTLY
1317 12.9°C	6.84	1.22	2.5	LT. GRAY

R. N. D. D. D.

④

Temp	pH	Cond.	Gals	CLARITY
1319	6.91	1.24	3	SLIGHT CLO. W. GRAY
1321	6.92	1.23	3.5	" "
NOTE: SLIGHT HYDROCARBON ODOR, NO SHEEN, PID = 3.5 ppm AFTER PURGE.				
1325	START SAMPLING			
1330	END SAMPLING			
1340	DEPART WELL MW-104			
SET UP AT WELL MW-101				
1350	START PURGE			
Temp.	pH	Cond.	Gals	CLARITY
1355	7.05	0.920	2	CLOUDY
1357	7.03	0.923	2.5	OK. GRAY
1359	7.05	0.924	3	" "
1401	7.03	0.921	3.5	" "
NOTE: HYDROCARBON ODOR (SLIGHT) NO SHEEN, PID = 2.1 ppm BK GRD = 0.2 ppm AFTER PURGE. P.A.				
1405	START PURGE SAMPLING			
BILL SOBBERG (AUDITOR) ARRIVES ON SITE.				
1410	END SAMPLING			
1422	LOAD UP EQUIPMENT			

12/16/94

1930 DEPART Site 1, WELL MW-101
 1935 ARRIVE @ BLDG P-2 & UNLOAD
 EQUIP. PREPARE C.O.C. &
 SAMPLE PREP FOR SHIPMENT.
 SAMPLES ARE ON ICE & WE
 NEED VERMICULITE
 1500 RELINQUISHED SAMPLES FOR
 FED-EX
 1540 DEPART ILLINOIS ANG
 (CAPITOL AIRPORT)
 1630 ARRIVE AT FED-EX &
 DELIVER SAMPLES FOR
 SHIPMENT.
 1635 DEPART FED-EX
 1700 ARRIVE BACK AT HOTEL

~~NO MORE ENTRIES~~
 [Signature]
 12/16/94

0730 Arrive @ Capitol Airport
 Illinois ANG. Bill Edberg
 is already on site.
 0740 CALIBRATE PID'S/W 100 PPM
 ISOBYTLENE & JERRY CALIBRATES
 HORIBAS W/ AUTO-CAL SOLUTIONS
 PH = 4.000
 0825 OPTTECH HEALTH & SAFETY
 0840 DEPART BLDG P-2
 0850 ARRIVE AT WELL MW-203, (SITE
 2). STICK-UP.
 0908 START PURGE
 Temp. pH. Cond. Gals CLARITY
 0915 11.9°C 6.67 .724 2 cloudy
 0917 12.6°C 6.93 .679 3 "
 0919 12.5°C 6.97 .676 3.5 "
 0921 12.4°C 6.96 .672 4 "
 0930 START SAMPLING
 0935 END. SAMPLING
 0945 DEPART WELL MW-203
 ARRIVE @ HANGAR A" TO
 COLLECT BLIND WATER
 SOURCE FROM SPICKETT
 I.O. NO. 2-FB-02
 D. A. 1

1000 Collect Sample 2-FB-02
 1005 DEPART HANGAR A.
 1010 ARRIVE BACK @ P-2 BLDG.
 1015 DEPART BLDG P-2.
 1020 ARRIVE @ SITE 2, MW-201
 1030 BEGIN PURGE
 Temp. pH Cond. Gals CLARITY
 1034 12.0°C 7.08 .732 1.5 cloudy
 1036 12.2°C 7.09 .731 2 "
 1038 12.1°C 7.10 .731 2.5 "
 1040 12.3°C 7.10 .930 3 "
 1045 START SAMPLING.
 BILL ERBERG ARRIVES ON SITE
 1050 ENO SAMPLING
 1100 DEPART WELL MW-201
 1106 ARRIVE @ BLDG P-2 to PICK
 UP MORE NITRILE GLOVES
 1109 DEPART BLDG P-2
 1115 ARRIVE @ SITE 2, MW-202
 1130 BEGIN PURGE
 Temp. pH Cond. Gals CLARITY
 1137 10.0°C 7.10 .757 3 cloudy
 1139 10.3°C 7.11 .745 3.5 cloudy
 1141 10.4°C 7.13 .744 4 SLIGHTLY
 CLOUDY

11/1/02

(8)

1143 Temp. 10.5°C PH 7.14 Cond. 746 Gals 4.5 CLARITY SLIGHTLY CLOUDY

1150 START SAMPLING

1155 END SAMPLING

1205 DEPART SITE 2, WELL MW-202

1210 BREAK FOR LUNCH

1245 ARRIVE BACK ON BASE AT BUDG. P-2. WILL START PREPARING SAMPLES FOR SHIPMENT.

1400 RELINQUISH SAMPLES FOR FED-EX SHIPMENT.

1500 DEPART BUDG P-2, ILLINOIS ANG/CAPITOL AIRPORT

1545 ARRIVE @ FED EX & DELIVER SAMPLES FOR SHIPMENT.

1630 ARRIVE @ HOTEL

~~NO MORE ENTRIES~~
 12/17/96
 Reg [Signature]

12/18/96

0730 ARRIVED @ CAPITOL AIRPORT / ILLINOIS ANG.

0740 CALIBRATE PIDS W/ 100 PPM ISOBUTYLENE, CALIBRATE HOERER W/ AUTO-CAL SOLUTION. PH = 4.000

0820 OPTTECH HEALTH & SAFETY @ MT. DEPIET BUDG. P-2

0840 ARRIVE AT WELL 201B, SITE 2

0900 BEGIN PURGE (PID NOT WORKING) WHATSOEVER, IT GOES BUT NO READ OUT

	Temp	pH	Cond.	Gals	CLARITY
0913	12.8°C	7.00	.874	6.5	OK. BROWN TURBID
0915	13.2°C	7.06	.853	7	"
0917	13.3°C	7.09	.851	7.5	"
0919	13.2°C	7.10	.850	8	"

0925 START SAMPLING

0930 END SAMPLING

0935 DEPART WELL MW-201B

0940 ARRIVE @ WELL MW-202B

1000 BEGIN PURGE

	Temp.	pH	Cond.	Gals	CLARITY
1012	14.0°C	7.28	1.12	9	OK. GRAY TURBID
1014	13.8°C	7.16	1.12	9.5	"

(10)

18, 2

Temp.	pH	Cond.	Gals	CLARITY
1016	7.18	1.12	10	OK GRAY
1018	7.19	1.12	10.5	"
1025	START SAMPLING			
1030	COLLECTED DUP.			
1035	END SAMPLING			
1045	LOADED UP & DEPARTED			
1055	WELL MW 202B - SITE 2			
1110	ARRIVED AT BLDG P-2			
	DEPART BLDG P-2 (IANG)			
	TO BUY GAS, ICE & 1-GAL ZIP LACS			
1149	BREAK FOR LUNCH			
1240	END LUNCH.			
1255	ARRIVE BACK ON BASE @ SITE 1 TO COLLECT WATER LEVELS FROM WELLS & PIEZOMETERS. (SITE 1)			
				<u>DTW</u>
1305	MW103	(FLUSH MOUNT)		7.72
1310	MW102	"		4.82
1315	MW104	"		7.73
1320	MW101	"		8.67

12/18/96

(11)

WELL / PIEZOMETER	DTW
1323 PZ-103 (FLUSH MOUNT)	6.05'
1326 PZ-101	6.47'
1330 PZ-102	8.26'
NOTE: PZ-104 COULD NOT BE LOCATED.	
1335 DEPART SITE 1	
ARRIVE @ BLDG P-2	
1340 ARRIVE @ BLDG P-2	
1345 DEPART BLDG P-2	
1350 ARRIVE @ SITE 2 TO COLLECT WATER LEVELS FROM WELLS & PIEZOMETERS (SITE 2)	
	<u>DTW</u>
1358 PZ-204 (STICK-UP)	16.93
1402 PZ-205 (STICK-UP)	14.82
1405 PZ-206 (STICK-UP)	15.09'
1410 PZ-201 (FLUSH MOUNT)	9.01
1418 PZ-203 (STICK UP)	10.98'
1422 PZ-202B (FLUSH MT.)	8.54

(12) 12/18/196
 WELL PIEZOMETER DTW

1431 PZ-203 (FLUSH MOUNT) 10.38
 1437 MW201 (STICK-UP) 12.13
 1442 MW202 (STICK-UP) 6.12

1445 DEPART SITE 2
 1500 ARRIVE C BLDG P-2
 TO PREP SAMPLES.
 1630 RELINQUISH SAMPLES FOR
 FED-EX SHIPMENT.
 1700 RELINQUISH SAMPLES (K.P.'s)
 FOR FED-EX SHIPMENT
 1745 DEPART CAPITAL AIRPORT
 ILLINOIS ANG (BLDG P-2)
 ARRIVE @ FED-EX
 1800 DROP OFF SAMPLES.
 1805 DEPART FED-EX
 1830 ARRIVE AT HOTEL

~~Paul Chantrel
 NO MORE ENTRIES
 12/18/96~~

12/19/196

(13)

0720 ARRIVED ON CAPITAL AIRPORT
 (ILLINOIS ANG) BLDG P-2
 0730 K.P. CALIBRATES PIDS W/100
 PPM ISOBUTYLENE & HORIBA
 W/AUTO CAL. SOLUTION PH =
 4.000.
 0800 HEALTH & SAFETY MEETING
 0820 DEPART BLDG P-2
 0823 ARRIVE @ SITE 1 TO RESAMP.
 WELL MW 102
 0840 WE'LL COLLECT RINSATE @ THIS
 WELL MW 102
 0842 BEGIN PURGE
 Temp. PH. Cond. Golf CLARITY
 0846 13.1°C 6.88 7.88 3 Brown
 0848 13.4°C 6.84 7.54 3.5
 0850 13.3°C 6.86 7.52 4
 0852 13.3°C 6.87 7.53 4.5
 0855 BEGIN SAMPLE
 0900 ENO SAMPLE
 0903 DEPART WELL MW-102
 0906 ARRIVE @ SET-UP @
 WELL MW-102

12/19/76

(14)

Time	Activity	Temp.	PH	Cond.	Gals.	Clarity
0914	BEGIN PURGE					
0917	Temp.	14.3°C	7.05	.709	2	CLARITY Lt. BROWN
0919		14.1°C	7.01	.710	2.5	"
0921		14.0°C	7.00	.711	3	"
0923		14.0°C	7.00	.712	3.5	"
0930	START SAMPLING					
0935	END SAMPLING					
0937	DEPART WELL MW-103					
0940	ARRIVE @ BLDG P-2					
0958	DEPART BLDG P-2					
1002	ARRIVE BACK @ SITE 1					
	WELL 104 MW-104					
1011	BEGIN PURGE					
1014	Temp.	13.4°C	6.87	1.25	1.5	CLARITY Lt GRAY to CLEAR
1016		13.5°C	6.85	1.26	2	"
1018		13.7°C	6.84	1.26	2.5	"
1020		13.6°C	6.85	1.27	3	"
1025	START SAMPLING					
1030	END SAMPLING					
1033	DEPART WELL MW-104					

P. S. A 1.1

Time	Activity	Temp.	PH	Cond.	Gals.	Clarity
1035	ARRIVE @ WELL MW-101					
1044	BEGIN PURGE					
1046	Temp.	11.7°C	7.08	0.96	1.5	CLARITY Lt. GRAY
1048		12.7°C	6.90	0.97	2	"
1050		12.8°C	6.89	0.97	2.5	"
1052		12.9°C	6.88	0.97	3	"
1055	START SAMPLING					
1100	END SAMPLING					
1105	DEPART SITE 1, WELL MW-101					
1108	ARRIVE @ BLDG P-2					
	UNLOAD EQUIP/SUPPLIES					
	WILL START PREPPING SAMPLES FOR SHIPMENT. ALSO START PACKING UP SUPPLIES & EQUIPMENT FOR SHIPMENT					
	BACK TO SAN ANTONIO, TX.					
1245	BREAK FOR LUNCH					
1345	END LUNCH, CONTINUE PACKING					
1500	DEPART ILLINOIS ANG					
1530	ARRIVE @ HOTEL					
	NO MORE ENTRIES					

Paul Chuband

WELL DEVELOPMENT LOG

Installation: 183rd FW, IAN 6 Well No. MW 201B
 Client/Project: ANGRIC/CEVR - Site: 2
 Development Start: (Date) 12/16/96 (Time) 1010
 Development End: (Date) 12/16/96 (Time) 1118
 Development By: Kathryn Feitchett, Jerry Castillo
 Background PID Reading: 0 ppm PID Reading: 0.2 ppm
 Depth to Water (BTOC): 12.57' Depth to Bottom of Well (BTOC): 28.04'

Volume of Water in Well (gallons) = (0.0408) x (well diameter (inches))² x height of water column (feet)
 $V_{well} = (0.163) (15.47 ft) = 2.5 \text{ gals}$
 $V_{pack} = (2.61) (12.5 ft) (0.30) = 9.8 \text{ gals} - 2 \text{ gals} = 7.8 \text{ gals}$
 Volume of Water in Well x 3 = 30.9 gals
 Well in pack section = $(0.163) (12.3 ft) = 2 \text{ gals}$

Development method: 2" boiler - disposable
 Development Water Containment: 55-gal, steel drum
 Average Rate of Removal of Water:
 Weather: Partly cloudy, 3/6
 $V_{well} + V_{pack} = 7.6 \text{ gals} + 2.5 \text{ gals} = 10.3 \text{ gals}$

Comments: very silty

Time	Amount of Water Removed (gallons)	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity Turbidity	Remarks
1101	22	12.5	6.89	765	> 999	Very cloudy
1109	25	12.6	7.01	733	> 999	silty
1112	27.5	12.8	7.11	735	> 999	very cloudy
1118	31	12.9	7.12	733	> 999	very cloudy
		Stopped pumping				
KD						

WELL SAMPLING LOG

Installation: 183rd FW, IANG
 Client/Project: ANGR/CEVR - Capital
 Sample Start: (Date) 12/18/96
 Sample End: (Date) 12/18/96
 Sampled By: R.A. & J.B.
 Background PID Reading: SEE COMMENTS
 Depth to Water (BTOC): 12.98
 Screen Interval: ~~23-27~~ 17.5-27.5
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Well No. MW ~~201~~ B - GWO1
 Site: 2
 (Time) 0925
 (Time) 0930

Lab Analyses:

VOCs (SW 8010/8020) - (3) 40-ml VOA HCL
 PPMs (SW 6010/7000) - (1) 50-ml Poly HNO₃

QA/QC Samples:

~~Duplicate - MW~~
 2 - RB2 - nitrate blank - 2* disposable bailer

Weather: PARTLY CLOUDY, ^{VERY} COLD 10 °F, -18 °F WIND CHILL

Comments: PID NOT FUNCTIONING PROPERLY
 IT GOES ON, BUT WITH NO READ OUT
 NEW 2" PVC WELL CASING, STICK UP

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
0915	13.2°C	7.06	.853	TURBID DK. BROWN	NO ODOOR SILT
0917	13.3°C	7.07	.851	"	"
0919	13.2°C	7.10	.850	"	"

WELL DEVELOPMENT LOG

Installation: 183rd FW, IANG Well No. MW 202B

Client/Project: ANGR/CEVR - Site: 2

Development Start: (Date) 11/16/96 ^{United EE/CA} (Time) 1337

Development End: (Date) 12/16/96 (Time) 1605

Development By: Kathryn Pritchett, Jerry Castillo

Background PID Reading: 0 ppm PID Reading: 0 ppm

Depth to Water (BTOC): 7.34' Depth to Bottom of Well (BTOC): 27.40'

Volume of Water in Well (gallons) = (0.0408) x (well diameter (inches))² x height of water column (feet)
 $V_{well} = (0.163) (20.04 \text{ ft.}) = 3.3 \text{ gals.}$

$V_{pack} = (2.61) (13.2 \text{ ft.}) (0.30) = 10.3 \text{ gals} - 1.7 \text{ gals} = 8.6 \text{ gals}$ $V_{well \text{ in the well pack}} = (0.163) (105 \text{ ft.})$
 $1.7 = \text{gals}$

Volume of Water in Well x 3 = $\Rightarrow 35.7 \text{ gals}$
 $+ 3.3 \text{ gals}$
11.9 gals

Development method: 2" disposable (new) basket

Development Water Containment: 55-gal drum

Average Rate of Removal of Water:

Weather: Sunny, 30's

Comments:

Time	Amount of Water Removed (gallons)	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity Turbidity	Remarks
1335				1003P		
1355P	0	12.8	7.57	1003P	86	Fit withal very clear
1412	13.5					purged dry
	started purging			1040		
1434	15	12.9	7.50	1009P	7999	very cloudy, silty
1440	19	12.6	7.62	1005P	7999	"
1445	20			1050		Stopped purging dry
1505	started purging					
1520	26.5					Stopped purging - Hours may need a battery
1552	started purging					
1553	28	12.8	6.93	1080	7999	very cloudy
1600	32	12	6.7	1100	7999	very cloudy
1607	35	12	7.0	1100	"	"
1609	36	12	7.0	1100	"	"
						Stopped purging

Fial

1430

WELL SAMPLING LOG

Installation: 183rd FW IANG Well No. MW 202B - GWD 1
 Client/Project: ANGLR/CEVR - Capital Site: 2
 Sample Start: (Date) 12/18/96 EE/CA (Time) 1025 COLLECTED DUP @ 1030
 Sample End: (Date) 12/18/96 (Time) 1035
 Sampled By: R.A. & J.B.
 Background PID Reading: SEE COMMENTS PID Reading: SEE COMMENTS
 Depth to Water (BTOC): 13.72
 Screen Interval: ~~24' - 27' N~~ 6/12/97 17.3 - 27.3
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOLs (SW 6010/8020) - (3) 40-ml UGA HCL
 PPMs (SW 6010/7000) - (1) 500-ml Poly HNO₃

QA/QC Samples:

Dup
 TIME: 1030

Duplicate - ~~MW 202B~~ MW 202B
 MW 202A - GWD 1

Some analyses

2-RB02 - rinseette blank - 2" disposable bailer

Weather:

PARTLY CLOUDY, VERY COLD, 10°F, WIND CHILL -18°F

Comments:

PID NOT FUNCTIONING PROPERLY, IT GOES ON BUT SHOWS NO READ OUT WHAT-SO-EVER.
 NEW 2" PVC WELL CASING, STICK UP SLOW RECHARGE

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
1014	13.8°C	7.16	1.12	DK. GRAY	NO ODOE
1016	13.8°C	7.18	1.12	"	"
1018	13.7°C	7.19	1.12	"	"

WELL SAMPLING LOG

Installation: 183rd FW IANG
 Client/Project: ANGR/CEVR - CAPITOL EE/CA
 Well No. MW 101
 Site: 1
 Sample Start: (Date) 12/19/94 (Time) 1055
 Sample End: (Date) 12/19/94 (Time) 1100
 Sampled By: R.A. & J.B.
 Background PID Reading: 0.00ppm PID Reading: 0.00ppm
 Depth to Water (BTOC): 9.20'
 Screen Interval: ~~11-19'~~ 6/17/97 4-14'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCS - 3 VOA VIALS (40ml) - 8010/8020
 PPM - 1 PLASTIC (500ml) - 6010/7000

QA/QC Samples:

RINSE - DISPOSABLE BAILER
 2-RB02

Weather: PARTLY CLOUDY, VERY COLD, 4°F
 WIND CHILL - 20°F

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
1048	12.7°C	6.90	0.97	L. GRAY	SLIGHT HYDROCARBON
1050	12.8°C	6.89	0.97	" "	" "
1052	12.9°C	6.88	0.97	" "	" "

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WELL SAMPLING LOG

Installation: 183rd FW, IANG
 Client/Project: ANGRIC/CEVR-^{CAPITOL}
~~EETCA~~
 Well No. MW102
 Site: 1
 Sample Start: (Date) 12/19/94 (Time) 08:55
 Sample End: (Date) 12/19/94 (Time) 09:00
 Sampled By: R.A. & J.B.
 Background PID Reading: 0.00 ppm PID Reading: 0.00 ppm
 Depth to Water (BTOC): 7.20'
 Screen Interval: ~~10'-13'~~ 6/17/97 3-13'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs - 3 VOA VIAL (40ml) - 8010/8020
 PPM - 1 PLASTIC (500ml) - 6010/7000

QA/QC Samples: RINSE BLANK - DISPOSABLE BAILER
 2 - RB 02
 SAMPLE TIME - 0840

Weather: PARTLY CLOUDY, VERY COLD, 4°F
 WIND CHILL = -20°F

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
0848	13.4°C	6.84	754	LT. BROWN	NO COR
0850	13.3°C	6.86	752	"	"
0852	13.3°C	6.87	753	"	"

WELL SAMPLING LOG

Installation: 183rd FW IANG Well No. MW103
 Client/Project: ANGR/CEVR - CAPITOL Site: 1
 Sample Start: (Date) 12/19/94 EE/CA (Time) 0930
 Sample End: (Date) 12/19/94 (Time) 0935
 Sampled By: R.A. & J.B.
 Background PID Reading: 0.00ppm PID Reading: 0.00ppm
 Depth to Water (BTOC): 9.03'
 Screen Interval: ~~11-14'~~ 6/7/97 4-14'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs = 3 VOA VIALS (40ml) - 6010/8020
 PPMs = 1 PLASTIC (500ml) - 6010/7000

QA/QC Samples:

2 - RB-02
 RINSATE - DISP. BAILER

Weather:

PARTLY CLOUDY, VERY COLD, 4°F
 WIND CHILL = -20°F

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
0919	14.1 14.1°C	7.01	710	LT. BROWN	NO ODCR
0921	14.0 14.0°C	7.00	711	"	"
0923	14.0 14.0°C	7.00	712	"	"

WELL SAMPLING LOG

Installation: 183rd FW / FANG Well No. MW 104
 Client/Project: ANGR/CEVR - ~~USPITOL~~ Site: 1
 Sample Start: (Date) 12/19/94 ^{EE/CA} (Time) 1025
 Sample End: (Date) 12/19/94 (Time) 1030
 Sampled By: R.A. & J.B.
 Background PID Reading: 0.00ppm PID Reading: 0.00ppm
 Depth to Water (BTOC): 5.86'
 Screen Interval: ~~10-13'~~ 6/12/97 3-13'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs = 3 VOA VIALS (40ml) - ~~6010/6020~~ 8010, 8020
 ppms - 1 PLASTIC (500ml) - 6010/7000

QA/QC Samples:

~~RINSATE~~
 RINSATE - DISP. BAILER
 2 - RB-02

Weather: PARTLY CLOUDY, VERY COLD, 4°F, ~~W~~
 WIND CHILL = -20°F

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
1016	13.5°C	6.85	1.20	LT GRAY	STRONG HYDROCARBON ODOOR
1018	13.7°C	6.84	1.20	" "	" "
1020	13.6°C	6.85	1.20	" "	" "

WELL SAMPLING LOG

Installation: 183rd FW, IANG Well No. MW101 - GW03
 Client/Project: ANGRICKER - Capital Site: 1
 Sample Start: (Date) 12/16/94 EELCA (Time) 1405
 Sample End: (Date) 12/16/94 (Time) 1410
 Sampled By: R.A. & J.B.
 Background PID Reading: 0.1 ppm PID Reading: 2.1 ppm
 Depth to Water (BTOC): 8.73
 Screen Interval: ~~11-14~~ 6 1/2' - 14'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs (SW 8010/8020) - (3) 40-ml VOA HCL
 PPMs (SW 6010/7000) - (1) 50-ml Poly HNO₃

QA/QC Samples:

~~Blank~~ 2 - RBOZ - rinseate blank or disposable
 bailer

Weather: SUNNY, 40°F COLD, SLIGHT BREEZE

Comments: 2" STAINLESS STEEL WELL CASING, FLUSH MOUNT
 WE'LL REPLACE OLD LOCK
 FAST RECHARGE
 1 BAILER FILLED ALL CONTAINERS

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
1357	13.3°C	7.03	0.923	CLOUDY, DK GRAY	SLIGHT HYDROCARBON ODDOR
1359	13.4°C	7.05	0.924	"	"
1401	13.5°C	7.03	0.921	"	"

WELL PURGING LOG

Installation: 183rd FW IAN6 Well No. MW102 - GW03
 Client/Project: ANGR/KEVR - Capital Site: 1
 Purge Start: (Date) 12-16-96 (Time) 0920
 Purge End: (Date) 12-16-96 (Time) 0943
 Purged By: R. A. & J. B.
 Background PID Reading: 0.00ppm PID Reading: 0.00ppm
 Depth to Water (BTOC): 4.71' Depth to Bottom of Well (BTOC): 13.21'
 Volume of Water in Well (gallons) = (0.0408) x (well diameter (feet))² x height of water column
 (feet) 8.5'

1.36

Volume of Water in Well x 3 = 4.08 GALS

Purge method: DISPOSABLE BAILER
 Purge Water Containment: 55-GAL DRUM ON SITE
 Average Rate of Removal of Water: 0.19 GPM
 Weather: COLD, PARTLY CLOUDY, 30°F, SLIGHT BREEZE

Comments: Total of 4.5 Gals purged
 1 - 55 Gals DRUM ON SITE FOR PURGE WATER
 BAILER REMAINED FULL THRU-OUT PURGE, WE'LL REPLACE OLD LOCK

Time	Amount of Water Removed (gallons)	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
0934	3 GALS	12.7°C	6.96	.738	SLIGHT CLOUDY	NO CO2
0937	3.5 GALS	12.9°C	7.00	.730	"	"
0940	4 GALS	13.0°C	7.01	.733	"	"
0943	4.5 GALS	13.0°C	7.03	.735	"	"

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WELL SAMPLING LOG

Installation: 183rd FW, IANG Well No. MW102 - GW03
 Client/Project: ANGR/CEVR - Capital EERCA Site: 1
 Sample Start: (Date) 12-16-96 (Time) 0950
 Sample End: (Date) 12-16-96 (Time) 0955
 Sampled By: R.A. & J.B.
 Background PID Reading: 0.00 ppm PID Reading: 0.00 ppm
 Depth to Water (BTOC): 6:38'
 Screen Interval: 10' - 13'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs (SW 8010/8020) - (3) 40-ml VOA HCL
 PPMs (SW 6010/7000) - (1) 500-ml Poly HNO₃

QA/QC Samples:

~~none~~ 2 RBEZ - ~~rinsate blank on disposable bailer~~ R.A.

Weather: PARTLY CLOUDY, COLD, 30°F SLIGHT BREEZE

Comments: MODERATE RECHARGE

2" STAINLESS WELL, FLUSH MOUNT
 1 BAILER FILLED ALL CONTAINERS.
~~BAILER REMAINED Full~~ R.A.
 WE'LL REPLACE OLD LOCK

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
0937	12.9°C	7.00	.730	SLIGHTLY CLOUDY	NO. ODOR
0940	13.0°C	7.01	.733	"	"
0943	13.0°C	7.03	.735	"	"

Lt. BROWN
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WELL SAMPLING LOG

Installation: 183rd FW, LANG Well No. MW 103 - Gw03
 Client/Project: ANGRIC/LEVR - Capital Site: 1
 EKA
 Sample Start: (Date) 12/14/94 (Time) 1045
 Sample End: (Date) 12/14/94 (Time) 1050
 Sampled By: R. A. & J. B.
 Background PID Reading: 0.00ppm PID Reading: 0.00ppm
 Depth to Water (BTOC): 8.62
 Screen Interval: ~~7-12-14~~ 6/19/97 4-14'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOLs (SW 8010/8020) - (3) 40-ml UGA HLL
 PPMs (SW 6010/7000) - (1) 500-ml Poly HNO₃

QA/QC Samples:

~~None~~ 2-RB02 - Rinseate blank on disposable
 COLLECTED RINSEATE bailer
 WHILE @ THIS WELL TIME: 1025 DATE: 12/16/94

Weather: PARTLY CLOUDY, 30°F, COLD, SLIGHT BREEZE

Comments:

2" STAINLESS STEEL WELL CASING.
 FLUSH MOUNT ON GRASS.
 WE'LL REPLACE OLD LOCK
 MODERATE RECHARGE
 1 BAILER FILLED ALL SAMPLE CONTAINERS

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
1034	13.1°C	7.15	.705	CLOUDY	NO COLOR - BROWN
1038	13.3°C	7.14	.704	"	" "
1040	13.1°C	7.13	.701	"	" "

WELL SAMPLING LOG

Installation: 183rd FW, IANIG Well No. MW104 - GWS3
 Client/Project: ANGR/LEUR - Capital Site: 1
 Sample Start: (Date) 12/14/94 EE/CA (Time) 1325
 Sample End: (Date) 12/14/94 (Time) 1330
 Sampled By: R.A. & J.B.
 Background PID Reading: 0.00ppm PID Reading: ~~1.1~~ 3.5ppm
 Depth to Water (BTOC): 7.92'
 Screen Interval: ~~4-12~~ 6/17/97 3-13'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs (SW 8010/8020) - (3) 40-ml VOA HCL
 PPMs (SW 6010/7000) - (1) 500-ml Poly HNO₃

QA/QC Samples:

~~ANGR~~ 2-RBS2 - ~~with~~ insert blank on disposable bailer

Weather: PARTLY CLOUDY TO SUNNY, 40°F, COOL, SLIGHT BREEZE

Comments: 2" STAINLESS STEEL WELL CASING,
 FLUSH MOUNT, WELL REPLACE OLD LOCK.
 MODERATE RECHARGE
 1 BAILER FILLED ALL CONTAINERS

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
1317	12.9°C	6.89	1.22	SLIGHT. CLOUDY LT. GRAY	SLIGHT HYDROCARBON
1319	13.1°C	6.91	1.24	"	"
1321	13.3°C	6.92	1.23	"	"

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WELL SAMPLING LOG

Installation: 183rd FW, IANG Well No. MW 201 - GWCY
 Client/Project: ANGR/CER - Capital Site: 2
 Sample Start: (Date) 12/17/96 (Time) 1045
 Sample End: (Date) 12/17/96 (Time) 1050
 Sampled By: R.A. & J.B.
 Background PID Reading: 0.00 ppm PID Reading: 0.00 ppm
 Depth to Water (BTOC): 12.61'
 Screen Interval: 13-16' 6/17/97 6.5-16.5'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCs (Sw 8010/8020) (3) 40-ml VOA HPL
 PPMs (Sw 6010/7000) (1) 500-ml Poly HNO₃

QA/QC Samples:

2-RBZ - Nimsate blank - disposable bailer

Weather: ^{VERY} PARTLY CLOUDY, COLD, 25°F, WINDY

Comments: EXISTING 2" STAINLESS STEEL CASING,
 STICK-UP, MODERATE RECHARGE

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
1036	12.2°C	7.09	.731	CLOUDY TURBID	BROWN NO ODOOR
1038	12.1°C	7.10	.731	"	"
1040	12.3°C	7.10	.730	"	"

WELL SAMPLING LOG

Installation: 183rd FW, IANG
 Client/Project: ANGRIC/CEVR - Capital EE/CA
 Well No. MW 202-6W04
 Site: 2
 Sample Start: (Date) 12/17/96 (Time) 1150
 Sample End: (Date) 12/17/96 (Time) 1155
 Sampled By: R.A, J.B. & J.C.
 Background PID Reading: 0.00ppm PID Reading: 0.00ppm
 Depth to Water (BTOC): 6.90'
 Screen Interval: ~~12'-15'~~ 12/17/97 4.8 - 14.8'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOLs (SW 8010/8020) (3) 40-ml VOA HCL
 PPMs (SW 6010/7000) (1) 500-ml Poly HNO3

QA/QC Samples:

2-RB02 - equipment rinse blank - disposable
 bailer

Weather: PARTLY CLOUDY, 25°F, VERY COLD, CHANCE OF FLURRIES

Comments: EXISTING
 2" STAINLESS STEEL CASING, STICK-UP
 MODERATE RECHARGE
 STRONG ODOR

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
1139	10.3°C	7.11	.745	cloudy	BROWN STRONG ODOR
1141	10.4°C	7.13	.744	SLIGHTLY CLOUDY	LT BROWN STRONG ODOR
1143	10.5°C	7.14	.746	"	"

WELL PURGING LOG

Installation: 183rd FW, IANG
 Client/Project: ANGRICKER - ^{Capital} ~~EE/CA~~ Well No. MW 203 - Gw04
 Site: 2
 Purge Start: (Date) 12/17/96 (Time) 0908
 Purge End: (Date) 12/17/96 (Time) 0921
 Purged By: R.H. & J.B.
 Background PID Reading: 0.00 PPM PID Reading: 0.00 PPM
 Depth to Water (BTOC): 10.92 Depth to Bottom of Well (BTOC): 16.74
 Volume of Water in Well (gallons) = (0.0408) x (well diameter (feet))² x height of water column (feet)
5.82

0.94

Volume of Water in Well x 3 = 2.8 GALS

Purge method: DISPOSABLE BAILER

Purge Water Containment: 55 GAL DRUM ON SITE

Average Rate of Removal of Water: 0.30 GPM

Weather: PARTLY CLOUDY, WINDY 25°F, WIND CHILL IN SINGLE DIGITS

Comments: 2" STAINLESS STEEL WELL CASING, STICK-UP.
 FULL BAILER THRU-CUT PURGE

Time	Amount of Water Removed (gallons)	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
0915	2 GALS	11.9°C	6.67	.724	CLOUDY	4. Brown no odor
0917	3 GALS	12.6°C	6.93	.679	"	"
0919	3.5 GALS	12.5°C	6.97	.676	"	"
0921	4 GALS	12.4°C	6.96	.672	"	"

(12)

WELL SAMPLING LOG

Installation: 183rd FW, IANG Well No. MW203-6W04
 Client/Project: ANGR/CEVR - Capital Site: 2
 Sample Start: (Date) 12/17/96 EEKA (Time) 0930
 Sample End: (Date) 12/17/96 (Time) 0935
 Sampled By: R.A. & J.B.
 Background PID Reading: 0.00 ppm PID Reading: 0.00 ppm
 Depth to Water (BTOC): 10.21'
 Screen Interval: ~~13-16'~~ 6.5-16.5'
 Sampling method: DISPOSABLE BAILER
 Sampling Equipment Decontamination method: DISPOSABLE BAILER

Lab Analyses:

VOCS (SW 8010/8020) (3) 40-ml WA HQ
 PPMs (SW 6010/7000) (1) 500-ml Poly HNO₃

QA/QC Samples:

2- RBDZ - equipment rinsewater blank - disposable
 bailer

Weather:

PARTLY CLOUDY, COLD, 25°F WINDY

Comments:

STICK-UP WELL, 2" STAINLESS STEEL CASING
 MODERATE RECHARGE

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
0917	3.5 ^{12.6} CITS	6.93	679	CLOUDY	LT. BROWN NO ODOR
0919	3.5 ^{12.5} CITS	6.97	676	"	"
0921	4.0 ^{12.4} CITS	6.96	672	"	"

WELL PURGING LOG

Installation: *Capital Airport*

Well No. *MW-101*

Client/Project: *AWG*

Site: *Site 1 POL*

Purge Start: (Date) *4-2-97*

(Time) *1111*

Purge End: (Date) *4-2-97*

(Time) *1120*

Purged By: *J. Boyd, J. Casella*

PID Reading: *0*

Background PID Reading: *0*

Depth to Water (BTOC): *8.05'*

Depth to Bottom of Well (BTOC): *13.95'*

Volume of Water in Well (gallons) = $(0.0408) \times (\text{well diameter (inches)})^2 \times \text{height of water column (feet)}$ *0.96*

Volume of Water in Well x 3 = *3.0*

Purge method: *Disposable Barrier*

Purge Water Containment: *55 gbl Drum*

Average Rate of Removal of Water:

Weather: *50's Breezy Partly Cloudy*

Comments:

Time	Amount of Water Removed (gallons)	Temperature (°C)	pH	Conductivity (µS/cm) mS/cm	Clarity Turbidity	Remarks
<i>1114</i>	<i>1.0</i>	<i>11.4</i>	<i>6.93</i>	<i>1.03</i>	<i>192</i>	<i>Cloudy</i>
<i>1116</i>	<i>2.0</i>	<i>11.0</i>	<i>6.97</i>	<i>1.01</i>	<i>197</i>	<i>"</i>
<i>1117</i>	<i>3.0</i>	<i>11.0</i>	<i>6.99</i>	<i>0.99</i>	<i>145</i>	<i>"</i>
<i>1119</i>	<i>4.0</i>	<i>11.1</i>	<i>6.98</i>	<i>0.97</i>	<i>144</i>	<i>clearer</i>
<i>J. Boyd</i>						

WELL SAMPLING LOG

Installation: *Capital Airport*
Client/Project: *AN 6*
Sample Start: (Date) *4-2-97*
Sample End: (Date) *4-2-97*
Sampled By: *J Byrd, J Castillo*
Background PID Reading: *0*
Depth to Water (BTOC):
Screen Interval:
Sampling method: *Disposable Bailer*
Sampling Equipment Decontamination method: *NONE*

Well No. ~~AA~~ *MW-101*
Site: *Site 1 POL*
(Time) *1125*
(Time) *1130*
PID Reading: *0*

Lab Analyses:

VOC SW 8010/8020
PPM SW 6010

QA/QC Samples:

NONE

Weather: *Breezy then Partly Cloudy, 50's*

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
<i>1125</i>					

WELL PURGING LOG

Installation: *Capital Airport*
 Client/Project: *2nd STET*
 Purge Start: (Date) *4-2-97 29 April 97* (Time) 0900
 Purge End: (Date) *4-2-97 29 April 97* (Time) 0918
 Purged By: *J. Castillo, J. Byrd*
 Background PID Reading: ~~0~~ PID Reading: ~~0~~
 Depth to Water (BTOC): *4.01* Depth to Bottom of Well (BTOC): *12.95*
 Volume of Water in Well (gallons) = $(0.0408) \times (\text{well diameter (inches)})^2 \times \text{height of water column (feet)}$
1.46 gal

Volume of Water in Well x 3 = *4.4 gal*

Purge method: *Disposable Bailer*
 Purge Water Containment: *55 gal Drum*
 Average Rate of Removal of Water:
 Weather: *40's Clear to Partly Cloudy. Breezy*

Comments:

Time	Amount of Water Removed (gallons)	Temperature (°C)	pH	Conductivity ($\frac{\mu S}{cm}$) ($\frac{mS}{cm}$)	Clarity Turbidity	Remarks
0902	1.5	10.9	6.84	0.750	93	Cloudy
0904	3.0	10.0	6.99	0.686	211	Clearer
0907	4.5	10.1	7.02	0.694	201	Clear
0911	6.0	10.2	7.00	0.713	240	"
0917	7.5	10.1	6.99	0.711	180	"
<i>J. Byrd</i>						

WELL SAMPLING LOG

Installation: *Capital Airport*

Well No. *MW-104*

Client/Project:

Site: *Site 1 POL*

Sample Start: (Date) *4-2-97*

(Time) *0925*

Sample End: (Date) *4-2-97*

(Time) *0930*

Sampled By: *J. Boyd, J. Costello*

Background PID Reading: *0*

PID Reading: *0*

Depth to Water (BTOC):

Screen Interval:

Sampling method: *Disposable Bailer*

Sampling Equipment Decontamination method: *NONE*

Lab Analyses:

VOC 8010/8020

MPM 6010

QA/QC Samples:

Field Blank

Bailer Rinse

Weather:

50's Clear Breezy

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
<i>0925</i>					

WELL PURGING LOG

Installation: *Capital Airport*

Well No. *MW-103*

Client/Project: *AN 6*

Site: *Site 1 POL*

Purge Start: (Date) *4-2-97*

(Time) *0940*

Purge End: (Date) *4-2-97*

(Time) *0950*

Purged By: *Glenn J. Byrd*

PID Reading: *0*

Background PID Reading: *0*

Depth to Water (BTOC): *7.23'*

Depth to Bottom of Well (BTOC): *13.92*

Volume of Water in Well (gallons) = $(0.0408) \times (\text{well diameter (inches)})^2 \times \text{height of water column (feet)}$
1.1

Volume of Water in Well x 3 = *3.3*

Purge method: *Disposable Bailie*

Purge Water Containment: *55 gal Drum*

Average Rate of Removal of Water:

Weather: *50's Breezy Partly Cloudy*

Comments:

Time	Amount of Water Removed (gallons)	Temperature (°C)	pH	Conductivity ($\mu\text{S/cm}$) (mS/cm)	Clarity Turbidity	Remarks
<i>0942</i>	<i>1.0</i>	<i>11.2</i>	<i>7.13</i>	<i>0.636</i>	<i>157</i>	<i>Little Cloudy</i>
<i>0945</i>	<i>2.0</i>	<i>10.9</i>	<i>7.11</i>	<i>0.632</i>	<i>183</i>	<i>"</i>
<i>0947</i>	<i>3.0</i>	<i>10.8</i>	<i>7.09</i>	<i>0.634</i>	<i>515</i>	<i>"</i>
<i>0948</i>	<i>4.0</i>	<i>10.8</i>	<i>7.09</i>	<i>0.632</i>	<i>457</i>	<i>"</i>
<i>Glenn J. Byrd</i>						

WELL SAMPLING LOG

Installation: *Capital Airport*
 Client/Project: *AN6*
 Sample Start: (Date) *4-2-97*
 Sample End: (Date) *4-2-97*
 Sampled By: *J. Byrd, J. Castillo*
 Background PID Reading: *0*
 Depth to Water (BTOC):
 Screen Interval:
 Sampling method: *Disposable Bailer*
 Sampling Equipment Decontamination method: *NONE*

Well No.
 Site:
 (Time) *0955*
 (Time) *1000*
 PID Reading: *0*

Lab Analyses:

VOC SW 8010/8020
PPM 6010

QA/QC Samples: *NONE*

Weather: *50's Breezy Partly Cloudy*

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
<i>0955</i>					

WELL PURGING LOG

Installation: *Capital Airport*

Well No. *MW-104*

Client/Project: *AN6*

Site: *Site 1 POL*

Purge Start: (Date) *4-2-97*

(Time) *1044*

Purge End: (Date) *4-2-97*

(Time) *1052*

Purged By: *J. Byrd, Jr. Castillo*

PID Reading: *0*

Background PID Reading: *0*

Depth to Bottom of Well (BTOC): *13.17*

Depth to Water (BTOC): *7.21*

Volume of Water in Well (gallons) = $(0.0408) \times (\text{well diameter (inches)})^2 \times \text{height of water column (feet)}$
0.97

Volume of Water in Well x 3 = *3*

Purge method: *Responsible bailer*

Purge Water Containment: *55 gal Drum*

Average Rate of Removal of Water:

Weather: *50's Breezy Partly Cloudy*

Comments:

Time	Amount of Water Removed (gallons)	Temperature (°C)	pH	Conductivity (µS/cm) ms/cm	Clarity	Remarks
1046	1.0	11.2	6.87	1.21	158	Cloudy
1047	2.0	10.8	6.89	1.21	193	"
1049	3.0	10.8	6.93	1.22	294	"
1051	4.0	10.7	6.94	1.22	315	"
<i>J. Byrd Jr</i>						

WELL SAMPLING LOG

Installation: *Capital Airport*
Client/Project: *AN 6*
Sample Start: (Date) *4-2-97*
Sample End: (Date) *4-2-97*
Sampled By: *g. Byrd, g. Castillo*
Background PID Reading: *0*
Depth to Water (BTOC):
Screen Interval:
Sampling method: *Disposable Bailor*
Sampling Equipment Decontamination method: *NONE*

Well No. *MW-104*
Site: *Site 1 POL*
(Time) *1100*
(Time) *1105*
PID Reading:

Lab Analyses:

VOC SW 8010/8020
PPM 6010

QA/QC Samples: *NONE*

Weather: *50's Breezy Partly Cloudy*

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
<i>1100</i>					

WELL SAMPLING LOG

Installation: *Capital Airport*
Client/Project: *AN 68*
Sample Start: (Date) *4-3-97*
Sample End: (Date) *4-3-97*
Sampled By: *J. Custillo*
Background PID Reading: *PID OUT*
Depth to Water (BTOC):
Screen Interval:
Sampling method: *Disposable Bailer*
Sampling Equipment Decontamination method: *NONE*

Well No. *MW-201*
Site: *Site 2 Old F+4*
(Time) *1148*
(Time) *1153*
PID Reading: *PID OUT*

Lab Analyses:

VOC 8010/8020
PPM 6010/7000

QA/QC Samples:

NONE

Weather:

Breezy

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
<i>1151</i>					

WELL PURGING LOG

Installation: *Capital Airport*

Client/Project: *ANG*

Purge Start: (Date) *4-3-97*

Purge End: (Date) *4-3-97*

Purged By: *Byrd, Castle*

Background PID Reading: *PID out*

Depth to Water (BTOC): *11.68'*

Volume of Water in Well (gallons) = $(0.0408) \times (\text{well diameter (inches)})^2 \times \text{height of water column (feet)}$ *2.6*

Well No. ^{*SAB*} ~~*201B*~~ *MW-201B*

Site: *Site 2 Old FTA*

(Time) *1157*

(Time) *1220*

PID Reading: *PID out*

Depth to Bottom of Well (BTOC): *27.60'*

Volume of Water in Well x 3 = *7.8*

Purge method: *Disposable Bailer*

Purge Water Containment: *55 gal drum*

Average Rate of Removal of Water:

Weather: *60's Breezy*

Comments:

Time	Amount of Water Removed (gallons)	Temperature (°C)	pH	Conductivity (µS/cm) (ms/cm)	Clarity Turbidity	Remarks
<i>1206</i>	<i>3.0</i>	<i>12.3</i>	<i>7.18</i>	<i>0.677</i>	<i>999</i>	<i>Cloudy</i>
<i>1212</i>	<i>6.0</i>	<i>12.4</i>	<i>7.17</i>	<i>0.673</i>	<i>999</i>	<i>"</i>
<i>1217</i>	<i>9.0</i>	<i>12.3</i>	<i>7.13</i>	<i>0.677</i>	<i>999</i>	<i>"</i>

[Handwritten signature and scribbles in the table grid]

WELL SAMPLING LOG

Installation: *Capital Airport*
 Client/Project: *AM6*
 Sample Start: (Date) *4-3-97*
 Sample End: (Date) *4-3-97*
 Sampled By: *Castille Byrd*
 Background PID Reading: *PID04*
 Depth to Water (BTOC):
 Screen Interval:
 Sampling method: *Disposable Bailin*
 Sampling Equipment Decontamination method: *NONE*

Well No. *MW-201B*
 Site: *Site 2 Old FTA*
 (Time) *1225*
 (Time) *1230*
 PID Reading: *PID04*

Lab Analyses:

VOC SW 8010/8020
PPM SW 6010/7000

QA/QC Samples:

NONE

Weather:

60's Breezy

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
<i>1227</i>					

WELL PURGING LOG

Installation: *Capital Airport*

Client/Project: *AN6*

Purge Start: (Date) *4-3-97*

Purge End: (Date) *4-3-97*

Purged By: *J. Byrd, J. Castell*

Background PID Reading: *0*

Depth to Water (BTOC): *5.70'*

Volume of Water in Well (gallons) = $(0.0408) \times (\text{well diameter (inches)})^2 \times \text{height of water column (feet)}$
1.48 gal

Well No. *MW-202*

Site: *Site 2 OLD FTA*

(Time) *0923*

(Time) *0935*

PID Reading: *0*

Depth to Bottom of Well (BTOC): *14.75'*

Volume of Water in Well x 3 = *4.43 gal*

Purge method: *Disposable 60 Bailer*

Purge Water Containment: *55 gal Drum*

Average Rate of Removal of Water:

Weather: *50's Partly Cloudy*

Comments:

Time	Amount of Water Removed (gallons)	Temperature (°C)	pH	Conductivity ($\mu\text{S/cm}$) (mS/cm)	Clarity Turbidity	Remarks
0925	1.5	9.6	7.03 7.68	0.910	655	Cloudy
0927	3.0	8.9	7.03	0.747	503	"
0929	4.5	8.9	7.04	0.738	589	"
0934	6.0	9.1	6.98	0.747	442	"
<i>J. Byrd</i>						

WELL SAMPLING LOG

Installation: *Capital Airport*

Well No. *MW-202*

Client/Project: *ANG*

Site: *Site 2 OLD FTA*

Sample Start: (Date) *4-3-97*

(Time) *0945*

Sample End: (Date) *4-3-97*

(Time) *0955*

Sampled By: *J. Byrd, J. Castillo*

Background PID Reading: *0*

PID Reading: *0*

Depth to Water (BTOC):

Screen Interval:

Sampling method: *Disposable Bailor*

Sampling Equipment Decontamination method: *NONE*

Lab Analyses:

VOE SW 8010/8020

PPM SW 6010 (filtered) 1 bottle

PPM SW 6010 (unfiltered) 1 bottle

*FILTER: 0.45 micron, GeoTech # GD 045700
↳ 1800-833-7958*

QA/QC Samples: *NONE*

Weather: *50's Partly Cloudy*

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
<i>0950</i>					

WELL SAMPLING LOG

Installation: *Capital Airport*

Client/Project: *AN 6*

Sample Start: (Date) *4-3-97*

Sample End: (Date) *4-3-97*

Sampled By: *J. Byrd, J. Casella*

Background PID Reading: *0*

Depth to Water (BTOC):

Screen Interval:

Sampling method: *Disposable Bail*

Sampling Equipment Decontamination method: *NONE*

Well No. *MW-202B*

Site: *Site 2 OLD FTA*

(Time) *1050*

(Time) *1100*

PID Reading:

Lab Analyses:

VOC SW 8010 / 8020
PPM SW 6010

QA/QC Samples:

Duplicate Sample MW-202A

Weather:

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
<i>1050</i>	<i>- MW-202B</i>				
<i>1055</i>	<i>- Dup - MW-202A</i>				

WELL SAMPLING LOG

Installation: *Capital Airport*
Client/Project: *ANG*
Sample Start: (Date) *4-3-97*
Sample End: (Date) *4-3-97*
Sampled By: *J. Castillo*
Background PID Reading: *0*
Depth to Water (BTOC):
Screen Interval:
Sampling method: *Disposable Bailer*
Sampling Equipment Decontamination method: *NONE*

Well No. *MW-203*
Site: *Site 2 Old FTA*
(Time) *0910*
(Time) *0915*
PID Reading: *0*

Lab Analyses:

NOC 8010/8020
ppm 6010

QA/QC Samples: *NONE*

Weather: *50's Partly Cloud*

Comments:

Time	Temperature (°C)	pH	Conductivity (uS/cm)	Clarity	Remarks
<i>0912</i>					

APPENDIX B
BORING LOGS

INTRODUCTION

Boring log diagrams have been compiled for each borehole locations drilled during this study. The borehole identification is keyed to the monitor well designation (MW). The diagrams combine in one page both a verbal and graphical illustration of the lithology encountered during drilling, water level data encountered during drilling, and surveyed elevation of the ground surface at the borehole location.

The sample description includes the primary major component or components, color, consistency, relative density, texture, moisture, and observations of each distinct lithologic change encountered. Each distinct lithologic change that was encountered was defined by the Unified Soil Classification System (USCS), which is based on texture, sorting of clasts, and plasticity of soils. The color was determined by visually comparing the color of the sample with the Munsell Soil Color Charts. The texture was visually estimated and described using the following semi-quantitative adjectives:

<u>Adjective</u>	<u>Estimated Percent of Total Sample</u>
Trace	0 - 5
Little	5 - 12
Some	12 - 35
Add	35 - 50

These adjectives precede the lithology, such as little clay (5 - 12% clay) or some sand (12 - 35% sand).

The fine fraction was described using one of the following terms: silt, silt and clay, or clay. These are field terms and take into account plasticity as well as grain size. The distinction between clay and silt was based on how easily a small piece of soil could be rolled into a thin ribbon. Clay can easily be smeared into a ribbon when wet, while silt is smeared with more difficulty. A dry sample of clay is difficult to crush with fingers, while a dry sample of silt is more easily crushed.

LITHOLOGIC LOGS

Lithologic symbols are derived and generalized from the USCS shown in Figure B.1. In the boring logs that follow, the column headings have the following meaning:

KEY TO BORING LOG SYMBOLS

UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D2487				SYMBOL/ GRAPHIC	DESCRIPTIONS	
MAJOR DIVISIONS						
COARSE-GRAINED SOILS (>50% Smaller Than #200 Sieve)	GRAVELS (More than 50% of coarse fraction is larger than the #4 sieve size.)	Clean gravels with little or no fines	GW		Well-Graded Gravels, Gravel - Sand Mixtures	
				GP		Poorly Graded Gravels, Gravels - Sand Mixtures
		Gravels with over 12% fines	GM		Silty Gravels, Poorly Graded Gravel-Sand-Clay Mixtures	
			GC		Clayey Gravels, Poorly Graded Gravel-Sand-Clay Mixtures	
	SANDS (More than 50% of coarse fraction is smaller than the #4 sieve size.)	Clean sands with little or no fines	SW		Well-Graded Sands, Gravelly Sands	
			SP		Poorly Graded Sands, Gravelly Sands	
		Sands with over 12% fines	SM		Silty Sands, Poorly Graded Sand-Silt Mixtures	
			SC		Clayey Sands, Poorly Graded Sand-Clay Mixtures	
			ML		Inorganic Silts and Very Fine Sands, Silty or Clayey Fine Sands	
			CL		Inorganic Clays of Low to Medium Plasticity: Gravelly, Sandy or Silty Clays; Lean Clays	
SILTS AND CLAYS (Liquid limit less than 50)	OL		Organic Clays and Organic Silty Clays of Low Plasticity			
	SILTS AND CLAYS (Liquid limit greater than 50)	MH		Inorganic Silts, Micaceous or Diatomaceous Fine Sandy or Silty Soils, Elastic Silts		
		CH		Inorganic Clays of High Plasticity Fat Clays		
OH		Organic Clays of Medium to High Plasticity, Organic Silts				
HIGHLY ORGANIC SOILS			Pt		Peat and Other Highly Organic Soils	

<p> Sample retained for on-site screening.</p> <p> Sample prepared for laboratory analysis.</p> <p> Water Table Level.</p> <p>PID Photo-Ionization Detector readings (ppm).</p> <p>ND Parameter Not Detected</p> <p>NA Measurement Not Applicable, Groundwater Not Detected</p> <p>- No Measurement Performed</p> <p>NR No Sample Recovery</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px;"></td> <td>Asphaltic Concrete</td> </tr> <tr> <td></td> <td>Portland Cement Concrete</td> </tr> <tr> <td></td> <td>Cement Grout</td> </tr> <tr> <td></td> <td>Boulders or Bedrock</td> </tr> </table>		Asphaltic Concrete		Portland Cement Concrete		Cement Grout		Boulders or Bedrock
	Asphaltic Concrete								
	Portland Cement Concrete								
	Cement Grout								
	Boulders or Bedrock								

FIGURE B.1

KEY TO BORING LOG SYMBOLS
 183rd FW, Illinois ANG
 Springfield, Illinois



Depth:	Depth in feet below surface.
Blows:	The number of blows required to drive a split-spoon sampler an additional 24 inches into the ground beyond the initial 6-inch set.
Ambient Temperature Headspace Analysis (ATHA):	The reading of photoionizable compounds detected in the contained soil sample by a photoionization detector.
Samples:	The interval of sample cored below land surface.
Percent Recovery:	The percentage of sample recovered in the split-spoon sampler per sampling run.
USCS:	Unified Soil Classification System based on texture, sorting of clasts, and plasticity of soils.
PID:	A photoionization detector used to monitor volatile organic compounds in uncontained soil and/or groundwater samples.

REFERENCES

Casagrande, A., 1948. Classification and Identification of Soils. Transactions of the American Society of Civil Engineers 113:901.

Folk, R. L., 1980. Petrology of Sedimentary Rocks. Hemphill Publishing Company, Austin, Texas, p. 182.1

Capital EE/CA

Springfield, IL

O P T E C H

OPERATIONAL TECHNOLOGIES
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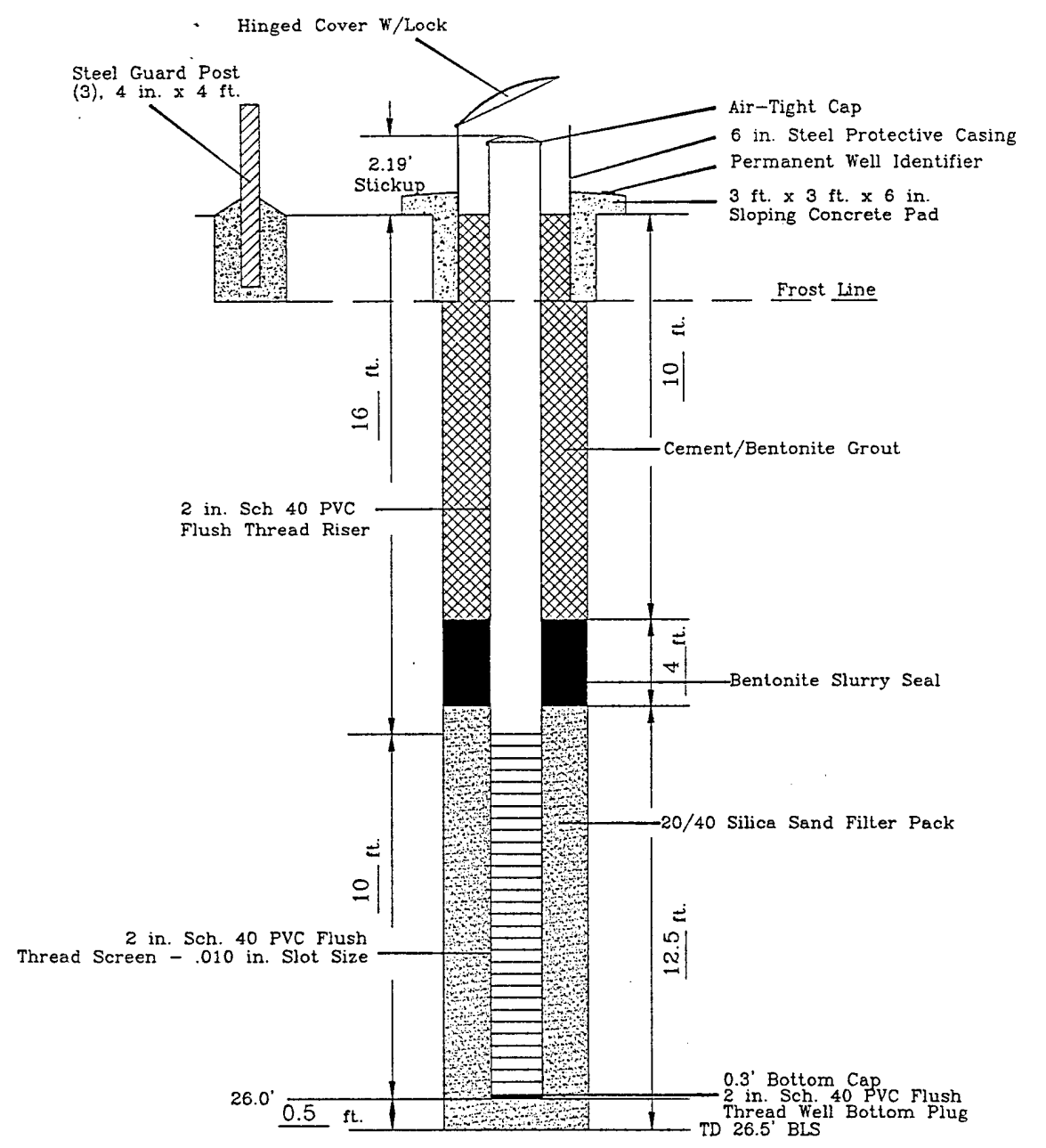
LOG OF BORING MW-202B

Project No.:	1315-269/4A	Sampling Method:	Stainless-Steel Split Spoon
Logged By:	Kathryn Pritchett	Depth Drilled:	25.9 ft BLS
Drilling Co.:	Hart Environmental	Depth To Water:	14 ft BLS
Driller:	Max Tinnin, Mike Umfleet	Date Measured:	12/12/96
Date Drilled:	12/12/96	Surface Elevation:	581.26 ft
Drilling Method:	Hollow-Stemmed Auger	TOC Elevation:	583.65 ft

Depth (ft.)	Blows/6"	% Recovery	Samples	Graphic	DESCRIPTION OF MATERIALS	FIELD SCREENING			Monitoring Well
						PID (ppm)	BTEX (ppm)	Cl Compds (ppm)	
2-6		50			Silt, little clay; trace sand, moist, roots, 10 YR 3/3 (dark brown).	0.5	ND	0.03	
5-5	2-5	75			Silt; little clay; 10 YR 6/2 (light-brownish grey) Iron oxides; light grey (10 YR 7/2) mottles; moist; soft; dark grey petroleum stain and petroleum odor at end of split spoon.	0.4	4	0.7	
10-10	2-6	100			Silt; little to some clay; 10 YR 6/1, (grey); soft, moist, Iron Oxides.	0.1	0.04	0.07	
15-16	2-7	100			Silt; trace - little clay; little sand; little - some gravel (granule to pebble), soft; wet, 10 YR 4/6 (dark yellowish-brown); manganese oxides, iron oxides.	0.1	0.1	0.2	
20-20	15-50	75			Refusal at 21.5'; 10 YR 5/1 (grey) very firm; very stiff; wet; broken shells Silt; blocky structures - platy structure - material was easy to drill, also water level dropped in borehole.		0.001	0.02	
25-25	18-50	25			Weathered shaley limestone, 10 YR 5/1 (grey); 10 YR 4/1 (dark grey) mottles; platy structure; very firm; very stiff. Water level rise in hole ~14' BLS. Boring Terminated at 25.9 ft BLS. Auger Refusal	0.1	ND	0.02	

APPENDIX C
MONITOR WELL CONSTRUCTION DIAGRAMS

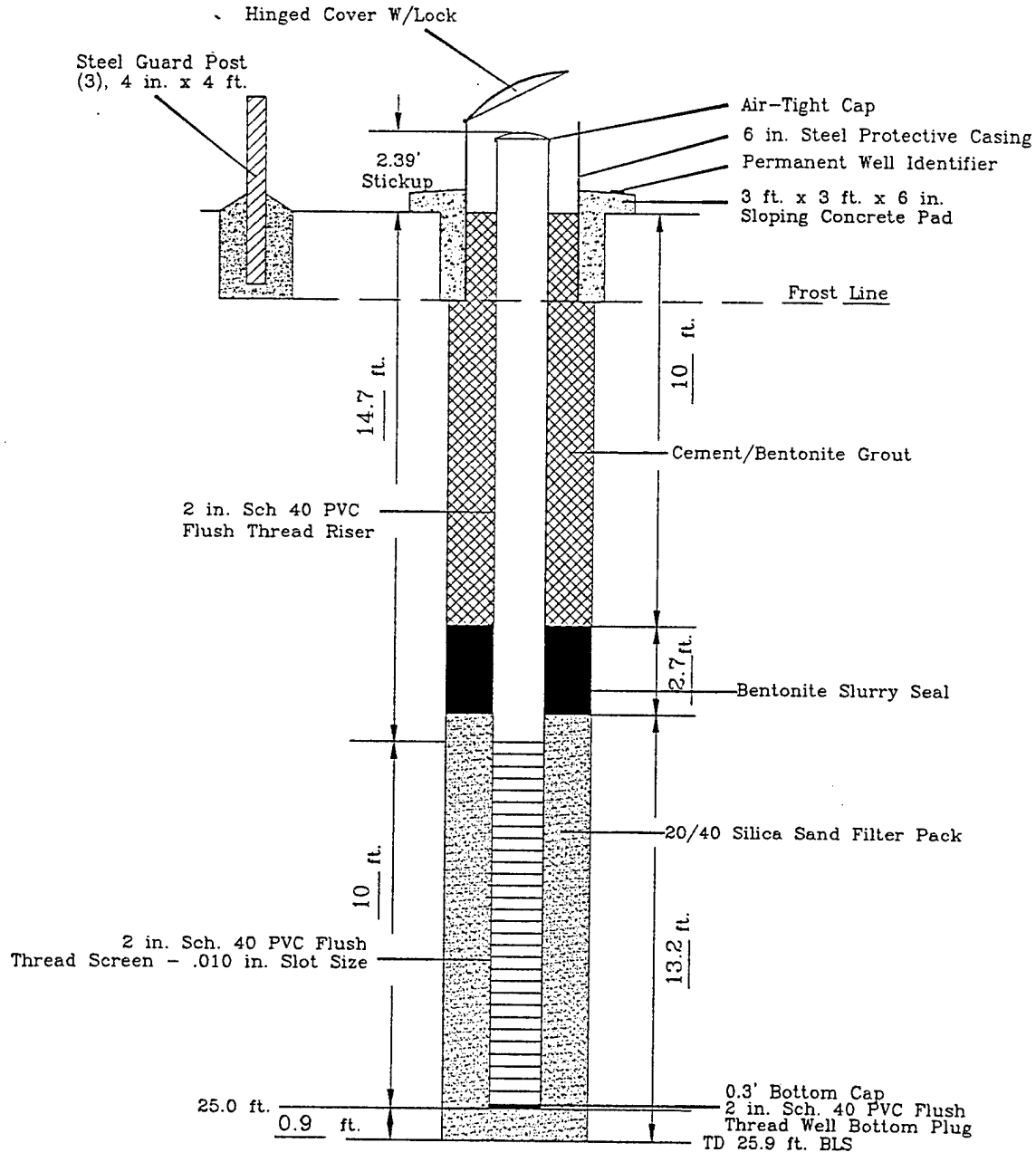
Project: <u>CAPITAL EE/CA</u>	Date Installed: <u>12/12/96</u>
Town/City: <u>SPRINGFIELD, IL</u>	Drilling Contractor: <u>HART ENVIRONMENTAL</u>
County: <u>SANGAMON</u> State: <u>ILLINOIS</u>	Drilling Method: <u>HOLLOW-STEM AUGER</u>
TOC Elev: <u>587.21 ft.</u>	Borehole Diameter: <u>8"</u>
Ground Elev.: <u>585.02 ft.</u>	Development Technique: <u>2" BAILER</u>
Water Level: <u>17.4 ft.</u> BLS	
Total Well Depth: <u>26 BLS</u>	Not To Scale



MONITORING WELL CONSTRUCTION LOG
WELL NO. MW201B



Project: CAPITAL EE/CA	Date Installed: 12/12/96
Town/City: SPRINGFIELD, IL	Drilling Contractor: HART ENVIRONMENTAL Max Tinmin, Mike Umfleet
County: SANGAMON State: ILLINOIS	Drilling Method: HOLLOW-STEM AUGER
TOC Elev: 583.65 ft.	Borehole Diameter: 8"
Ground Elev.: 581.26 ft.	Development Technique: 2" BAILER
Water Level: 14 ft. BLS	
Total Well Depth: 25 BLS	Not To Scale



MONITORING WELL CONSTRUCTION LOG
WELL NO. MW202B

OPTTECH
OPERATIONAL TECHNOLOGIES
CORPORATION

JUNE 1997

ILLINOIS\TM-269\MONLOG

APPENDIX D
AQUIFER SLUG TEST DATA ANALYSIS

APPENDIX D

AQUIFER SLUG TEST DATA ANALYSIS

D.1 INTRODUCTION

Aquifer slug tests on two monitoring wells were performed to investigate the hydraulic properties of the unconsolidated deposits. A detailed description of the data collection and analysis is presented in the following sections.

The slug test method is used to obtain data necessary to calculate the hydraulic conductivity of the subsurface material around the screened portion of a monitoring well. The technique is based on measurements of the water level as a function of time after withdrawing a slug of known volume from the monitoring well.

D.2 AQUIFER SLUG TEST PROCEDURE

The equipment used for slug testing included a Hermit Environmental Data Logger model SE1000C (serial #1KC-852), manufactured by *In Situ*, Inc., of Laramie, Wyoming. Also used was a pressure transducer model PXD-260 (serial #204585), manufactured by *In Situ*, Inc. An acrylic slug (1.25 inches in diameter and 4 feet in length) was used to produce the initial water displacement.

Prior to testing, the monitoring well was developed and the water level allowed to stabilize. The slug was decontaminated using standard procedures prior to performing the slug test.

Immediately upon opening, the headspace of the monitoring well to be slug tested was tested for volatile organic vapors using a photoionization detector. Next, the initial water level was measured and recorded in the field logbook and the pressure transducer was placed in the monitoring well and allowed to equilibrate. The proper operating parameters such as time, date, test number, sample rate, number of inputs, data type, and scale factor and offset values of the transducer were inserted to properly program the data logger for the slug test. The decontaminated slug was rapidly lowered into the monitoring well in such a manner as to minimize turbulence and splashing. The injection of the slug created a nearly instantaneous rise in the water level or hydraulic head as well as some transient oscillations (minimized by the smooth slug injection). After the initial rise, the water level of the monitoring well dropped as it returned to equilibrium. The water-level altitudes were recorded by the data logger.

After equilibrium was attained, the slug was rapidly and smoothly removed from the monitoring well and the subsequent rise of the water level in the monitoring well versus the time since the start of the test was also recorded by the data logger.

After the slug test was completed, the data was downloaded onto a computer and printed out by a portable printer.

D.3 SLUG TEST DATA ANALYSIS METHOD

The method used for analysis of the slug test data depends on the setting of the monitoring well being tested. The Bouwer and Rice (1976) method for unconfined conditions is the appropriate method to use for reduction of the slug test data to determine values of hydraulic conductivity. The Bouwer and Rice method can also be used for semi-confined and confined conditions (Bouwer, 1989).

The data plots and data reduction for the Bouwer and Rice method were accomplished using the AQTESOLV software package Version 2.0 developed by Geraghty & Miller (1994).

The slug test data analyses using Bouwer and Rice (1976) method is presented in this section. The slug test results are presented in Section D.4.

The method described by Bouwer and Rice (1976) is used to calculate the hydraulic conductivity of an aquifer or hydrologic unit in the vicinity of a well screen from the rate of rise or fall of the water level or hydraulic head in the monitoring well after a known volume or "slug" is suddenly injected or withdrawn. This particular method is based on the following assumptions: (1) drawdown of the water table around the monitoring well is negligible, (2) flow above the water table (in the capillary fringe) can be ignored, (3) head losses as water enters the monitoring well (well losses) are negligible, and (4) the aquifer is homogeneous and isotropic.

The rate of flow of groundwater into a monitoring well after the water level has been lowered a distance, y , below the static water table around the monitoring well is calculated using the Thiem equation (Equation 1).

$$Q = 2\pi KL \frac{y}{\ln(R_e/r_w)}, \text{ where} \quad (1)$$

Where:

- Q = rate of flow into the well;
- π = 3.14159, the ratio of the circumference to the diameter of a circle;

- K = hydraulic conductivity of the hydrologic unit in the vicinity of the well screen;
 L = length of screened interval;
 y = vertical difference between water level inside the well and the static water level outside the well;
 R_c = effective radial distance over which y is dissipated; and
 r_w = radial distance to the undisturbed portion of the hydrologic unit from the centerline of the well.

The value of r_w is the radius of the screened section of the monitoring well plus the thickness of the sand pack and the developed zone around the monitoring well. Because the thickness of the developed zone is almost never known, the tendency is to ignore it and take only the thickness of the sand pack into account (Bouwer, 1989).

The rate of rise of the water level (dy/dt) in the well after the water level has been quickly lowered can be regarded as:

$$\frac{dy}{dt} = \frac{-Q}{\pi r_c^2} \quad (2)$$

- dy/dt = rate of rise of the water level within the well;
 Q = volume rate of flow into the well;
 π = 3.14159, the ratio of the circumference to the diameter of a circle; and
 r_c = radius of the casing.

If the water level rises in the screened section of the well with a sand pack around it, then the thickness and porosity of the sand pack should be taken into account when calculating the equivalent value of r_c for the rising water level. The equivalent value of r_c is then calculated using Equation (3) if the water level is within the screened interval of the monitoring well.

$$r_c = [(1 - n)r_c^2 + nr_w^2]^{1/2}, \text{ where} \quad (3)$$

- n = porosity of the sand pack;
 r_c = radius of the casing; and
 r_w = radius distance to the undisturbed portion of the aquifer from the centerline of the well.

By solving Equation (2) for Q , and using it in Equation (1), it is possible to integrate, and solve for hydraulic conductivity, K , in Equation (4).

$$K = r_c^2 \ln \frac{(R_e/r_w)}{2L} \frac{1}{t} \ln \frac{y_0}{y_t}, \text{ where} \quad (4)$$

- K = hydraulic conductivity;
 r_c = radius of casing;
 R_e = effective radial distance over which y is dissipated;
 r_w = radial distance to the undisturbed portion of the aquifer from the centerline of the well;
 y₀ = y at time zero; and
 y_t = y at time t.

