PROJECT ID: POB12132000

SAMPLE ID: DK27428-DK27432

DESCRIPTOR: BRINE PROJECT

**HERITAGE ENVIRONMENTAL SERVICES**
COMMERCIAL LABORATORY OPERATIONS

7901 W. Morris Street
Indianapolis, IN 46231-3301

***MITT L. DENNEY***
***INDIANA DEPT. OF ENV. MGT.***
***REPORT PACKAGE #9399***
***SAMPLE: A581214 – A581218***
***IDEM ID: DK27428 – DK27432***

K high biased
can't do high K on ICP !!!!

# WATER QUALITY TESTING REPORT

## Project ID: POB12132000

**HERITAGE ENVIRONMENTAL SERVICES, LLC**

7901 West Morris Street
Indianapolis, IN 46231
Phone: 317/243-0811
Fax: 317/486-5095
Internet:http://www.heritage-enviro.com

QUALITY ASSURANCE REPORT PACKAGE # **9399**
FOR
**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

**MITT L. DENNEY**
INDIANA DEPT. OF ENV. MANAGEMENT
2525 NORTH SHADELAND AVENUE
BUILDING 30
INDIANAPOLIS, IN 46219
(317) 308-3324

**SAMPLE:** **A581214 – A581218**

**IDEM ID:** **DK27428 – DK27432**

HERITAGE ENVIRONMENTAL SERVICES, LLC
COMMERCIAL LABORATORY OPERATIONS
7901 WEST MORRIS STREET
INDIANAPOLIS, INDIANA 46231
PHONE: (317) 243-8304
FAX: (317) 486-5095

APPROVED BY: G.A. Busch, ORC
PROJECT CHEMIST

RECEIVED
JAN 31 [redacted]
IDEM-Water Mgmt
Drinking Water Branch

Recycled Paper

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Heritage Environmental Services, LLC
7901 West Morris Street
Indianapolis, IN 46231
Phone: (317) 243-0811
Fax: (317) 486-5095

# CASE NARRATIVE
# SHIPPING AND RECEIVING

The following samples were received at Heritage Environmental laboratory on January 11, 2002:

**A581214 – A581218**

**DK27428 – DK27432**

The samples were received within EPA recommended holding times and in good condition. If required, a pH screen confirmed that all samples were preserved to acceptable pH levels. Samples were analyzed within holding times as prescribed by the analytical method. Exceptions to these statements, additional information, and any analytical anomalies are noted on the accompanying Certificates of Analysis Reports.

Nancy J. Carman
Document Control Officer

ACCREDITED IN ACCORDANCE WITH nelac

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Z139301 ☐ OWM ☐ OSHWM ☐ OER ☐ OAM HCL

~~Z138713~~ 01-11-02

## CHAIN OF CUSTODY

I Certify that the sample(s) listed below was/were collected by me or in my presence. Date: / / P.O. #:

Signature: James L. Harris Section: Ground Water

| LAB NUMBER ASSIGNED | IDEM CONTROL NUMBER | CONSISTING OF THE INDICATED NUMBER OF BOTTLES | | | | | | | | | | | DATE AND TIME COLLECTED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2000 ml P, N. M. | 1000 ml P, N. M. | 1000 ml G, N. M. | 500 ml G, W. M. | 250 ml G, W. M. | 125 ml G, W. M. | 40 ml VIAL | 120 ml P, (B. O.) | 500 ml P, N. M. | 250 ml P, N. M. | | |
| A581214 | DK27428 | | | 1 | | JH | 3 | 3 | | 1 | 2 | | 1/9/02 10:00 AM/PM |
| 215 | DK27429 | | | 1 | | | 3 | 3 | | 1 | 2 | | 1/9/02 11:00 AM/PM |
| 216 | DK27430 | | | 1 | | | 2 | 2 | | 1 | 3 | | 1/9/02 11:30 AM/PM |
| 217 | DK27431 | | | 1 | | | 2 | 2 | | 1 | 2 | | 1/10/02 10:00 AM/PM |
| 218 | DK27432 | | | 1 | | | 2 | 2 | | 1 | 3 | | 1/10/02 11:30 AM/PM |
| 219 | DA/DC | | | | | | | | | | | | / / : AM/PM |
| | | | | | | | | | | | | | / / : AM/PM |
| | | | | | | | | | | | | | / / : AM/PM |
| | | | | | | | | | | | | | / / : AM/PM |
| | | | | | | | | | | | | | / / : AM/PM |
| | | | | | | | | | | | | | / / : AM/PM |
| | | | | | | | | | | | | | / / : AM/PM |

P-Plastic G-Glass N.M.-Narrow Mouth W.M.-Wide Mouth B. O.- Bacti. Only

**CARRIERS** Should samples be iced? Y N

I certify that I received the above sample(s)

| SIGNATURE | DATE AND TIME | SEALS INTACT | | COMMENTS |
|---|---|---|---|---|
| RELINQUISHED BY: James L. Harris | 1/11/02 | Y | N | RO± 5IC 2.6°5IC |
| RECEIVED BY: S. KINNAMAN | 12:05 AM/PM | | | |
| RELINQUISHED BY: | / / | Y | N | |
| RECEIVED BY: | : AM/PM | | | |
| RELINQUISHED BY: | / / | Y | N | |
| RECEIVED BY: | : AM/PM | | | |
| RELINQUISHED BY: | / / | Y | N | |
| RECEIVED BY: | : AM/PM | | | |
| RELINQUISHED BY: | / / | Y | N | |
| RECEIVED BY: | : AM/PM | | | |

## Lab Custodian

I certify that I received the above sample(s) and is/are recorded in the official record book. The same samples will be in custody of competent laboratory personnel at all ti or locked in a secure area.

Signature: S. KINNAMAN Date: 11 JAN 02 Time: 1205 AM/PM

Lab: HERITAGE Address: INDY

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
# OFFICE OF WATER/GROUND WATER SECTION
# BAA 97-044 SAMPLE TASK SHEET

Site ID: Brine Residential Well  IDEM Sample #'s: DK 27393 to DK 27542  Delivery Date: 12-11-02

Sampler: HARRIS  Assigned Lab:  EHL: [ ]  HLI: [X]  Sample #s Delivered Today: DK 27428 to DK 27432

## TASK 1 - METALS

| DW Stds | | Geochem | | Other | | Other | |
|---|---|---|---|---|---|---|---|
| Antimony | X | Barium | X | Aluminum | | | |
| Arsenic | X | Calcium | X | Boron | X | | |
| Beryllium | X | Iron | X | Cobalt | | | |
| Cadmium | X | Magnesium | X | Manganese | | | |
| Chromium | X | Potassium | X | Selenium | | | |
| Copper | X | Sodium | X | Silver | | | |
| Lead | X | | | Titanium | | | |
| Mercury | X | | | Thallium | | | |
| Nickle | X | | | Zinc | | | |

## TASK 2 - INORGANICS, MICROBIOLOGIC, NUTRIENTS & ORGANICS

| | | | | | |
|---|---|---|---|---|---|
| Alkalinity | X | Total Coliforms, | | Phosphorous (Applicable to /All Froms) | |
| BOD5 | | Cyanide, Total | | Solids, Filterable Residue (TDS) | |
| BOD, Ultimate | | Cyanide, Amenable | | Solids, Non-Filterable Residue (TSS) | |
| Bromide | X | Fluoride | | Solids, % (Solid Waste Matrices) | |
| Chemical Oxygen Demand | | Hardness as CaC03 | | Solids, Settleable Residue | |
| Chloride | X | Nitrogen, Kjeldahl (TKN) | | Specific Conductanc | |
| Chlorine, Free & Total | | Nitrogen, Nitrate | | Sulfate | X |
| Chlorine, Free | | Nitrogen, Nitrite | | Total Organic carbon (TOC) | X |
| Chromium, Hexavalent | | Nitrogen, Nitrate-Nitrite | X | Turbidity | |
| Coliforms, E.coli | | pH (Lab) | | | |
| Coliforms, Fecal | | Phosphorous, ortho | | | |

| | | | |
|---|---|---|---|
| TASK 5 - VOLATILE ORGANICS | 5A - 524.2 | | 5B - 524E |
| TASK 6 - SEMIVOLATILE ORGANICS | 6A - 525.2 | | 6B -525.2E |

## TASK 7 - DIOXINS, PCB's & PESTICIDES

| | | | | | |
|---|---|---|---|---|---|
| 504.1 - EDB & DBCP | | 513 -TCDD (2,3,7,8-TCDD) | | 547 - Glyphosate | |
| 505 - Organohalides & PCB's | | 515.1 - Chlorinated Acids - ECD | | 548.1 -Endothall | |
| 507 - Nitrogen/Phosphorous NPD | | 531.1 - Carbamates | | 549.1 - Diquat/Paraquat | |
| 508.1 - Chlorinated Acids - ECD | | | | | |

**SAS** 8015 MODIFIED–CRUDE OIL SCAN. Run on Water Sample Submitted. Use associated crude oil sample as the standard.

| APPROXIMATE CONCENTRATIONS (worst case): | 10ppm | | 100ppm | | ≥1000ppm | | 10-1000ppm |
|---|---|---|---|---|---|---|---|
| REPORTING TIME (days): | 30 | x | 14 | | 2 | | |

| Please Send Reports to: | Hand Deliver Reports to: | COMMENTS |
|---|---|---|
| Mitt Denney<br>Ground Water Section, 6633<br>100 N Senate Ave<br>Indianapolis, IN 46204<br>(317) 308-3324<br>(317) 308-3339, fax | Mitt Denney<br>Ground Water Section, 6633<br>2525 N Shadeland Ave<br>Indianapolis, IN 46219<br>(317) 308-3324<br>(317) 308-3339, fax | These samples are from crude oil contaminated drinking water wells. We anticipate Sodium and Chlorides in the range of 1000 ppm-10,000ppm. High ppm ranges of total petroleum hydrocarbons as crude oil may be present.<br>Approximately 10ml of crude oil **may be** submitted as a **standard** for each sample. Please run the submitted crude oil and save as a library scan under the site id. |

Revision: 08/2/1998-2

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
## OFFICE OF WATER/GROUND WATER SECTION
## BAA 97-044 SAMPLE TASK SHEET

Site ID: Oil Well Brine  IDEM Sample #'s: DK27393 to DK 27542  Delivery Date: 1-11-02

Sampler: HARRIS  Assigned Lab: EHL: [ ]  HLI: [X]  Sample #s Delivered Today: DK27428 to DK 27432

**TASK 1 - METALS**

| DW Stds | | Geochem | | Other | | Other | |
|---|---|---|---|---|---|---|---|
| Antimony | | Barium | X | Aluminum | | | |
| Arsenic | X | Calcium | X | Boron | X | | |
| Beryllium | | Iron | X | Cobalt | | | |
| Cadmium | | Magnesium | X | Manganese | | | |
| Chromium | | Potassium | X | Selenium | | | |
| Copper | X | Sodium | X | Silver | | | |
| Lead | X | | | Titanium | | | |
| Mercury | | | | Thallium | | | |
| Nickle | | | | Zinc | | | |

**TASK 2 - INORGANICS, MICROBIOLOGIC, NUTRIENTS & ORGANICS**

| | | | | | |
|---|---|---|---|---|---|
| Alkalinity | X | Total Coliforms, | | Phosphorous (Applicable to /All Froms) | |
| BOD5 | | Cyanide, Total | | Solids, Filterable Residue (TDS) | |
| BOD, Ultimate | | Cyanide, Amenable | | Solids, Non-Filterable Residue (TSS) | |
| Bromide | X | Fluoride | | Solids, % (Solid Waste Matrices) | |
| Chemical Oxygen Demand | | Hardness as CaC03 | | Solids, Settleable Residue | |
| Chloride | X | Nitrogen, Kjeldahl (TKN) | | Specific Conductanc | |
| Chlorine, Free & Total | | Nitrogen, Nitrate | | Sulfate | X |
| Chlorine, Free | | Nitrogen, Nitrite | | Total Organic carbon (TOC) | X |
| Chromium, Hexavalent | | Nitrogen, Nitrate-Nitrite | | Turbidity | |
| Coliforms, E.coli | | pH (Lab) | | | |
| Coliforms, Fecal | | Phosphorous, ortho | | | |

| | | | |
|---|---|---|---|
| TASK 5 - VOLATILE ORGANICS | 5A - 524.2 | | 5B - 524E |
| TASK 6 - SEMIVOLATILE ORGANICS | 6A - 525.2 | | 6B -525.2E |

**TASK 7 - DIOXINS, PCB's & PESTICIDES**

| | | | | | |
|---|---|---|---|---|---|
| 504.1 - EDB & DBCP | | 513 -TCDD (2,3,7,8-TCDD) | | 547 - Glyphosate | |
| 505 - Organohalides & PCB's | | 515.1 - Chlorinated Acids - ECD | | 548.1 -Endothall | |
| 507 - Nitrogen/Phosphorous NPD | | 531.1 - Carbamates | | 549.1 - Diquat/Paraquat | |
| 508.1 - Chlorinated Acids - ECD | | | | | |

**SAS** 8015 MODIFIED–CRUDE OIL SCAN. Run on Water Sample Submitted. Use associated crude oil sample as the standard.

| APPROXIMATE CONCENTRATIONS (worst case): | 10ppm | | 100ppm | | ≥1000ppm | | 10-1000ppm |
|---|---|---|---|---|---|---|---|
| REPORTING TIME (days): | 30 | x | 14 | | 2 | | |

| Please Send Reports to: | Hand Deliver Reports to: | COMMENTS |
|---|---|---|
| Mitt Denney<br>Ground Water Section, 6633<br>100 N Senate Ave<br>Indianapolis, IN 46204<br>(317) 308-3324<br>(317) 308-3339, fax | Mitt Denney<br>Ground Water Section, 6633<br>2525 N Shadeland Ave<br>Indianapolis, IN 46219<br>(317) 308-3324<br>(317) 308-3339, fax | These samples are from crude oil wells. We anticipate Sodium and Chlorides in the range o 1000 ppm-10,000ppm. High ppm ranges of total petroleum hydrocarbons as crude oil may be present. Run<br>Approximately 10ml of crude oil may be submitted as a standard for each sample. Please run the submitted crude oil and save as a library scan under the IDEM sample id. |

Revision: 08/2/1998-2

HERITAGE ENVIRONMENTAL SERVICES, LLC
COMMERCIAL LABORATORY OPERATIONS
METALS SECTION

# CASE NARRATIVE

SAMPLE # A581214-218

There was possible matrix interference for K, as indicated by the serial dilution results.