This equation was used to calculate hydraulic conductivity of the unconsolidated deposits at IRP Site No. 2.

Values of R_e, effective radius, for various system geometries are expressed in terms of the dimensionless ratio ln(R_e/r_w) and were determined empirically with an electrical resistance network analog for different values of r_w, L, length of water column in the well, H, and hydrologic unit thickness, b, (Bouwer and Rice, 1976). The data are used in one of two equations: Equation (5) is used when H is less than b, and Equation (6) when H is equal to b. These equations are:

$$\ln \frac{R_e}{r_w} = \left[\frac{1.1}{\ln(H/r_w)} + \frac{A + B \ln[(b - H)/r_w]}{L/r_w} \right]^{-1}, \text{ and} \quad (5)$$

$$\ln \frac{R_e}{r_w} = \left[\frac{1.1}{\ln(H/r_w)} + \frac{C}{L/r_w} \right]^{-1}, \text{ where} \quad (6)$$

- A, B, and C = dimensionless values as a function of L/r_w;
 R_e = effective radial distance over which y is dissipated;
 r_w = radial distance to the undisturbed portion of the aquifer from the centerline of the well;
 H = length of water column in the well;
 b = hydrologic unit thickness; and
 L = length of screened interval.

Because y and t are the only variables in Equation (4), a plot of ln y_t versus t semilogarithmic paper may be used to determine [ln(y₀/y_t)]/t. The straight line through the data points can also

be used to select two values of y , namely y_0 and y_t , along the time interval t for substitution into Equation (4). Because drawdown of the groundwater table around the well increases exponentially and time increases linearly as the test progresses, the points begin to deviate from the straight line for large t and small y . Thus, only the linear portion of the curve should be used to evaluate $[\ln(y_0/y_t)]/t$ for the calculation of K using Equation (4) (Bouwer, 1989).

D.4 SLUG TEST RESULTS

The slug test data for the rising-head (withdrawal of the slug) tests are presented in this section. Only data from the rising-head tests were analyzed by the Bouwer and Rice method to calculate the hydraulic conductivity because the monitoring wells were screened in unconfined conditions. The falling-head test performed on an unconfined aquifer produces erroneous results due to the drainage of water into the unsaturated zone above the water table. Thus, the falling-head tests are invalid in monitoring wells screened in unconfined conditions. The graphs illustrating the plotted displacement values versus time for the rising-head tests are presented in this section. The well construction data used for the slug test analysis are presented in Table D.1. The computed hydraulic conductivity values for the monitoring wells, MW201B and MW202B at IRP Site No. 2, are presented in Table D.2.

The saturated thickness of the hydrologic unit was assumed to be equal to the saturated thickness of the screened interval although the observed saturated thickness of the hydrologic unit observed during drilling was approximately 18 feet. The depth to water encountered during drilling was approximately equal to the depth to the static water table. The hydraulic conductivity (K) ratio (vertical K /horizontal K) was assumed to be equal to 0.1.

The average hydraulic conductivity value at IRP Site No. 2 is 4.24 feet per day (ft/day) (31.7 gallons per day per square feet (gpd/ft²)).

Table D.1
Well Construction Data for Slug Tested Monitor Wells

Monitor Well Identifier	Borehole Diameter (inches)	Total Depth of Well (ft. TOC)	Depth to Water (ft. TOC)	Height of Water in Well (feet)	Well Casing Diameter (inches)	Screened Interval (ft. BLS)	Saturated Thickness of Screened Interval (feet)
MW201B	8	27.20	12.78	14.42	2	16 - 26	10
MW202B	8	27.40	6.78	20.62	2	14.7 - 24.7	10

BLS: Below land surface
 BTOC: Below top of casing
 ft.: Feet
 MW: Monitor Well

Table D.2
 Slug Test Results, IRP Site No. 2
 183rd Fighter Wing, Illinois ANG
 Springfield, Illinois

Monitoring Well	Hydraulic Conductivity (ft/day)	Hydraulic Conductivity (gpd/ft ²)
MW201B	4.21	31.5
MW202B	4.27	31.9

ft/day – feet per day.

gpd/ft² – gallons per day per square feet.

D.4 REFERENCES

- Bouwer, H. and Rice, R. C., 1976. A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells. American Geophysical Union Water Resources Research, Vol. 12, No. 3, p. 423-428.
- Bouwer, H., 1989. The Bouwer and Rice Slug Test – An Update. Ground Water, Vol. 27, No. 3, p. 304-309.
- Geraghty & Miller, Inc., 1991. AQTESOLV software package, Version 1.1, Geraghty & Miller, Inc., Reston, VA.

Rising Head Test for Monitor Well MW201B

SE1000C

Environmental Logger	0.0933	1.476	0.2566	1.360	0.7666	1.216	8.0000	0.220
12/18 17:16	0.0966	1.476	0.2600	1.360	0.7833	1.213	8.2000	0.210
	0.1000	1.470	0.2633	1.357	0.8000	1.206	8.4000	0.204
Unit# 00852 Test 1	0.1033	1.470	0.2666	1.354	0.8166	1.203	8.6000	0.197
	0.1066	1.470	0.2700	1.354	0.8333	1.197	8.8000	0.188
Setups: INPUT 1	0.1100	1.467	0.2733	1.351	0.8500	1.191	9.0000	0.185
-----	0.1133	1.467	0.2766	1.348	0.8666	1.184	9.2000	0.175
Type Level (F)	0.1166	1.464	0.2800	1.345	0.8833	1.181	9.4000	0.172
Mode TOC	0.1200	1.464	0.2833	1.341	0.9000	1.175	9.6000	0.166
I.D. 20122	0.1233	1.461	0.2866	1.341	0.9166	1.172	9.8000	0.163
	0.1266	1.461	0.2900	1.341	0.9333	1.165	10.0000	0.153
Reference 0.000	0.1300	1.458	0.2933	1.338	0.9500	1.159	12.0000	0.116
Linearity 0.040	0.1333	1.454	0.2966	1.338	0.9666	1.156	14.0000	0.091
Scale factor 9.920	0.1366	1.451	0.3000	1.338	0.9833	1.150	16.0000	0.072
Offset 0.020	0.1400	1.451	0.3033	1.335	1.0000	1.143	18.0000	0.059
Delay mSEC 50.000	0.1433	1.448	0.3066	1.335	1.2000	1.068	20.0000	0.050
	0.1466	1.448	0.3100	1.335	1.4000	1.005	22.0000	0.044
Step 0 12/18 12:01:15	0.1500	1.448	0.3133	1.335	1.6000	0.952	24.0000	0.037
	0.1533	1.445	0.3166	1.335	1.8000	0.902	26.0000	0.034
Elapsed Time INPUT 1	0.1566	1.476	0.3200	1.335	2.0000	0.854	28.0000	0.031
-----	0.1600	1.489	0.3233	1.338	2.2000	0.810	30.0000	0.031
0.0000 1.577	0.1633	1.486	0.3266	1.341	2.4000	0.770	32.0000	0.028
0.0033 1.577	0.1666	1.495	0.3300	1.338	2.6000	0.729	34.0000	0.031
0.0066 1.583	0.1700	1.498	0.3333	1.338	2.8000	0.694	36.0000	0.031
0.0100 1.590	0.1733	1.467	0.3500	1.332	3.0000	0.656	38.0000	0.028
0.0133 1.583	0.1766	1.624	0.3666	1.329	3.2000	0.625		
0.0166 1.577	0.1800	1.473	0.3833	1.326	3.4000	0.594		
0.0200 1.574	0.1833	1.363	0.4000	1.319	3.6000	0.565		
0.0233 1.571	0.1866	1.395	0.4166	1.316	3.8000	0.537		
0.0266 1.574	0.1900	1.401	0.4333	1.310	4.0000	0.512		
0.0300 1.571	0.1933	1.404	0.4500	1.307	4.2000	0.490		
0.0333 1.564	0.1966	1.401	0.4666	1.301	4.4000	0.465		
0.0366 1.558	0.2000	1.401	0.4833	1.297	4.6000	0.446		
0.0400 1.549	0.2033	1.401	0.5000	1.291	4.8000	0.424		
0.0433 1.542	0.2066	1.411	0.5166	1.288	5.0000	0.405		
0.0466 1.536	0.2100	1.407	0.5333	1.285	5.2000	0.389		
0.0500 1.533	0.2133	1.423	0.5500	1.282	5.4000	0.370		
0.0533 1.533	0.2166	1.395	0.5666	1.275	5.6000	0.355		
0.0566 1.530	0.2200	1.385	0.5833	1.272	5.8000	0.339		
0.0600 1.524	0.2233	1.373	0.6000	1.266	6.0000	0.326		
0.0633 1.514	0.2266	1.373	0.6166	1.263	6.2000	0.311		
0.0666 1.508	0.2300	1.373	0.6333	1.256	6.4000	0.298		
0.0700 1.495	0.2333	1.370	0.6500	1.253	6.6000	0.289		
0.0733 1.489	0.2366	1.370	0.6666	1.247	6.8000	0.276		
0.0766 1.486	0.2400	1.367	0.6833	1.244	7.0000	0.264		
0.0800 1.486	0.2433	1.367	0.7000	1.238	7.2000	0.254		
0.0833 1.486	0.2466	1.367	0.7166	1.232	7.4000	0.245		
0.0866 1.483	0.2500	1.363	0.7333	1.228	7.6000	0.235		
0.0900 1.483	0.2533	1.363	0.7500	1.222	7.8000	0.226		

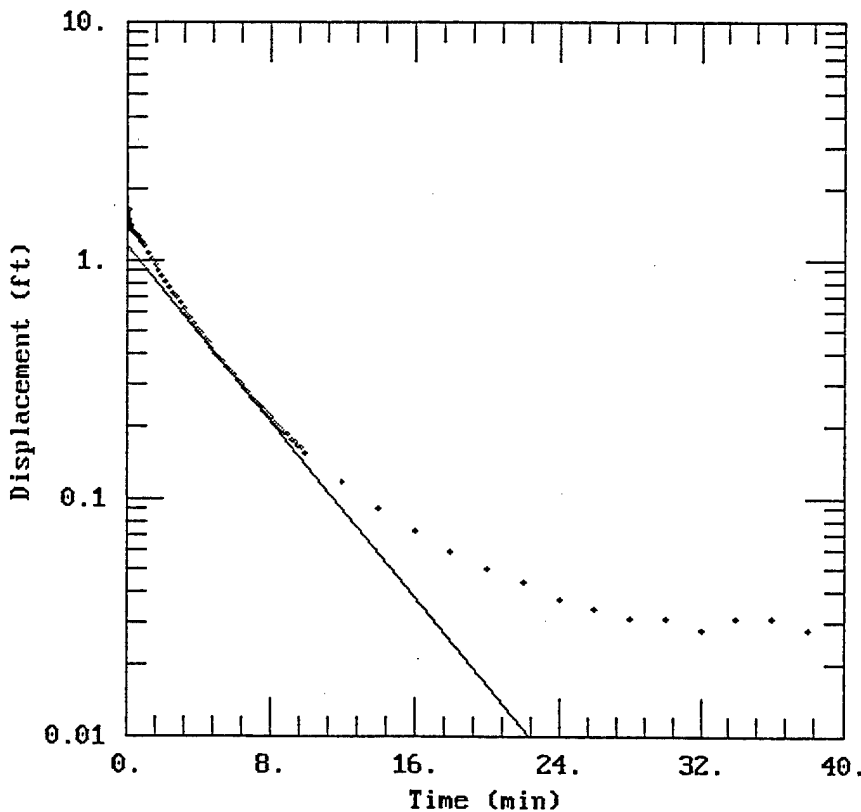
CLIENT: ANGR/CEVR

COMPANY: Operational Technologies Corp.

LOCATION: Springfield, Illinois

PROJECT: 1315-269/4A

Rising Head Test for MW201B



DATA SET:
MW201B.DAT
01/02/97

AQUIFER MODEL:
Unconfined
SOLUTION METHOD:
Bower-Rice

TEST DATA:
H0 = 1.59 ft
r_c = 0.083 ft
r_w = 0.67 ft
L = 10. ft
b = 10. ft
H = 10. ft

PARAMETER ESTIMATES:
K = 4.206 ft/day
y0 = 1.157 ft

AQTESOLU

Rising Head Test for Monitor Well MW202B

SE1000C									
Environmental Logger	0.0933	1.643	0.2566	1.574	0.7666	1.372	8.0000	0.274	
12/18 17:21	0.0966	1.636	0.2600	1.570	0.7833	1.363	8.2000	0.258	
	0.1000	1.640	0.2633	1.570	0.8000	1.360	8.4000	0.255	
Unit# 00852 Test 3	0.1033	1.640	0.2666	1.567	0.8166	1.353	8.6000	0.239	
	0.1066	1.640	0.2700	1.564	0.8333	1.347	8.8000	0.233	
Setups: INPUT 1	0.1100	1.636	0.2733	1.564	0.8500	1.341	9.0000	0.223	
-----	0.1133	1.636	0.2766	1.564	0.8666	1.334	9.2000	0.217	
Type Level (F)	0.1166	1.633	0.2800	1.564	0.8833	1.334	9.4000	0.207	
Mode TOC	0.1200	1.630	0.2833	1.567	0.9000	1.325	9.6000	0.198	
I.D. 20222	0.1233	1.627	0.2866	1.564	0.9166	1.322	9.8000	0.192	
	0.1266	1.627	0.2900	1.561	0.9333	1.319	10.0000	0.185	
Reference 0.000	0.1300	1.627	0.2933	1.558	0.9500	1.312	12.0000	0.179	
Linearity 0.040	0.1333	1.627	0.2966	1.555	0.9666	1.306	14.0000	0.122	
Scale factor 9.920	0.1366	1.624	0.3000	1.552	0.9833	1.297	16.0000	0.094	
Offset 0.020	0.1400	1.621	0.3033	1.552	1.0000	1.293	18.0000	0.081	
Delay mSEC 50.000	0.1433	1.614	0.3066	1.555	1.2000	1.218	20.0000	0.056	
	0.1466	1.605	0.3100	1.555	1.4000	1.164	22.0000	0.050	
Step 0 12/18 15:21:38	0.1500	1.621	0.3133	1.552	1.6000	1.108	24.0000	0.053	
	0.1533	1.624	0.3166	1.552	1.8000	1.051	26.0000	0.034	
Elapsed Time INPUT	0.1566	1.624	0.3200	1.548	2.0000	1.004	28.0000	0.031	
-----	0.1600	1.624	0.3233	1.545	2.2000	0.957	30.0000	0.028	
0.0000 1.693	0.1633	1.614	0.3266	1.542	2.4000	0.909	32.0000	0.025	
0.0033 1.677	0.1666	1.608	0.3300	1.542	2.6000	0.872	34.0000	0.028	
0.0066 1.677	0.1700	1.605	0.3333	1.542	2.8000	0.831	36.0000	0.044	
0.0100 1.687	0.1733	1.605	0.3500	1.533	3.0000	0.793	38.0000	0.022	
0.0133 1.699	0.1766	1.608	0.3666	1.526	3.2000	0.755	40.0000	0.009	
0.0166 1.706	0.1800	1.608	0.3833	1.517	3.4000	0.724	42.0000	0.025	
0.0200 1.699	0.1833	1.608	0.4000	1.514	3.6000	0.692	44.0000	0.012	
0.0233 1.684	0.1866	1.605	0.4166	1.504	3.8000	0.658	46.0000	0.022	
0.0266 1.674	0.1900	1.599	0.4333	1.495	4.0000	0.632	48.0000	0.009	
0.0300 1.671	0.1933	1.596	0.4500	1.495	4.2000	0.601	50.0000	0.019	
0.0333 1.674	0.1966	1.596	0.4666	1.482	4.4000	0.579	52.0000	0.009	
0.0366 1.684	0.2000	1.596	0.4833	1.476	4.6000	0.554			
0.0400 1.687	0.2033	1.596	0.5000	1.473	4.8000	0.529			
0.0433 1.677	0.2066	1.596	0.5166	1.463	5.0000	0.503			
0.0466 1.671	0.2100	1.592	0.5333	1.457	5.2000	0.484			
0.0500 1.662	0.2133	1.589	0.5500	1.451	5.4000	0.462			
0.0533 1.662	0.2166	1.586	0.5666	1.448	5.6000	0.444			
0.0566 1.665	0.2200	1.586	0.5833	1.438	5.8000	0.425			
0.0600 1.671	0.2233	1.586	0.6000	1.432	6.0000	0.406			
0.0633 1.659	0.2266	1.586	0.6166	1.429	6.2000	0.393			
0.0666 1.665	0.2300	1.586	0.6333	1.419	6.4000	0.377			
0.0700 1.652	0.2333	1.586	0.6500	1.416	6.6000	0.362			
0.0733 1.649	0.2366	1.583	0.6666	1.407	6.8000	0.346			
0.0766 1.646	0.2400	1.580	0.6833	1.404	7.0000	0.330			
0.0800 1.649	0.2433	1.577	0.7000	1.397	7.2000	0.318			
0.0833 1.649	0.2466	1.577	0.7166	1.388	7.4000	0.302			
0.0866 1.652	0.2500	1.574	0.7333	1.382	7.6000	0.292			
0.0900 1.649	0.2533	1.574	0.7500	1.378	7.8000	0.283			

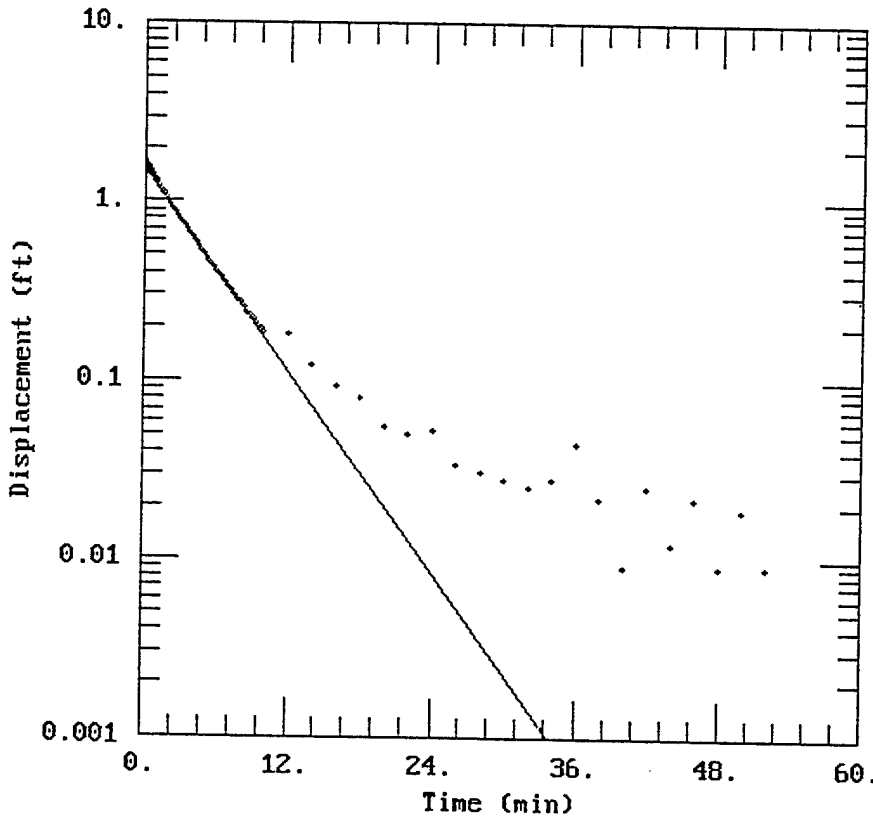
CLIENT: ANGR/CEVR

COMPANY: Operational Technologies Corp.

LOCATION: Springfield, Illinois

PROJECT: 1315-269/4A

Rising Head Test for MW202B



DATA SET:
MW202B.DAT
01/02/97

AQUIFER MODEL:
Unconfined
SOLUTION METHOD:
Bouwer-Rice

TEST DATA:
H0 = 1.671 ft
r_c = 0.083 ft
r_w = 0.67 ft
L = 10. ft
b = 10. ft
H = 10. ft

PARAMETER ESTIMATES:
K = 4.274 ft/day
y0 = 1.492 ft

APPENDIX E
FIELD GAS CHROMATOGRAPH SCREENING RESULTS

Table E.1 (Concluded)
 183rd Fighter Wing, Illinois Air National Guard
 Capital Municipal Airport, Springfield, Illinois

Boring	Sample Interval (ft. BLS)	Sample Mass (grams)	Concentrations (ppb)												
			Vinyl Chloride	cis-1,2-DCE	1,2-DCA	Benzene	TCE	Toluene	PCE	Ethylbenzene	m,p-Xylene	o-Xylene			
MW-202B	0.0 - 2.0	10	15	NA	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-202B	5.0 - 7.0	10	17	NA	7	ND	ND	20	87	251	443	70	515		
1 PPM	-	-	984	NA	1,230	977	980	982	1,000	1,000	1,000	1,980	883		
RECAL	-	-	1,000	NA	1,000	1,000	1,000	1,000	1,000	1,000	1,000	2,000	1,000		
Air Blank-9	-	-	14	NA	7	5	2	1	1	2	5	9	ND		
Air Blank-10	-	-	10	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
MW-202B RESHOT	5.0 - 7.0	10	19	NA	ND	29	55	156	655	1,290	253	1,990			
MW-202B	10.0 - 12.0	10	23	NA	13	8	16	16	20	10	ND	ND			
MW-202B	15.0 - 17.0	10	37	NA	39	10	31	49	30	ND	ND	20			
MW-202B	20.0 - 22.0	10	18	NA	2	ND	ND	ND	1	ND	ND	ND			
MW-202B	25.0 - 26.0	10	21	NA	5	ND	ND	ND	ND	ND	ND	ND			
10 PPB	-	-	35	NA	34	19	28	18	11	27	8				
100 PPB	-	-	108	NA	91	94	89	81	82	168	138				

ppb/PPB - parts per billion.
 ppm/PPM - parts per million.
 ft. BLS - Feet below land surface.
 MW - Monitor well.

RECAL - Recalibrate.
 NA - cis-1,2-DCE was erased from the library of the field GC.
 ND - Non detect.

FIELD GC DATA SUMMARY

SITE: Alliaco ANGB GAIN: 1000
 CARRIER GAS FLOW: 8.5 scc/min INJECTION VOLUME: 100nl
 GC OVEN TEMP: 50°C ANALYSIS TIME: 600 sec

Analysis No.	Boring	Sample Interval (ft. BLS)	Sample Mass (grams)	Concentrations (ppb)										
				Vinyl Chloride	cis-1,2-DCE	1,2-DCA	Benzene	TCE	Toluene	PCE	Ethylbenzene	m,p-Xylene	o-Xylene	
2	100 PPB	—	—	100	100	100	100	100	100	100	100	100	200	100
3	1 PPM	—	—	1000	1000	1000	1000	1000	1000	1000	1000	1000	2000	1000
4	10 PPM	—	—	10000	10000	10000	10000	10000	10000	10000	10000	10000	20000	20000
5	AIR BLANK-1	—	—	12	25	3	8	4	12	13	30	40	40	1
8	AIR BLANK-2	—	—	12	35	ND	3	1	3	3	7	9	9	ND
9	AIR BLANK-3	—	—	8	20	ND	ND	ND	ND	ND	1	1	1	ND
10	AIR BLANK-4	—	—	20	FRASED FROM MEANCY	21	22	25	29	20	39	53	53	1
11	AIR BLANK-5	—	—	16	19	19	4	ND	1	1	2	3	3	ND
12	AIR BLANK-6	—	—	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	AIR BLANK-7	—	—	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	MW-201B	0.05	10	17	22	22	7	1	ND	ND	ND	ND	1	ND
15	MW-201B	5.0	10	21	36	36	14	16	11	7	4	6	6	ND
16	MW-201B	10.0	10	23	26	26	ND	2	ND	ND	ND	ND	ND	ND
17	100 PPB	—	—	100	130	130	104	106	112	101	105	158	158	24
	RECAL	—	—	100	100	100	100	100	100	100	100	200	200	100
18	AIR BLANK-8	—	—	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	MW-201B	15.0	10	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	MW-201B	20.0	10	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	MW-201B	25.0	10	13	9	9	ND	ND	ND	ND	ND	ND	ND	ND
22	MW-202B	30.0	10	15	10	10	ND	ND	ND	ND	ND	ND	ND	ND

OPERATOR: [Signature] DATE: 12 Dec 96

(2)

Calibration Information		Analytes									
		Vinyl Chloride	cis-1,2-DCE	1,2-DCA	Benzene	TCE	Toluene	PCE	Ethylbenzene	m,p-Xylene	o-Xylene
0.1 ppm	Retention Time	26.4	32.2	50.8	68.9	83.6	126.3	171.2	242.6	259.4	304
	Response	129	40	193	240	208	171	104	72	222	123
1 ppm	Retention Time	26.8		49.4	66.2	80.9	124.0	168.8	236.6	257.0	297.6
	Response	2593		1541	3548	3087	1682	3111	1483	2109	478
10 ppm	Retention Time	27.9		50.1	67.7	81.6	124.9	169.6	240.8	257.0	298.6
	Response	13054		11650	17844	24629	21795	25614	6592	38828	3309

OPERATOR: J. Byrd DATE: 12 Dec 96

FIELD GC DATA SUMMARY

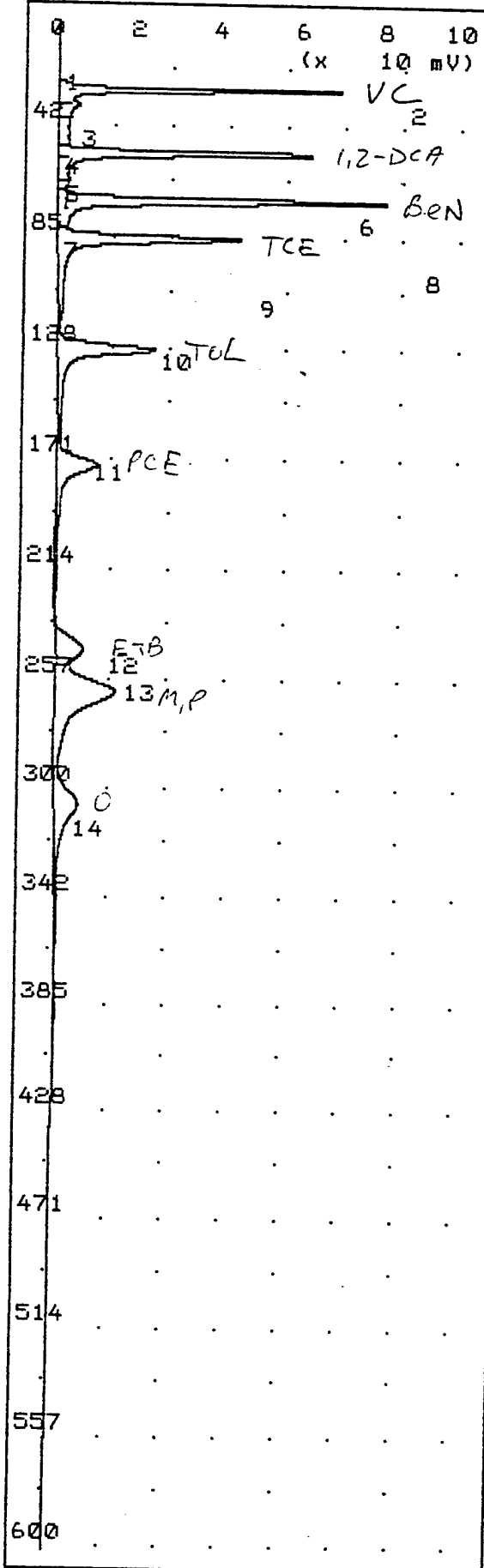
SITE: L. Collins AN6B GAIN: 1.000
 CARRIER GAS FLOW: 8.5 cc/min INJECTION VOLUME: 1.00ul
 GC OVEN TEMP: 50°C ANALYSIS TIME: 3.80

Analysis No.	Boring	Sample Interval (ft. BLS)	Sample Mass (grams)	Concentrations (ppb)									
				Vinyl Chloride	cis-1,2-DCE	1,2-DCA	Benzene	TCE	Toluene	PCE	Ethylbenzene	m,p-Xylene	o-Xylene
23	MW-202B	5.0-7.0	10	17	—	7	ND	20	87	251	443	70	515
24	1 PPM	—	—	984	—	1,230	977	980	965	982	1,000	1,980	983
	RECAL	—	—	1,000	—	1,000	1,000	1,000	1,000	1,000	1,000	2,000	1,000
25	AIR BLANK-9	—	—	14	—	7	5	2	1	2	5	9	ND
26	AIR 202B	5.0-7.0	10	7.8	—	—	—	—	—	—	—	—	—
26	AIR BLANK-10	—	—	10	—	ND	ND	ND	ND	ND	ND	ND	ND
27	RESIST	5.0-7.0	10	19	—	ND	29	55	15.6	655	1,290	253	1990
28	MW-202B	10.0-12.0	10	23	—	13	8	16	20	16	10	ND	ND
29	MW-202B	15.0-17.0	10	37	—	39	10	31	45	49	30	ND	20
30	MW-202B	20.0-22.0	10	18	—	2	ND	ND	ND	ND	1	ND	ND
31	MW-202B	25.0-26.0	10	21	—	5	ND	ND	ND	ND	ND	ND	ND
32	10 PPB STD	—	—	35	—	34	19	28	22	18	11	27	8
33	100 PPB STD	—	—	108	—	91	94	89	82	81	82	168	138

[Handwritten signature]

OPERATOR: J. Byrd DATE: 12 Dec 96

Analysis #2 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 08:06
 Sample Time: Dec 12, 96 07:56
 Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 600.0 sec

Peak Report

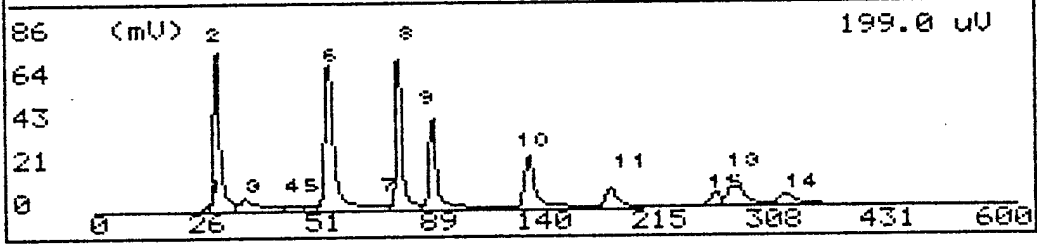
Pk	Compound Name	Area/Conc	R.T.
1	Unknown	5.426 mVS	24.2
2	Unknown VC	129.4 mVS	26.4
3	Unknown 1,2-DCA	40.15 mVS	32.2
4	Unknown	11.51 mVS	42.6
5	Unknown	7.617 mVS	47.1
6	Unknown 1,2-DCA	192.5 mVS	50.8
7	Unknown	1.328 mVS	61.6
8	Unknown BEN	240.1 mVS	68.9
9	Unknown TCE	208.9 mVS	83.6
10	Unknown TOL	170.8 mVS	126.2
11	Unknown PCE	103.5 mVS	171.2
12	Unknown E-B	72.14 mVS	242.6
13	Unknown M,P	221.9 mVS	259.4
14	Unknown O	123.0 mVS	304.0

Notes
 Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 100 ppb standard

G.C. Ready 10S+ GC Function Dec 12, 96 07:58:19
 -- Analysis No 2 -- Run at -- Dec 12, 96 07:58:19

Pk No	Name	Conc/Area	Alarm	Ret. Time
1	Unknown	5.426	mUS	24.42
2	vinyl chloride	100.00	ppbb	26.42
3	cis-1,2-dce	100.00	ppbb	26.42
4	Unknown	11.51	mUS	44.42
5	Unknown	7.617	mUS	44.42
6	1,2-dca	100.00	ppbb	47.42
7	Unknown	1.220	mUS	47.42
8	benzene	100.00	ppbb	50.42
9	tce	100.00	ppbb	50.42

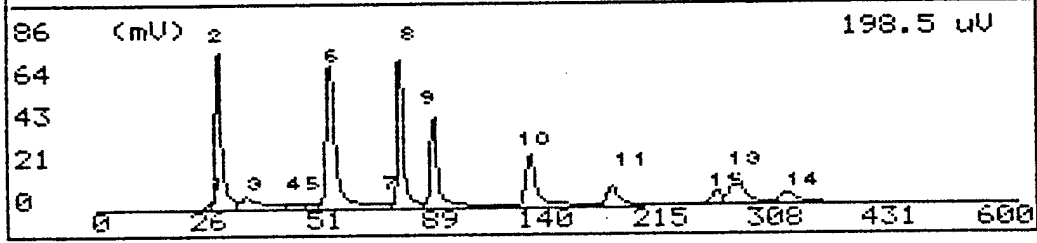
- Detected 14 peaks. Use ↑ ↓ to scroll [005 sec]



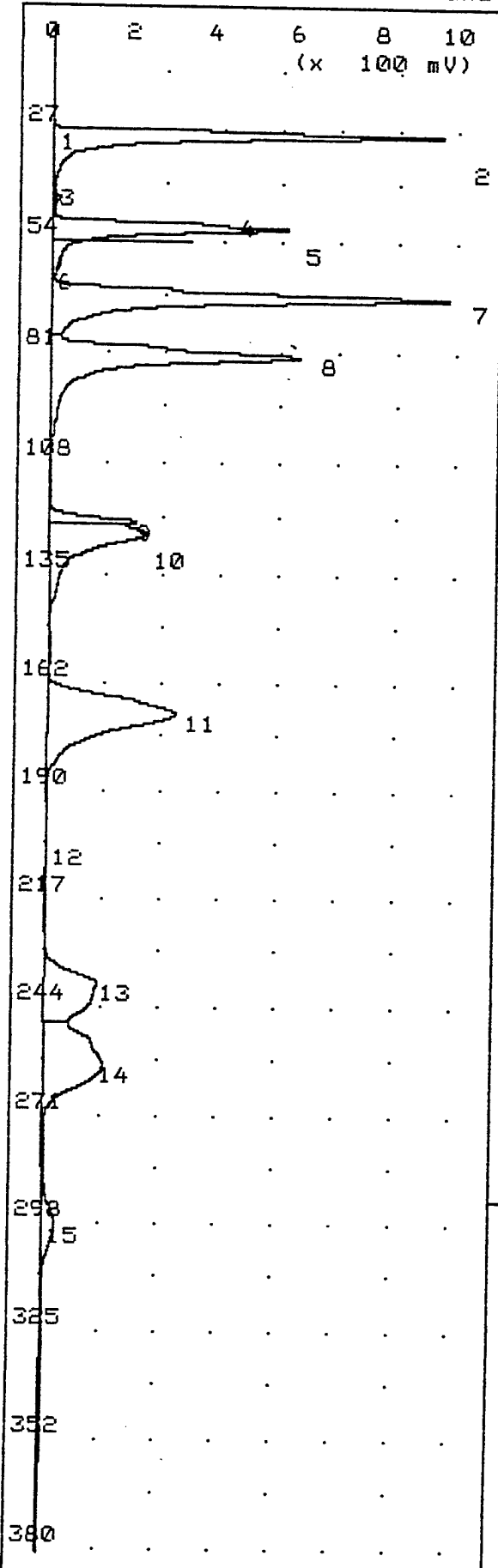
G.C. Ready 10S+ GC Function Dec 12, 96 07:58:20
 -- Analysis No 2 -- Run at -- Dec 12, 96 07:58:20

Pk No	Name	Conc/Area	Alarm	Ret. Time
6	1,2-dca	100.00	ppbb	50.00
7	Unknown	1.320	mUS	51.00
8	benzene	100.00	ppbb	50.00
9	tce	100.00	ppbb	50.00
10	toluene	100.00	ppbb	117.00
11	pce	100.00	ppbb	170.00
12	ethylbenzene	100.00	ppbb	241.00
13	m,p-xylene	200.00	ppbb	308.00
14	o-xylene	100.00	ppbb	308.00

- Detected 14 peaks. Use ↑ ↓ to scroll [005 sec]



Analysis #3 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 08:29
 Sample Time: Dec 12, 96 08:23
 Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

Peak Report

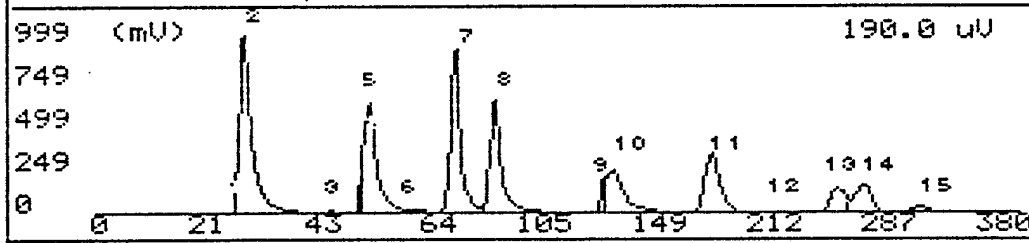
Pk	Compound Name	Area/Conc	R. T.
1	Unknown	7.169 mVS	24.2
2	vinyl chloride	2.003 ppm	26.8
3	Unknown	19.80 mVS	42.2
4	Unknown	314.6 mVS	48.2
5	1,2-dca	800.4 ppb	49.4
6	Unknown	10.00 mVS	57.6
7	benzene	1.477 ppm	66.2
8	tce	1.477 ppm	80.9
9	Unknown	442.9 mVS	120.9
10	toluene	985.1 ppb	124.0
11	pce	3.003 ppm	168.8
12	Unknown	18.39 mVS	205.0
13	ethylbenzene	2.056 ppm	236.6
14	m, p-xylene	1.900 ppm	257.0
15	o-xylene	388.3 ppb	297.6

Notes
 Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
~~100 ppb standard~~
 1 PPM 93

G.C. Ready 10S+ GC Function Dec 12, 96 08:37
 -- Analysis No 3 -- Run at - Dec 12, 96 08:37

Pk No	Name	Conc/Area	Alarm	Ret. Time
1	Unknown	7.169	mUS	24.2
	vinyl chloride	1.000	ppm	26.0
	Unknown	19.000	mUS	42.0
	Unknown	314.6	mUS	48.0
	1,2-dca	1.000	ppm	49.4
	Unknown	1.000	mUS	50.0
	benzene	1.000	ppm	66.0
	tce	1.000	ppm	66.0
	Unknown	443.1	mUS	124.0

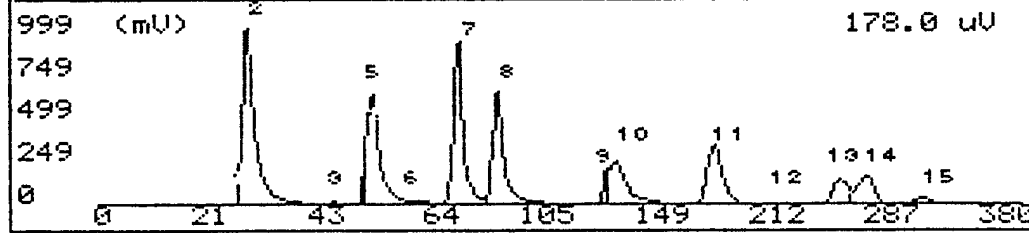
- Detected 15 peaks. Use + + to scroll [385 sec]



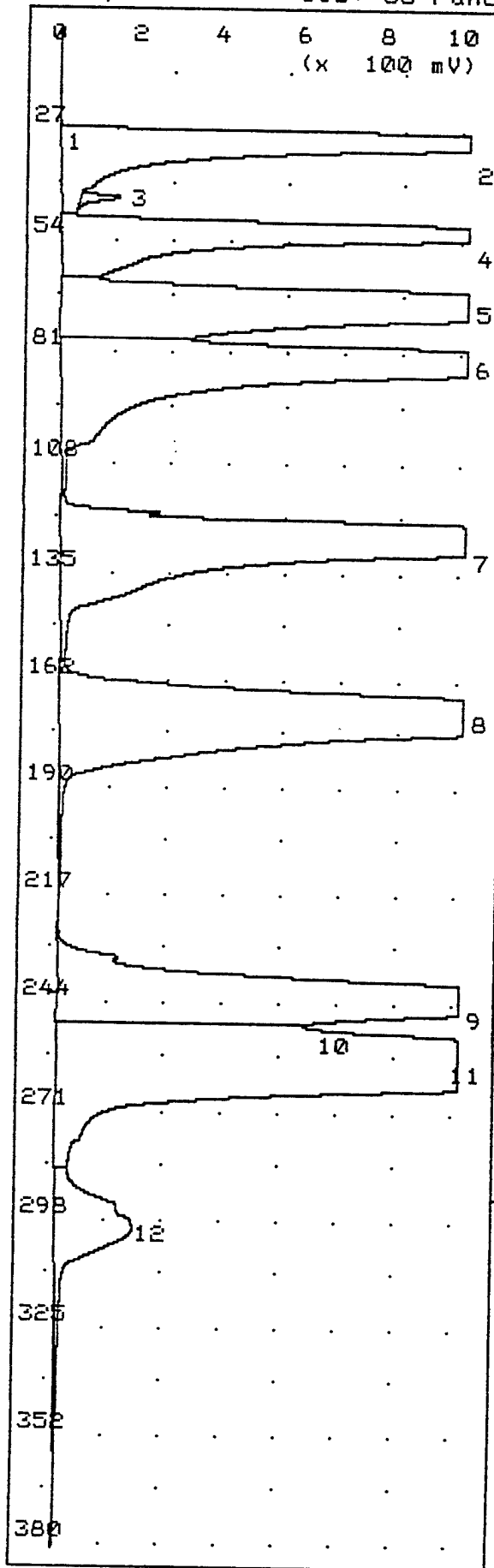
G.C. Ready 10S+ GC Function Dec 12, 96 08:38
 -- Analysis No 3 -- Run at - Dec 12, 96 08:38

Pk No	Name	Conc/Area	Alarm	Ret. Time
7	benzene	1.000	ppm	66.0
	tce	1.000	ppm	66.0
	Unknown	443.1	mUS	124.0
10	toluene	1.000	ppm	124.0
11	pce	1.000	mUS	164.0
12	Unknown	19.34	mUS	204.0
13	ethylbenzene	1.000	ppm	246.0
14	m,p-xylene	2.001	ppm	257.0
15	o-xylene	1.009	ppm	257.0

- Detected 15 peaks. Use + + to scroll [385 sec]



Analysis #4 10S+ GC Function Analysis Report

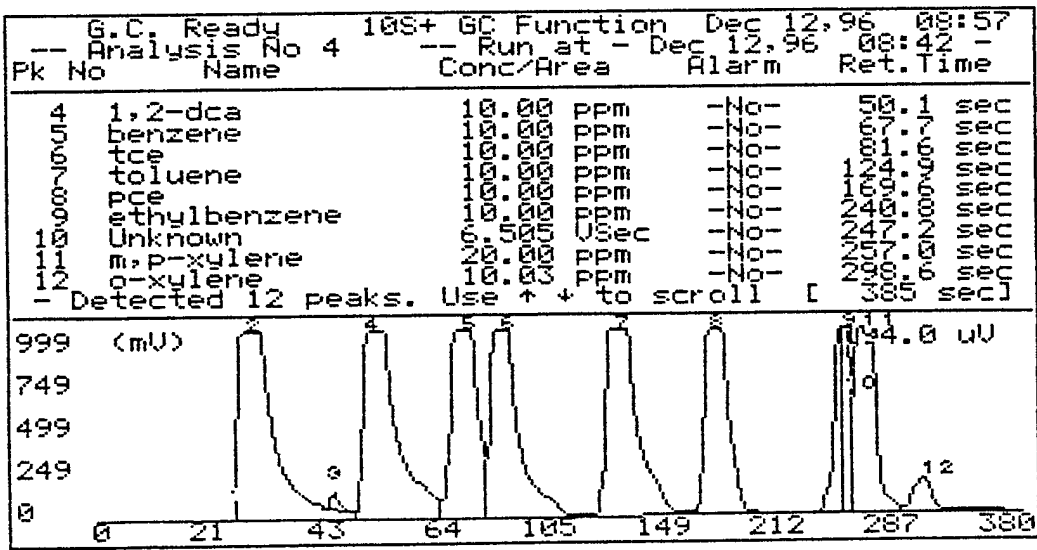
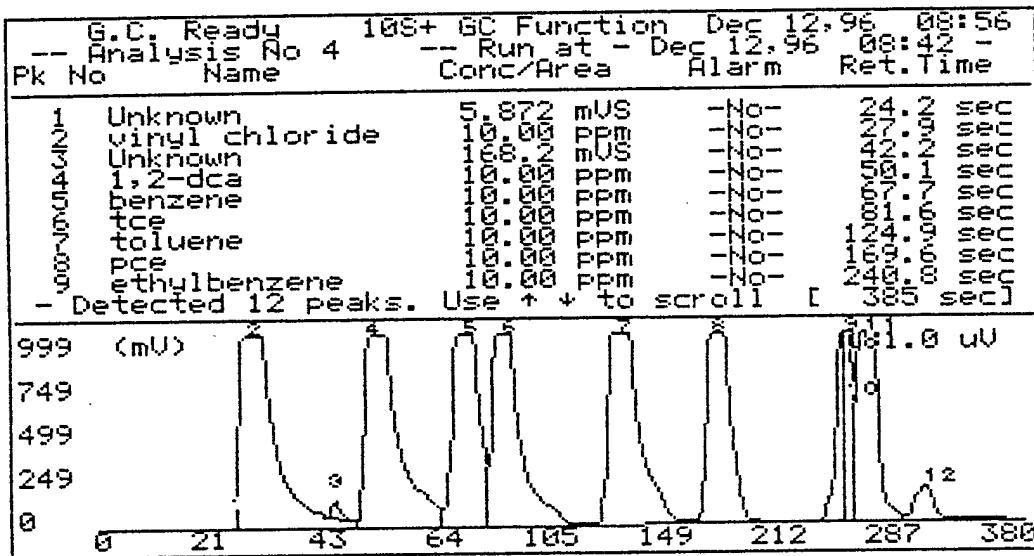


Time Printed: Dec 12, 96 08:48
 Sample Time: Dec 12, 96 08:42
 Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

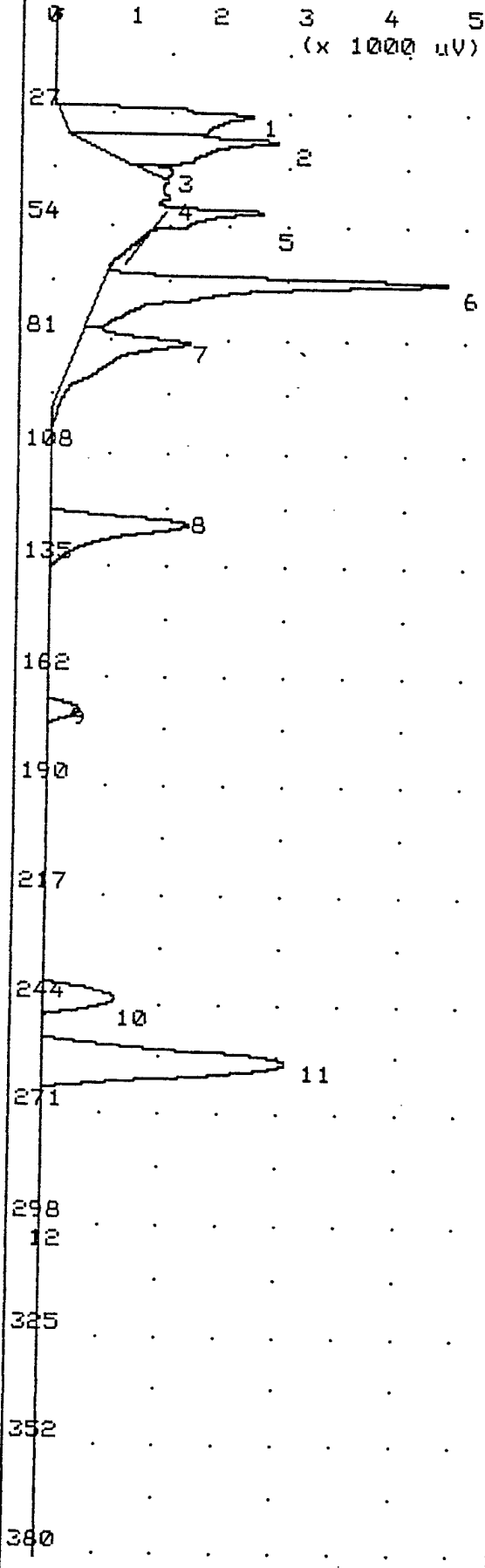
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	5.870 mVS	24.2
2	vinyl chloride	4.821 ppm	27.9
3	Unknown	168.2 mVS	42.2
4	1,2-dca	7.744 ppm	50.1
5	benzene	4.888 ppm	67.7
6	tce	7.735 ppm	81.6
7	toluene	12.97 ppm	124.9
8	pce	7.732 ppm	169.6
9	ethylbenzene	4.258 ppm	240.8
10	Unknown	6.504 VSec	247.2
11	m, p-xylene	37.01 ppm	257.0
12	o-xylene	8.180 ppm	298.6

Notes
 Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 10 ppm standard



Analysis #5 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 09:05
 Sample Time: Dec 12, 96 08:59
 Method

Slope Up	0.500	mV/Sec
Slope Down	1.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.000	mV
Analysis Delay	0.0	sec
Window Percent	10.0	%
Det Flow	9	ml/min
B/F Flow	9	ml/min
Aux Flow	0	ml/min
Oven Temp	50	C
Amb Temp	36	C
Max Gain	1000	
Analysis Time	380.0	sec

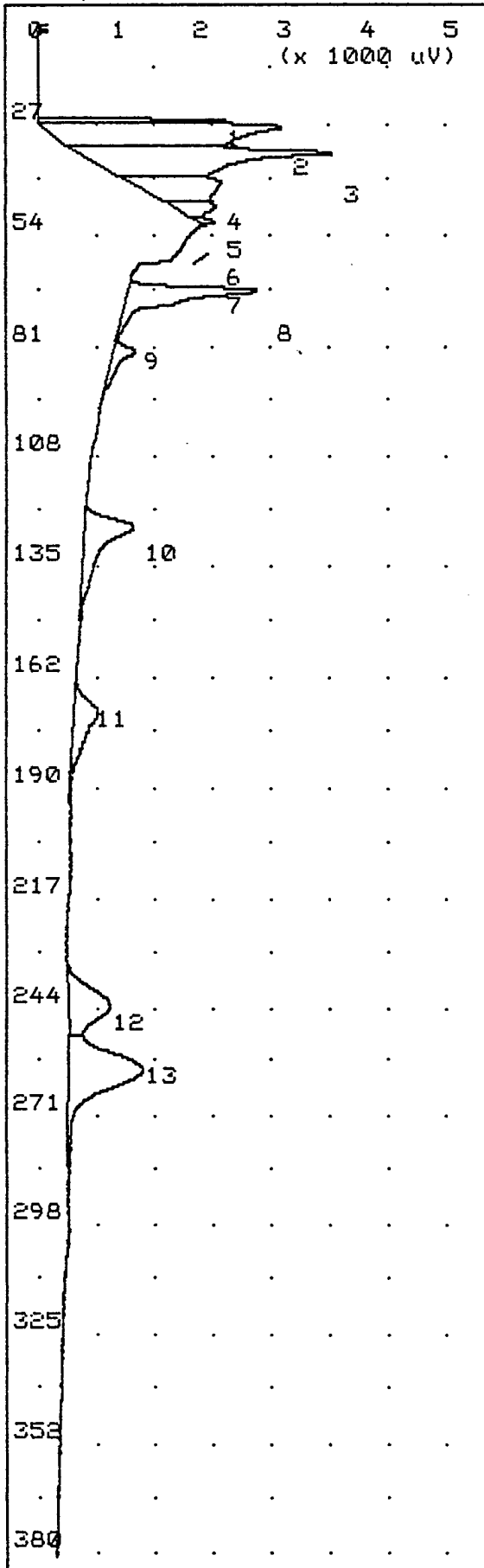
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	vinyl chloride	12.09 ppb	26.0
2	cis-1,2-dce	25.26 ppb	32.2
3	Unknown	0.762 mVS	38.9
4	Unknown	0.081 mVS	45.9
5	1,2-dca	2.511 ppb	49.0
6	benzene	7.507 ppb	65.8
7	tce	4.451 ppb	80.4
8	toluene	12.33 ppb	124.0
9	pce	13.30 ppb	169.2
10	ethylbenzene	30.34 ppb	241.0
11	m,p-xylene	39.92 ppb	257.3
12	o-xylene	0.711 ppb	297.3

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 air blank- 1

Analysis #8 10S+ GC Function Analysis Report

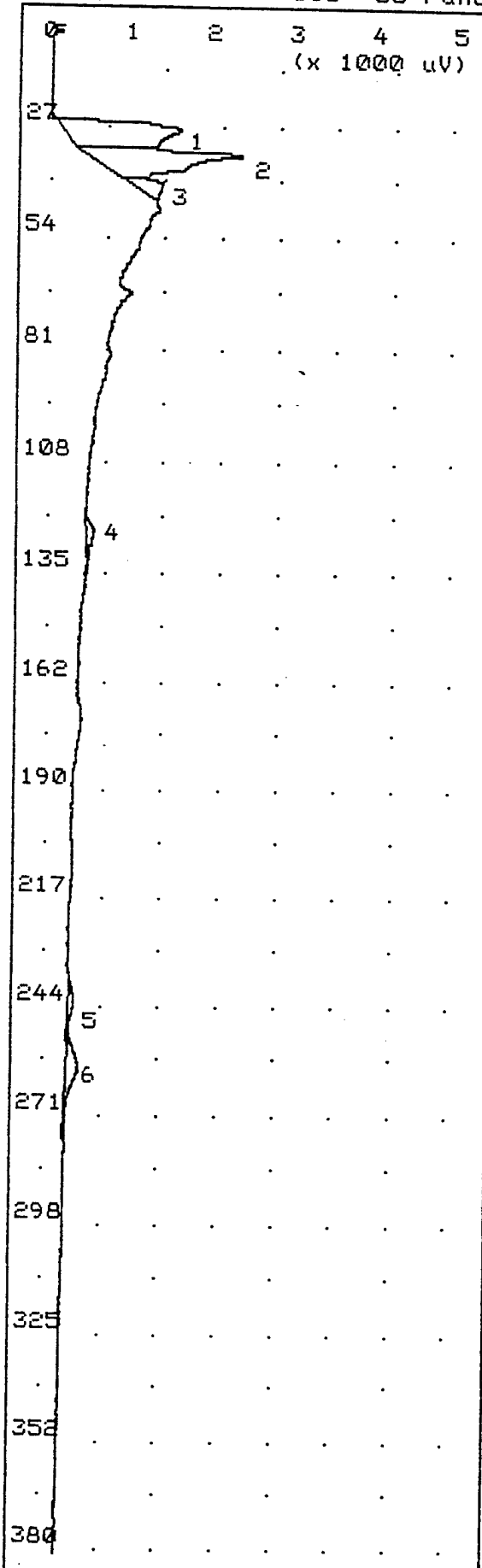


Time Printed: Dec 12, 96 09:50
 Sample Time: Dec 12, 96 09:44
 Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 36 C
 Max Gain 1000
 Analysis Time 380.0 sec

Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	Unknown	2.777 mVS	24.2
2	vinyl chloride	11.69 ppb	25.8
3	cis-1,2-dce	35.15 ppb	32.2
4	Unknown	5.692 mVS	39.4
5	Unknown	1.337 mVS	45.4
6	1,2-dca	0.146 ppb	49.0
7	Unknown	1.832 mVS	49.0
8	benzene	2.546 ppb	65.8
9	tce	0.662 ppb	80.6
10	toluene	2.958 ppb	124.5
11	pce	2.960 ppb	170.6
12	ethylbenzene	7.132 ppb	241.8
13	m,p-xylene	9.195 ppb	258.4

Notes
 Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 air blank- 2



Time Printed: Dec 12, 96 10:13
 Sample Time: Dec 12, 96 10:07
 Method

Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

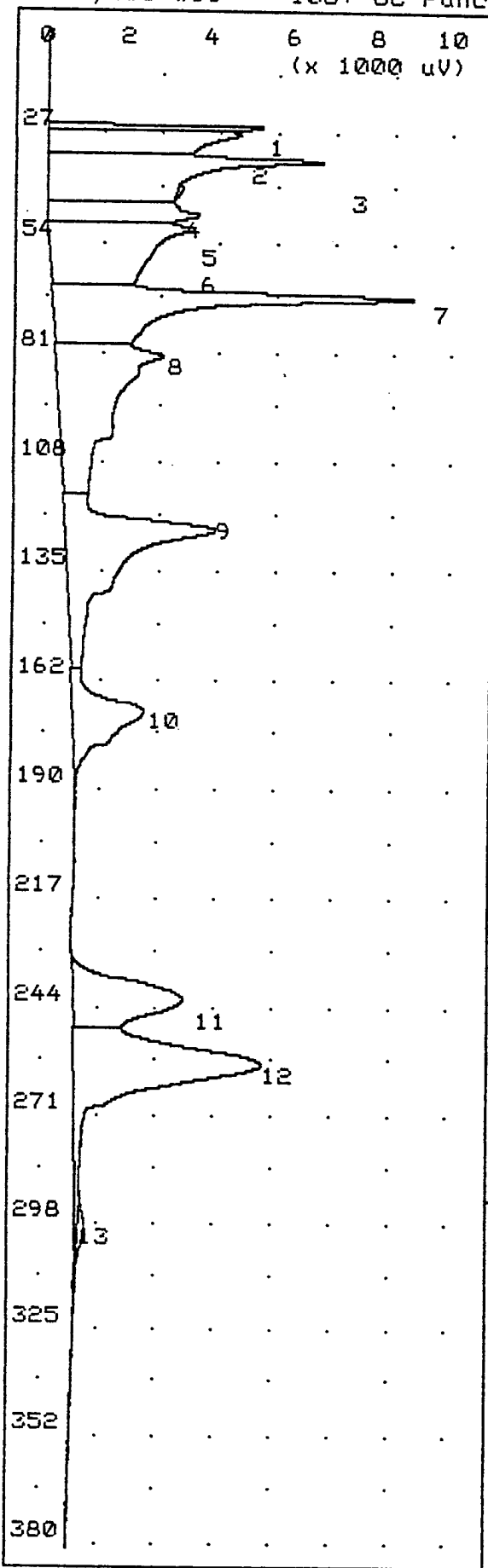
Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	vinyl chloride	7.617 ppb	26.1
2	Unknown	8.001 mVS	32.1
3	Unknown	1.250 mVS	39.2
4	toluene	0.442 ppb	123.2
5	ethylbenzene	0.690 ppb	241.6
6	m, p-xylene	1.218 ppb	256.0

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 air blank- 3

Analysis #10 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 10:25
 Sample Time: Dec 12, 96 10:18
 Method

Slope Up	0.500	mV/Sec
Slope Down	1.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.000	mV
Analysis Delay	0.0	sec
Window Percent	10.0	%
Det Flow	9	ml/min
B/F Flow	9	ml/min
Aux Flow	0	ml/min
Oven Temp	50	C
Amb Temp	35	C
Max Gain	1000	
Analysis Time	380.0	sec

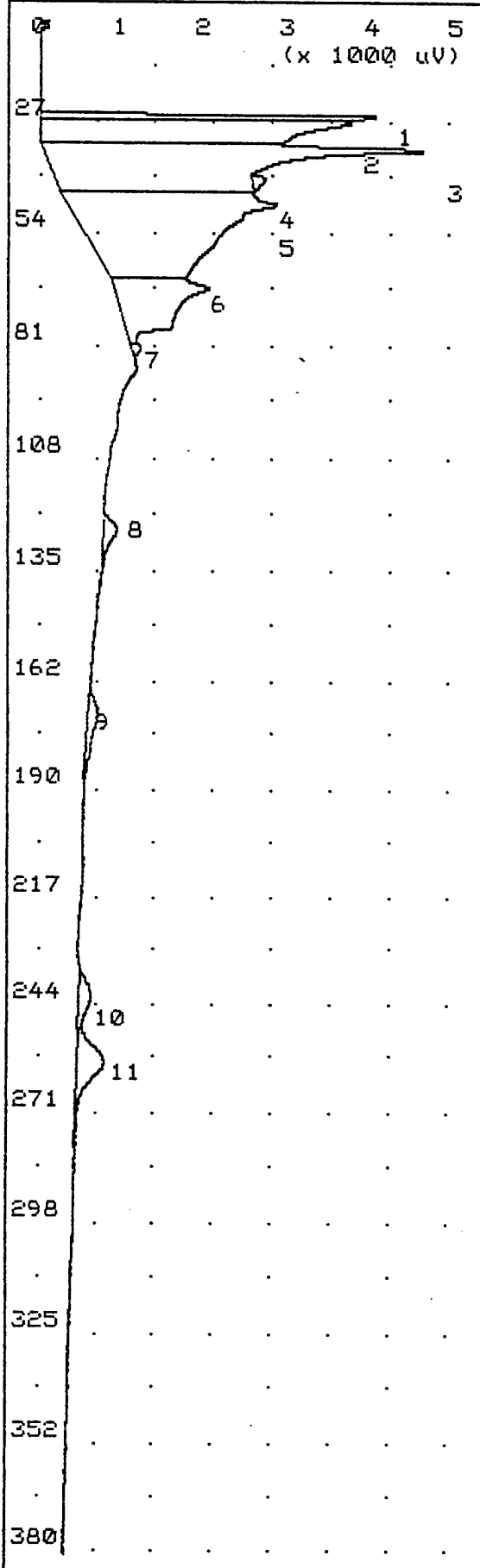
Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	Unknown	9.029 mVS	24.1
2	vinyl chloride	19.35 ppb	25.8
3	Unknown	49.75 mVS	32.2
4	Unknown	0.317 mVS	38.8
5	Unknown	17.86 mVS	45.7
6	1,2-dca	21.15 ppb	49.1
7	benzene	21.94 ppb	65.7
8	tce	24.81 ppb	80.5
9	toluene	28.92 ppb	123.7
10	pce	20.26 ppb	168.8
11	ethylbenzene	39.34 ppb	240.2
12	m,p-xylene	53.47 ppb	257.0
13	o-xylene	1.195 ppb	297.8

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 air blank- 4

Analysis #11 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 10:39
 Sample Time: Dec 12, 96 10:33

Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

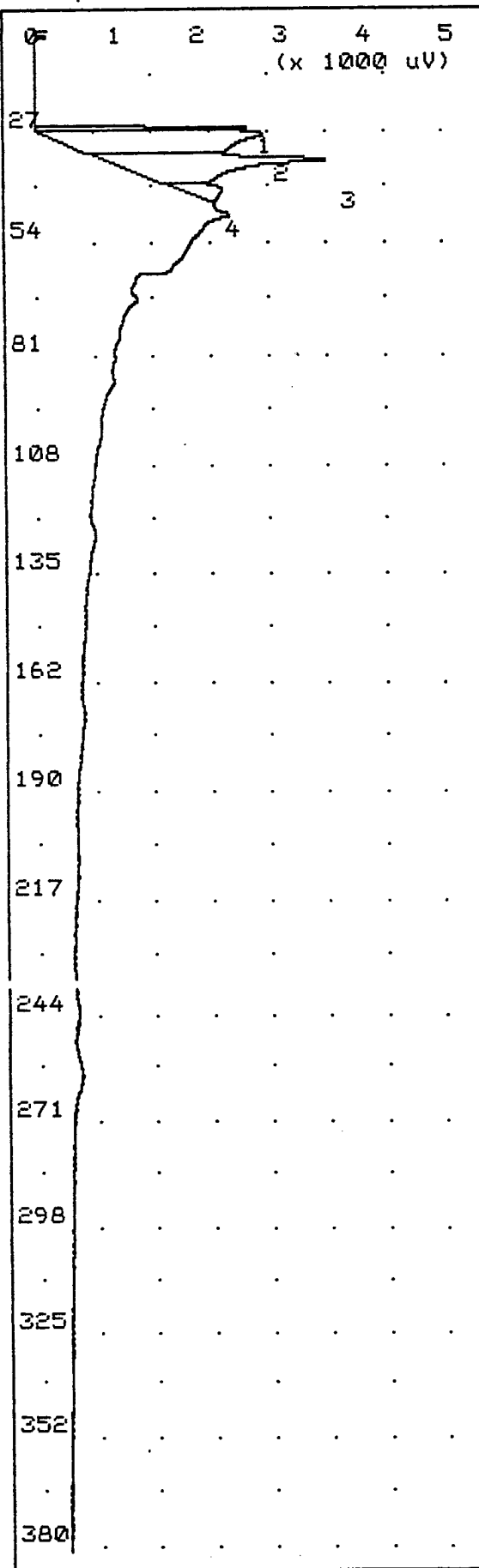
Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	Unknown	7.236 mVS	24.1
2	vinyl chloride	15.58 ppb	25.8
3	Unknown	35.56 mVS	32.2
4	Unknown	0.427 mVS	39.2
5	1,2-dca	18.85 ppb	45.5
6	benzene	4.238 ppb	65.7
7	tce	0.120 ppb	80.5
8	toluene	0.666 ppb	123.3
9	pce	1.382 ppb	169.8
10	ethylbenzene	1.933 ppb	241.6
11	m,p-xylene	3.016 ppb	256.5

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 air blank- 5

Analysis #12 105+ GC Function Analysis Report



Time Printed: Dec 12, 96 10:58
 Sample Time: Dec 12, 96 10:52

Method

Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

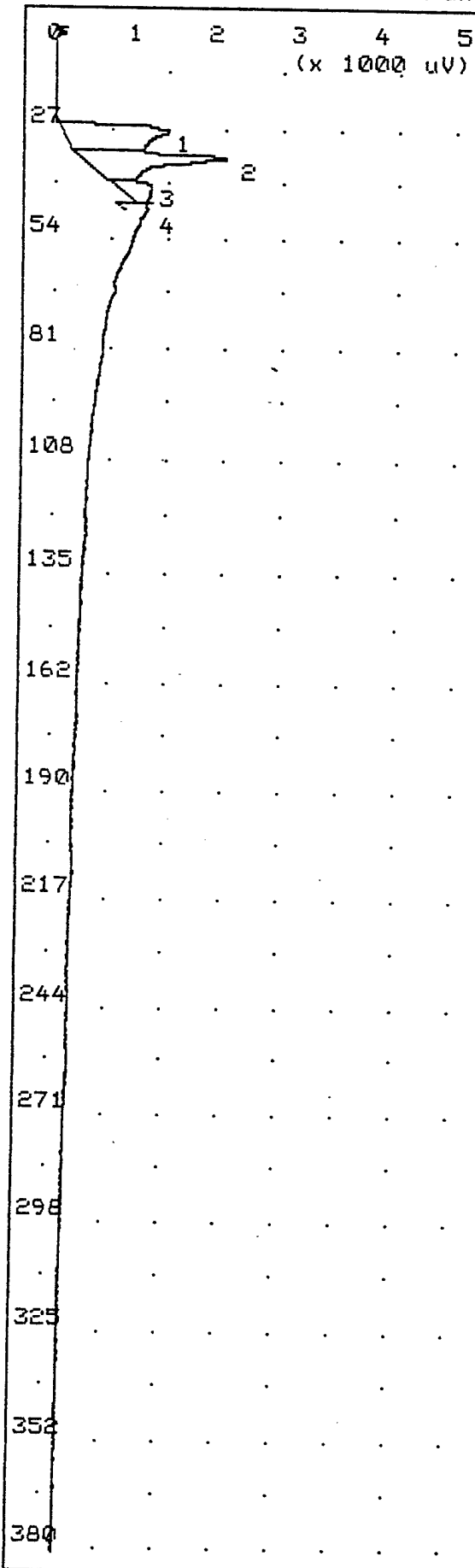
Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	Unknown	3.499 mVS	24.4
2	vinyl chloride	9.949 ppb	25.8
3	Unknown	10.78 mVS	32.2
4	Unknown	1.681 mVS	38.9

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 air blank- 6

Analysis #13 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 11:11
 Sample Time: Dec 12, 96 11:04
 Method

Slope Up	0.500	mV/Sec
Slope Down	1.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.000	mV
Analysis Delay	0.0	sec
Window Percent	10.0	%
Det Flow	9	ml/min
B/F Flow	9	ml/min
Aux Flow	0	ml/min
Oven Temp	50	C
Amb Temp	35	C
Max Gain	1000	
Analysis Time	380.0	sec

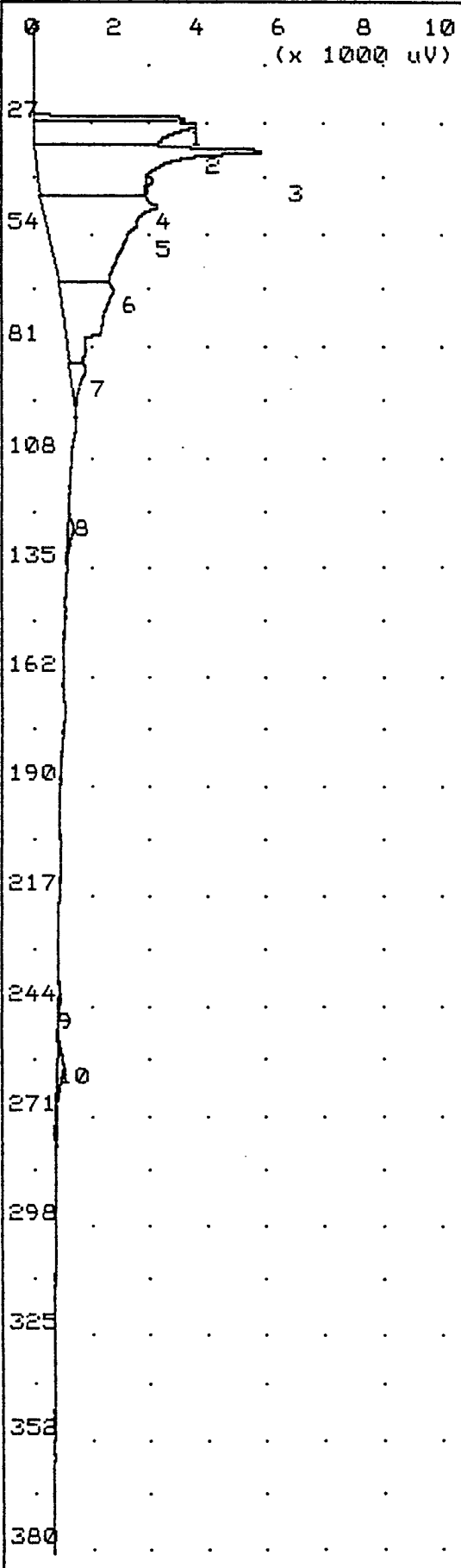
Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	vinyl chloride	6.822 ppb	25.8
2	Unknown	6.775 mVS	32.0
3	Unknown	0.544 mVS	39.4
4	Unknown	1.255 mVS	41.8

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 air blank- 7

Analysis #14 10S+ GC Function Analysis Report



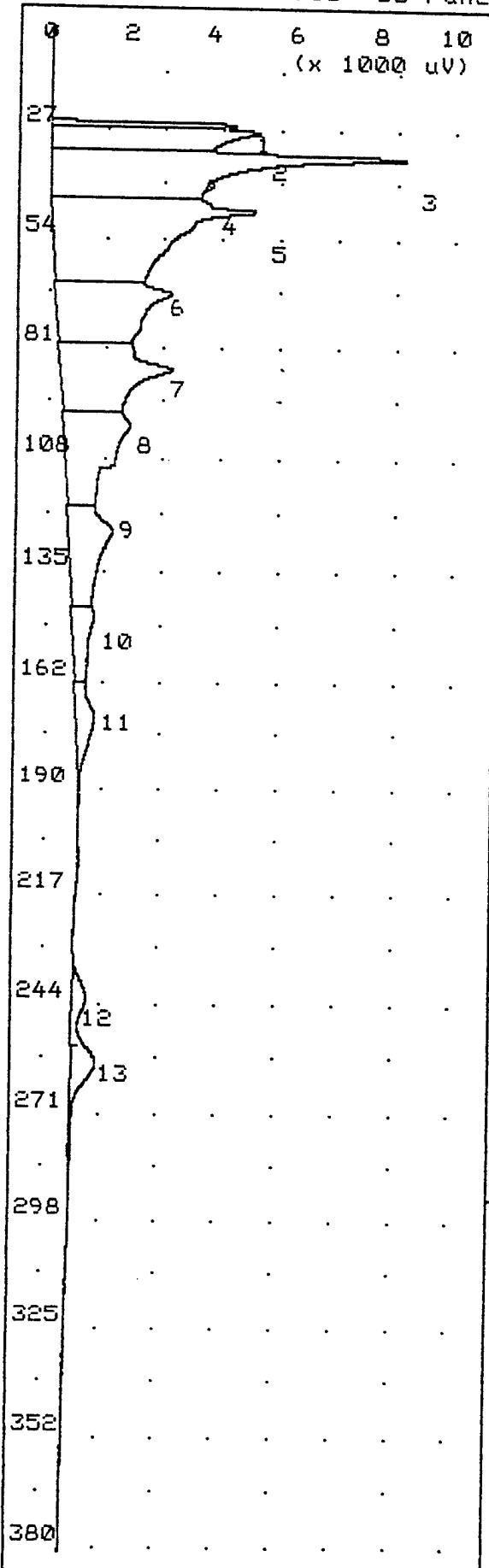
Time Printed: Dec 12, 96 11:25
 Sample Time: Dec 12, 96 11:19
 Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	Unknown	5.613 mVS	24.2
2	vinyl chloride	16.66 ppb	26.0
3	Unknown	42.41 mVS	32.1
4	Unknown	0.336 mVS	39.1
5	1,2-dca	21.57 ppb	45.6
6	benzene	7.042 ppb	65.8
7	tce	1.132 ppb	85.2
8	toluene	0.487 ppb	123.2
9	ethylbenzene	0.353 ppb	240.5
10	m,p-xylene	1.136 ppb	257.6

Notes
 Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 mw-201b 0.0- 0.5 10g

Analysis #15 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 11:38
 Sample Time: Dec 12, 96 11:31

Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

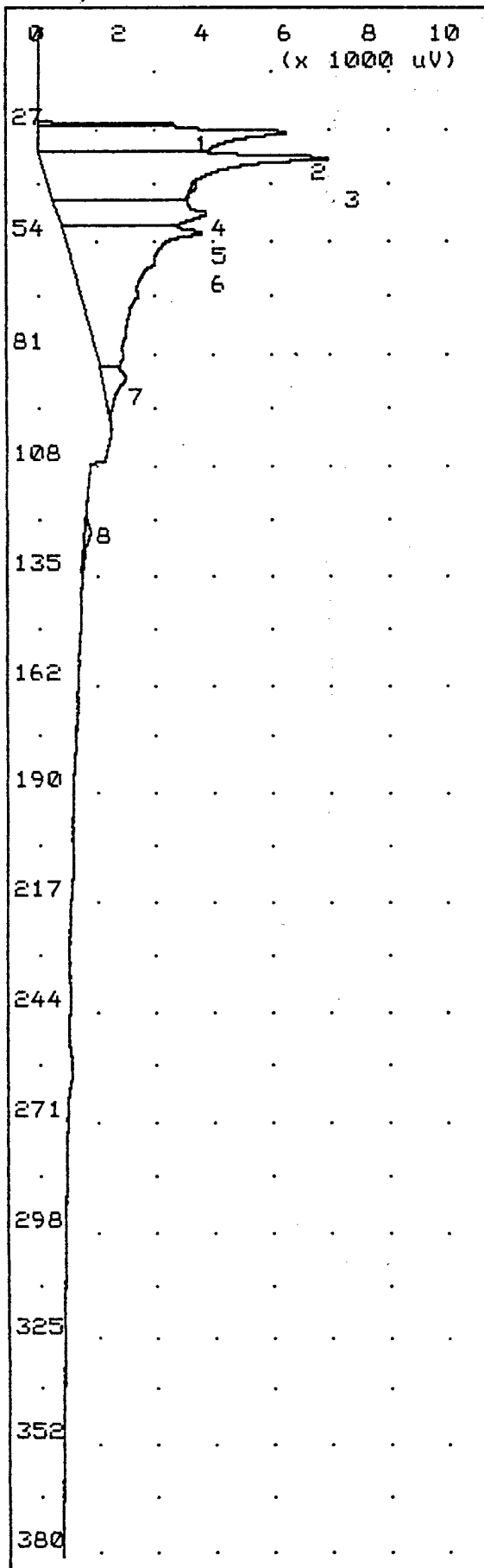
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	6.914 mVS	24.3
2	vinyl chloride	21.38 ppb	26.0
3	Unknown	62.15 mVS	32.3
4	Unknown	0.187 mVS	38.9
5	1,2-dca	35.80 ppb	45.6
6	benzene	14.46 ppb	66.0
7	tce	16.00 ppb	84.9
8	Unknown	26.63 mVS	99.0
9	toluene	10.92 ppb	124.0
10	Unknown	7.858 mVS	145.2
11	pce	7.360 ppb	170.2
12	ethylbenzene	4.236 ppb	241.0
13	m, p-xylene	5.715 ppb	257.8

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 mw-201b 5.0- 7.0 10g

Analysis #16 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 11:51
 Sample Time: Dec 12, 96 11:44

Method

Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

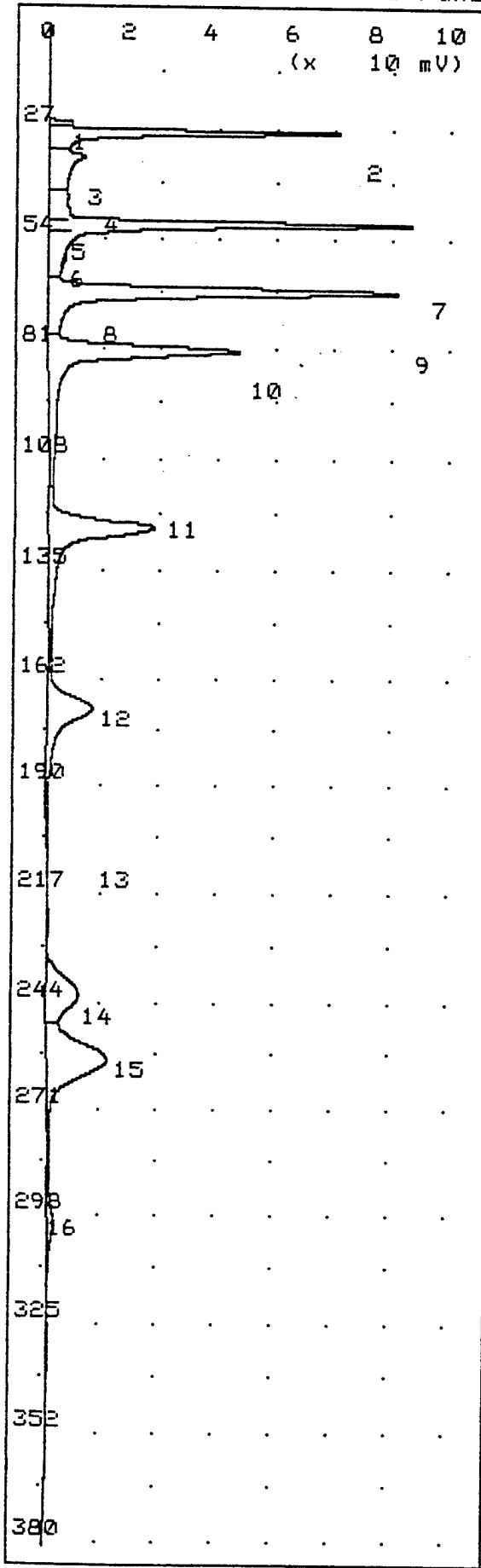
Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	Unknown	4.500 mVS	24.2
2	vinyl chloride	23.37 ppb	25.9
3	Unknown	51.79 mVS	32.2
4	Unknown	0.252 mVS	38.8
5	Unknown	21.01 mVS	45.8
6	1,2-dca	26.25 ppb	50.4
7	tce	1.975 ppb	84.9
8	toluene	0.481 ppb	122.9

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 mw-201b 10.0-12.0 10g

Analysis #17 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 12:03
 Sample Time: Dec 12, 96 11:57
 Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 36 C
 Max Gain 1000
 Analysis Time 380.0 sec

Peak Report

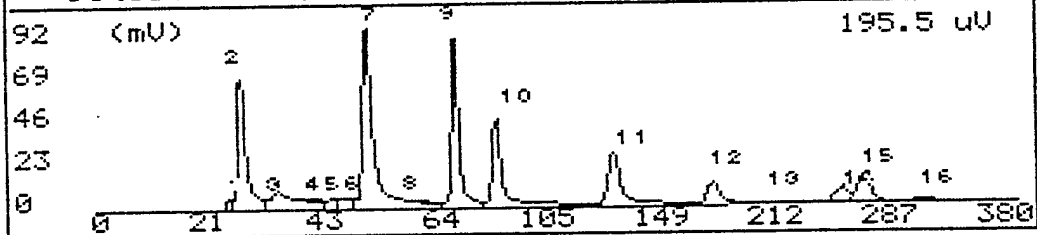
Pk	Compound Name	Area/Conc	R. T.
1	Unknown	9.193 mVS	24.2
2	vinyl chloride	99.82 ppb	26.3
3	Unknown	63.33 mVS	32.2
4	Unknown	0.261 mVS	39.2
5	Unknown	13.19 mVS	42.2
6	Unknown	17.14 mVS	46.0
7	1,2-dca	129.6 ppb	48.9
8	Unknown	0.648 mVS	57.6
9	benzene	104.4 ppb	65.6
10	tce	106.3 ppb	80.2
11	toluene	112.2 ppb	123.3
12	pce	101.0 ppb	168.6
13	Unknown	4.839 mVS	206.2
14	ethylbenzene	104.6 ppb	240.2
15	m, p-xylene	158.2 ppb	256.8
16	o-xylene	23.63 ppb	299.2

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 100 ppb standard

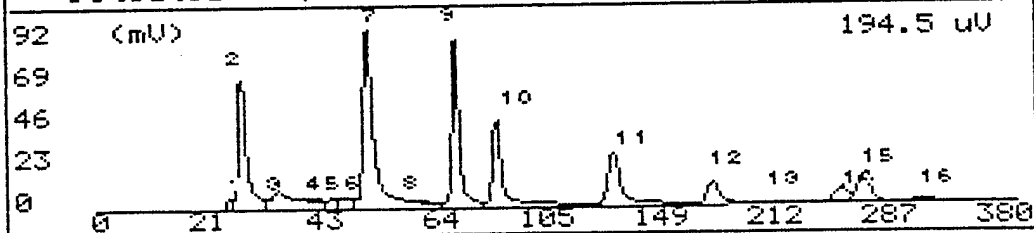
G.C. Ready		10S+ GC Function		Dec 12, 96 12:13	
-- Analysis No 17		-- Run at --		Dec 12, 96 11:57	
Pk No	Name	Conc/Area	Alarm	Ret. Time	
1	Unknown	0.19	mUS	-	24.0
	vinyl chloride	0.00	ppb	-	24.0
	Unknown	0.00	ppb	-	24.0
	Unknown	0.26	mUS	-	24.0
	Unknown	0.19	mUS	-	24.0
	Unknown	0.14	mUS	-	24.0
	1,2-dca	0.00	ppb	-	24.0
	Unknown	0.00	ppb	-	24.0
	benzene	0.00	ppb	-	24.0

- Detected 16 peaks. Use + - to scroll [0 0 0 0 0 0]

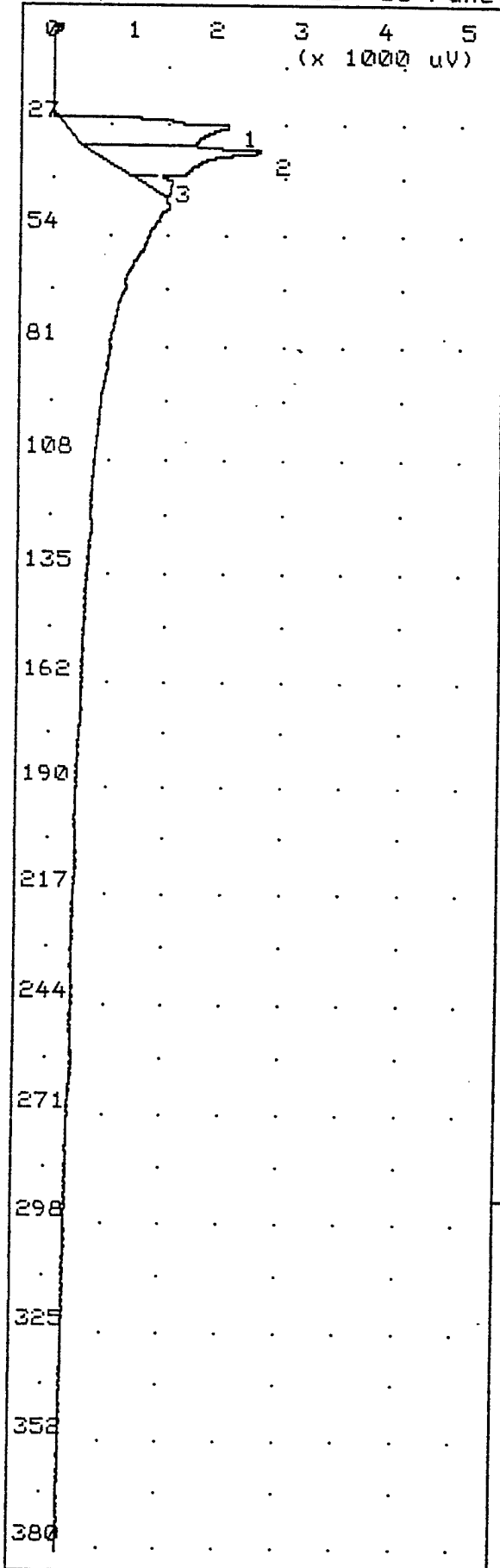


G.C. Ready		10S+ GC Function		Dec 12, 96 12:14	
-- Analysis No 17		-- Run at --		Dec 12, 96 11:57	
Pk No	Name	Conc/Area	Alarm	Ret. Time	
1	Unknown	0.64	mUS	-	24.0
	benzene	0.00	ppb	-	24.0
	toluene	0.00	ppb	-	24.0
	pce	0.00	ppb	-	24.0
	Unknown	4.00	mUS	-	24.0
	ethylbenzene	0.00	ppb	-	24.0
	m,p-xylene	0.00	ppb	-	24.0
	o-xylene	0.00	ppb	-	24.0

- Detected 16 peaks. Use + - to scroll [0 0 0 0 0 0]



Analysis #18 10S+ GC Function Analysis Report



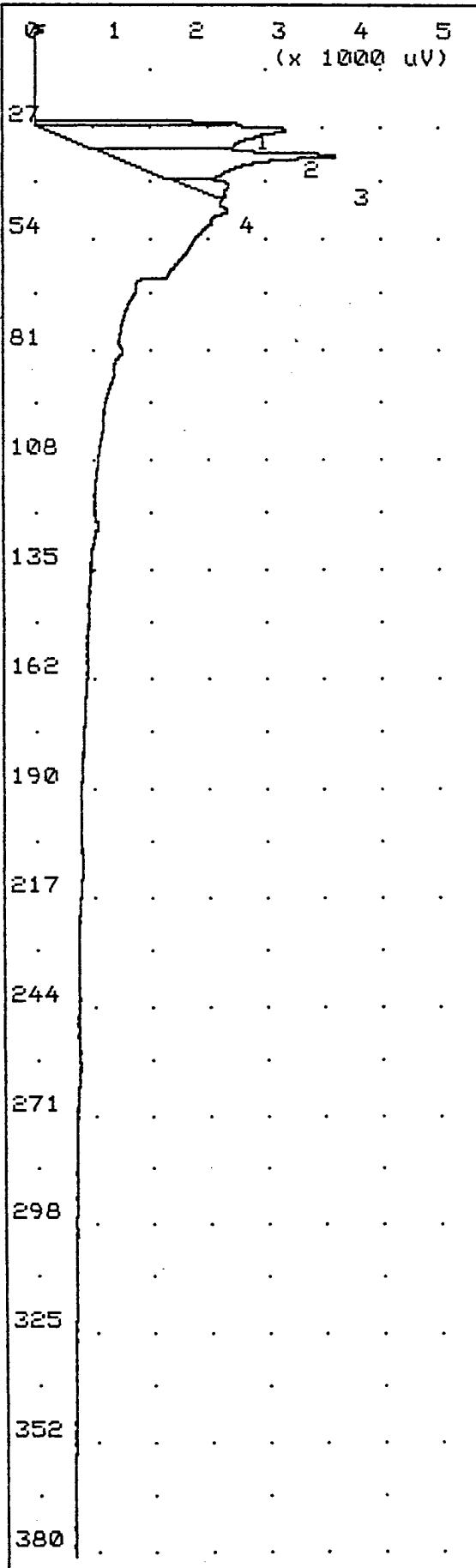
Time Printed: Dec 12,96 12:23
 Sample Time: Dec 12,96 12:17
 Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 36 C
 Max Gain 1000
 Analysis Time 380.0 sec

Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	vinyl chloride	9.886 ppb	25.6
2	Unknown	9.558 mVS	32.0
3	Unknown	1.252 mVS	39.6

Notes
 Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 air blank-8

Analysis #19 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 13:39
 Sample Time: Dec 12, 96 13:33

Method

Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

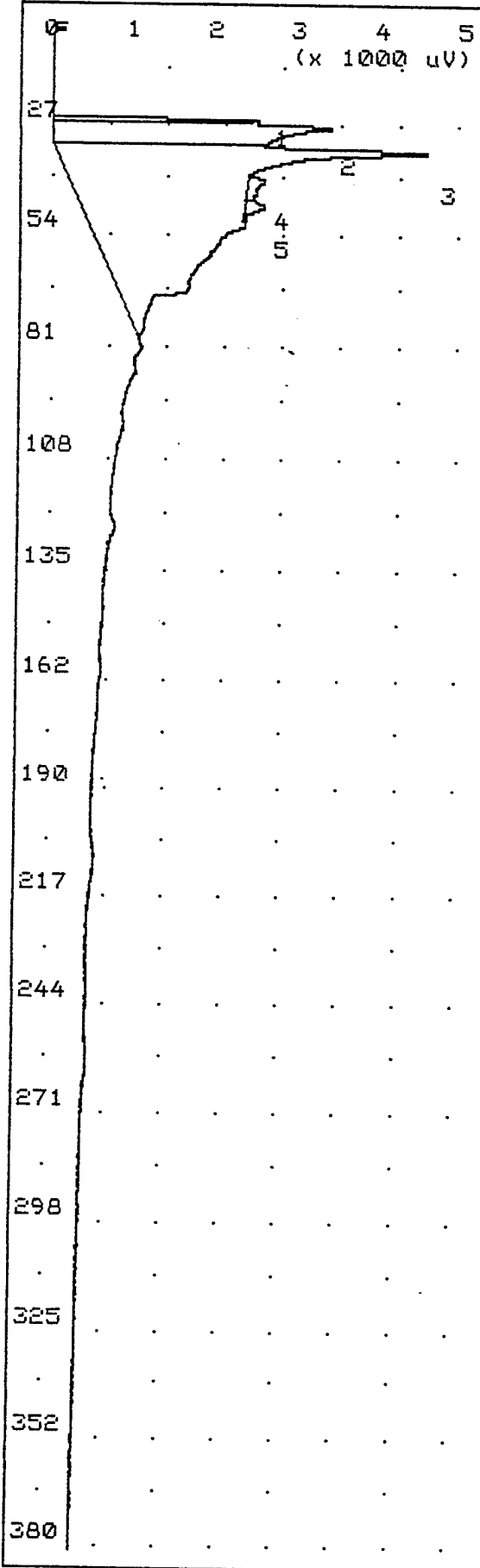
Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	Unknown	3.119 mVS	24.3
2	vinyl chloride	11.00 ppb	26.0
3	Unknown	11.21 mVS	32.2
4	Unknown	1.721 mVS	39.0

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 mw-201b 15.0-17.0 10g

Analysis #20 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 13:52
 Sample Time: Dec 12, 96 13:46

Method

Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

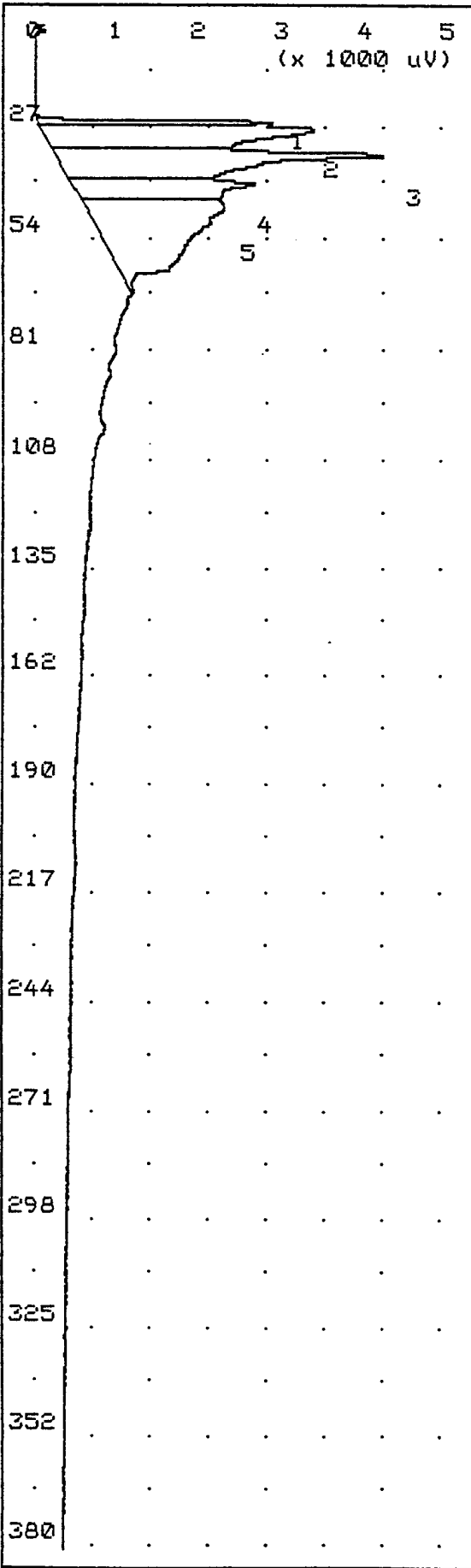
Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	Unknown	3.394 mVS	24.4
2	vinyl chloride	14.36 ppb	26.0
3	Unknown	74.55 mVS	32.3
4	Unknown	0.782 mVS	39.4
5	1,2-dca	0.233 ppb	45.6

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 mw-201b 20.0-22.0 10g

Analysis #21 10S+ GC Function Analysis Report



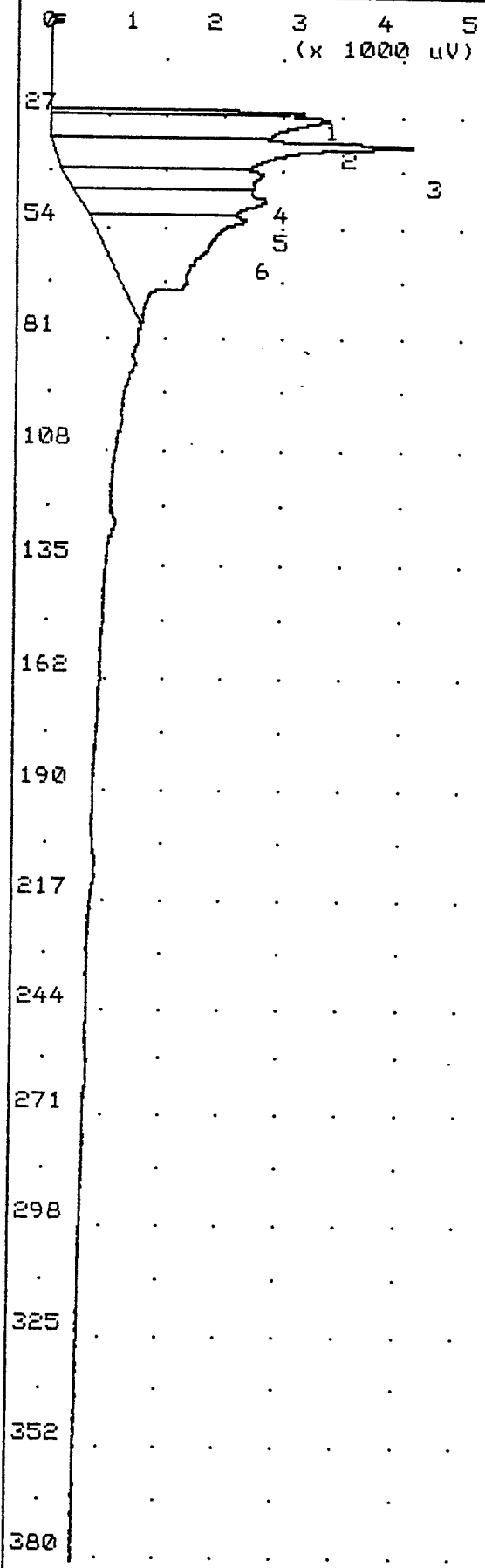
Time Printed: Dec 12, 96 14:09
 Sample Time: Dec 12, 96 14:03
 Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	Unknown	3.703 mVS	24.1
2	vinyl chloride	12.68 ppb	25.8
3	Unknown	18.80 mVS	32.2
4	Unknown	10.45 mVS	39.2
5	1,2-dca	8.887 ppb	44.7

Notes
 Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 mw-201b 25.0-26.5 10g

Analysis #22 10S+ GC Function Analysis Report



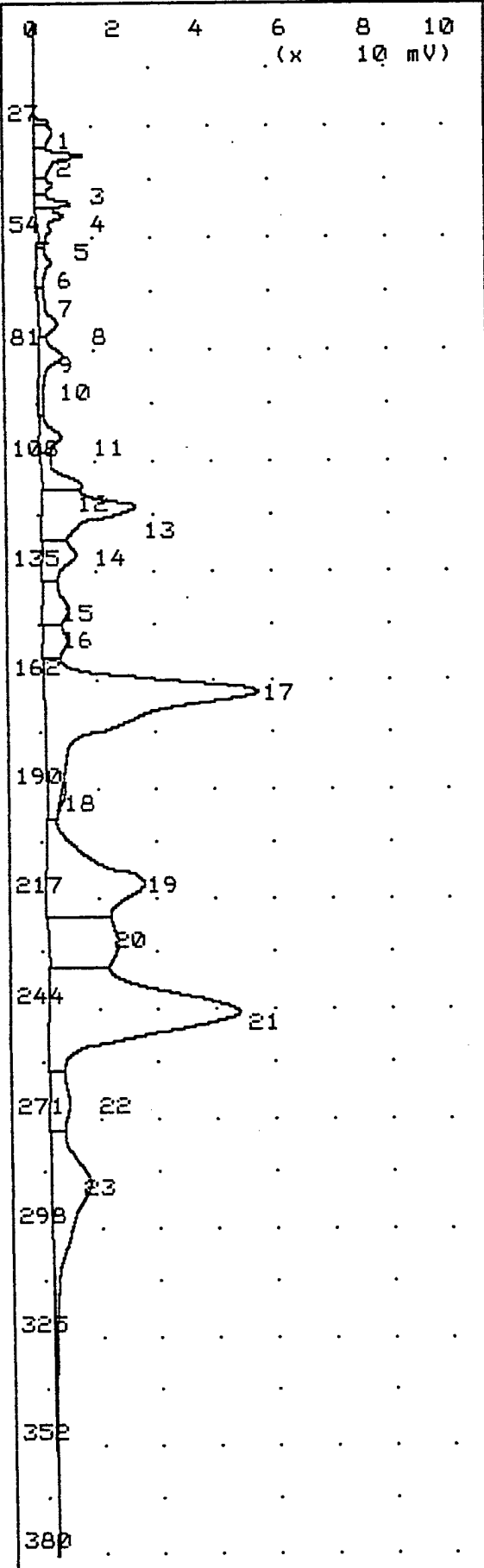
Time Printed: Dec 12,96 14:49
 Sample Time: Dec 12,96 14:43
 Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	4.628 mVS	24.4
2	vinyl chloride	14.62 ppb	26.0
3	Unknown	22.25 mVS	32.4
4	Unknown	11.61 mVS	39.3
5	Unknown	13.46 mVS	45.8
6	1,2-dca	10.22 ppb	50.4

Notes
 Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 mw-202b 0.0- 2.0 10g

Analysis #23 105+ GC Function Analysis Report



Time Printed: Dec 12, 96 15:04
 Sample Time: Dec 12, 96 14:58

Method

Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

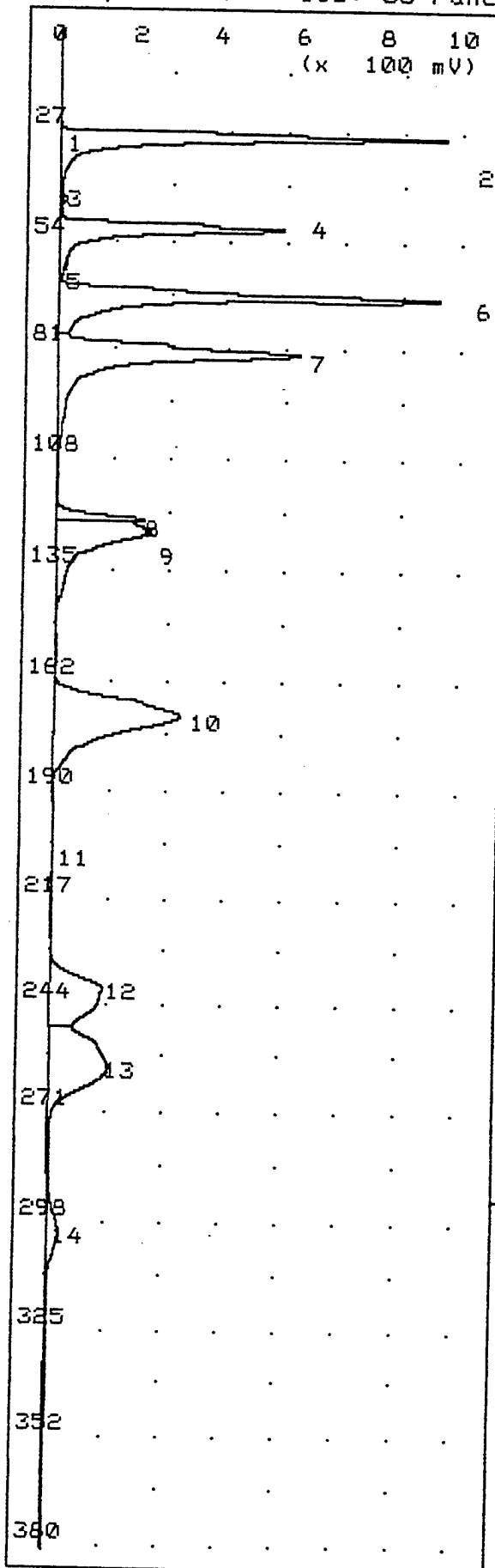
Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	6.329 mVS	24.2
2	vinyl chloride	17.30 ppb	26.7
3	Unknown	39.68 mVS	32.4
4	Unknown	13.73 mVS	39.4
5	Unknown	21.68 mVS	44.0
6	Unknown	18.11 mVS	47.1
7	1,2-dca	6.735 ppb	50.4
8	Unknown	22.67 mVS	58.2
9	Unknown	32.87 mVS	73.0
10	tce	19.72 ppb	81.0
11	Unknown	29.20 mVS	100.5
12	Unknown	50.97 mVS	112.5
13	toluene	86.53 ppb	117.8
14	Unknown	63.31 mVS	129.6
15	Unknown	54.92 mVS	143.2
16	Unknown	42.53 mVS	151.0
17	pce	251.1 ppb	164.2
18	Unknown	4.104 mVS	188.4
19	Unknown	326.3 mVS	211.8
20	Unknown	209.3 mVS	226.0
21	ethylbenzene	442.6 ppb	243.2
22	m,p-xylene	70.30 ppb	265.6
23	o-xylene	514.9 ppb	285.8

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 mw-202b 5.0- 7.0 10g

Analysis #24 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 15:20
 Sample Time: Dec 12, 96 15:14
 Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

Peak Report

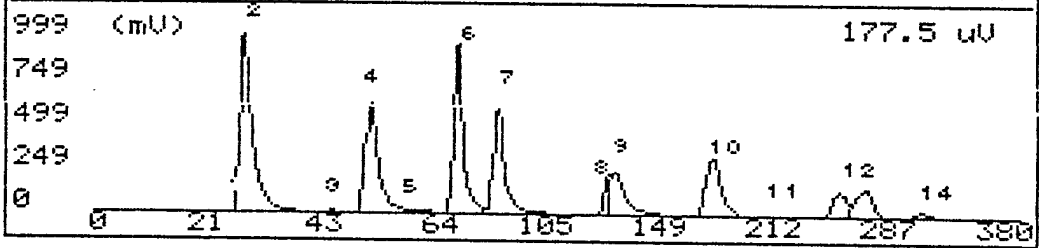
Pk	Compound Name	Area/Conc	R.T.
1	Unknown	6.994 mVS	24.2
2	vinyl chloride	983.6 ppb	26.8
3	Unknown	17.45 mVS	42.4
4	1,2-dca	1.227 ppm	49.5
5	Unknown	11.37 mVS	58.0
6	benzene	977.4 ppb	66.4
7	tce	979.8 ppb	81.2
8	Unknown	460.8 mVS	121.6
9	toluene	965.0 ppb	124.5
10	pce	981.6 ppb	169.8
11	Unknown	19.21 mVS	205.6
12	ethylbenzene	1.001 ppm	238.2
13	m,p-xylene	1.978 ppm	258.4
14	o-xylene	883.3 ppb	299.4

Notes
 Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 1 ppm standard

G.C. Ready 10S+ GC Function Dec 12, 96 15:27
 -- Analysis No 24 -- Run at - Dec 12, 96 15:14 -

PK No	Name	Conc/Area	Alarm	Ret. Time
1	Unknown	6.994	mUS	-No-
2	vinyl chloride	1.000	ppm	-No-
3	Unknown	1.000	ppm	-No-
4	1,2-dca	1.000	ppm	-No-
5	Unknown	11.000	ppm	-No-
6	benzene	1.000	ppm	-No-
7	tce	1.000	ppm	-No-
8	Unknown	460.000	mUS	-No-
9	toluene	1.000	ppm	-No-

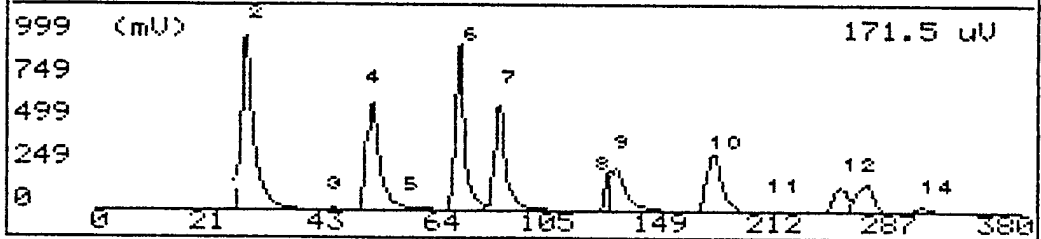
- Detected 14 peaks. Use + + to scroll [385 sec]



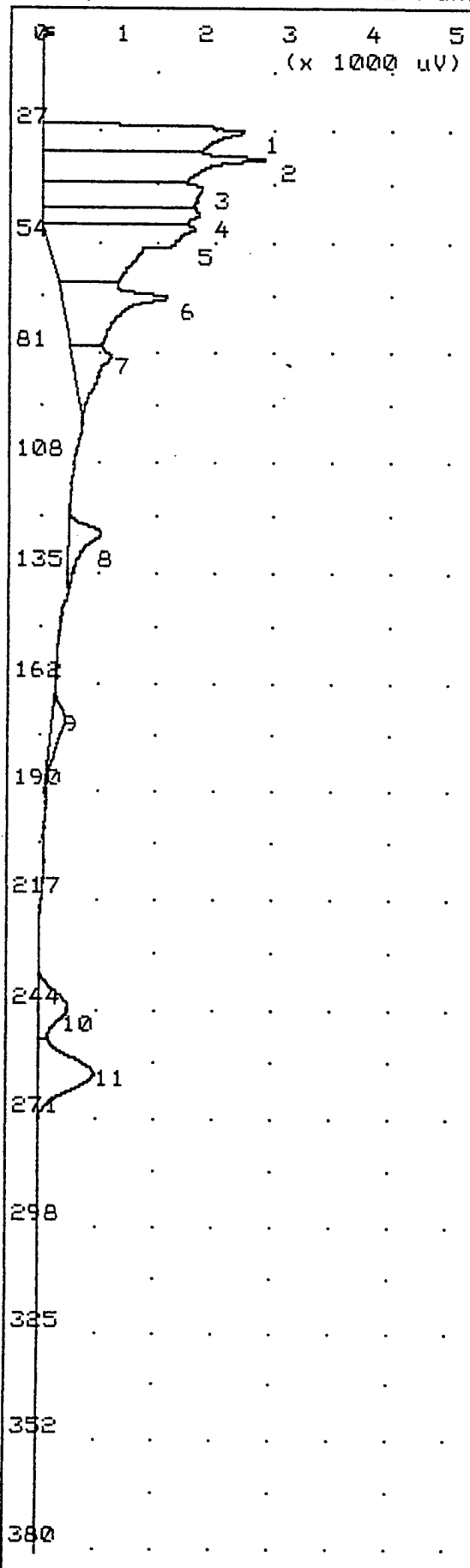
G.C. Ready 10S+ GC Function Dec 12, 96 15:28
 -- Analysis No 24 -- Run at - Dec 12, 96 15:14 -

PK No	Name	Conc/Area	Alarm	Ret. Time
6	benzene	1.000	ppm	-No-
7	tce	1.000	ppm	-No-
8	Unknown	460.000	mUS	-No-
9	toluene	1.000	ppm	-No-
10	pce	1.000	ppm	-No-
11	Unknown	20.000	mUS	-No-
12	ethylbenzene	1.001	ppm	-No-
13	m,p-xylene	2.000	ppm	-No-
14	o-xylene	1.011	ppm	-No-

- Detected 14 peaks. Use + + to scroll [385 sec]



Analysis #25 10S+ GC Function Analysis Report



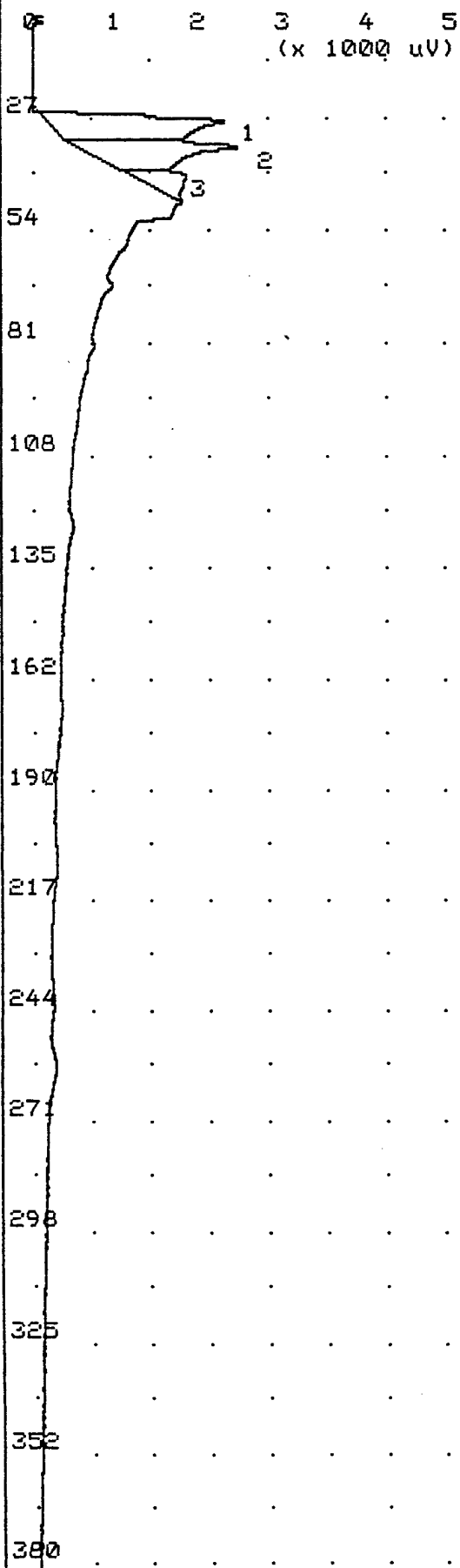
Time Printed: Dec 12, 96 15:37
 Sample Time: Dec 12, 96 15:30
 Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 36 C
 Max Gain 1000
 Analysis Time 380.0 sec

Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	vinyl chloride	14.07 ppb	25.9
2	Unknown	17.01 mVS	32.3
3	Unknown	13.09 mVS	39.5
4	Unknown	7.757 mVS	45.5
5	1,2-dca	7.339 ppb	49.2
6	benzene	4.506 ppb	66.0
7	tce	1.911 ppb	80.6
8	toluene	1.494 ppb	124.5
9	pce	1.738 ppb	169.8
10	ethylbenzene	4.672 ppb	241.3
11	m,p-xylene	8.739 ppb	258.4

Notes
 Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 air blank-9

Analysis #26 10S+ GC Function Analysis Report



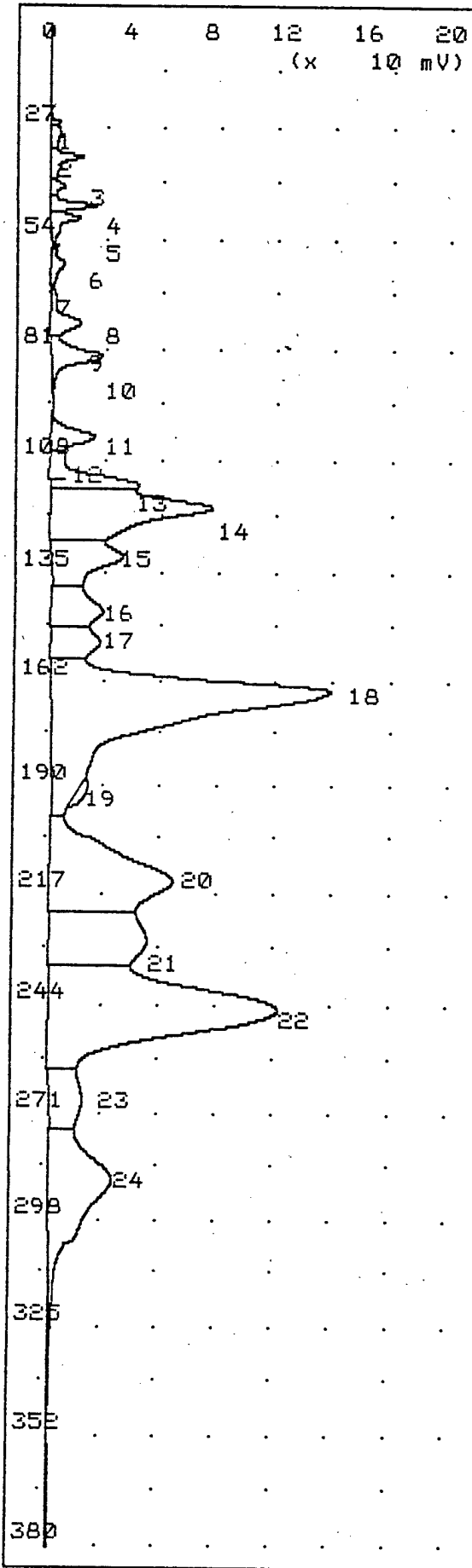
Time Printed: Dec 12, 96 15:49
 Sample Time: Dec 12, 96 15:42
 Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 36 C
 Max Gain 1000
 Analysis Time 380.0 sec

Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	vinyl chloride	10.10 ppb	26.0
2	Unknown	8.719 mVS	32.2
3	Unknown	2.633 mVS	39.7

Notes
 Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 air blank-10

Analysis #27 10S+ GC Function Analysis Report



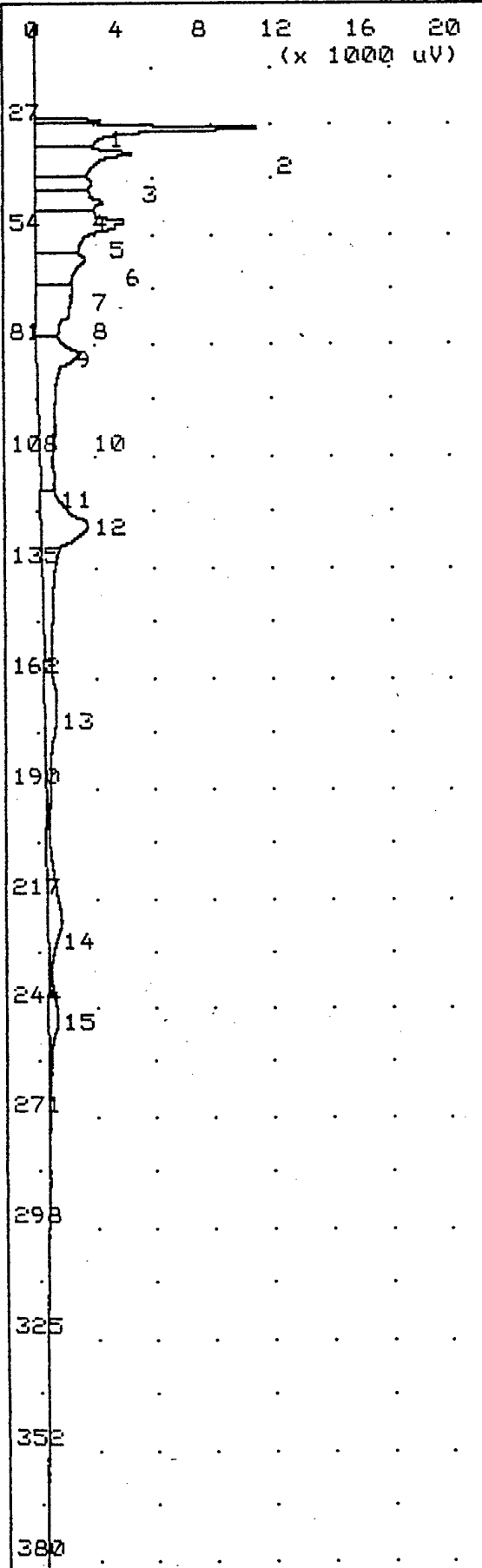
Time Printed: Dec 12,96 16:01
 Sample Time: Dec 12,96 15:54
 Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 36 C
 Max Gain 1000
 Analysis Time 380.0 sec

Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	Unknown	8.555 mVS	24.0
2	vinyl chloride	19.39 ppb	26.8
3	Unknown	48.13 mVS	32.4
4	Unknown	18.42 mVS	39.4
5	Unknown	45.64 mVS	44.1
6	Unknown	50.12 mVS	47.3
7	1,2-dca	0.359 ppb	50.2
8	Unknown	32.01 mVS	58.5
9	benzene	28.80 ppb	73.0
10	tce	55.08 ppb	81.2
11	Unknown	98.47 mVS	100.8
12	Unknown	15.76 mVS	106.4
13	Unknown	181.4 mVS	112.8
14	Unknown	647.6 mVS	118.1
15	toluene	155.6 ppb	129.8
16	Unknown	215.5 mVS	143.4
17	Unknown	170.9 mVS	151.4
18	pce	654.6 ppb	163.6
19	Unknown	24.82 mVS	188.6
20	Unknown	902.6 mVS	212.2
21	Unknown	605.6 mVS	226.6
22	ethylbenzene	1.290 ppm	243.2
23	m,p-xylene	252.8 ppb	265.8
24	o-xylene	1.989 ppm	286.6

Notes
 Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 mw-202b reshot 5.0-7.0 10g

Analysis #28 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 16:27
 Sample Time: Dec 12, 96 16:21
 Method

Slope Up	0.500	mV/Sec
Slope Down	1.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.000	mV
Analysis Delay	0.0	sec
Window Percent	10.0	%
Det Flow	9	ml/min
B/F Flow	9	ml/min
Aux Flow	0	ml/min
Oven Temp	50	C
Amb Temp	36	C
Max Gain	1000	
Analysis Time	380.0	sec

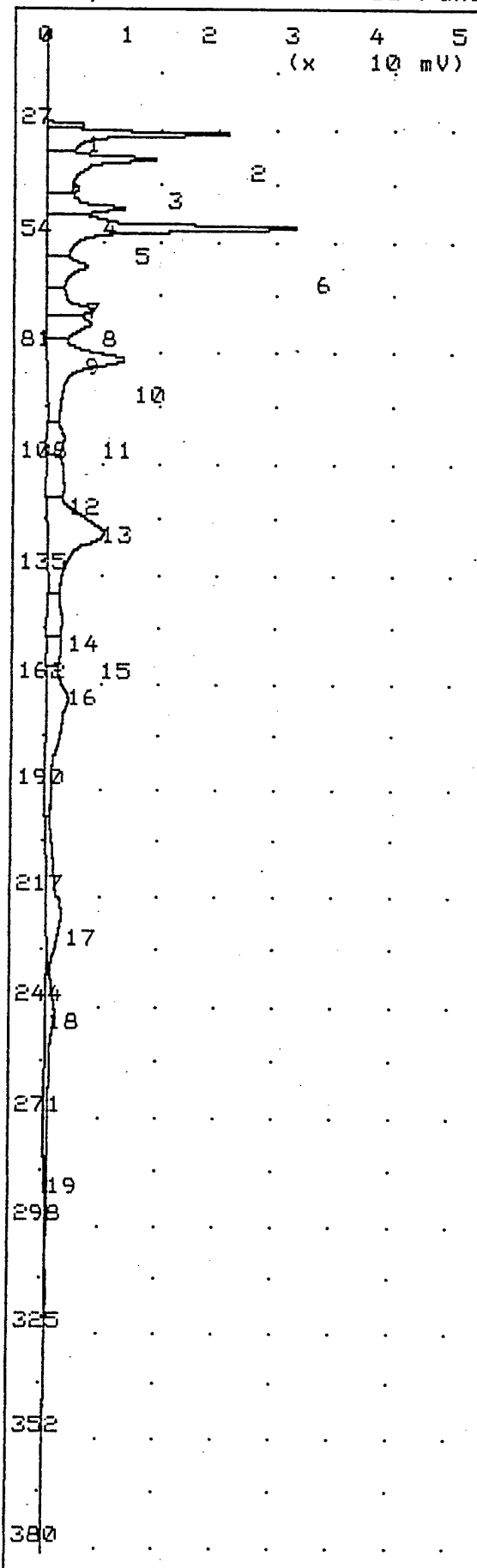
Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	Unknown	4.588 mVS	24.3
2	vinyl chloride	23.00 ppb	26.4
3	Unknown	24.56 mVS	32.3
4	Unknown	9.772 mVS	39.2
5	Unknown	15.08 mVS	44.0
6	1,2-dca	12.98 ppb	49.0
7	Unknown	16.73 mVS	58.2
8	benzene	7.741 ppb	66.1
9	tce	16.09 ppb	81.2
10	Unknown	0.124 mVS	100.8
11	Unknown	0.087 mVS	112.6
12	toluene	19.61 ppb	123.7
13	pce	16.11 ppb	165.2
14	Unknown	15.84 mVS	220.8
15	ethylbenzene	10.03 ppb	245.0

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 mw-202b 10.0-12.0 10g

Analysis #29 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 16:44
 Sample Time: Dec 12, 96 16:37

Method

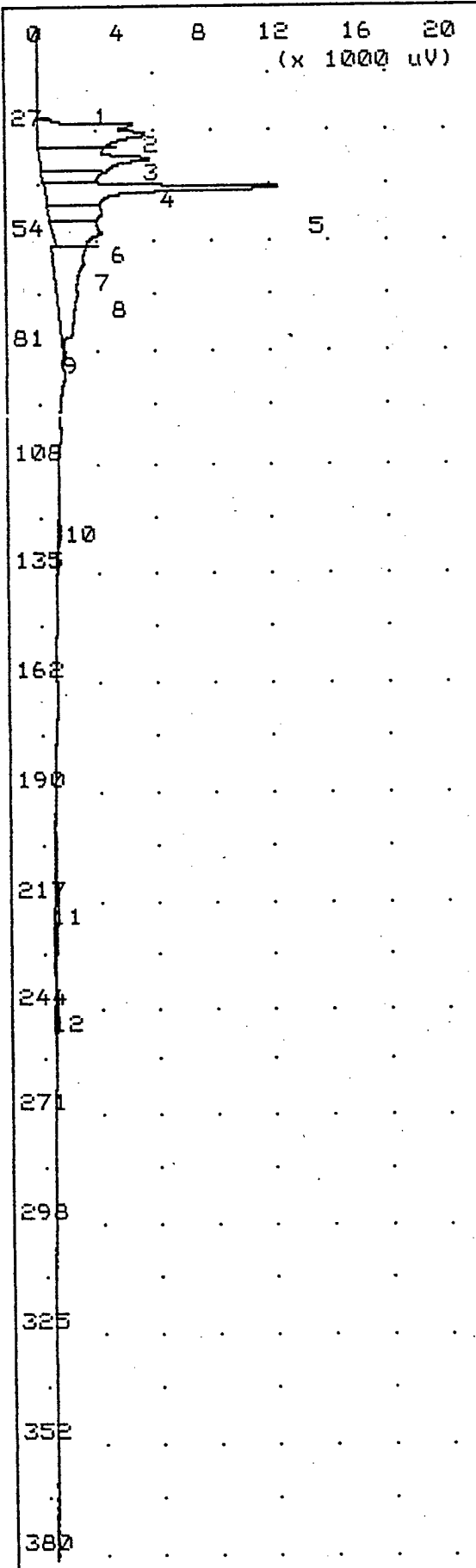
Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	7.165 mVS	24.2
2	vinyl chloride	36.89 ppb	26.3
3	Unknown	57.36 mVS	32.3
4	Unknown	1.012 mVS	39.5
5	Unknown	28.73 mVS	44.2
6	1,2-dca	38.50 ppb	49.0
7	Unknown	27.23 mVS	58.4
8	benzene	9.748 ppb	69.2
9	Unknown	25.46 mVS	72.6
10	tce	31.15 ppb	81.3
11	Unknown	15.21 mVS	100.6
12	Unknown	20.78 mVS	112.5
13	toluene	44.62 ppb	123.4
14	Unknown	19.34 mVS	144.8
15	Unknown	12.02 mVS	151.0
16	pce	49.09 ppb	164.8
17	Unknown	42.32 mVS	219.4
18	ethylbenzene	29.90 ppb	243.4
19	o-xylene	19.66 ppb	284.0

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 mw-202b 15.0-17.0 10g



Time Printed: Dec 12, 96 17:00
 Sample Time: Dec 12, 96 16:53

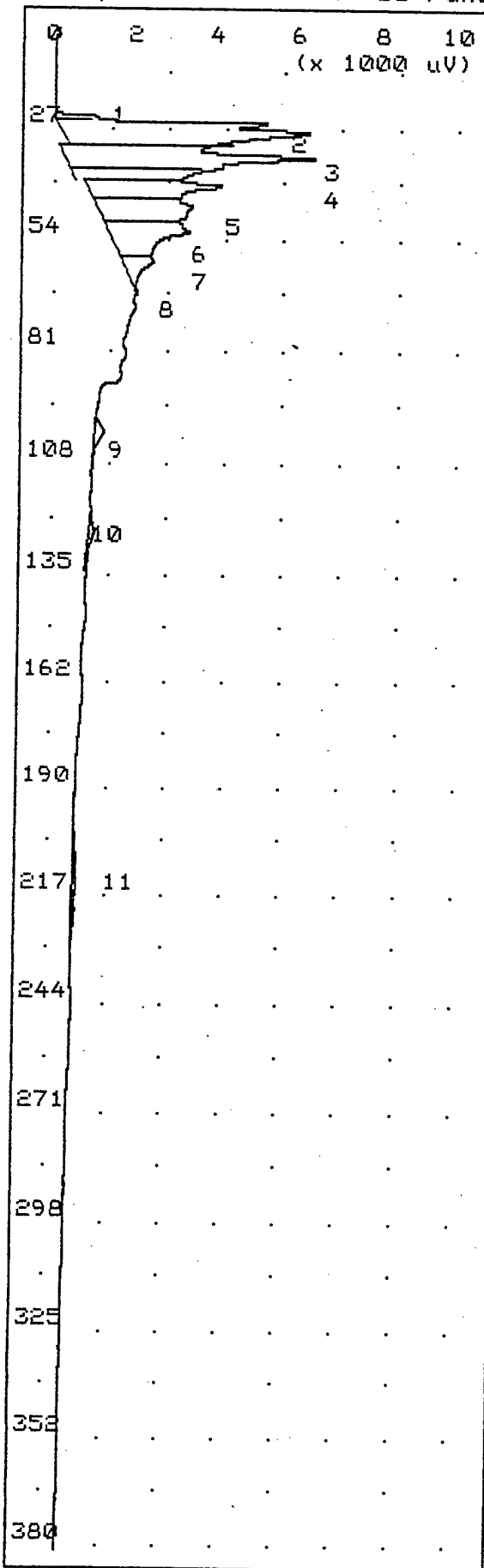
Method
 Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	Unknown	0.836 mVS	22.6
2	Unknown	6.840 mVS	24.1
3	vinyl chloride	17.97 ppb	26.4
4	Unknown	24.93 mVS	32.2
5	Unknown	28.31 mVS	39.4
6	Unknown	11.35 mVS	45.5
7	1,2-dca	1.523 ppb	49.2
8	Unknown	32.26 mVS	50.2
9	tce	0.169 ppb	80.8
10	toluene	0.396 ppb	123.3
11	Unknown	1.997 mVS	217.4
12	ethylbenzene	0.650 ppb	244.0

Notes
 Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 mw-202b 20.0-22.0 10g

Analysis #31 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 17:12
 Sample Time: Dec 12, 96 17:06

Method

Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 35 C
 Max Gain 1000
 Analysis Time 380.0 sec

Peak Report

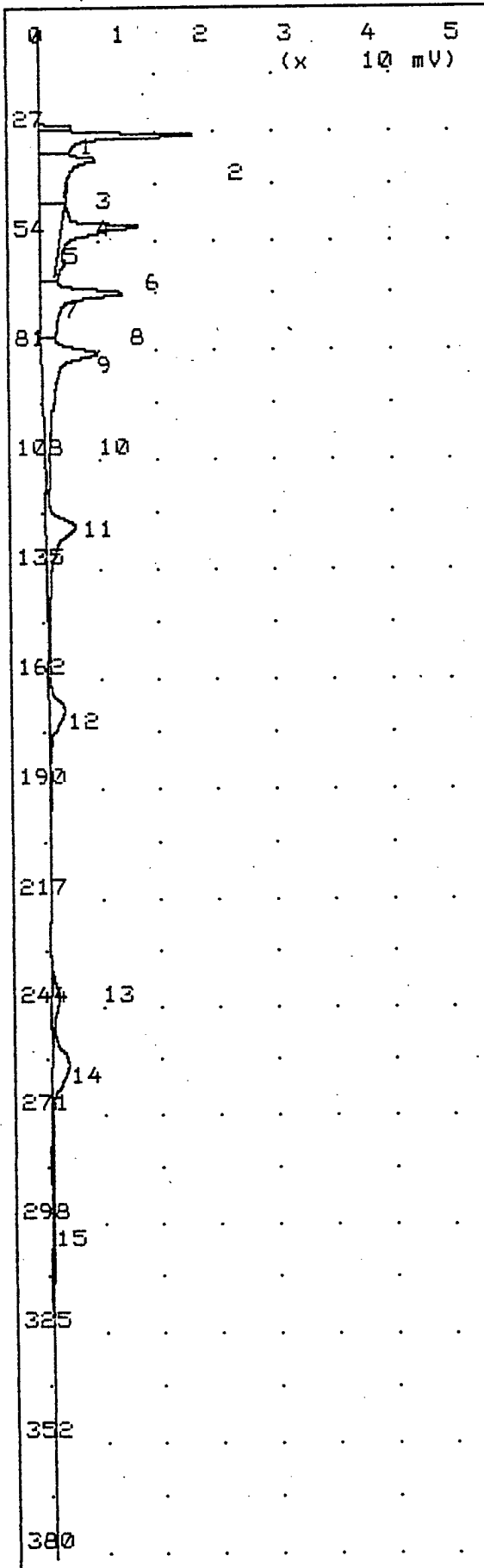
Pk	Compound Name	Area/Conc	R.T.
1	Unknown	1.383 mVS	22.6
2	Unknown	7.611 mVS	24.1
3	vinyl chloride	20.61 ppb	26.1
4	Unknown	27.12 mVS	32.3
5	Unknown	12.05 mVS	39.4
6	Unknown	12.10 mVS	44.8
7	1,2-dca	5.061 ppb	50.4
8	Unknown	3.376 mVS	57.9
9	Unknown	1.061 mVS	98.9
10	toluene	0.347 ppb	122.9
11	Unknown	1.247 mVS	210.4

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 mw-202b 25.0-27.0 10g

Analysis #32

10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 17:25
 Sample Time: Dec 12, 96 17:19

Method

Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 36 C
 Max Gain 1000
 Analysis Time 380.0 sec

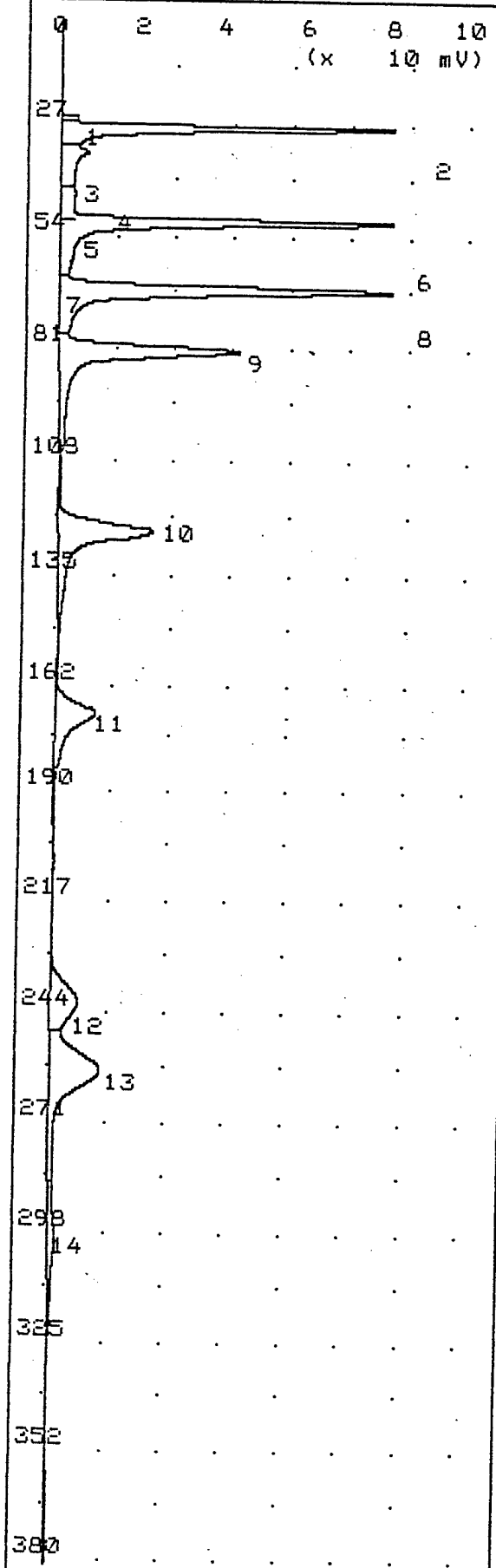
Peak Report

Pk	Compound Name	Area/Conc	R. T.
1	Unknown	6.121 mVS	24.2
2	vinyl chloride	35.06 ppb	26.3
3	Unknown	54.03 mVS	32.2
4	Unknown	0.265 mVS	38.9
5	Unknown	0.061 mVS	42.0
6	1,2-dca	33.55 ppb	48.8
7	Unknown	0.934 mVS	57.8
8	benzene	19.29 ppb	65.6
9	tce	27.69 ppb	80.2
10	Unknown	0.081 mVS	99.2
11	toluene	21.50 ppb	123.3
12	pce	18.49 ppb	168.6
13	ethylbenzene	11.19 ppb	239.6
14	m,p-xylene	27.38 ppb	256.8
15	o-xylene	8.229 ppb	299.7

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 10 ppb standard

Analysis #33 10S+ GC Function Analysis Report



Time Printed: Dec 12, 96 17:37
 Sample Time: Dec 12, 96 17:31

Method

Slope Up 0.500 mV/Sec
 Slope Down 1.500 mV/Sec
 Min Area 0.000 mVSec
 Min Height 0.000 mV
 Analysis Delay 0.0 sec
 Window Percent 10.0 %
 Det Flow 9 ml/min
 B/F Flow 9 ml/min
 Aux Flow 0 ml/min
 Oven Temp 50 C
 Amb Temp 36 C
 Max Gain 1000
 Analysis Time 380.0 sec

Peak Report

PK	Compound Name	Area/Conc	R. T.
1	Unknown	6.122 mVS	24.3
2	vinyl chloride	108.0 ppb	26.4
3	Unknown	45.73 mVS	32.3
4	Unknown	0.270 mVS	39.3
5	Unknown	13.00 mVS	42.3
6	1,2-dca	91.12 ppb	49.0
7	Unknown	0.588 mVS	57.6
8	benzene	93.86 ppb	65.6
9	tce	88.59 ppb	80.4
10	toluene	81.54 ppb	123.3
11	pce	81.49 ppb	168.6
12	ethylbenzene	82.27 ppb	240.2
13	m, p-xylene	168.2 ppb	256.5
14	o-xylene	138.1 ppb	297.8

Notes

Illinois ANGB
 Capital Airport
 Joe Byrd, Jr.
 OpTech
 100 ppb standard

**APPENDIX F
SURVEY DATA**

The logo for Boyer Engineering, Ltd. features the word "BOYER" in a large, serif, all-caps font. The letters are partially overlaid by a series of thin, vertical and diagonal lines that intersect to form a stylized, abstract shape resembling a compass or a surveying instrument. Below the word "BOYER" is a horizontal line, and underneath that line, the words "ENGINEERING, LTD." are written in a smaller, sans-serif, all-caps font.

BOYER
ENGINEERING, LTD.

April 11, 1997

Ms. Kathryn Pritchett
OPERATIONAL TECHNOLOGIES CORPORATION
4100 NW Loop 410, Suite 230
San Antonio, Texas 78229

Re: IRP Site No. 1
POL Storage Area
Illinois National Guard
183rd Fighter Wing
Capital Airport
Springfield, Illinois

Dear Kathryn:

Enclosed herewith are coordinates and elevations for the monitor wells and piezometer wells located in IRP Site No. 1.

If you should have any questions or require additional information please call our office.

Sincerely,

BOYER ENGINEERING, LTD.

A handwritten signature in cursive script that reads "Gary Cartwright". The signature is written in dark ink and is positioned above the typed name and title of the signatory.

Gary Cartwright
Chief of Surveys

GC\me\j239

February 14, 1997

Ms. Kathryn Prichett
OPERATIONAL TECHNOLOGIES CORPORATION
4100 NW Loop 410, Suite 230
San Antonio, Texas 78229

Re: Field Survey
Illinois Air National Guard
183rd Fighter Wing
Capital Municipal Airport
Springfield, Illinois

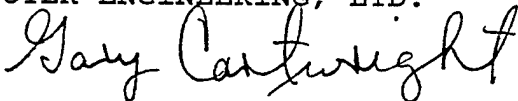
Dear Ms. Prichett:

Enclosed herewith are the revised paper print and data disk of the survey of IRP Site No. 2 as requested.

If you should have any questions or require additional information, please call our office.

Sincerely,

BOYER ENGINEERING, LTD.



Gary Cartwright

J239

IRP SITE NO. 1

POL STORAGE

AREA

DESCRIPTION	NORTHING	EASTING	ELEVATIONS	NOTES	GROUND ELEVATIONS
MW 101	1158670.290	639705.406	582.769	TOP OF CASING	583.298
MW 102	1158933.286	639826.011	583.525	TOP OF CASING	584.015
MW 103	1158742.593	639846.121	584.043	TOP OF CASING	584.200
MW 104	1158766.280	639725.317	583.150	TOP OF CASING	583.456
PZ 101	1158940.410	639676.876	583.472	TOP OF WELL CASING	583.646
PZ 102	1158679.730	639790.220	584.350	TOP OF WELL CASING	584.510
PZ 103	1158827.630	639944.950	583.504	TOP OF WELL CASING	583.681

CAPITAL AIRPORT ELEVATIONS

DESCRIPTION	NORTHING	EASTING	ELEVATION	NOTES
2-SD01	1154621.226	637684.207	576.622	SEDIMENT SAMPLE
2-SD02	1154404.987	638076.431	566.444	SEDIMENT SAMPLE
2-SW01	1154621.197	637684.185	577.221	SURFACE WATER
2-SW02	1154404.725	638076.176	567.333	SURFACE WATER
MW 201	1154627.940	637838.440	586.771	TOP OF WELL CASING
MW 201 B	1154623.162	637846.833	587.211	TOP OF WELL CASING
MW 202	1154675.387	637685.470	583.115	TOP OF WELL CASING
MW 202 B	1154672.119	637696.097	583.651	TOP OF WELL CASING
MW 203	1154895.706	637742.707	588.071	TOP OF WELL CASING
PZ 201	1154869.498	637600.610	586.342	TOP OF CASING
PZ 202	1154812.148	637766.671	585.002	TOP OF CASING
PZ 203	1154691.529	637863.181	585.142	TOP OF CASING
PZ 204	1154149.810	637810.618	586.201	TOP OF CASING
PZ 205	1154033.162	637609.826	584.431	TOP OF CASING
PZ 206	1153812.088	637825.858	583.503	TOP OF CASING
100	1154877.426	637668.974	587.297	IRON PIN IN SE CORNER OF APRON
101	1154997.238	637415.749	586.032	IRON PIN IN SW CORNER OF APRON

**APPENDIX G
GEOTECHNICAL DATA**



January 7, 1997

Operational Technologies Corporation
4100 N.W. Loop 410
Suite 230
San Antonio, Texas 78229-4253

Attn: Ms. Kathryn Pritchett

Re: Results of Geotechnical Laboratory Testing
Illinois Air National Guard
183rd Fighter Wing
Capital Airport
Springfield, Illinois

Dear Kathryn:

Enclosed are the results of the laboratory testing performed for the subject project. This completes our services for the project. The organic carbon content and pH test results are combined on one sheet. The moisture content and density test results are included on the cover sheets for the hydraulic conductivity tests. Please contact me if you have any questions regarding this information, or if additional information is required.