Sample A581216 had matrix interference for K. Spike recoveries were 139.5% and 139.5%. This is due to the sample matrix, which is a brine.

Steven J Endersen 1-18-02

Steven J Endersen, Senior Chemist

ACCREDITED IN ACCORDANCE WITH nelac

U. S. EPA -CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Initial Calibration Source : Perkin-Elmer

Continuing Calibration Source : Inorganic Ventures

Concentration Units: uG/L

| Analyte | Initial Calibration True | Found | % R (1) | Continuing Calibration True | Found 235050 | % R (1) | Found 3004 | % R (1) | | M |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 1000 | 1000 | 100 | 1000 | 1020 | 102 | 1030 | 103 | | P |
| Barium | 1000 | 1070 | 107 | 5000 | 5150 | 103 | 5180 | 104 | | P |
| Boron | 1000 | 1050 | 105 | 2000 | 2050 | 103 | 2070 | 104 | | P |
| Cadmium | 1000 | 1040 | 104 | 5000 | 5190 | 104 | 5190 | 104 | | P |
| Calcium | 20000 | 20900 | 105 | 50000 | 51500 | 103 | 51600 | 103 | | P |
| Chromium | 1000 | 1050 | 105 | 5000 | 5120 | 102 | 5140 | 103 | | P |
| Copper | 1000 | 1040 | 104 | 5000 | 5070 | 101 | 5110 | 102 | | P |
| Iron | 1000 | 1060 | 106 | 5000 | 5110 | 102 | 5130 | 103 | | P |
| Magnesium | 20000 | 20700 | 104 | 50000 | 50200 | 100 | 50400 | 101 | | P |
| Nickel | 1000 | 1060 | 106 | 5000 | 5110 | 102 | 5130 | 103 | | P |
| Potassium | 20000 | 20800 | 104 | 50000 | 53500 | 107 | 54000 | 108 | | P |
| Sodium | 20000 | 21700 | 109 | 50000 | 54300 | 109 | 54100 | 108 | | P |
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*ICP Analytical Run Time*

(1) Control Limits: Mercury 80-120: Other Metals 90-110: Cyanide 85-115.

FORM II (Part 1) - IN

U. S. EPA -CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: HES - Commercial Laboratories Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Initial Calibration Source : Perkin-Elmer

Continuing Calibration Source : Inorganic Ventures

Concentration Units: uG/L

| Analyte | Initial Calibration True | Initial Calibration Found | Initial Calibration % R (1) | Continuing Calibration True | Continuing Calibration Found 4937 | Continuing Calibration % R (1) | Found | % R (1) | | M |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | | 1000 | 1040 | 104 | | | | P |
| Barium | | | | 5000 | 5270 | 105 | | | | P |
| Boron | | | | 2000 | 2090 | 105 | | | | P |
| Cadmium | | | | 5000 | 5280 | 106 | | | | P |
| Calcium | | | | 50000 | 52600 | 105 | | | | P |
| Chromium | | | | 5000 | 5240 | 105 | | | | P |
| Copper | | | | 5000 | 5210 | 104 | | | | P |
| Iron | | | | 5000 | 5230 | 105 | | | | P |
| Magnesium | | | | 50000 | 51300 | 103 | | | | P |
| Nickel | | | | 5000 | 5220 | 104 | | | | P |
| Potassium | | | | 50000 | 55000 | 110 | | | | P |
| Sodium | | | | 50000 | 55100 | 110 | | | | P |
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*ICP Analytical Run Time*

(1) Control Limits: Mercury 80-120: Other Metals 90-110: Cyanide 85-115.

FORM II (Part 1) - IN

U. S. EPA -CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Initial Calibration Source : Perkin-Elmer

Continuing Calibration Source : Inorganic Ventures DILUTIONS

Concentration Units: uG/L

| Analyte | Initial Calibration True | Found | % R (1) | Continuing Calibration True | Found 221113 | % R (1) | Found 222729 | % R (1) | | M |
|---|---|---|---|---|---|---|---|---|---|---|
| Potassium | 20000 | 20800 | 104 | 50000 | 53800 | 108 | 53600 | 107 | | P |
| Sodium | 20000 | 21600 | 108 | 50000 | 54000 | 108 | 53100 | 106 | | P |

*ICP Analytical Run Time*

(1) Control Limits: Mercury 80-120: Other Metals 90-110: Cyanide 85-115

FORM II (Part 1) - IN

U. S. EPA -CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: HES - Commercial Laboratories Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Initial Calibration Source : Perkin-Elmer

Continuing Calibration Source : Inorganic Ventures DILUTIONS

Concentration Units: uG/L

| Analyte | Initial Calibration True | Initial Calibration Found | Initial Calibration % R (1) | Continuing Calibration True | Continuing Calibration Found *224708* | Continuing Calibration % R (1) | Found | % R (1) | | M |
|---|---|---|---|---|---|---|---|---|---|---|
| Potassium | | | | 50000 | 53800 | 108 | | | | P |
| Sodium | | | | 50000 | 54000 | 108 | | | | P |
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*ICP Analytical Run Time*

(1) Control Limits: Mercury 80-120: Other Metals 90-110: Cyanide 85-115.

6

FORM II (Part 1) - IN

U. S. EPA -CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Initial Calibration Source : Perkin-Elmer

Continuing Calibration Source : Inorganic Ventures

Concentration Units: uG/L

| Analyte | Initial Calibration True | Found | % R (1) | Continuing Calibration True | Found 155015 | % R (1) | Found 162416 | % R (1) | | M |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 50 | 46.6 | 93.2 | 100 | 93.5 | 93.5 | 95.9 | 95.9 | | P |
| Beryllium | 50 | 47.7 | 95.4 | 100 | 93.7 | 93.7 | 93.5 | 93.5 | | P |
| Lead | 50 | 49.5 | 99 | 100 | 96.3 | 96.3 | 97.2 | 97.2 | | P |
| Mercury | 2.00 | 2.01 | 101 | 3.00 | 3.04 | 101 | 3.04 | 101 | | CV |

*Trace ICP Analytical Run Time*

(1) Control Limits: Mercury 80-120: Other Metals 90-110

FORM II (Part 1) - IN

U. S. EPA -CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: HES - Commercial Laboratories Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Initial Calibration Source : Perkin-Elmer

Continuing Calibration Source : Inorganic Ventures

Concentration Units: uG/L

| Analyte | Initial Calibration True | Initial Calibration Found | Initial Calibration % R (1) | Continuing Calibration True | Continuing Calibration Found *165817* | Continuing Calibration % R (1) | Continuing Calibration Found *172348* | Continuing Calibration % R (1) | | M |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | | | | 100 | 95.9 | 95.9 | 94.9 | 94.9 | | P |
| Beryllium | | | | 100 | 94.6 | 94.6 | 94.5 | 94.5 | | P |
| Lead | | | | 100 | 101 | 101 | 101 | 101 | | P |
| Mercury | | | | 3.00 | 3.11 | 104 | | | | CV |

*Trace ICP Analytical Run Time*

(1) Control Limits: Mercury 80-120: Other Metals 90-110

FORM II (Part 1) - IN

U. S. EPA -CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: __

AA CRDL Calibration Source : Inorganic Ventures

ICP CRDL Calibration Source : Inorganic Ventures

Concentration Units: uG/L

| Analyte | CRDL Standard for AA | | | CRDL Standard for ICP | | | | | | M |
|---|---|---|---|---|---|---|---|---|---|---|
| | True | Found | % R | True | Initial Found 233018 | % R | Final Found 3951 | % R | | |
| Antimony | | | | 120 | 124 | 103 | 121 | 101 | | P |
| Barium | | | | NA | | | | | | |
| Boron | | | | NA | | | | | | |
| Cadmium | | | | 10 | 10.6 | 106 | 10.7 | 107 | | P |
| Calcium | | | | NA | | | | | | |
| Chromium | | | | 20 | 21.6 | 108 | 21.8 | 109 | | P |
| Copper | | | | 50 | 52.3 | 105 | 52.4 | 105 | | P |
| Iron | | | | NA | | | | | | |
| Magnesium | | | | NA | | | | | | |
| Nickel | | | | 80 | 85.6 | 107 | 86.8 | 109 | | P |
| Potassium | | | | NA | | | | | | |
| Sodium | | | | NA | | | | | | |

U. S. EPA -CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: __

AA CRDL Calibration Source : Inorganic Ventures

ICP CRDL Calibration Source : Inorganic Ventures

Concentration Units: uG/L

| Analyte | CRDL Standard for AA | | | CRDL Standard for TRACE ICP | | | | | | M |
|---|---|---|---|---|---|---|---|---|---|---|
| | True | Found | % R | True | Initial Found *153315* | % R | Final Found *171103* | % R | | |
| Arsenic | | | | 20 | 18.5 | 92.5 | 18.8 | 94 | | P |
| Beryllium | | | | 10 | 9.62 | 96.2 | 9.62 | 96.2 | | P |
| Lead | | | | 6 | 6.73 | 112 | 6 | 100 | | P |
| Mercury | 0.20 | 0.22 | 110 | | | | | | | CV |

10

U. S. EPA -CLP

3

BLANKS

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : ___ SAS No. : ___ SDG No.: _____

Preparation Blank Matrix : Water

Preparation Blank Concentration Units (uG/L or mG/kG) : uG/L

| Analyte | Initial Calibration Blank (uG/L) 231038 | C | Continuing Calibration Blank (uG/L) 1 232344 | C | 2 235405 | C | 3 3322 | C | Preparation Blank 235720 | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 2.8 | U | 2.8 | U | 2.8 | U | 4.6 | B | 2.8 | U | P |
| Barium | 0.13 | U | 0.13 | U | 0.13 | U | 0.14 | B | 0.13 | U | P |
| Boron | 8.4 | U | 8.4 | U | 8.4 | U | 13 | B | 8.4 | U | P |
| Cadmium | 0.42 | U | 0.42 | U | 0.42 | U | 0.42 | U | 0.42 | U | P |
| Calcium | -6 | B | -8.8 | B | -4.8 | B | -8.7 | B | 2.9 | U | P |
| Chromium | 0.26 | U | 0.26 | U | 0.26 | U | 0.26 | U | 0.26 | U | P |
| Copper | 0.63 | U | 0.63 | U | 0.63 | U | 0.63 | U | 0.63 | U | P |
| Iron | 2.9 | U | 2.9 | U | -4.7 | B | -4.4 | B | -4.9 | B | P |
| Magnesium | 2.6 | U | 2.6 | U | 2.6 | U | 2.6 | U | 2.6 | U | P |
| Nickel | -0.68 | B | 0.63 | U | 0.63 | U | -0.8 | B | 0.63 | U | P |
| Potassium | 3.2 | U | -3.3 | B | 3.2 | U | 3.2 | U | 12 | B | P |
| Sodium | -1.2 | B | -1.7 | B | -2 | B | 5.2 | B | 10 | B | P |

*ICP Analytical Run Time*

FORM III -IN

U. S. EPA -CLP

3

BLANKS

Lab Name: HES - Commercial Laboratories Contract : _____

Lab Code: _____ Case No. : ___ SAS No. : ___ SDG No.: _____

Preparation Blank Matrix : _____

Preparation Blank Concentration Units (uG/L or mG/kG) : _____

| Analyte | Initial Calibration Blank (uG/L) | C | Continuing Calibration Blank (uG/L) 4 *5252* | C | 5 | C | 6 | C | Preparation Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 2.8 | U | | | | | | | P |
| Barium | | | 0.13 | U | | | | | | | P |
| Boron | | | 11 | B | | | | | | | P |
| Cadmium | | | 0.42 | U | | | | | | | P |
| Calcium | | | -8.4 | B | | | | | | | P |
| Chromium | | | 0.26 | U | | | | | | | P |
| Copper | | | 0.63 | U | | | | | | | P |
| Iron | | | -4.5 | B | | | | | | | P |
| Magnesium | | | 2.6 | U | | | | | | | P |
| Nickel | | | 0.63 | U | | | | | | | P |
| Potassium | | | 3.2 | U | | | | | | | P |
| Sodium | | | -1.5 | B | | | | | | | P |
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*ICP Analytical Run Time*

FORM III -IN

12

U. S. EPA -CLP

3

BLANKS

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : ___ SAS No. : ___ SDG No.: _____

Preparation Blank Matrix : Water

Preparation Blank Concentration Units (uG/L or mG/kG) : uG/L DILUTIONS

| Analyte | Initial Calibration Blank (uG/L) 213830 | C | Continuing Calibration Blank (uG/L) 1 215135 | C | 2 221427 | C | 3 223045 | C | Preparation Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Potassium | 3.2 | U | 3.2 | U | 3.2 | U | 4.4 | B | | | P |
| Sodium | -1.1 | B | -1.1 | B | -1.2 | B | -1.1 | B | | | P |

*ICP Analytical Run Time*

FORM III -IN

13

U. S. EPA -CLP

3

BLANKS

Lab Name: HES - Commercial Laboratories Contract : ____________

Lab Code: ____________ Case No. : ___ SAS No. : ___ SDG No.: __________

Preparation Blank Matrix : __________

Preparation Blank Concentration Units (uG/L or mG/kG) : ____________ DILUTIONS

| Analyte | Initial Calibration Blank (uG/L) | C | Continuing Calibration Blank (uG/L) 4 | C | 5 | C | 6 | C | Preparation Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 225026 | | | | | | | | |
| Potassium | | | 5.3 | B | | | | | | | P |
| Sodium | | | -0.99 | B | | | | | | | P |

*ICP Analytical Run Time*

FORM III -IN

19

icp_clp.xlw Rev. 1/95

U. S. EPA -CLP

3

BLANKS

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : ___ SAS No. : ___ SDG No.: _____

Preparation Blank Matrix : Water

Preparation Blank Concentration Units (uG/L or mG/kG) : uG/L

| Analyte | Initial Calibration Blank (uG/L) | C | Continuing Calibration Blank (uG/L) 1 | C | 2 | C | 3 | C | Preparation Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | *150745* | | *152445* | | *155430* | | *162831* | | *155846* | | |
| Arsenic | 2.8 | U | 2.8 | U | 2.8 | U | 2.8 | U | 2.8 | U | P |
| Beryllium | 0.086 | U | 0.086 | U | 0.086 | U | 0.086 | U | 0.086 | U | P |
| Lead | 1.6 | U | 1.6 | U | 1.6 | U | 1.6 | U | 1.6 | U | P |
| Mercury | 0.02 | B | 0.04 | B | 0.02 | U | 0.02 | U | 0.02 | B | CV |

*Trace ICP Analytical Run Time*

FORM III -IN

15

U. S. EPA -CLP

3

BLANKS

Lab Name: HES - Commercial Laboratories Contract : _____

Lab Code: _____ Case No. : ___ SAS No. : ___ SDG No.: _____

Preparation Blank Matrix : _____

Preparation Blank Concentration Units (uG/L or mG/kG) : _____

| Analyte | Initial Calibration Blank (uG/L) | C | Continuing Calibration Blank (uG/L) 4 *170232* | C | 5 *172803* | C | 6 | C | Preparation Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | | | 2.8 | U | 2.8 | U | | | | | P |
| Beryllium | | | -0.17 | B | -0.15 | B | | | | | P |
| Lead | | | 1.6 | U | 1.6 | U | | | | | P |
| Mercury | | | | | | | | | | | CV |

*Trace ICP Analytical Run Time*

FORM III -IN

16

U. S. EPA -CLP

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: ____

ICP ID Number : 334 ICS Source : Perkin-Elmer

Date of Analysis : 14-Jan-02

Concentration Units: uG/L

| Analyte | True Sol. A | True Sol. AB | Initial Found Sol. A | Initial Found Sol. AB | Initial Found % R | Final Found Sol. A | Final Found Sol. AB | Final Found % R |
|---|---|---|---|---|---|---|---|---|
| Aluminum | | 500,000 | | 530,000 | 106 | | 536,000 | 107 |
| Antimony | | 600 | | 616 | 103 | | 613 | 102 |
| Arsenic | | 100 | | 103 | 103 | | 102 | 102 |
| Barium | | 500 | | 527 | 105 | | 528 | 106 |
| Beryllium | | 500 | | 532 | 106 | | 530 | 106 |
| Cadmium | | 1,000 | | 1,080 | 108 | | 1,080 | 108 |
| Calcium | | 500,000 | | 503,000 | 101 | | 503,000 | 101 |
| Chromium | | 500 | | 509 | 102 | | 509 | 102 |
| Cobalt | | 500 | | 497 | 99.4 | | 497 | 99.4 |
| Copper | | 500 | | 537 | 107 | | 541 | 108 |
| Iron | | 200,000 | | 198,000 | 99 | | 198,000 | 99 |
| Lead | | 1,000 | | 975 | 97.5 | | 973 | 97.3 |
| Magnesium | | 500,000 | | 534,000 | 107 | | 534,000 | 107 |
| Manganese | | 500 | | 509 | 102 | | 510 | 102 |
| Mercury | | | | | | | | |
| Nickel | | 1,000 | | 971 | 97.1 | | 970 | 97 |
| Potassium | | | | | | | | |
| Selenium | | 50 | | 53 | 107 | | 54 | 108 |
| Silver | | 200 | | 222 | 111 | | 223 | 112 |
| Sodium | | | | | | | | |
| Thallium | | 100 | | | | | | |
| Vanadium | | 500 | | 517 | 103 | | 518 | 104 |
| Zinc | | 1,000 | | 991 | 99.1 | | 995 | 99.5 |
| | | | | | | | | |

FORM IV - IN

17

U. S. EPA -CLP

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: ___

ICP ID Number : 334 ICS Source : Perkin-Elmer

Date of Analysis : 15-Jan-02

Concentration Units: uG/L

| Analyte | True Sol. A | True Sol. AB | Initial Found Sol. A | Initial Found Sol. AB | Initial Found % R | Final Found Sol. A | Final Found Sol. AB | Final Found % R |
|---|---|---|---|---|---|---|---|---|
| Aluminum | | 500,000 | | 526,000 | 105 | | 520,000 | 104 |
| Antimony | | 600 | | 632 | 105 | | 624 | 104 |
| Arsenic | | 100 | | 99 | 98.9 | | 99 | 99.1 |
| Barium | | 500 | | 518 | 104 | | 509 | 102 |
| Beryllium | | 500 | | 522 | 104 | | 516 | 103 |
| Cadmium | | 1,000 | | 1,060 | 106 | | 1,050 | 105 |
| Calcium | | 500,000 | | 495,000 | 99 | | 485,000 | 97 |
| Chromium | | 500 | | 498 | 99.6 | | 490 | 98 |
| Cobalt | | 500 | | 487 | 97.4 | | 476 | 95.2 |
| Copper | | 500 | | 535 | 107 | | 528 | 106 |
| Iron | | 200,000 | | 195,000 | 97.5 | | 192,000 | 96 |
| Lead | | 1,000 | | 954 | 95.4 | | 932 | 93.2 |
| Magnesium | | 500,000 | | 522,000 | 104 | | 513,000 | 103 |
| Manganese | | 500 | | 502 | 100 | | 492 | 98.4 |
| Mercury | | | | | | | | |
| Nickel | | 1,000 | | 944 | 94.4 | | 930 | 93 |
| Potassium | | | | | | | | |
| Selenium | | 50 | | 49 | 97 | | 53 | 105 |
| Silver | | 200 | | 220 | 110 | | 217 | 109 |
| Sodium | | | | | | | | |
| Thallium | | 100 | | | | | | |
| Vanadium | | 500 | | 507 | 101 | | 500 | 100 |
| Zinc | | 1,000 | | 950 | 95 | | 923 | 92.3 |
| | | | | | | | | |

FORM IV - IN

18

U. S. EPA -CLP

4

TRACE ICP INTERFERENCE CHECK SAMPLE

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: ___

ICP ID Number : Trace ICS Source : Perkin-Elmer

Date of Analysis : 17-Jan-02

Concentration Units: uG/L

| Analyte | True | | Initial Found | | | Final Found | | |
|---|---|---|---|---|---|---|---|---|
| | Sol. A | Sol. AB | Sol. A | Sol. AB | % R | Sol. A | Sol. AB | % R |
| Aluminum | | 500,000 | | 497,000 | 99.4 | | 495,000 | 99 |
| Antimony | | 600 | | 560 | 93.3 | | 555 | 92.5 |
| Arsenic | | 100 | | 93 | 92.5 | | 93 | 93 |
| Barium | | | | | | | | |
| Beryllium | | 500 | | 463 | 92.6 | | 466 | 93.2 |
| Cadmium | | 1,000 | | 868 | 86.8 | | 890 | 89 |
| Calcium | | 500,000 | | 492,000 | 98.4 | | 508,000 | 102 |
| Chromium | | 500 | | 480 | 96 | | 486 | 97.2 |
| Cobalt | | 500 | | 441 | 88.2 | | 446 | 89.2 |
| Copper | | | | | | | | |
| Iron | | 200,000 | | 199,000 | 99.5 | | 202,000 | 101 |
| Lead | | 50 | | 41 | 82.8 | | 43 | 86.8 |
| Magnesium | | 500,000 | | 489,000 | 97.8 | | 503,000 | 101 |
| Manganese | | 500 | | 455 | 91 | | 456 | 91.2 |
| Mercury | | | | | | | | |
| Nickel | | | | | | | | |
| Potassium | | | | | | | | |
| Selenium | | 50 | | 44 | 87 | | 46 | 91.8 |
| Silver | | 200 | | 208 | 104 | | 205 | 103 |
| Sodium | | | | | | | | |
| Thallium | | 100 | | 87 | 87.4 | | 88 | 88.3 |
| Vanadium | | 500 | | 483 | 96.6 | | 482 | 96.4 |
| Zinc | | | | | | | | |
| | | | | | | | | |

FORM IV - IN

(9

U. S. EPA -CLP

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

**A581216**

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Matrix (soil/water) : Water Level (low/med): _____

Initial Wt/Vol : 50 mL

% Solids for Sample : _____ Final Volume : 50 mL

Dilution : 1

Concentration Units (uG/L or mG/kG dry weight) : uG/L

| Analyte | Control Limit %R | Q1325141 Spiked Sample (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 80 - 120 | 541 | | 2.8 | U | 500 | 108 | | P |
| Barium | 80 - 120 | 2440 | | 333 | | 2,000 | 105 | | P |
| Boron | 80 - 120 | 2560 | | 1510 | | 1,000 | 105 | | P |
| Cadmium | 80 - 120 | 55.5 | | 0.42 | U | 50 | 111 | | P |
| Calcium | 80 - 120 | 106000 | | 2580 | | 100,000 | 103 | | P |
| Chromium | 80 - 120 | 213 | | 0.26 | U | 200 | 107 | | P |
| Copper | 80 - 120 | 271 | | 6.44 | B | 250 | 106 | | P |
| Iron | 80 - 120 | 1080 | | 51.2 | | 1,000 | 103 | | P |
| Magnesium | 80 - 120 | 103000 | | 1550 | | 100,000 | 101 | | P |
| Nickel | 80 - 120 | 516 | | 0.63 | U | 500 | 103 | | P |
| Potassium | 80 - 120 | 145000 | | 5540 | | 100,000 | 139 | N | P |
| Sodium | | 1280000 | | 1140000 | | 100,000 | NA | | P |

FORM V (Part 1) - IN

U. S. EPA -CLP

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

**A581216**

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Matrix (soil/water) : Water Level (low/med): _____

Initial Wt/Vol : 50 mL

% Solids for Sample : _____ Final Volume : 50 mL

Dilution : 1

Concentration Units (uG/L or mG/kG dry weight) : uG/L

| Analyte | Control Limit %R | Q1325145 Spiked Sample (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 80 - 120 | 1870 | | 2.8 | U | 2,000 | 93.5 | | P |
| Beryllium | 80 - 120 | 44.4 | | 0.086 | U | 50 | 88.8 | | P |
| Lead | 80 - 120 | 448 | | 1.6 | U | 500 | 89.6 | | P |
| Mercury | 80 - 120 | 1.01 | | 0.02 | B | 1.00 | 99 | | CV |

FORM V (Part 1) - IN

21

U. S. EPA -CLP

5A

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

EPA SAMPLE NO.

**A581216**

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Matrix (soil/water) : Water Level (low/med): _____

Initial Wt/Vol : 50 mL

% Solids for Sample : _____ Final Volume : 50 mL

Dilution : 1

Concentration Units (uG/L or mG/kG dry weight) : uG/L

| Analyte | Sample Result (SR) | Q1325141 Spiked Sample (SSR) | C | 0 Spiked Duplicate Sample (SDS) | C | Spike Added (SA) | % RPD | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 2.8 | 108 | | 107 | | 500 | 0.93 | | P |
| Barium | 330 | 105 | | 104 | | 2,000 | 0.957 | | P |
| Boron | 1500 | 105 | | 103 | | 1,000 | 1.92 | | P |
| Cadmium | 0.42 | 111 | | 112 | | 50 | 0.897 | | P |
| Calcium | 2600 | 103 | | 102 | | 100,000 | 0.976 | | P |
| Chromium | 0.26 | 107 | | 107 | | 200 | 0 | | P |
| Copper | 6.4 | 106 | | 106 | | 250 | 0 | | P |
| Iron | 51 | 103 | | 103 | | 1,000 | 0 | | P |
| Magnesium | 1600 | 101 | | 101 | | 100,000 | 0 | | P |
| Nickel | 0.63 | 103 | | 103 | | 500 | 0 | | P |
| Potassium | 5500 | 139 | | 139 | | 100,000 | 0 | N | P |
| Sodium | 1100000 | NA | | NA | | 100,000 | NA | | P |

U. S. EPA -CLP

5A

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

EPA SAMPLE NO.