Very truly yours,

HANSON ENGINEERS INCORPORATED

Danny L. Kerns, P.E.
Partner

Enclosures

1525 South Sixth Street • Springfield, Illinois 62703-2886 • 217/788-2450 • Fax: 217/788-2503

Corporate Office: Springfield, Illinois
Peoria, Illinois • Rockford, Illinois • La Grange, Illinois • Kansas City, Missouri
Herndon, Virginia • Pleasanton, California • Atlanta, Georgia





ORGANIC CONTENT & pH

Project: CAPITOL MUNICIPAL AIRPORT Job Number: 96S3095

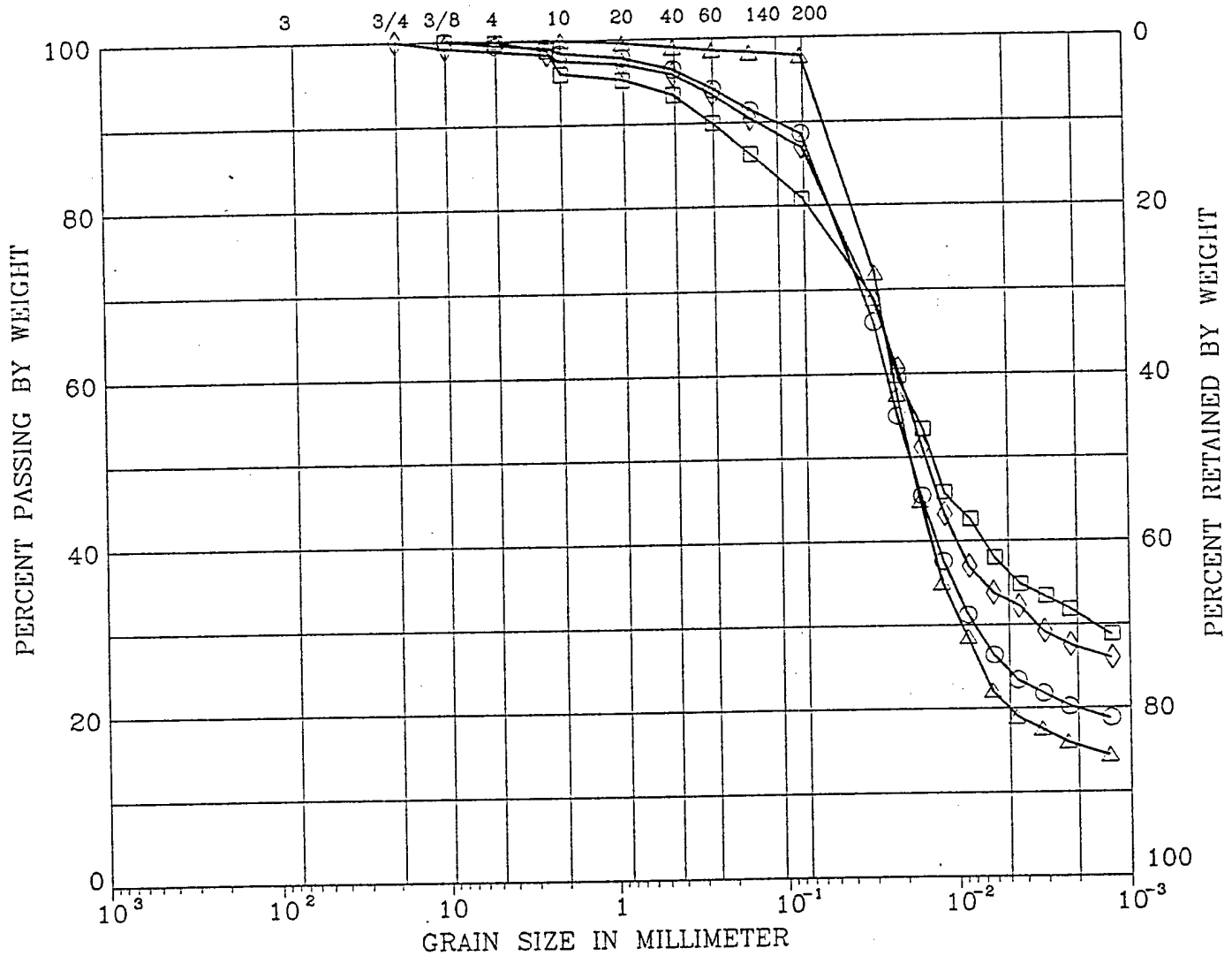
Client: OPERATIONAL TECHNOLOGIES COR Date: 9/20/96

Checked by: _____ Date: _____

Boring/ Sample Number	Oven Dry Weight of Soil+Tare (grams)	Fired Weight of Soil+Tare (grams)	Weight of Tare (grams)	Organic Content (%)	Furnace Temperature (C)	pH
MW201B-1 @ 10.5-12.	140.02	139.34	81.57	1.16	440	7.32
MW201B-2 @15.5-17.0	128.96	128.18	79.41	1.57	440	6.75
MW202B-1 @ 5.5 - 7.0	123.22	122.55	66.21	1.18	440	7.22
MW202B-2 @10.5-12.0	164.87	164.08	108.21	1.39	440	7.50

UNIFIED SOIL CLASSIFICATION

<i>COBBLES</i>	<i>GRAVEL</i>		<i>SAND</i>			<i>SILT OR CLAY</i>
	COARSE	FINE	COARSE	MEDIUM	FINE	
U.S. SIEVE SIZE IN INCHES			U.S. STANDARD SIEVE No.			HYDROMETER



SYMBOL	BORING	DEPTH (ft)	LL (%)	PI (%)	DESCRIPTION
○	MW201B-1	10.5-12			BRN.VF.SANDY SILTY CLAY / OX. SPOTS.
□	MW201B-2	15.5-17			YEL.BRN.& BRN.VF.SANDY SILTY CLAY / OX.SPOTS.
△	MW202B-1	5.5-7.0			YEL.BRN.& GRAY VF. SANDY SILT (TR.CLAY) / OX. SPOT
◇	MW202B-2	10.5-12			YEL.BRN.& GRAY VF. SANDY SILTY CLAY / OX. SPOTS.

Remark :

96S3095

CAPITOL MUNICIPAL AIRPORT

Hanson
Engineers Inc.

GRAIN SIZE DISTRIBUTION

G E O S O F T [R/GRAIN] HYDROMETER ANALYSIS (ASTM 151-H) OUTPUT SCREEN

Curve No. 1	Boring MW201B-1	Depth (ft)	10.5-12
Specific Gravity of Soil	2.70	Temperature (Centigrade)	Composite Correction
Weight of Airdry Soil (g)	50.00	18.0	1.0041
Wet Weight of Soil + Tare (g)	64.74	28.0	1.0028
Dry Weight of Soil + Tare (g)	64.03	0.0	0.0000
Weight of Tare (g)	15.47		

Time (min)	Temp. (Cent.)	Reading	Grain Size (mm)	% Passing By Wt.
2.0	21.3	1.0245	0.0295	66.1
4.0	21.3	1.0210	0.0218	55.0
8.0	21.3	1.0180	0.0160	45.5
15.0	21.4	1.0155	0.0120	37.6
30.0	21.4	1.0135	0.0087	31.2
60.0	21.4	1.0120	0.0062	26.5
120.0	21.6	1.0110	0.0044	23.4
240.0	21.7	1.0105	0.0031	21.8
480.0	21.8	1.0100	0.0022	20.3
1440.0	21.8	1.0095	0.0013	18.7
0.0	0.0	0.0000	0.0000	0.0
0.0	0.0	0.0000	0.0000	0.0

Press [ESC]
to
continue ...
96s3095

G E O S O F T [R/GRAIN] SIEVE ANALYSIS (ASTM D-422-63) OUTPUT SCREEN

Curve No. 1 Boring MW201B-1 Depth (ft) 10.5-12

Total Weight of Dry Soil For Coarse Sieve 271.120
 Total Weight of Dry Soil For Fine Sieve 49.280
 Sieve No. For Coarse/Fine Sieve Split 10

U.S. Sieve Size/No.	Cumul. Wt. Retained (gm)	% Passing By Wt.	U.S. Sieve Size/No.	Cumul. Wt. Retained (gm)	% Passing By Wt.
3.0 (inch)	0.000	0.0	# 16 (1.18 mm)	0.000	0.0
2.0 (inch)	0.000	0.0	# 20 (0.85 mm)	0.310	97.8
1.5 (inch)	0.000	0.0	# 30 (0.60 mm)	0.000	0.0
1.0 (inch)	0.000	0.0	# 40 (0.425mm)	1.020	96.4
3/4 (inch)	0.000	0.0	# 50 (0.300mm)	0.000	0.0
3/8 (inch)	0.000	0.0	# 60 (0.250mm)	2.210	94.0
# 4 (4.75 mm)	1.500	99.4	# 100 (0.150mm)	3.490	91.5
# 8 (2.38 mm)	2.390	99.1	# 140 (0.106mm)	0.000	0.0
# 10 (2.00 mm)	4.170	98.5	# 200 (0.075mm)	4.970	88.5

Press [ESC] to continue ... 96s3095

G E O S O F T [R/GRAIN]

SOIL CLASSIFICATION: ASTM D-2487-83

Curve No. 1 Boring MW201B-1 Depth (ft) 10.5-12

Coeff. of Uniformity (Cu) =	21.8	Coeff. of Curvature (Cc) =	2
% Passing No. 4 Sieve (P4) =	99.4	% Passing No.200 Sieve (P200) =	88
Liquid Limit (LL) =	0.00	Plasticity Index (PI) =	0.00

Soil classifications compatible with the input data :

- INORG. SILTS AND CLAYS (ML-CL)
- ORGANIC SILTS (OL or OH)
- INORGANIC SILTS (ML or MH)
- INORGANIC CLAYS (CL or CH)

Enter the desired soil classification : (max. 50 characters)

BRN.VF.SANDY SILTY CLAY / OX. SPOTS.

Press [ESC] to continue ...

96s3095

G E O S O F T [R/GRAIN] HYDROMETER ANALYSIS (ASTM 151-H) OUTPUT SCREEN

Curve No. 2	Boring MW201B-2	Depth (ft)	15.5-17
Specific Gravity of Soil	2.70	Temperature	Composite
Weight of Airdry Soil (g)	50.00	(Centigrade)	Correction
Wet Weight of Soil + Tare (g)	49.88	18.0	1.0032
Dry Weight of Soil + Tare (g)	49.19	28.0	1.0021
Weight of Tare (g)	15.38	0.0	0.0000

Time (min)	Temp. (Cent.)	Reading	Grain Size (mm)	% Passing By Wt.
2.0	21.3	1.0250	0.0293	69.1
4.0	21.3	1.0220	0.0216	59.7
8.0	21.3	1.0200	0.0156	53.5
15.0	21.4	1.0175	0.0117	45.7
30.0	21.4	1.0165	0.0084	42.6
60.0	21.4	1.0150	0.0060	37.9
120.0	21.6	1.0140	0.0043	34.9
240.0	21.7	1.0135	0.0031	33.4
480.0	21.8	1.0130	0.0022	31.8
1440.0	21.8	1.0120	0.0013	28.7
0.0	0.0	0.0000	0.0000	0.0
0.0	0.0	0.0000	0.0000	0.0

Press [ESC]
to
continue ...
96s3095

G E O S O F T [R/GRAIN] SIEVE ANALYSIS (ASTM D-422-63) OUTPUT SCREEN

Curve No. 2 Boring MW201B-2 Depth (ft) 15.5-17

Total Weight of Dry Soil For Coarse Sieve 283.810
 Total Weight of Dry Soil For Fine Sieve 49.000
 Sieve No. For Coarse/Fine Sieve Split 10

U.S. Sieve Size/No.	Cumul. Wt. Retained (gm)	% Passing By Wt.	U.S. Sieve Size/No.	Cumul. Wt. Retained (gm)	% Passing By Wt.
3.0 (inch)	0.000	0.0	# 16 (1.18 mm)	0.000	0.0
2.0 (inch)	0.000	0.0	# 20 (0.85 mm)	0.410	95.3
1.5 (inch)	0.000	0.0	# 30 (0.60 mm)	0.000	0.0
1.0 (inch)	0.000	0.0	# 40 (0.425mm)	1.360	93.4
3/4 (inch)	0.000	0.0	# 50 (0.300mm)	0.000	0.0
3/8 (inch)	0.000	0.0	# 60 (0.250mm)	3.140	89.9
# 4 (4.75 mm)	0.290	99.9	# 100 (0.150mm)	5.090	86.1
# 8 (2.38 mm)	3.540	98.8	# 140 (0.106mm)	0.000	0.0
# 10 (2.00 mm)	11.110	96.1	# 200 (0.075mm)	7.780	80.8

Press [ESC] to continue ...

96s3095

G E O S O F T [R/GRAIN]

SOIL CLASSIFICATION: ASTM D-2487-83

Curve No. 2

Boring MW201B-2

Depth (ft) 15.5-17

Coeff. of Uniformity (Cu) =	20.1	Coeff. of Curvature (Cc) =	0.1
% Passing No. 4 Sieve (P4) =	99.9	% Passing No.200 Sieve (P200) =	80.8
Liquid Limit (LL) =	0.00	Plasticity Index (PI) =	0.0

Soil classifications compatible with the input data :

INORG. SILTS AND CLAYS (ML-CL)
ORGANIC SILTS (OL or OH)
INORGANIC SILTS (ML or MH)
INORGANIC CLAYS (CL or CH)

Enter the desired soil classification : (max. 50 characters)

YEL.BRN.& BRN.VF.SANDY SILTY CLAY / OX.SPOTS.

Press [ESC] to continue ...

96s3095

G E O S O F T [R/GRAIN] HYDROMETER ANALYSIS (ASTM 151-H) OUTPUT SCREEN

Curve No. 3	Boring MW202B-1	Depth (ft)	5.5-7.0
Specific Gravity of Soil	2.70	Temperature (Centigrade)	Composite Correction
Weight of Airdry Soil (g)	50.00	18.0	1.0037
Wet Weight of Soil + Tare (g)	63.88	28.0	1.0020
Dry Weight of Soil + Tare (g)	63.11	0.0	0.0000
Weight of Tare (g)	12.67		

Time (min)	Temp. (Cent.)	Reading	Grain Size (mm)	% Passing By Wt.
2.0	21.3	1.0255	0.0291	72.1
4.0	21.3	1.0210	0.0218	57.6
8.0	21.4	1.0170	0.0162	44.7
15.0	21.4	1.0140	0.0122	35.1
30.0	21.4	1.0120	0.0088	28.6
60.0	21.4	1.0100	0.0064	22.2
120.0	21.6	1.0090	0.0045	19.1
240.0	21.7	1.0085	0.0032	17.5
480.0	21.8	1.0080	0.0023	15.9
1440.0	21.8	1.0075	0.0013	14.3
0.0	0.0	0.0000	0.0000	0.0
0.0	0.0	0.0000	0.0000	0.0

Press [ESC]
to
continue ...
96s3095

G E O S O F T [R/GRAIN] SIEVE ANALYSIS (ASTM D-422-63) OUTPUT SCREEN

Curve No. 3 Boring MW202B-1 Depth (ft) 5.5-7.0

Total Weight of Dry Soil For Coarse Sieve 227.380
 Total Weight of Dry Soil For Fine Sieve 49.250
 Sieve No. For Coarse/Fine Sieve Split 10

U.S. Sieve Size/No.	Cumul. Wt. Retained (gm)	% Passing By Wt.	U.S. Sieve Size/No.	Cumul. Wt. Retained (gm)	% Passing By Wt.
3.0 (inch)	0.000	0.0	# 16 (1.18 mm)	0.000	0.0
2.0 (inch)	0.000	0.0	# 20 (0.85 mm)	0.200	99.5
1.5 (inch)	0.000	0.0	# 30 (0.60 mm)	0.000	0.0
1.0 (inch)	0.000	0.0	# 40 (0.425mm)	0.460	99.0
3/4 (inch)	0.000	0.0	# 50 (0.300mm)	0.000	0.0
3/8 (inch)	0.000	0.0	# 60 (0.250mm)	0.680	98.6
# 4 (4.75 mm)	0.050	100.0	# 100 (0.150mm)	0.830	98.3
# 8 (2.38 mm)	0.000	0.0	# 140 (0.106mm)	0.000	0.0
# 10 (2.00 mm)	0.120	99.9	# 200 (0.075mm)	1.040	97.8

Press [ESC] to continue ...

96s3095

G E O S O F T [R/GRAIN]

SOIL CLASSIFICATION: ASTM D-2487-83

Curve No. 3

Boring MW202B-1

Depth (ft) 5.5-7.0

Coeff. of Uniformity (Cu) =	18.8	Coeff. of Curvature (Cc) =	3.2
% Passing No. 4 Sieve (P4) =	100.0	% Passing No.200 Sieve (P200) =	97.8
Liquid Limit (LL) =	0.00	Plasticity Index (PI) =	0.00

Soil classifications compatible with the input data :

INORG. SILTS AND CLAYS (ML-CL)
ORGANIC SILTS (OL or OH)
INORGANIC SILTS (ML or MH)
INORGANIC CLAYS (CL or CH)

Enter the desired soil classification : (max. 50 characters)

YEL.BRN.& GRAY VF. SANDY SILT (TR.CLAY) / OX. SPOT

Press [ESC] to continue ...

96s3095

G E O S O F T [R/GRAIN] HYDROMETER ANALYSIS (ASTM 151-H) OUTPUT SCREEN

Curve No. 4	Boring	MW202B-2	Depth (ft)	10.5-12
Specific Gravity of Soil		2.70	Temperature	Composite
Weight of Airdry Soil (g)		50.00	(Centigrade)	Correction
Wet Weight of Soil + Tare (g)		61.33	18.0	1.0038
Dry Weight of Soil + Tare (g)		60.34	28.0	1.0025
Weight of Tare (g)		16.07	0.0	0.0000

Time (min)	Temp. (Cent.)	Reading	Grain Size (mm)	% Passing	By Wt.
2.0	21.3	1.0250	0.0293	68.6	
4.0	21.3	1.0225	0.0214	60.6	
8.0	21.4	1.0195	0.0157	51.2	
15.0	21.4	1.0170	0.0118	43.2	
30.0	21.4	1.0150	0.0085	36.9	
60.0	21.4	1.0140	0.0061	33.7	
120.0	21.6	1.0135	0.0043	32.2	
240.0	21.7	1.0125	0.0031	29.1	
480.0	21.8	1.0120	0.0022	27.6	
1440.0	21.8	1.0115	0.0013	26.0	
0.0	0.0	0.0000	0.0000	0.0	
0.0	0.0	0.0000	0.0000	0.0	

Press [ESC]
to
continue ...
96s3095

G E O S O F T [R/GRAIN] SIEVE ANALYSIS (ASTM D-422-63) OUTPUT SCREEN

Curve No. 4 Boring MW202B-2 Depth (ft) 10.5-12

Total Weight of Dry Soil For Coarse Sieve 278.890
 Total Weight of Dry Soil For Fine Sieve 49.230
 Sieve No. For Coarse/Fine Sieve Split 10

U.S. Sieve Size/No.	Cumul. Wt. Retained (gm)	% Passing By Wt.	U.S. Sieve Size/No.	Cumul. Wt. Retained (gm)	% Passing By Wt.
3.0 (inch)	0.000	0.0	# 16 (1.18 mm)	0.000	0.0
2.0 (inch)	0.000	0.0	# 20 (0.85 mm)	0.240	97.1
1.5 (inch)	0.000	0.0	# 30 (0.60 mm)	0.000	0.0
1.0 (inch)	0.000	0.0	# 40 (0.425mm)	0.890	95.8
3/4 (inch)	0.000	0.0	# 50 (0.300mm)	0.000	0.0
3/8 (inch)	2.340	99.2	# 60 (0.250mm)	2.130	93.3
# 4 (4.75 mm)	0.000	0.0	# 100 (0.150mm)	3.600	90.4
# 8 (2.38 mm)	4.700	98.3	# 140 (0.106mm)	0.000	0.0
# 10 (2.00 mm)	6.790	97.6	# 200 (0.075mm)	5.370	86.9

Press [ESC] to continue ... 96s3095

G E O S O F T [R/GRAIN]

SOIL CLASSIFICATION: ASTM D-2487-83

Curve No. 4

Boring MW202B-2

Depth (ft) 10.5-12

Coeff. of Uniformity (Cu) =	19.1	Coeff. of Curvature (Cc) =	0.5
% Passing No. 4 Sieve (P4) =	98.6	% Passing No.200 Sieve (P200) =	86.9
Liquid Limit (LL) =	0.00	Plasticity Index (PI) =	0.00

Soil classifications compatible with the input data :

INORG. SILTS AND CLAYS (ML-CL)
ORGANIC SILTS (OL or OH)
INORGANIC SILTS (ML or MH)
INORGANIC CLAYS (CL or CH)

Enter the desired soil classification : (max. 50 characters)

YEL.BRN.& GRAY VF. SANDY SILTY CLAY / OX. SPOTS.

Press [ESC] to continue ...

96s3095



CONSTANT HEAD PERMEABILITY TEST

JOB NUMBER: 96S3095 TEST DATE: 12/19/96
 CLIENT: OPERATIONAL TECHNOLOGIES CORP. BORING #: MW201B
 JOB DESCRIPTION: CAPITOL MUNICIPAL AIRPORT SPFLD., I SAMPLE #: 1
 SAMPLE DESCRIPTION: BRN. VF. SANDY CLAYEY SILT / OX. SPO DEPTH (FT): 10.5-12.0
 FILE NAME: 2011BC

WATER CONTENT OF TRIMMINGS

SPECIMEN WEIGHT (G) <u>153.38</u>		BEFOR	AFTER
SPECIMEN HEIGHT (IN) <u>3.092</u>		TEST	TEST
DIAMETER (IN) <u>1.381</u>	TARE + WET SOIL (G) <u>87.34</u>		
AREA (SQ IN) <u>1.498</u>	TARE + DRY SOIL (G) <u>73.94</u>		
VOLUME (CU IN) <u>4.631</u>	TARE (G) <u>15.52</u>		
WET DENSITY (PCF) <u>126.16</u>	WATER (G) <u>13.40</u>	<u>0.00</u>	
DRY DENSITY (PCF) <u>102.62</u>	DRY SOIL (G) <u>58.42</u>	<u>0.00</u>	
WT. DRY SOIL (G) <u>124.76</u>	WATER CONTENT (%) <u>22.94</u>	<u>#DIV/0!</u>	
VOLUME DRY SOIL (CU IN) <u>2.820</u>			
SP.GR. ASSUMED <u>2.70</u>			
POROSITY (%) <u>39.12</u>	STD. MAX. DEN.(LBS/CU.FT.) _____		
HEIGHT OF HEAD (PSI) <u>3.30</u>	OPTIMUM MOISTURE (%) _____		
HYDRAULIC GRADIANT <u>29.5</u>	% COMPACTION <u>#DIV/0!</u>		
1/4 PORE VOLUME <u>7.42</u>	PRESSURE HEAD (CM H2O) <u>189.86</u>		
	PANEL NUMBER _____		
TEST METHOD USED: <u>ASTM D5084</u>	PERMEANT USED: <u>TAP WATER</u>		



CONSTANT HEAD PERMEABILITY TEST

JOB NUMBER: 96S3095 TEST DATE: 12/30/96
 CLIENT: OPERATIONAL TECHNOLOGIES CORPORATION BORING #: MW201B
 JOB DESCRIPTION: CAPITOL MUNICIPAL AIRPORT SAMPLE #: 1
DEPTH (FT): 10.5-12.0

 SPECIMEN HEIGHT (IN) 3.092 HEIGHT OF HEAD (PSI) 3.30
 DIAMETER (IN) 1.381 PRESSURE HEAD (CM H₂O) 232.05
 AREA (SQ IN) 1.498 PANEL NUMBER 5

START DATE	START TIME	STOP DATE	STOP TIME	INCREMENT. FLOW (CC)	TOTAL FLOW (CC)	INCREMENT. TIME (MIN)	TOTAL TIME (MIN)	INCREMENTAL PERMEABILITY (CM/SEC)	AVERAGE PERMEABILITY (CM/SEC)
12/19/96	8:34	12/20/96	7:41	4.40	4.4000	1387.00	1387.00	1.85E-07	1.85E-07
12/20/96	7:41	12/23/96	6:56	14.00	18.4000	4275.00	5662.00	1.91E-07	1.88E-07
12/23/96	16:08	12/24/96	7:30	9.70	28.1000	922.00	6584.00	6.14E-07	3.30E-07
12/24/96	7:30	12/24/96	15:56	2.20	30.3000	506.00	7090.00	2.54E-07	3.11E-07
12/24/96	15:57	12/26/96	7:58	8.88	39.1800	2401.00	9491.00	2.16E-07	3.19E-07
12/26/96	7:58	12/27/96	8:42	5.92	45.1000	1484.00	10975.00	2.33E-07	3.29E-07
12/27/96	8:42	12/30/96	7:13	40.70	85.8000	4231.00	15206.00	5.62E-07	3.16E-07
12/30/96	7:18	12/31/96	7:43	4.07	89.8700	1465.00	16671.00	1.62E-07	2.93E-07
12/31/96	7:43	1/2/97	6:55	4.44	94.3100	2832.00	19503.00	9.15E-08	2.62E-07
1/2/97	6:55	1/3/97	7:55	2.59	96.9000	1500.00	21003.00	1.01E-07	2.29E-07
1/3/97	7:55	1/6/97	7:18	5.92	102.8200	4283.00	25286.00	8.07E-08	1.09E-07



CONSTANT HEAD PERMEABILITY TEST

JOB NUMBER: 96S3095 TEST DATE: 12/19/96
 CLIENT: OPERATIONAL TECHNOLOGIES CORP. BORING #: MW201B
 JOB DESCRIPTION: CAPITOL MUNICIPAL AIRPORT SPFLD., I SAMPLE #: 2
 SAMPLE DESCRIPTION: YEL. BRN. & GRAY VF. SANDY CLAYEY DEPTH (FT): 15.5-17.0
SILT / OX. SPOTS. FILE NAME: 2012BC

WATER CONTENT OF TRIMMINGS

SPECIMEN WEIGHT (G) <u>145.26</u>		BEFOR	AFTER
SPECIMEN HEIGHT (IN) <u>2.963</u>		TEST	TEST
DIAMETER (IN) <u>1.380</u>	TARE + WET SOIL (G) <u>78.86</u>		
AREA (SQ IN) <u>1.496</u>	TARE + DRY SOIL (G) <u>65.60</u>		
VOLUME (CU IN) <u>4.432</u>	TARE (G) <u>16.07</u>		
WET DENSITY (PCF) <u>124.86</u>	WATER (G) <u>13.26</u>	<u>0.00</u>	
DRY DENSITY (PCF) <u>98.50</u>	DRY SOIL (G) <u>49.53</u>	<u>0.00</u>	
WT. DRY SOIL (G) <u>114.58</u>	WATER CONTENT (%) <u>26.77</u>	<u>#DIV/0!</u>	
VOLUME DRY SOIL (CU IN) <u>2.590</u>			
SP.GR. ASSUMED <u>2.70</u>			
POROSITY (%) <u>41.56</u>	STD. MAX. DEN.(LBS/CU.FT.) _____		
HEIGHT OF HEAD (PSI) <u>3.20</u>	OPTIMUM MOISTURE (%) _____		
HYDRAULIC GRADIANT <u>29.9</u>	% COMPACTION <u>#DIV/0!</u>		
1/4 PORE VOLUME <u>7.55</u>	PRESSURE HEAD (CM H2O) <u>189.86</u>		
	PANEL NUMBER <u>6</u>		
TEST METHOD USED: <u>ASTM D5084</u>	PERMEANT USED: <u>TAP WATER</u>		



CONSTANT HEAD PERMEABILITY TEST

JOB NUMBER: 96S3095

CLIENT: OPERATIONAL TECHNOLOGIES CORPORATION

JOB DESCRIPTION: CAPITOL MUNICIPAL AIRPORT

TEST DATE: 12/30/96
 BORING #: MW201B
 SAMPLE #: 2
 DEPTH (FT): 15.5-17.0

SPECIMEN HEIGHT (IN) 2.963
 DIAMETER (IN) 1.380
 AREA (SQ IN) 1.496

HEIGHT OF HEAD (PSI) 3.20
 PRESSURE HEAD (CM H₂O) 225.02
 PANEL NUMBER 6

START DATE	START TIME	STOP DATE	STOP TIME	INCREMENT: FLOW (CC)	TOTAL FLOW (CC)	INCREMENT: TIME (MIN)	TOTAL TIME (MIN)	INCREMENTAL PERMEABILITY (CM/SEC)	AVERAGE PERMEABILITY (CM/SEC)
12/19/96	8:38	12/20/96	7:41	0.50	0.5000	1383.00	1383.00	2.09E-08	2.09E-08
12/20/96	7:41	12/23/96	6:58	0.90	1.4000	4277.00	5660.00	1.22E-08	1.65E-08
12/23/96	6:58	12/24/96	7:30	0.30	1.7000	1472.00	7132.00	1.18E-08	1.49E-08
12/24/96	7:30	12/26/96	7:58	0.50	2.2000	2908.00	10040.00	9.93E-09	1.37E-08
12/26/96	7:58	12/27/96	8:58	0.20	2.4000	1500.00	11540.00	7.70E-09	1.04E-08
12/27/96	8:58	12/30/96	7:16	1.00	3.4000	4218.00	15758.00	1.37E-08	1.08E-08
12/30/96	7:16	12/31/96	7:43	0.30	3.7000	1467.00	17225.00	1.18E-08	1.08E-08
12/31/96	7:43	1/2/97	6:55	0.60	4.3000	2832.00	20057.00	1.22E-08	1.14E-08
1/2/97	6:55	1/3/97	7:55	0.20	4.5000	1500.00	21557.00	7.70E-09	1.14E-08
1/3/97	7:55	1/6/97	7:18	0.70	5.2000	4283.00	25840.00	9.44E-09	1.03E-08



CONSTANT HEAD PERMEABILITY TEST

JOB NUMBER: 96S3095 TEST DATE: 12/19/96
 CLIENT: OPERATIONAL TECHNOLOGIES CORP. BORING #: MW202B
 JOB DESCRIPTION: CAPITOL MUNICIPAL AIRPORT SPFLD., I SAMPLE #: 1A
 SAMPLE DESCRIPTION: YEL. BRN. & GRAY VF. SANDY SILT DEPTH (FT): 5.5-7.0
(TR. CLAY) / OX. SPOTS. FILE NAME: 202BC1

WATER CONTENT OF TRIMMINGS

SPECIMEN WEIGHT (G) <u>167.24</u>		BEFOR	AFTER
SPECIMEN HEIGHT (IN) <u>3.179</u>		TEST	TEST
DIAMETER (IN) <u>1.423</u>	TARE + WET SOIL (G) <u>71.63</u>		
AREA (SQ IN) <u>1.590</u>	TARE + DRY SOIL (G) <u>59.39</u>		
VOLUME (CU IN) <u>5.056</u>	TARE (G) <u>15.96</u>		
WET DENSITY (PCF) <u>126.01</u>	WATER (G) <u>12.24</u>	<u>0.00</u>	
DRY DENSITY (PCF) <u>98.31</u>	DRY SOIL (G) <u>43.43</u>	<u>0.00</u>	
WT. DRY SOIL (G) <u>130.47</u>	WATER CONTENT (%) <u>28.18</u>	<u>#DIV/0!</u>	
VOLUME DRY SOIL (CU IN) <u>2.949</u>			
SP.GR. ASSUMED <u>2.70</u>			
POROSITY (%) <u>41.67</u>	STD. MAX. DEN.(LBS/CU.FT.) _____		
HEIGHT OF HEAD (PSI) <u>3.40</u>	OPTIMUM MOISTURE (%) _____		
HYDRAULIC GRADIANT <u>29.6</u>	% COMPACTION <u>#DIV/0!</u>		
1/4 PORE VOLUME <u>8.63</u>	PRESSURE HEAD (CM H2O) <u>189.86</u>		
	PANEL NUMBER <u>-7</u>		
TEST METHOD USED: <u>ASTM D5084</u>	PERMEANT USED: <u>TAP WATER</u>		



CONSTANT HEAD PERMEABILITY TEST

JOB NUMBER: 96S3095 TEST DATE: 12/30/96

CLIENT: OPERATIONAL TECHNOLOGIES CORPORATION BORING #: MW202

JOB DESCRIPTION: CAPITOL MUNICIPAL AIRPORT SAMPLE #: 1A

DEPTH (FT): 5.5-7.0

SPECIMEN HEIGHT (IN) 3.163 HEIGHT OF HEAD (PSI) 3.40

DIAMETER (IN) 1.444 PRESSURE HEAD (CM H₂O) 239.08

AREA (SQ IN) 1.638 PANEL NUMBER 8

START DATE	START TIME	STOP DATE	STOP TIME	INCREMENT. FLOW (CC)	TOTAL FLOW (CC)	INCREMENT. TIME (MIN)	TOTAL TIME (MIN)	INCREMENTAL PERMEABILITY (CM/SEC)	AVERAGE PERMEABILITY (CM/SEC)
12/23/96	9:05	12/23/96	16:08	1.90	1.9000	423.00	423.00	2.38E-07	2.38E-07
12/23/96	16:08	12/24/96	7:32	3.90	5.8000	924.00	1347.00	2.24E-07	2.31E-07
12/24/96	6:58	12/24/96	15:54	2.00	7.8000	536.00	1883.00	1.98E-07	2.20E-07
12/24/96	15:55	12/26/96	8:00	10.40	18.2000	2405.00	4288.00	2.29E-07	2.22E-07
12/26/96	8:00	12/27/96	9:00	6.40	24.6000	1500.00	5788.00	2.26E-07	2.19E-07
12/27/96	9:00	12/30/96	7:16	16.80	41.4000	4216.00	10004.00	2.11E-07	2.16E-07
12/30/96	7:16	12/31/96	7:44	5.60	47.0000	1468.00	11472.00	2.02E-07	2.17E-07
12/31/96	7:44	1/2/97	6:55	9.60	56.6000	2831.00	14303.00	1.80E-07	2.05E-07
1/2/97	6:55	1/3/97	7:55	5.20	61.8000	1500.00	15803.00	1.84E-07	1.94E-07
1/3/97	7:55	1/6/97	7:18	13.60	75.4000	4283.00	20086.00	1.68E-07	1.84E-07



CONSTANT HEAD PERMEABILITY TEST

JOB NUMBER: 96S3095 TEST DATE: 12/19/96
 CLIENT: OPERATIONAL TECHNOLOGIES CORP. BORING #: MW202B
 JOB DESCRIPTION: CAPITOL MUNICIPAL AIRPORT SPFLD., I SAMPLE #: 2
 SAMPLE DESCRIPTION: YEL. BRN. & GRAY VF.-F. SANDY SILTY DEPTH (FT): 10.5-12.0
CLAY / OX. SPOTS. FILE NAME: 202BC2

WATER CONTENT OF TRIMMINGS

SPECIMEN WEIGHT (G) <u>161.90</u>		BEFOR	AFTER
SPECIMEN HEIGHT (IN) <u>3.288</u>		TEST	TEST
DIAMETER (IN) <u>1.342</u>	TARE + WET SOIL (G) <u>85.13</u>		
AREA (SQ IN) <u>1.414</u>	TARE + DRY SOIL (G) <u>71.80</u>		
VOLUME (CU IN) <u>4.651</u>	TARE (G) <u>15.39</u>		
WET DENSITY (PCF) <u>132.61</u>	WATER (G) <u>13.33</u>	<u>0.00</u>	
DRY DENSITY (PCF) <u>107.27</u>	DRY SOIL (G) <u>56.41</u>	<u>0.00</u>	
WT. DRY SOIL (G) <u>130.95</u>	WATER CONTENT (%) <u>23.63</u>	<u>#DIV/0!</u>	
VOLUME DRY SOIL (CU IN) <u>2.960</u>			
SP.GR. ASSUMED <u>2.70</u>			
POROSITY (%) <u>36.36</u>	STD. MAX. DEN.(LBS/CU.FT.) _____		
HEIGHT OF HEAD (PSI) <u>3.50</u>	OPTIMUM MOISTURE (%) _____		
HYDRAULIC GRADIENT <u>29.5</u>	% COMPACTION <u>#DIV/0!</u>		
1/4 PORE VOLUME <u>6.93</u>	PRESSURE HEAD (CM H2O) <u>189.86</u>		
	PANEL NUMBER <u>7</u>		
TEST METHOD USED: <u>ASTM D5084</u>	PERMEANT USED: <u>TAP WATER</u>		



CONSTANT HEAD PERMEABILITY TEST

JOB NUMBER: 96S3095

CLIENT: OPERATIONAL TECHNOLOGIES CORPORATION

JOB DESCRIPTION: CAPITOL MUNICIPAL AIRPORT

TEST DATE: 12/30/96

BORING #: MW2021B

SAMPLE #: 2

DEPTH (FT): 10.5-12.0

SPECIMEN HEIGHT (IN) 3.288

DIAMETER (IN) 1.342

AREA (SQ IN) 1.414

HEIGHT OF HEAD (PSI) 3.50

PRESSURE HEAD (CM H₂O) 246.11

PANEL NUMBER 7

START DATE	START TIME	STOP DATE	STOP TIME	INCREMENT: FLOW (CC)	TOTAL FLOW (CC)	INCREMENT: TIME (MIN)	TOTAL TIME (MIN)	INCREMENTAL PERMEABILITY (CM/SEC)	AVERAGE PERMEABILITY (CM/SEC)
12/19/96	8:42	12/20/96	7:43	1.00	1.0000	1381.00	1381.00	4.49E-08	4.49E-08
12/20/96	7:43	12/23/96	6:59	3.40	4.4000	4276.00	5657.00	4.93E-08	4.71E-08
12/23/96	6:58	12/24/96	7:31	1.00	5.4000	1473.00	7130.00	4.21E-08	4.54E-08
12/24/96	7:31	12/26/96	7:59	2.00	7.4000	2908.00	10038.00	4.26E-08	4.47E-08
12/26/96	7:58	12/27/96	8:59	1.10	8.5000	1501.00	11539.00	4.54E-08	4.48E-08
12/27/96	8:59	12/30/96	7:16	3.10	11.6000	4217.00	15756.00	4.56E-08	4.39E-08
12/30/96	7:16	12/31/96	7:44	1.00	12.6000	1468.00	17224.00	4.22E-08	4.40E-08
12/31/96	7:44	1/2/97	6:55	1.90	14.5000	2831.00	20055.00	4.16E-08	4.37E-08
1/2/97	6:55	1/3/97	7:55	1.00	15.5000	1500.00	21555.00	4.13E-08	4.27E-08
1/3/97	7:55	1/6/97	7:18	2.60	18.1000	4283.00	25838.00	3.76E-08	4.07E-08



Chain of Custody Record

(516) 625-5500 FAX: (516) 625-1274

Client Name: Operational Technologies Corp.
 Address: 14100 NW Loop 470 Ste 230
San Antonio, TX 78229

Project Manager: Kathryn Pritchard
 Phone: (210) 731-0000 X294X (210) 731-0041

Project Name: Capital EE/CA
 Project Number: 1315-269/4A

P.O. # _____

Analytical Protocol: _____ Deliverables: Kathryn Pritchard

Sampled By: _____

Analysis Requested

No. of Containers	Bin #'s In/Out (For Lab Use Only)	Comments
3	✓	✓
3	✓	✓
3	✓	✓
3	✓	✓

Log in #: _____
 Ship to: Nytest Environmental Inc.
 60 Seaview Blvd
 Port Washington N.Y. 11050
 Attn.: Sample Control

Date Shipped: _____
 Carrier: _____
 Air Bill #: _____
 Cooler #: _____
 C of C #: _____
 SDG #: _____
 NEI QT #: _____

Analysis Requested	No. of Containers	Bin #'s In/Out (For Lab Use Only)	Comments
pH (ASTM D4972)	3	✓	✓
Dissolved Oxygen (ASTM D2974)	3	✓	✓
Vert. Hydraulic Conductivity (ASTM D2216)	3	✓	✓
Moisture Content (ASTM D2930)	3	✓	✓
Soil Dry Density (ASTM D2930)	3	✓	✓
Grain Size Analysis (ASTM D422)	3	✓	✓
Compressed State and Hydrometer	3	✓	✓

Received by: Kathryn Pritchard Date: 12/14/15 Time: 1515

Print Name: _____

Received by: _____ Date: _____ Time: _____

Print Name: _____

Received by: _____ Date: _____ Time: _____

Print Name: _____

Relinquished by: _____ Date: _____ Time: _____

Print Name: _____

Relinquished by: _____ Date: _____ Time: _____

Print Name: _____

Relinquished by: _____ Date: _____ Time: _____

Print Name: _____

Special Instructions: _____



nytest environmental
 (516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

Client Name: Operational Technologies Corp.
 Address: 4100 NW Loop 410 Ste 230
San Antonio, TX 78229
 Project Manager: Kathryn Pitulett
 Phone: (210) 731-0000 x207 FAX (210) 731-0041
 Project Name: Capital EE/CA
 Project Number: 1315-269/4A
 P.O. #: _____
 Analytical Protocol: _____
 Sampled By: Kathryn Pitulett Deliverables: _____

Analysis Requested:
pH (ASTM D4972)
Organic Carbon Content (ASTM D 2974)
Vert. Hydraulic Conductivity (ASTM D 889)
Moisture Content ASTM D 2216
Soil Dry Density (ASTM D 2938)
Grain Size Analysis (ASTM D 422)
Combined Sieve and Hydrometer

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Description	No. of Containers	Bin #'s In/Out (For Lab. Use Only)	Comments
		14/11/06	1540	MW201B-10.5-120	3		
		14/12/06	0758	MW201B-15.5-170	3		
		17/12/06	1418	MW202B-5.5-70	3		
		17/12/06	1425	MW202B-10.5-120	3		

Relinquished by: Kathryn Pitulett Date: 12/13/06 Time: 1515 Received by: _____
 Print Name: _____
 Relinquished by: Joe Bygones Date: 12/13 Time: 1620 Received by: [Signature]
 Print Name: Joe Bygones Print Name: _____
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____
 Print Name: _____

Lab Use Only
 Custody Seals: Intact _____ Broken _____
 Sample Rec'd in Good Condition? Y _____ N _____
 Sample Temperature: _____ Degrees Celsius
 INSPECTED BY: _____
 COMMENTS: _____

Special Instructions: _____



APPENDIX H
INVESTIGATIVE DERIVED WASTE MANAGEMENT

APPENDIX H
INVESTIGATIVE DERIVED WASTE MANAGEMENT

During the field investigation at IRP Sites No. 1 and No. 2 at the 183rd FW at Capital Municipal Airport in December 1996, a total of twelve 55-gallon drums were used in storage of Investigative Derived Waste (IDW). The IDW analytical results were presented to the base environmental coordinator, and the drums and contents were properly disposed.



OPERATIONAL TECHNOLOGIES
CORPORATION

28 January 1997

Environmental Coordinator
183rd Fighter Wing
Capital Municipal Airport
3101 J. David Jones Parkway
Springfield, Illinois 62707-5000

ATTN: Lt. Deborah S. Hamrick

Subject: Analytical Data for the Investigative-Derived Waste
IRP Sites No. 1 and No. 2
183rd Fighter Wing
Illinois Air National Guard, Springfield, Illinois

Dear Lt. Hamrick:

This letter documents the transfer of information on the investigative-derived waste (IDW) that was accumulated during the field investigation at IRP Sites No. 1 and No. 2 in December 1996. Nine drums containing IDW are located on the southeastern corner of the Charlie Ramp at IRP Site No. 2 (see attached figure and IDW log). As per instructed by the Springfield Airport Authority, barricades with lights and flags are surrounding these drums as a safety precaution since aircrafts use this ramp. Two drums containing purge water are located by the monitor wells (MW201 and MW202 clusters) at IRP Site No. 2. Only one drum containing purge water is located at IRP Site No. 1.

Drums No. 1 and No. 2 contain soil cuttings from drilling the borehole for monitor well MW201B and Drums No. 3 and No 4 contain soil cuttings from drilling the borehole for monitor well MW202B. One soil sample was collected to represent each borehole. The soil samples were analyzed for TCLP, VOCs and PPMs (see attached laboratory reports). No VOCs and PPMs were detected in these soil samples.

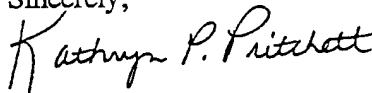
Drum No. 5 contains the PPE for the field investigation. The PID reading that were recorded during the field investigation were less than 10 ppm.

Drums No. 6, No. 7, and No. 8 contain fluids from the decontamination procedure for the field investigation at IRP Site No. 2. One water sample was collected from each drum and analyzed for VOCs and PPMs (see attached laboratory reports). VOCs, benzene and toluene, were detected in the water samples at maximum concentrations (Drum No. 7) of 1.3 $\mu\text{g/L}$ and 3.4 $\mu\text{g/L}$, respectively (see attached table). The metals, copper and zinc, were detected at maximum concentrations (Drum No. 6) of 35 $\mu\text{g/L}$ and 120 $\mu\text{g/L}$, respectively (see attached table).

Drums No. 9, No. 10, and No. 11, contain purge water from the monitor wells at IRP Site No. 2 and Drum No. 12 contains purge water from the monitor wells at IRP Site No. 1. Groundwater samples were collected for chemical analyses from all monitor wells at IRP Sites No. 1 and No. 2 during the field investigation. A summary of the maximum concentrations of the analytes detected in the groundwater samples are presented in an attached table. The contaminants of concern (VOCs) are cis-1,2-Dichloroethene (cis-1,2-DCE) and vinyl chloride and these compounds were detected at maximum concentrations (Drum No. 10) of 97 µg/L and 36 µg/L, respectively. Lead is detected at concentrations above ARAR in all groundwater samples, with a maximum concentration (Drum No. 10) of 170 µg/L. Chromium and nickel were detected at maximum concentrations (Drum No. 10) of 230 µg/L and 340 µg/L, respectively. Arsenic was also detected above ARAR in groundwater samples from IRP Site No. 1 (Drum No. 12) at a concentration of 72 µg/L.

Operational Technologies Corporation appreciates the opportunity to provide environmental services to the Air National Guard. If you have any questions concerning this document, please call me at (210) 731-0000, Ext. 207.

Sincerely,



Kathryn P. Pritchett
Project Manager

Enclosures: As stated
cc: Sharon Geil, ANGRC/CEVR
John Morris, OpTech
ANG Files, OpTech



RUNWAY 36

TAXIWAY

Storage of IDW Drums

GRASS

GRASS

PREVIOUS POND LINE

PZ201
577.14

MV203
578.62

PZ202B
575.91

578.64
MW202B

PZ203
574.61

MV201B
MW201
574.50

576

575

574

573

572

571

PW6

PZ204
571.51

PWB

PW9

PW4

PW2

PW1

PZ205
572.11

PZ206
570.07

PW7

POND

PW5

POND

PW3

POND

LEGEND

- BUILDING
- RESIDENTIAL HOUSE OR BUILDING
- PREVIOUS BUILDING
- ESTIMATED LOCATION OF SITE NO.2, OLD FTA

FENCE LINE

PREVIOUS ROAD

PREVIOUS POND LINE

GROUNDWATER FLOW DIRECTION

SURFACE WATER DRAINAGE FLOW

POTENTIOMETRIC CONTOUR LINE

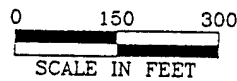
577.14 POTENTIOMETRIC ELEVATION

MONITORING WELL

PROPOSED MONITORING WELL

FORMER PRIVATE WATER WELL

PIEZOMETER



SOURCE: 1129 ILLINOIS DOT AERIAL PHOTO.

DRAFT
FIGURE 6.2

PROPOSED MONITORING WELL
AND SEDIMENT/SURFACE WATER SAMPLING
LOCATIONS AND POTENTIOMETRIC
SURFACE MAP AT IRP SITE NO.2, OLD FTA
183rd FW, Illinois ANG
Springfield, Illinois

OPTTECH
OPERATIONAL TECHNOLOGIES
CORPORATION

ILLINOIS\MAIN-4

OCTOBER 1996

Analytes Detected in the Decontamination Water IRP Site No. 2 183rd Fighter Wing, Illinois ANG Springfield, Illinois			
Analyte	Drum No. 6	Drum No. 7	Drum No. 8
<i>VOCs (ug/L)</i>			
Benzene	5.0 U	1.3	0.5 U
Toluene	10 U	3.4	1.5
<i>PPMs (ug/L)</i>			
Copper	35	25 U	25 U
Zinc	120	21	20 U

Maximum Concentrations of Analytes Detected in the Purge Water IRP Sites No. 1 and No. 2 183rd Fighter Wing, Illinois ANG Springfield, Illinois				
Analyte	Drum No. 9 MW201, MW202, and MW203	Drum No. 10 MW202 and MW202B	Drum No. 11 MW201 and MW201B	Drum No. 12 MW101, MW102, MW103, and MW104
<i>VOCs (ug/L)</i>				
Benzene	0.8	1.1	0.5 U	0.5 U
1,2 -Dichloroethane	1.0 U	2.3	1.0 U	1.0 U
cis-1,2-Dichloroethene	2.7	97	8.3	1.0 U
Ethylbenzene	2.3	2.3	1.0 U	3.1
Trichloroethene	1.0 U	1.8	1.0 U	1.0 U
1,3,5 - Trimethylbenzene	1.3	1.3	NA	NA
Vinyl Chloride	4.6	36	1.0 U	1.0 U
Xylene (total)	1.1	1.1	1.0 U	1.4
<i>PPMs (ug/L)</i>				
Arsenic	10 U	39	10 U	72
Chromium	30 U	230	58	30 U
Copper	27	340	75	32
Lead	17	170	35	19
Nickel	40 U	340	63	40 U
Zinc	65	940	230	61

Project Number: 1315-296-4A
 Project Name: Capitol Airport
 ANG
 Springfield, IL
 Work Order Number: W6-12-0352
 Date Reported: 01-15-97

ANALYTICAL RESULTS

Metals in TCLP Leachate^a

GTEL Sample Number		06	07		
Client Identification		IDW1-2 SOIL	IDW3-4 SOIL		
Date Sampled		12-19-96	12-19-96		
Date Leached		01-06 to 01-07-97	01-06 to 01-07-97		
Date Analyzed (Method 7470)		01-08-97	01-08-97		
Date Analyzed (Method 6010A)		01-07-97	01-07-97		
Date Analyzed (Method 7421)		01-10-97	01-10-97		
Date Analyzed (Method 7060)		01-08-97	01-08-97		
Date Analyzed (Method 7740)		01-07-97	01-07-97		
Dilution Multiplier (Method 6010A) ^b		1	1		
Analyte	Method ^c	Reporting Limit, mg/L	Concentration, mg/L		
Arsenic	EPA 7060	0.050	<0.050	<0.050	
Barium	EPA 6010A	2.0	<2.0	<2.0	
Cadmium	EPA 6010A	0.005	<0.0050	<0.0050	
Chromium	EPA 6010A	0.10	<0.10	<0.10	
Lead	EPA 7421	0.0075 ^d	<0.0075	<0.0075	
Mercury	EPA 7470	0.002	<0.002	<0.002	
Selenium	EPA 7740	0.050	<0.050	<0.050	
Silver	EPA 6010A	0.050	<0.050	<0.050	

- a TCLP performed as per 40 CFR, Part 261, Appendix II - Method 1311. These data are presented in accordance with the Federal Register, 57, p.55114, November 24, 1992.
- b The dilution multiplier indicates the adjustments made for dilutions.
- c Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA, November 1986; Digestion by Method 3010 for Method 6010 analytes, Method 7470 for mercury, and Method 3020 for 7000 Series Methods.
- d The recovery limits were exceeded in the laboratory control sample and matrix spike sample due to matrix interferences during digestion.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W6120352

Project ID (number): 1315-296-4A

Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 1311/8240

Matrix: Solids

NEI/GTEL Sample Number	W6120352-06	W6120352-07	--	--
Client ID	IDW1-2 SOIL	IDW3-4 SOIL	--	--
Date Sampled	12/19/96	12/19/96	--	--
Date Prepared	01/02/97	01/02/97	--	--
Date Analyzed	01/10/97	01/10/97	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting		< 0.05	< 0.05	--	--
	Limit	Units				
Benzene	0.05	mg/L	< 0.05	< 0.05	--	--
Carbon tetrachloride	0.05	mg/L	< 0.05	< 0.05	--	--
Chlorobenzene	0.05	mg/L	< 0.05	< 0.05	--	--
Chloroform	0.05	mg/L	< 0.05	< 0.05	--	--
1,4-Dichlorobenzene	0.05	mg/L	< 0.05	< 0.05	--	--
1,2-Dichloroethane	0.05	mg/L	< 0.05	< 0.05	--	--
1,1-Dichloroethene	0.05	mg/L	< 0.05	< 0.05	--	--
2-Butanone	0.2	mg/L	< 0.2	< 0.2	--	--
Tetrachloroethene	0.05	mg/L	< 0.05	< 0.05	--	--
Trichloroethene	0.05	mg/L	< 0.05	< 0.05	--	--
Vinyl chloride	0.1	mg/L	< 0.1	< 0.1	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 1311/8240:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2. TCLP is performed as per 40 CFR, Part 261, Appendix II - EPA Method 1311.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120352
 Project ID (number): 1315-296-4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
 Matrix: Aqueous

GTEL Sample Number	W6120352-01	W6120352-02	W6120352-03	W6120352-04
Client ID	2-RB02 RINSATE BLANK	MW102 GW04	MW103 GW04	MW104 GW04
Date Sampled	12/19/96	12/19/96	12/19/96	12/19/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/22/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	1.0	ug/L	1.1	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	3.1
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	1.4
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
 NEI/GTEL Wichita, KS
 W6120352

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120352
 Project ID (number): 1315-296-4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
 Matrix: Aqueous

GTEL Sample Number	W6120352-05	W6120352-08	..	..
Client ID	MW101 GW04	TB-08	..	..
Date Sampled	12/19/96		..	..
Date Analyzed	12/22/96	12/22/96	..	..
Dilution Factor	1.00	1.00	..	..

Analyte	Reporting		Concentration:		..	..
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	..	..
Chloromethane	2.0	ug/L	< 2.0	< 2.0	..	..
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	..	..
Bromomethane	2.0	ug/L	< 2.0	< 2.0	..	..
Chloroethane	1.0	ug/L	< 1.0	< 1.0	..	..
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	..	..
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	..	..
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	..	..
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	..	..
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	..	..
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	..	..
Chloroform	1.0	ug/L	< 1.0	< 1.0	..	..
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	..	..
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	..	..
Benzene	0.5	ug/L	< 0.5	< 0.5	..	..
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	..	..
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	..	..
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	..	..
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	..	..
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	..	..
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	..	..
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	..	..
Toluene	1.0	ug/L	< 1.0	< 1.0	..	..
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	..	..
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	..	..
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	..	..
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	..	..
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	..	..
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	..	..
Bromoform	2.0	ug/L	< 2.0	< 2.0	..	..
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	..	..
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	..	..
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	..	..
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	..	..

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
 Login Number: W6120352
 Project ID (number): 1315-296-4A
 Project ID (name): CAPITOL AIRPORT/IL

Method: See Below
 Matrix: Aqueous

GTEL Sample Number	W6120352-01	W6120352-02	W6120352-03	W6120352-04
	Client ID 2-RB02 RINSATE BLANK	MW102 GW04	MW103 GW04	MW104 GW04
	Date Sampled	12/19/96	12/19/96	12/19/96
EPA 6010A	Date Prepared	12/27/96	12/27/96	12/27/96
EPA 6010A	Date Analyzed	12/27/96	12/27/96	12/27/96
EPA 6010A	Dilution Factor	1.00	1.00	1.00
EPA 7041	Date Prepared	12/23/96	12/23/96	12/23/96
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96
EPA 7041	Dilution Factor	1.00	1.00	1.00
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96
EPA 7060A	Dilution Factor	1.00	1.00	1.00
EPA 7421	Date Prepared	12/23/96	12/23/96	12/23/96
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96
EPA 7421	Dilution Factor	1.00	1.00	1.00
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96
EPA 7470A	Dilution Factor	2.00	2.00	2.00
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96
EPA 7740	Dilution Factor	1.00	1.00	1.00
EPA 7841	Date Prepared	12/23/96	12/23/96	12/23/96
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96
EPA 7841	Dilution Factor	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
Inorganics (MT, WC)			
Antimony	EPA 7041	10. ug/L	< 10. < 10. < 10. < 10.
Arsenic	EPA 7060A	10. ug/L	< 10. < 10. < 10. 72.
Beryllium	EPA 6010A	5.0 ug/L	< 5.0 < 5.0 < 5.0 < 5.0
Cadmium	EPA 6010A	20. ug/L	< 20. < 20. < 20. < 20.
Chromium	EPA 6010A	30. ug/L	< 30. < 30. < 30. < 30.
Copper	EPA 6010A	25. ug/L	< 25. < 25. < 25. < 25.
Lead	EPA 7421	4.0 ug/L	< 4.0 < 4.0 16. 10.
Mercury	EPA 7470A	0.50 ug/L	< 1.0 < 1.0 < 1.0 < 1.0
Nickel	EPA 6010A	40. ug/L	< 40. < 40. < 40. < 40.
Selenium	EPA 7740	10. ug/L	< 10. < 10. < 10. < 10.
Silver	EPA 6010A	20. ug/L	< 20. < 20. < 20. < 20.
Thallium	EPA 7841	10. ug/L	< 10. < 10. < 10. < 10.
Zinc	EPA 6010A	20. ug/L	< 20. 35. 61. 23.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W6120352

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
 Login Number: W6120352
 Project ID (number): 1315-296-4A
 Project ID (name): CAPITOL AIRPORT/IL

Method: See Below
 Matrix: Aqueous

	GTEL Sample Number	W6120352-05	--	--	--
	Client ID	MW101 GW04	--	--	--
	Date Sampled	12/19/96	--	--	--
EPA 6010A	Date Prepared	12/27/96	--	--	--
EPA 6010A	Date Analyzed	12/27/96	--	--	--
EPA 6010A	Dilution Factor	1.00	--	--	--
EPA 7041	Date Prepared	12/23/96	--	--	--
EPA 7041	Date Analyzed	12/27/96	--	--	--
EPA 7041	Dilution Factor	1.00	--	--	--
EPA 7060A	Date Prepared	12/24/96	--	--	--
EPA 7060A	Date Analyzed	12/26/96	--	--	--
EPA 7060A	Dilution Factor	1.00	--	--	--
EPA 7421	Date Prepared	12/23/96	--	--	--
EPA 7421	Date Analyzed	12/26/96	--	--	--
EPA 7421	Dilution Factor	1.00	--	--	--
EPA 7470A	Date Prepared	12/24/96	--	--	--
EPA 7470A	Date Analyzed	12/26/96	--	--	--
EPA 7470A	Dilution Factor	2.00	--	--	--
EPA 7740	Date Prepared	12/24/96	--	--	--
EPA 7740	Date Analyzed	12/26/96	--	--	--
EPA 7740	Dilution Factor	1.00	--	--	--
EPA 7841	Date Prepared	12/23/96	--	--	--
EPA 7841	Date Analyzed	12/27/96	--	--	--
EPA 7841	Dilution Factor	1.00	--	--	--

Analyte	Reporting	Limit		Concentration:	
		Units			
Antimony	EPA 7041	10.	ug/L	< 10.	--
Arsenic	EPA 7060A	10.	ug/L	27.	--
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	--
Cadmium	EPA 6010A	20.	ug/L	< 20.	--
Chromium	EPA 6010A	30.	ug/L	< 30.	--
Copper	EPA 6010A	25.	ug/L	32.	--
Lead	EPA 7421	4.0	ug/L	19.	--
Mercury	EPA 7470A	0.50	ug/L	< 1.0	--
Nickel	EPA 6010A	40.	ug/L	< 40.	--
Selenium	EPA 7740	10.	ug/L	< 10.	--
Silver	EPA 6010A	20.	ug/L	< 20.	--
Thallium	EPA 7841	10.	ug/L	< 10.	--
Zinc	EPA 6010A	20.	ug/L	49.	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W6120352

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120326
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
 Matrix: Aqueous

GTEL Sample Number	W6120326-01	W6120326-02	W6120326-03	W6120326-04
Client ID	DCOND6	DCOND7	DCOND8	TB-15
Date Sampled	12/18/96	12/18/96	12/18/96	
Date Analyzed	12/23/96	12/22/96	12/22/96	12/23/96
Dilution Factor	10.0	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 5.0	1.3	< 0.5	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	3.4	1.5	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
 NEI/GTEL Wichita, KS
 W6120326

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120326
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
 Matrix: Aqueous

GTEL Sample Number	W6120326-05	W6120326-06	W6120326-07	W6120326-08
Client ID	MW201B	MW202A	MW202B	2-FB03
Date Sampled	12/18/96	12/18/96	12/18/96	12/18/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/22/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units	W6120326-05	W6120326-06	W6120326-07	W6120326-08
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	60.	36.	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	1.2	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	8.3	120	97.	< 1.0
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 1.0	1.2
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 0.5	1.3	1.1	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	2.7	2.3	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	2.6	1.8	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	1.5	< 1.0	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
Login Number: W6120326

Project ID (number): 1315-269/4A

Project ID (name): OPERATIONAL TECHNOLOGIES/4100 NW LOOP 410/SAN ANTONIO/TX

Method: See Below
Matrix: Aqueous

	GTEL Sample Number	W6120326-01	W6120326-02	W6120326-03	W6120326-05
	Client ID	DCOND6	DCOND7	DCOND8	MW201B
	Date Sampled	12/18/96	12/18/96	12/18/96	12/18/96
EPA 6010A	Date Prepared	12/20/96	12/20/96	12/20/96	12/20/96
EPA 6010A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 6010A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7041	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7041	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7060A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7421	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7470A	Dilution Factor	2.00	2.00	2.00	2.00
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7740	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7841	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7841	Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting	Limit	Units	Concentration:
Inorganics (MT, WC)				
Antimony	EPA 7041	10.	ug/L	< 10. < 10. < 10. < 10.
Arsenic	EPA 7060A	10.	ug/L	< 10. < 10. < 10. < 10.
Beryllium	EPA 6010A	5.0	ug/L	< 5.0 < 5.0 < 5.0 < 5.0
Cadmium	EPA 6010A	20.	ug/L	< 20. < 20. < 20. < 20.
Chromium	EPA 6010A	30.	ug/L	< 30. < 30. < 30. 58.
Copper	EPA 6010A	25.	ug/L	35. < 25. < 25. 75.
Lead	EPA 7421	4.0	ug/L	< 4.0 < 4.0 < 4.0 35.
Mercury	EPA 7470A	0.50	ug/L	< 1.0 < 1.0 < 1.0 < 1.0
Nickel	EPA 6010A	40.	ug/L	< 40. < 40. < 40. 63.
Selenium	EPA 7740	10.	ug/L	< 10. < 10. < 10. < 10.
Silver	EPA 6010A	20.	ug/L	< 20. < 20. < 20. < 20.
Thallium	EPA 7841	10.	ug/L	< 10. < 10. < 10. < 10.
Zinc	EPA 6010A	20.	ug/L	120 21. < 20. 230

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W6120326

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
Login Number: W6120326

Project ID (number): 1315-269/4A

Project ID (name): OPERATIONAL TECHNOLOGIES/4100 NW LOOP 410/SAN ANTONIO/TX

Method: See Below
Matrix: Aqueous

	GTEL Sample Number	W6120326-06	W6120326-07	W6120326-08	--
	Client ID	MW202A	MW202B	2-FB03	--
	Date Sampled	12/18/96	12/18/96	12/18/96	--
EPA 6010A	Date Prepared	12/20/96	12/20/96	12/20/96	--
EPA 6010A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 6010A	Dilution Factor	1.00	2.00	1.00	--
EPA 7041	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	--
EPA 7041	Dilution Factor	1.00	1.00	1.00	--
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7060A	Dilution Factor	1.00	1.00	1.00	--
EPA 7421	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7421	Dilution Factor	1.00	5.00	1.00	--
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7470A	Dilution Factor	2.00	2.00	2.00	--
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7740	Dilution Factor	1.00	1.00	1.00	--
EPA 7841	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	--
EPA 7841	Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting	Limit		Units	Concentration:		
Antimony	EPA 7041	10.	ug/L	< 10.	< 10.	< 10.	--
Arsenic	EPA 7060A	10.	ug/L	11.	39.	< 10.	--
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	< 10.	< 5.0	--
Cadmium	EPA 6010A	20.	ug/L	< 20.	< 40.	< 20.	--
Chromium	EPA 6010A	30.	ug/L	37.	230	< 30.	--
Copper	EPA 6010A	25.	ug/L	58.	340	< 25.	--
Lead	EPA 7421	4.0	ug/L	28.	170	< 4.0	--
Mercury	EPA 7470A	0.50	ug/L	< 1.0	< 1.0	< 1.0	--
Nickel	EPA 6010A	40.	ug/L	53.	340	< 40.	--
Selenium	EPA 7740	10.	ug/L	< 10.	< 10.	< 10.	--
Silver	EPA 6010A	20.	ug/L	< 20.	< 40.	< 20.	--
Thallium	EPA 7841	10.	ug/L	< 10.	< 10.	< 10.	--
Zinc	EPA 6010A	20.	ug/L	170	940	< 20.	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: OTC010TC01
 Login Number: W6120301
 Project ID (number): 1315-269-4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL.

Method: See Below
 Matrix: Aqueous

	GTEL Sample Number	W6120301-01	W6120301-02	W6120301-03	W6120301-04
	Client ID	MW 203 MW04	MW 201 GW04	MW 202 GW04	2FB02 FIELD BLANK
	Date Sampled	12/17/96	12/17/96	12/17/96	12/17/96
EPA 6010A	Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
EPA 6010A	Date Analyzed	12/19/96	12/19/96	12/19/96	12/19/96
EPA 6010A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7041	Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7041	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7060A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421	Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7421	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7470A	Dilution Factor	2.00	2.00	2.00	2.00
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7740	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7841	Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7841	Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting	Limit	Units	Concentration:			
Inorganics (MT, WC)							
Antimony	EPA 7041	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Arsenic	EPA 7060A	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Cadmium	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.	< 20.
Chromium	EPA 6010A	30.	ug/L	< 30.	< 30.	< 30.	< 30.
Copper	EPA 6010A	25.	ug/L	< 25.	27.	< 25.	< 25.
Lead	EPA 7421	4.0	ug/L	9.6	17.	10.	< 4.0
Mercury	EPA 7470A	0.50	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	EPA 6010A	40.	ug/L	< 40.	< 40.	< 40.	< 40.
Selenium	EPA 7740	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Silver	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.	< 20.
Thallium	EPA 7841	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Zinc	EPA 6010A	20.	ug/L	59.	65.	45.	< 20.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W6120301

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTCG10TC01
 Login Number: W6120301
 Project ID (number): 1315-269-4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
 Matrix: Aqueous

GTEL Sample Number	W6120301-01	W6120301-02	W6120301-03	W6120301-04
Client ID	MW 203 MW04	MW 201 GW04	MW 202 GW04	2FB02 FIELD BLANK
Date Sampled	12/17/96	12/17/96	12/17/96	12/17/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/21/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	4.6	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	1.0	ug/L	< 1.0	< 1.0	2.7	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	49.
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 0.5	< 0.5	0.8	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	16.
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	3.9
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	2.3	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	1.1	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
 NEI/GTEL Wichita, KS
 W6120301

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120301
 Project ID (number): 1315-269-4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2
 Matrix: Aqueous

GTEL Sample Number	W6120301-03	W6120301-04		
Client ID	MW 202 GW04	2FB02 FIELD BLANK	--	--
Date Sampled	12/17/96	12/17/96	--	--
Date Analyzed	12/26/96	12/26/96	--	--
Dilution Factor	1.00	1.00	--	--

Reporting

Analyte	Limit	Units	Concentration:		
Dichlorodifluoromethane	0.5	ug/L	< 0.5	< 0.5	--
Chloromethane	0.5	ug/L	< 0.5	< 0.5	--
Bromomethane	1.0	ug/L	< 1.0	< 1.0	--
Vinyl chloride	0.5	ug/L	3.5	< 0.5	--
Chloroethane	0.5	ug/L	< 0.5	< 0.5	--
Trichlorofluoromethane	0.5	ug/L	< 0.5	< 0.5	--
1,1-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	--
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	--
MTBE	0.5	ug/L	< 0.5	< 0.5	--
trans-1,2-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	--
1,1-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	--
2,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	--
cis-1,2-Dichloroethene	0.5	ug/L	2.1	< 0.5	--
Chloroform	0.5	ug/L	< 0.5	44.	--
Bromochloromethane	0.5	ug/L	< 0.5	< 0.5	--
1,1,1-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	--
1,1-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	--
Carbon tetrachloride	0.5	ug/L	< 0.5	< 0.5	--
Benzene	0.5	ug/L	< 0.5	< 0.5	--
1,2-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	--
Trichloroethene	0.5	ug/L	< 0.5	< 0.5	--
1,2-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	--
Bromodichloromethane	0.5	ug/L	< 0.5	12.	--
Dibromomethane	0.5	ug/L	< 0.5	< 0.5	--
2-Chloroethylvinyl ether	0.5	ug/L	< 0.5	< 0.5	--
cis-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	--
Toluene	0.5	ug/L	< 0.5	< 0.5	--
trans-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	--
1,1,2-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	--
1,2-Dibromoethane	0.5	ug/L	< 0.5	< 0.5	--
Tetrachloroethene	0.5	ug/L	< 0.5	< 0.5	--
1,3-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	--
Dibromochloromethane	0.5	ug/L	< 0.5	3.6	--
Chlorobenzene	0.5	ug/L	< 0.5	< 0.5	--
Ethylbenzene	0.5	ug/L	< 0.5	< 0.5	--
1,1,1,2-Tetrachloroethane	0.5	ug/L	< 0.5	< 0.5	--
m+p-Xylene	0.5	ug/L	< 0.5	< 0.5	--
o-Xylene	0.5	ug/L	< 0.5	< 0.5	--
Styrene	0.5	ug/L	< 0.5	< 0.5	--

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120301
 Project ID (number): 1315-269-4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2
 Matrix: Aqueous

GTEL Sample Number	W6120301-03	W6120301-04		
Client ID	MW 202 GW04	2FB02 FIELD BLANK	--	--
Date Sampled	12/17/96	12/17/96	--	--
Date Analyzed	12/26/96	12/26/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:		
Bromoform	0.5	ug/L	< 0.5	< 0.5	--
Isopropylbenzene	0.5	ug/L	< 0.5	< 0.5	--
1,1,2,2-Tetrachloroethane	0.5	ug/L	< 0.5	< 0.5	--
1,2,3-Trichloropropane	1.0	ug/L	< 1.0	< 1.0	--
n-Propylbenzene	0.5	ug/L	< 0.5	< 0.5	--
Bromobenzene	0.5	ug/L	< 0.5	< 0.5	--
1,3,5-Trimethylbenzene	0.5	ug/L	1.3	< 0.5	--
2-Chlorotoluene	0.5	ug/L	< 0.5	< 0.5	--
4-Chlorotoluene	0.5	ug/L	< 0.5	< 0.5	--
tert-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	--
1,2,4-Trimethylbenzene	0.5	ug/L	< 0.5	< 0.5	--
sec-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	--
p-Isopropyltoluene	0.5	ug/L	< 0.5	< 0.5	--
1,3-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	--
1,4-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	--
n-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	--
1,2-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	--
1,2-Dibromo-3-chloropropane	2.0	ug/L	< 2.0	< 2.0	--
1,2,4-Trichlorobenzene	0.5	ug/L	< 0.5	< 0.5	--
Hexachlorobutadiene	1.0	ug/L	< 1.0	< 1.0	--
Naphthalene	0.5	ug/L	< 0.5	< 0.5	--
1,2,3-Trichlorobenzene	0.5	ug/L	< 0.5	< 0.5	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 524.2:

Methods for the Determination of Organic Compounds in Drinking Water, Rev. 2.0, USEPA 1989

APPENDIX I
QUALITY ASSURANCE/QUALITY CONTROL DATA EVALUATION

Data Evaluation Case Narrative Summary

NEI/GTEL Client ID: OTC01OTC01
Login Number: W7040021
Project ID Number: 1315-269
Project ID Name: Illinois ANG at Capital Airport / Springfield, Illinois

Samples were sampled on 4/1/97 and received at the laboratory for analyses on 4/2/97.

Nine water samples were analyzed for Halogenated/Aromatic Volatile analyses by Solid Waste Methods-846 8010/8020. Nine water samples were analyzed for the Metals-Lead analysis by Solid Waste Methods, 6010.

Halogenated/Aromatic Volatile Analyses / SW-846 8010/8020

Sample Information

All samples did not display results that were above the assigned detection limits except for sample MS/MSD-SD with a hit on Acetone at 27 ug/kg with a detection limit of 10 ug/kg. No second column confirmation was performed on this QA/QC sample.

Method Blanks

All method blanks were found to be clean with no target compounds detected except for Methylene Chloride in the blank associated with Samples SD-01, SD-02, SD-03, and MS/MSD-SD. None of these samples was affected due to none detected in the sample results reflecting the contamination.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria, %RPD and/or minimum RRF values for these volatile analyses.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit surrogate ranges for Dibromofluoromethane recoveries, except for Sample MS/MSD-SD.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Matrix Spike/Matrix Spike Duplicate Samples

One MS/MSD per 20 samples was required and completed. All performance results were within QC Criteria Standards except for compound 2-Chloroethyl vinyl ether. Samples were not affected due to the identified compound not found above detection limits; therefore, reported data remains valid.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

Metals - Lead Analyses / SW-846 6010

Sample Information

No analytes were detected for Lead above the assigned detection limits for Samples SD-02 and SD-3. Lead was detected on all other samples above the assigned detection limits ranging from 7.3 mg/kg to 14 mg/kg. Analyses were performed for other elements for all samples but did not apply to the Statement of Work. Lead was the only analyte to be recognized in the evaluation.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this Metals analyses.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample digestion/analysis for Metals were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Matrix Spike/Matrix Spike Duplicate Samples

One MS/MSD per 20 samples was required and completed. All performance results were within QC Criteria Standards and RPD were within QC limits.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

Data Evaluation Case Narrative Summary

NEI/GTEL Client ID: OTC01OTC01
Login Number: W7040081
Project ID Number: 1315-269
Project ID Name: Illinois ANG at Capital Airport / Springfield, Illinois

Samples were sampled on 4/3/97 and received at the laboratory for analyses on 4/4/97.

Six water samples were analyzed for Halogenated/Aromatic Volatile analyses by Solid Waste Methods-846 8010/8020. Six water samples were analyzed for the 8 RCRA Metals analysis by Solid Waste Methods, 6000/7000 Series.