**A581216**

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Matrix (soil/water) : Water Level (low/med): _____

Initial Wt/Vol : 50 mL

% Solids for Sample : _____ Final Volume : 50 mL

Dilution : 1

Concentration Units (uG/L or mG/kG dry weight) : uG/L

| Analyte | Sample Result (SR) | Q1325145 Spiked Sample (SSR) | C | 0 Spiked Duplicate Sample (SDS) | C | Spike Added (SA) | % RPD | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.8 | 93.5 | | 96 | | 2,000 | 2.64 | | P |
| Beryllium | 0.086 | 88.8 | | 91 | | 50 | 2.45 | | P |
| Lead | 1.6 | 89.6 | | 93.2 | | 500 | 3.94 | | P |
| Mercury | 0.02 | 99 | | 98 | | 1.00 | 1.02 | | CV |

U. S. EPA -CLP
7

LABORATORY CONTROL SAMPLE

**Q1325140**

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Solid LCS Source : _____

Aqueous LCS Source : SPEX

| Analyte | Aqueous (uG/L) True | Found | %R | True | Found | C | Limits | | %R |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 5000 | 5,140 | 102.8 | | | | | | |
| Barium | 20000 | 20,300 | 101.5 | | | | | | |
| Boron | 1000 | 987 | 98.7 | | | | | | |
| Cadmium | 500 | 539 | 107.8 | | | | | | |
| Calcium | 100000 | 101,000 | 101 | | | | | | |
| Chromium | 2000 | 2,090 | 104.5 | | | | | | |
| Copper | 2500 | 2,610 | 104.4 | | | | | | |
| Iron | 10000 | 10,300 | 103 | | | | | | |
| Magnesium | 100000 | 103,000 | 103 | | | | | | |
| Nickel | 5000 | 5,120 | 102.4 | | | | | | |
| Potassium | 100000 | 104,000 | 104 | | | | | | |
| Sodium | 100000 | 104,000 | 104 | | | | | | |
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FORM VII - IN

24

U. S. EPA -CLP
7

# LABORATORY CONTROL SAMPLE

**Q1325144**

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Solid LCS Source : ERA

Aqueous LCS Source : SPEX

| Analyte | Aqueous (uG/L) True | Found | %R | True | Found | C | Limits | | %R |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 500 | 482 | 96.4 | | | | | | |
| Beryllium | 500 | 482 | 96.4 | | | | | | |
| Lead | 500 | 484 | 96.8 | | | | | | |
| Mercury | 2.00 | 2.09 | 104.5 | | | | | | |

FORM VII - IN

25

U. S. EPA -CLP

9

ICP SERIAL DILUTION

EPA SAMPLE NO.

**A581216**

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Matrix (soil/water) : Water Level (low/med): _____

Concentration Units (uG/L) : uG/L Dilution 1: 5

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Difference | Q (1) | M |
|---|---|---|---|---|---|---|---|
| Antimony | 2.8 | U | 2.8 | U | | | P |
| Barium | 333 | | 329 | | 1.2 | | P |
| Boron | 1510 | | 1480 | | 2 | | P |
| Cadmium | 0.42 | U | 0.42 | U | | | P |
| Calcium | 2580 | | 2540 | | 1.6 | | P |
| Chromium | 0.26 | U | 0.26 | U | | | P |
| Copper | 6.44 | B | 11.8 | B | | | P |
| Iron | 51.2 | | 35.1 | B | | | P |
| Magnesium | 1550 | | 1570 | | 1.3 | | P |
| Nickel | 0.63 | U | 4.29 | B | | | P |
| Potassium | 5540 | | 3870 | | 30 | E | P |
| Sodium | 1140000 | | 1080000 | | 5.3 | | P |

(1) - % Difference criteria 10%, if concentration > 50*IDL.

FORM IX - IN

26

U. S. EPA -CLP

9

TRACE ICP SERIAL DILUTION

EPA SAMPLE NO.

**A581216**

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Matrix (soil/water) : Water Level (low/med): _____

Concentration Units (uG/L) : uG/L Dilution 1: 5

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Difference | Q (1) | M |
|---|---|---|---|---|---|---|---|
| Arsenic | 2.8 | U | 17.3 | B | | | P |
| Beryllium | 0.086 | U | 0.086 | U | | | P |
| Lead | 1.6 | U | 1.6 | U | | | P |
| Mercury | | | | | | | CV |

(1) - % Difference criteria 10%, if concentration > 50*IDL.

FORM IX - IN

27

U. S. EPA - CLP

17

STANDARD SOLUTIONS SOURCES

Lab Name: Heritage Environmental Services, LLC Contract_____

| | CALIBRATION | | | | | MATRIX | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | STANDARD | ICV | TRACE CCV | CCV | CRDL | SPIKE | ICS | Method |
| Aluminum | INV | PE | | INV | | SPEX | PE | P |
| Antimony | INV | PE | SPEX | INV | PE | INV | | P |
| Arsenic | INV | PE | SPEX | INV | PE | SPEX | | P |
| Barium | INV | PE | | INV | | SPEX | PE | P |
| Beryllium | INV | PE | SPEX | INV | PE | SPEX | PE | P |
| Cadmium | INV | PE | SPEX | INV | PE | SPEX | PE | P |
| Calcium | INV | PE | | INV | | SPEX | PE | P |
| Chromium | INV | PE | SPEX | INV | PE | SPEX | PE | P |
| Cobalt | INV | PE | SPEX | INV | PE | SPEX | PE | P |
| Copper | INV | PE | | INV | PE | SPEX | PE | P |
| Iron | INV | PE | | INV | | SPEX | PE | P |
| Lead | INV | PE | SPEX | INV | PE | SPEX | PE | P |
| Magnesium | INV | PE | | INV | | SPEX | PE | P |
| Manganese | INV | PE | SPEX | INV | PE | SPEX | PE | P |
| Mercury | INV | NIST | | FISHER | FISHER | FISHER | | CV |
| Nickel | INV | PE | | INV | PE | SPEX | PE | P |
| Potassium | INV | PE | | INV | | SPEX | | P |
| Selenium | INV | PE | SPEX | INV | PE | SPEX | | P |
| Silver | INV | PE | PE | INV | PE | SPEX | PE | P |
| Sodium | INV | PE | | INV | | SPEX | | P |
| Thallium | INV | PE | SPEX | INV | PE | SPEX | | P |
| Vanadium | INV | PE | SPEX | INV | PE | SPEX | PE | P |
| Zinc | INV | PE | | INV | PE | SPEX | PE | P |
| Titanium | INV | PE | | INV | | SPEX | | P |
| Strontium | INV | PE | | INV | | SPEX | | P |
| Molybdenum | INV | PE | | INV | | SPEX | | P |
| Boron | INV | PE | | INV | | SPEX | | P |
| Tin | INV | PE | | INV | | INV | | P |
| Zirconium | INV | FISHER | | INV | | SPEX | | P |
| Lithium | INV | PE | | INV | | SPEX | | P |
| Silicon | INV | PE | | INV | | INV | | P |
| Bismuth | INV | PE | | INV | | SPEX | | P |
| Yttrium | INV | PE | | INV | | SPEX | | P |
| | | | | | | | | |

PE = Perkin Elmer Pure

INV = Inorganic Ventures

# WATER METHOD DETECTION LIMITS, uG/L

**Hotblock / Hotplate**

| Element | ICP-MS | Vista | Vista | ICAP-61 | ICAP-61 | GFAA | GFAA | CVAA | CVAA | CVAA |
|---|---|---|---|---|---|---|---|---|---|---|
| | #320 | #334 | #334 | TRACE | TRACE | PE5100 | PE5100 | FIMS | FIMS | FIMS |
| | AAS | JPK | JJL | JPK | DAD | A | B | DAD | BMB | JSO |
| | Hotblock | Hotblock | Hotblock | Hotblock | Hotblock | Hotblock | Hotblock | Hotblock | Hotblock | Hotblock |
| | | | | | | | | | | |
| Complete | 10/18/00 | 9/7/01 | 9/13/01 | 10/19/01 | 9/20/01 | 2/25/00 | 9/13/01 | 12/13/00 | 2/23/01 | 6/14/01 |
| Al | 0.86 | 13 | 17 | | | | | | | |
| B | 1.4 | 11 | 11 | | | | | | | |
| Sb | 0.054 | 2.0 | 3.7 | 2.4 | 2.1 | | 1.6 | | | |
| As | 0.47 | 4.0 | 5.1 | 2.7 | 3.3 | | 2.0 | | | |
| Ba | 0.037 | 0.53 | 0.24 | | | | | | | |
| Be | 0.019 | 0.073 | 0.065 | 0.084 | 0.12 | | | | | |
| Cd | 0.033 | 0.37 | 0.39 | 0.23 | 0.26 | | 0.098 | | | |
| Ca | | 23 | 19 | | | | | | | |
| Cr | 0.085 | 2.2 | 1.0 | 0.85 | 0.86 | | 0.99 | | | |
| Co | 0.018 | 0.40 | 0.49 | 0.81 | 0.97 | | | | | |
| Cu | 0.20 | 2.8 | 1.5 | | | 0.59 | 3.0 | | | |
| Fe | | 3.8 | 4.0 | | | | | | | |
| Pb | 0.036 | 1.8 | 2.0 | 1.5 | 1.5 | 1.8 | 2.6 | | | |
| Mg | | 3.6 | 4.4 | | | | | | | |
| Mn | 0.087 | 0.59 | 0.37 | 0.41 | 0.37 | | | | | |
| Hg | | | | | | | | 0.022 | 0.019 | 0.019 |
| Mo | 0.038 | 0.99 | 0.75 | | | | | | | |
| Ni | 0.077 | 0.74 | 0.62 | | | | | | | |
| K | | 3.8 | 2.8 | | | | | | | |
| Li | | 0.98 | 1.1 | | | | | | | |
| P | | | | | | | | | | |
| Se | 0.44 | 5.4 | 7.0 | | 3.5 | | 1.2 | | | |
| Si | | 2.6 | 4.2 | | | | | | | |
| Sr | 0.017 | 1.1 | 1.0 | | | | | | | |
| Sn | 0.047 | 1.7 | 1.3 | | | | | | | |
| Ag | 0.027 | 0.74 | 0.37 | 1.0 | 1.5 | | 0.24 | | | |
| Na | | 7.9 | 9.6 | | | | | | | |
| Th | 0.021 | | | | | | | | | |
| Ti | 0.42 | 1.0 | 0.91 | | | | | | | |
| Tl | 0.024 | 3.6 | 2.9 | 3.1 | 3.5 | | 0.52 | | | |
| U | 0.027 | | | | | | | | | |
| V | 0.46 | 0.68 | 0.58 | 0.79 | 1.0 | | | | | |
| Zn | 0.46 | 2.0 | 1.1 | | | | | | | |
| Zr | 0.43 | 1.4 | 1.2 | | | | | | | |
| As prep | | | | | | | 1.0 | | | |
| Se prep | | | | | | 1.5 | | | | |
| Pb (DW) | | | | | | | | | | |

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Heritage Environmental Service, LLC Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No. _____