Halogenated/Aromatic Volatile Analyses / SW-846 8010/8020

Sample Information

All samples displayed results that were above the assigned detection limits except for samples MW-201 and MW-203. From all the samples with detections above assigned detection limits, the following were selected for a confirmation analysis for the same compounds. These samples were identified as not having a positive second column confirmation for the analyses: **Sample MW-201B** did not have a positive confirmation for Trichloroethane; **Sample MW-202B** did not have direct positive confirmation for trans-1,2-Dichloroethene, Trichloroethene, and Benzene; **Sample MW-202-Filtered** did not have positive identification for Benzene and 1,2-Dichloroethane; **Sample MW-202A** did not have a positive identification for Chloroethane. All results above not confirmed may be due to fluctuations in dilution factors of reporting limits at a non-consistency.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria, %RPD and/or minimum RRF values for these volatile analyses.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit surrogate ranges for Dibromofluoromethane recoveries.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards except for 1,2-Dibromo-3-chloropropane. Samples were not affected due to the identified compound not found above the assigned detection limit among the samples.

Matrix Spike/Matrix Spike Duplicate Samples

One MS/MSD per 20 samples was required and completed. All performance results were within QC Criteria Standards except for compound 2-Chloroethyl vinyl ether. Samples were not affected due to the identified compound not found above detection limits; therefore, reported data remains valid.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol except for the second column confirmation on samples MW-201B and MW-202B with 5x dilutions. These dilutions were performed, and no explanation was provided in the case narrative.

8 RCRA Metals Analyses / SW-846 6000/7000 Series

Sample Information

Copper, Lead, Manganese, and Zinc were detected on Sample MW-201B above the assigned detection limit. Sample MW-202B displayed sample results with Arsenic, Chromium, Copper, Lead, Manganese, Nickel, and Zinc above assigned detection limits. Sample MW-202(Filter) displayed Manganese above the assigned detection limit. Sample MW-202(Unfiltered) displayed Lead and Manganese with results above assigned detection limits. Samples MW-201 and MW-203 displayed Lead, Manganese, and Zinc above assigned detection limits. And, Sample MW-202A displayed results above assigned detection limits for the compounds Copper, Lead, Manganese, and Zinc.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this Metals analyses.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample digestion/analysis for Metals were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Matrix Spike/Matrix Spike Duplicate Samples

One MS/MSD per 20 samples was required and completed. All performance results were within QC Criteria Standards except for Antimony, Lead, and Mercury with low recoveries. RPD were within QC Ranges except for the antimony analyte with a %RPD above 20%. Parameter or analyte rejection cannot reject values based on MS/MSD validation alone.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

Data Evaluation Case Narrative Summary

NEI/GTEL Client ID: OTC01OTC01
Login Number: W7040048
Project ID Number: 1315-269
Project ID Name: Illinois ANG at Capital Airport / Springfield, Illinois

Samples were sampled on 4/2/97 and received at the laboratory for analyses on 4/3/97.

Eight water samples were analyzed for Halogenated/Aromatic Volatile analyses by Solid Waste Methods-846 8010/8020. Six water samples were analyzed for the 8 RCRA Metals analysis by Solid Waste Methods, 6000/7000 Series.

Halogenated/Aromatic Volatile Analyses / SW-846 8010/8020

Sample Information

All samples displayed results that were above the assigned detection limits except for samples MW-103, MW-102, MW-101 and TBNK12. From all those samples with detections above assigned detection limits, one sample was selected for a positive second confirmation analysis for the same compounds. This sample was identified as not having a positive second column confirmation: **Sample MW-104** did not have a positive confirmation for Total Xylenes. The results above that are not confirmed may be due to fluctuations in reporting limits at a non-consistency.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria, %RPD and/or minimum RRF values for these volatile analyses.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit surrogate ranges for Dibromofluoromethane recoveries.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards except for 1,2-Dibromo-3-chloropropane. Samples were not affected due to the identified compound not found above the assigned detection limit among the samples.

Matrix Spike/Matrix Spike Duplicate Samples

One MS/MSD per 20 samples was required and completed. All performance results were within QC Criteria Standards except for compound 2-Chloroethyl vinyl ether. Samples were not affected due to the identified compound not found above detection limits; therefore, reported data remains valid.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol except for the second column confirmation on samples MW-201B and MW-202B with 5x dilutions. These dilutions were performed, and no explanation was provided in the case narrative.

8 RCRA Metals Analyses / SW-846 6000/7000 Series

Sample Information

No analytes were detected above the assigned detection limits for samples Field Blank and Bailer Rinsate. Arsenic, Lead, and Zinc were detected in Sample MW-104 above the assigned detection limit. Sample MW-103 displayed sample results with Copper, Lead, and Zinc above assigned detection limits. Sample MW-102 displayed Lead and Zinc above assigned detection limits. And, Sample MW-101 displayed Arsenic, Lead, and Zinc with results above assigned detection limits.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this Metals analyses.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample digestion/analysis for Metals were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Matrix Spike/Matrix Spike Duplicate Samples

One MS/MSD per 20 samples was required and completed. All performance results were within QC Criteria Standards except for Antimony, Lead, and Mercury with low recoveries. RPD were within QC Ranges except for an antimony analyte with a %RPD above 20%. Parameter or analyte rejection cannot reject values based on MS/MSD validation alone.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

Data Evaluation Case Narrative Summary

NEI/GTEL Client ID: OTC01OTC01
Login Number: W6120301
Project ID Number: 1315-269-4A
Project ID Name: Illinois ANG at Capital Airport / Springfield, Illinois

Samples were sampled on 12/17/96 and received at the laboratory for analyses on 12/18/96.

Five water samples were analyzed for Halogenated/Aromatic Volatile analyses by Solid Waste Methods-846 8010/8020. Second Column Confirmation was performed on all samples with VOCs detected above the assigned detection limits. Four water samples were analyzed for Metals analysis by Solid Waste Methods, 6000/7000 Series.

Halogenated/Aromatic Volatile Analyses / SW-846 8010/8020

Sample Information

Sample MW202-GW04 displayed results that were above assigned detection limits on Vinyl Chloride, cis-1,2,-Dichloroethene, Benzene, Ethylbenzene, and Total Xylenes. Second Column Confirmation displayed results verifying the presence of Vinyl Chloride and cis-1,2-Dichloroethene. **Benzene, Ethylbenzene, and Total Xylenes were not confirmed and were therefore initially classified as estimated hits. Also, surrogate recoveries for the Second Column Analysis were out of QC Limits and are flagged with "J" flags and are classified as estimated hits.**

Sample 2FB-02 displayed results above the assigned detection limits on Chloroform, Bromodichloromethane, and Dibromochloromethane. Second Column Confirmation displayed results verifying the presence of all the compounds initially detected.

Sample 2FB-02 (Field Blank) displayed contamination on Chloroform, Bromodichloromethane, and Dibromochloromethane compounds. These identified compounds do not reflect the data usability and validity due to these compounds not being detected above assigned detection limits for the investigative samples.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial calibration met quality control criteria for this volatile analysis. The continuing calibrations conducted show %RPD and/or minimum RRF values for various compounds out of quality control limits. Samples were not affected due to identified compounds not found above detection limits; therefore, reported data is valid.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges, except for the Second Column Confirmation surrogate recoveries for sample MW202-GW04. Dibromofluoromethane-d8 surrogate was displayed outside QC Limits and the sample was not reanalyzed. Therefore, all results detected above the assigned detection limits are classified as estimated values and results are flagged with "J" flags.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

Metals Analyses / SW-846 6000/7000 Series

Sample Information

Lead and Zinc were detected in sample MW203-MW04 above the assigned detection limits. Sample MW201-GW04 displayed sample results with Copper, Lead and Zinc above assigned detection limits. And, Sample MW202-GW04 displayed Lead and Zinc above assigned detection limits.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this Metals analysis.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample digestion/analysis for Metals were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

A serial dilution was required when samples were analyzed for Method 7470 for Mercury at a 2x factor.

Data Evaluation Case Narrative Summary

NEI/GTEL Client ID: OTC01OTC01
Login Number: W6120326
Project ID Number: 1315-269-4A
Project ID Name: Illinois ANG at Capital Airport / Springfield, Illinois

Samples were sampled on 12/18/96 and received at the laboratory for analyses on 12/19/96.

Nine water samples were analyzed for Halogenated/Aromatic Volatile analyses by Solid Waste Methods-846 8010/8020. Second Column Confirmation was performed on all samples with VOCs detected above assigned detection limits. Seven samples were analyzed for Metals analysis by Solid Waste Methods, 6000/7000 Series.

Halogenated/Aromatic Volatile Analyses / SW-846 8010/8020

Sample Information

Sample DCON07-Decon H2O D-7 displayed results that are above assigned detection limits for Benzene and Toluene compounds. Second Column Confirmation displayed results verifying only the presence of Toluene. The value of Benzene has been flagged with a "J" flag and is an estimated quantity due to no confirmation on the Second Column Confirmation Analysis.

Sample DCON08-Decon H2O D-8 displayed a result above the assigned detection limit on Toluene. Second Column Confirmation displayed the result verifying the presence of Toluene initially detected.

Sample MW201B-GW01 displayed a result that was above the assigned detection limit on cis-1,2-Dichloroethene. Second Column Confirmation confirmed the detected compound and verified the presence of the compound initially detected.

Sample MW202A-GW01 displayed results that are above assigned detection limits for Vinyl Chloride, trans-1,2-Dichloroethene, cis-1,2-Dichloroethene, Benzene, 1,2-Dichloroethane, Trichloroethene and Ethylbenzene compounds. Second Column Confirmation displayed results verifying only the presence of Vinyl Chloride and cis-1,2-Dichloroethene. The values of trans-1,2-Dichloroethene, Benzene, 1,2-Dichloroethane, and Trichloroethane have been flagged with a "J" flag and are estimated quantities due to no confirmation on the Second Column Confirmation Analysis. Ethylbenzene was not analyzed for a Second Column Confirmation; therefore, the value is marked with a "J" flag and is classified as an estimated value.

Sample 2-FB03 exhibited Chloroform contamination above the assigned detection limit but did not affect the sample result validity due to no detected concentrations of the compound above the assigned detection limits.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial calibration met quality control criteria for this volatile analysis. The continuing calibrations conducted show %RPD and/or minimum RRF values for various compounds out of quality control limits. Samples were not affected due to identified compounds not found above detection limits; therefore, reported data is valid.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

A 10x serial dilution was required on the initial analysis Sample DCON6-Decon H2O D-6 due to foaming over of the sample during purge and trap method protocol. A 10x serial dilution was also required on the confirmation analysis for Sample MW202A-GW01 due to high concentration.

Metals Analyses / SW-846 6000/7000 Series

Sample Information

Copper and Zinc were detected on Sample DCOND6-Decon H2O D-6 above assigned detection limits. Sample DCOND7-Decon H2O D-7 displayed a sample result of Zinc above the assigned detection limit. Sample MW201B-GW01 displayed sample results of Chromium, Copper, Lead, Nickel, and Zinc above assigned detection limits. Sample MW202A-GW01 displayed sample results of Arsenic, Chromium, Copper, Lead, Nickel, and Zinc above assigned detection limits. Sample MW202B-MW01 displayed sample results of Arsenic, Chromium, Copper, Lead, Nickel, and Zinc above assigned detection limits.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this Metals analysis.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges, except for surrogate recoveries for Silver and Antimony. This was encountered in the MS/MSD analyses and was due to the precipitation of the spike analysis and the presence of concentrated acid. Results remain valid.

Holding Times and Preservatives

Holding times from sample collection to sample digestion/analysis for Metals were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

A serial dilution was required when samples were analyzed for Method 7470 for Mercury at a 2x factor.

Data Evaluation Case Narrative Summary

NEI/GTEL Client ID: OTC01OTC01
Login Number: W6120352
Project ID Number: 1315-269-4A
Project ID Name: Illinois ANG at Capital Airport / Springfield, Illinois

Samples were sampled on 12/19/96 and received at the laboratory for analyses on 12/20/96.

Six water samples were analyzed for Halogenated/Aromatic Volatile analyses by Solid Waste Methods-846 8010/8020. Second Column Confirmation was performed on all samples that were detected with VOCs above assigned detection limits. Five water samples were analyzed for Metals analysis by Solid Waste Methods, 6000/7000 Series. Two soil samples were analyzed by Toxicity Characteristic Leaching Procedure (TCLP) for Volatile Organics and Inorganic Metal analyses.

Halogenated/Aromatic Volatile Analyses / SW-846 8010/8020

Sample Information

Sample MW104-GW04 displayed results above assigned detection limits on Ethylbenzene and Total Xylenes. Second Column Confirmation displayed and verified quantitated results were valid. Sample 2-RB02 displayed a result on Chloroform above the assigned detection limit, and did not have a second column confirmation performed to verify contamination.

Method Blanks

All method blanks were found to be clean with no target compounds detected, except for compound 1,3-Dichloropropane that was present above the assigned detection limit. No samples were affected due to the compound not being present in samples. Reported data remains valid.

Initial and Continuing Calibration

The initial calibration met quality control criteria for this volatile analysis. The continuing calibrations conducted show %RPD and/or minimum RRF values for various compounds out of quality control limits. Samples were not affected due to identified compounds not found above detection limits; therefore, reported data is valid.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges, except for second confirmation sample MW104-GW04 for surrogate Dibromofluoromethane displaying recoveries outside QC Limits. Sample results were not affected due to no results above detection limits; therefore, reported data is valid.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

TCLP Volatile Organics Analysis / SW-846 8240

Sample Information

No samples were found to have results above assigned TCLP detection limits.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this volatile analysis.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

TCLP Metals Analyses / SW-846 6000/7000 Series

Sample Information

No samples were found to have results above assigned TCLP detection limits

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this TCLP Metals analysis.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample digestion/analysis for TCLP Metals were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

Metals Analyses / SW-846 6000/7000 Series

Sample Information

Zinc was detected in sample MW102-GW04 above the assigned detection limit. Sample MW103-GW04 displayed sample results with Lead and Zinc above assigned detection limits. Sample MW104-GW04 displayed Arsenic, Lead, and Zinc above assigned detection limits. And, Sample W101-GW04 displayed Arsenic, Copper, Lead, and Zinc with results above assigned detection limits.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this Metals analysis.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample digestion/analysis for Metals were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

A serial dilution was required when samples were analyzed for Method 7470 for Mercury at a 2x factor.

Data Evaluation Case Narrative Summary

NEI/GTEL Client ID: OTC01OTC01
Login Number: W6120253
Project ID Number: 1315-269-4A
Project ID Name: Illinois ANG at Capital Airport / Springfield, Illinois

Samples were sampled on 12/11/96 (soils) and 12/13/96 (waters) and received at the laboratory for analyses on 12/14/96.

Two soil samples were analyzed for Volatile Organic analysis by Solid Waste Methods-846 8240. Three water samples were analyzed for Halogenated/Aromatic Volatile analyses by Solid Waste Methods-846 8010/8020. Second Column Confirmation was performed on all samples with VOCs detected above assigned detection limits. Two soil and two water samples were analyzed for Metals analysis by Solid Waste Methods, 6000/7000 Series.

Volatile Organic Analyses / SW-846 8240

Sample Information

Samples 201B01-MW201B (0.0'-0.5') and 202B01-MW202B (0.0'-0.5') displayed results that were above the assigned detection limit on Methylene Chloride. **No Second Column Confirmation was performed and therefore the values are estimated and flagged with a "J" flag.** The Trip Blank also displayed results verifying the presence of Methylene Chloride.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial calibration met quality control criteria for this volatile analysis. The continuing calibrations conducted show %RPD and/or minimum RRF values for various compounds out of quality control limits. Samples were not affected due to identified compounds not found above detection limits; therefore, reported data is valid.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

Halogenated/Aromatic Volatile Analyses / SW-846 8010/8020

Sample Information

Sample 2-RB01 displayed a result above the assigned detection limit on Chloroform. Second Column Confirmation displayed similar results, verifying the presence of Chloroform. All soil samples with this sample batch were not affected by the Rinseate Blank contamination due to no detection of compounds above assigned detection limits.

Sample 2FB-01 displayed results above assigned detection limits on Chloroform, Bromodichloromethane, and Dibromochloromethane. Second Column Confirmation displayed results verifying the presence of all the compounds initially detected. All soil samples with this sample batch were not affected by the Field Blank contamination due to no detection of compounds above assigned detection limits.

Sample 2-TB01 displayed a result that was above the assigned detection limit on Methylene Chloride. Second Column Confirmation did not confirm the detected compound and therefore is marked with a "J" flag and will be an estimated value. This will be reflected in the associated soil samples of this batch.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial calibration met quality control criteria for this volatile analysis. The continuing calibrations conducted show %RPD and/or minimum RRF values for various compounds out of quality control limits. Samples were not affected due to identified compounds not found above detection limits; therefore, reported data is valid.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges.

Holding Times and Preservatives

Holding times from sample collection to sample extraction/analysis for volatiles were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

No serial dilutions were required when samples were analyzed in accordance with method protocol.

Metals Analyses / SW-846 6000/7000 Series

Sample Information

Chromium, Copper, Lead, Nickel, and Zinc were detected in Sample 201B01-MW201B (0.0'-0.5') above assigned detection limits. Sample 202B01-MW202B (0.0'-0.5') displayed sample results with Chromium, Copper, Lead, Nickel, and Zinc above assigned detection limits.

Method Blanks

All method blanks were found to be clean with no target compounds detected.

Initial and Continuing Calibration

The initial and continuing calibrations met quality control criteria for this Metals analysis.

Surrogate Recovery

All surrogate recoveries were within the defined QC Limit ranges, except for surrogate recoveries for Silver and Antimony. This was encountered in the MS/MSD analyses and was due to the precipitation of the spike analysis and the presence of concentrated acid. Results remain valid.

Holding Times and Preservatives

Holding times from sample collection to sample digestion/analysis for Metals were within QC limit requirements. All corresponding preservatives were properly distributed and present when sample collection was performed.

Laboratory Control Sample

One LCS per 20 samples was required and completed. All performance results were within QC Criteria Standards.

Serial Dilutions

A serial dilution was required when samples were analyzed for Method 7470 for Mercury at a 2x factor.

APPENDIX J
FIELD ANALYTICAL DATA



Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

May 13, 1997

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: NEI/GTEL Client ID: OTC010TC01
Login Number: W7040021
Project ID (number): 1315-269
Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Dear Kathryn Pritchett:

This report, previously dated 04/28/97, is a reissue.

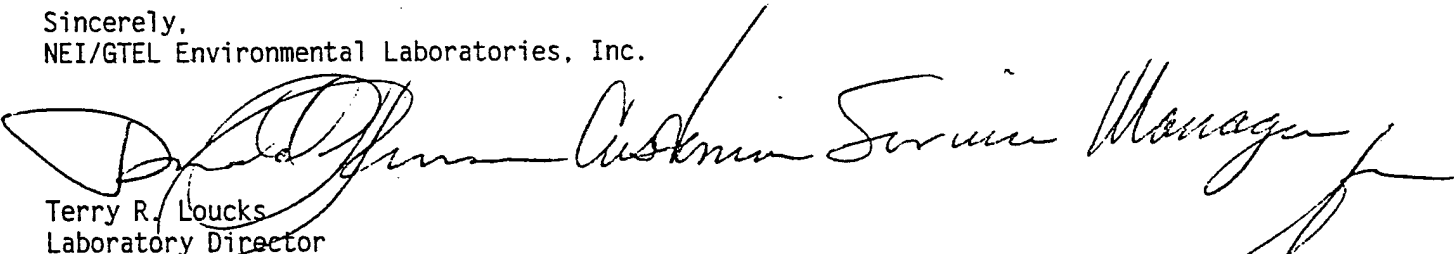
Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 04/02/97 under Chain-of-Custody Number(s) 50584 & 50583.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Number E-10103.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.


Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS

Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8240B

Matrix: Low Soil

NEI/GTEL Sample Number	W7040021-06	W7040021-07	W7040021-08	W7040021-09
Client ID	SD-01	SD-02	SD-03	MS/MSD-SD
Date Sampled	04/01/97	04/01/97	04/01/97	04/01/97
Date Analyzed	04/08/97	04/08/97	04/04/97	04/05/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:Wet Weight			
	Limit	Units				
Chloromethane	10.	ug/kg	< 10.	< 10.	< 10.	< 10.
Bromomethane	10.	ug/kg	< 10.	< 10.	< 10.	< 10.
Vinyl chloride	10.	ug/kg	< 10.	< 10.	< 10.	< 10.
Chloroethane	10.	ug/kg	< 10.	< 10.	< 10.	< 10.
Methylene chloride	10.	ug/kg	< 10.	< 10.	< 10.	< 10.
Acetone	20.	ug/kg	< 20.	< 20.	< 20.	27.
Carbon disulfide	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,2-Dichloroethene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
trans-1,2-Dichloroethene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Chloroform	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichloroethane	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
2-Butanone	20.	ug/kg	< 20.	< 20.	< 20.	< 20.
1,1,1-Trichloroethane	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Carbon tetrachloride	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl acetate	20.	ug/kg	< 20.	< 20.	< 20.	< 20.
Bromodichloromethane	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichloropropane	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,3-Dichloropropene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Trichloroethene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Dibromochloromethane	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
2-Chloroethylvinyl ether	10.	ug/kg	< 10.	< 10.	< 10.	< 10.
trans-1,3-Dichloropropene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Bromoform	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-pentanone	20.	ug/kg	< 20.	< 20.	< 20.	< 20.
2-Hexanone	20.	ug/kg	< 20.	< 20.	< 20.	< 20.
Tetrachloroethene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2,2-Tetrachloroethane	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Styrene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Xylenes (total)	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichlorobenzene	10.	ug/kg	< 10.	< 10.	< 10.	< 10.
1,3-Dichlorobenzene	10.	ug/kg	< 10.	< 10.	< 10.	< 10.
1,4-Dichlorobenzene	10.	ug/kg	< 10.	< 10.	< 10.	< 10.

NEI/GTEL Wichita, KS

W7040021

Page: 1

Reissued Report

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8240B

Matrix: Low Soil

NEI/GTEL Sample Number	W7040021-06	W7040021-07	W7040021-08	W7040021-09
Client ID	SD-01	SD-02	SD-03	MS/MSD-SD
Date Sampled	04/01/97	04/01/97	04/01/97	04/01/97
Date Analyzed	04/08/97	04/08/97	04/04/97	04/05/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:Wet Weight			
	Limit	Units				
Percent Solids	--	%	47.9	52.8	59.7	40.5

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8240B:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

W7040021-09:

1 out of 3 surrogates was outside control limits due to matrix effects as confirmed by sample re-analysis. There appears to be non-homogeneity of the sample in the the value for acetone in the re-analysis sample was 150 ppb.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040021

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8240B

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Low Soil

Surrogate Results

QC Batch No.	Reference	Sample ID	DCA-D4	TOL-D8	4-BFB
Method: EPA 8240B			Acceptability Limits:		
			70-121%	81-117%	74-121%
040497HP3-1	BL040497HP3	Method blanks low	101.	101.	96.2
040497HP3-2	LS040497HP3	Laboratory control	104.	97.5	98.1
040497HP3-3	LSD040497HP3	LCS Soil Duplicate	108.	99.1	97.9
040497HP3-4	MS04002109	Matrix Spike	110.	107.	108.
040497HP3-5	MD04002109	Matrix Spike Dupli	107.	108.	111.
040497HP3-6	BL040897HP3	Method blanks low	104.	101.	99.3
--	04002106	SD-01	106.	105.	109.
--	04002107	SD-02	116.	105.	109.
--	04002108	SD-03	104.	102.	113.
--	04002109	MS/MSD-SD	106.	112.	122.*

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

NEI/GTEL Client ID: OTC010TC01
 Login Number: W7040021
 Project ID (number): 1315-269
 Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8240B
 Matrix: Low Soil

Method Blank Results

QC Batch No: 040497HP3-1 040497HP3-6
 Date Analyzed: 04-APR-97 08-APR-97

Analyte	Method: EPA 8240B	Concentration: ug/kg
Chloromethane	< 10.0	< 10.0
Bromomethane	< 10.0	< 10.0
Vinyl chloride	< 10.0	< 10.0
Chloroethane	< 10.0	< 10.0
Methylene chloride	< 10.0	13.2*
Acetone	< 20.0	< 20.0
Carbon disulfide	< 5.00	< 5.00
1,1-Dichloroethene	< 5.00	< 5.00
1,1-Dichloroethane	< 5.00	< 5.00
cis-1,2-Dichloroethene	< 5.00	< 5.00
trans-1,2-Dichloroethene	< 5.00	< 5.00
Chloroform	< 5.00	< 5.00
1,2-Dichloroethane	< 5.00	< 5.00
2-Butanone	< 20.0	< 20.0
1,1,1-Trichloroethane	< 5.00	< 5.00
Carbon tetrachloride	< 5.00	< 5.00
Vinyl acetate	< 20.0	< 20.0
Bromodichloromethane	< 5.00	< 5.00
1,2-Dichloropropane	< 5.00	< 5.00
cis-1,3-Dichloropropene	< 5.00	< 5.00
Trichloroethene	< 5.00	< 5.00
Dibromochloromethane	< 5.00	< 5.00
1,1,2-Trichloroethane	< 5.00	< 5.00
Benzene	< 5.00	< 5.00
2-Chloroethyl vinyl ether	< 10.0	< 10.0
trans-1,3-Dichloropropene	< 5.00	< 5.00
Bromoform	< 5.00	< 5.00
4-Methyl-2-pentanone	< 20.0	< 20.0
2-Hexanone	< 20.0	< 20.0
Tetrachloroethene	< 5.00	< 5.00
1,1,2,2-Tetrachloroethane	< 5.00	< 5.00
Toluene	< 5.00	< 5.00
Chlorobenzene	< 5.00	< 5.00
Ethylbenzene	< 5.00	< 5.00
Styrene	< 5.00	< 5.00
Xylenes (Total)	< 5.00	< 5.00
1,2-Dichlorobenzene	< 10.0	< 10.0
1,3-Dichlorobenzene	< 10.0	< 10.0
1,4-Dichlorobenzene	< 10.0	< 10.0

Notes:

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040021

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8240B

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Low Soil

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

GTEL Sample ID:W7040021-09		MS ID:MS04002109		MSD ID:MD04002109						
Analysis Date: 05-APR-97		05-APR-97		05-APR-97						
Units: ug/kg	Sample	Spikes Added		MS	MS	MSD	MSD	Acceptability Limits		
Analyte	Conc.	MS	MSD	Conc.	% Rec.	Conc.	% Rec.	RPD	RPD	%Rec.
1,1-Dichloroethene	< 5.0 (0.000)	50.0	50.0	57.9	116	58.4	117	0.900	24	59-172
Trichloroethene	< 5.0 (0.000)	50.0	50.0	66.1	132	66.0	132	0.00	22	62-137
Benzene	< 5.0 (0.000)	50.0	50.0	59.3	119	60.2	120	0.800	21	66-142
Toluene	< 5.0 (0.000)	50.0	50.0	61.2	122	63.2	126	3.20	21	59-139
Chlorobenzene	< 5.0 (0.000)	50.0	50.0	60.2	120	59.4	119	0.800	21	60-133

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

NEI/GTEL Client ID: OTC01OTC01

QUALITY CONTROL RESULTS

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organic

Method: EPA 8240B

Matrix: Low Soil

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

Analyte	Spike Amount	LCS Concentration	LCS Recovery, %	LCS Duplicate Concentration	LCS Duplicate Recovery, %	RPD, %	Acceptability Limits	
							RPD, %	Recovery, %
EPA 8240B	Units: ug/kg	QC Batch:040497HP3-3						
1,1-Dichloroethene	50.0	40.1	80.2	40.5	81.0	0.993	22	59-172%
Trichloroethene	50.0	43.0	86.0	41.6	83.2	3.31	24	62-137%
Benzene	50.0	42.5	85.0	40.0	80.0	6.06	21	66-142%
Toluene	50.0	43.2	86.4	41.1	82.2	4.98	21	59-139%
Chlorobenzene	50.0	43.9	87.8	43.0	86.0	2.07	21	60-133%

Notes:

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040021

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8240B

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Low Soil

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	--	--	--
Surrogate Recovery	*	--	NA
Holding Time	X	--	--
Method Accuracy	X	--	--
Method Precision	X	--	--
Blank Contamination	*	--	--

Comments:

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01
 Login Number: W7040021
 Project ID (number): 1315-269
 Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020
 Matrix: Aqueous

NEI/GTEL Sample Number	W7040021-01	W7040021-02	W7040021-03	W7040021-04
Client ID	SW-01	SW-03	SW-02	MS/MSD
Date Sampled	04/01/97	04/01/97	04/01/97	04/01/97
Date Analyzed	04/13/97	04/13/97	04/13/97	04/13/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units	W7040021-01	W7040021-02	W7040021-03	W7040021-04
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040021-01	W7040021-02	W7040021-03	W7040021-04
Client ID	SW-01	SW-03	SW-02	MS/MSD
Date Sampled	04/01/97	04/01/97	04/01/97	04/01/97
Date Analyzed	04/13/97	04/13/97	04/13/97	04/13/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:
	Limit	Units	

Notes: (continued)

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846. Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01
 Login Number: W7040021
 Project ID (number): 1315-269
 Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020
 Matrix: Aqueous

NEI/GTEL Sample Number	W7040021-05	--	--	--
Client ID	BRASS SLEEVE RINSATE	--	--	--
Date Sampled	04/01/97	--	--	--
Date Analyzed	04/13/97	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:
Dichlorodifluoromethane	5.0	ug/L	< 5.0
Chloromethane	2.0	ug/L	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0
Bromomethane	2.0	ug/L	< 2.0
Chloroethane	1.0	ug/L	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0
Methylene chloride	1.0	ug/L	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0
Chloroform	1.0	ug/L	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0
Benzene	0.5	ug/L	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0
Trichloroethene	1.0	ug/L	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0
Toluene	1.0	ug/L	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0
Bromoform	2.0	ug/L	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040021-05	--	--	--
Client ID	BRASS SLEEVE RINSATE	--	--	--
Date Sampled	04/01/97	--	--	--
Date Analyzed	04/13/97	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

NEI/GTEL Client ID: OTC010TC01
Login Number: W7040021
Project ID (number): 1315-269
Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010/8
Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	BFB ELCD	BFB PID
Method: EPA 8010/8020			Acceptability Limits: 52.8-144% 77.3-129%	
041397GC11-1	CV0413972011	Calibration Verifi	101.	101
041397GC11-2	BW04139711	Method Blank Water	104.	99.6
041397GC11-4	MS04002104	Matrix Spike	98.3	101.
041397GC11-6	DP04001601	Duplicate	92.9	101.
041397GC11-8	LW0413972011	Laboratory Control	93.1	102.
--	04002101	SW-01	98.6	99.6
--	04002102	SW-03	100.	99.3
--	04002103	SW-02	98.5	99.3
--	04002104	MS/MSD	106.	99.5
--	04002105	BRASS SLEEVE RINSA	114.	98.3

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

NEI/GTEL Client ID: OTC010TC01
Login Number: W7040021
Project ID (number): 1315-269
Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010/8
Matrix: Aqueous

Method Blank Results

QC Batch No: 041397GC11-2
Date Analyzed: 13-APR-97

Analyte	Method: EPA 8010/8020	Concentration: ug/L
Dichlorodifluoromethane	<	5.00
Chloromethane	<	2.00
Vinyl chloride	<	1.00
Bromomethane	<	2.00
Chloroethane	<	1.00
Trichlorofluoromethane	<	1.00
1,1-Dichloroethene	<	1.00
Methylene chloride	<	1.00
trans-1,2-Dichloroethene	<	1.00
1,1-Dichloroethane	<	1.00
cis-1,2-Dichloroethene	<	1.00
Chloroform	<	1.00
1,1,1-Trichloroethane	<	1.00
Carbon tetrachloride	<	1.00
Benzene	<	0.500
1,2-Dichloroethane	<	1.00
Trichloroethene	<	1.00
1,2-Dichloropropane	<	1.00
Bromodichloromethane	<	1.00
2-Chloroethyl vinyl ether	<	1.00
cis-1,3-Dichloropropene	<	1.00
trans-1,3-Dichloropropene	<	1.00
Toluene	<	1.00
1,1,2-Trichloroethane	<	1.00
Tetrachloroethene	<	1.00
Dibromochloromethane	<	1.00
Chlorobenzene	<	1.00
Ethylbenzene	<	1.00
Xylenes (Total)	<	1.00
Bromoform	<	2.00
1,1,2,2-Tetrachloroethane	<	1.00
1,3-Dichlorobenzene	<	1.00
1,4-Dichlorobenzene	<	1.00
1,2-Dichlorobenzene	<	1.00

Notes:

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics

Method: EPA 8010/8

Matrix: Aqueous

Calibration Verification Sample Summary

Analyte	Spike	Check Sample	QC Percent	Acceptability Limits
	Amount	Concentration	Recovery	Recovery
EPA 8010/8020	Units:ug/L	QC Batch:041397GC11-1		
Dichlorodifluoromethane	20.0	22.9	115.	40-160%
Chloromethane	20.0	18.4	92.0	59.5-140.5%
Vinyl chloride	20.0	19.9	99.5	68.5-131.5%
Bromomethane	20.0	19.3	96.5	58.5-141.5%
Chloroethane	20.0	18.4	92.0	77-123%
Trichlorofluoromethane	20.0	18.5	92.5	66.5-133.5%
1,1-Dichloroethene	20.0	18.7	93.5	63-137%
Methylene chloride	20.0	19.3	96.5	77.5-122.5%
trans-1,2-Dichloroethene	20.0	19.1	95.5	64-136%
1,1-Dichloroethane	20.0	19.3	96.5	71.5-116%
cis-1,2-Dichloroethene	20.0	19.2	96.0	64-116%
Chloroform	20.0	19.4	97.0	75-125%
1,1,1-Trichloroethane	20.0	18.9	94.5	71-129%
Carbon tetrachloride	20.0	19.2	96.0	68.5-131.5%
Benzene	20.0	19.7	98.5	77-123%
1,2-Dichloroethane	20.0	19.1	95.5	71.5-128.5%
Trichloroethene	20.0	19.0	95.0	77-123%
1,2-Dichloropropane	20.0	19.3	96.5	74-126%
Bromodichloromethane	20.0	18.3	91.5	76-124%
2-Chloroethyl vinyl ether	20.0	16.1	80.5	60-140%
cis-1,3-Dichloropropene	20.0	17.6	88.0	64-136%
trans-1,3-Dichloropropene	20.0	17.8	89.0	64-136%
Toluene	20.0	19.9	99.5	77.5-122.5%
1,1,2-Trichloroethane	20.0	19.6	98.0	78.5-121.5%
Tetrachloroethene	20.0	19.3	96.5	70-130%
Dibromochloromethane	20.0	20.2	101.	65.5-134.5%
Chlorobenzene	20.0	19.1	95.5	72-128%
Ethylbenzene	20.0	20.9	105.	63-137%
Xylenes (Total)	60.0	61.6	103.	36-136%
Bromoform	20.0	19.8	99.0	73.5-126.5%
1,1,2,2-Tetrachloroethane	20.0	19.6	98.0	49-151%
1,3-Dichlorobenzene	20.0	19.0	95.0	49.5-150.5%
1,4-Dichlorobenzene	20.0	19.7	98.5	69.5-130.5%
1,2-Dichlorobenzene	20.0	19.7	98.5	70-130%

Notes:

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040021

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8010/8

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010/8020	Units:ug/L	QC Batch:041397GC11-8		
Dichlorodifluoromethane	20.0	25.9	130	40-160%
Chloromethane	20.0	19.4	97.0	10-193%
Vinyl chloride	20.0	22.9	115	28-163%
Bromomethane	20.0	18.6	93.0	10-144%
Chloroethane	20.0	19.4	97.0	46-137%
Trichlorofluoromethane	20.0	20.9	105	21-156%
1,1-Dichloroethene	20.0	23.5	118	28-167%
Methylene chloride	20.0	19.9	99.5	25-162%
trans-1,2-Dichloroethene	20.0	20.4	102	38-155%
1,1-Dichloroethane	20.0	19.7	98.5	47-132%
cis-1,2-Dichloroethene	20.0	18.7	93.5	38-155%
Chloroform	20.0	20.0	100	49-133%
1,1,1-Trichloroethane	20.0	20.4	102	41-138%
Carbon tetrachloride	20.0	20.5	103	43-143%
Benzene	20.0	19.7	98.5	39-150%
1,2-Dichloroethane	20.0	20.2	101	51-147%
Trichloroethene	20.0	25.3	127	35-146%
1,2-Dichloropropane	20.0	19.8	99.0	44-156%
Bromodichloromethane	20.0	18.2	91.0	42-172%
2-Chloroethyl vinyl ether	20.0	18.6	93.0	14-186%
cis-1,3-Dichloropropene	20.0	17.8	89.0	22-178%
trans-1,3-Dichloropropene	20.0	17.0	85.0	22-178%
Toluene	20.0	20.0	100	46-148%
1,1,2-Trichloroethane	20.0	18.6	93.0	39-136%
Tetrachloroethene	20.0	19.6	98.0	26-162%
Dibromochloromethane	20.0	18.3	91.5	24-191%
Chlorobenzene	20.0	19.3	96.5	38-150%
Ethylbenzene	20.0	20.9	105	32-160%
Xylenes (Total)	60.0	61.6	103	36-136%
Bromoform	20.0	17.5	87.5	13-159%
1,1,2,2-Tetrachloroethane	20.0	11.6	58.0	10-184%
1,3-Dichlorobenzene	20.0	18.1	90.5	10-187%
1,4-Dichlorobenzene	20.0	19.0	95.0	42-143%
1,2-Dichlorobenzene	20.0	19.1	95.5	10-208%

Notes:

NEI/GTEL Wichita, KS

W7040021:5

NEI/GTEL Client ID: OTC010TC01
 Login Number: W7040021
 Project ID (number): 1315-269
 Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8010/8
 Matrix: Aqueous

Duplicate Sample Results

Analyte	Original Concentration	Duplicate Concentration	RPD, %	Acceptability Limits, %
EPA 8010/8020 Units: ug/L	QC Batch: 041397GC11-6		GTEL Sample ID: W7040016-01	
			Client ID: Batch QC	
Dichlorodifluoromethane	< 50.0	< 50.0	NA	35.4
Chloromethane	< 20.0	< 20.0	NA	24.2
Vinyl chloride	< 10.0	< 10.0	NA	18.6
Bromomethane	< 20.0	< 20.0	NA	24.8
Chloroethane	< 10.0	< 10.0	NA	14.4
Trichlorofluoromethane	< 10.0	< 10.0	NA	19.6
1,1-Dichloroethene	256	296	14.5	21.6
Methylene chloride	< 10.0	< 10.0	NA	13.1
trans-1,2-Dichloroethene	< 10.0	< 10.0	NA	20.9
1,1-Dichloroethane	19.1	21.2	10.4	10.5
cis-1,2-Dichloroethene	30.6	33.4	8.75	20.9
Chloroform	< 10.0	< 10.0	NA	14.7
1,1,1-Trichloroethane	112	128	13.3	16
Carbon tetrachloride	< 10.0	< 10.0	NA	18.3
Benzene	< 5.00	< 5.00	NA	13.4
1,2-Dichloroethane	< 10.0	< 10.0	NA	17
Trichloroethene	1780	1730	2.85	13.7
1,2-Dichloropropane	< 10.0	< 10.0	NA	17
Bromodichloromethane	< 10.0	< 10.0	NA	13.1
2-Chloroethyl vinyl ether	< 10.0	< 10.0	NA	27.1
cis-1,3-Dichloropropene	< 10.0	< 10.0	NA	23.8
trans-1,3-Dichloropropene	< 10.0	< 10.0	NA	23.8
Toluene	< 10.0	< 10.0	NA	13.1
1,1,2-Trichloroethane	< 10.0	< 10.0	NA	12.8
Tetrachloroethene	< 10.0	< 10.0	NA	17.7
Dibromochloromethane	< 10.0	< 10.0	NA	20.6
Chlorobenzene	< 10.0	< 10.0	NA	16.4
Ethylbenzene	< 10.0	< 10.0	NA	40
Xylenes (Total)	< 10.0	< 10.0	NA	31.1
Bromoform	< 20.0	< 20.0	NA	15.4
1,1,2,2-Tetrachloroethane	< 10.0	< 10.0	NA	30
1,3-Dichlorobenzene	< 10.0	< 10.0	NA	29.7
1,4-Dichlorobenzene	< 10.0	< 10.0	NA	18
1,2-Dichlorobenzene	< 10.0	< 10.0	NA	18

Notes:

NA - The concentration of the analyte is less than the reporting limit.

NEI/GTEL Client ID: OTC01OTC01

QUALITY CONTROL RESULTS

Login Number: W7040021

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8010/8

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W7040021-04		MS ID:MS04002104			
Analysis Date: 13-APR-97		14-APR-97			
Units: ug/L	Sample	Spike	MS	MS	Acceptability Limits
Analyte	Conc.	Added	Conc.	% Rec.	%Rec.
Dichlorodifluoromethane	< 5.0 (0.000)	20.0	23.9	120.	40-160
Chloromethane	< 2.0 (0.000)	20.0	20.6	103.	10-193
Vinyl chloride	< 1.0 (0.000)	20.0	21.9	110.	28-163
Bromomethane	< 2.0 (0.000)	20.0	19.3	96.5	10-144
Chloroethane	< 1.0 (0.000)	20.0	18.9	94.5	46-137
Trichlorofluoromethane	< 1.0 (0.000)	20.0	17.6	88.0	21-156
1,1-Dichloroethene	< 1.0 (0.000)	20.0	21.7	109.	28-167
Methylene chloride	< 1.0 (0.000)	20.0	20.0	100.	25-162
trans-1,2-Dichloroethene	< 1.0 (0.000)	20.0	20.4	102.	38-155
1,1-Dichloroethane	< 1.0 (0.000)	20.0	20.6	103.	47-132
cis-1,2-Dichloroethene	< 1.0 (0.000)	20.0	19.7	98.5	38-155
Chloroform	< 1.0 (0.000)	20.0	20.3	102.	49-133
1,1,1-Trichloroethane	< 1.0 (0.000)	20.0	20.6	103.	41-138
Carbon tetrachloride	< 1.0 (0.000)	20.0	21.0	105.	43-143
Benzene	< 0.50(0.000)	20.0	20.4	102.	39-150
1,2-Dichloroethane	< 1.0 (0.000)	20.0	19.9	99.5	51-147
Trichloroethene	< 1.0 (0.000)	20.0	19.7	98.5	35-146
1,2-Dichloropropane	< 1.0 (0.000)	20.0	20.0	100.	44-156
Bromodichloromethane	< 1.0 (0.000)	20.0	18.5	92.5	42-172
2-Chloroethyl vinyl ether	< 1.0 (0.000)	20.0	0.00	0.00*	14-186
cis-1,3-Dichloropropene	< 1.0 (0.000)	20.0	19.2	96.0	22-178
trans-1,3-Dichloropropene	< 1.0 (0.000)	20.0	18.7	93.5	22-178
Toluene	< 1.0 (0.100)	20.0	20.5	102.	46-148
1,1,2-Trichloroethane	< 1.0 (0.000)	20.0	19.8	99.0	39-136
Tetrachloroethene	< 1.0 (0.000)	20.0	20.3	102.	26-162
Dibromochloromethane	< 1.0 (0.000)	20.0	19.1	95.5	24-191
Chlorobenzene	< 1.0 (0.000)	20.0	20.4	102.	38-150
Ethylbenzene	< 1.0 (0.000)	20.0	21.4	107.	32-160
Xylenes (Total)	< 1.0 (0.000)	60.0	62.9	105.	36-136
Bromoform	< 2.0 (0.000)	20.0	18.6	93.0	13-159
1,1,2,2-Tetrachloroethane	< 1.0 (0.000)	20.0	19.3	96.5	10-184
1,3-Dichlorobenzene	< 1.0 (0.000)	20.0	19.4	97.0	10-187
1,4-Dichlorobenzene	< 1.0 (0.000)	20.0	18.5	92.5	42-143
1,2-Dichlorobenzene	< 1.0 (0.000)	20.0	20.0	100.	10-208

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

041397GC11-4: 2-Chloroethylvinyl ether decomposes in the presence of Hydrochloric Acid (used as a preservative).

NEI/GTEL Wichita, KS

W7040021:7

NEI/GTEL Client ID: OTC010TC01
Login Number: W7040021
Project ID (number): 1315-269
Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010/8
Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	*	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040021-01	W7040021-02	W7040021-03	W7040021-04
Client ID	SW-01	SW-03	SW-02	MS/MSD
Date Sampled	04/01/97	04/01/97	04/01/97	04/01/97
EPA 6010A	Date Prepared	04/08/97	04/08/97	04/08/97
EPA 6010A	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 6010A	Dilution Factor	1.00	1.00	1.00
EPA 7041	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7041	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 7041	Dilution Factor	1.00	1.00	1.00
EPA 7060A	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7060A	Date Analyzed	04/10/97	04/10/97	04/10/97
EPA 7060A	Dilution Factor	1.00	1.00	1.00
EPA 7421	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7421	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7421	Dilution Factor	1.00	1.00	1.00
EPA 7470A	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7470A	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7470A	Dilution Factor	1.00	1.00	1.00
EPA 7740	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7740	Date Analyzed	04/14/97	04/14/97	04/14/97
EPA 7740	Dilution Factor	1.00	1.00	1.00
EPA 7841	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7841	Date Analyzed	04/09/97	04/09/97	04/09/97
EPA 7841	Dilution Factor	1.00	1.00	1.00

Analyte	Reporting			Concentration:			
	Limit	Units					
Inorganics (MT, WC)							
Antimony	EPA 7041	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Arsenic	EPA 7060A	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Cadmium	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.	< 20.
Chromium	EPA 6010A	30.	ug/L	< 30.	< 30.	< 30.	< 30.
Copper	EPA 6010A	25.	ug/L	< 25.	< 25.	< 25.	< 25.
Lead	EPA 7421	4.0	ug/L	9.5	13.	7.3	14.
Mercury	EPA 7470A	0.50	ug/L	< 0.50	< 0.50	< 0.50	< 0.50
Nickel	EPA 6010A	40.	ug/L	< 40.	< 40.	< 40.	< 40.
Selenium	EPA 7740	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Silver	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.	< 20.
Thallium	EPA 7841	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Zinc	EPA 6010A	20.	ug/L	< 20.	29.	< 20.	43.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W7040021

Reissued Report

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040021-01	W7040021-02	W7040021-03	W7040021-04
Client ID	SW-01	SW-03	SW-02	MS/MSD
Date Sampled	04/01/97	04/01/97	04/01/97	04/01/97
EPA 6010A	Date Prepared	04/08/97	04/08/97	04/08/97
EPA 6010A	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 6010A	Dilution Factor	1.00	1.00	1.00
EPA 7041	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7041	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 7041	Dilution Factor	1.00	1.00	1.00
EPA 7060A	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7060A	Date Analyzed	04/10/97	04/10/97	04/10/97
EPA 7060A	Dilution Factor	1.00	1.00	1.00
EPA 7421	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7421	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7421	Dilution Factor	1.00	1.00	1.00
EPA 7470A	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7470A	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7470A	Dilution Factor	1.00	1.00	1.00
EPA 7740	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7740	Date Analyzed	04/14/97	04/14/97	04/14/97
EPA 7740	Dilution Factor	1.00	1.00	1.00
EPA 7841	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7841	Date Analyzed	04/09/97	04/09/97	04/09/97
EPA 7841	Dilution Factor	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.

Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including Update 2.

NEI/GTEL Wichita, KS

W7040021

Reissued Report

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01
 Login Number: W7040021
 Project ID (number): 1315-269
 Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below
 Matrix: Aqueous

NEI/GTEL Sample Number	W7040021-05	--	--	--	--
Client ID	BRASS SLEEVE RINSATE	--	--	--	--
Date Sampled	04/01/97	--	--	--	--
EPA 6010A	Date Prepared	04/08/97	--	--	--
EPA 6010A	Date Analyzed	04/08/97	--	--	--
EPA 6010A	Dilution Factor	1.00	--	--	--
EPA 7041	Date Prepared	04/07/97	--	--	--
EPA 7041	Date Analyzed	04/08/97	--	--	--
EPA 7041	Dilution Factor	1.00	--	--	--
EPA 7060A	Date Prepared	04/09/97	--	--	--
EPA 7060A	Date Analyzed	04/10/97	--	--	--
EPA 7060A	Dilution Factor	1.00	--	--	--
EPA 7421	Date Prepared	04/07/97	--	--	--
EPA 7421	Date Analyzed	04/07/97	--	--	--
EPA 7421	Dilution Factor	1.00	--	--	--
EPA 7470A	Date Prepared	04/07/97	--	--	--
EPA 7470A	Date Analyzed	04/07/97	--	--	--
EPA 7470A	Dilution Factor	1.00	--	--	--
EPA 7740	Date Prepared	04/09/97	--	--	--
EPA 7740	Date Analyzed	04/14/97	--	--	--
EPA 7740	Dilution Factor	1.00	--	--	--
EPA 7841	Date Prepared	04/07/97	--	--	--
EPA 7841	Date Analyzed	04/09/97	--	--	--
EPA 7841	Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:	--	--	--
Antimony	EPA 7041	10.	ug/L < 10.	--	--	--
Arsenic	EPA 7060A	10.	ug/L < 10.	--	--	--
Beryllium	EPA 6010A	5.0	ug/L < 5.0	--	--	--
Cadmium	EPA 6010A	20.	ug/L < 20.	--	--	--
Chromium	EPA 6010A	30.	ug/L < 30.	--	--	--
Copper	EPA 6010A	25.	ug/L < 25.	--	--	--
Lead	EPA 7421	4.0	ug/L < 4.0	--	--	--
Mercury	EPA 7470A	0.50	ug/L < 0.50	--	--	--
Nickel	EPA 6010A	40.	ug/L < 40.	--	--	--
Selenium	EPA 7740	10.	ug/L < 10.	--	--	--
Silver	EPA 6010A	20.	ug/L < 20.	--	--	--
Thallium	EPA 7841	10.	ug/L < 10.	--	--	--
Zinc	EPA 6010A	20.	ug/L < 20.	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W7040021

Reissued Report

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below
Matrix: Aqueous

NEI/GTEL Sample Number	W7040021-05				
Client ID	BRASS SLEEVE RINSATE				
Date Sampled	04/01/97				
EPA 6010A	Date Prepared	04/08/97	--	--	--
EPA 6010A	Date Analyzed	04/08/97	--	--	--
EPA 6010A	Dilution Factor	1.00	--	--	--
EPA 7041	Date Prepared	04/07/97	--	--	--
EPA 7041	Date Analyzed	04/08/97	--	--	--
EPA 7041	Dilution Factor	1.00	--	--	--
EPA 7060A	Date Prepared	04/09/97	--	--	--
EPA 7060A	Date Analyzed	04/10/97	--	--	--
EPA 7060A	Dilution Factor	1.00	--	--	--
EPA 7421	Date Prepared	04/07/97	--	--	--
EPA 7421	Date Analyzed	04/07/97	--	--	--
EPA 7421	Dilution Factor	1.00	--	--	--
EPA 7470A	Date Prepared	04/07/97	--	--	--
EPA 7470A	Date Analyzed	04/07/97	--	--	--
EPA 7470A	Dilution Factor	1.00	--	--	--
EPA 7740	Date Prepared	04/09/97	--	--	--
EPA 7740	Date Analyzed	04/14/97	--	--	--
EPA 7740	Dilution Factor	1.00	--	--	--
EPA 7841	Date Prepared	04/07/97	--	--	--
EPA 7841	Date Analyzed	04/09/97	--	--	--
EPA 7841	Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

EPA 7421, EPA 7841:
Digestion for Total Metals by EPA Method 3020A.
Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:
Digestion by EPA Method 7060.

EPA 7470A:
Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:
"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0021
Date Reported: 04-16-97

QA NONCONFORMANCE SUMMARY

1.0 Sample Handling

1.1 Sample handling and holding time criteria were not met for zero samples.

2.0 Initial Calibration Verification

2.1 The validity for the calibration verification was exceeded for zero samples as shown in Table 2.

3.0 Method Blanks

3.1 Zero target elements were found in the method blank as shown in Table 3.

4.0 Matrix Spike (MS) Accuracy

4.1 The recovery limits were exceeded in the matrix spike.

4.2 The recovery limits for the matrix spike and matrix spike duplicate were exceeded for antimony due to precipitation of the element in the presence of the sample matrix.

5.0 Sample Duplicate Precision

5.1 The maximum percent difference (RPD) was exceeded for one element in the matrix spike and matrix spike duplicate samples as shown in Tables 4A and 4B.

5.2 The maximum percent difference (RPD) was exceeded for antimony in the matrix spike and the matrix spike duplicate due to precipitation of the element in the sample matrix.

6.0 Laboratory Control Sample

6.1 The recovery limits were not met for zero elements for the laboratory control samples as shown in Table 5.

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0021
Date Reported: 04-16-97

Table 2
INITIAL CALIBRATION VERIFICATION QC CHECK SAMPLE REPORT
Metals in Water^a

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	43.8	110	90-110
Arsenic	40.0	40.0	100	90-110
Beryllium	1000	1020	102	90-110
Cadmium	1000	1030	103	90-110
Chromium	1000	1020	102	90-110
Copper	1000	1020	102	90-110
Lead	20.0	20.7	104	90-110
Mercury	4.00	4.17	104	90-110
Nickel	1000	1040	104	90-110
Selenium	40.0	39.4	98.5	90-110
Silver	500	524	105	90-110
Thallium	20.0	20.2	101	90-110
Zinc	1000	1040	104	90-110

a Acceptability limits as per EPA Contract Laboratory Program

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0021
Date Reported: 04-16-97

Table 3
BLANK REPORT
Metals in Water

Analyte	Initial Calibration Blank, ug/L	Preparation Blank, ug/L
Antimony	<10	<10
Arsenic	<10	<10
Beryllium	<5.0	<5.0
Cadmium	<20	<20
Chromium	<30	<30
Copper	<25	<25
Lead	<4.0	<4.0
Mercury	<0.50	<0.50
Nickel	<40	<40
Selenium	<10	<10
Silver	<20	<20
Thallium	<10	<10
Zinc	<20	<20

<# Not detected at the indicated detection limit (#)

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0021
 Date Reported: 04-16-97

Table 4A
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY

Metals in Water

Sample Spiked: Method 6010A W7040112-01
 Sample Spiked: Method 7041 W7040081-01
 Sample Spiked: Method 7060A W7040021-01
 Sample Spiked: Method 7421 W7040081-01
 Sample Spiked: Method 7470A W7040021-01
 Sample Spiked: Method 7740 W7040021-01
 Sample Spiked: Method 7841 W7040081-01

Analyte	Spike Added, ug/L	Sample Concentration, ug/L	MS Concentration, ug/L	MS Percent Recovery	Acceptability Limits, % ^a
Antimony	40.0	<10.0	15.1	37.8 ^b	75-125
Arsenic	40.0	<10.0	40.9	102	75-125
Beryllium	133	<5.0	118	88.8	80-120
Cadmium	168	<20	158	93.8	80-120
Chromium	333	<30	302	90.5	80-120
Copper	333	<25	310	93.0	80-120
Lead	20.0	23.9	39.4	77.5	75-125
Mercury	2.00	<0.50	1.66	83.0	75-125
Nickel	333	<40	292	87.5	80-120
Selenium	40.0	<10.0	41.7	104	75-125
Silver	66.7	<20	62.0	92.3	80-120
Thallium	20.0	<10.0	17.2	86.0	80-120
Zinc	333	<20	313	93.7	80-120

a Acceptability limits as per EPA Contract Laboratory Program.

b Value is outside of acceptability limits.

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0021
 Date Reported: 04-16-97

Table 4B
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
 Metals in Water

Analyte	Spike Added, ug/L	MSD Concentration, ug/L	MSD Percent Recovery	RPD %	Acceptability Limits, % ^a
					RPD
Antimony	40.0	11.5	28.8	27.1 ^b	20.0
Arsenic	40.0	43.0	108	5.00	20.0
Beryllium	133	110	82.7	7.09	20.0
Cadmium	168	143	85.0	9.87	20.0
Chromium	333	277	83.1	8.63	20.0
Copper	333	278	83.4	10.9	20.0
Lead	20.0	37.4	67.5	1.26	20.0
Mercury	2.00	1.42	71.0	15.6	20.0
Nickel	333	270	81.1	7.59	20.0
Selenium	40.0	40.6	102	2.67	20.0
Silver	66.7	55.0	83.2	10.4	20.0
Thallium	20.0	17.7	88.5	2.86	20.0
Zinc	333	284	85.2	9.57	20.0

a Acceptability limits as per EPA Contract Laboratory Program.

b Value is outside of acceptability limits.

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0021
Date Reported: 04-16-97

Table 5
LABORATORY CONTROL SAMPLE RESULTS
Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	39.3	98.2	75-125
Arsenic	40.0	43.1	108	75-125
Beryllium	800	797	99.6	80-120
Cadmium	1010	943	93.4	80-120
Chromium	2000	1960	98.0	80-120
Copper	2000	1930	96.5	80-120
Lead	20.0	20.7	104	75-125
Mercury	2.00	1.80	90.0	75-125
Nickel	2000	1940	97.0	80-120
Selenium	40.0	39.7	99.2	75-125
Silver	400	368	92.0	80-120
Thallium	20.0	21.0	105	75-125
Zinc	2000	1880	94.0	80-120

a Acceptability limits established by laboratory practice

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0021
 Date Reported: 04-16-97

Table 6
LABORATORY CONTROL SAMPLE RESULTS
Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	37.6	94.0	36.2	90.5	80-120
Arsenic	40.0	43.5	109	47.1	118	80-120
Beryllium	2000	2060	103	2090	104	90-110
Cadmium	2500	2660	106	2700	108	90-110
Chromium	5000	5280	106	5390	108	90-110
Copper	5000	4980	99.5	5120	102	90-110
Lead	20.0	22.2	111	21.8	109	80-120
Mercury	4.00	4.08	102	4.17	104	80-120
Nickel	5000	5345	107	5434	109	90-110
Selenium	40.0	39.2	98.0	42.4	106	80-120
Silver	1000	1020	102	1050	105	90-110
Thallium	20.0	19.6	98.0	18.6	93.0	80-120
Zinc	5000	5300	106	5360	107	90-110

a Acceptability limits established by laboratory practice

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0021
 Date Reported: 04-16-97

Table 6
 LABORATORY CONTROL SAMPLE RESULTS
 Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	39.0	97.5	—	—	80-120
Arsenic	40.0	45.1	113	—	—	80-120
Beryllium	2000	2100	105	—	—	90-110
Cadmium	2500	2740	110	—	—	90-110
Chromium	5000	5500	110	—	—	90-110
Copper	5000	5210	104	—	—	90-110
Lead	20.0	22.4	112	22.2	111	80-120
Mercury	4.00	4.18	105	4.24	106	80-120
Nickel	5000	5500	110	—	—	90-110
Selenium	40.0	46.4	116	—	—	80-120
Silver	1000	1070	107	—	—	90-110
Thallium	20.0	20.4	102	—	—	80-120
Zinc	5000	5440	109	—	—	90-110

a Acceptability limits established by laboratory practice

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040021

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Solids

NEI/GTEL Sample Number	W7040021-06	W7040021-07	W7040021-08	W7040021-09
Client ID	SD-01	SD-02	SD-03	MS/MSD-SD
Date Sampled	04/01/97	04/01/97	04/01/97	04/01/97
Date Prepared	04/03/97	04/03/97	04/03/97	04/03/97
Date Analyzed	04/03/97	04/03/97	04/03/97	04/03/97
Dilution Factor	1.00	1.00	1.00	1.00
Date Prepared	04/07/97	04/07/97	04/07/97	04/07/97
Date Analyzed	04/07/97	04/07/97	04/07/97	04/07/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:Wet Weight			
	Limit	Units				
Inorganics (MT, WC)						
Antimony	EPA 6010A	20. mg/kg	< 20.	< 20.	< 20.	< 20.
Arsenic	EPA 6010A	40. mg/kg	< 40.	< 40.	< 40.	< 40.
Beryllium	EPA 6010A	0.50 mg/kg	< 0.50	< 0.50	< 0.50	< 0.50
Cadmium	EPA 6010A	2.0 mg/kg	< 2.0	< 2.0	< 2.0	< 2.0
Chromium	EPA 6010A	3.0 mg/kg	4.2	3.5	4.0	4.3
Copper	EPA 6010A	2.5 mg/kg	8.8	5.5	6.8	7.2
Lead	EPA 6010A	7.0 mg/kg	11.	< 7.0	< 7.0	7.3
Mercury	EPA 7471A	0.25 mg/kg	< 0.25	< 0.25	< 0.25	< 0.25
Nickel	EPA 6010A	4.0 mg/kg	6.3	< 4.0	4.6	4.5
Selenium	EPA 6010A	20. mg/kg	< 20.	< 20.	< 20.	< 20.
Silver	EPA 6010A	2.0 mg/kg	< 2.0	< 2.0	< 2.0	< 2.0
Thallium	EPA 6010A	20. mg/kg	< 20.	< 20.	< 20.	< 20.
Zinc	EPA 6010A	2.0 mg/kg	26.	22.	21.	32.
Percent Solids	--	%	47.9	52.8	59.7	40.5

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A:

Digestion by EPA Method 3050A.

EPA 6010A, EPA 7471A:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

Project Number: 1315-269
Project ID Name: OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0021
Date Reported: 04-16-97

QA NONCONFORMANCE SUMMARY

Metals in Soil

1.0 Sample Handling

1.1 Sample handling and holding time criteria were not met for zero samples.

2.0 Initial Calibration Verification

2.1 The validity for the calibration verification was exceeded for zero samples as shown in Table 2.

3.0 Method Blanks

3.1 Zero target elements were found in the method blank as shown in Table 3.

4.0 Matrix Spike (MS) Accuracy

4.1 The recovery limits were exceeded in the matrix spike sample for zero elements as shown in Table 4A.

5.0 Sample Duplicate Precision

5.1 The maximum percent difference (RPD) was exceeded for zero elements in the matrix spike and matrix spike duplicate samples as shown in Table 4A and 4B.

6.0 Laboratory Control Sample

6.1 The recovery limits were not met for zero elements for the laboratory control samples as shown in Table 5.

Project Number: 1315-269
Project ID Name: OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0021
Date Reported: 04-16-97

Table 2
INITIAL CALIBRATION VERIFICATION QC CHECK SAMPLE REPORT
Metals in Soil

Analyte	Expected Result, mg/L	Observed Result, mg/L	Recovery, %	Acceptability Limits, % ^a
Antimony	1.00	1.01	101	90-110
Arsenic	1.00	1.03	103	90-110
Beryllium	1.00	1.01	101	90-110
Cadmium	1.00	1.03	103	90-110
Chromium	1.00	1.02	102	90-110
Copper	1.00	1.01	101	90-110
Lead	1.00	1.02	102	90-110
Mercury	0.00400	0.00408	102	90-110
Nickel	1.00	1.05	105	90-110
Selenium	1.00	0.990	99.0	90-110
Silver	0.500	0.524	105	90-110
Thallium	1.00	0.986	98.6	90-110
Zinc	1.00	1.04	104	90-110

a Acceptability limits as per EPA Contract Laboratory Program

Project Number: 1315-269
Project ID Name: OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0021
Date Reported: 04-16-97

Table 3
BLANK REPORT
Metals in Soil

Analyte	Initial Calibration Blank, mg/L	Preparation Blank, mg/Kg
Antimony	<0.20	<20
Arsenic	<0.20	<20
Beryllium	<0.0050	<0.50
Cadmium	<0.20	<2.0
Chromium	<0.030	<3.0
Copper	<0.025	<2.5
Lead	<0.070	<7.0
Mercury	<0.0025	<0.25
Nickel	<0.040	<4.0
Selenium	<0.20	<20
Silver	<0.020	<2.0
Thallium	<0.20	<20
Zinc	<0.020	<2.0

<# Not detected at the indicated detection limit (#)

Project Number: 1315-269
 Project ID Name: OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0021
 Date Reported: 04-16-97

Table 4A

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY

Metals in Soil

Sample Spiked: Method 6010A W7040021-06
 Sample Spiked: Method 7471A W7040021-06

Analyte	Spike Added, mg/Kg	Sample Concentration, mg/Kg	MS Concentration, mg/Kg	MS Percent Recovery	Acceptability Limits, % ^a
Antimony	167	<20	143	85.6	80-120
Arsenic	167	<40	152	91.3	80-120
Beryllium	66.7	<0.50	59.9	89.9	80-120
Cadmium	84.2	<2.00	72.7	86.4	80-120
Chromium	167	4.20	151	87.9	80-120
Copper	167	8.82	153	86.7	80-120
Lead	167	10.9	157	87.6	80-120
Mercury	0.308	<0.0025	0.269	87.4	75-125
Nickel	167	6.26	151	87.0	80-120
Selenium	167	<20.0	151	90.9	80-120
Silver	33.3	<2.00	28.0	84.1	80-120
Thallium	167	<20.0	142	85.0	80-120
Zinc	167	26.5	170	85.9	80-120

a Acceptability limits as per EPA Contract Laboratory Program.

NA Not applicable; initial sample concentration greater than four times the spike amount.

Project Number: 1315-269
 Project ID Name: OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0021
 Date Reported: 04-16-97

Table 4B
 MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
 Metals in Soil

Analyte	Spike Added, mg/Kg	MSD Concentration, mg/Kg	MSD Percent Recovery	RPD %	Acceptability Limits, % ^a
					RPD
Antimony	189	163	86.4	0.956	20.0
Arsenic	189	171	90.4	1.06	20.0
Beryllium	75.5	67.9	90.0	0.167	20.0
Cadmium	95.3	82.5	86.5	0.197	20.0
Chromium	189	171	88.6	0.822	20.0
Copper	189	173	87.2	0.483	20.0
Lead	189	179	88.9	1.43	20.0
Mercury	0.328	0.301	91.8	4.89	20.0
Nickel	189	173	88.6	1.84	20.0
Selenium	189	167	88.5	2.58	20.0
Silver	37.7	31.7	83.9	0.265	20.0
Thallium	189	156	82.7	2.81	20.0
Zinc	189	193	88.1	2.60	20.0

a Acceptability limits as per EPA Contract Laboratory Program.

NA Not applicable; initial sample concentration greater than four times the spike amount.

Project Number: 1315-269
Project ID Name: OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0021
Date Reported: 04-16-97

Table 5
LABORATORY CONTROL SAMPLE RESULTS
Metals in Soil

Analyte	Expected Result, mg/Kg	Observed Result, mg/Kg	Recovery, %	Acceptability Limits, % ^a
Antimony	200	199	99.5	80-120
Arsenic	200	205	102.0	80-120
Beryllium	80.0	81.2	102.0	80-120
Cadmium	101	99.1	98.1	80-120
Chromium	200	205	102.0	80-120
Copper	200	195	97.5	80-120
Lead	200	203	102.0	80-120
Mercury	0.333	0.305	91.6	75-125
Nickel	200	205	102.0	80-120
Selenium	200	199	99.5	80-120
Silver	40.0	37.7	94.2	80-120
Thallium	200	196	98.0	80-120
Zinc	200	198	99.0	80-120

a Acceptability limits established by laboratory practice

Project Number: 1315-269
Project ID Name: OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0021
Date Reported: 04-16-97

Table 6
Continuing Calibration Verification QC Check Sample Report
Metals in Soil

Analyte	Expected Result, mg/L	Observed Result, mg/L	Recovery, %	Observed Result, mg/L	Recovery, %	Acceptability Limits, % ^a
Antimony	5.00	5.16	103	5.27	106	90-110
Arsenic	5.00	5.43	109	5.51	110	80-120
Beryllium	2.00	2.11	106	2.19	109	90-110
Cadmium	2.50	2.66	106	2.70	108	90-110
Chromium	5.00	5.29	106	5.44	109	90-110
Copper	5.00	4.96	99.3	5.15	103	90-110
Lead	5.00	5.40	108	5.48	109	80-120
Mercury	0.00400	0.00424	106	0.00409	102	80-120
Nickel	5.00	5.40	108	5.50	110	90-110
Selenium	5.00	5.37	107	5.52	110	80-120
Silver	1.00	1.01	101	1.04	104	90-110
Thallium	5.00	5.24	105	5.41	108	80-120
Zinc	5.00	5.34	107	5.46	109	90-110

a Acceptability limits established by laboratory practice.

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

4211 MAY STREET
WICHITA, KS 67209
(316) 945-2624
(900) 633-7936

Company Name: **Optech**
Phone #: 210 731-0000
FAX #: 210 731-0008
Site Location: **CANTAL AIRPORT**
Company Address: **4100 NW Loop 410, #270 SAN ANTONIO, TX 78227**
Project Manager: **K. Pritchett**
Client Project ID: (#) **1315-269**

(NAME)
Sampler Name (Print): **Joe Byrd, Jr.**

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix			Method Preserved			Sampling			
			WATER	AIR	SLUDGE	PRODUCT	OTHER	HCl	H2SO4	OTHER	DATE	TIME
SW-01		3	<input checked="" type="checkbox"/>								4/19/97	1215
SW-01		1	<input checked="" type="checkbox"/>								"	1215
SW-03	2	3	<input checked="" type="checkbox"/>								"	1220
SW-03	0	1	<input checked="" type="checkbox"/>								"	1220
SW-02	0	3	<input checked="" type="checkbox"/>								"	1250
SW-02	0	1	<input checked="" type="checkbox"/>								"	1250
M5/M5D	0	3	<input checked="" type="checkbox"/>								"	1255
M5/M5D	0	1	<input checked="" type="checkbox"/>								"	1255
SW-02	3	3	<input checked="" type="checkbox"/>								"	1205
SW-02	0	1	<input checked="" type="checkbox"/>								"	1205

SPECIAL DETECTION LIMITS
Second Column Confirmation on hits by 5/4/97. P 4/19/97

SPECIAL REPORTING REQUIREMENTS
FAXC

QA/QC Level **3**

Retrified by Sampler: *[Signature]*
Retrified by: *[Signature]*

CUSTODY RECORD

Received by: *[Signature]* Date: 4/19/97 Time: 1430

Received by: *[Signature]* Date: 5/4/97 Time: 0810

Oil and Grease 413.1 □ 413.2 □ 5M-403 □	TPHM 418.1 □ 8M 503 □	EDB by 504 □ DBCP by 504 □	EPA 824.2 □ 803.1 □ EPA 802.2 □	EPA 801 □ EPA 801D □	EPA 802 □ EPA 802B □	EPA 808 □ 8080 □ PCB only □	EPA 824/PL □ 8240/TAL □ NBS (+15) □ 8260 □	EPA 810 □ 8310 □	EP TOX Metals □ PCBs □ Herbicides □	TCLP Metals □ VOA □ Sem-VOA □ Per □ Hex □	EPA Metals - Priority Pollutant □ TAL □ MRL □	CAM Metals TLCO □ STCO □	Lead 239.2 □ 200.7 □ 7420 □ 7421 □ 8010 □	Organic Lead □	Conductivity □ Fish Point □ Reactivity □
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

REMARKS: **FEDEX AIRBILL: M5/M5D - for SW-02 N 4/19/97**
7970018803
EPA PPM - SW 846 - 10/4/97
6010/7000
Sealed

Lab Use Only Lot #: **AMENDED CUC**

Storage Location



4211 MAY STREET
WICHITA, KS 67209
(316) 845-2624
(800) 633-7838

Company Name: **OPTECH**
 Phone #: 210 731-0000
 Company Address: **4108 NW Loop 410, #230**
 Site Location: **CAPITAL AIRPORT**
 City: **San Antonio TX 78229**
 Project Manager: **K. Pritchett**
 Client Project ID: (P) 1315-269

(NAME)
 Sampler Name (Print): **Joe Byrd, Jr**

I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix				Method Preserved				Sampling			
			WATER	SOIL (S&B)	AIR	BLUDGE	PRODUCT	OTHER	HQ	HQS	HQS	OTHER	DATE	TIME
SD-01	-	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	4/18/97	1215
SD-01	2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1225
SD-02	0	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1300
SD-03	0	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1300
SD-03	0	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1230
MS/MSD-SD	0	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1230
MS/MSD-SD	0	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1305
W														

TAT
 Priority (24 hr)
 Expedited (48 hr)
 7 Business Days
 Other Business Days

Special Handling
 GTEL Contact
 Quote/Contract #
 Confirmation #
 P.O. #

QA/QC Level **3**
 Blue CLP Other

SPECIAL DETECTION LIMITS
 Second confirmation on
 VOC Detections **4/13/97**

SPECIAL REPORTING REQUIREMENTS
 FAX

Retrieved by Sampler: **Joe Byrd, Jr**
 Retrieved by: _____
 Retrieved by: _____

CUSTODY RECORD

Date **4/18/97** Time **1430**
 Date _____ Time _____
 Date **4/15/97** Time **0812**

Received by: _____
 Received by: _____
 Received by Laboratory: _____

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

2 of 2 50583

ANALYSIS REQUEST

BTX 002 0020 with MTBE	
BTX Gas Hydrocarbons PID/FID with MTBE	
Hydrocarbons GC/FID Gas Diesel Screen	
Hydrocarbon Profile (SIMDIS)	
TPHIR 418.1 5M 503	
EDS by 504 DBCP by 504	
EPA 524.2 503.1 EPA 502.2	
EPA 601 EPA 6010	
EPA 608 EPA 6020	
EPA 608 6080 PCB only	
EPA 624/PPL 6240/TAL NBS (+15) 6260	✓
EPA 626/PPL 6270/TAL NBS (+25)	
EPA 610 6310	
EP TOX Metals Pesticides Herbicides	
TCP Metals VOA Semi-VOA Pm Hard	✓
EPA Metals Priority Pollutant TAL RCRA	✓
CAM Metals TLCD STLO	✓
Lead 238.2 200.7 7420 7421 6010	✓
Organic Lead	✓
Congelity Flash Point Reactivity	✓

REMARKS: **FEDEX AIR BILL: MS/MSD - fa**
7970018803
SD-03
4/13/97

Lab Use Only Lot #: _____
 Storage Location: **AMENDED COC**

Work Order #: _____



4211 MAY STREET
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

Company Name:

OPTech

Company Address:

4100 NW Loop #270
SAN ANTONIO, TX 78227

Project Manager:

K. Ritzchezz.

Phone #: 210 731-0000

FAX #: 210 731-0008

Site Location:

CAPITAL AIRPORT

Client Project ID: (#) 1315-269

(NAME)

Sampler Name (Print):

Joe Byrd, Jr.

I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix						Method Preserved				Sampling			
			WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	HCl	HNO3	H2SO4	ICE	UNPREPARED	OTHER (Specify)	DATE	TIME
SW-01	01	3	✓					✓							4/19/97	1215
SW-01	01	1						✓							"	1215
SW-03	03	3						✓							"	1220
SW-03	03	1						✓							"	1220
SW-02	02	3						✓							"	1250
SW-02	02	1						✓							"	1250
M5/MSD	01	3						✓							"	1255
M5/MSD	01	1						✓							"	1255
BRASS SLOUGH	03	3						✓							"	1205
RINSE SLOUGH	03	1						✓							"	1205
BRASS SLOUGH	03	1						✓							"	1205
RINSE SLOUGH	03	1						✓							"	1205

SPECIAL DETECTION LIMITS:

SPECIAL REPORTING REQUIREMENTS

FAX

Special Handling

GTEL Contact _____

Quote/Contract # _____

Confirmation # _____

P.O. # _____

QA/QC Level 3

Blue CLP Other

CUSTODY RECORD

Relinquished by Sampler: *J. Byrd*

Relinquished by: _____

Relinquished by: _____

Date: 4/19/97 Time: 1430

Date: _____ Time: _____

Date: 4/19/97 Time: 0810

Received by: _____

Received by: _____

Received by Laboratory: _____

Waybill # _____

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

1 of 2: 50584

Analysis Request	Other
BTEX 602 <input type="checkbox"/> 8020 <input type="checkbox"/> with MTBE <input type="checkbox"/>	
BTEX/Gas Hydrocarbons PID/FID <input type="checkbox"/> with MTBE <input type="checkbox"/>	
Hydrocarbons GC/FID Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Screen <input type="checkbox"/>	
Hydrocarbon Profile (SIMDIS) <input type="checkbox"/>	
Oil and Grease 413.1 <input type="checkbox"/> 413.2 <input type="checkbox"/> SM-503 <input type="checkbox"/>	
TPH/IR 418.1 <input type="checkbox"/> SM 503 <input type="checkbox"/>	
EUB by 504 <input type="checkbox"/> DBCP by 504 <input type="checkbox"/>	
EPA 524.2 <input type="checkbox"/> 503.1 <input type="checkbox"/> EPA 502.2 <input type="checkbox"/>	
EPA 601 <input checked="" type="checkbox"/> EPA 8010 <input checked="" type="checkbox"/>	
EPA 602 <input type="checkbox"/> EPA 8020 <input type="checkbox"/>	
EPA 608 <input type="checkbox"/> 8080 <input type="checkbox"/> PCB only <input type="checkbox"/>	
EPA 624/PPL <input type="checkbox"/> 8240/TAL <input type="checkbox"/> NBS (+15) <input type="checkbox"/> 8260 <input type="checkbox"/>	
EPA 625/PPL <input type="checkbox"/> 8270/TAL <input type="checkbox"/> NBS (+25) <input type="checkbox"/>	
EPA 610 <input type="checkbox"/> 8310 <input type="checkbox"/>	
EP TOX Metals <input type="checkbox"/> Pesticides <input type="checkbox"/> Herbicides <input type="checkbox"/>	
TCLP Metals <input type="checkbox"/> VOA <input type="checkbox"/> Semi-VOA <input type="checkbox"/> Pest <input type="checkbox"/> Herb <input type="checkbox"/>	
EPA Metals - Priority Pollutant <input type="checkbox"/> TAL <input type="checkbox"/> RCRA <input type="checkbox"/>	
CAM Metals TLLC <input type="checkbox"/> STLC <input type="checkbox"/>	
Lead 239.2 <input type="checkbox"/> 200.7 <input type="checkbox"/> 7420 <input type="checkbox"/> 7421 <input type="checkbox"/> 6010 <input checked="" type="checkbox"/>	
Organic Lead <input type="checkbox"/>	
Corrosivity <input type="checkbox"/> Flash Point <input type="checkbox"/> Reactivity <input type="checkbox"/>	

REMARKS:

FEDEX AIRBILL: 7970018803

Lab Use Only Lot #: _____

Work Order #: _____

Storage Location



4211 MAY STREET
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

**CHAIN-OF-CUSTODY RECORD
AND ANALYSIS REQUEST**

2 of 2 50583

Company Name: **Optech**
 Phone #: 210 731-0008
 Company Address: **4100 NW Loop 410, #230 SAN Antonio TX 78229**
 FAX #: 210 731-0008
 Site Location: **CAPITAL AIRPORT**
 Project Manager: **K. Pritchett**
 Client Project ID: (#) **1315-769**

Sampler Name (Print): **Joe Byrd, Jr**
 I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix				Method Preserved				Sampling				
			WATER	SOIL (See 1)	AIR	SLUDGE	PRODUCT	OTHER	HCl	HNO3	H2SO4	ICE	UNPREPARED	OTHER (Specify)	DATE	TIME
SD-01	06	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	11/19/97	1225
SD-01	07	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1225
SD-02	08	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1300
SD-03	09	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1300
SD-03	10	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1230
MS/MSD-SD	11	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1230
MS/MSD-SD	12	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1305
			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	"	1305

SPECIAL HANDLING
 TAT (24 hr)
 Expedited (48 hr)
 7 Business Days
 Other: **14**
 Business Days

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

GTEL Contact
Quote/Contract #
Confirmation #
P.O. #

QA/QC Level **3**
 Blue CLP Other

Relinquished by Sampler: *[Signature]*
Relinquished by: *[Signature]*
Relinquished by: *[Signature]*

Analysis Request	Request
<input type="checkbox"/> EPA 602 <input type="checkbox"/> EPA 8020 <input type="checkbox"/> with MTBE	<input type="checkbox"/> BTX/Gas Hydrocarbons PID/FID <input type="checkbox"/> with MTBE
<input type="checkbox"/> Hydrocarbons GC/FID Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Screen	<input type="checkbox"/> Hydrocarbon Profile (SIMDIS)
<input type="checkbox"/> Oil and Grease 413.1 <input type="checkbox"/> 413.2 <input type="checkbox"/> SM-503	<input type="checkbox"/> TPH/IR 418.1 <input type="checkbox"/> SM 503
<input type="checkbox"/> EDB by 504 <input type="checkbox"/> DBCP by 504	<input type="checkbox"/> EPA 524.2 <input type="checkbox"/> 503.1 <input type="checkbox"/> EPA 502.2
<input type="checkbox"/> EPA 601 <input type="checkbox"/> EPA 8010	<input type="checkbox"/> EPA 602 <input type="checkbox"/> EPA 8020
<input type="checkbox"/> EPA 608 <input type="checkbox"/> 8080 <input type="checkbox"/> PCB only	<input type="checkbox"/> EPA 624/PPL <input type="checkbox"/> 8240/TAL <input checked="" type="checkbox"/> NBS (+15) <input type="checkbox"/> 8260
<input type="checkbox"/> EPA 625/PPL <input type="checkbox"/> 8270/TAL <input type="checkbox"/> NBS (+25)	<input type="checkbox"/> EPA 610 <input type="checkbox"/> 8310
<input type="checkbox"/> EP TOX Metals <input type="checkbox"/> Pesticides <input type="checkbox"/> Herbicides	<input type="checkbox"/> TCLP Metals <input type="checkbox"/> VOA <input type="checkbox"/> Semi-VOA <input type="checkbox"/> Pest <input type="checkbox"/> Herb
<input type="checkbox"/> EPA Metals - Priority Pollutant <input type="checkbox"/> TAL <input type="checkbox"/> RCRA	<input type="checkbox"/> CAM Metals <input type="checkbox"/> TLCC <input type="checkbox"/> STLC
<input type="checkbox"/> Lead 239.2 <input type="checkbox"/> 200.7 <input type="checkbox"/> 7420 <input type="checkbox"/> 7421 <input type="checkbox"/> 6010	<input type="checkbox"/> Organic Lead
<input type="checkbox"/> Corrosivity <input type="checkbox"/> Flash Point <input type="checkbox"/> Reactivity	

REMARKS: **FEDEX AIR BILL: 7970018803**

Lab Use Only Lot #:

Work Order #:

Storage Location:

Received by: *[Signature]* **4/19/97** **1430**
Received by: *[Signature]* **4/19/97** **1430**
Received by Laboratory: *[Signature]* **4/19/97** **1430**

CUSTODY RECORD



Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

April 17, 1997

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: NEI/GTEL Client ID: OTC010TC01
Login Number: W7040081
Project ID (number): 1315-269
Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Dear Kathryn Pritchett:

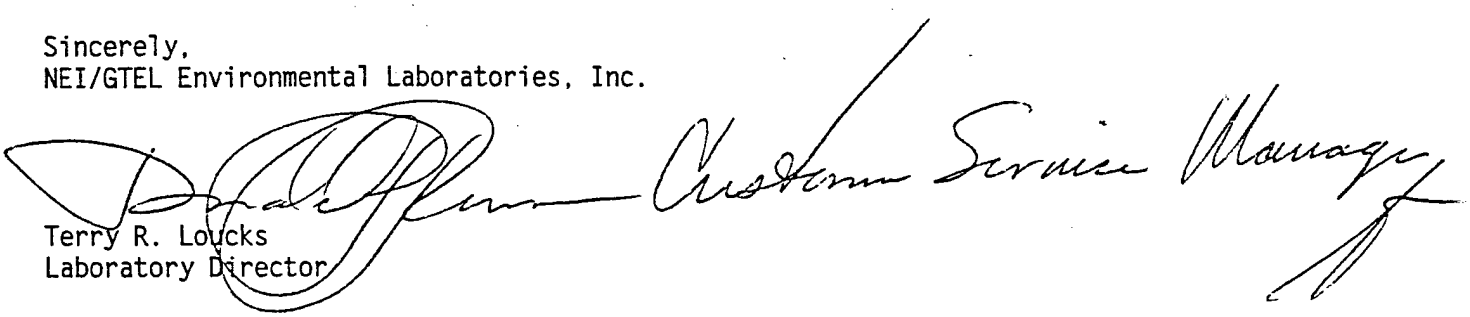
Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 04/04/97 under Chain-of-Custody Number(s) 49103.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-10103.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.

A large, stylized handwritten signature in black ink, which appears to read "Terry R. Loucks", is written over the typed name and extends across the right side of the page.
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC01OTC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-01	W7040081-02	W7040081-03	W7040081-04
Client ID	MW-201B	MW-202B	MW-202(FILTERED)	MW-202(UNFILTERED)
Date Sampled	04/03/97	04/03/97	04/03/97	04/03/97
EPA 6010A	Date Prepared	04/08/97	04/08/97	04/08/97
EPA 6010A	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 6010A	Dilution Factor	1.00	1.00	1.00
EPA 7041	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7041	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 7041	Dilution Factor	1.00	1.00	1.00
EPA 7060A	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7060A	Date Analyzed	04/10/97	04/10/97	04/10/97
EPA 7060A	Dilution Factor	1.00	1.00	1.00
EPA 7421	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7421	Date Analyzed	04/10/97	04/07/97	04/07/97
EPA 7421	Dilution Factor	1.00	1.00	1.00
EPA 7470A	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7470A	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7470A	Dilution Factor	1.00	1.00	1.00
EPA 7740	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7740	Date Analyzed	04/14/97	04/14/97	04/14/97
EPA 7740	Dilution Factor	1.00	1.00	1.00
EPA 7841	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7841	Date Analyzed	04/09/97	04/09/97	04/09/97
EPA 7841	Dilution Factor	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:			
			W7040081-01	W7040081-02	W7040081-03	W7040081-04
Inorganics (MT. WC)						
Antimony	EPA 7041	10. ug/L	< 10.	< 10.	< 10.	< 10.
Arsenic	EPA 7060A	10. ug/L	< 10.	12.	< 10.	< 10.
Beryllium	EPA 6010A	5.0 ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Cadmium	EPA 6010A	20. ug/L	< 20.	< 20.	< 20.	< 20.
Chromium	EPA 6010A	30. ug/L	< 30.	34.	< 30.	< 30.
Copper	EPA 6010A	25. ug/L	45.	56.	< 25.	< 25.
Lead	EPA 7421	4.0 ug/L	26.	29.	< 4.0	11.
Manganese	EPA 6010A	15. ug/l	830	1400	920	940
Mercury	EPA 7470A	0.50 ug/L	< 0.50	< 0.50	< 0.50	< 0.50
Nickel	EPA 6010A	40. ug/L	< 40.	42.	< 40.	< 40.
Selenium	EPA 7740	10. ug/L	< 10.	< 10.	< 10.	< 10.
Silver	EPA 6010A	20. ug/L	< 20.	< 20.	< 20.	< 20.
Thallium	EPA 7841	10. ug/L	< 10.	< 10.	< 10.	< 10.
Zinc	EPA 6010A	20. ug/L	120	180	< 20.	< 20.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:
NEI/GTEL Wichita, KS
W7040081

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01
 Login Number: W7040081
 Project ID (number): 1315-269
 Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below
 Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-01	W7040081-02	W7040081-03	W7040081-04
	Client ID	Client ID	Client ID	Client ID
	MW-201B	MW-202B	MW-202(FILTERED)	MW-202(UNFILTERED)
Date Sampled	Date Prepared	Date Prepared	Date Prepared	Date Prepared
EPA 6010A	04/03/97	04/03/97	04/03/97	04/03/97
EPA 6010A	04/08/97	04/08/97	04/08/97	04/08/97
EPA 6010A	04/08/97	04/08/97	04/08/97	04/08/97
EPA 6010A	Dilution Factor	Dilution Factor	Dilution Factor	Dilution Factor
	1.00	1.00	1.00	1.00
EPA 7041	04/07/97	04/07/97	04/07/97	04/07/97
EPA 7041	04/08/97	04/08/97	04/08/97	04/08/97
EPA 7041	Dilution Factor	Dilution Factor	Dilution Factor	Dilution Factor
	1.00	1.00	1.00	1.00
EPA 7060A	04/09/97	04/09/97	04/09/97	04/09/97
EPA 7060A	04/10/97	04/10/97	04/10/97	04/10/97
EPA 7060A	Dilution Factor	Dilution Factor	Dilution Factor	Dilution Factor
	1.00	1.00	1.00	1.00
EPA 7421	04/07/97	04/07/97	04/07/97	04/07/97
EPA 7421	04/10/97	04/07/97	04/07/97	04/07/97
EPA 7421	Dilution Factor	Dilution Factor	Dilution Factor	Dilution Factor
	1.00	1.00	1.00	1.00
EPA 7470A	04/07/97	04/07/97	04/07/97	04/07/97
EPA 7470A	04/07/97	04/07/97	04/07/97	04/07/97
EPA 7470A	Dilution Factor	Dilution Factor	Dilution Factor	Dilution Factor
	1.00	1.00	1.00	1.00
EPA 7740	04/09/97	04/09/97	04/09/97	04/09/97
EPA 7740	04/14/97	04/14/97	04/14/97	04/14/97
EPA 7740	Dilution Factor	Dilution Factor	Dilution Factor	Dilution Factor
	1.00	1.00	1.00	1.00
EPA 7841	04/07/97	04/07/97	04/07/97	04/07/97
EPA 7841	04/09/97	04/09/97	04/09/97	04/09/97
EPA 7841	Dilution Factor	Dilution Factor	Dilution Factor	Dilution Factor
	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

Digestion for Total Metals by EPA Method 3010A.
 Digestion for Total Metals by EPA Method 3010A.

EPA 7421, EPA 7841:
 Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:
 Digestion by EPA Method 7060.

EPA 7470A:
 Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:
 "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including Update 2.

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-05	W7040081-06	W7040081-07	--	
Client ID	MW-201	MW-203	MW-202A	--	
Date Sampled	04/03/97	04/03/97	04/03/97	--	
EPA 6010A	Date Prepared	04/08/97	04/08/97	04/08/97	--
EPA 6010A	Date Analyzed	04/08/97	04/08/97	04/08/97	--
EPA 6010A	Dilution Factor	1.00	1.00	1.00	--
EPA 7041	Date Prepared	04/07/97	04/07/97	04/07/97	--
EPA 7041	Date Analyzed	04/08/97	04/08/97	04/08/97	--
EPA 7041	Dilution Factor	1.00	1.00	1.00	--
EPA 7060A	Date Prepared	04/09/97	04/09/97	04/09/97	--
EPA 7060A	Date Analyzed	04/10/97	04/10/97	04/10/97	--
EPA 7060A	Dilution Factor	1.00	1.00	1.00	--
EPA 7421	Date Prepared	04/07/97	04/07/97	04/07/97	--
EPA 7421	Date Analyzed	04/07/97	04/07/97	04/07/97	--
EPA 7421	Dilution Factor	1.00	1.00	1.00	--
EPA 7470A	Date Prepared	04/07/97	04/07/97	04/07/97	--
EPA 7470A	Date Analyzed	04/07/97	04/07/97	04/07/97	--
EPA 7470A	Dilution Factor	1.00	1.00	1.00	--
EPA 7740	Date Prepared	04/09/97	04/09/97	04/09/97	--
EPA 7740	Date Analyzed	04/14/97	04/14/97	04/14/97	--
EPA 7740	Dilution Factor	1.00	1.00	1.00	--
EPA 7841	Date Prepared	04/07/97	04/07/97	04/07/97	--
EPA 7841	Date Analyzed	04/09/97	04/09/97	04/09/97	--
EPA 7841	Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting Limit	Units	Concentration:				
Antimony	EPA 7041	10.	ug/L	< 10.	< 10.	< 10.	--
Arsenic	EPA 7060A	10.	ug/L	< 10.	< 10.	< 10.	--
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	< 5.0	< 5.0	--
Cadmium	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.	--
Chromium	EPA 6010A	30.	ug/L	< 30.	< 30.	< 30.	--
Copper	EPA 6010A	25.	ug/L	< 25.	< 25.	43.	--
Lead	EPA 7421	4.0	ug/L	15.	12.	19.	--
Manganese	EPA 6010A	15.	ug/l	160	57.	1100	--
Mercury	EPA 7470A	0.50	ug/L	< 0.50	< 0.50	< 0.50	--
Nickel	EPA 6010A	40.	ug/L	< 40.	< 40.	< 40.	--
Selenium	EPA 7740	10.	ug/L	< 10.	< 10.	< 10.	--
Silver	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.	--
Thallium	EPA 7841	10.	ug/L	< 10.	< 10.	< 10.	--
Zinc	EPA 6010A	20.	ug/L	30.	20.	120	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W7040081

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-05	W7040081-06	W7040081-07	--
Client ID	MW-201	MW-203	MW-202A	--
Date Sampled	04/03/97	04/03/97	04/03/97	--
EPA 6010A Date Prepared	04/08/97	04/08/97	04/08/97	--
EPA 6010A Date Analyzed	04/08/97	04/08/97	04/08/97	--
EPA 6010A Dilution Factor	1.00	1.00	1.00	--
EPA 7041 Date Prepared	04/07/97	04/07/97	04/07/97	--
EPA 7041 Date Analyzed	04/08/97	04/08/97	04/08/97	--
EPA 7041 Dilution Factor	1.00	1.00	1.00	--
EPA 7060A Date Prepared	04/09/97	04/09/97	04/09/97	--
EPA 7060A Date Analyzed	04/10/97	04/10/97	04/10/97	--
EPA 7060A Dilution Factor	1.00	1.00	1.00	--
EPA 7421 Date Prepared	04/07/97	04/07/97	04/07/97	--
EPA 7421 Date Analyzed	04/07/97	04/07/97	04/07/97	--
EPA 7421 Dilution Factor	1.00	1.00	1.00	--
EPA 7470A Date Prepared	04/07/97	04/07/97	04/07/97	--
EPA 7470A Date Analyzed	04/07/97	04/07/97	04/07/97	--
EPA 7470A Dilution Factor	1.00	1.00	1.00	--
EPA 7740 Date Prepared	04/09/97	04/09/97	04/09/97	--
EPA 7740 Date Analyzed	04/14/97	04/14/97	04/14/97	--
EPA 7740 Dilution Factor	1.00	1.00	1.00	--
EPA 7841 Date Prepared	04/07/97	04/07/97	04/07/97	--
EPA 7841 Date Analyzed	04/09/97	04/09/97	04/09/97	--
EPA 7841 Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting		Concentration:
	Limit	Units	

EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.

Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0081
Date Reported: 04-17-97

QA NONCONFORMANCE SUMMARY

1.0 Sample Handling

1.1 Sample handling and holding time criteria were not met for zero samples.

2.0 Initial Calibration Verification

2.1 The validity for the calibration verification was exceeded for zero samples as shown in Table 2.

3.0 Method Blanks

3.1 Zero target elements were found in the method blank as shown in Table 3.

4.0 Matrix Spike (MS) Accuracy

4.1 The recovery limits were exceeded in one element for the matrix spike.

4.2 The recovery limits for the matrix spike and matrix spike duplicate were exceeded for antimony due to precipitation of the element in the presence of the sample matrix.

5.0 Sample Duplicate Precision

5.1 The maximum percent difference (RPD) was exceeded for one element in the matrix spike and matrix spike duplicate samples as shown in Tables 4A and 4B.

5.2 The maximum percent difference (RPD) was exceeded for antimony in the matrix spike and the matrix spike duplicate due to precipitation of the element in the sample matrix.

6.0 Laboratory Control Sample

6.1 The recovery limits were not met for zero elements for the laboratory control samples as shown in Table 5.

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0081
Date Reported: 04-17-97

Table 2
INITIAL CALIBRATION VERIFICATION QC CHECK SAMPLE REPORT
Metals in Water^a

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	43.8	110	90-110
Arsenic	40.0	40.0	100	90-110
Beryllium	1000	1020	102	90-110
Cadmium	1000	1030	103	90-110
Chromium	1000	1020	102	90-110
Copper	1000	1020	102	90-110
Lead	20.0	20.7	104	90-110
Mercury	4.00	4.17	104	90-110
Nickel	1000	1040	104	90-110
Selenium	40.0	39.4	98.5	90-110
Silver	500	524	105	90-110
Thallium	20.0	20.2	101	90-110
Zinc	1000	1040	104	90-110

a Acceptability limits as per EPA Contract Laboratory Program

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0081
Date Reported: 04-17-97

Table 3
BLANK REPORT
Metals in Water

Analyte	Initial Calibration Blank, ug/L	Preparation Blank, ug/L
Antimony	<10	<10
Arsenic	<10	<10
Beryllium	<5.0	<5.0
Cadmium	<20	<20
Chromium	<30	<30
Copper	<25	<25
Lead	<4.0	<4.0
Mercury	<0.50	<0.50
Nickel	<40	<40
Selenium	<10	<10
Silver	<20	<20
Thallium	<10	<10
Zinc	<20	<20

<# Not detected at the indicated detection limit (#)

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0081
 Date Reported: 04-17-97

Table 4A
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
 Metals in Water

Sample Spiked: Method 6010A W7040112-01
 Sample Spiked: Method 7041 W7040081-01
 Sample Spiked: Method 7060A W7040021-01
 Sample Spiked: Method 7421 W7040081-01
 Sample Spiked: Method 7470A W7040021-01
 Sample Spiked: Method 7740 W7040021-01
 Sample Spiked: Method 7841 W7040081-01

Analyte	Spike Added, ug/L	Sample Concentration, ug/L	MS Concentration, ug/L	MS Percent Recovery	Acceptability Limits, % ^a
Antimony	40.0	<10.0	15.1	37.8 ^b	75-125
Arsenic	40.0	<10.0	40.9	102	75-125
Beryllium	133	<5.0	118	88.8	80-120
Cadmium	168	<20	158	93.8	80-120
Chromium	333	<30	302	90.5	80-120
Copper	333	<25	310	93.0	80-120
Lead	20.0	23.9	39.4	77.5	75-125
Mercury	2.00	<0.50	1.66	83.0	75-125
Nickel	333	<40	292	87.5	80-120
Selenium	40.0	<10.0	41.7	104	75-125
Silver	66.7	<20	62.0	92.3	80-120
Thallium	20.0	<10.0	17.2	86.0	80-120
Zinc	333	<20	313	93.7	80-120

a Acceptability limits as per EPA Contract Laboratory Program.

b Value is outside of acceptability limits.

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0081
 Date Reported: 04-17-97

Table 4B
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
Metals in Water

Analyte	Spike Added, ug/L	MSD Concentration, ug/L	MSD Percent Recovery	RPD %	Acceptability Limits, % ^a
					RPD
Antimony	40.0	11.5	28.8	27.1 ^b	20.0
Arsenic	40.0	43.0	108	5.00	20.0
Beryllium	133	110	82.7	7.09	20.0
Cadmium	168	143	85.0	9.87	20.0
Chromium	333	277	83.1	8.63	20.0
Copper	333	278	83.4	10.9	20.0
Lead	20.0	37.4	67.5	1.26	20.0
Mercury	2.00	1.42	71.0	15.6	20.0
Nickel	333	270	81.1	7.59	20.0
Selenium	40.0	40.6	102	2.67	20.0
Silver	66.7	55.0	83.2	10.4	20.0
Thallium	20.0	17.7	88.5	2.86	20.0
Zinc	333	284	85.2	9.57	20.0

a Acceptability limits as per EPA Contract Laboratory Program.

b Value is outside of acceptability limits.

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0081
 Date Reported: 04-17-97

Table 5
LABORATORY CONTROL SAMPLE RESULTS
Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	39.3	98.2	75-125
Arsenic	40.0	43.1	108	75-125
Beryllium	800	797	99.6	80-120
Cadmium	1010	943	93.4	80-120
Chromium	2000	1960	98.0	80-120
Copper	2000	1930	96.5	80-120
Lead	20.0	20.7	104	75-125
Mercury	2.00	1.80	90.0	75-125
Nickel	2000	1940	97.0	80-120
Selenium	40.0	39.7	99.2	75-125
Silver	400	368	92.0	80-120
Thallium	20.0	21.0	105	75-125
Zinc	2000	1880	94.0	80-120

a Acceptability limits established by laboratory practice

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0081
 Date Reported: 04-17-97

Table 6
 LABORATORY CONTROL SAMPLE RESULTS
 Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	37.6	94.0	36.2	90.5	80-120
Arsenic	40.0	43.5	109	47.1	118	80-120
Beryllium	2000	2060	103	2090	104	90-110
Cadmium	2500	2660	106	2700	108	90-110
Chromium	5000	5280	106	5390	108	90-110
Copper	5000	4980	99.5	5120	102	90-110
Lead	20.0	22.2	111	21.8	109	80-120
Mercury	4.00	4.08	102	4.17	104	80-120
Nickel	5000	5345	107	5434	109	90-110
Selenium	40.0	39.2	98.0	42.4	106	80-120
Silver	1000	1020	102	1050	105	90-110
Thallium	20.0	19.6	98.0	18.6	93.0	80-120
Zinc	5000	5300	106	5360	107	90-110

a Acceptability limits established by laboratory practice

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0081
 Date Reported: 04-17-97

Table 6
LABORATORY CONTROL SAMPLE RESULTS
 Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	39.0	97.5	---	---	80-120
Arsenic	40.0	45.1	113	---	---	80-120
Beryllium	2000	2100	105	---	---	90-110
Cadmium	2500	2740	110	---	---	90-110
Chromium	5000	5500	110	---	---	90-110
Copper	5000	5210	104	---	---	90-110
Lead	20.0	22.4	112	22.2	111	80-120
Mercury	4.00	4.18	105	4.24	106	80-120
Nickel	5000	5500	110	---	---	90-110
Selenium	40.0	46.4	116	---	---	80-120
Silver	1000	1070	107	---	---	90-110
Thallium	20.0	20.4	102	---	---	80-120
Zinc	5000	5440	109	---	---	90-110

a Acceptability limits established by laboratory practice

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-01	W7040081-02	W7040081-03	W7040081-05
Client ID	MW-201B	MW-202B	MW-202(FILTERED)	MW-201
Date Sampled	04/03/97	04/03/97	04/03/97	04/03/97
Date Analyzed	04/14/97	04/15/97	04/15/97	04/14/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units	W7040081-01	W7040081-02	W7040081-03	W7040081-05
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	50	9.5	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	1.6	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	1.8	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	19	130	5.8	< 1.0
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 0.5	0.9	0.6	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	3.1	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	2.7	3.5	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:

NEI/GTEL Wichita, KS

W7040081

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-01	W7040081-02	W7040081-03	W7040081-05
Client ID	MW-201B	MW-202B	MW-202(FILTERED)	MW-201
Date Sampled	04/03/97	04/03/97	04/03/97	04/03/97
Date Analyzed	04/14/97	04/15/97	04/15/97	04/14/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-06	W7040081-07	--	--
Client ID	MW-203	MW-202A	--	--
Date Sampled	04/03/97	04/03/97	--	--
Date Analyzed	04/14/97	04/15/97	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	--	--
Chloromethane	2.0	ug/L	< 2.0	< 2.0	--	--
Vinyl Chloride	1.0	ug/L	< 1.0	55	--	--
Bromomethane	2.0	ug/L	< 2.0	< 2.0	--	--
Chloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	--	--
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	--	--
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	--	--
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	1.8	--	--
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	130	--	--
Chloroform	1.0	ug/L	< 1.0	< 1.0	--	--
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	--	--
Benzene	0.5	ug/L	< 0.5	1.0	--	--
1,2-Dichloroethane	1.0	ug/L	< 1.0	3.1	--	--
Trichloroethene	1.0	ug/L	< 1.0	3.7	--	--
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	--	--
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	--	--
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	--	--
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	--	--
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	--	--
Toluene	1.0	ug/L	< 1.0	< 1.0	--	--
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	--	--
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	--	--
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	--	--
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	--	--
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	--	--
Bromoform	2.0	ug/L	< 2.0	< 2.0	--	--
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	--	--
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	--	--
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:

NEI/GTEL Wichita, KS

W7040081

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-06	W7040081-07	--	--
Client ID	MW-203	MW-202A	--	--
Date Sampled	04/03/97	04/03/97	--	--
Date Analyzed	04/14/97	04/15/97	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8010/8

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	*	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organic
Method: EPA 8010/8
Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	BFB ELCD	BFB PID
Method: EPA 8010/8020 Acceptability Limits:			52.8-144%	77.3-129%
041497GC11-1	CV0414972011	Calibration Verifi	98.2	102.
041497GC11-2	BW04149711	Method Blank Water	97.0	101.
041497GC11-4	DP04015520	Duplicate	98.6	100.
041497GC11-5	MS04004805	Matrix Spike	95.8	103.
041497GC11-6	LW0414972011	Laboratory Control	99.0	103.
--	04008101	MW-201B	98.6	100.
--	04008102	MW-202B	93.5	102.
--	04008103	MW-202(FILTERED)	101.	105.
--	04008105	MW-201	104.	99.9
--	04008106	MW-203	104.	100.
--	04008107	MW-202A	104.	106.

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8010/8

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Method Blank Results

QC Batch No: 041497GC11-2
Date Analyzed: 14-APR-97

Analyte	Method: EPA 8010/8020	Concentration: ug/L
Dichlorodifluoromethane	<	5.00
Chloromethane	<	2.00
Vinyl chloride	<	1.00
Bromomethane	<	2.00
Chloroethane	<	1.00
Trichlorofluoromethane	<	1.00
1,1-Dichloroethene	<	1.00
Methylene chloride	<	1.00
trans-1,2-Dichloroethene	<	1.00
1,1-Dichloroethane	<	1.00
cis-1,2-Dichloroethene	<	1.00
Chloroform	<	1.00
1,1,1-Trichloroethane	<	1.00
Carbon tetrachloride	<	1.00
Benzene	<	0.500
1,2-Dichloroethane	<	1.00
Trichloroethene	<	1.00
1,2-Dichloropropane	<	1.00
Bromodichloromethane	<	1.00
2-Chloroethyl vinyl ether	<	1.00
cis-1,3-Dichloropropene	<	1.00
trans-1,3-Dichloropropene	<	1.00
Toluene	<	1.00
1,1,2-Trichloroethane	<	1.00
Tetrachloroethene	<	1.00
Dibromochloromethane	<	1.00
Chlorobenzene	<	1.00
Ethylbenzene	<	1.00
Xylenes (Total)	<	1.00
Bromoform	<	2.00
1,1,2,2-Tetrachloroethane	<	1.00
1,3-Dichlorobenzene	<	1.00
1,4-Dichlorobenzene	<	1.00
1,2-Dichlorobenzene	<	1.00

Notes:

NEI/GTEL Client ID: OTC01OTC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organic

Method: EPA 8010/8

Matrix: Aqueous

Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits
				Recovery
EPA 8010/8020	Units:ug/L	QC Batch:041497GC11-1		
Dichlorodifluoromethane	20.0	22.0	110.	40-160%
Chloromethane	20.0	17.4	87.0	59.5-140.5%
Vinyl chloride	20.0	20.5	103.	68.5-131.5%
Bromomethane	20.0	19.4	97.0	58.5-141.5%
Chloroethane	20.0	18.2	91.0	77-123%
Trichlorofluoromethane	20.0	19.5	97.5	66.5-133.5%
1,1-Dichloroethene	20.0	22.4	112.	63-137%
Methylene chloride	20.0	19.5	97.5	77.5-122.5%
trans-1,2-Dichloroethene	20.0	18.9	94.5	64-136%
1,1-Dichloroethane	20.0	18.8	94.0	71.5-116%
cis-1,2-Dichloroethene	20.0	18.6	93.0	64-116%
Chloroform	20.0	19.4	97.0	75-125%
1,1,1-Trichloroethane	20.0	19.2	96.0	71-129%
Carbon tetrachloride	20.0	19.2	96.0	68.5-131.5%
Benzene	20.0	19.6	98.0	77-123%
1,2-Dichloroethane	20.0	20.0	100.	71.5-128.5%
Trichloroethene	20.0	19.3	96.5	77-123%
1,2-Dichloropropane	20.0	19.3	96.5	74-126%
Bromodichloromethane	20.0	18.7	93.5	76-124%
2-Chloroethyl vinyl ether	20.0	18.2	91.0	60-140%
cis-1,3-Dichloropropene	20.0	20.5	103.	64-136%
trans-1,3-Dichloropropene	20.0	19.7	98.5	64-136%
Toluene	20.0	19.7	98.5	77.5-122.5%
1,1,2-Trichloroethane	20.0	19.4	97.0	78.5-121.5%
Tetrachloroethene	20.0	19.0	95.0	70-130%
Dibromochloromethane	20.0	18.5	92.5	65.5-134.5%
Chlorobenzene	20.0	19.7	98.5	72-128%
Ethylbenzene	20.0	20.7	104.	63-137%
Xylenes (Total)	60.0	61.0	102.	36-136%
Bromoform	20.0	18.3	91.5	73.5-126.5%
1,1,2,2-Tetrachloroethane	20.0	18.7	93.5	49-151%
1,3-Dichlorobenzene	20.0	18.5	92.5	49.5-150.5%
1,4-Dichlorobenzene	20.0	19.1	95.5	69.5-130.5%
1,2-Dichlorobenzene	20.0	19.0	95.0	70-130%

Notes:

NEI/GTEL Wichita, KS

W7040081:4

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8010/8

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010/8020	Units:ug/L	QC Batch:041497GC11-6		
Dichlorodifluoromethane	20.0	26.2	131.	40-160%
Chloromethane	20.0	21.4	107.	10-193%
Vinyl chloride	20.0	23.0	115.	28-163%
Bromomethane	20.0	19.5	97.5	10-144%
Chloroethane	20.0	19.4	97.0	46-137%
Trichlorofluoromethane	20.0	20.4	102.	21-156%
1,1-Dichloroethene	20.0	22.8	114.	28-167%
Methylene chloride	20.0	20.9	105.	25-162%
trans-1,2-Dichloroethene	20.0	20.3	102.	38-155%
1,1-Dichloroethane	20.0	20.6	103.	47-132%
cis-1,2-Dichloroethene	20.0	19.4	97.0	38-155%
Chloroform	20.0	20.6	103.	49-133%
1,1,1-Trichloroethane	20.0	20.8	104.	41-138%
Carbon tetrachloride	20.0	20.9	105.	43-143%
Benzene	20.0	20.6	103.	39-150%
1,2-Dichloroethane	20.0	20.3	102.	51-147%
Trichloroethene	20.0	23.4	117.	35-146%
1,2-Dichloropropane	20.0	20.2	101.	44-156%
Bromodichloromethane	20.0	19.4	97.0	42-172%
2-Chloroethyl vinyl ether	20.0	17.8	89.0	14-186%
cis-1,3-Dichloropropene	20.0	18.6	93.0	22-178%
trans-1,3-Dichloropropene	20.0	18.3	91.5	22-178%
Toluene	20.0	20.8	104.	46-148%
1,1,2-Trichloroethane	20.0	20.1	101.	39-136%
Tetrachloroethene	20.0	21.1	106.	26-162%
Dibromochloromethane	20.0	20.3	102.	24-191%
Chlorobenzene	20.0	19.3	96.5	38-150%
Ethylbenzene	20.0	21.9	110.	32-160%
Xylenes (Total)	60.0	64.3	107.	36-136%
Bromoform	20.0	19.3	96.5	13-159%
1,1,2,2-Tetrachloroethane	20.0	16.0	80.0	10-184%
1,3-Dichlorobenzene	20.0	19.2	96.0	10-187%
1,4-Dichlorobenzene	20.0	20.1	101.	42-143%
1,2-Dichlorobenzene	20.0	19.8	99.0	10-208%

Notes:

NEI/GTEL Wichita, KS

W7040081:5

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics
Method: EPA 8010/6
Matrix: Aqueous

Duplicate Sample Results

Analyte	Original	Duplicate	RPD. %	Acceptability
	Concentration	Concentration		Limits. %
EPA 8010/8020 Units: ug/L	QC Batch: 041497GC11-4		GTEL Sample ID: W7040155-20	
			Client ID: Batch QC	
Dichlorodifluoromethane	< 5.00	< 5.00	NA	35.4
Chloromethane	< 2.00	< 2.00	NA	24.2
Vinyl chloride	< 1.00	< 1.00	NA	18.6
Bromomethane	< 2.00	< 2.00	NA	24.8
Chloroethane	< 1.00	< 1.00	NA	14.4
Trichlorofluoromethane	< 1.00	< 1.00	NA	19.6
1,1-Dichloroethene	< 1.00	< 1.00	NA	21.6
Methylene chloride	2.13	2.62	20.6	40.0
trans-1,2-Dichloroethene	< 1.00	< 1.00	NA	20.9
1,1-Dichloroethane	< 1.00	< 1.00	NA	10.5
cis-1,2-Dichloroethene	4.11	4.10	0.244	20.9
Chloroform	< 1.00	< 1.00	NA	14.7
1,1,1-Trichloroethane	< 1.00	< 1.00	NA	16
Carbon tetrachloride	< 1.00	< 1.00	NA	18.3
1,2-Dichloroethane	< 1.00	< 1.00	NA	17
Trichloroethene	32.1	31.8	0.939	13.7
1,2-Dichloropropane	< 1.00	< 1.00	NA	17
Bromodichloromethane	< 1.00	< 1.00	NA	13.1
2-Chloroethyl vinyl ether	< 1.00	< 1.00	NA	27.1
cis-1,3-Dichloropropene	< 1.00	< 1.00	NA	23.8
trans-1,3-Dichloropropene	< 1.00	< 1.00	NA	23.8
1,1,2-Trichloroethane	< 1.00	< 1.00	NA	12.8
Tetrachloroethene	7.93	7.83	1.27	17.7
Dibromochloromethane	< 1.00	< 1.00	NA	20.6
Chlorobenzene	< 1.00	< 1.00	NA	16.4
Bromoform	< 2.00	< 2.00	NA	15.4
1,1,2,2-Tetrachloroethane	< 1.00	< 1.00	NA	30
1,3-Dichlorobenzene	< 1.00	< 1.00	NA	29.7
1,4-Dichlorobenzene	< 1.00	< 1.00	NA	18
1,2-Dichlorobenzene	< 1.00	< 1.00	NA	18

Notes:

NA - The concentration of the analyte is less than the reporting limit.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8010/8

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W7040048-05

MS ID:MS04004805

Analysis Date: 14-APR-97

15-APR-97

Units: ug/L	Sample	Spike	MS	MS	Acceptability Limits
Analyte	Conc.	Added	Conc.	% Rec.	%Rec.
Dichlorodifluoromethane	< 5.0 (0.000)	20.0	21.3	107.	40-160
Chloromethane	< 2.0 (0.000)	20.0	20.0	100.	10-193
Vinyl chloride	< 1.0 (0.000)	20.0	20.2	101.	28-163
Bromomethane	< 2.0 (0.000)	20.0	17.7	88.5	10-144
Chloroethane	< 1.0 (0.000)	20.0	17.5	87.5	46-137
Trichlorofluoromethane	< 1.0 (0.000)	20.0	17.2	86.0	21-156
1,1-Dichloroethene	< 1.0 (0.000)	20.0	21.2	106.	28-167
Methylene chloride	< 1.0 (0.000)	20.0	19.4	97.0	25-162
trans-1,2-Dichloroethene	< 1.0 (0.000)	20.0	18.6	93.0	38-155
1,1-Dichloroethane	< 1.0 (0.000)	20.0	19.4	97.0	47-132
cis-1,2-Dichloroethene	< 1.0 (0.000)	20.0	18.6	93.0	38-155
Chloroform	< 1.0 (0.000)	20.0	19.5	97.5	49-133
1,1,1-Trichloroethane	< 1.0 (0.000)	20.0	19.1	95.5	41-138
Carbon tetrachloride	< 1.0 (0.000)	20.0	18.7	93.5	43-143
Benzene	< 0.50(0.000)	20.0	19.4	97.0	39-150
1,2-Dichloroethane	< 1.0 (0.000)	20.0	19.7	98.5	51-147
Trichloroethene	< 1.0 (0.000)	20.0	18.8	94.0	35-146
1,2-Dichloropropane	< 1.0 (0.000)	20.0	19.6	98.0	44-156
Bromodichloromethane	< 1.0 (0.000)	20.0	18.6	93.0	42-172
2-Chloroethyl vinyl ether	< 1.0 (0.000)	20.0	0.00	0.00*	14-186
cis-1,3-Dichloropropene	< 1.0 (0.000)	20.0	17.8	89.0	22-178
trans-1,3-Dichloropropene	< 1.0 (0.000)	20.0	17.4	87.0	22-178
Toluene	< 1.0 (0.000)	20.0	19.2	96.0	46-148
1,1,2-Trichloroethane	< 1.0 (0.000)	20.0	19.4	97.0	39-136
Tetrachloroethene	< 1.0 (0.000)	20.0	18.5	92.5	26-162
Dibromochloromethane	< 1.0 (0.000)	20.0	18.8	94.0	24-191
Chlorobenzene	< 1.0 (0.000)	20.0	18.0	90.0	38-150
Ethylbenzene	< 1.0 (0.000)	20.0	19.8	99.0	32-160
Xylenes (Total)	< 1.0 (0.000)	60.0	58.4	97.3	36-136
Bromoform	< 2.0 (0.000)	20.0	18.1	90.5	13-159
1,1,2,2-Tetrachloroethane	< 1.0 (0.000)	20.0	18.7	93.5	10-184
1,3-Dichlorobenzene	< 1.0 (0.000)	20.0	17.2	86.0	10-187
1,4-Dichlorobenzene	< 1.0 (0.000)	20.0	16.5	82.5	42-143
1,2-Dichlorobenzene	< 1.0 (0.000)	20.0	18.3	91.5	10-208

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

041497GC11-5: 2-Chloroethylvinyl ether decomposes in the presence of Hydrochloric Acid (used as a preservative).

NEI/GTEL Wichita, KS

W7040081:7



4211 MAY STREET
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

**CHAIN-OF-CUSTODY RECORD
AND ANALYSIS REQUEST**

1 of 2 49103

Company Name: Optech Phone #: 316 731-0000
 Company Address: 4100 NW Loop 910, #230 FAX #: 316 731-0008
SAN ANTONIO, TX 78229 Site Location: CAPITAL AIRPORT
 Project Manager: K. Pritchett Client Project ID: (#) 7315-269
 Sampler Name (Print): Joe Byrd, Jr

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix			Method Preserved			Sampling						
			WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	HCl	HNO ₃	H ₂ SO ₄	ICR	UNREF. SERVED	OTHER (Specify)	DATE	TIME
MW-201B	013	3	✓					✓						4/3/97	1227
MW-201B	001	1	✓					✓						"	1227
MW-202B	003	3	✓					✓						"	1050
MW-202B	001	1	✓					✓						"	1050
MW-202	003	3	✓					✓						"	0950
MW-202(F)	001	1	✓					✓						"	0950
MW-202(4F)	041	1	✓					✓						"	0950
MW-201	003	3	✓					✓						"	1151
MW-201	001	1	✓					✓						"	1151

REMARKS: FEDEX AIR BILL: 7970018814
Metal LCCA 600/700, Vol Mangrove
2nd Confirmation on VAC Detection

Lab Use Only Lot #: _____ Storage Location: _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS: _____

Work Order #: _____

Received by: _____

Received by: _____

Received by Laboratory: _____

Field Sample ID	Date	Time
MW-201	4/3/97	1227
MW-201	"	1227
MW-202	"	1050
MW-202	"	1050
MW-202	"	0950
MW-202	"	0950
MW-202	"	0950
MW-201	"	1151
MW-201	"	1151

CUSTODY RECORD

Relinquished by Sampler: _____

Relinquished by: _____

Relinquished by: _____

Client Name: Optech
 Address: 4100 NW Loop 410, #230
SAN ANTONIO, TX 78229
 Project Manager: K. PRITCHETT
 Phone: 210 731-0000 FAX: 210 731-0008
 Project Name: 1315-269
 Project Number: CAPITAL AIRPORT
 P.O. #: 3 Deliverables: 14 day
 Analytical Protocol: IAQ 1315-269
 Sampled By: Joe B. Byrd, JR

Analysis Requested: ppm 6010/7000
VOC 8010/8020
 No. of Containers: 3
 Bin #'s In/Out (For Lab Use Only): 3

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Description	No. of Containers	Bin #'s In/Out (For Lab Use Only)	Comments
0806	MW-203	4/3/97	0912	Groundwater	3		
0901	MW-203	11	0912	" "	1		
1007	MW-202A	11	1055	" "	3		
1001	MW-202A	11	1055	" "	1		
1403							

Relinquished by: _____ Date / Time: _____
 Print Name: _____
 Received by: _____ Date / Time: _____
 Print Name: _____
 Relinquished by: _____ Date / Time: _____
 Print Name: _____
 Received by: _____ Date / Time: _____
 Print Name: _____
 Relinquished by: _____ Date / Time: _____
 Print Name: _____
 Received by: _____ Date / Time: _____
 Print Name: _____

Lab Use Only

Custody Seals: Intact _____ Broken _____ Absent _____
 Sample Rec'd in Good Condition? Y _____ N _____
 Sample Temperature: _____ Degrees Celsius
 INSPECTED BY: _____
 COMMENTS: _____

Special Instructions: FEDEX AIRBILL: 797 0018814
and Confirmation on VOC Detection
Do Managerial in PPMs



Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

April 23, 1997

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: NEI/GTEL Client ID: OTC010TC01
Login Number: W7040081
Project ID (number): 1315-269
Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Dear Kathryn Pritchett:

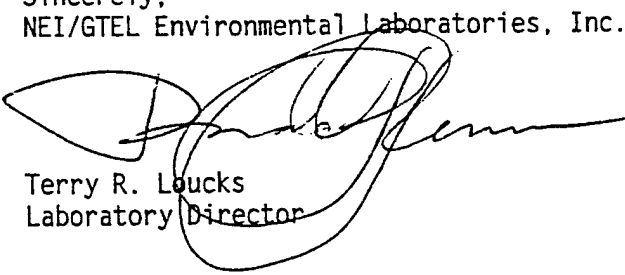
Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 04/04/97 under Chain-of-Custody Number(s) 49103.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-10103.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.


Terry R. Loucks
Laboratory Director

Customer Service Manager

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01
 Login Number: W7040081
 Project ID (number): 1315-269
 Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 524.2
 Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-08	W7040081-09	W7040081-10	W7040081-11
Client ID	MW-201B	MW-202B	MW-202(FILTERED)	MW-202A
Date Sampled	04/03/97	04/03/97	04/03/97	04/03/97
Date Analyzed	04/15/97	04/15/97	04/15/97	04/15/97
Dilution Factor	5.00	5.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Chloromethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Bromomethane	1.0	ug/L	< 5.0	< 5.0	< 1.0	< 1.0
Vinyl chloride	0.5	ug/L	< 2.5	58.	8.5	59.
Chloroethane	0.5	ug/L	< 2.5	< 2.5	1.8	0.9
Trichlorofluoromethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,1-Dichloroethene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Methylene chloride	1.0	ug/L	< 5.0	< 5.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	0.5	ug/L	< 2.5	< 2.5	< 0.5	1.0
1,1-Dichloroethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
2,2-Dichloropropane	1.0	ug/L	< 5.0	< 5.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	0.5	ug/L	18.	130	4.4	120
Chloroform	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Bromochloromethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,1,1-Trichloroethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,1-Dichloropropene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Carbon tetrachloride	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Benzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	0.8
1,2-Dichloroethane	0.5	ug/L	< 2.5	< 2.5	0.7	2.2
Trichloroethene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,2-Dichloropropane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Bromodichloromethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Dibromomethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
2-Chloroethylvinyl ether	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Toluene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,1,2-Trichloroethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,2-Dibromoethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Tetrachloroethene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,3-Dichloropropane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Dibromochloromethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Chlorobenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Ethylbenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,1,1,2-Tetrachloroethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
m+p-Xylene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
o-Xylene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Styrene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
Bromoform	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5

NEI/GTEL Wichita, KS
 W7040081

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 524.2

Matrix: Aqueous

NEI/GTEL Sample Number	W7040081-08	W7040081-09	W7040081-10	W7040081-11
Client ID	MW-201B	MW-202B	MW-202(FILTERED)	MW-202
Date Sampled	04/03/97	04/03/97	04/03/97	04/03/97
Date Analyzed	04/15/97	04/15/97	04/15/97	04/15/97
Dilution Factor	5.00	5.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units	W7040081-08	W7040081-09	W7040081-10	W7040081-11
Isopropylbenzene	0.5	ug/L	< 2.5	< 2.5	0.6	< 0.5
1,1,2,2-Tetrachloroethane	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,2,3-Trichloropropane	1.0	ug/L	< 5.0	< 5.0	< 1.0	< 0.5
n-Propylbenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 1.0
Bromobenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,3,5-Trimethylbenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
tert-Butylbenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,2,4-Trimethylbenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	0.5
sec-Butylbenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	ug/L	< 2.5	< 2.5	1.2	< 0.5
1,3-Dichlorobenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,4-Dichlorobenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
n-Butylbenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,2-Dichlorobenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5
1,2-Dibromo-3-chloropropane	2.0	ug/L	< 10.	< 10.	< 2.0	< 0.5
1,2,4-Trichlorobenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 2.0
Hexachlorobutadiene	1.0	ug/L	< 5.0	< 5.0	< 1.0	< 0.5
Naphthalene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 1.0
1,2,3-Trichlorobenzene	0.5	ug/L	< 2.5	< 2.5	< 0.5	< 0.5

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 524.2:

Methods for the Determination of Organic Compounds in Drinking Water, Rev. 4.0. USEPA 1992.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Volatile Organics

Project ID (number): 1315-269

Method: EPA 524.2

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	DBFM	TOL-d8	4-BFB
Method: EPA 524.2	Acceptability Limits:		70-130%	70-130%	70-130%
041497HP4-1	BW041497HP4	Method Blank Water	105.	97.9	95.0
041497HP4-2	LW041497HP4	Laboratory Control	105.	100.	99.8
041497HP4-3	BW041597HP4	Method Blank Water	112.	94.9	87.6
041497HP4-4	LW041597HP4	Laboratory Control	109.	99.3	91.2
--	04008108	MW-201B	108.	96.5	91.9
--	04008109	MW-202B	112.	96.2	90.0
--	04008110	MW-202(FILTERED)	108.	97.3	104.
--	04008111	MW-202A	102.	99.8	101.

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

NEI/GTEL Client ID: OTC010TC01
 Login Number: W7040081
 Project ID (number): 1315-269
 Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 524.2
 Matrix: Aqueous

Method Blank Results

QC Batch No: 041497HP4-1 041497HP4-3
 Date Analyzed: 14-APR-97 15-APR-97

Analyte	Method: EPA 524.2	Concentration: ug/L
Dichlorodifluoromethane	< 0.500	< 0.500
Chloromethane	< 0.500	< 0.500
Bromomethane	< 1.00	< 1.00
Vinyl chloride	< 0.500	< 0.500
Chloroethane	< 0.500	< 0.500
Trichlorofluoromethane	< 0.500	< 0.500
1,1-Dichloroethene	< 0.500	< 0.500
Methylene chloride	< 1.00	< 1.00
trans-1,2-Dichloroethene	< 0.500	< 0.500
1,1-Dichloroethane	< 0.500	< 0.500
2,2-Dichloropropane	< 0.500	< 0.500
cis-1,2-Dichloroethene	< 0.500	< 0.500
Chloroform	< 0.500	< 0.500
Bromochloromethane	< 0.500	< 0.500
1,1,1-Trichloroethane	< 0.500	< 0.500
1,1-Dichloropropene	< 0.500	< 0.500
Carbon tetrachloride	< 0.500	< 0.500
Benzene	< 0.500	< 0.500
1,2-Dichloroethane	< 0.500	< 0.500
Trichloroethene	< 0.500	< 0.500
1,2-Dichloropropane	< 0.500	< 0.500
Bromodichloromethane	< 0.500	< 0.500
Dibromomethane	< 0.500	< 0.500
2-Chloroethyl vinyl ether	< 0.500	< 0.500
cis-1,3-Dichloropropene	< 0.500	< 0.500
Toluene	< 0.500	< 0.500
trans-1,3-Dichloropropene	< 0.500	< 0.500
1,1,2-Trichloroethane	< 0.500	< 0.500
1,2-Dibromoethane	< 0.500	< 0.500
Tetrachloroethene	< 0.500	< 0.500
1,3-Dichloropropane	< 0.500	< 0.500
Dibromochloromethane	< 0.500	< 0.500
Chlorobenzene	< 0.500	< 0.500
Ethylbenzene	< 0.500	< 0.500
1,1,1,2-Tetrachloroethane	< 0.500	< 0.500
m+p-Xylene	< 0.500	< 0.500
o-Xylene	< 0.500	< 0.500
Styrene	< 0.500	< 0.500
Bromoform	< 0.500	< 0.500
Isopropylbenzene	< 0.500	< 0.500
1,1,2,2-Tetrachloroethane	< 0.500	< 0.500
1,2,3-Trichloropropane	< 0.500	< 0.500
n-Propylbenzene	< 0.500	< 0.500
Bromobenzene	< 0.500	< 0.500

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Volatile Organics

Project ID (number): 1315-269

Method: EPA 524.2

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Method Blank Results

1,3,5-Trimethylbenzene	< 0.500	< 0.500
2-Chlorotoluene	< 0.500	< 0.500
4-Chlorotoluene	< 0.500	< 0.500
tert-Butylbenzene	< 0.500	< 0.500
1,2,4-Trimethylbenzene	< 0.500	< 0.500
sec-Butylbenzene	< 0.500	< 0.500
p-Isopropyltoluene	< 0.500	< 0.500
1,3-Dichlorobenzene	< 0.500	< 0.500
1,4-Dichlorobenzene	< 0.500	< 0.500
n-Butylbenzene	< 0.500	< 0.500
1,2-Dichlorobenzene	< 0.500	< 0.500
1,2-Dibromo-3-chloropropane	< 0.500	< 0.500
1,2,4-Trichlorobenzene	< 0.500	< 0.500
Hexachlorobutadiene	< 0.500	< 0.500
Naphthalene	< 0.500	< 0.500
1,2,3-Trichlorobenzene	< 0.500	< 0.500

Notes:

Limits based on laboratory practice i.e. provisional limits.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics

Method: EPA 524.2

Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 524.2 Units:ug/L QC Batch:041497HP4-2				
Vinyl chloride	2.00	2.04	102	70-130%
1,1-Dichloroethene	2.00	1.97	98.5	70-130%
trans-1,2-Dichloroethene	2.00	1.97	98.5	70-130%
1,1-Dichloroethane	2.00	2.00	100.	70-130%
cis-1,2-Dichloroethene	2.00	1.97	98.5	70-130%
Chloroform	2.00	1.97	98.5	70-130%
1,1,1-Trichloroethane	2.00	1.93	96.5	70-130%
Carbon tetrachloride	2.00	1.80	90.0	70-130%
Benzene	2.00	1.95	97.5	70-130%
1,2-Dichloroethane	2.00	1.80	90.0	70-130%
Trichloroethene	2.00	1.94	97.0	70-130%
Toluene	2.00	2.09	105.	70-130%
1,1,2-Trichloroethane	2.00	1.98	99.0	70-130%
1,2-Dibromoethane	2.00	1.97	98.5	70-130%
Tetrachloroethene	2.00	1.90	95.0	70-130%
Chlorobenzene	2.00	2.14	107.	70-130%
Ethylbenzene	2.00	2.17	109.	70-130%
m+p-Xylene	4.00	4.76	119.	70-130%
o-Xylene	2.00	2.18	109.	70-130%
Styrene	2.00	2.10	105.	70-130%
1,4-Dichlorobenzene	2.00	2.32	116.	70-130%
1,2-Dichlorobenzene	2.00	2.36	118.	70-130%
1,2-Dibromo-3-chloropropane	2.00	2.69	135.*	70-130%
1,2,4-Trichlorobenzene	2.00	2.20	110.	70-130%
EPA 524.2 Units:ug/L QC Batch:041497HP4-4				
Vinyl chloride	2.00	2.10	105.	70-130%
1,1-Dichloroethene	2.00	2.17	109.	70-130%
trans-1,2-Dichloroethene	2.00	2.15	108.	70-130%
1,1-Dichloroethane	2.00	2.13	107.	70-130%
cis-1,2-Dichloroethene	2.00	2.21	111.	70-130%
Chloroform	2.00	2.05	103.	70-130%
1,1,1-Trichloroethane	2.00	1.95	97.5	70-130%
Carbon tetrachloride	2.00	1.78	89.0	70-130%
Benzene	2.00	2.06	103.	70-130%
1,2-Dichloroethane	2.00	1.74	87.0	70-130%
Trichloroethene	2.00	1.97	98.5	70-130%
Toluene	2.00	2.06	103.	70-130%
1,1,2-Trichloroethane	2.00	1.85	92.5	70-130%
1,2-Dibromoethane	2.00	1.84	92.0	70-130%
Tetrachloroethene	2.00	1.87	93.5	70-130%
Chlorobenzene	2.00	2.09	105.	70-130%
Ethylbenzene	2.00	2.17	109.	70-130%

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Volatile Organics

Project ID (number): 1315-269

Method: EPA 524.2

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
m+p-Xylene	4.00	4.59	115.	70-130%
o-Xylene	2.00	2.03	102.	70-130%
Styrene	2.00	1.94	97.0	70-130%
1,4-Dichlorobenzene	2.00	2.12	106.	70-130%
1,2-Dichlorobenzene	2.00	2.11	106.	70-130%
1,2-Dibromo-3-chloropropane	2.00	1.71	85.5	70-130%
1,2,4-Trichlorobenzene	2.00	2.13	107.	70-130%

Notes:

Limits based on laboratory practice i.e. provisional limits.

NEI/GTEL Wichita, KS

W7040081:6

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040081

Volatile Organic

Project ID (number): 1315-269

Method: EPA 524.2

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	--	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	*	--	--
Method Precision	--	--	--
Blank Contamination	X	--	--

Comments:



NEI/GTEL

ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

April 17, 1997

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: NEI/GTEL Client ID: OTC010TC01
Login Number: W7040048
Project ID (number): 1315-269
Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Dear Kathryn Pritchett:

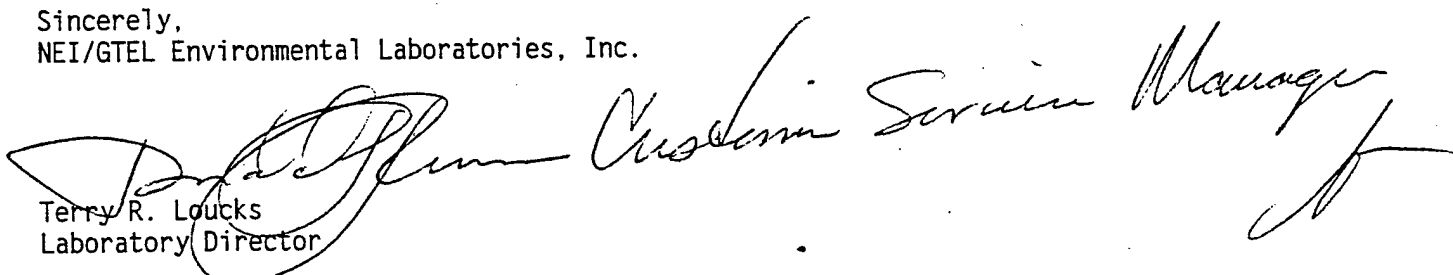
Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 04/03/97 under Chain-of-Custody Number(s) 50582.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-10103.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.


Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-01	W7040048-02	W7040048-03	W7040048-04
Client ID	FIELD BLANK	BAILER RINSATE	MW-104	MW-103
Date Sampled	04/02/97	04/02/97	04/02/97	04/02/97
EPA 6010A	Date Prepared	04/08/97	04/08/97	04/08/97
EPA 6010A	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 6010A	Dilution Factor	1.00	1.00	1.00
EPA 7041	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7041	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 7041	Dilution Factor	1.00	1.00	1.00
EPA 7060A	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7060A	Date Analyzed	04/10/97	04/10/97	04/10/97
EPA 7060A	Dilution Factor	1.00	1.00	1.00
EPA 7421	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7421	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7421	Dilution Factor	1.00	1.00	1.00
EPA 7470A	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7470A	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7470A	Dilution Factor	1.00	1.00	1.00
EPA 7740	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7740	Date Analyzed	04/14/97	04/14/97	04/14/97
EPA 7740	Dilution Factor	1.00	1.00	1.00
EPA 7841	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7841	Date Analyzed	04/09/97	04/09/97	04/09/97
EPA 7841	Dilution Factor	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
Inorganics (MT, WC)			
Antimony	EPA 7041	10. ug/L	< 10. < 10. < 10. < 10.
Arsenic	EPA 7060A	10. ug/L	< 10. < 10. 68. < 10.
Beryllium	EPA 6010A	5.0 ug/L	< 5.0 < 5.0 < 5.0 < 5.0
Cadmium	EPA 6010A	20. ug/L	< 20. < 20. < 20. < 20.
Chromium	EPA 6010A	30. ug/L	< 30. < 30. < 30. < 30.
Copper	EPA 6010A	25. ug/L	< 25. < 25. < 25. 32.
Lead	EPA 7421	4.0 ug/L	< 4.0 < 4.0 12. 10.
Mercury	EPA 7470A	0.50 ug/L	< 0.50 < 0.50 < 0.50 < 0.50
Nickel	EPA 6010A	40. ug/L	< 40. < 40. < 40. < 40.
Selenium	EPA 7740	10. ug/L	< 10. < 10. < 10. < 10.
Silver	EPA 6010A	20. ug/L	< 20. < 20. < 20. < 20.
Thallium	EPA 7841	10. ug/L	< 10. < 10. < 10. < 10.
Zinc	EPA 6010A	20. ug/L	< 20. < 20. 33. 26.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W7040048

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-01	W7040048-02	W7040048-03	W7040048-04
Client ID	FIELD BLANK	BAILER RINSATE	MW-104	MW-103
Date Sampled	04/02/97	04/02/97	04/02/97	04/02/97
EPA 6010A	Date Prepared	04/08/97	04/08/97	04/08/97
EPA 6010A	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 6010A	Dilution Factor	1.00	1.00	1.00
EPA 7041	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7041	Date Analyzed	04/08/97	04/08/97	04/08/97
EPA 7041	Dilution Factor	1.00	1.00	1.00
EPA 7060A	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7060A	Date Analyzed	04/10/97	04/10/97	04/10/97
EPA 7060A	Dilution Factor	1.00	1.00	1.00
EPA 7421	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7421	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7421	Dilution Factor	1.00	1.00	1.00
EPA 7470A	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7470A	Date Analyzed	04/07/97	04/07/97	04/07/97
EPA 7470A	Dilution Factor	1.00	1.00	1.00
EPA 7740	Date Prepared	04/09/97	04/09/97	04/09/97
EPA 7740	Date Analyzed	04/14/97	04/14/97	04/14/97
EPA 7740	Dilution Factor	1.00	1.00	1.00
EPA 7841	Date Prepared	04/07/97	04/07/97	04/07/97
EPA 7841	Date Analyzed	04/09/97	04/09/97	04/09/97
EPA 7841	Dilution Factor	1.00	1.00	1.00

Analyte	Reporting		Concentration:
	Limit	Units	

EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.

Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC01OTC01

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-05	W7040048-06	--	--
Client ID	MW-102	MW-101	--	--
Date Sampled	04/02/97	04/02/97	--	--
EPA 6010A Date Prepared	04/08/97	04/08/97	--	--
EPA 6010A Date Analyzed	04/08/97	04/08/97	--	--
EPA 6010A Dilution Factor	1.00	1.00	--	--
EPA 7041 Date Prepared	04/07/97	04/07/97	--	--
EPA 7041 Date Analyzed	04/08/97	04/08/97	--	--
EPA 7041 Dilution Factor	1.00	1.00	--	--
EPA 7060A Date Prepared	04/09/97	04/09/97	--	--
EPA 7060A Date Analyzed	04/10/97	04/10/97	--	--
EPA 7060A Dilution Factor	1.00	1.00	--	--
EPA 7421 Date Prepared	04/07/97	04/07/97	--	--
EPA 7421 Date Analyzed	04/07/97	04/07/97	--	--
EPA 7421 Dilution Factor	1.00	1.00	--	--
EPA 7470A Date Prepared	04/07/97	04/07/97	--	--
EPA 7470A Date Analyzed	04/07/97	04/07/97	--	--
EPA 7470A Dilution Factor	1.00	1.00	--	--
EPA 7740 Date Prepared	04/09/97	04/09/97	--	--
EPA 7740 Date Analyzed	04/14/97	04/14/97	--	--
EPA 7740 Dilution Factor	1.00	1.00	--	--
EPA 7841 Date Prepared	04/07/97	04/07/97	--	--
EPA 7841 Date Analyzed	04/09/97	04/09/97	--	--
EPA 7841 Dilution Factor	1.00	1.00	--	--

Analyte	Reporting	Limit	Units	Concentration:		--	--
				<	>		
Antimony	EPA 7041	10.	ug/L	< 10.	< 10.	--	--
Arsenic	EPA 7060A	10.	ug/L	< 10.	26.	--	--
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	< 5.0	--	--
Cadmium	EPA 6010A	20.	ug/L	< 20.	< 20.	--	--
Chromium	EPA 6010A	30.	ug/L	< 30.	< 30.	--	--
Copper	EPA 6010A	25.	ug/L	< 25.	< 25.	--	--
Lead	EPA 7421	4.0	ug/L	6.8	12.	--	--
Mercury	EPA 7470A	0.50	ug/L	< 0.50	< 0.50	--	--
Nickel	EPA 6010A	40.	ug/L	< 40.	< 40.	--	--
Selenium	EPA 7740	10.	ug/L	< 10.	< 10.	--	--
Silver	EPA 6010A	20.	ug/L	< 20.	< 20.	--	--
Thallium	EPA 7841	10.	ug/L	< 10.	< 10.	--	--
Zinc	EPA 6010A	20.	ug/L	33.	39.	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W7040048

ANALYTICAL RESULTS
Results For Multiple Methods

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: See Below
Matrix: Aqueous

NEI/GTEL Sample Number	Client ID	W7040048-05	W7040048-06		
		MW-102	MW-101	--	--
	Date Sampled	04/02/97	04/02/97	--	--
EPA 6010A	Date Prepared	04/08/97	04/08/97	--	--
EPA 6010A	Date Analyzed	04/08/97	04/08/97	--	--
EPA 6010A	Dilution Factor	1.00	1.00	--	--
EPA 7041	Date Prepared	04/07/97	04/07/97	--	--
EPA 7041	Date Analyzed	04/08/97	04/08/97	--	--
EPA 7041	Dilution Factor	1.00	1.00	--	--
EPA 7060A	Date Prepared	04/09/97	04/09/97	--	--
EPA 7060A	Date Analyzed	04/10/97	04/10/97	--	--
EPA 7060A	Dilution Factor	1.00	1.00	--	--
EPA 7421	Date Prepared	04/07/97	04/07/97	--	--
EPA 7421	Date Analyzed	04/07/97	04/07/97	--	--
EPA 7421	Dilution Factor	1.00	1.00	--	--
EPA 7470A	Date Prepared	04/07/97	04/07/97	--	--
EPA 7470A	Date Analyzed	04/07/97	04/07/97	--	--
EPA 7470A	Dilution Factor	1.00	1.00	--	--
EPA 7740	Date Prepared	04/09/97	04/09/97	--	--
EPA 7740	Date Analyzed	04/14/97	04/14/97	--	--
EPA 7740	Dilution Factor	1.00	1.00	--	--
EPA 7841	Date Prepared	04/07/97	04/07/97	--	--
EPA 7841	Date Analyzed	04/09/97	04/09/97	--	--
EPA 7841	Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:
---------	-----------------	-------	----------------

Notes: (continued)

EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.

Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0048
Date Reported: 04-17-97

QA NONCONFORMANCE SUMMARY

1.0 Sample Handling

1.1 Sample handling and holding time criteria were not met for zero samples.

2.0 Initial Calibration Verification

2.1 The validity for the calibration verification was exceeded for zero samples as shown in Table 2.

3.0 Method Blanks

3.1 Zero target elements were found in the method blank as shown in Table 3.

4.0 Matrix Spike (MS) Accuracy

4.1 The recovery limits were exceeded in one element for the matrix spike.

4.2 The recovery limits for the matrix spike and matrix spike duplicate were exceeded for antimony due to precipitation of the element in the presence of the sample matrix.

5.0 Sample Duplicate Precision

5.1 The maximum percent difference (RPD) was exceeded for one element in the matrix spike and matrix spike duplicate samples as shown in Tables 4A and 4B.

5.2 The maximum percent difference (RPD) was exceeded for antimony in the matrix spike and the matrix spike duplicate due to precipitation of the element in the sample matrix.