ICP ID Number : Vista ICP #334 Date: Jul 30, 2001
Flame AA ID Number : PE FIMS-CVAA
Furnace AA ID Number : _____

| Analyte | Wave-length (nm) | Back-ground | USEPA CRDL (uG/L) | Reporting Limits (uG/L) | Calibration Standard | IDL (uG/L) | M |
|---|---|---|---|---|---|---|---|
| Aluminum | 237.312 | | 200 | 50 | 10,000 | 4.7 | P |
| Antimony | 217.582 | | 60 | 10 | 2,000 | 2.8 | P |
| Arsenic | 188.980 | | 10 | 10 | 10,000 | 4.9 | P |
| Barium | 233.527 | | 200 | 10 | 10,000 | 0.13 | P |
| Beryllium | 234.861 | | 5 | 4 | 10,000 | 0.072 | P |
| Bismuth | | | | | | | P |
| Boron | 249.772 | | | 50 | 10,000 | 8.4 | P |
| Cadmium | 228.802 | | 5 | 5 | 10,000 | 0.42 | P |
| Calcium | 315.887 | | 5000 | 100 | 100,000 | 2.9 | P |
| Chromium | 267.716 | | 10 | 10 | 10,000 | 0.26 | P |
| Cobalt | 231.160 | | 50 | 10 | 10,000 | 0.65 | P |
| Copper | 324.754 | | 25 | 20 | 10,000 | 0.63 | P |
| Iron | 261.382 | | 100 | 25 | 10,000 | 2.9 | P |
| Lead | 220.353 | | 3 | 10 | 10,000 | 1.5 | P |
| Lithium | 610.365 | | | 10 | 10,000 | 0.50 | P |
| Magnesium | 279.078 | | 5000 | 100 | 100,000 | 2.6 | P |
| Manganese | 293.305 | | 15 | 10 | 10,000 | 0.32 | P |
| Mercury ** | 253.7 | | 0.20 | 0.20 | 5.0 | 0.020 | CV |
| Molybdenu | 202.032 | | | 10 | 2,000 | 0.70 | P |
| Nickel | 221.648 | | 40 | 10 | 10,000 | 0.63 | P |
| Palladium | 340.458 | | | 1 | 10,000 | 0.84 | P |
| Potassium | 728.181 | | 5000 | 100 | 100,000 | 3.2 | P |
| Selenium | 196.026 | | 5 | 10 | 10,000 | 5.8 | P |
| Silicon | 251.611 | | | 200 | 10,000 | 2.0 | P |
| Silver | 328.068 | | 10 | 10 | 2,000 | 0.29 | P |
| Sodium | 589.592 | | 5000 | 100 | 100,000 | 0.90 | P |
| Sodium | 568.821 | | 5000 | | 100,000 | 69 | P |
| Strontium | 216.596 | | | 10 | 10,000 | 0.60 | P |
| Thallium | 190.794 | | 10 | 10 | 10,000 | 2.9 | P |
| Tin | 189.927 | | | 50 | 10,000 | 1.3 | P |
| Titanium | 322.284 | | | 10 | 10,000 | 0.67 | P |
| Uranium | | | | | | | P |
| Vanadium | 289.164 | | 50 | 10 | 10,000 | 0.73 | P |
| Yttrium | | | | 10 | | | P |
| Zinc | 206.200 | | 20 | 20 | 10,000 | 1.6 | P |
| Zirconium | 257.147 | | | 10 | 10,000 | 0.44 | P |

Comments: **Mercury on 9/24/01 (Hotblock)

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ICP LINEAR RANGES (QUARTERLY)

Lab Name: Heritage Environmental Services, LLC Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____

ICP ID Number : ICP#334 Date Aug 02, 2001

| Analyte | Integ. Time (Sec.) | Concentration (uG/L) | M |
|---|---|---|---|
| Aluminum | | 500,000 | P |
| Antimony | | 200,000 | P |
| Arsenic | | 100,000 | P |
| Barium | | 50,000 | P |
| Beryllium | | 20,000 | P |
| Boron | | 200,000 | P |
| Cadmium | | 20,000 | P |
| Calcium | | 500,000 | P |
| Chromium | | 100,000 | P |
| Cobalt | | 100,000 | P |
| Copper | | 100,000 | P |
| Iron | | 500,000 | P |
| Lead | | 100,000 | P |
| Lithium | | 20,000 | P |
| Magnesium | | 1,000,000 | P |
| Manganese | | 200,000 | P |
| Mercury | | | P |
| Molybdenu | | 50,000 | P |
| Nickel | | 100,000 | P |
| Phosphorus | | | P |
| Potassium | | 50,000 | P |
| Selenium | | 200,000 | P |
| Silicon | | 50,000 | P |
| Silver | | 5,000 | P |
| Sodium - L | | 80,000 | P |
| Sodium - H | | 500,000 | P |
| Strontium | | 100,000 | P |
| Thallium | | 100,000 | P |
| Tin | | 100,000 | P |
| Titanium | | 500,000 | P |
| Uranium | | | P |
| Vanadium | | 100,000 | P |
| Zinc | | 100,000 | P |
| Zirconium | | 100,000 | P |

Comments: _____



FORM XII - IN

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11A

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Heritage Environmental Services, LLC

ICP ID Number: ICP #334 Date: 2-Jul-01 Contract: _____

| | Interelement Correction Factors for: | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Al | As | Ba | Be | Ca | Cd | Co | Cr | Cu | Fe | K | Mg | Mn |
| Ag 328.068 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Al 237.312 | 1.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00175753 | -0.00030055 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00125178 |
| As 188.980 | 0.00000000 | 1.00000000 | 0.00000485 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00032629 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| B 249.772 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00015000 | 0.00000000 | -0.00065885 | 0.00000000 | 0.00000000 | 0.00000000 |
| Ba 233.527 | 0.00000000 | 0.00000000 | 1.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Be 234.861 | 0.00000000 | 0.00000000 | 0.00000000 | 1.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00019000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Ca 315.887 | 0.00032172 | 0.00000506 | 0.00000000 | 0.00000000 | 1.00000000 | 0.00000000 | 0.00478141 | -0.00228929 | 0.00000000 | -0.00002195 | 0.00000000 | 0.00000000 | -0.00003585 |
| Cd 228.802 | 0.00000000 | -0.00169460 | 0.00000000 | 0.00000000 | 0.00000000 | 1.00000000 | 0.00012570 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Co 231.160 | 0.00000000 | 0.00000000 | 0.00005883 | -0.00332606 | 0.00000293 | 0.00000000 | 1.00000000 | 0.00000000 | -0.00001327 | 0.00008563 | 0.00000000 | -0.00000068 | 0.00000000 |
| Cr 267.716 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 1.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00000816 |
| Cu 324.754 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00046369 | -0.00008369 | 1.00000000 | -0.00009000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Fe 261.382 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00022898 | 0.00032888 | -0.00023198 | 1.00000000 | 0.00000000 | 0.00000000 | -0.00031771 |
| K 728.181 | 0.00000000 | 0.00000000 | 0.00002241 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 1.00000000 | 0.00000000 | -0.00003920 |
| Li 610.365 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00051400 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Mg 279.078 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00022480 | 0.00000000 | 1.00000000 | -0.00074443 |
| Mn 293.305 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00005769 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 1.00000000 |
| Mo 202.032 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Na 568.821 | 0.00036438 | 0.00159043 | -0.01408331 | 0.01046699 | 0.01103974 | 0.01000651 | 0.00454407 | 0.00144168 | 0.00201798 | 0.00040562 | 0.00000000 | 0.00000000 | 0.00086380 |
| Na 589.592 | 0.00000000 | 0.00000000 | 0.02091370 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Ni 221.648 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00020205 | -0.00047138 | -0.00023646 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Pb 220.353 | 0.00019500 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00008517 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Sb 217.582 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00011700 | 0.00000000 | 0.00000000 | 0.00000000 |
| Se 196.026 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00009000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Si 251.611 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00003943 | 0.00000000 | 0.00000000 | 0.00000000 |
| Sn 189.927 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00011790 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Sr 216.596 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00006903 | 0.00023031 | 0.00000000 | 0.00000000 | 0.00000000 |
| Ti 322.284 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00015216 |
| Tl 190.794 | -0.00001611 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00348804 | 0.00000000 | 0.00000000 | -0.00013642 | 0.00000000 | 0.00000000 | 0.00050601 |
| V 289.164 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00221619 | 0.00000000 | 0.00004111 | 0.00000000 | 0.00000000 | -0.00293941 |
| Zn 206.200 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00301333 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Zr 257.147 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00003763 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |



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11A

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Heritage Environmental Services, LLC

ICP ID Number: ICP #334 Date: 2-Jul-01 Contract: _____

| | Interelement Correction Factors for: | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Mo | Na | Ni | Pb | Sb | Si | Sn | Sr | Ti | V | Zn | Zr |
| Ag 328.068 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000063 | 0.00299269 |
| Al 237.312 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00406239 |
| As 188.980 | 0.00031791 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00001243 | 0.00000000 | 0.00000000 | 0.00000000 |
| B 249.772 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Ba 233.527 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00013182 | 0.00000000 | 0.00000000 |
| Be 234.861 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Ca 315.887 | 0.00043357 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00018208 | 0.00243502 | 0.00000000 | -0.00972800 |
| Cd 228.802 | 0.00000000 | 0.00000000 | 0.00005907 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Co 231.160 | 0.00000000 | 0.00000000 | 0.00025609 | 0.00000000 | 0.00815273 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Cr 267.716 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Cu 324.754 | 0.00029489 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Fe 261.382 | -0.00041943 | 0.00000000 | 0.00000000 | -0.00815835 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00197151 | 0.00000000 | 0.00000000 | 0.00000000 |
| K 728.181 | 0.00014288 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00137365 | 0.00000000 | 0.00000000 | 0.00000000 |
| Li 610.365 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Mg 279.078 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Mn 293.305 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Mo 202.032 | 1.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Na 568.821 | -0.04691328 | 1.00000000 | 0.00185415 | 0.00165872 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00204829 | 0.00000000 | 0.00000000 | 0.01401101 |
| Na 589.592 | 0.00000000 | 1.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Ni 221.648 | 0.00000000 | 0.00000000 | 1.00000000 | 0.00000000 | 0.00000000 | 0.00224011 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Pb 220.353 | -0.00265755 | 0.00000000 | 0.00004364 | 1.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00006393 | 0.00001324 |
| Sb 217.582 | 0.00000000 | 0.00000000 | -0.00082502 | -0.00048330 | 1.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Se 196.026 | 0.00000000 | 0.00000000 | -0.00003712 | -0.00004515 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00012921 |
| Si 251.611 | 0.00000000 | 0.00000000 | 0.00002065 | -0.00000655 | 0.00000000 | 1.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00048460 | 0.00000000 |
| Sn 189.927 | 0.00000000 | 0.00000000 | -0.00008490 | -0.00002726 | 0.00000000 | 0.00000000 | 1.00000000 | 0.00000000 | 0.00038755 | 0.00000000 | 0.00000000 | 0.00039923 |
| Sr 216.596 | 0.00000000 | 0.00000000 | -0.00050717 | -0.00000531 | 0.00000000 | 0.00000000 | 0.00000000 | 1.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 |
| Ti 322.284 | 0.00105338 | 0.00000000 | 0.00001183 | 0.00001159 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 1.00000000 | 0.00000000 | 0.00000000 | 0.00026970 |
| Tl 190.794 | -0.00202182 | 0.00000000 | 0.00000757 | 0.00002644 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00143841 | 0.00215374 | 0.00000000 | 0.00000000 |
| V 289.164 | -0.00068345 | 0.00000000 | 0.00000464 | 0.00000598 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | -0.00018389 | 1.00000000 | 0.00000000 | 0.00109712 |
| Zn 206.200 | 0.00050860 | 0.00000000 | 0.00002909 | 0.00002033 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 0.00000000 | 1.00000000 | 0.00000000 |
| Zr 257.147 | 0.00000000 | 0.00000000 | 0.00000448 | -0.00000320 | 0.00000000 | 0.00000000 | 0.00039381 | 0.00000000 | -0.00086939 | 0.00000000 | -0.00000299 | 1.00000000 |

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Heritage Environmental Services, LLC Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No. _____

ICP ID Number : TRACE Date: 1/3/02
Flame AA ID Number : _____
Furnace AA ID Number : _____

| Analyte | Wave-length (nm) | Back-ground | USEPA CRDL (uG/L) | Laboratory Reporting Limits (uG/L) | High Calibration Standard | IDL (uG/L) | M |
|---|---|---|---|---|---|---|---|
| Aluminum | 308.2 | | | | 500,000 | 27 | P |
| Antimony | 206.8 | | 5.0 | 5.0 | 500 | 3.3 | P |
| Arsenic | 189.0 | | 10 | 5.0 | 500 | 2.8 | P |
| Barium | | | | | | | |
| Beryllium | 313.0 | | | 1.0 | 500 | 0.086 | P |
| Cadmium | 226.5 | | 5.0 | 1.0 | 500 | 0.20 | P |
| Calcium | 317.9 | | | | 500,000 | 5.6 | P |
| Chromium | 267.7 | | | 2.0 | 500 | 0.73 | P |
| Cobalt | 228.6 | | | 1.0 | 500 | 0.82 | P |
| Copper | | | | | | | |
| Iron | 271.4 | | | | 200,000 | 20 | P |
| Lead | 220.3 | | 3.0 | 5.0 | 500 | 1.6 | P |
| Magnesiu | 279.0 | | | | 500,000 | 6.2 | P |
| Manganese | 257.6 | | | 2.0 | 500 | 0.40 | P |
| Mercury | | | | | | | |
| Nickel | | | | | | | |
| Potassium | | | | | | | |
| Selenium | 196.0 | | 5.0 | 5.0 | 500 | 3.2 | P |
| Silver | 328.0 | | | 2.0 | 500 | 0.89 | P |
| Sodium | | | | | | | |
| Thallium | 190.8 | | 10 | 10 | 500 | 2.0 | P |
| Vanadium | 292.4 | | | 1.0 | 500 | 0.81 | P |
| Zinc | | | | | | | |

Comments: _____

FORM X - IN

U. S. EPA -CLP

11A

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Heritage Environmental Services, LLC Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____

ICP ID Number : TRACE Date: Sep 06, 2001

| Interelement Correction Factors for: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | length (nm) | Co | Fe | Mg | Al | Mn | V | Cr |
| Aluminum | 308.2 | | -7E-06 | | | | | |
| Antimony | 206.8 | | 3.1E-05 | | 0.000013 | | -0.00148 | 0.00573 |
| Arsenic | 189.0 | | | | | | | |
| Barium | | | | | | | | |
| Beryllium | 313.0 | | | | | | 0.000978 | |
| Cadmium-1 | 226.5 | | 0.00005 | | 0.00002 | | | |
| Calcium | 317.9 | | | | | | | |
| Chromium | 267.7 | | -2E-06 | 0.000005 | | 0.000197 | 0.000153 | |
| Cobalt | 228.6 | | 1E-06 | | -0.000004 | | | 0.00021 |
| Copper | | | | | | | | |
| Iron | 271.4 | | | | | | | |
| Lead-1 | 220.3 | -0.00469 | 0.0008 | | 0.000502 | | | |
| Magnesium | 279.0 | | | | | | | |
| Manganese | 257.6 | | | | 0.00002 | | 0.001461 | 0.00102 |
| Mercury | | | | | | | | |
| Nickel | | | | | | | | |
| Potassium | | | | | | | | |
| Selenium-1 | 196.0 | | -0.00012 | | | | | |
| Silver | 328.0 | | -0.00031 | | -0.00003 | | | |
| Sodium | | | | | | | | |
| Thallium | 190.8 | 0.00344 | -0.00013 | | -0.000012 | | 0.001857 | |
| Vanadium | 292.4 | | -3.4E-05 | | | | | -0.00268 |
| Cadmium-2 | 226.5 | | 9.1E-05 | | | | | |
| Lead-2 | 220.3 | | | 0.000008 | -0.0003 | | | |
| Selenium-2 | 196.0 | | -0.00035 | | | 0.00057 | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Comments: Al and Fe IECs are generally run on a more frequent basis.