6.0 Laboratory Control Sample

6.1 The recovery limits were not met for zero elements for the laboratory control samples as shown in Table 5.

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0048
Date Reported: 04-17-97

Table 2
INITIAL CALIBRATION VERIFICATION QC CHECK SAMPLE REPORT
Metals in Water^a

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	43.8	110	90-110
Arsenic	40.0	40.0	100	90-110
Beryllium	1000	1020	102	90-110
Cadmium	1000	1030	103	90-110
Chromium	1000	1020	102	90-110
Copper	1000	1020	102	90-110
Lead	20.0	20.7	104	90-110
Mercury	4.00	4.17	104	90-110
Nickel	1000	1040	104	90-110
Selenium	40.0	39.4	98.5	90-110
Silver	500	524	105	90-110
Thallium	20.0	20.2	101	90-110
Zinc	1000	1040	104	90-110

a Acceptability limits as per EPA Contract Laboratory Program

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0048
Date Reported: 04-17-97

Table 3
BLANK REPORT
Metals in Water

Analyte	Initial Calibration Blank, ug/L	Preparation Blank, ug/L
Antimony	<10	<10
Arsenic	<10	<10
Beryllium	<5.0	<5.0
Cadmium	<20	<20
Chromium	<30	<30
Copper	<25	<25
Lead	<4.0	<4.0
Mercury	<0.50	<0.50
Nickel	<40	<40
Selenium	<10	<10
Silver	<20	<20
Thallium	<10	<10
Zinc	<20	<20

<# Not detected at the indicated detection limit (#)

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0048
 Date Reported: 04-17-97

Table 4A
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
Metals in Water

Sample Spiked: Method 6010A W7040112-01
 Sample Spiked: Method 7041 W7040081-01
 Sample Spiked: Method 7060A W7040021-01
 Sample Spiked: Method 7421 W7040081-01
 Sample Spiked: Method 7470A W7040021-01
 Sample Spiked: Method 7740 W7040021-01
 Sample Spiked: Method 7841 W7040081-01

Analyte	Spike Added, ug/L	Sample Concentration, ug/L	MS Concentration, ug/L	MS Percent Recovery	Acceptability Limits, % ^a
Antimony	40.0	<10.0	15.1	37.8 ^b	75-125
Arsenic	40.0	<10.0	40.9	102	75-125
Beryllium	133	<5.0	118	88.8	80-120
Cadmium	168	<20	158	93.8	80-120
Chromium	333	<30	302	90.5	80-120
Copper	333	<25	310	93.0	80-120
Lead	20.0	23.9	39.4	77.5	75-125
Mercury	2.00	<0.50	1.66	83.0	75-125
Nickel	333	<40	292	87.5	80-120
Selenium	40.0	<10.0	41.7	104	75-125
Silver	66.7	<20	62.0	92.3	80-120
Thallium	20.0	<10.0	17.2	86.0	80-120
Zinc	333	<20	313	93.7	80-120

a Acceptability limits as per EPA Contract Laboratory Program.

b Value is outside of acceptability limits.

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0048
 Date Reported: 04-17-97

Table 4B
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
Metals in Water

Analyte	Spike Added, ug/L	MSD Concentration, ug/L	MSD Percent Recovery	RPD %	Acceptability Limits, % ^a
					RPD
Antimony	40.0	11.5	28.8	27.1 ^b	20.0
Arsenic	40.0	43.0	108	5.00	20.0
Beryllium	133	110	82.7	7.09	20.0
Cadmium	168	143	85.0	9.87	20.0
Chromium	333	277	83.1	8.63	20.0
Copper	333	278	83.4	10.9	20.0
Lead	20.0	37.4	67.5	1.26	20.0
Mercury	2.00	1.42	71.0	15.6	20.0
Nickel	333	270	81.1	7.59	20.0
Selenium	40.0	40.6	102	2.67	20.0
Silver	66.7	55.0	83.2	10.4	20.0
Thallium	20.0	17.7	88.5	2.86	20.0
Zinc	333	284	85.2	9.57	20.0

- a Acceptability limits as per EPA Contract Laboratory Program.
- b Value is outside of acceptability limits.

Project ID (Number): 1315-269
Project ID (Name): OPTECH
Capital Airport
San Antonio, TX
Work Order Number: W7-04-0048
Date Reported: 04-17-97

Table 5
LABORATORY CONTROL SAMPLE RESULTS
Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	39.3	98.2	75-125
Arsenic	40.0	43.1	108	75-125
Beryllium	800	797	99.6	80-120
Cadmium	1010	943	93.4	80-120
Chromium	2000	1960	98.0	80-120
Copper	2000	1930	96.5	80-120
Lead	20.0	20.7	104	75-125
Mercury	2.00	1.80	90.0	75-125
Nickel	2000	1940	97.0	80-120
Selenium	40.0	39.7	99.2	75-125
Silver	400	368	92.0	80-120
Thallium	20.0	21.0	105	75-125
Zinc	2000	1880	94.0	80-120

a Acceptability limits established by laboratory practice

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0048
 Date Reported: 04-17-97

Table 6
 LABORATORY CONTROL SAMPLE RESULTS
 Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	37.6	94.0	36.2	90.5	80-120
Arsenic	40.0	43.5	109	47.1	118	80-120
Beryllium	2000	2060	103	2090	104	90-110
Cadmium	2500	2660	106	2700	108	90-110
Chromium	5000	5280	106	5390	108	90-110
Copper	5000	4980	99.5	5120	102	90-110
Lead	20.0	22.2	111	21.8	109	80-120
Mercury	4.00	4.08	102	4.17	104	80-120
Nickel	5000	5345	107	5434	109	90-110
Selenium	40.0	39.2	98.0	42.4	106	80-120
Silver	1000	1020	102	1050	105	90-110
Thallium	20.0	19.6	98.0	18.6	93.0	80-120
Zinc	5000	5300	106	5360	107	90-110

a Acceptability limits established by laboratory practice

Project ID (Number): 1315-269
 Project ID (Name): OPTECH
 Capital Airport
 San Antonio, TX
 Work Order Number: W7-04-0048
 Date Reported: 04-17-97

Table 6
LABORATORY CONTROL SAMPLE RESULTS
Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	39.0	97.5	---	---	80-120
Arsenic	40.0	45.1	113	---	---	80-120
Beryllium	2000	2100	105	---	---	90-110
Cadmium	2500	2740	110	---	---	90-110
Chromium	5000	5500	110	---	---	90-110
Copper	5000	5210	104	---	---	90-110
Lead	20.0	22.4	112	22.2	111	80-120
Mercury	4.00	4.18	105	4.24	106	80-120
Nickel	5000	5500	110	---	---	90-110
Selenium	40.0	46.4	116	---	---	80-120
Silver	1000	1070	107	---	---	90-110
Thallium	20.0	20.4	102	---	---	80-120
Zinc	5000	5440	109	---	---	90-110

a Acceptability limits established by laboratory practice

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01
Login Number: W7040048
Project ID (number): 1315-269
Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020
Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-01	W7040048-02	W7040048-03	W7040048-04
Client ID	FIELD BLANK	BAILER RINSATE	MW-104	MW-103
Date Sampled	04/02/97	04/02/97	04/02/97	04/02/97
Date Analyzed	04/14/97	04/14/97	04/14/97	04/14/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units	W7040048-01	W7040048-02	W7040048-03	W7040048-04
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	1.0	ug/L	1.9	1.7	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	1.1	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
NEI/GTEL Wichita, KS
W7040048

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-01	W7040048-02	W7040048-03	W7040048-04
Client ID	FIELD BLANK	BAILER RINSATE	MW-104	MW-103
Date Sampled	04/02/97	04/02/97	04/02/97	04/02/97
Date Analyzed	04/14/97	04/14/97	04/14/97	04/14/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
Notes: (continued)			

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-05	W7040048-06	W7040048-07	--
Client ID	MW-102	MW-101	TBNK12	--
Date Sampled	04/02/97	04/02/97		--
Date Analyzed	04/14/97	04/14/97	04/14/97	--
Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	--
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	--
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	--
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	--
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:

NEI/GTEL Wichita, KS

W7040048

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 8010/8020

Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-05	W7040048-06	W7040048-07	
Client ID	MW-102	MW-101	TBNK12	--
Date Sampled	04/02/97	04/02/97		--
Date Analyzed	04/14/97	04/14/97	04/14/97	--
Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including promulgated Update II.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8010/8

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	*	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

NEI/GTEL Client ID: OTC010TC01
Login Number: W7040048
Project ID (number): 1315-269
Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010/8
Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	BFB ELCD	BFB PID
Method: EPA 8010/8020			Acceptability Limits: 52.8-144% 77.3-129%	
041497GC11-1	CV0414972011	Calibration Verifi	98.2	102
041497GC11-2	BW04149711	Method Blank Water	97.0	101
041497GC11-4	DP04015520	Duplicate	98.6	100
041497GC11-5	MS04004805	Matrix Spike	95.8	103
041497GC11-6	LW0414972011	Laboratory Control	99.0	103
--	04004801	FIELD BLANK	93.5	101
--	04004802	BAILER RINSATE	96.5	100
--	04004803	MW-104	99.6	106
--	04004804	MW-103	100	104
--	04004805	MW-102	97.7	99.8
--	04004806	MW-101	94.0	99.3
--	04004807	TBNK12	94.3	99.9

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8010/8

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Method Blank Results

QC Batch No: 041497GC11-2
Date Analyzed: 14-APR-97

Analyte	Method: EPA 8010/8020	Concentration: ug/L
Dichlorodifluoromethane	<	5.00
Chloromethane	<	2.00
Vinyl chloride	<	1.00
Bromomethane	<	2.00
Chloroethane	<	1.00
Trichlorofluoromethane	<	1.00
1,1-Dichloroethene	<	1.00
Methylene chloride	<	1.00
trans-1,2-Dichloroethene	<	1.00
1,1-Dichloroethane	<	1.00
cis-1,2-Dichloroethene	<	1.00
Chloroform	<	1.00
1,1,1-Trichloroethane	<	1.00
Carbon tetrachloride	<	1.00
Benzene	<	0.500
1,2-Dichloroethane	<	1.00
Trichloroethene	<	1.00
1,2-Dichloropropane	<	1.00
Bromodichloromethane	<	1.00
2-Chloroethyl vinyl ether	<	1.00
cis-1,3-Dichloropropene	<	1.00
trans-1,3-Dichloropropene	<	1.00
Toluene	<	1.00
1,1,2-Trichloroethane	<	1.00
Tetrachloroethene	<	1.00
Dibromochloromethane	<	1.00
Chlorobenzene	<	1.00
Ethylbenzene	<	1.00
Xylenes (Total)	<	1.00
Bromoform	<	2.00
1,1,2,2-Tetrachloroethane	<	1.00
1,3-Dichlorobenzene	<	1.00
1,4-Dichlorobenzene	<	1.00
1,2-Dichlorobenzene	<	1.00

Notes:

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organics

Method: EPA 8010/78

Matrix: Aqueous

Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010/8020	Units:ug/L	QC Batch:041497GC11-1		
Dichlorodifluoromethane	20.0	22.0	110	40-160%
Chloromethane	20.0	17.4	87.0	59.5-140.5%
Vinyl chloride	20.0	20.5	103	68.5-131.5%
Bromomethane	20.0	19.4	97.0	58.5-141.5%
Chloroethane	20.0	18.2	91.0	77-123%
Trichlorofluoromethane	20.0	19.5	97.5	66.5-133.5%
1,1-Dichloroethene	20.0	22.4	112	63-137%
Methylene chloride	20.0	19.5	97.5	77.5-122.5%
trans-1,2-Dichloroethene	20.0	18.9	94.5	64-136%
1,1-Dichloroethane	20.0	18.8	94.0	71.5-116%
cis-1,2-Dichloroethene	20.0	18.6	93.0	64-116%
Chloroform	20.0	19.4	97.0	75-125%
1,1,1-Trichloroethane	20.0	19.2	96.0	71-129%
Carbon tetrachloride	20.0	19.2	96.0	68.5-131.5%
Benzene	20.0	19.6	98.0	77-123%
1,2-Dichloroethane	20.0	20.0	100	71.5-128.5%
Trichloroethene	20.0	19.3	96.5	77-123%
1,2-Dichloropropane	20.0	19.3	96.5	74-126%
Bromodichloromethane	20.0	18.7	93.5	76-124%
2-Chloroethyl vinyl ether	20.0	18.2	91.0	60-140%
cis-1,3-Dichloropropene	20.0	20.5	103	64-136%
trans-1,3-Dichloropropene	20.0	19.7	98.5	64-136%
Toluene	20.0	19.7	98.5	77.5-122.5%
1,1,2-Trichloroethane	20.0	19.4	97.0	78.5-121.5%
Tetrachloroethene	20.0	19.0	95.0	70-130%
Dibromochloromethane	20.0	18.5	92.5	65.5-134.5%
Chlorobenzene	20.0	19.7	98.5	72-128%
Ethylbenzene	20.0	20.7	104	63-137%
Xylenes (Total)	60.0	61.0	102	36-136%
Bromoform	20.0	18.3	91.5	73.5-126.5%
1,1,2,2-Tetrachloroethane	20.0	18.7	93.5	49-151%
1,3-Dichlorobenzene	20.0	18.5	92.5	49.5-150.5%
1,4-Dichlorobenzene	20.0	19.1	95.5	69.5-130.5%
1,2-Dichlorobenzene	20.0	19.0	95.0	70-130%

Notes:

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8010/8

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010/8020	Units:ug/L	QC Batch:041497GC11-6		
Dichlorodifluoromethane	20.0	26.2	131.	40-160%
Chloromethane	20.0	21.4	107.	10-193%
Vinyl chloride	20.0	23.0	115.	28-163%
Bromomethane	20.0	19.5	97.5	10-144%
Chloroethane	20.0	19.4	97.0	46-137%
Trichlorofluoromethane	20.0	20.4	102.	21-156%
1,1-Dichloroethene	20.0	22.8	114.	28-167%
Methylene chloride	20.0	20.9	105.	25-162%
trans-1,2-Dichloroethene	20.0	20.3	102.	38-155%
1,1-Dichloroethane	20.0	20.6	103.	47-132%
cis-1,2-Dichloroethene	20.0	19.4	97.0	38-155%
Chloroform	20.0	20.6	103.	49-133%
1,1,1-Trichloroethane	20.0	20.8	104.	41-138%
Carbon tetrachloride	20.0	20.9	105.	43-143%
Benzene	20.0	20.6	103.	39-150%
1,2-Dichloroethane	20.0	20.3	102.	51-147%
Trichloroethene	20.0	23.4	117.	35-146%
1,2-Dichloropropane	20.0	20.2	101.	44-156%
Bromodichloromethane	20.0	19.4	97.0	42-172%
2-Chloroethyl vinyl ether	20.0	17.8	89.0	14-186%
cis-1,3-Dichloropropene	20.0	18.6	93.0	22-178%
trans-1,3-Dichloropropene	20.0	18.3	91.5	22-178%
Toluene	20.0	20.8	104.	46-148%
1,1,2-Trichloroethane	20.0	20.1	101.	39-136%
Tetrachloroethene	20.0	21.1	106.	26-162%
Dibromochloromethane	20.0	20.3	102.	24-191%
Chlorobenzene	20.0	19.3	96.5	38-150%
Ethylbenzene	20.0	21.9	110.	32-160%
Xylenes (Total)	60.0	64.3	107.	36-136%
Bromoform	20.0	19.3	96.5	13-159%
1,1,2,2-Tetrachloroethane	20.0	16.0	80.0	10-184%
1,3-Dichlorobenzene	20.0	19.2	96.0	10-187%
1,4-Dichlorobenzene	20.0	20.1	101.	42-143%
1,2-Dichlorobenzene	20.0	19.8	99.0	10-208%

Notes:

NEI/GTEL Wichita, KS
W7040048:5

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8010/8

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Duplicate Sample Results

Analyte	Original Concentration	Duplicate Concentration	RPD, %	Acceptability Limits, %
EPA 8010/8020 Units: ug/L	QC Batch: 041497GC11-4		GTEL Sample ID: W7040155-20	
	Client ID: Batch QC			
Dichlorodifluoromethane	< 5.00	< 5.00	NA	35.4
Chloromethane	< 2.00	< 2.00	NA	24.2
Vinyl chloride	< 1.00	< 1.00	NA	18.6
Bromomethane	< 2.00	< 2.00	NA	24.8
Chloroethane	< 1.00	< 1.00	NA	14.4
Trichlorofluoromethane	< 1.00	< 1.00	NA	19.6
1,1-Dichloroethene	< 1.00	< 1.00	NA	21.6
Methylene chloride	2.13	2.62	20.6	40.0
trans-1,2-Dichloroethene	< 1.00	< 1.00	NA	20.9
1,1-Dichloroethane	< 1.00	< 1.00	NA	10.5
cis-1,2-Dichloroethene	4.11	4.10	0.244	20.9
Chloroform	< 1.00	< 1.00	NA	14.7
1,1,1-Trichloroethane	< 1.00	< 1.00	NA	16
Carbon tetrachloride	< 1.00	< 1.00	NA	18.3
1,2-Dichloroethane	< 1.00	< 1.00	NA	17
Trichloroethene	32.1	31.8	0.939	13.7
1,2-Dichloropropane	< 1.00	< 1.00	NA	17
Bromodichloromethane	< 1.00	< 1.00	NA	13.1
2-Chloroethyl vinyl ether	< 1.00	< 1.00	NA	27.1
cis-1,3-Dichloropropene	< 1.00	< 1.00	NA	23.8
trans-1,3-Dichloropropene	< 1.00	< 1.00	NA	23.8
1,1,2-Trichloroethane	< 1.00	< 1.00	NA	12.8
Tetrachloroethene	7.93	7.83	1.27	17.7
Dibromochloromethane	< 1.00	< 1.00	NA	20.6
Chlorobenzene	< 1.00	< 1.00	NA	16.4
Bromoform	< 2.00	< 2.00	NA	15.4
1,1,2,2-Tetrachloroethane	< 1.00	< 1.00	NA	30
1,3-Dichlorobenzene	< 1.00	< 1.00	NA	29.7
1,4-Dichlorobenzene	< 1.00	< 1.00	NA	18
1,2-Dichlorobenzene	< 1.00	< 1.00	NA	18

Notes:

NA - The concentration of the analyte is less than the reporting limit.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Volatile Organics

Project ID (number): 1315-269

Method: EPA 8010/8

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W7040048-05		MS ID:MS04004805			
Analysis Date: 14-APR-97		15-APR-97			
Units: ug/L	Sample	Spike	MS	MS	Acceptability Limits
Analyte	Conc.	Added	Conc.	% Rec.	%Rec.
Dichlorodifluoromethane	< 5.0 (0.000)	20.0	21.3	107.	40-160
Chloromethane	< 2.0 (0.000)	20.0	20.0	100.	10-193
Vinyl chloride	< 1.0 (0.000)	20.0	20.2	101.	28-163
Bromomethane	< 2.0 (0.000)	20.0	17.7	88.5	10-144
Chloroethane	< 1.0 (0.000)	20.0	17.5	87.5	46-137
Trichlorofluoromethane	< 1.0 (0.000)	20.0	17.2	86.0	21-156
1,1-Dichloroethene	< 1.0 (0.000)	20.0	21.2	106.	28-167
Methylene chloride	< 1.0 (0.000)	20.0	19.4	97.0	25-162
trans-1,2-Dichloroethene	< 1.0 (0.000)	20.0	18.6	93.0	38-155
1,1-Dichloroethane	< 1.0 (0.000)	20.0	19.4	97.0	47-132
cis-1,2-Dichloroethene	< 1.0 (0.000)	20.0	18.6	93.0	38-155
Chloroform	< 1.0 (0.000)	20.0	19.5	97.5	49-133
1,1,1-Trichloroethane	< 1.0 (0.000)	20.0	19.1	95.5	41-138
Carbon tetrachloride	< 1.0 (0.000)	20.0	18.7	93.5	43-143
Benzene	< 0.50(0.000)	20.0	19.4	97.0	39-150
1,2-Dichloroethane	< 1.0 (0.000)	20.0	19.7	98.5	51-147
Trichloroethene	< 1.0 (0.000)	20.0	18.8	94.0	35-146
1,2-Dichloropropane	< 1.0 (0.000)	20.0	19.6	98.0	44-156
Bromodichloromethane	< 1.0 (0.000)	20.0	18.6	93.0	42-172
2-Chloroethyl vinyl ether	< 1.0 (0.000)	20.0	0.00	0.00*	14-186
cis-1,3-Dichloropropene	< 1.0 (0.000)	20.0	17.8	89.0	22-178
trans-1,3-Dichloropropene	< 1.0 (0.000)	20.0	17.4	87.0	22-178
Toluene	< 1.0 (0.000)	20.0	19.2	96.0	46-148
1,1,2-Trichloroethane	< 1.0 (0.000)	20.0	19.4	97.0	39-136
Tetrachloroethene	< 1.0 (0.000)	20.0	18.5	92.5	26-162
Dibromochloromethane	< 1.0 (0.000)	20.0	18.8	94.0	24-191
Chlorobenzene	< 1.0 (0.000)	20.0	18.0	90.0	38-150
Ethylbenzene	< 1.0 (0.000)	20.0	19.8	99.0	32-160
Xylenes (Total)	< 1.0 (0.000)	60.0	58.4	97.3	36-136
Bromoform	< 2.0 (0.000)	20.0	18.1	90.5	13-159
1,1,2,2-Tetrachloroethane	< 1.0 (0.000)	20.0	18.7	93.5	10-184
1,3-Dichlorobenzene	< 1.0 (0.000)	20.0	17.2	86.0	10-187
1,4-Dichlorobenzene	< 1.0 (0.000)	20.0	16.5	82.5	42-143
1,2-Dichlorobenzene	< 1.0 (0.000)	20.0	18.3	91.5	10-208

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

041497GC11-5: 2-Chloroethylvinyl ether decomposes in the presence of Hydrochloric Acid (used as a preservative).

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

4211 MAY STREET
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

1 of 2 50582

Company Name: **OPTech H**
Phone #: 210 731-0000
FAX #: 210 731-0008
Company Address: 4100 NW Loop 410 #230
Site Location: CAPITAL AIRPORT
SAN ANTONIO, TX 78229
Project Manager: K. Pritchett
Client Project ID: (#) 1315-269

(NAME)
Sampler Name (Print): **Joe Byrd, JR**
I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix				Method Preserved				Sampling				
			WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	HCl	HNO3	H2SO4	ICR	UNPREPARED	OTHER (Specify)	DATE	TIME
Field BLANK	2001	3	✓											4/7/97	0850
Field BLANK	2002	1	✓											"	0850
Bailer Rinseate	2003	3	✓											"	0855
Bailer Rinseate	2004	1	✓											"	0855
MW-104	2005	3	✓											"	1100
MW-104	2006	1	✓											"	1100
MW-103	2007	3	✓											"	0955
MW-103	2008	1	✓											"	0955

BTEX Gas Hydrocarbons PID/FID with MTBE	BTEX 602	8020	with MTBE	Hydrocarbons GC/FID Gas Diesel Screen	Oil and Grease 413.1 413.2 SM-503	TPH/IR 418.1 SM 503	EB by 504 DBCP by 504	EPA 524.2 503.1 EPA 502.2	EPA 601 EPA 8010	EPA 602 EPA 8020	EPA 608 8080 PCB only	EPA 624/PPL 8240/TAL NBS (+15) 8260	EPA 625/PPL 8270/TAL NBS (+25)	EPA 610 8310	EP TOX Metals Pesticides Herbicides	TCLP Metals VOA Semi-VOA Pest Herb	EPA Metals - Priority Pollutant TAL RCRA	CAM Metals TLIC STLC	Lead 239.2 200.7 7420 7421 6010	Organic Lead	Corrosivity Flash Point Reactivity	
✓	✓								✓										✓			
									✓													
									✓													
									✓													
									✓													

REMARKS: **FED-EX AIRBILL: 797 0018792**
2nd Confirmation on VOC Detection
Lab Use Only Lot #: _____
Storage Location

SPECIAL DETECTION LIMITS
SPECIAL REPORTING REQUIREMENTS
Work Order #: _____
FAX

QA/QC Level **LAB 99**
Blue CLP Other
Relinquished by Sampler: **Joe Byrd, JR**
Relinquished by: _____
Relinquished by: _____
Date: 4/7/97 Time: 1500
Date: 4/3/97 Time: 0800
Date: _____ Time: _____
Received by Laboratory: _____
Waybill #: _____

CUSTODY RECORD

Client Name: OPTech
 Address: 4100 NW Loop 410, #230
SAN ANTONIO, TX 78229
 Project Manager: K. Pritchett
 Phone: 210 731-0000 FAX: 210 731-0008
 Project Name: CAPITAL AIRPORT
 Project Number: 1315-269
 P.O. #: 99 99
 Analytical Protocol: Level 3 Deliverables: 14 day
 Sampled By: Joe Byrd, Jr

Ship to: Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
 Attn.: Sample Control
 Date Shipped: _____
 Carrier: _____
 Air Bill #: _____
 Cooler #: _____
 C of C #: _____
 SDG #: _____
 NEI QT #: _____

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Description	Analysis Requested		Bin #'s In/Out (For Lab Use Only)	Comments
					No. of Containers	Analysis Requested		
05M	102	4/29/97	0925	Ground Water	3	✓	PPM SW 6010	
01M	102	"	0925	"	1	✓		
00M	101	"	1125	"	3	✓		
01M	101	"	1125	"	1	✓		
07T	BNK12	3/24/94	1500	TRIP BLANK #12	1	✓		
04T	TEMP BK	"	"	Temperature Blank	1	✓		
03T				See Byrd, Jr				

Relinquished by: Joe Byrd Jr Received by: _____ Date / Time: 4/29/97 1500

Print Name: Joe Byrd, Jr Print Name: _____

Relinquished by: _____ Received by: _____ Date / Time: _____

Print Name: _____ Print Name: _____

Relinquished by: _____ Received by: J. S. [Signature] Date / Time: 4/30/97

Print Name: _____ Print Name: _____

Lab Use Only

Custody Seals: Intact _____ Broken _____ Absent _____

Sample Rec'd in Good Condition?: Y _____ N _____

Sample Temperature: _____ Degrees Celsius

INSPECTED BY: _____

COMMENTS: _____

Special Instructions: FEDEx AIRBILL # 7970018792
2nd Confirmation on VOC Detection

Priority returned on per...
analyses is December and continued.

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 1 of 2 50582

ANALYSIS REQUEST

Lead 209.2 □ 200.7 □ 7420 □ 7421 □ 8010	Organic Lead	Corrosivity □ Flash Point □ Reactivity
CAM Metals TLCC □ STLC		
EPA Metals - Priority Pollutant □ TAL □ RCRA □		
TCLP Metals □ VOA □ Semi-VOA □ Pesticides □ Herbicides		
EPA 610 □ 8310		
EPA 625/PL □ 8270/TAL □ NBS (+25)		
EPA 624/PL □ 8240/TAL □ NBS (+15) □ 8250		
EPA 608 □ 4080 □ PCB only		
EPA 602 □ EPA 6020		
EPA 601 □ EPA 6010		
EPA 524.2 □ 502.1 □ EPA 502.2		
EDB by 504 □ DBCP by 504		
TPH/R 418.1 □ 5M 503		
Oil and Grease 413.1 □ 413.2 □ 5M-503		
Hydrocarbon Profile (SIMDIS) □		
Hydrocarbons G/C/FID Gas □ Diesel □ Screen □		
BTEX/Gas Hydrocarbons P/FID □ with MTBE □		
BTEX 602 □ 6020 with MTBE □		

REMARKS: FED ex AIRBILL = PPM - SW 846-6010 / 10/19/97 700. Sure
2nd Confirmation on VOC Detections
Lab Use Only Lot #: AMENDED

Work Order #: 797 0018792
Received by: [Signature]
Time: 1500
Date: 4/27/97

4211 MAY STREET
WICHITA, KS 67209
(316) 945-2624
(800) 633-7936

Company Name: **NEI/GTEL**
ENVIRONMENTAL LABORATORIES, INC.

Company Address: 4102 NW Loop 410-2230
SAN ANTONIO, TX 78229

Phone #: 210 731-6000
FAX #: 210 731-6008

Site Location: Capital Airport

Client Project ID: (M) 1315-269

Project Manager: K. Ritchelle

Sampler Name (Print): See Byrd, Jr

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix			Method Preserved			Sampling				
			WATER	SOIL	SLUDGE	PRODUCT	OTHER	H2	HNO3	ICE	OTHER (Specify)	DATE	TIME
Field BLANK	8	3	✓			✓						4/27/97	0850
Field BLANK	5	1	✓			✓						"	0850
BALANCE RESIDUE	0	3	✓			✓						"	0855
BALANCE RESIDUE	0	1	✓			✓						"	0855
MN-104	7	3	✓			✓						"	1100
MN-104	0	1	✓			✓						"	1100
MN-103	7	3	✓			✓						"	0955
MN-103	3	1	✓			✓						"	0955

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

FAX □

QA/QC Level: **ABX 98**

Retiquished by Sampler: **See Byrd, Jr**

Retiquished by: **See Byrd, Jr**

Received by: [Signature]

Time: 1500

Date: 4/27/97

CUSTODY RECORD

Chain of Custody Record

Client Name: QPTech
 Address: 4100 NW Loop 410, #230
SAN ANTONIO, TX 78229

Project Manager: K. Pritchett
 Phone: 210 731-0000 FAX: 210 731-0008
 Project Name: CAPITAL AIRPORT
 Project Number: 1315-269
 P.O. #: 05 99
 Analytical Protocol: Lead 3 Deliverables: 14 day
 Sampled By: Joe Byrd, Jr

Analysis Requested: PPM SW 6010/300
2/19/97
VOC SW 8010/8020

Bin #'s In/Out (For Lab Use Only):
3
1
3
1
1
1

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Description	No. of Containers	Bin #'s In/Out (For Lab Use Only)	Comments
MN-102	4/18/97	0925	Groundwater	3	✓		
MW-102	0925	"	"	1	✓		
MW-101	1125	"	"	3	✓		
MW-101	1125	"	"	1	✓		
TB NK 1	2/3/97	1500	TRIP BLANK #12	1	✓		
TEMP BK 1	"	"	TEMPERATURE BLANK	1	✓		

Received by: Joe Byrd Jr Date / Time: 4/18/97 1500
 Print Name: Joe Byrd Jr

Received by: _____ Date / Time: _____
 Print Name: _____

Received by: _____ Date / Time: _____
 Print Name: _____

Received by: _____ Date / Time: _____
 Print Name: _____

Lab Use Only
 Custody Seals: AMENDED COC
 Sample Rec'd in Good Condition? N
 Sample Temperature: _____ Degree Celsius
 INSPECTED BY: _____
 COMMENTS: _____

Special Instructions: FEDEX AIRBILL: 797 0018792
2 day Confirmation on VOC Detection



Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

April 22, 1997

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: NEI/GTEL Client ID: OTC010TC01
Login Number: W7040048
Project ID (number): 1315-269
Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Dear Kathryn Pritchett:

Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 04/03/97 under Chain-of-Custody Number(s) 50582.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-10103.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.

Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01
 Login Number: W7040048
 Project ID (number): 1315-269
 Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 524.2
 Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-08	W7040048-09	W7040048-10	--
Client ID	FIELD BLANK	BAILER RINSE	MW-104	--
Date Sampled	04/02/97	04/02/97	04/02/97	--
Date Analyzed	04/15/97	04/15/97	04/15/97	--
Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Chloromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Bromomethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Vinyl chloride	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Chloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Trichlorofluoromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
trans-1,2-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
2,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
cis-1,2-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Chloroform	0.5	ug/L	1.8	1.7	< 0.5	--
Bromochloromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1,1-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Carbon tetrachloride	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Trichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Bromodichloromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Dibromomethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
2-Chloroethylvinyl ether	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
cis-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Toluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
trans-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1,2-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dibromoethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Tetrachloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,3-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Dibromochloromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Chlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Ethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1,1,2-Tetrachloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
m-p-Xylene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
o-Xylene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Styrene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Bromoform	0.5	ug/L	< 0.5	< 0.5	< 0.5	--

NEI/GTEL Wichita, KS
 W7040048

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC01OTC01
 Login Number: W7040048
 Project ID (number): 1315-269
 Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Method: EPA 524.2
 Matrix: Aqueous

NEI/GTEL Sample Number	W7040048-08	W7040048-09	W7040048-10	--
Client ID	FIELD BLANK	BAILER RINSE	MW-104	--
Date Sampled	04/02/97	04/02/97	04/02/97	--
Date Analyzed	04/15/97	04/15/97	04/15/97	--
Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting		Concentration:			
	Limit	Units				
Isopropylbenzene	0.5	ug/L	< 0.5	< 0.5	11.	--
1,1,2,2-Tetrachloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2,3-Trichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
n-Propylbenzene	0.5	ug/L	< 0.5	< 0.5	8.7	--
Bromobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,3,5-Trimethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
2-Chlorotoluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
4-Chlorotoluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
tert-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	1.4	--
1,2,4-Trimethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
sec-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	3.5	--
p-Isopropyltoluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,3-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,4-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
n-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dibromo-3-chloropropane	2.0	ug/L	< 2.0	< 2.0	< 2.0	--
1,2,4-Trichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Hexachlorobutadiene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Naphthalene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2,3-Trichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 524.2:

Methods for the Determination of Organic Compounds in Drinking Water, Rev. 4.0, USEPA 1992.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Volatile Organics

Project ID (number): 1315-269

Method: EPA 524.2

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	DBFM	TOL-d8	4-BFB
Method: EPA 524.2			Acceptability Limits:		
			70-130%	70-130%	70-130%
041497HP4-1	BW041497HP4	Method Blank Water	105.	97.9	95.0
041497HP4-2	LW041497HP4	Laboratory Control	105.	100.	99.8
041497HP4-3	BW041597HP4	Method Blank Water	112.	94.9	87.6
041497HP4-4	LW041597HP4	Laboratory Control	109.	99.3	91.2
--	04004808	FIELD BLANK	122.	91.1	86.2
--	04004809	BAILER RINSE	111.	94.9	87.7
--	04004810	MW-104	110.	101.	104.

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Volatile Organics

Project ID (number): 1315-269

Method: EPA 524.2

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Method Blank Results

Bromobenzene	< 0.500	< 0.500
1,3,5-Trimethylbenzene	< 0.500	< 0.500
2-Chlorotoluene	< 0.500	< 0.500
4-Chlorotoluene	< 0.500	< 0.500
tert-Butylbenzene	< 0.500	< 0.500
1,2,4-Trimethylbenzene	< 0.500	< 0.500
sec-Butylbenzene	< 0.500	< 0.500
p-Isopropyltoluene	< 0.500	< 0.500
1,3-Dichlorobenzene	< 0.500	< 0.500
1,4-Dichlorobenzene	< 0.500	< 0.500
n-Butylbenzene	< 0.500	< 0.500
1,2-Dichlorobenzene	< 0.500	< 0.500
1,2-Dibromo-3-chloropropane	< 0.500	< 0.500
1,2,4-Trichlorobenzene	< 0.500	< 0.500
Hexachlorobutadiene	< 0.500	< 0.500
Naphthalene	< 0.500	< 0.500
1,2,3-Trichlorobenzene	< 0.500	< 0.500

Notes:

Limits based on laboratory practice i.e. provisional limits.

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Project ID (number): 1315-269

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Volatile Organic

Method: EPA 524.2

Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 524.2	Units:ug/L	QC Batch:041497HP4-2		
Vinyl chloride	2.00	2.04	102.	70-130%
1,1-Dichloroethene	2.00	1.97	98.5	70-130%
trans-1,2-Dichloroethene	2.00	1.97	98.5	70-130%
1,1-Dichloroethane	2.00	2.00	100.	70-130%
cis-1,2-Dichloroethene	2.00	1.97	98.5	70-130%
Chloroform	2.00	1.97	98.5	70-130%
1,1,1-Trichloroethane	2.00	1.93	96.5	70-130%
Carbon tetrachloride	2.00	1.80	90.0	70-130%
Benzene	2.00	1.95	97.5	70-130%
1,2-Dichloroethane	2.00	1.80	90.0	70-130%
Trichloroethene	2.00	1.94	97.0	70-130%
Toluene	2.00	2.09	105.	70-130%
1,1,2-Trichloroethane	2.00	1.98	99.0	70-130%
1,2-Dibromoethane	2.00	1.97	98.5	70-130%
Tetrachloroethene	2.00	1.90	95.0	70-130%
Chlorobenzene	2.00	2.14	107.	70-130%
Ethylbenzene	2.00	2.17	109.	70-130%
m+p-Xylene	4.00	4.76	119.	70-130%
o-Xylene	2.00	2.18	109.	70-130%
Styrene	2.00	2.10	105.	70-130%
1,4-Dichlorobenzene	2.00	2.32	116.	70-130%
1,2-Dichlorobenzene	2.00	2.36	118.	70-130%
1,2-Dibromo-3-chloropropane	2.00	2.69	135.*	70-130%
1,2,4-Trichlorobenzene	2.00	2.20	110.	70-130%
EPA 524.2	Units:ug/L	QC Batch:041497HP4-4		
Vinyl chloride	2.00	2.10	105	70-130%
1,1-Dichloroethene	2.00	2.17	109.	70-130%
trans-1,2-Dichloroethene	2.00	2.15	108.	70-130%
1,1-Dichloroethane	2.00	2.13	107.	70-130%
cis-1,2-Dichloroethene	2.00	2.21	111.	70-130%
Chloroform	2.00	2.05	103.	70-130%
1,1,1-Trichloroethane	2.00	1.95	97.5	70-130%
Carbon tetrachloride	2.00	1.78	89.0	70-130%
Benzene	2.00	2.06	103.	70-130%
1,2-Dichloroethane	2.00	1.74	87.0	70-130%
Trichloroethene	2.00	1.97	98.5	70-130%
Toluene	2.00	2.06	103.	70-130%
1,1,2-Trichloroethane	2.00	1.85	92.5	70-130%
1,2-Dibromoethane	2.00	1.84	92.0	70-130%
Tetrachloroethene	2.00	1.87	93.5	70-130%
Chlorobenzene	2.00	2.09	105.	70-130%
Ethylbenzene	2.00	2.17	109.	70-130%

NEI/GTEL Wichita, KS

W7040048.5

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Volatile Organics

Project ID (number): 1315-269

Method: EPA 524.2

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
m+p-Xylene	4.00	4.59	115.	70-130%
o-Xylene	2.00	2.03	102.	70-130%
Styrene	2.00	1.94	97.0	70-130%
1,4-Dichlorobenzene	2.00	2.12	106.	70-130%
1,2-Dichlorobenzene	2.00	2.11	106.	70-130%
1,2-Dibromo-3-chloropropane	2.00	1.71	85.5	70-130%
1,2,4-Trichlorobenzene	2.00	2.13	107.	70-130%

Notes:

Limits based on laboratory practice i.e. provisional limits.

NEI/GTEL Wichita, KS

W7040048:6

NEI/GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W7040048

Volatile Organics

Project ID (number): 1315-269

Method: EPA 524.2

Project ID (name): OPERATIONAL TECHNOLOGIES/CAPITAL AIRPORT/SAN ANTONIO/TX

Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	--	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	*	--	--
Method Precision	--	--	--
Blank Contamination	X	--	--

Comments:



NEI/GTEL

ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

December 31, 1996

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: GTEL Client ID:	OTC010TC01
Login Number:	W6120301
Project ID (number):	1315-269-4A
Project ID (name):	CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Dear Kathryn Pritchett:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 12/18/96.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-103, E-1113.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Justin Ward, Project Coordinator for
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: OTC010TC01
 Login Number: W6120301
 Project ID (number): 1315-269-4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: See Below
 Matrix: Aqueous

	GTEL Sample Number	W6120301-01	W6120301-02	W6120301-03	W6120301-04
	Client ID	MW 203 MW04	MW 201 GW04	MW 202 GW04	2FB02 FIELD BLANK
	Date Sampled	12/17/96	12/17/96	12/17/96	12/17/96
EPA 6010A	Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
EPA 6010A	Date Analyzed	12/19/96	12/19/96	12/19/96	12/19/96
EPA 6010A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7041	Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7041	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7060A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421	Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7421	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7470A	Dilution Factor	2.00	2.00	2.00	2.00
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7740	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7841	Date Prepared	12/19/96	12/19/96	12/19/96	12/19/96
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7841	Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting	Limit	Units	Concentration:			
Inorganics (MT, WC)							
Antimony	EPA 7041	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Arsenic	EPA 7060A	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Cadmium	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.	< 20.
Chromium	EPA 6010A	30.	ug/L	< 30.	< 30.	< 30.	< 30.
Copper	EPA 6010A	25.	ug/L	< 25.	27.	< 25.	< 25.
Lead	EPA 7421	4.0	ug/L	9.6	17.	10.	< 4.0
Mercury	EPA 7470A	0.50	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	EPA 6010A	40.	ug/L	< 40.	< 40.	< 40.	< 40.
Selenium	EPA 7740	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Silver	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.	< 20.
Thallium	EPA 7841	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Zinc	EPA 6010A	20.	ug/L	59.	65.	45.	< 20.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W6120301

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: OTC010TC01
 Login Number: W6120301
 Project ID (number): 1315-269-4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: See Below
 Matrix: Aqueous

GTEL Sample Number	W6120301-01	W6120301-02	W6120301-03	W6120301-04
Client ID	MW 203 MW04	MW 201 GW04	MW 202 GW04	2FB02 FIELD BLANK
Date Sampled	12/17/96	12/17/96	12/17/96	12/17/96
EPA 6010A	Date Prepared	12/19/96	12/19/96	12/19/96
EPA 6010A	Date Analyzed	12/19/96	12/19/96	12/19/96
EPA 6010A	Dilution Factor	1.00	1.00	1.00
EPA 7041	Date Prepared	12/19/96	12/19/96	12/19/96
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96
EPA 7041	Dilution Factor	1.00	1.00	1.00
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96
EPA 7060A	Dilution Factor	1.00	1.00	1.00
EPA 7421	Date Prepared	12/19/96	12/19/96	12/19/96
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96
EPA 7421	Dilution Factor	1.00	1.00	1.00
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96
EPA 7470A	Dilution Factor	2.00	2.00	2.00
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96
EPA 7740	Dilution Factor	1.00	1.00	1.00
EPA 7841	Date Prepared	12/19/96	12/19/96	12/19/96
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96
EPA 7841	Dilution Factor	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.

Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

ANALYTICAL RESULTS

Volatile Organics

GTEL Client ID: OTC010TC01

Login Number: W6120301

Project ID (number): 1315-269-4A

Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020

Matrix: Aqueous

GTEL Sample Number	W6120301-01	W6120301-02	W6120301-03	W6120301-04
Client ID	MW 203 MW04	MW 201 GW04	MW 202 GW04	2FB02 FIELD BLANK
Date Sampled	12/17/96	12/17/96	12/17/96	12/17/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/21/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	4.6	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	2.7	< 1.0
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 1.0	49.
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 0.5	< 0.5	0.8	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	16.
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	3.9
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	2.3	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	1.1	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:

NEI/GTEL Wichita, KS

W6120301

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120301
 Project ID (number): 1315-269-4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
 Matrix: Aqueous

GTEL Sample Number	W6120301-01	W6120301-02	W6120301-03	W6120301-04
Client ID	MW 203 MW04	MW 201 GW04	MW 202 GW04	2FB02 FIELD BLANK
Date Sampled	12/17/96	12/17/96	12/17/96	12/17/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/21/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120301
 Project ID (number): 1315-269-4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
 Matrix: Aqueous

GTEL Sample Number	W6120301-05	--	--	--
Client ID	TB-11	--	--	--
Date Sampled		--	--	--
Date Analyzed	12/21/96	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	5.0	ug/L	< 5.0	--	--	--
Chloromethane	2.0	ug/L	< 2.0	--	--	--
Vinyl Chloride	1.0	ug/L	< 1.0	--	--	--
Bromomethane	2.0	ug/L	< 2.0	--	--	--
Chloroethane	1.0	ug/L	< 1.0	--	--	--
Trichlorofluoromethane	1.0	ug/L	< 1.0	--	--	--
1,1-Dichloroethene	1.0	ug/L	< 1.0	--	--	--
Methylene chloride	1.0	ug/L	< 1.0	--	--	--
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	--	--	--
1,1-Dichloroethane	1.0	ug/L	< 1.0	--	--	--
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	--	--	--
Chloroform	1.0	ug/L	< 1.0	--	--	--
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	--	--	--
Carbon tetrachloride	1.0	ug/L	< 1.0	--	--	--
Benzene	0.5	ug/L	< 0.5	--	--	--
1,2-Dichloroethane	1.0	ug/L	< 1.0	--	--	--
Trichloroethene	1.0	ug/L	< 1.0	--	--	--
1,2-Dichloropropane	1.0	ug/L	< 1.0	--	--	--
Bromodichloromethane	1.0	ug/L	< 1.0	--	--	--
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	--	--	--
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	--	--	--
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	--	--	--
Toluene	1.0	ug/L	< 1.0	--	--	--
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	--	--	--
Tetrachloroethene	1.0	ug/L	< 1.0	--	--	--
Dibromochloromethane	1.0	ug/L	< 1.0	--	--	--
Chlorobenzene	1.0	ug/L	< 1.0	--	--	--
Ethylbenzene	1.0	ug/L	< 1.0	--	--	--
Xylenes (total)	1.0	ug/L	< 1.0	--	--	--
Bromoform	2.0	ug/L	< 2.0	--	--	--
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	--	--	--
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	--	--	--
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	--	--	--
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
 NEI/GTEL Wichita, KS
 W6120301

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120301
Project ID (number): 1315-269-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120301-05	--	--	--
Client ID	TB-11	--	--	--
Date Sampled		--	--	--
Date Analyzed	12/21/96	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:
---------	-----------------	-------	----------------

Notes: (continued)

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTTEL Client ID: OTC010TC01
 Login Number: W6120301
 Project ID (number): 1315-269-4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2
 Matrix: Aqueous

GTTEL Sample Number	W6120301-03	W6120301-04	--	--
Client ID	MW 202 GW04	2FB02 FIELD BLANK	--	--
Date Sampled	12/17/96	12/17/96	--	--
Date Analyzed	12/26/96	12/26/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	0.5	ug/L	< 0.5	< 0.5	--	--
Chloromethane	0.5	ug/L	< 0.5	< 0.5	--	--
Bromomethane	1.0	ug/L	< 1.0	< 1.0	--	--
Vinyl chloride	0.5	ug/L	3.5	< 0.5	--	--
Chloroethane	0.5	ug/L	< 0.5	< 0.5	--	--
Trichlorofluoromethane	0.5	ug/L	< 0.5	< 0.5	--	--
1,1-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	--	--
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	--	--
MTBE	0.5	ug/L	< 0.5	< 0.5	--	--
trans-1,2-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	--	--
1,1-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	--	--
2,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	--	--
cis-1,2-Dichloroethene	0.5	ug/L	2.1	< 0.5	--	--
Chloroform	0.5	ug/L	< 0.5	44.	--	--
Bromochloromethane	0.5	ug/L	< 0.5	< 0.5	--	--
1,1,1-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	--	--
1,1-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	--	--
Carbon tetrachloride	0.5	ug/L	< 0.5	< 0.5	--	--
Benzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,2-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	--	--
Trichloroethene	0.5	ug/L	< 0.5	< 0.5	--	--
1,2-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	--	--
Bromodichloromethane	0.5	ug/L	< 0.5	12.	--	--
Dibromomethane	0.5	ug/L	< 0.5	< 0.5	--	--
2-Chloroethylvinyl ether	0.5	ug/L	< 0.5	< 0.5	--	--
cis-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	--	--
Toluene	0.5	ug/L	< 0.5	< 0.5	--	--
trans-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	--	--
1,1,2-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	--	--
1,2-Dibromoethane	0.5	ug/L	< 0.5	< 0.5	--	--
Tetrachloroethene	0.5	ug/L	< 0.5	< 0.5	--	--
1,3-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	--	--
Dibromochloromethane	0.5	ug/L	< 0.5	3.6	--	--
Chlorobenzene	0.5	ug/L	< 0.5	< 0.5	--	--
Ethylbenzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,1,1,2-Tetrachloroethane	0.5	ug/L	< 0.5	< 0.5	--	--
m+p-Xylene	0.5	ug/L	< 0.5	< 0.5	--	--
o-Xylene	0.5	ug/L	< 0.5	< 0.5	--	--
Styrene	0.5	ug/L	< 0.5	< 0.5	--	--

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120301
 Project ID (number): 1315-269-4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2
 Matrix: Aqueous

GTEL Sample Number	W6120301-03	W6120301-04	..	..
Client ID	MW 202 GW04	2FB02 FIELD BLANK	..	..
Date Sampled	12/17/96	12/17/96	..	..
Date Analyzed	12/26/96	12/26/96	..	..
Dilution Factor	1.00	1.00	..	..

Analyte	Reporting		Concentration:			
	Limit	Units				
Bromoform	0.5	ug/L	< 0.5	< 0.5	--	--
Isopropylbenzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,1,2,2-Tetrachloroethane	0.5	ug/L	< 0.5	< 0.5	--	--
1,2,3-Trichloropropane	1.0	ug/L	< 1.0	< 1.0	--	--
n-Propylbenzene	0.5	ug/L	< 0.5	< 0.5	--	--
Bromobenzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,3,5-Trimethylbenzene	0.5	ug/L	1.3	< 0.5	--	--
2-Chlorotoluene	0.5	ug/L	< 0.5	< 0.5	--	--
4-Chlorotoluene	0.5	ug/L	< 0.5	< 0.5	--	--
tert-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,2,4-Trimethylbenzene	0.5	ug/L	< 0.5	< 0.5	--	--
sec-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	--	--
p-Isopropyltoluene	0.5	ug/L	< 0.5	< 0.5	--	--
1,3-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,4-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	--	--
n-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,2-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,2-Dibromo-3-chloropropane	2.0	ug/L	< 2.0	< 2.0	--	--
1,2,4-Trichlorobenzene	0.5	ug/L	< 0.5	< 0.5	--	--
Hexachlorobutadiene	1.0	ug/L	< 1.0	< 1.0	--	--
Naphthalene	0.5	ug/L	< 0.5	< 0.5	--	--
1,2,3-Trichlorobenzene	0.5	ug/L	< 0.5	< 0.5	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 524.2:

Methods for the Determination of Organic Compounds in Drinking Water, Rev. 2.0, USEPA 1989



NEI Environmental Intelligence Inc.
 (516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

page # of

Client Name: OPTECH
 Address: 4100 N.W. LOOP 410, Ste 230
SAN ANTONIO, TEXAS 78229
 Project Manager: KATHYRN PRITCHETT
 Phone: (210) 731-0000 FAX: (210) 731-0008
 Project Name: CAPITOL AIRPORT - ILLINOIS ANG
 Project Number: 1315-269/4A
 P.O. #: _____
 Analytical Protocol: _____ Deliverables: RUDY ARREDONDO & JOE BYRD
 Sampled By: _____

Analysis Requested: _____
 Bin #'s In/Out (For Lab Use Only): _____
 No. of Containers: _____

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Description
1	MW203	12/17/96	0930	GW04
2	MW201	12/17/96	1045	GW04
3	MW202	12/17/96	1150	GW04
4	ZFB02	12/17/96	1000	FIELD BLANK
5	ZFB01	12/17/96	-	TRIP BLANK

Log in #: _____
 Ship to: _____
 Nytest Environmental Inc.
 60 Scaview Blvd
 Port Washington N.Y. 11050
 Attn.: Sample Control
 Date Shipped: _____
 Carrier: _____
 Air Bill #: _____
 Cooler #: _____
 C of C #: _____
 SDG #: _____
 NEI QT #: _____
 Comments: _____

Received by: Rudy Arredondo Date / Time: 12/17/1400
 Print Name: RUDY ARREDONDO
 Relinquished by: _____ Date / Time: _____
 Print Name: _____
 Relinquished by: _____ Date / Time: _____
 Print Name: _____
 Relinquished by: _____ Date / Time: _____
 Print Name: _____

Lab Use Only
 Custody Seals: Intact Broken Absent
 Sample Rec'd in Good Condition?: Y N
 Sample Temperature: 30C Degrees Celsius
 INSPECTED BY: Jeffrey
 COMMENTS: # 7494583110

Date / Time: _____
 Date / Time: _____
 Date / Time: _____

Special Instructions: NOTE: 2ND CONFIRMATION ON VOCs
AIR BILL # 7494583110



Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

January 14, 1997

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: NEI/GTEL Client ID: OTC010TC01
Login Number: W6120326
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Dear Kathryn Pritchett:

Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 12/19/96.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-103, E-1113.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.

A.E. Denty project coord

Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01
 Login Number: W6120326
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2
 Matrix: Aqueous

NEI/GTEL Sample Number	W6120326-10	W6120326-11	W6120326-12	W6120326-13
Client ID	DCOND7	DCOND8	MW-201B	MW-202A
Date Sampled	12/18/96	12/18/96	12/18/96	12/18/96
Date Analyzed	01/08/97	01/08/97	01/09/97	01/09/97
Dilution Factor	1.00	1.00	1.00	10.0

Analyte	Reporting		Concentration:			
	Limit	Units				
Vinyl chloride	0.5	ug/L	--	--	--	52.
trans-1,2-Dichloroethene	0.5	ug/L	--	--	--	< 5.0
cis-1,2-Dichloroethene	0.5	ug/L	--	--	6.0	110
Benzene	0.5	ug/L	< 0.5	--	--	< 5.0
1,2-Dichloroethane	0.5	ug/L	--	--	--	< 5.0
Trichloroethene	0.5	ug/L	--	--	--	< 5.0
Toluene	0.5	ug/L	2.4	1.1	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 524.2:

Methods for the Determination of Organic Compounds in Drinking Water, Rev. 2.0. USEPA 1989

W6120326-10:

All samples run outside holding time to confirm the GC run.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01
 Login Number: W6120326
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2
 Matrix: Aqueous

NEI/GTEL Sample Number	W6120326-14	--	--	--
Client ID	MW-202B	--	--	--
Date Sampled	12/18/96	--	--	--
Date Analyzed	01/09/97	--	--	--
Dilution Factor	5.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:			
Vinyl chloride	0.5	ug/L	29.	--	--	--
cis-1,2-Dichloroethene	0.5	ug/L	88.	--	--	--
Benzene	0.5	ug/L	< 2.5	--	--	--
1,2-Dichloroethane	0.5	ug/L	< 2.5	--	--	--
Trichloroethene	0.5	ug/L	< 2.5	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 524.2:

Methods for the Determination of Organic Compounds in Drinking Water, Rev. 2.0, USEPA 1989

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120326
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
 Matrix: Aqueous

GTEL Sample Number	W6120326-01	W6120326-02	W6120326-03	W6120326-04
Client ID	DCOND6	DCOND7	DCOND8	TB-15
Date Sampled	12/18/96	12/18/96	12/18/96	
Date Analyzed	12/23/96	12/22/96	12/22/96	12/23/96
Dilution Factor	10.0	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 50	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 20.	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
Bromomethane	2.0	ug/L	< 20.	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
Chloroform	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 5.0	1.3	< 0.5	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 10.	3.4	1.5	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
Xylenes (total)	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
Bromoform	2.0	ug/L	< 20.	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 10.	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
 NEI/GTEL Wichita, KS
 W6120326

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120326
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120326-01	W6120326-02	W6120326-03	W6120326-04
Client ID	DCOND6	DCOND7	DCOND8	TB-15
Date Sampled	12/18/96	12/18/96	12/18/96	
Date Analyzed	12/23/96	12/22/96	12/22/96	12/23/96
Dilution Factor	10.0	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

W6120326-01:

The sample was diluted due to foaming.

ANALYTICAL RESULTS

Volatile Organics

GTEL Client ID: OTC010TC01

Login Number: W6120326

Project ID (number): 1315-269/4A

Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020

Matrix: Aqueous

GTEL Sample Number	W6120326-05	W6120326-06	W6120326-07	W6120326-08
Client ID	MW201B	MW202A	MW202B	2-FB03
Date Sampled	12/18/96	12/18/96	12/18/96	12/18/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/22/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	60.	36.	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	1.2	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	8.3	120	97.	< 1.0
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 1.0	1.2
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 0.5	1.3	1.1	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	2.7	2.3	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	2.6	1.8	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	1.5	< 1.0	< 1.0
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:

NEI/GTEL Wichita, KS

W6120326

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120326
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
 Matrix: Aqueous

GTEL Sample Number	W6120326-05	W6120326-06	W6120326-07	W6120326-08
Client ID	MW201B	MW202A	MW202B	2-FB03
Date Sampled	12/18/96	12/18/96	12/18/96	12/18/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/22/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:
	Limit	Units	

Notes: (continued)

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120326
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
 Matrix: Aqueous

GTEL Sample Number	W6120326-09	--	--	--
Client ID	TB-8	--	--	--
Date Sampled		--	--	--
Date Analyzed	12/23/96	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	5.0	ug/L	< 5.0	--	--	--
Chloromethane	2.0	ug/L	< 2.0	--	--	--
Vinyl Chloride	1.0	ug/L	< 1.0	--	--	--
Bromomethane	2.0	ug/L	< 2.0	--	--	--
Chloroethane	1.0	ug/L	< 1.0	--	--	--
Trichlorofluoromethane	1.0	ug/L	< 1.0	--	--	--
1,1-Dichloroethene	1.0	ug/L	< 1.0	--	--	--
Methylene chloride	1.0	ug/L	< 1.0	--	--	--
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	--	--	--
1,1-Dichloroethane	1.0	ug/L	< 1.0	--	--	--
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	--	--	--
Chloroform	1.0	ug/L	< 1.0	--	--	--
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	--	--	--
Carbon tetrachloride	1.0	ug/L	< 1.0	--	--	--
Benzene	0.5	ug/L	< 0.5	--	--	--
1,2-Dichloroethane	1.0	ug/L	< 1.0	--	--	--
Trichloroethene	1.0	ug/L	< 1.0	--	--	--
1,2-Dichloropropane	1.0	ug/L	< 1.0	--	--	--
Bromodichloromethane	1.0	ug/L	< 1.0	--	--	--
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	--	--	--
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	--	--	--
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	--	--	--
Toluene	1.0	ug/L	< 1.0	--	--	--
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	--	--	--
Tetrachloroethene	1.0	ug/L	< 1.0	--	--	--
Dibromochloromethane	1.0	ug/L	< 1.0	--	--	--
Chlorobenzene	1.0	ug/L	< 1.0	--	--	--
Ethylbenzene	1.0	ug/L	< 1.0	--	--	--
Xylenes (total)	1.0	ug/L	< 1.0	--	--	--
Bromoform	2.0	ug/L	< 2.0	--	--	--
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	--	--	--
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	--	--	--
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	--	--	--
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
 NEI/GTEL Wichita, KS
 W6120326

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120326
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120326-09	--	--	--
Client ID	TB-8	--	--	--
Date Sampled		--	--	--
Date Analyzed	12/23/96	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
 Login Number: W6120326
 Project ID (number): 1315-269/4A
 Project ID (name): OPERATIONAL TECHNOLOGIES/4100 NW LOOP 410/SAN ANTONIO/TX

Method: See Below
 Matrix: Aqueous

	GTEL Sample Number	W6120326-01	W6120326-02	W6120326-03	W6120326-05
	Client ID	DCOND6	DCOND7	DCOND8	MW201B
	Date Sampled	12/18/96	12/18/96	12/18/96	12/18/96
EPA 6010A	Date Prepared	12/20/96	12/20/96	12/20/96	12/20/96
EPA 6010A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 6010A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7041	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7041	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7060A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7421	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7470A	Dilution Factor	2.00	2.00	2.00	2.00
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7740	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7841	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7841	Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting	Limit Units		Concentration:		
Inorganics (MT, WC)						
Antimony	EPA 7041	10.	ug/L	< 10.	< 10.	< 10.
Arsenic	EPA 7060A	10.	ug/L	< 10.	< 10.	< 10.
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	< 5.0	< 5.0
Cadmium	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.
Chromium	EPA 6010A	30.	ug/L	< 30.	< 30.	58.
Copper	EPA 6010A	25.	ug/L	35.	< 25.	75.
Lead	EPA 7421	4.0	ug/L	< 4.0	< 4.0	35.
Mercury	EPA 7470A	0.50	ug/L	< 1.0	< 1.0	< 1.0
Nickel	EPA 6010A	40.	ug/L	< 40.	< 40.	63.
Selenium	EPA 7740	10.	ug/L	< 10.	< 10.	< 10.
Silver	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.
Thallium	EPA 7841	10.	ug/L	< 10.	< 10.	< 10.
Zinc	EPA 6010A	20.	ug/L	120	21.	< 20.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W6120326

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
 Login Number: W6120326
 Project ID (number): 1315-269/4A
 Project ID (name): OPERATIONAL TECHNOLOGIES/4100 NW LOOP 410/SAN ANTONIO/TX

Method: See Below
 Matrix: Aqueous

	GTEL Sample Number	W6120326-01	W6120326-02	W6120326-03	W6120326-05
	Client ID	DCOND6	DCOND7	DCOND8	MW201
	Date Sampled	12/18/96	12/18/96	12/18/96	12/18/96
EPA 6010A	Date Prepared	12/20/96	12/20/96	12/20/96	12/20/96
EPA 6010A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 6010A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7041	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7041	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7060A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7421	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7470A	Dilution Factor	2.00	2.00	2.00	2.00
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	12/24/96
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	12/26/96
EPA 7740	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7841	Date Prepared	12/23/96	12/23/96	12/23/96	12/23/96
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	12/27/96
EPA 7841	Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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EPA 7421, EPA 7841:
 Digestion for Total Metals by EPA Method 3020A.
 Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:
 Digestion by EPA Method 7060.

EPA 7470A:
 Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:
 "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including Update 2.

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
Login Number: W6120326

Project ID (number): 1315-269/4A

Project ID (name): OPERATIONAL TECHNOLOGIES/4100 NW LOOP 410/SAN ANTONIO/TX

Method: See Below

Matrix: Aqueous

	GTEL Sample Number	W6120326-06	W6120326-07	W6120326-08	--
	Client ID	MW202A	MW202B	2-FB03	--
	Date Sampled	12/18/96	12/18/96	12/18/96	--
EPA 6010A	Date Prepared	12/20/96	12/20/96	12/20/96	--
EPA 6010A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 6010A	Dilution Factor	1.00	2.00	1.00	--
EPA 7041	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	--
EPA 7041	Dilution Factor	1.00	1.00	1.00	--
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7060A	Dilution Factor	1.00	1.00	1.00	--
EPA 7421	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7421	Dilution Factor	1.00	5.00	1.00	--
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7470A	Dilution Factor	2.00	2.00	2.00	--
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7740	Dilution Factor	1.00	1.00	1.00	--
EPA 7841	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	--
EPA 7841	Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting	Limit	Units	Concentration:			
Antimony	EPA 7041	10.	ug/L	< 10.	< 10.	< 10.	--
Arsenic	EPA 7060A	10.	ug/L	11.	39.	< 10.	--
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	< 10.	< 5.0	--
Cadmium	EPA 6010A	20.	ug/L	< 20.	< 40.	< 20.	--
Chromium	EPA 6010A	30.	ug/L	37.	230	< 30.	--
Copper	EPA 6010A	25.	ug/L	58.	340	< 25.	--
Lead	EPA 7421	4.0	ug/L	28.	170	< 4.0	--
Mercury	EPA 7470A	0.50	ug/L	< 1.0	< 1.0	< 1.0	--
Nickel	EPA 6010A	40.	ug/L	53.	340	< 40.	--
Selenium	EPA 7740	10.	ug/L	< 10.	< 10.	< 10.	--
Silver	EPA 6010A	20.	ug/L	< 20.	< 40.	< 20.	--
Thallium	EPA 7841	10.	ug/L	< 10.	< 10.	< 10.	--
Zinc	EPA 6010A	20.	ug/L	170	940	< 20.	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01

Login Number: W6120326

Project ID (number): 1315-269/4A

Project ID (name): OPERATIONAL TECHNOLOGIES/4100 NW LOOP 410/SAN ANTONIO/TX

Method: See Below
Matrix: Aqueous

	GTEL Sample Number	W6120326-06	W6120326-07	W6120326-08	
	Client ID	MW202A	MW202B	2-FB03	--
	Date Sampled	12/18/96	12/18/96	12/18/96	--
EPA 6010A	Date Prepared	12/20/96	12/20/96	12/20/96	--
EPA 6010A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 6010A	Dilution Factor	1.00	2.00	1.00	--
EPA 7041	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7041	Date Analyzed	12/27/96	12/27/96	12/27/96	--
EPA 7041	Dilution Factor	1.00	1.00	1.00	--
EPA 7060A	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7060A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7060A	Dilution Factor	1.00	1.00	1.00	--
EPA 7421	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7421	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7421	Dilution Factor	1.00	5.00	1.00	--
EPA 7470A	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7470A	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7470A	Dilution Factor	2.00	2.00	2.00	--
EPA 7740	Date Prepared	12/24/96	12/24/96	12/24/96	--
EPA 7740	Date Analyzed	12/26/96	12/26/96	12/26/96	--
EPA 7740	Dilution Factor	1.00	1.00	1.00	--
EPA 7841	Date Prepared	12/23/96	12/23/96	12/23/96	--
EPA 7841	Date Analyzed	12/27/96	12/27/96	12/27/96	--
EPA 7841	Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.

Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

(516) 625-5500 FAX: (516) 625-1274

Client Name: OPTech
 Address: 4100 N. W. LOOP 410, SUITE 230
SAN ANTONIO, TEXAS 78229
 Project Manager: KATHYRN PRITCHETT
 Phone: (210) 731-0000 FAX: (210) 731-0008
 Project Name: CAPITOL AIRPORT - ILLINOIS ANG
 Project Number: 1315-269/4A
 P.O. #

Analytical Protocol: Deliverables
 Sampled By: KATHYRN PRITCHETT & JERRY CASTILLO

Analysis Requested: PREPARED W/ HCL (8010/8020)
PREPARED W/ HNO3 (8010/7000)
 Bin #'s In/Out (For Lab Use Only)

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Description	No. of Containers
901	DCOND6	12/18/96	1435	DECON H2O D-6	4
902	DCOND7	12/18/96	1445	DECON H2O D-7	4
903	DCOND8	12/18/96	1555	DECON H2O D-8	4
904	TB-15	12/19/96	-	TRIP BLANK	1

Relinquished by: Ruby Arredondo Date / Time: 12/18/96 1700
 Print Name: RUBY ARREDONDO
 Relinquished by: _____ Date / Time: _____
 Print Name: _____
 Relinquished by: _____ Date / Time: _____
 Print Name: _____

Received by: _____ Date / Time: _____
 Print Name: _____
 Received by: _____ Date / Time: _____
 Print Name: _____
 Received by Laboratory: DAVID G. BELDEN Date / Time: 12/19/96
 Print Name: _____

Lab Use Only
 Custody Seals: Intact Broken Absent
 Sample Rec'd in Good Condition?: Y N
 Sample Temperature: 20 Degrees Celsius
 INSPECTED BY: [Signature]
 COMMENTS:

Special Instructions: 2ND CONFIRMATION FOR VOCs
AIR BILL NO. 5344094615



nytest environmental inc.
 (516) 625-5500 FAX: (516) 625-1274

TOTAL ANALYTICAL SERVICES / TOTAL ANALYTICAL LABORATORY (NY)

Chain of Custody Record

page #: 1 of 1

Client Name: OPTECH
 Address: 4100 N.W. LOOP 910, Suite 230
SAN ANTONIO, TX. 78229
 Project Manager: KATHYON PREITCHETT
 Phone: (210) 731-0000 FAX: (210) 731-0008
 Project Name: CAPITOL AIRPORT - ILLINOIS ANG
 Project Number: 1315-269/4A
 P.O. #: _____
 Analytical Protocol: _____
 Sampled By: RUDY ARREDONDO & JOE BYRD Deliverables: _____

Analysis Requested: RA
 (8010/8020) VOCs PRESERVED w/HCL
 (6010/1900) PPM PRESERVED w/HNO3
 Bin #'s In/Out (For Lab Use Only): _____

Login #: _____
 Ship to: Nylest Environmental Inc.
 60 Seaview Blvd
 Port Washington N.Y. 11050
 Attn.: Sample Control
 Date Shipped: _____
 Carrier: _____
 Air Bill #: _____
 Cooler #: _____
 C of C #: _____
 SDG #: _____
 NEI QT #: _____

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Description	No. of Containers
06S	MW 201 B	12/18/96	0925	GN01	4
06A	MW 202 A	12/18/96	1030	GN01	4
07A	MW 202 B	12/18/96	1035	MN01	4
08A	-FB 03	12/18/96	0945	FIELD BLANK	4
09A	TB - 08	12/12/96	-	TRIP BLANK	1
09B					
09C					

Comments: RA

Relinquished by: Rudy Arredondo
 Print Name: RUDY ARREDONDO
 Date / Time: 12/18/96 1630
 Received by: _____
 Print Name: _____
 Date / Time: _____
 Relinquished by: _____
 Print Name: _____
 Date / Time: 12/18/96 1630
 Received by: Samie D. Felden
 Print Name: SAMIE G. FELDEN

Lab Use Only
 Custody Seals: Intact Broken Absent
 Sample Rec'd in Good Condition?: Y N
 Sample Temperature: 2 Degrees Celsius
 INSPECTED BY: Samie D. Felden
 COMMENTS: _____

Special Instructions: 2ND CONFIRMATION FOR VOCs

18666 P. 34 9 15
 CLIENT RETURNS PLEASE USE SIDE OF CARD



Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

January 15, 1997

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: NEI/GTEL Client ID:	OTC010TC01
Login Number:	W6120352
Project ID (number):	1315-296-4A
Project ID (name):	CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Dear Kathryn Pritchett:

Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 12/20/96.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-103, E-1113.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.

Terry R. Loucks

Terry R. Loucks
Laboratory Director

Project Number: 1315-296-4A
 Project Name: Capitol Airport
 ANG
 Springfield, IL
 Work Order Number: W6-12-0352
 Date Reported: 01-15-97

ANALYTICAL RESULTS

Metals in TCLP Leachate^a

GTEL Sample Number		06	07		
Client Identification		IDW1-2 SOIL	IDW3-4 SOIL		
Date Sampled		12-19-96	12-19-96		
Date Leached		01-06 to 01-07-97	01-06 to 01-07-97		
Date Analyzed (Method 7470)		01-08-97	01-08-97		
Date Analyzed (Method 6010A)		01-07-97	01-07-97		
Date Analyzed (Method 7421)		01-10-97	01-10-97		
Date Analyzed (Method 7060)		01-08-97	01-08-97		
Date Analyzed (Method 7740)		01-07-97	01-07-97		
Dilution Multiplier (Method 6010A) ^b		1	1		
Analyte	Method ^c	Reporting Limit, mg/L	Concentration, mg/L		
Arsenic	EPA 7060	0.050	<0.050	<0.050	
Barium	EPA 6010A	2.0	<2.0	<2.0	
Cadmium	EPA 6010A	0.005	<0.0050	<0.0050	
Chromium	EPA 6010A	0.10	<0.10	<0.10	
Lead	EPA 7421	0.0075 ^d	<0.0075	<0.0075	
Mercury	EPA 7470	0.002	<0.002	<0.002	
Selenium	EPA 7740	0.050	<0.050	<0.050	
Silver	EPA 6010A	0.050	<0.050	<0.050	

- a TCLP performed as per 40 CFR, Part 261, Appendix II - Method 1311. These data are presented in accordance with the Federal Register, 57, p.55114, November 24, 1992.
- b The dilution multiplier indicates the adjustments made for dilutions.
- c Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA, November 1986; Digestion by Method 3010 for Method 6010 analytes, Method 7470 for mercury, and Method 3020 for 7000 Series Methods.
- d The recovery limits were exceeded in the laboratory control sample and matrix spike sample due to matrix interferences during digestion.