FORM XI (Part 1) - IN

U. S. EPA -CLP

11A

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Heritage Environmental Services, LLC Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____

ICP ID Number : TRACE Date: Sep 06, 2001

| Interelement Correction Factors for: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | length (nm) | | As | Sb | Ca | Tl | Cd | |
| Aluminum | 308.2 | | | | | | | |
| Antimony | 206.8 | | | | | | | |
| Arsenic | 189.0 | | | | | | | |
| Barium | | | | | | | | |
| Beryllium | 313.0 | | | | | | | |
| Cadmium-1 | 226.5 | | | | | | | |
| Calcium | 317.9 | | | | | | | |
| Chromium | 267.7 | | | | | | | |
| Cobalt | 228.6 | | 0.00013 | 0.001617 | | 0.000484 | -0.00045 | |
| Copper | | | | | | | | |
| Iron | 271.4 | | | | | | | |
| Lead-1 | 220.3 | | | | -0.000007 | | | |
| Magnesium | 279.0 | | | | | | | |
| Manganese | 257.6 | | 0.00278 | 0.001617 | | 0.012099 | | |
| Mercury | | | | | | | | |
| Nickel | | | | | | | | |
| Potassium | | | | | | | | |
| Selenium-1 | 196.0 | | | | | | | |
| Silver | 328.0 | | | | | | | |
| Sodium | | | | | | | | |
| Thallium | 190.8 | | | | | | | |
| Vanadium | 292.4 | | | | | | | |
| Cadmium-2 | 226.5 | | | | | | | |
| Lead-2 | 220.3 | | | | | | | |
| Selenium-2 | 196.0 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Comments: Al and Fe IECs are generally run on a more frequent basis.

FORM XI (Part 2) - IN

U. S. EPA -CLP

12
ICP LINEAR RANGES (QUARTERLY)

Lab Name: Heritage Environmental Services, LLC Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____

ICP ID Number : TRACE Date Jan. 10, 2002

| Analyte | Integ. Time (Sec.) | Concentration (uG/L) | M |
|---|---|---|---|
| Aluminum | 15 | 500,000 | P |
| Antimony | 15 | 10,000 | P |
| Arsenic | 15 | 10,000 | P |
| Barium | | | |
| Beryllium | 15 | 1,000 | P |
| Cadmium | 15 | 1,000 | P |
| Calcium | 15 | 500,000 | P |
| Chromium | 15 | 5,000 | P |
| Cobalt | 15 | 1,000 | P |
| Copper | | | |
| Iron | 15 | 500,000 | P |
| Lead | 15 | 10,000 | P |
| Magnesiu | 15 | 500,000 | P |
| Manganese | 15 | 1,000 | P |
| Mercury | | | |
| Nickel | | | |
| Potassium | | | |
| Selenium | 15 | 5,000 | P |
| Silver | 15 | 1,000 | P |
| Sodium | | | |
| Thallium | 15 | 10,000 | P |
| Vanadium | 15 | 5,000 | P |
| Zinc | | | |

Comments: _____

FORM XII - IN

MTO PREP SHEET Method: EPA 200.0
Prep Worksheet for Run: R426208 Instrument: 275 Page: 1

Analyst M/A/H #1747 Reviewed ___/___/___ #_____ Recorded ___/___/___ #_____
Date 1/14/01 Start 1000 Stop 1500 Date ___/___/___ Date ___/___/___

| SAMPLE | TEST | Initial Wt/Vol | Final Volume | DUE | SUBMITTER | CONTAINER ID | AN_REP | ELEMENT |
|---|---|---|---|---|---|---|---|---|
| Q1325137 | BLA02 | 50mL | 50mL | | MILLI-Q | | | |
| Q1325140 | LCS | | | | ICP-11493-2.5mL | | SPIKES 0.5mL | 11413, 11485, 11412 |
| Q1325141 | SPI02 | | | | A581216 | | | |
| Q1325142 | DPS02 | | | | A581216 | | | |
| A581214 | P129.2.0 | | | 30-JAN | IDEM - OFFICE | DK27428 | ICP.0 | B Ba Ca Cu Fe K Mg Na |
| | P129.2.0 | | | 30-JAN | IDEM - OFFICE | ↓ | TRACE.0 | As Pb |
| A581215 | P129.2.0 | | | 30-JAN | IDEM - OFFICE | DK27429 | ICP.0 | B Ba Ca Cu Fe K Mg Na |
| | P129.2.0 | | | 30-JAN | IDEM - OFFICE | ↓ | TRACE.0 | As Pb |
| A581216 | P129.2.0 | | | 30-JAN | IDEM - OFFICE | DK27430 | ICP.0 | B Ba Ca Cd Cr Cu Fe K Mg Na Ni Sb |
| | P129.2.0 | | | 30-JAN | IDEM - OFFICE | ↓ | TRACE.0 | As Be Pb |
| A581217 | P129.2.0 | | | 30-JAN | IDEM - OFFICE | DK27431 | ICP.0 | B Ba Ca Cd Cr Cu Fe K Mg Na Ni Sb |
| | P129.2.0 | | | 30-JAN | IDEM - OFFICE | ↓ | TRACE.0 | As Be Pb |
| A581218 | P129.2.0 | | | 30-JAN | IDEM - OFFICE | DK27432 | ICP.0 | B Ba Ca Cd Cr Cu Fe K Mg Na Ni Sb |
| | P129.2.0 | | | 30-JAN | IDEM - OFFICE | ↓ | TRACE.0 | As Be Pb |
| [redacted]325143 | BLA02 | | | | MILLI-Q | | | |
| Q1325144 | LCS | | | | TRACE-11451-2.5mL | | | |
| Q1325145 | SPI02 | | | | A581216 | | | |
| Q1325146 | DPS02 | | | | A581216 | | | |

COPY

HNO3 Fisher 1101080 H2O2 Fisher _____ HCL Fisher 4101050 Balance# _____

1+1 HNO3 _____ 1+1 HCl _____ HotBlock X HotPlate _____ WaterBath _____ Digestion Temperature ~95C

(runprep.sql)

MTO PREP SHEET Method: EPA 245.1 REV. 3.0

Prep Worksheet for Run: R426247 Instrument: 275 Page: 1

Analyst JJS/O #1703 Reviewed ___/___/___ #_____ Recorded ___/___/___ #_____

Date 1/14/02 Start 12:30 Stop 15:30 Date ___/___/___ Date ___/___/___

| SAMPLE | TEST | Initial Wt/Vol | Final Volume | DUE | SUBMITTER | CONTAINER ID | AN_REP | ELEMENT |
|---|---|---|---|---|---|---|---|---|
| Q1325275 | LCS | 40ml | 40ml | | #11588 | 80µl | | |
| Q1325276 | BLA02 | | | | | | | |
| Q1325277 | SPI02 | | | | A581216 | >#11590 400µl | | |
| Q1325278 | DPS02 | | | | A581216 | | | |
| A581216 | P131.2.0 | | | 30-JAN | IDEM - OFFICE | DK 27430 | CVAA.0 | Hg |
| A581217 | P131.2.0 | | | 30-JAN | IDEM - OFFICE | DK 27431 | CVAA.0 | Hg |
| A581218 | P131.2.0 | | | 30-JAN | IDEM - OFFICE | DK 27432 | CVAA.0 | Hg |
| A581207 | P131.2.0 | | | [redacted] | | 8333 | CVAA.0 | Hg |
| A581208 | P131.2.0 | | | [redacted] | | 8343 | CVAA.0 | Hg |
| A581210 | P131.2.0 | | | [redacted] | | 8337 | CVAA.0 | Hg |
| A581211 | P131.2.0 | | | [redacted] | | 8346 | CVAA.0 | Hg |
| A581212 | P131.2.0 | | | [redacted] | | 8349 | CVAA.0 | Hg |
| A581282 | P131.2.0 | | | [redacted] | | PJ #1 | CVAA.0 | Hg |

HNO3 Fisher 1101060 H2O2 Fisher _____ $H_2SO_4$ ~~HCL~~ Fisher 319091 Balance# _____

1+1 HNO3_____ 1+1 HCl_____ HotBlock ✓ HotPlate_____ WaterBath_____ Digestion Temperature 95°

(runprep.sql)

29

**Blank (Blk)** 1/14/02, 10:51:01 PM Rack 1, Tube 1

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -20.456 | -8.1860 | -11.121 |
| Al | 237.312 | -2.4702 | 0.62496 | -1.2049 |
| As | 188.980 | -0.38768 | 1.1817 | -1.0401 |
| B | 249.772 | 18.317 | 14.085 | 16.109 |
| Ba | 233.527 | 77.037 | 76.213 | 84.244 |
| Be | 234.861 | -0.31787 | 2.1349 | 3.4827 |
| Ca | 315.887 | 160.23 | 162.74 | 162.52 |
| Cd | 228.802 | -0.024623 | -4.3001 | -2.3511 |
| Co | 231.160 | 16.772 | 6.5882 | 13.352 |
| Cr | 267.716 | 7.4226 | 9.9242 | 3.0666 |
| Cu | 324.754 | 125.40 | 132.48 | 127.07 |
| Fe | 261.382 | 15.575 | 16.066 | 17.073 |
| K | 728.181 | 27.013 | 23.863 | 14.975 |
| Li | 610.365 | 1136.5 | 1113.1 | 1112.1 |
| Mg | 279.078 | 2.1898 | 3.8651 | 0.73442 |
| Mn | 293.305 | 16.036 | 14.277 | 11.619 |
| Mo | 202.032 | 4.9472 | 5.4122 | 5.8979 |
| Na | 589.592 | 873.15 | 876.51 | 903.72 |
| Na | 568.821 | -470.38 | -445.93 | -436.98 |
| Ni | 221.648 | 0.79861 | -1.3712 | -1.5513 |
| Pb | 220.353 | 0.97523 | -1.3943 | 0.010202 |
| Sb | 217.582 | -0.64614 | -3.3791 | -3.2402 |
| Se | 196.026 | 1.0761 | -0.39264 | -0.10189 |
| Si | 251.611 | 46.641 | 46.698 | 45.046 |
| Sn | 189.927 | 1.3746 | -0.70238 | 1.2510 |
| Sr | 216.596 | 3.0502 | -0.057408 | 3.3360 |
| Ti | 322.284 | 75.397 | 78.664 | 76.600 |
| Tl | 190.794 | -3.5710 | 1.0942 | -0.51771 |
| V | 289.164 | -1.6346 | -1.7445 | -8.5392 |
| Y | 361.104 | 170398 | 171237 | 172485 |
| Zn | 206.200 | 1.2472 | 1.3613 | 0.26659 |
| Zr | 257.147 | 4.9004 | 13.838 | 15.925 |

| El | Wavelen. | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.000000 | ppm | 6.407 | 48.3 | -13.254 |
| Al | 237.312 | 0.000000 | ppm | 1.556 | 153.1 | -1.0167 |
| As | 188.980 | 0.000000 | ppm | 1.142 | 1392.2 | -0.082034 |
| B | 249.772 | 0.000000 | ppm | 2.116 | 13.1 | 16.170 |