ANALYTICAL RESULTS

Volatile Organics

NEI/GTEL Client ID: OTC010TC01

Login Number: W6120352

Project ID (number): 1315-296-4A

Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 1311/8240

Matrix: Solids

NEI/GTEL Sample Number	W6120352-06	W6120352-07	--	--
Client ID	IDW1-2 SOIL	IDW3-4 SOIL	--	--
Date Sampled	12/19/96	12/19/96	--	--
Date Prepared	01/02/97	01/02/97	--	--
Date Analyzed	01/10/97	01/10/97	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting		< 0.05	< 0.05	--	--
	Limit	Units				
Benzene	0.05	mg/L	< 0.05	< 0.05	--	--
Carbon tetrachloride	0.05	mg/L	< 0.05	< 0.05	--	--
Chlorobenzene	0.05	mg/L	< 0.05	< 0.05	--	--
Chloroform	0.05	mg/L	< 0.05	< 0.05	--	--
1,4-Dichlorobenzene	0.05	mg/L	< 0.05	< 0.05	--	--
1,2-Dichloroethane	0.05	mg/L	< 0.05	< 0.05	--	--
1,1-Dichloroethene	0.05	mg/L	< 0.05	< 0.05	--	--
2-Butanone	0.2	mg/L	< 0.2	< 0.2	--	--
Tetrachloroethene	0.05	mg/L	< 0.05	< 0.05	--	--
Trichloroethene	0.05	mg/L	< 0.05	< 0.05	--	--
Vinyl chloride	0.1	mg/L	< 0.1	< 0.1	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 1311/8240:

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including Update 2. TCLP is performed as per 40 CFR, Part 261, Appendix II - EPA Method 1311.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: OTC010TC01
Login Number: W6120352
Project ID (number): 1315-296-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2
Matrix: Aqueous

NEI/GTEL Sample Number	W6120352-09	--	--	--
Client ID	MW104 GW04	--	--	--
Date Sampled	12/19/96	--	--	--
Date Analyzed	01/08/97	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting		Concentration:		
	Limit	Units			
Ethylbenzene	0.5	ug/L	< 0.5	--	--
m+p-Xylene	0.5	ug/L	< 0.5	--	--
o-Xylene	0.5	ug/L	< 0.5	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 524.2:

Methods for the Determination of Organic Compounds in Drinking Water, Rev. 2.0, USEPA 1989

W6120352-09:

Sample run outside holding time to conform the GC run.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120352
 Project ID (number): 1315-296-4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
 Matrix: Aqueous

GTEL Sample Number	W6120352-01	W6120352-02	W6120352-03	W6120352-04
Client ID	2-RB02 RINSATE BLANK	MW102 GW04	MW103 GW04	MW104 GW04
Date Sampled	12/19/96	12/19/96	12/19/96	12/19/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/22/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	1.0	ug/L	1.1	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	3.1
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	1.4
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
 NEI/GTEL Wichita, KS
 W6120352

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120352
Project ID (number): 1315-296-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120352-01	W6120352-02	W6120352-03	W6120352-04
Client ID	2-RB02 RINSATE	BLANK	MW102 GW04	MW103 GW04
Date Sampled	12/19/96	12/19/96	12/19/96	12/19/96
Date Analyzed	12/22/96	12/22/96	12/22/96	12/22/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120352
 Project ID (number): 1315-296-4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
 Matrix: Aqueous

GTEL Sample Number	W6120352-05	W6120352-08	--	--
Client ID	MW101 GW04	TB-08	--	--
Date Sampled	12/19/96		--	--
Date Analyzed	12/22/96	12/22/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	--	--
Chloromethane	2.0	ug/L	< 2.0	< 2.0	--	--
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	--	--
Bromomethane	2.0	ug/L	< 2.0	< 2.0	--	--
Chloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	--	--
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	--	--
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	--	--
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	--	--
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	--	--
Chloroform	1.0	ug/L	< 1.0	< 1.0	--	--
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	--	--
Benzene	0.5	ug/L	< 0.5	< 0.5	--	--
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	--	--
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	--	--
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	--	--
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	--	--
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	--	--
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	--	--
Toluene	1.0	ug/L	< 1.0	< 1.0	--	--
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	--	--
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	--	--
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	--	--
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	--	--
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	--	--
Bromoform	2.0	ug/L	< 2.0	< 2.0	--	--
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	--	--
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	--	--
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	--	--
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120352
Project ID (number): 1315-296-4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120352-05	W6120352-08	--	--
Client ID	MW101 GW04	TB-08	--	--
Date Sampled	12/19/96		--	--
Date Analyzed	12/22/96	12/22/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
 Login Number: W6120352
 Project ID (number): 1315-296-4A
 Project ID (name): CAPITOL AIRPORT/IL

Method: See Below
 Matrix: Aqueous

	GTEL Sample Number	W6120352-01		W6120352-02		W6120352-03		W6120352-04			
		Client ID	2-RB02	RINSATE	BLANK	MW102	GW04	MW103	GW04	MW104	GW04
	Date Sampled		12/19/96		12/19/96		12/19/96		12/19/96		12/19/96
EPA 6010A	Date Prepared		12/27/96		12/27/96		12/27/96		12/27/96		12/27/96
EPA 6010A	Date Analyzed		12/27/96		12/27/96		12/27/96		12/27/96		12/27/96
EPA 6010A	Dilution Factor		1.00		1.00		1.00		1.00		1.00
EPA 7041	Date Prepared		12/23/96		12/23/96		12/23/96		12/23/96		12/23/96
EPA 7041	Date Analyzed		12/27/96		12/27/96		12/27/96		12/27/96		12/27/96
EPA 7041	Dilution Factor		1.00		1.00		1.00		1.00		1.00
EPA 7060A	Date Prepared		12/24/96		12/24/96		12/24/96		12/24/96		12/24/96
EPA 7060A	Date Analyzed		12/26/96		12/26/96		12/26/96		12/26/96		12/26/96
EPA 7060A	Dilution Factor		1.00		1.00		1.00		1.00		1.00
EPA 7421	Date Prepared		12/23/96		12/23/96		12/23/96		12/23/96		12/23/96
EPA 7421	Date Analyzed		12/26/96		12/26/96		12/26/96		12/26/96		12/26/96
EPA 7421	Dilution Factor		1.00		1.00		1.00		1.00		1.00
EPA 7470A	Date Prepared		12/24/96		12/24/96		12/24/96		12/24/96		12/24/96
EPA 7470A	Date Analyzed		12/26/96		12/26/96		12/26/96		12/26/96		12/26/96
EPA 7470A	Dilution Factor		2.00		2.00		2.00		2.00		2.00
EPA 7740	Date Prepared		12/24/96		12/24/96		12/24/96		12/24/96		12/24/96
EPA 7740	Date Analyzed		12/26/96		12/26/96		12/26/96		12/26/96		12/26/96
EPA 7740	Dilution Factor		1.00		1.00		1.00		1.00		1.00
EPA 7841	Date Prepared		12/23/96		12/23/96		12/23/96		12/23/96		12/23/96
EPA 7841	Date Analyzed		12/27/96		12/27/96		12/27/96		12/27/96		12/27/96
EPA 7841	Dilution Factor		1.00		1.00		1.00		1.00		1.00

Analyte	Reporting	Limit	Units	Concentration:			
Inorganics (MT, WC)							
Antimony	EPA 7041	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Arsenic	EPA 7060A	10.	ug/L	< 10.	< 10.	< 10.	72.
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Cadmium	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.	< 20.
Chromium	EPA 6010A	30.	ug/L	< 30.	< 30.	< 30.	< 30.
Copper	EPA 6010A	25.	ug/L	< 25.	< 25.	< 25.	< 25.
Lead	EPA 7421	4.0	ug/L	< 4.0	< 4.0	16.	10.
Mercury	EPA 7470A	0.50	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	EPA 6010A	40.	ug/L	< 40.	< 40.	< 40.	< 40.
Selenium	EPA 7740	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Silver	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.	< 20.
Thallium	EPA 7841	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Zinc	EPA 6010A	20.	ug/L	< 20.	35.	61.	23.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W6120352

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
 Login Number: W6120352
 Project ID (number): 1315-296-4A
 Project ID (name): CAPITOL AIRPORT/IL

Method: See Below
 Matrix: Aqueous

GTEL Sample Number	W6120352-01		W6120352-02		W6120352-03		W6120352-04	
	Client ID	2-RB02 RINSATE BLANK	MW102	GW04	MW103	GW04	MW104	
Date Sampled		12/19/96	12/19/96		12/19/96		12/19/96	
EPA 6010A	Date Prepared	12/27/96	12/27/96		12/27/96		12/27/96	
EPA 6010A	Date Analyzed	12/27/96	12/27/96		12/27/96		12/27/96	
EPA 6010A	Dilution Factor	1.00	1.00		1.00		1.00	
EPA 7041	Date Prepared	12/23/96	12/23/96		12/23/96		12/23/96	
EPA 7041	Date Analyzed	12/27/96	12/27/96		12/27/96		12/27/96	
EPA 7041	Dilution Factor	1.00	1.00		1.00		1.00	
EPA 7060A	Date Prepared	12/24/96	12/24/96		12/24/96		12/24/96	
EPA 7060A	Date Analyzed	12/26/96	12/26/96		12/26/96		12/26/96	
EPA 7060A	Dilution Factor	1.00	1.00		1.00		1.00	
EPA 7421	Date Prepared	12/23/96	12/23/96		12/23/96		12/23/96	
EPA 7421	Date Analyzed	12/26/96	12/26/96		12/26/96		12/26/96	
EPA 7421	Dilution Factor	1.00	1.00		1.00		1.00	
EPA 7470A	Date Prepared	12/24/96	12/24/96		12/24/96		12/24/96	
EPA 7470A	Date Analyzed	12/26/96	12/26/96		12/26/96		12/26/96	
EPA 7470A	Dilution Factor	2.00	2.00		2.00		2.00	
EPA 7740	Date Prepared	12/24/96	12/24/96		12/24/96		12/24/96	
EPA 7740	Date Analyzed	12/26/96	12/26/96		12/26/96		12/26/96	
EPA 7740	Dilution Factor	1.00	1.00		1.00		1.00	
EPA 7841	Date Prepared	12/23/96	12/23/96		12/23/96		12/23/96	
EPA 7841	Date Analyzed	12/27/96	12/27/96		12/27/96		12/27/96	
EPA 7841	Dilution Factor	1.00	1.00		1.00		1.00	

Analyte	Reporting		Concentration:
	Limit	Units	

EPA 7421, EPA 7841:

Digestion for Total Metals by EPA Method 3020A.

Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:

Digestion by EPA Method 7060.

EPA 7470A:

Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
 Login Number: W6120352
 Project ID (number): 1315-296-4A
 Project ID (name): CAPITOL AIRPORT/IL

Method: See Below
 Matrix: Aqueous

	GTEL Sample Number	W6120352-05	--	--	--
	Client ID	MW101 GW04	--	--	--
	Date Sampled	12/19/96	--	--	--
EPA 6010A	Date Prepared	12/27/96	--	--	--
EPA 6010A	Date Analyzed	12/27/96	--	--	--
EPA 6010A	Dilution Factor	1.00	--	--	--
EPA 7041	Date Prepared	12/23/96	--	--	--
EPA 7041	Date Analyzed	12/27/96	--	--	--
EPA 7041	Dilution Factor	1.00	--	--	--
EPA 7060A	Date Prepared	12/24/96	--	--	--
EPA 7060A	Date Analyzed	12/26/96	--	--	--
EPA 7060A	Dilution Factor	1.00	--	--	--
EPA 7421	Date Prepared	12/23/96	--	--	--
EPA 7421	Date Analyzed	12/26/96	--	--	--
EPA 7421	Dilution Factor	1.00	--	--	--
EPA 7470A	Date Prepared	12/24/96	--	--	--
EPA 7470A	Date Analyzed	12/26/96	--	--	--
EPA 7470A	Dilution Factor	2.00	--	--	--
EPA 7740	Date Prepared	12/24/96	--	--	--
EPA 7740	Date Analyzed	12/26/96	--	--	--
EPA 7740	Dilution Factor	1.00	--	--	--
EPA 7841	Date Prepared	12/23/96	--	--	--
EPA 7841	Date Analyzed	12/27/96	--	--	--
EPA 7841	Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:			
Antimony	EPA 7041	10.	ug/L	< 10.	--	--
Arsenic	EPA 7060A	10.	ug/L	27.	--	--
Beryllium	EPA 6010A	5.0	ug/L	< 5.0	--	--
Cadmium	EPA 6010A	20.	ug/L	< 20.	--	--
Chromium	EPA 6010A	30.	ug/L	< 30.	--	--
Copper	EPA 6010A	25.	ug/L	32.	--	--
Lead	EPA 7421	4.0	ug/L	19.	--	--
Mercury	EPA 7470A	0.50	ug/L	< 1.0	--	--
Nickel	EPA 6010A	40.	ug/L	< 40.	--	--
Selenium	EPA 7740	10.	ug/L	< 10.	--	--
Silver	EPA 6010A	20.	ug/L	< 20.	--	--
Thallium	EPA 7841	10.	ug/L	< 10.	--	--
Zinc	EPA 6010A	20.	ug/L	49.	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: NYT01NYT01
 Login Number: W6120352
 Project ID (number): 1315-296-4A
 Project ID (name): CAPITOL AIRPORT/IL

Method: See Below
 Matrix: Aqueous

	GTEL Sample Number	W6120352-05			
	Client ID	MW101 GW04	--	--	--
	Date Sampled	12/19/96	--	--	--
EPA 6010A	Date Prepared	12/27/96	--	--	--
EPA 6010A	Date Analyzed	12/27/96	--	--	--
EPA 6010A	Dilution Factor	1.00	--	--	--
EPA 7041	Date Prepared	12/23/96	--	--	--
EPA 7041	Date Analyzed	12/27/96	--	--	--
EPA 7041	Dilution Factor	1.00	--	--	--
EPA 7060A	Date Prepared	12/24/96	--	--	--
EPA 7060A	Date Analyzed	12/26/96	--	--	--
EPA 7060A	Dilution Factor	1.00	--	--	--
EPA 7421	Date Prepared	12/23/96	--	--	--
EPA 7421	Date Analyzed	12/26/96	--	--	--
EPA 7421	Dilution Factor	1.00	--	--	--
EPA 7470A	Date Prepared	12/24/96	--	--	--
EPA 7470A	Date Analyzed	12/26/96	--	--	--
EPA 7470A	Dilution Factor	2.00	--	--	--
EPA 7740	Date Prepared	12/24/96	--	--	--
EPA 7740	Date Analyzed	12/26/96	--	--	--
EPA 7740	Dilution Factor	1.00	--	--	--
EPA 7841	Date Prepared	12/23/96	--	--	--
EPA 7841	Date Analyzed	12/27/96	--	--	--
EPA 7841	Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:
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Notes: (continued)

EPA 7421, EPA 7841:
 Digestion for Total Metals by EPA Method 3020A.
 Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:
 Digestion by EPA Method 7060.

EPA 7470A:
 Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:
 "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including Update 2.



(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

page # _____ of _____

Client Name: OPTECH
 Address: 4100 N.W. LOOP 910, STE. 230
SAN ANTONIO, TX. 78229
 Project Manager: KATHYRN PEITCHETT
 Phone: (210) 731-0000 FAX (210) 731-0008
 Project Name: CAPITOL AIRPORT - ILLINOIS ANG
 Project Number: 1315-296/4A
 P.O. #: _____
 Analytical Protocol: _____
 Sampled By: RUDY ARREDONDO & JOE BYRD Deliverables: _____

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Description	No. of Containers	Bin #'s In/Out (For Lab Use Only)	Analysis Requested	Comments
01	Z - R B 0 2	12/19/96	0840	RINSATE BLANK	4	(8010/8020) VOCs PRESERVED w/HCL		
02	M W 1 0 2	12/19/96	0855	GW04	4	(8240)(TCLP) VOC PRESERVED w/HNO3		
03	M W 1 0 3	12/19/96	0930	GW04	4	(6010/7000) ppm		
04	M W 1 0 4	12/19/96	1025	GW04	4	(6010/8020) VOCs PRESERVED w/HCL		
05	M W 1 0 1	12/19/96	1055	GW04	4			
06	I D W 1 - 2	12/19/96	0905	SOIL	2			
07	I D W 3 - 4	12/19/96	0915	SOIL	2			
08	T B - 0 8	12/19/96		TRIP BLANK	1			
<p>Log in #: _____ Ship to: Nytest Environmental Inc. 60 Seaview Blvd Port Washington N.Y. 11050 Attn.: Sample Control</p> <p>Date Shipped: _____ Carrier: _____ Air Bill #: _____ Cooler #: _____ C of C #: _____ SDG #: _____ NEI QT #: _____</p>								

Lab Use Only: _____
 Custody Seals: Intact Broken Absent
 Sample Rec'd in Good Condition?: Y N
 Sample Temperature: 30C Degrees Celsius
 INSPECTED BY: _____
 COMMENTS: _____

Special Instructions: 2nd Confirmation on VOCs

AIR BILL # 7970017333

CLIENT RETAINS YELLOW COPY ONLY



NEI/GTEL

ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

December 31, 1996

Kathryn Pritchett
Operational Technologies Corp.
4100 N.W. Loop 410
Suite 230
San Antonio, TX 78229

RE: GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Dear Kathryn Pritchett:

This report, previously dated 12/30/96, is a reissue.

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 12/14/96.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-103, E-1113.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Justin Ward, Project Coordinator for
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
 Matrix: Aqueous

GTEL Sample Number	W6120253-03	W6120253-04	W6120253-05	--
Client ID	2-RB01	2-FB01	2-TB01	--
Date Sampled	12/13/96	12/13/96		--
Date Analyzed	12/17/96	12/17/96	12/17/96	--
Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	--
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	--
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	--
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	1.9	--
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Chloroform	1.0	ug/L	3.6	42.	< 1.0	--
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Bromodichloromethane	1.0	ug/L	< 1.0	13.	< 1.0	--
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Dibromochloromethane	1.0	ug/L	< 1.0	3.1	< 1.0	--
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Xylenes (total)	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	--
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010/8020:
 NEI/GTEL Wichita, KS
 W6120253

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8010/8020
Matrix: Aqueous

GTEL Sample Number	W6120253-03	W6120253-04	W6120253-05	--
Client ID	2-RB01	2-FB01	2-TB01	--
Date Sampled	12/13/96	12/13/96		--
Date Analyzed	12/17/96	12/17/96	12/17/96	--
Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting Limit	Units	Concentration:
---------	-----------------	-------	----------------

Notes: (continued)

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.
W6120253-05:
Methylene chloride is a common laboratory contaminant.

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010/8
Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	*	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010/8
Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	BFB ELCD	BFB PID
Method: EPA 8010/8020 Acceptability Limits:			52.8-144%	77.3-129%
121796GC11-1	CV1217962011	Calibration Verifi	93.3	94.9
121796GC11-2	BW12179611	Method Blank Water	110.	94.7
121796GC11-3	DP12024405	Duplicate	109.	94.4
121796GC11-4	MS12024501	Matrix Spike	101.	96.5
121796GC11-5	LW1217962011	Laboratory Control	99.3	95.1
121796GC11-6	CM1217962011	Calibration Verifi	101.	113.
--	12025303	2-RB01	102.	92.7
--	12025304	2-FB01	105.	92.6
--	12025305	2-TB01	105.	93.0

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010/8
Matrix: Aqueous

Method Blank Results

QC Batch No: 121796GC11-2
Date Analyzed: 17-DEC-96

Analyte	Method: EPA 8010/8020	Concentration: ug/L
Dichlorodifluoromethane	<	5.00
Chloromethane	<	2.00
Vinyl chloride	<	1.00
Bromomethane	<	2.00
Chloroethane	<	1.00
Trichlorofluoromethane	<	1.00
1,1-Dichloroethene	<	1.00
Methylene chloride	<	1.00
trans-1,2-Dichloroethene	<	1.00
1,1-Dichloroethane	<	1.00
cis-1,2-Dichloroethene	<	1.00
Chloroform	<	1.00
1,1,1-Trichloroethane	<	1.00
Carbon tetrachloride	<	1.00
Benzene	<	0.500
1,2-Dichloroethane	<	1.00
Trichloroethene	<	1.00
1,2-Dichloropropane	<	1.00
Bromodichloromethane	<	1.00
2-Chloroethyl vinyl ether	<	1.00
cis-1,3-Dichloropropene	<	1.00
trans-1,3-Dichloropropene	<	1.00
Toluene	<	1.00
1,1,2-Trichloroethane	<	1.00
Tetrachloroethene	<	1.00
Dibromochloromethane	<	1.00
Chlorobenzene	<	1.00
Ethylbenzene	<	1.00
Xylenes (Total)	<	1.00
Bromoform	<	2.00
1,1,2,2-Tetrachloroethane	<	1.00
1,3-Dichlorobenzene	<	1.00
1,4-Dichlorobenzene	<	1.00
1,2-Dichlorobenzene	<	1.00

Notes:

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8010/6
 Matrix: Aqueous

Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010/8020	Units:ug/L	QC Batch:121796GC11-1		
Dichlorodifluoromethane	20.0	15.2	76.0	40-160%
Chloromethane	20.0	12.8	64.0	59.5-140.5%
Vinyl chloride	20.0	21.8	109.	68.5-131.5%
Bromomethane	20.0	26.7	134.	58.5-141.5%
Chloroethane	20.0	21.6	108.	77-123%
Trichlorofluoromethane	20.0	18.9	94.5	66.5-133.5%
1,1-Dichloroethene	20.0	20.3	102.	63-137%
Methylene chloride	20.0	19.6	98.0	77.5-122.5%
trans-1,2-Dichloroethene	20.0	21.3	107.	64-136%
1,1-Dichloroethane	20.0	21.2	106.	71.5-116%
cis-1,2-Dichloroethene	20.0	22.0	110.	64-116%
Chloroform	20.0	20.7	104.	75-125%
1,1,1-Trichloroethane	20.0	22.2	111.	71-129%
Carbon tetrachloride	20.0	26.1	131.	68.5-131.5%
Benzene	20.0	18.2	91.0	77-123%
1,2-Dichloroethane	20.0	20.4	102.	71.5-128.5%
Trichloroethene	20.0	21.2	106.	77-123%
1,2-Dichloropropane	20.0	21.8	109.	74-126%
Bromodichloromethane	20.0	21.8	109.	76-124%
2-Chloroethyl vinyl ether	20.0	21.3	107.	60-140%
cis-1,3-Dichloropropene	20.0	22.4	112.	64-136%
trans-1,3-Dichloropropene	20.0	23.1	116.	64-136%
Toluene	20.0	19.1	95.5	77.5-122.5%
1,1,2-Trichloroethane	20.0	22.1	111.	78.5-121.5%
Tetrachloroethene	20.0	21.9	110.	70-130%
Dibromochloromethane	20.0	22.5	113.	65.5-134.5%
Chlorobenzene	20.0	22.4	112.	72-128%
Ethylbenzene	20.0	19.6	98.0	63-137%
Xylenes (Total)	60.0	57.8	96.3	36-136%
Bromoform	20.0	23.7	119.	73.5-126.5%
1,1,2,2-Tetrachloroethane	20.0	21.4	107.	49-151%
1,3-Dichlorobenzene	20.0	22.6	113.	49.5-150.5%
1,4-Dichlorobenzene	20.0	22.5	113.	69.5-130.5%
1,2-Dichlorobenzene	20.0	22.4	112.	70-130%

Notes:

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8010/8
 Matrix: Aqueous

Continuing Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010/8020	Units:ug/L	QC Batch:121796GC11-6		
Dichlorodifluoromethane	20.0	19.0	95.0	40-160%
Chloromethane	20.0	13.9	69.5	59.5-140.5%
Vinyl chloride	20.0	23.0	115.	68.5-131.5%
Bromomethane	20.0	27.1	136.	58.5-141.5%
Chloroethane	20.0	20.3	102.	77-123%
Trichlorofluoromethane	20.0	19.1	95.5	66.5-133.5%
1,1-Dichloroethene	20.0	20.7	104.	63-137%
Methylene chloride	20.0	20.0	100.	77.5-122.5%
trans-1,2-Dichloroethene	20.0	21.4	107.	64-136%
1,1-Dichloroethane	20.0	21.3	107.	71.5-116%
cis-1,2-Dichloroethene	20.0	21.9	110.	64-116%
Chloroform	20.0	20.7	104.	75-125%
1,1,1-Trichloroethane	20.0	22.3	112.	71-129%
Carbon tetrachloride	20.0	25.9	130.	68.5-131.5%
Benzene	20.0	21.7	109.	77-123%
1,2-Dichloroethane	20.0	20.3	102.	71.5-128.5%
Trichloroethene	20.0	21.8	109.	77-123%
1,2-Dichloropropane	20.0	22.2	111.	74-126%
Bromodichloromethane	20.0	22.6	113.	76-124%
2-Chloroethyl vinyl ether	20.0	19.1	95.5	60-140%
cis-1,3-Dichloropropene	20.0	22.2	111.	64-136%
trans-1,3-Dichloropropene	20.0	22.9	115.	64-136%
Toluene	20.0	22.5	113.	77.5-122.5%
1,1,2-Trichloroethane	20.0	22.1	111.	78.5-121.5%
Tetrachloroethene	20.0	22.0	110.	70-130%
Dibromochloromethane	20.0	23.2	116.	65.5-134.5%
Chlorobenzene	20.0	22.7	114.	72-128%
Ethylbenzene	20.0	23.1	116.	63-137%
Xylenes (Total)	60.0	68.1	114.	36-136%
Bromoform	20.0	24.8	124.	73.5-126.5%
1,1,2,2-Tetrachloroethane	20.0	20.5	103.	49-151%
1,3-Dichlorobenzene	20.0	21.9	110.	49.5-150.5%
1,4-Dichlorobenzene	20.0	22.4	112.	69.5-130.5%
1,2-Dichlorobenzene	20.0	22.2	111.	70-130%

Notes:

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organic
 Method: EPA 8010/8
 Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits
				Recovery
EPA 8010/8020	Units:ug/L	QC Batch:121796GC11-5		
Dichlorodifluoromethane	20.0	22.6	113	40-160%
Chloromethane	20.0	15.0	75.0	10-193%
Vinyl chloride	20.0	24.4	122	28-163%
Bromomethane	20.0	28.3	142	10-144%
Chloroethane	20.0	20.4	102	46-137%
Trichlorofluoromethane	20.0	20.3	102	21-156%
1,1-Dichloroethene	20.0	18.8	94.0	28-167%
Methylene chloride	20.0	18.1	90.5	25-162%
trans-1,2-Dichloroethene	20.0	20.5	103	38-155%
1,1-Dichloroethane	20.0	20.0	100	47-132%
cis-1,2-Dichloroethene	20.0	20.7	104	38-155%
Chloroform	20.0	19.5	97.5	49-133%
1,1,1-Trichloroethane	20.0	21.5	108	41-138%
Carbon tetrachloride	20.0	26.2	131	43-143%
Benzene	20.0	18.3	91.5	39-150%
1,2-Dichloroethane	20.0	20.3	102	51-147%
Trichloroethene	20.0	24.3	122	35-146%
1,2-Dichloropropane	20.0	21.0	105	44-156%
Bromodichloromethane	20.0	22.1	111	42-172%
2-Chloroethyl vinyl ether	20.0	18.5	92.5	14-186%
cis-1,3-Dichloropropene	20.0	20.3	102	22-178%
trans-1,3-Dichloropropene	20.0	20.8	104	22-178%
Toluene	20.0	18.9	94.5	46-148%
1,1,2-Trichloroethane	20.0	20.9	105	39-136%
Tetrachloroethene	20.0	22.1	111	26-162%
Dibromochloromethane	20.0	22.2	111	24-191%
Chlorobenzene	20.0	22.0	110	38-150%
Ethylbenzene	20.0	19.7	98.5	32-160%
Xylenes (Total)	60.0	57.7	96.2	36-136%
Bromoform	20.0	23.0	115	13-159%
1,1,2,2-Tetrachloroethane	20.0	15.8	79.0	10-184%
1,3-Dichlorobenzene	20.0	21.5	108	10-187%
1,4-Dichlorobenzene	20.0	21.9	110	42-143%
1,2-Dichlorobenzene	20.0	21.6	108	10-208%

Notes:

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8010/8
 Matrix: Aqueous

Duplicate Sample Results

Analyte	Original Concentration	Duplicate Concentration	RPD, %	Acceptability Limits, %
EPA 8010/8020 Units: ug/L	QC Batch: 121796GC11-3		GTEL Sample ID: W6120244-05	
			Client ID: Batch QC	
Dichlorodifluoromethane	< 100	< 100	NA	35.4
Chloromethane	< 40.0	< 40.0	NA	24.2
Vinyl chloride	< 20.0	< 20.0	NA	18.6
Bromomethane	< 40.0	< 40.0	NA	24.8
Chloroethane	< 20.0	< 20.0	NA	14.4
Trichlorofluoromethane	< 20.0	< 20.0	NA	19.6
1,1-Dichloroethene	< 20.0	< 20.0	NA	21.6
Methylene chloride	27.7	31.4	12.5	13.1
trans-1,2-Dichloroethene	< 20.0	< 20.0	NA	20.9
1,1-Dichloroethane	< 20.0	< 20.0	NA	10.5
cis-1,2-Dichloroethene	314	303	3.57	20.9
Chloroform	< 20.0	< 20.0	NA	14.7
1,1,1-Trichloroethane	< 20.0	< 20.0	NA	16
Carbon tetrachloride	< 20.0	< 20.0	NA	18.3
1,2-Dichloroethane	< 20.0	< 20.0	NA	17
Trichloroethene	1210	1150	5.08	13.7
1,2-Dichloropropane	< 20.0	< 20.0	NA	17
Bromodichloromethane	< 20.0	< 20.0	NA	13.1
2-Chloroethyl vinyl ether	< 20.0	< 20.0	NA	27.1
cis-1,3-Dichloropropene	< 20.0	< 20.0	NA	23.8
trans-1,3-Dichloropropene	< 20.0	< 20.0	NA	23.8
1,1,2-Trichloroethane	< 20.0	< 20.0	NA	12.8
Tetrachloroethene	22.7	21.8	4.04	17.7
Dibromochloromethane	< 20.0	< 20.0	NA	20.6
Chlorobenzene	< 20.0	< 20.0	NA	16.4
Bromoform	< 40.0	< 40.0	NA	15.4
1,1,2,2-Tetrachloroethane	< 20.0	< 20.0	NA	30
1,3-Dichlorobenzene	< 20.0	< 20.0	NA	29.7
1,4-Dichlorobenzene	< 20.0	< 20.0	NA	18
1,2-Dichlorobenzene	< 20.0	< 20.0	NA	18

Notes:

NA - The concentration of the analyte is less than the reporting limit.

121796GC11-3: Methylene chloride is a common laboratory contaminant. Reported concentration is elevated due to the dilution multiplier.

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organic
 Method: EPA 8010/8
 Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W6120245-01		MS ID:MS12024501			
Analysis Date: 17-DEC-96		18-DEC-96			
Units: ug/L	Sample	Spike	MS	MS	Acceptability Limits
Analyte	Conc.	Added	Conc.	% Rec.	%Rec.
Dichlorodifluoromethane	< 5.0 (0.000)	20.0	19.9	99.5	40-160
Chloromethane	< 2.0 (0.000)	20.0	15.0	75.0	10-193
Vinyl chloride	< 1.0 (0.000)	20.0	24.3	122.	28-163
Bromomethane	< 2.0 (0.000)	20.0	28.4	142.	10-144
Chloroethane	< 1.0 (0.000)	20.0	21.9	110.	46-137
Trichlorofluoromethane	< 1.0 (0.000)	20.0	20.2	101.	21-156
1,1-Dichloroethene	< 1.0 (0.000)	20.0	19.9	99.5	28-167
Methylene chloride	< 1.0 (0.0200)	20.0	18.4	91.9	25-162
trans-1,2-Dichloroethene	< 1.0 (0.000)	20.0	20.7	104.	38-155
1,1-Dichloroethane	< 1.0 (0.000)	20.0	20.8	104.	47-132
cis-1,2-Dichloroethene	< 1.0 (0.000)	20.0	21.5	108.	38-155
Chloroform	< 1.0 (0.000)	20.0	20.1	101.	49-133
1,1,1-Trichloroethane	< 1.0 (0.000)	20.0	22.2	111.	41-138
Carbon tetrachloride	< 1.0 (0.000)	20.0	27.0	135.	43-143
1,2-Dichloroethane	< 1.0 (0.000)	20.0	20.9	105.	51-147
Trichloroethene	< 1.0 (0.000)	20.0	20.8	104.	35-146
1,2-Dichloropropane	< 1.0 (0.000)	20.0	21.3	107.	44-156
Bromodichloromethane	< 1.0 (0.000)	20.0	22.7	114.	42-172
2-Chloroethyl vinyl ether	< 1.0 (0.000)	20.0	0.00	0.00*	14-186
cis-1,3-Dichloropropene	< 1.0 (0.000)	20.0	20.7	104.	22-178
trans-1,3-Dichloropropene	< 1.0 (0.000)	20.0	21.4	107.	22-178
1,1,2-Trichloroethane	< 1.0 (0.000)	20.0	21.4	107.	39-136
Tetrachloroethene	< 1.0 (0.000)	20.0	22.1	111.	26-162
Dibromochloromethane	< 1.0 (0.000)	20.0	22.3	112.	24-191
Chlorobenzene	< 1.0 (0.000)	20.0	21.9	110.	38-150
Bromoform	< 2.0 (0.000)	20.0	23.5	118.	13-159
1,1,2,2-Tetrachloroethane	< 1.0 (0.000)	20.0	21.0	105.	10-184
1,3-Dichlorobenzene	< 1.0 (0.000)	20.0	22.0	110.	10-187
1,4-Dichlorobenzene	< 1.0 (0.000)	20.0	22.4	112.	42-143
1,2-Dichlorobenzene	< 1.0 (0.000)	20.0	22.1	111.	10-208

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.
 121796GC11-4: 2-Chloroethylvinyl ether decomposes in the presence of Hydrochloric Acid (used as a preservative).

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2
 Matrix: Aqueous

GTEL Sample Number	W6120253-03	W6120253-04	W6120253-05	..
Client ID	2-RB01	2-FB01	2-TB01	..
Date Sampled	12/13/96	12/13/96		..
Date Analyzed	12/26/96	12/26/96	12/26/96	..
Dilution Factor	1.00	1.00	1.00	..

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
Chloromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
Bromomethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	..
Vinyl chloride	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
Chloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
Trichlorofluoromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
1,1-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
Methylene chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	..
MTBE	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
trans-1,2-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
1,1-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
2,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	..
cis-1,2-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
Chloroform	0.5	ug/L	3.2	32.	< 0.5	..
Bromochloromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
1,1,1-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
1,1-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
Carbon tetrachloride	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
1,2-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
Trichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
1,2-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
Bromodichloromethane	0.5	ug/L	< 0.5	9.2	< 0.5	..
Dibromomethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
2-Chloroethylvinyl ether	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
cis-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
Toluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
trans-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
1,1,2-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
1,2-Dibromoethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
Tetrachloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
1,3-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
Dibromochloromethane	0.5	ug/L	< 0.5	2.9	< 0.5	..
Chlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
Ethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
1,1,1,2-Tetrachloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
m+p-Xylene	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
o-Xylene	0.5	ug/L	< 0.5	< 0.5	< 0.5	..
Styrene	0.5	ug/L	< 0.5	< 0.5	< 0.5	..

NEI/GTEL Wichita, KS
 W6120253

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 524.2
 Matrix: Aqueous

GTEL Sample Number	W6120253-03	W6120253-04	W6120253-05	--
Client ID	2-RB01	2-FB01	2-TB01	--
Date Sampled	12/13/96	12/13/96		--
Date Analyzed	12/26/96	12/26/96	12/26/96	--
Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting		Concentration:			
	Limit	Units				
Bromoform	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Isopropylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,1,2,2-Tetrachloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2,3-Trichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
n-Propylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Bromobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,3,5-Trimethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
2-Chlorotoluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
4-Chlorotoluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
tert-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2,4-Trimethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
sec-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
p-Isopropyltoluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,3-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,4-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
n-Butylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2-Dibromo-3-chloropropane	2.0	ug/L	< 2.0	< 2.0	< 2.0	--
1,2,4-Trichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Hexachlorobutadiene	1.0	ug/L	< 1.0	< 1.0	< 1.0	--
Naphthalene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
1,2,3-Trichlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 524.2:

Methods for the Determination of Organic Compounds in Drinking Water, Rev. 2.0, USEPA 1989

GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W6120253

Project ID (number): 1315-269/4A

Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Volatile Organics

Method: EPA 524.2

Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	--	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	*	--	--
Method Precision	--	--	--
Blank Contamination	X	--	--

Comments:

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organic
 Method: EPA 524.2
 Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	DBFM	TOL-d8	4-BFB
Method: EPA 524.2			Acceptability Limits: 70-130% 70-130% 70-130%		
122696HP2-1	BW122696HP2	Method Blank Water	93.6	103	110
122696HP2-2	LW122696HP2	Laboratory Control	97.8	105	106
122696HP2-3	LWD122696HP2	LCS Water Duplicat	101	103	103
--	12025303	2-RB01	102	102	105
--	12025304	2-FB01	97.9	100	104
--	12025305	2-TB01	107	104	106

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

GTEL Client ID: OTC010TC01 QUALITY CONTROL RESULTS
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Volatile Organics
Method: EPA 524.2
Matrix: Aqueous

Method Blank Results

QC Batch No: 122696HP2-1
Date Analyzed: 26-DEC-96

Analyte	Method: EPA 524.2	Concentration: ug/L
Dichlorodifluoromethane	< 0.500	
Chloromethane	< 0.500	
Bromomethane	< 1.00	
Vinyl chloride	< 0.500	
Chloroethane	< 0.500	
Trichlorofluoromethane	< 0.500	
1,1-Dichloroethene	< 0.500	
Methylene chloride	< 1.00	
MTBE	< 0.500	
trans-1,2-Dichloroethene	< 0.500	
1,1-Dichloroethane	< 0.500	
2,2-Dichloropropane	< 0.500	
cis-1,2-Dichloroethene	< 0.500	
Chloroform	< 0.500	
Bromochloromethane	< 0.500	
1,1,1-Trichloroethane	< 0.500	
1,1-Dichloropropene	< 0.500	
Carbon tetrachloride	< 0.500	
Benzene	< 0.500	
1,2-Dichloroethane	< 0.500	
Trichloroethene	< 0.500	
1,2-Dichloropropane	< 0.500	
Bromodichloromethane	< 0.500	
Dibromomethane	< 0.500	
2-Chloroethyl vinyl ether	< 0.500	
cis-1,3-Dichloropropene	< 0.500	
Toluene	< 0.500	
trans-1,3-Dichloropropene	< 0.500	
1,1,2-Trichloroethane	< 0.500	
1,2-Dibromoethane	< 0.500	
Tetrachloroethene	< 0.500	
1,3-Dichloropropane	< 0.500	
Dibromochloromethane	< 0.500	
Chlorobenzene	< 0.500	
Ethylbenzene	< 0.500	
1,1,1,2-Tetrachloroethane	< 0.500	
m+p-Xylene	< 0.500	
o-Xylene	< 0.500	
Styrene	< 0.500	
Bromoform	< 0.500	
Isopropylbenzene	< 0.500	
1,1,2,2-Tetrachloroethane	< 0.500	
1,2,3-Trichloropropane	< 0.500	
n-Propylbenzene	< 0.500	

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 524
Matrix: Aqueous

Method Blank Results

Bromobenzene	< 0.500
1,3,5-Trimethylbenzene	< 0.500
2-Chlorotoluene	< 0.500
4-Chlorotoluene	< 0.500
tert-Butylbenzene	< 0.500
1,2,4-Trimethylbenzene	< 0.500
sec-Butylbenzene	< 0.500
p-Isopropyltoluene	< 0.500
1,3-Dichlorobenzene	< 0.500
1,4-Dichlorobenzene	< 0.500
n-Butylbenzene	< 0.500
1,2-Dichlorobenzene	< 0.500
1,2-Dibromo-3-chloropropane	< 0.500
1,2,4-Trichlorobenzene	< 0.500
Hexachlorobutadiene	< 0.500
Naphthalene	< 0.500
1,2,3-Trichlorobenzene	< 0.500

Notes:

Limits based on laboratory practice i.e. provisional limits.

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 524.2
 Matrix: Aqueous

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

Analyte	Spike Amount	LCS Concentration	LCS Recovery, %	LCS Duplicate Concentration	LCS Duplicate Recovery, %	Acceptability Limits		
						RPD, %	RPD, %	Recovery, %
EPA 524.2 Units: ug/L		QC Batch:122696HP2-3						
Vinyl chloride	2.00	1.78	89.0	1.99	99.5	11.1	50	70-130%
Chloroethane	2.00	1.79	89.5	1.25	62.5*	35.5	50	70-130%
1,1-Dichloroethene	2.00	2.07	104	2.24	112	7.41	14	70-130%
trans-1,2-Dichloroethene	2.00	2.11	106	2.13	107	0.939	50	70-130%
cis-1,2-Dichloroethene	2.00	2.10	105	2.24	112	6.45	50	70-130%
Chloroform	2.00	1.96	98.0	2.00	100	2.02	50	70-130%
1,1,1-Trichloroethane	2.00	1.88	94.0	2.00	100	6.19	50	70-130%
Carbon tetrachloride	2.00	1.82	91.0	1.91	95.5	4.83	50	70-130%
Benzene	2.00	2.02	101	2.08	104	2.93	11	70-130%
1,2-Dichloroethane	2.00	1.84	92.0	1.86	93.0	1.08	50	70-130%
Trichloroethene	2.00	2.04	102	2.10	105	2.90	14	70-130%
Toluene	2.00	2.07	104	2.19	110	5.61	13	70-130%
1,1,2-Trichloroethane	2.00	2.20	110	2.12	106	3.70	50	70-130%
1,2-Dibromoethane	2.00	2.17	109	2.06	103	5.66	50	70-130%
Tetrachloroethene	2.00	2.06	103	2.03	102	0.976	50	70-130%
Chlorobenzene	2.00	2.20	110	2.16	108	1.83	13	70-130%
Ethylbenzene	2.00	2.20	110	2.33	117	6.17	50	70-130%
m+p-Xylene	4.00	4.11	103	4.07	102	0.976	50	70-130%
o-Xylene	2.00	2.27	114	2.27	114	0.00	50	70-130%
Styrene	2.00	2.15	108	2.20	110	1.83	50	70-130%
1,4-Dichlorobenzene	2.00	2.02	101	2.09	105	3.88	50	70-130%
1,2-Dichlorobenzene	2.00	2.24	112	2.29	115	2.64	50	70-130%
1,2-Dibromo-3-chloropropane	2.00	1.68	84.0	1.61	80.5	4.26	50	70-130%
1,2,4-Trichlorobenzene	2.00	2.22	111	2.30	115	3.54	50	70-130%

Notes:

Limits based on laboratory practice i.e. provisional limits.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8240B
 Matrix: Low Soil

GTEL Sample Number	W6120253-01	W6120253-02	..	..
Client ID	201B01	202B01	..	..
Date Sampled	12/11/96	12/12/96	..	..
Date Analyzed	12/18/96	12/18/96	..	..
Dilution Factor	1.00	1.00	..	..

Analyte	Reporting		Concentration:Wet Weight	
	Limit	Units		
Chloromethane	10.	ug/kg	< 10.	< 10.
Bromomethane	10.	ug/kg	< 10.	< 10.
Vinyl chloride	10.	ug/kg	< 10.	< 10.
Chloroethane	10.	ug/kg	< 10.	< 10.
Methylene chloride	10.	ug/kg	16.	16.
Acetone	20.	ug/kg	< 20.	< 20.
Carbon disulfide	5.0	ug/kg	< 5.0	< 5.0
1,1-Dichloroethene	5.0	ug/kg	< 5.0	< 5.0
1,1-Dichloroethane	5.0	ug/kg	< 5.0	< 5.0
cis-1,2-Dichloroethene	5.0	ug/kg	< 5.0	< 5.0
trans-1,2-Dichloroethene	5.0	ug/kg	< 5.0	< 5.0
Chloroform	5.0	ug/kg	< 5.0	< 5.0
1,2-Dichloroethane	5.0	ug/kg	< 5.0	< 5.0
2-Butanone	20.	ug/kg	< 20.	< 20.
1,1,1-Trichloroethane	5.0	ug/kg	< 5.0	< 5.0
Carbon tetrachloride	5.0	ug/kg	< 5.0	< 5.0
Vinyl acetate	20.	ug/kg	< 20.	< 20.
Bromodichloromethane	5.0	ug/kg	< 5.0	< 5.0
1,2-Dichloropropane	5.0	ug/kg	< 5.0	< 5.0
cis-1,3-Dichloropropene	5.0	ug/kg	< 5.0	< 5.0
Trichloroethene	5.0	ug/kg	< 5.0	< 5.0
Dibromochloromethane	5.0	ug/kg	< 5.0	< 5.0
1,1,2-Trichloroethane	5.0	ug/kg	< 5.0	< 5.0
Benzene	5.0	ug/kg	< 5.0	< 5.0
2-Chloroethylvinyl ether	10.	ug/kg	< 10.	< 10.
trans-1,3-Dichloropropene	5.0	ug/kg	< 5.0	< 5.0
Bromoform	5.0	ug/kg	< 5.0	< 5.0
4-Methyl-2-pentanone	20.	ug/kg	< 20.	< 20.
2-Hexanone	20.	ug/kg	< 20.	< 20.
Tetrachloroethene	5.0	ug/kg	< 5.0	< 5.0
1,1,2,2-Tetrachloroethane	5.0	ug/kg	< 5.0	< 5.0
Toluene	5.0	ug/kg	< 5.0	< 5.0
Chlorobenzene	5.0	ug/kg	< 5.0	< 5.0
Ethylbenzene	5.0	ug/kg	< 5.0	< 5.0
Styrene	5.0	ug/kg	< 5.0	< 5.0
Xylenes (total)	5.0	ug/kg	< 5.0	< 5.0
1,2-Dichlorobenzene	10.	ug/kg	< 10.	< 10.
1,3-Dichlorobenzene	10.	ug/kg	< 10.	< 10.
1,4-Dichlorobenzene	10.	ug/kg	< 10.	< 10.

NEI/GTEL Wichita, KS
 W6120253

ANALYTICAL RESULTS

Volatile Organics

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8240B
 Matrix: Low Soil

GTEL Sample Number	W6120253-01	W6120253-02	--	--
Client ID	201B01	202B01	--	--
Date Sampled	12/11/96	12/12/96	--	--
Date Analyzed	12/18/96	12/18/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:Wet Weight	
Percent Solids	--	%	75.0	69.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8240B:

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846. Third Edition including promulgated Update II.

W6120253-01:

Methylene chloride is a common laboratory contaminant.

W6120253-02:

Methylene chloride is a common laboratory contaminant.

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8240B
Matrix: Low Soil

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	--	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	X	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

GTEL Client ID: OTC010TC01

QUALITY CONTROL RESULTS

Login Number: W6120253

Project ID (number): 1315-269/4A

Volatile Organics

Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: EPA 8240B

Matrix: Low Soil

Surrogate Results

QC Batch No.	Reference	Sample ID	DCA-D4	TOL-D8	4-BFB
Method: EPA 8240B Acceptability Limits:			70-121%	81-117%	74-121%
121696HP3-1	BL121696HP3	Method blanks low	102.	93.6	102.
121696HP3-2	LS121696HP3	Laboratory control	82.7	98.1	97.6
121696HP3-3	LS0121696HP3	LCS Soil Duplicate	108.	100.	105.
121696HP3-6	MS12025301	Matrix Spike	96.1	103.	103.
121696HP3-7	MD12025301	Matrix Spike Dupli	100.	106.	104.
--	12025301	201B01	108.	102.	108.
--	12025302	202B01	111.	109.	120.

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

GTEL Client ID: OTC010TC01
Login Number: W6120253
Project ID (number): 1315-269/4A
Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8240B
Matrix: Low Soil

Method Blank Results

QC Batch No: 121696HP3-1
Date Analyzed: 16-DEC-96

Analyte	Method: EPA 8240B	Concentration: ug/kg
Chloromethane	< 10.0	
Bromomethane	< 10.0	
Vinyl chloride	< 10.0	
Chloroethane	< 10.0	
Methylene chloride	< 10.0	
Acetone	< 20.0	
Carbon disulfide	< 5.00	
1,1-Dichloroethene	< 5.00	
1,1-Dichloroethane	< 5.00	
cis-1,2-Dichloroethene	< 5.00	
trans-1,2-Dichloroethene	< 5.00	
Chloroform *	< 5.00	
1,2-Dichloroethane	< 5.00	
2-Butanone	< 20.0	
1,1,1-Trichloroethane	< 5.00	
Carbon tetrachloride	< 5.00	
Vinyl acetate	< 20.0	
Bromodichloromethane	< 5.00	
1,2-Dichloropropane	< 5.00	
cis-1,3-Dichloropropene	< 5.00	
Trichloroethene	< 5.00	
Dibromochloromethane	< 5.00	
1,1,2-Trichloroethane	< 5.00	
Benzene	< 5.00	
2-Chloroethyl vinyl ether	< 10.0	
trans-1,3-Dichloropropene	< 5.00	
Bromoform	< 5.00	
4-Methyl-2-pentanone	< 20.0	
2-Hexanone	< 20.0	
Tetrachloroethene	< 5.00	
1,1,2,2-Tetrachloroethane	< 5.00	
Toluene	< 5.00	
Chlorobenzene	< 5.00	
Ethylbenzene	< 5.00	
Styrene	< 5.00	
Xylenes (Total)	< 5.00	
1,2-Dichlorobenzene	< 10.0	
1,3-Dichlorobenzene	< 10.0	
1,4-Dichlorobenzene	< 10.0	

Notes:

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8240B
 Matrix: Low Soil

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

GTEL Sample ID:W6120253-01		MS ID:MS12025301		MSD ID:MD12025301						
Analysis Date: 18-DEC-96		19-DEC-96		19-DEC-96						
Units: ug/kg	Sample	Spikes Added		MS	MS	MSD	MSD	Acceptability Limits		
Analyte	Conc.	MS	MSD	Conc.	% Rec.	Conc.	% Rec.	RPD	RPD	%Rec.
1,1-Dichloroethene	< 5.0 (0.000)	50.0	50.0	47.6	95.2	49.4	98.8	3.70	24	59-172
Trichloroethene	< 5.0 (0.000)	50.0	50.0	52.0	104.	53.7	107.	2.80	22	62-137
Benzene	< 5.0 (0.000)	50.0	50.0	49.3	98.6	53.4	107.	8.20	21	66-142
Toluene	< 5.0 (0.000)	50.0	50.0	52.0	104.	53.1	106.	1.90	21	59-139
Chlorobenzene	< 5.0 (0.000)	50.0	50.0	50.0	100.	49.3	98.6	1.40	21	60-133

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8240B
 Matrix: Low Soil

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

Analyte	Spike Amount	LCS Concentration	LCS Recovery, %	LCS Duplicate Concentration	LCS Duplicate Recovery, %	RPD, %	Acceptability Limits	
							RPD, %	Recovery, %
EPA 8240B	Units: ug/kg	QC Batch:121696HP3-3						
1,1-Dichloroethene	50.0	43.3	86.6	48.7	97.4	11.7	22	59-172%
Trichloroethene	50.0	52.7	105.	51.1	102.	2.90	24	62-137%
Benzene	50.0	56.8	114.	53.2	106.	7.27	21	66-142%
Toluene	50.0	53.2	106.	52.8	106.	0.00	21	59-139%
Chlorobenzene	50.0	51.9	104.	51.5	103.	0.966	21	60-133%

Notes:

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: See Below
 Matrix: Solids

	GTEL Sample Number	W6120253-01	W6120253-02	--	--
	Client ID	201B01	202B01	--	--
	Date Sampled	12/11/96	12/12/96	--	--
EPA 6010A	Date Prepared	12/17/96	12/17/96	--	--
EPA 6010A	Date Analyzed	12/18/96	12/18/96	--	--
EPA 6010A	Dilution Factor	1.00	1.00	--	--
EPA 7471A	Date Prepared	12/16/96	12/16/96	--	--
EPA 7471A	Date Analyzed	12/16/96	12/16/96	--	--
EPA 7471A	Dilution Factor	1.00	1.00	--	--

Analyte	Reporting			Concentration:Wet Weight		
		Limit	Units			
Inorganics (MT, WC)						
Antimony	EPA 6010A	20.	mg/kg	< 20.	< 20.	--
Arsenic	EPA 6010A	40.	mg/kg	< 40.	< 40.	--
Beryllium	EPA 6010A	0.50	mg/kg	< 0.50	< 0.50	--
Cadmium	EPA 6010A	2.0	mg/kg	< 2.0	< 2.0	--
Chromium	EPA 6010A	3.0	mg/kg	11.	8.6	--
Copper	EPA 6010A	2.5	mg/kg	26.	11.	--
Lead	EPA 6010A	7.0	mg/kg	53.	12.	--
Mercury	EPA 7471A	0.25	mg/kg	< 0.25	< 0.25	--
Nickel	EPA 6010A	4.0	mg/kg	14.	10.	--
Selenium	EPA 6010A	20.	mg/kg	< 20.	< 20.	--
Silver	EPA 6010A	2.0	mg/kg	< 2.0	< 2.0	--
Thallium	EPA 6010A	20.	mg/kg	< 20.	< 20.	--
Zinc	EPA 6010A	2.0	mg/kg	63.	38.	--
Percent Solids	--	%		75.0	69.0	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A:

Digestion by EPA Method 3050A.

EPA 6010A, EPA 7471A:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 2.

Project Number: 1315-269/4A
Project Name: Operational Technologies
4100 NW Loop 410
San Antonio, TX
Work Order Number: W6-12-0253
Date Reported: 12-30-96

QA NONCONFORMANCE SUMMARY

Metals in Soil

- 1.0 Sample Handling
 - 1.1 Sample handling and holding time criteria were not met for zero samples.
- 2.0 Initial Calibration Verification
 - 2.1 The validity for the calibration verification was exceeded for zero samples as shown in Table 2.
- 3.0 Method Blanks
 - 3.1 Zero target elements were found in the method blank as shown in Table 3.
- 4.0 Matrix Spike (MS) Accuracy
 - 4.1 The recovery limits were exceeded in the matrix spike and matrix spike duplicate for two elements as shown in Tables 4A and 4B.
 - 4.2 Recovery limits were exceeded for antimony and silver in the matrix spike sample due to precipitation of the spike in the presence of concentrated acid.
- 5.0 Sample Duplicate Precision
 - 5.1 The maximum percent difference (RPD) was exceeded for two elements in the matrix spike and matrix spike duplicate samples as shown in Tables 4A and 4B.
 - 5.2 The maximum relative percent difference was exceeded for antimony and silver between the matrix spike and matrix spike duplicate samples due to precipitation of the spike in the presence of concentrated acid.
- 6.0 Laboratory Control Sample
 - 6.1 The recovery limits were not met for zero elements for the laboratory control samples as shown in Table 5.

Project Number: 1315-269/4A
 Project Name: Operational Technologies
 4100 NW Loop 410
 San Antonio, TX
 Work Order Number: W6-12-0253
 Date Reported: 12-30-96

Table 2
INITIAL CALIBRATION VERIFICATION QC CHECK SAMPLE REPORT
Metals in Soil^a

Analyte	Expected Result, mg/L	Observed Result, mg/L	Recovery, %	Acceptability Limits, % ^a
Antimony	1.00	1.02	102	90-110
Arsenic	1.00	0.974	97.4	90-110
Beryllium	1.00	1.03	103	90-110
Cadmium	1.00	1.02	102	90-110
Chromium	1.00	1.02	102	90-110
Copper	1.00	1.02	102	90-110
Lead	1.00	1.03	103	90-110
Mercury	0.00400	0.00400	100	90-110
Nickel	1.00	1.03	103	90-110
Selenium	1.00	1.05	105	90-110
Silver	0.500	0.507	101	90-110
Thallium	1.00	1.07	107	90-110
Zinc	1.00	1.04	104	90-110

^a Acceptability limits as per EPA Contract Laboratory Program

Project Number: 1315-269/4A
Project Name: Operational Technologies
4100 NW Loop 410
San Antonio, TX
Work Order Number: W6-12-0253
Date Reported: 12-30-96

Table 3
BLANK REPORT
Metals in Soil

Analyte	Initial Calibration Blank, mg/L	Preparation Blank, mg/Kg
Antimony	<0.20	<20
Arsenic	<0.40	<40
Beryllium	<0.0050	<0.50
Cadmium	<0.020	<2.0
Chromium	<0.030	<3.0
Copper	<0.025	<2.5
Lead	<0.070	<7.0
Mercury	<0.0025	<0.25
Nickel	<0.040	<4.0
Selenium	<0.20	<20
Silver	<0.020	<2.0
Thallium	<0.20	<20
Zinc	<0.020	<2.0

<# Not detected at the indicated detection limit(#)

Project Number: 1315-269/4A
 Project Name: Operational Technologies
 4100 NW Loop 410
 San Antonio, TX
 Work Order Number: W6-12-0253
 Date Reported: 12-30-96

Table 4A
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
Metals in Soil

Sample Spiked: Method 6010A W6120207-01
 Sample Spiked: Method 7471A W6120207-01

Analyte	Spike Added, mg/Kg	Sample Concentration, mg/Kg	MS Concentration, mg/Kg	MS Percent Recovery	Acceptability Limits, % ^a
Antimony	204	<20	13.7	6.70 ^b	80-120
Arsenic	204	<40	183	89.6	80-120
Beryllium	81.6	<0.50	77.5	95.0	80-120
Cadmium	103	<2.0	94.5	91.6	80-120
Chromium	204	14.5	205	93.5	80-120
Copper	204	18.4	218	97.6	80-120
Lead	204	10.3	191	88.6	80-120
Mercury	0.286	<0.25	0.280	98.0	75-125
Nickel	204	15.5	201	91.1	80-120
Selenium	204	<20	179	87.7	80-120
Silver	40.8	<2.0	2.56	6.30 ^b	80-120
Thallium	204	<20	175	85.8	80-120
Zinc	204	38.0	226	92.2	80-120

^a Acceptability limits as per EPA Contract Laboratory Program.

^b Value is outside of acceptability limits.

Project Number: 1315-269/4A
 Project Name: Operational Technologies
 4100 NW Loop 410
 San Antonio, TX
 Work Order Number: W6-12-0253
 Date Reported: 12-30-96

Table 4B
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
Metals in Soil

Analyte	Spike Added, mg/Kg	MSD Concentration, mg/Kg	MSD Percent Recovery	RPD %	Acceptability Limits, % ^a
					RPD
Antimony	189	7.97	4.20	45.5	20.0
Arsenic	189	171	90.8	1.35	20.0
Beryllium	75.5	72.1	95.5	0.573	20.0
Cadmium	95.3	87.7	92.0	0.403	20.0
Chromium	189	191	93.8	0.248	20.0
Copper	189	207	99.9	2.36	20.0
Lead	189	180	89.9	1.41	20.0
Mercury	0.290	0.273	94.2	3.97	20.0
Nickel	189	188	91.3	0.238	20.0
Selenium	189	169	89.6	2.14	20.0
Silver	97.7	1.27	3.40	59.9	20.0
Thallium	189	165	87.4	1.86	20.0
Zinc	189	215	93.8	1.69	20.0

^a Acceptability limits as per EPA Contract Laboratory Program.

NA Not applicable; initial sample concentration greater than four times the spike amount.

Project Number: 1315-269/4A
 Project Name: Operational Technologies
 4100 NW Loop 410
 San Antonio, TX
 Work Order Number: W6-12-0253
 Date Reported: 12-30-96

Table 5
LABORATORY CONTROL SAMPLE RESULTS
Metals in Soil

Analyte	Expected Result, mg/Kg	Observed Result, mg/Kg	Recovery, %	Acceptability Limits, % ^a
Antimony	200	187	93.5	80-120
Arsenic	200	180	90.0	80-120
Beryllium	80.0	77.0	96.2	80-120
Cadmium	101	92.4	91.5	80-120
Chromium	200	191	95.5	80-120
Copper	200	194	97.0	80-120
Lead	200	184	92.0	80-120
Mercury	0.333	0.314	94.3	75-125
Nickel	200	188	94.0	80-120
Selenium	200	182	91.0	80-120
Silver	40.0	36.9	92.2	80-120
Thallium	200	183	91.5	80-120
Zinc	200	183	91.5	80-120

a Acceptability limits established by laboratory practice

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: See Below
 Matrix: Aqueous

	GTEL Sample Number	W6120253-03	W6120253-04	--	--
	Client ID	2-RB01	2-FB01	--	--
	Date Sampled	12/13/96	12/13/96	--	--
EPA 6010A	Date Prepared	12/17/96	12/17/96	--	--
EPA 6010A	Date Analyzed	12/17/96	12/17/96	--	--
EPA 6010A	Dilution Factor	1.00	1.00	--	--
EPA 7041	Date Prepared	12/16/96	12/16/96	--	--
EPA 7041	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7041	Dilution Factor	1.00	1.00	--	--
EPA 7060A	Date Prepared	12/18/96	12/18/96	--	--
EPA 7060A	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7060A	Dilution Factor	1.00	1.00	--	--
EPA 7421	Date Prepared	12/16/96	12/16/96	--	--
EPA 7421	Date Analyzed	12/17/96	12/17/96	--	--
EPA 7421	Dilution Factor	1.00	1.00	--	--
EPA 7470A	Date Prepared	12/18/96	12/18/96	--	--
EPA 7470A	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7470A	Dilution Factor	2.00	2.00	--	--
EPA 7740	Date Prepared	12/18/96	12/18/96	--	--
EPA 7740	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7740	Dilution Factor	1.00	1.00	--	--
EPA 7841	Date Prepared	12/16/96	12/16/96	--	--
EPA 7841	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7841	Dilution Factor	1.00	1.00	--	--

Analyte	Reporting			Concentration:
	Limit	Units		
Inorganics (MT, WC)				
Antimony	EPA 7041	10.	ug/L	< 10.
Arsenic	EPA 7060A	10.	ug/L	< 10.
Beryllium	EPA 6010A	5.0	ug/L	< 5.0
Cadmium	EPA 6010A	20.	ug/L	< 20.
Chromium	EPA 6010A	30.	ug/L	< 30.
Copper	EPA 6010A	25.	ug/L	< 25.
Lead	EPA 7421	4.0	ug/L	< 4.0
Mercury	EPA 7470A	0.50	ug/L	< 1.0
Nickel	EPA 6010A	40.	ug/L	< 40.
Selenium	EPA 7740	10.	ug/L	< 10.
Silver	EPA 6010A	20.	ug/L	< 20.
Thallium	EPA 7841	10.	ug/L	< 10.
Zinc	EPA 6010A	20.	ug/L	< 20.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A, EPA 7041:

Digestion for Total Metals by EPA Method 3010A.

NEI/GTEL Wichita, KS

W6120253

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: OTC010TC01
 Login Number: W6120253
 Project ID (number): 1315-269/4A
 Project ID (name): CAPITOL AIRPORT/ANG/SPRINGFIELD/IL

Method: See Below
 Matrix: Aqueous

	GTEL Sample Number	W6120253-03	W6120253-04	--	--
	Client ID	2-RB01	2-FB01	--	--
	Date Sampled	12/13/96	12/13/96	--	--
EPA 6010A	Date Prepared	12/17/96	12/17/96	--	--
EPA 6010A	Date Analyzed	12/17/96	12/17/96	--	--
EPA 6010A	Dilution Factor	1.00	1.00	--	--
EPA 7041	Date Prepared	12/16/96	12/16/96	--	--
EPA 7041	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7041	Dilution Factor	1.00	1.00	--	--
EPA 7060A	Date Prepared	12/18/96	12/18/96	--	--
EPA 7060A	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7060A	Dilution Factor	1.00	1.00	--	--
EPA 7421	Date Prepared	12/16/96	12/16/96	--	--
EPA 7421	Date Analyzed	12/17/96	12/17/96	--	--
EPA 7421	Dilution Factor	1.00	1.00	--	--
EPA 7470A	Date Prepared	12/18/96	12/18/96	--	--
EPA 7470A	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7470A	Dilution Factor	2.00	2.00	--	--
EPA 7740	Date Prepared	12/18/96	12/18/96	--	--
EPA 7740	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7740	Dilution Factor	1.00	1.00	--	--
EPA 7841	Date Prepared	12/16/96	12/16/96	--	--
EPA 7841	Date Analyzed	12/18/96	12/18/96	--	--
EPA 7841	Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:
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EPA 7421, EPA 7841:
 Digestion for Total Metals by EPA Method 3020A.
 Digestion for Total Metals by EPA Method 3020A.

EPA 7060A, EPA 7740:
 Digestion by EPA Method 7060.

EPA 7470A:
 Digestion is method specific.

EPA 6010A, EPA 7041, EPA 7060A, EPA 7421, EPA 7470A, EPA 7740, EPA 7841:
 "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including Update 2.

Project ID (Number): 1315-269/4A
Project ID (Name): Operational Technologies
4100 NW Loop 410
San Antonio, TX
Work Order Number: W6-12-0253
Date Reported: 12-30-96

QA NONCONFORMANCE SUMMARY

Metals in Water

1.0 Sample Handling

1.1 Sample handling and holding time criteria were not met for zero samples.

2.0 Initial Calibration Verification

2.1 The validity for the calibration verification was exceeded for zero samples as shown in Table 2.

3.0 Method Blanks

3.1 Zero target elements were found in the method blank as shown in Table 3.

4.0 Matrix Spike (MS) Accuracy

4.1 The recovery limits were exceeded in the matrix spike and matrix spike duplicate for one element as shown in Tables 4A.

4.2 Recovery limits were exceeded for silver in the matrix spike sample due to precipitation of the spike in the presence of concentrated acid.

5.0 Sample Duplicate Precision

5.1 The maximum percent difference (RPD) was exceeded for zero elements in the matrix spike and matrix spike duplicate samples as shown in Tables 4A and 4B.

6.0 Laboratory Control Sample

6.1 The recovery limits were not met for zero elements for the laboratory control samples as shown in Table 5.

Project ID (Number): 1315-269/4A
 Project ID (Name): Operational Technologies
 4100 NW Loop 410
 San Antonio, TX
 Work Order Number: W6-12-0253
 Date Reported: 12-30-96

Table 2
 INITIAL CALIBRATION VERIFICATION QC CHECK SAMPLE REPORT
 Metals in Water^a

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	39.4	98.5	90-110
Arsenic	40.0	41.8	104	90-110
Beryllium	1000	1030	103	90-110
Cadmium	1000	1020	102	90-110
Chromium	1000	1020	102	90-110
Copper	1000	1020	102	90-110
Lead	20.0	21.6	108	90-110
Mercury	4.00	4.13	103	90-110
Nickel	1000	1030	103	90-110
Selenium	40.0	41.5	104	90-110
Silver	500	507	101	90-110
Thallium	20.0	21.3	106	90-110
Zinc	1000	1040	104	90-110

^a Acceptability limits as per EPA Contract Laboratory Program

Project ID (Number): 1315-269/4A
Project ID (Name): Operational Technologies
4100 NW Loop 410
San Antonio, TX
Work Order Number: W6-12-0253
Date Reported: 12-30-96

Table 3
BLANK REPORT
Metals in Water

Analyte	Initial Calibration Blank, ug/L	Preparation Blank, ug/L
Antimony	< 10	< 10
Arsenic	< 10	< 10
Beryllium	< 5.0	< 5.0
Cadmium	< 20	< 20
Chromium	< 30	< 30
Copper	< 25	< 25
Lead	< 4.0	< 4.0
Mercury	< 1.0	< 1.0
Nickel	< 40	< 40
Selenium	< 10	< 10
Silver	< 20	< 20
Thallium	< 10	< 10
Zinc	< 20	< 20

<# Not detected at the indicated detection limit(#)

Project ID (Number): 1315-269/4A
 Project ID (Name): Operational Technologies
 4100 NW Loop 410
 San Antonio, TX
 Work Order Number: W6-12-0253
 Date Reported: 12-30-96

Table 4A

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY

Metals in Water

Sample Spiked: Method 6010A W6120253-03
 Sample Spiked: Method 7041 W6120253-03
 Sample Spiked: Method 7060A W6120253-03
 Sample Spiked: Method 7421 W6120253-03
 Sample Spiked: Method 7470A W6120253-04
 Sample Spiked: Method 7740 W6120253-03
 Sample Spiked: Method 7841 W6120253-03

Analyte	Spike Added, ug/L	Sample Concentration, ug/L	MS Concentration, ug/L	MS Percent Recovery	Acceptability Limits, % ^a
Antimony	40.0	<10	42.3	106	75-125
Arsenic	40.0	<10	41.3	103	75-125
Beryllium	800	<5.0	848	106	80-120
Cadmium	1010	<20	1070	106	80-120
Chromium	2000	<30	2120	106	80-120
Copper	2000	<25	2150	107	80-120
Lead	20.0	<4.0	20.7	103	75-125
Mercury	2.00	<1.0	2.18	109	75-125
Nickel	2000	<40	2130	107	80-120
Selenium	40.0	<10	39.1	97.8	75-125
Silver	400	<20	261	65.3 ^b	80-120
Thallium	20.0	<10	21.1	106	75-125
Zinc	2000	<20	2160	108	80-120

a Acceptability limits as per EPA Contract Laboratory Program.

b Value is outside of acceptability limits.

NA Not applicable; initial sample concentration greater than four times the spike amount.

Project ID (Number): 1315-269/4A
 Project ID (Name): Operational Technologies
 4100 NW Loop 410
 San Antonio, TX
 Work Order Number: W6-12-0253
 Date Reported: 12-30-96

Table 4B
MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY
Metals in Water

Analyte	Spike Added, ug/L	MSD Concentration, ug/L	MSD Percent Recovery	RPD %	Acceptability Limits, % ^a
					RPD
Antimony	40.0	45.4	114	7.07	20.0
Arsenic	40.0	40.2	100	2.70	20.0
Beryllium	800	854	107	0.740	20.0
Cadmium	1010	1070	106	0.327	20.0
Chromium	2000	2140	107	0.833	20.0
Copper	2000	2160	108	0.406	20.0
Lead	20.0	20.6	103	0.630	20.0
Mercury	2.00	2.22	111	1.82	20.0
Nickel	2000	2140	107	0.258	20.0
Selenium	40.0	38.8	97.0	0.770	20.0
Silver	400	230	57.4	12.9	20.0
Thallium	20.0	21.0	105	0.475	20.0
Zinc	2000	2170	108	0.282	20.0

^a Acceptability limits as per EPA Contract Laboratory Program.

NA Not applicable; initial sample concentration greater than four times the spike amount.

Project ID (Number): 1315-269/4A
 Project ID (Name): Operational Technologies
 4100 NW Loop 410
 San Antonio, TX
 Work Order Number: W6-12-0253
 Date Reported: 12-30-96

Table 5
LABORATORY CONTROL SAMPLE RESULTS
Metals in Water

Analyte	Expected Result, ug/L	Observed Result, ug/L	Recovery, %	Acceptability Limits, % ^a
Antimony	40.0	39.2	98.0	75-125
Arsenic	40.0	41.2	103	75-125
Beryllium	800	842	105	80-120
Cadmium	1010	1050	104	80-120
Chromium	2000	2100	105	80-120
Copper	2000	2110	106	80-120
Lead	20.0	20.1	101	75-125
Mercury	2.00	2.16	108	75-125
Nickel	2000	2100	105	80-120
Selenium	40.0	37.5	93.8	75-125
Silver	400	409	102	80-120
Thallium	20.0	21.1	106	80-120
Zinc	2000	2090	104	80-120

^a Acceptability limits established by laboratory practice



nytest environmental inc.

(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

page #: 1 of 1

Client Name: Operational Technologies Corp.
 Address: 4100 NW Loop 40, Ste 230
San Antonio, TX 78229

Project Manager: Kathryn Pritchett
 Phone: (210) 731-0000 X 207 FAX: (210) 731-0041
 Project Name: Capital EE/CA
 Project Number: 1315-269/4A

P.O. #: _____
 Analytical Protocol: USEPA III Deliverables: _____
 Sampled By: Kathryn Pritchett

Analysis Requested

VCs (SW240)	PPMs (SW606/700)	VCs (SW 801/802)	PPMs (SW606/700)
✓	✓	✓	✓

No. of Containers

Login #: _____
 Ship to: Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
 Attn.: Sample Control
 Date Shipped: _____
 Carrier: _____
 Air Bill #: _____
 Cooler #: _____
 C of C #: _____
 SDG #: _____
 NEI QT #: _____

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Description	Bin #'s In/Out (For Lab Use Only)
01	Z01B01	12/19/08	15:08	MW2021B-0-0.5	✓
02	Z02B01	12/19/08	14:10	MW2022B-0-0.5	✓
03	Z-RB01	12/19/08	13:30	2-RB01	✓
04	Z-FB01	12/19/08	10:45	2-FB01	✓
05	Z-TB01	12/19/08	---	2-TB01	✓

Comments
 ms/msd aban
 Duplicate sample aban
 equipment maintenance
 field blank
 Trip blank

Relinquished by: Kathryn Pritchett
 Date / Time: 12/19/08 10:30
 Received by: _____
 Print Name: _____

Relinquished by: _____
 Date / Time: _____
 Received by: _____
 Print Name: _____

Relinquished by: _____
 Date / Time: _____
 Received by: Jam Ormston
 Print Name: Jan Ormston

Lab Use Only
 Custody Seals: Intact Broken Absent
 Sample Rec'd in Good Condition?: N
 Sample Temperature: 20 Degrees Celsius
 INSPECTED BY: _____
 COMMENTS: _____

Special Instructions: Note: Second confirmation on VCLs analyzed
Sample 201B01 includes ms/msd
Sample 202B01 includes duplicate (separately analyzed)
14 Ave. Technical