ICP #334 1/14/02

CCV=S11513
DLS=S11564
CDL01=S11524
HMCS=STD2
ICS-A=S11515
ICS-AB=S11527

ICV01-19=S11514
ICV01-07=S11459
ICV01-31=S11526

STD2=S11371
MADE 10-30-01

STD3=S11525
MADE 12-20-01

STD4=S11516
MADE 12-18-01

STD3X=S11461

JPK #3506

020114JPKV

AS81214-215 B Ba Ca Cu Fe K Mg Na

AS81216-218
B Ba Ca Cd Cr Cu Fe K Mg Na Ni Sb
dilute 214(Na,K); 215,217,218(Na)
SOE 1-15-02



| El | Wavelen. | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|---|
| Ba | 233.527 | 0.000000 | ppm | 4.418 | 5.6 | 79.165 |
| Be | 234.861 | 0.000000 | ppm | 1.927 | 109.1 | 1.7666 |
| Ca | 315.887 | 0.000000 | ppm | 1.389 | 0.9 | 161.83 |
| Cd | 228.802 | 0.000000 | ppm | 2.141 | 96.2 | -2.2253 |
| Co | 231.160 | 0.000000 | ppm | 5.183 | 42.4 | 12.238 |
| Cr | 267.716 | 0.000000 | ppm | 3.470 | 51.0 | 6.8045 |
| Cu | 324.754 | 0.000000 | ppm | 3.698 | 2.9 | 128.32 |
| Fe | 261.382 | 0.000000 | ppm | 0.763 | 4.7 | 16.238 |
| K | 728.181 | 0.000000 | ppm | 6.243 | 28.4 | 21.951 |
| Li | 610.365 | 0.000000 | ppm | 13.789 | 1.2 | 1120.6 |
| Mg | 279.078 | 0.000000 | ppm | 1.567 | 69.2 | 2.2631 |
| Mn | 293.305 | 0.000000 | ppm | 2.224 | 15.9 | 13.977 |
| Mo | 202.032 | 0.000000 | ppm | 0.475 | 8.8 | 5.4191 |
| Na | 589.592 | 0.000000 | ppm | 16.762 | 1.9 | 884.46 |
| Na | 568.821 | 0.000000 | ppm | 17.291 | 3.8 | -451.10 |
| Ni | 221.648 | 0.000000 | ppm | 1.308 | 184.7 | -0.70798 |
| Pb | 220.353 | 0.000000 | ppm | 1.192 | 874.3 | -0.13627 |
| Sb | 217.582 | 0.000000 | ppm | 1.539 | 63.6 | -2.4218 |
| Se | 196.026 | 0.000000 | ppm | 0.778 | 401.2 | 0.19384 |
| Si | 251.611 | 0.000000 | ppm | 0.938 | 2.0 | 46.129 |
| Sn | 189.927 | 0.000000 | ppm | 1.165 | 181.7 | 0.64109 |
| Sr | 216.596 | 0.000000 | ppm | 1.882 | 89.2 | 2.1096 |
| Ti | 322.284 | 0.000000 | ppm | 1.652 | 2.1 | 76.887 |
| Tl | 190.794 | 0.000000 | ppm | 2.369 | 237.4 | -0.99818 |
| V | 289.164 | 0.000000 | ppm | 3.955 | 99.6 | -3.9727 |
| Zn | 206.200 | 0.000000 | ppm | 0.602 | 62.8 | 0.95839 |
| Zr | 257.147 | 0.000000 | ppm | 5.856 | 50.7 | 11.554 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.000000 | 171373 | 1050.174 | 0.6 |

AS81139; 156-158 Li
(R0 totals)

AS81156-159 Li
(R1 dissolved)

**Standard 2 (Std)** 1/14/02, 10:54:17 PM Rack 1, Tube 2

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 54004 | 54298 | 54426 |
| Al | 237.312 | 4767.5 | 4814.2 | 4817.4 |
| As | 188.980 | 3205.9 | 3227.7 | 3262.2 |
| B | 249.772 | 100189 | 100858 | 99706 |
| Ba | 233.527 | 350011 | 352578 | 354134 |
| Be | 234.861 | 482131 | 485042 | 488202 |

40

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Cd | 228.802 | 72956 | 72759 | 73699 |
| Co | 231.160 | 53551 | 53936 | 54075 |
| Cr | 267.716 | 265077 | 267303 | 268094 |
| Cu | 324.754 | 281613 | 285637 | 285155 |
| Fe | 261.382 | 15124 | 15228 | 15269 |
| Li | 610.365 | 401448 | 403376 | 404223 |
| Mn | 293.305 | 116360 | 117269 | 117675 |
| Ni | 221.648 | 14471 | 14594 | 14616 |
| Pb | 220.353 | 16206 | 16323 | 16367 |
| Se | 196.026 | 2324.9 | 2354.7 | 2353.4 |
| Sr | 216.596 | 54291 | 54804 | 54880 |
| Tl | 190.794 | 4646.2 | 4684.7 | 4690.3 |
| V | 289.164 | 58947 | 59428 | 59586 |
| Y | 361.104 | 168751 | 170566 | 169684 |
| Zn | 206.200 | 9873.5 | 9941.0 | 9956.7 |
| Zr | 257.147 | 94053 | 94837 | 95038 |

| El | Wavelen. | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|---|
| Ag | 328.068 | 2.0000 | ppm | 216.529 | 0.4 | 54243 |
| Al | 237.312 | 10.000 | ppm | 27.974 | 0.6 | 4799.7 |
| As | 188.980 | 10.000 | ppm | 28.397 | 0.9 | 3232.0 |
| B | 249.772 | 10.000 | ppm | 578.628 | 0.6 | 100251 |
| Ba | 233.527 | 10.000 | ppm | 2082.356 | 0.6 | 352241 |
| Be | 234.861 | 10.000 | ppm | 3035.949 | 0.6 | 485125 |
| Cd | 228.802 | 10.000 | ppm | 503.440 | 0.7 | 73132 |
| Co | 231.160 | 10.000 | ppm | 271.332 | 0.5 | 53854 |
| Cr | 267.716 | 10.000 | ppm | 1564.369 | 0.6 | 266825 |
| Cu | 324.754 | 10.000 | ppm | 2197.138 | 0.8 | 284135 |
| Fe | 261.382 | 10.000 | ppm | 74.869 | 0.5 | 15207 |
| Li | 610.365 | 10.000 | ppm | 1422.111 | 0.4 | 403016 |
| Mn | 293.305 | 10.000 | ppm | 673.291 | 0.6 | 117101 |
| Ni | 221.648 | 10.000 | ppm | 78.081 | 0.5 | 14561 |
| Pb | 220.353 | 10.000 | ppm | 83.488 | 0.5 | 16299 |
| Se | 196.026 | 10.000 | ppm | 16.822 | 0.7 | 2344.4 |
| Sr | 216.596 | 10.000 | ppm | 320.408 | 0.6 | 54658 |
| Tl | 190.794 | 10.000 | ppm | 24.004 | 0.5 | 4673.7 |
| V | 289.164 | 10.000 | ppm | 332.505 | 0.6 | 59320 |
| Zn | 206.200 | 10.000 | ppm | 44.194 | 0.4 | 9923.8 |
| Zr | 257.147 | 10.000 | ppm | 520.233 | 0.5 | 94643 |



| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0000 | 169667 | 907.478 | 0.5 |

**Standard 4 (Std)** **1/14/02, 10:57:33 PM** **Rack 1, Tube 3**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Mo | 202.032 | 8696.3 | 8798.4 | 8835.5 |
| Sb | 217.582 | 1099.0 | 1105.9 | 1104.5 |
| Si | 251.611 | 19911 | 19953 | 19977 |
| Sn | 189.927 | 8595.2 | 8594.3 | 8541.4 |
| Ti | 322.284 | 74530 | 74848 | 74918 |
| Y | 361.104 | 176499 | 177569 | 179103 |

| El | Wavelen. | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|---|
| Mo | 202.032 | 2.0000 | ppm | 72.090 | 0.8 | 8776.8 |
| Sb | 217.582 | 2.0000 | ppm | 3.677 | 0.3 | 1103.1 |
| Si | 251.611 | 10.000 | ppm | 33.595 | 0.2 | 19947 |
| Sn | 189.927 | 10.000 | ppm | 30.826 | 0.4 | 8577.0 |
| Ti | 322.284 | 10.000 | ppm | 206.641 | 0.3 | 74765 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0475 | 177724 | 1309.200 | 0.7 |

**Standard 3 (Std)** **1/14/02, 11:00:49 PM** **Rack 1, Tube 4**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| K | 728.181 | 30627 | 30728 | 31097 |
| Na | 589.592 | 964169 | 966373 | 975367 |
| Na | 568.821 | 1986.5 | 1994.1 | 1985.5 |
| Y | 361.104 | 183743 | 182379 | 180558 |

| El | Wavelen. | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|---|
| K | 728.181 | 10.000 | ppm | 247.607 | 0.8 | 30817 |
| Na | 589.592 | 10.000 | ppm | 5932.539 | 0.6 | 968636 |
| Na | 568.821 | 10.000 | ppm | 4.681 | 0.2 | 1988.7 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0740 | 182227 | 1597.904 | 0.9 |

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Std 3 10 X (Std) 1/14/02, 11:04:06 PM Rack 1, Tube 5

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ca | 315.887 | 542008 | 541397 | 541606 |
| K | 728.181 | 330837 | 330617 | 332891 |
| Mg | 279.078 | 85772 | 85606 | 85954 |
| Na | 589.592 | 10569011 | 10514199 | 10571004 |
| Na | 568.821 | 24601 | 24581 | 24710 |
| Y | 361.104 | 172529 | 172651 | 171823 |

| El | Wavelen. | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|---|
| Ca | 315.887 | 100.00 | ppm | 310.416 | 0.1 | 541670 |
| K | 728.181 | 100.00 | ppm | 1254.502 | 0.4 | 331449 |
| Mg | 279.078 | 100.00 | ppm | 173.716 | 0.2 | 85777 |
| Na | 589.592 | 100.00 | ppm | 32236.459 | 0.3 | 10551405 |
| Na | 568.821 | 100.00 | ppm | 69.407 | 0.3 | 24631 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0157 | 172334 | 446.899 | 0.3 |

**Ag 328.068 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -13.254 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 54243 | 2.0000 | 2.0000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 27128 x + -13.2544

**Al 237.312 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -1.0167 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 4799.7 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 480.072 x + -1.01671

**As 188.980 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -0.082034 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 3232.0 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 323.203 x + -0.0820337

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**B 249.772 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 16.170 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 100251 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 10023.5 x + 16.1704

**Ba 233.527 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 79.165 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 352241 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 35216.2 x + 79.1646

**Be 234.861 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 1.7666 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 485125 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 48512.3 x + 1.76656

**Ca 315.887 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 161.83 | 0.000000 | 0.000000 | - | - |
| Std 3 10 X | | 541670 | 100.00 | 100.00 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 5415.09 x + 161.829

**Cd 228.802 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -2.2253 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 73132 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 7313.38 x + -2.22526

**Co 231.160 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 12.238 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 53854 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 5384.17 x + 12.2375

**Cr 267.716 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 6.8045 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 266825 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 26681.8 x + 6.80445

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**Cu 324.754 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 128.32 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 284135 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 28400.7 x + 128.315

**Fe 261.382 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 16.238 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 15207 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 1519.05 x + 16.2379

**K 728.181 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 21.951 | 0.000000 | 0.000000 | - | - |
| Standard 3 | | 30817 | 10.000 | 10.000 | 0.000000 | 0.0 |
| Std 3 10 X | | 331449 | 100.00 | 100.00 | 0.000000 | 0.0 |

Curve Type: Quadratic Equation: $y = 2.60839 x^2 + 3053.43 x + 21.9505$

**Li 610.365 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 1120.6 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 403016 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 40189.5 x + 1120.57

**Mg 279.078 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 2.2631 | 0.000000 | 0.000000 | - | - |
| Std 3 10 X | | 85777 | 100.00 | 100.00 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 857.752 x + 2.26314

**Mn 293.305 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 13.977 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 117101 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 11708.7 x + 13.9773



**Mo 202.032 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 5.4191 | 0.000000 | 0.000000 | - | - |
| Standard 4 | | 8776.8 | 2.0000 | 2.0000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 4385.67 x + 5.41911

**Na 589.592 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 884.46 | 0.000000 | 0.000000 | - | - |
| Standard 3 | | 968636 | 10.000 | 10.000 | 0.000000 | 0.0 |
| Std 3 10 X | | 10551405 | 100.00 | 100.00 | 0.000000 | 0.0 |

Curve Type: Quadratic Equation: $y = 97.0002 x^2 + 95805.2 x + 884.458$

**Na 568.821 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -451.10 | 0.000000 | 0.30219 | - | - |
| Standard 3 | | 1988.7 | 10.000 | 10.000 | 0.000000 | 0.0 |
| Std 3 10 X | | 24631 | 100.00 | 100.00 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 251.581 x + -527.121

**Ni 221.648 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -0.70798 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 14561 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 1456.12 x + -0.707981

**Pb 220.353 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -0.13627 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 16299 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 1629.88 x + -0.136274

**Sb 217.582 Calibration (ppm)** 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -2.4218 | 0.000000 | 0.000000 | - | - |
| Standard 4 | | 1103.1 | 2.0000 | 2.0000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 552.781 x + -2.42179

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Se 196.026 Calibration (ppm) 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 0.19384 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 2344.4 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 234.416 x + 0.193841

Si 251.611 Calibration (ppm) 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 46.129 | 0.000000 | 0.000000 | - | - |
| Standard 4 | | 19947 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 1990.1 x + 46.1285

Sn 189.927 Calibration (ppm) 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 0.64109 | 0.000000 | 0.000000 | - | - |
| Standard 4 | | 8577.0 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 857.634 x + 0.641092

Sr 216.596 Calibration (ppm) 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 2.1096 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 54658 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 5465.63 x + 2.10957

Ti 322.284 Calibration (ppm) 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 76.887 | 0.000000 | 0.000000 | - | - |
| Standard 4 | | 74765 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 7468.83 x + 76.8871

Tl 190.794 Calibration (ppm) 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -0.99818 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 4673.7 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 467.473 x + -0.998184

V 289.164 Calibration (ppm) 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -3.9727 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 59320 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 5932.44 x + -3.97274



Zn 206.200 Calibration (ppm) 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 0.95839 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 9923.8 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 992.281 x + 0.958392

Zr 257.147 Calibration (ppm) 1/14/02, 11:04:06 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 11.554 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 94643 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 9463.11 x + 11.5543

CCV (CCV) 1/14/02, 11:07:23 PM Rack 1, Tube 6

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 28644 | 28698 | 28682 |
| Al | 237.312 | 2524.1 | 2539.4 | 2533.8 |
| As | 188.980 | 1749.0 | 1740.1 | 1736.3 |
| B | 249.772 | 20997 | 21088 | 21133 |
| Ba | 233.527 | 185676 | 186017 | 185850 |
| Be | 234.861 | 257725 | 257743 | 257677 |
| Ca | 315.887 | 285542 | 285777 | 285471 |
| Cd | 228.802 | 38541 | 38830 | 38717 |
| Co | 231.160 | 28222 | 28220 | 28248 |
| Cr | 267.716 | 139910 | 140194 | 140183 |
| Cu | 324.754 | 147029 | 147236 | 147026 |
| Fe | 261.382 | 7875.8 | 7897.5 | 7896.0 |
| K | 728.181 | 174284 | 174382 | 174265 |
| Li | 610.365 | 210981 | 210832 | 210964 |
| Mg | 279.078 | 44129 | 44117 | 44148 |
| Mn | 293.305 | 61578 | 61684 | 61629 |
| Mo | 202.032 | 4436.9 | 4457.3 | 4477.5 |
| Na | 589.592 | 5547645 | 5560795 | 5603962 |
| Na | 568.821 | 12185 | 12278 | 12288 |
| Ni | 221.648 | 7626.0 | 7633.0 | 7620.5 |
| Pb | 220.353 | 8587.0 | 8586.8 | 8584.9 |
| Sb | 217.582 | 557.44 | 570.23 | 568.31 |
| Se | 196.026 | 1245.3 | 1256.0 | 1256.5 |
| Si | 251.611 | 10322 | 10412 | 10466 |

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Sn | 189.927 | 4357.8 | 4374.2 | 4369.5 |
| Sr | 216.596 | 29304 | 29524 | 29203 |
| Ti | 322.284 | 36934 | 37003 | 36994 |
| Tl | 190.794 | 2421.4 | 2423.7 | 2436.5 |
| V | 289.164 | 30988 | 31093 | 31058 |
| Y | 361.104 | 170410 | 170692 | 170647 |
| Zn | 206.200 | 5295.6 | 5307.8 | 5301.3 |
| Zr | 257.147 | 50400 | 50500 | 50497 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 1.0447 | ppm | 0.001011 | 0.1 | 28675 | 1.0447 ppm | Y 361.104 | 104.47012 |
| Al | 237.312 | 5.2585 | ppm | 0.016034 | 0.3 | 2532.4 | 5.2585 ppm | Y 361.104 | 105.16953 |
| As | 188.980 | 5.3876 | ppm | 0.020284 | 0.4 | 1741.8 | 5.3876 ppm | Y 361.104 | 107.75207 |
| B | 249.772 | 2.1044 | ppm | 0.006897 | 0.3 | 21072 | 2.1044 ppm | Y 361.104 | 105.21857 |
| Ba | 233.527 | 5.2751 | ppm | 0.004845 | 0.1 | 185848 | 5.2751 ppm | Y 361.104 | 105.50186 |
| Be | 234.861 | 5.3132 | ppm | 0.000695 | 0.0 | 257715 | 5.3132 ppm | Y 361.104 | 106.26343 |
| Ca | 315.887 | 52.730 | ppm | 0.029627 | 0.1 | 285597 | 52.730 ppm | Y 361.104 | 105.46062 |
| Cd | 228.802 | 5.2983 | ppm | 0.019903 | 0.4 | 38696 | 5.2983 ppm | Y 361.104 | 105.96610 |
| Co | 231.160 | 5.2483 | ppm | 0.002850 | 0.1 | 28230 | 5.2483 ppm | Y 361.104 | 104.96548 |
| Cr | 267.716 | 5.2504 | ppm | 0.006043 | 0.1 | 140096 | 5.2504 ppm | Y 361.104 | 105.00728 |
| Cu | 324.754 | 5.1777 | ppm | 0.004240 | 0.1 | 147097 | 5.1777 ppm | Y 361.104 | 103.55328 |
| Fe | 261.382 | 5.2290 | ppm | 0.007993 | 0.2 | 7889.8 | 5.2290 ppm | Y 361.104 | 104.58096 |
| K | 728.181 | 54.533 | ppm | 0.018763 | 0.0 | 174310 | 54.533 ppm | Y 361.104 | 109.06529 |
| Li | 610.365 | 5.2432 | ppm | 0.002030 | 0.0 | 210926 | 5.2432 ppm | Y 361.104 | 104.78778 |
| Mg | 279.078 | 51.447 | ppm | 0.018310 | 0.0 | 44131 | 51.447 ppm | Y 361.104 | 102.89439 |
| Mn | 293.305 | 5.2624 | ppm | 0.004531 | 0.1 | 61630 | 5.2624 ppm | Y 361.104 | 105.24886 |
| Mo | 202.032 | 1.0151 | ppm | 0.004628 | 0.5 | 4457.2 | 1.0151 ppm | Y 361.104 | 101.50771 |
| Na | 589.592 | 54.969 | ppm | 0.27664 | 0.5 | 5570801 | 54.969 ppm | Y 361.104 | 109.93708 |
| Ni | 221.648 | 5.2325 | ppm | 0.004311 | 0.1 | 7626.5 | 5.2325 ppm | Y 361.104 | 104.64916 |
| Pb | 220.353 | 5.2699 | ppm | 0.000708 | 0.0 | 8586.2 | 5.2699 ppm | Y 361.104 | 105.39883 |
| Sb | 217.582 | 1.0339 | ppm | 0.012480 | 1.2 | 565.32 | 1.0339 ppm | Y 361.104 | 103.38949 |
| Se | 196.026 | 5.3427 | ppm | 0.027000 | 0.5 | 1252.6 | 5.3427 ppm | Y 361.104 | 106.85493 |
| Si | 251.611 | 5.2062 | ppm | 0.036530 | 0.7 | 10400 | 5.2062 ppm | Y 361.104 | 104.12438 |
| Sn | 189.927 | 5.0891 | ppm | 0.009831 | 0.2 | 4367.2 | 5.0891 ppm | Y 361.104 | 101.78165 |
| Sr | 216.596 | 5.3695 | ppm | 0.029997 | 0.6 | 29344 | 5.3695 ppm | Y 361.104 | 107.38901 |
| Ti | 322.284 | 4.9390 | ppm | 0.005025 | 0.1 | 36977 | 4.9390 ppm | Y 361.104 | 98.78066 |
| Tl | 190.794 | 5.1629 | ppm | 0.017391 | 0.3 | 2427.2 | 5.1629 ppm | Y 361.104 | 103.25791 |
| V | 289.164 | 5.2542 | ppm | 0.009030 | 0.2 | 31046 | 5.2542 ppm | Y 361.104 | 105.08498 |
| Zn | 206.200 | 5.3266 | ppm | 0.006153 | 0.1 | 5301.6 | 5.3266 ppm | Y 361.104 | 106.53131 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Zr | 257.147 | 5.3335 | ppm | 0.005993 | 0.1 | 50466 | 5.3335 ppm | Y 361.104 | 106.67051 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0054 | 170583 | 151.419 | 0.1 |

**BLA01 (CCB)** **1/14/02, 11:10:38 PM** **Rack 1, Tube 7**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -2.3220 | -3.6850 | -13.416 |
| Al | 237.312 | -3.9729 | 1.8307 | -1.7888 |
| As | 188.980 | 2.0568 | 0.82866 | 1.5149 |
| B | 249.772 | 70.430 | 52.142 | 46.746 |
| Ba | 233.527 | 81.373 | 82.594 | 80.590 |
| Be | 234.861 | -1.3457 | 0.29808 | -2.1936 |
| Ca | 315.887 | 135.66 | 126.98 | 125.97 |
| Cd | 228.802 | -1.3631 | -3.9881 | 0.24022 |
| Co | 231.160 | 13.923 | 15.102 | 12.886 |
| Cr | 267.716 | 7.3997 | 1.6284 | 4.0418 |
| Cu | 324.754 | 112.72 | 119.15 | 122.16 |
| Fe | 261.382 | 10.993 | 13.104 | 12.334 |
| K | 728.181 | 23.448 | 10.975 | 33.516 |
| Li | 610.365 | 1083.7 | 1112.5 | 1080.5 |
| Mg | 279.078 | 0.44816 | 2.0329 | 2.8948 |
| Mn | 293.305 | 10.042 | 8.0252 | 4.0687 |
| Mo | 202.032 | 25.249 | 18.882 | 17.066 |
| Na | 589.592 | 778.32 | 772.35 | 744.84 |
| Na | 568.821 | -409.99 | -400.42 | -413.88 |
| Ni | 221.648 | -2.6277 | -1.8654 | -0.41746 |
| Pb | 220.353 | -0.94393 | -1.8363 | -1.3743 |
| Sb | 217.582 | -2.9213 | 0.078558 | 0.13045 |
| Se | 196.026 | 1.2512 | 0.12466 | 1.2724 |
| Si | 251.611 | 56.038 | 58.029 | 59.242 |
| Sn | 189.927 | -0.13803 | -0.99592 | 1.3801 |
| Sr | 216.596 | 2.3573 | -1.0359 | 0.36402 |
| Ti | 322.284 | 82.794 | 83.161 | 73.125 |
| Tl | 190.794 | 2.2532 | 1.2596 | 3.4173 |
| V | 289.164 | -4.8511 | -0.60924 | 3.9127 |
| Y | 361.104 | 183084 | 183892 | 186160 |
| Zn | 206.200 | 2.1163 | 1.7415 | 1.1172 |
| Zr | 257.147 | 12.066 | 16.614 | 9.1809 |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.000249u | ppm | 0.000223 | 89.5 | -6.4745 | 0.000249 ppm | Y 361.104 | 0.00025 |
| Al | 237.312 | -0.000616u | ppm | 0.006106 | 991.8 | -1.3104 | -0.000616 ppm | Y 361.104 | -0.00062 |
| As | 188.980 | 0.004798 | ppm | 0.001904 | 39.7 | 1.4668 | 0.004798 ppm | Y 361.104 | 0.00480 |
| B | 249.772 | 0.004001 | ppm | 0.001238 | 30.9 | 56.439 | 0.004001 ppm | Y 361.104 | 0.00400 |
| Ba | 233.527 | 0.000067 | ppm | 0.000029 | 42.9 | 81.519 | 0.000067 ppm | Y 361.104 | 0.00007 |
| Be | 234.861 | -0.000063u | ppm | 0.000026 | 41.4 | -1.0804 | -0.000063 ppm | Y 361.104 | -0.00006 |
| Ca | 315.887 | -0.005976u | ppm | 0.000984 | 16.5 | 129.54 | -0.005976 ppm | Y 361.104 | -0.00598 |
| Cd | 228.802 | 0.000077u | ppm | 0.000292 | 381.4 | -1.7036 | 0.000077 ppm | Y 361.104 | 0.00008 |
| Co | 231.160 | 0.000335 | ppm | 0.000206 | 61.4 | 13.970 | 0.000335 ppm | Y 361.104 | 0.00034 |
| Cr | 267.716 | -0.000092u | ppm | 0.000109 | 118.4 | 4.3566 | -0.000092 ppm | Y 361.104 | -0.00009 |
| Cu | 324.754 | -0.000362u | ppm | 0.000170 | 46.9 | 118.01 | -0.000362 ppm | Y 361.104 | -0.00036 |
| Fe | 261.382 | -0.002685u | ppm | 0.000703 | 26.2 | 12.144 | -0.002685 ppm | Y 361.104 | -0.00268 |
| K | 728.181 | 0.000229u | ppm | 0.003698 | 1615.4 | 22.646 | 0.000229 ppm | Y 361.104 | 0.00023 |
| Li | 610.365 | -0.000712u | ppm | 0.000439 | 61.6 | 1092.2 | -0.000712 ppm | Y 361.104 | -0.00071 |
| Mg | 279.078 | -0.000544u | ppm | 0.001447 | 265.8 | 1.7919 | -0.000544 ppm | Y 361.104 | -0.00054 |
| Mn | 293.305 | -0.000564u | ppm | 0.000260 | 46.0 | 7.3785 | -0.000564 ppm | Y 361.104 | -0.00056 |
| Mo | 202.032 | 0.003416 | ppm | 0.000980 | 28.7 | 20.399 | 0.003416 ppm | Y 361.104 | 0.00342 |
| Na | 589.592 | -0.001219u | ppm | 0.000186 | 15.3 | 765.17 | -0.001219 ppm | Y 361.104 | -0.00122 |
| Ni | 221.648 | -0.000675u | ppm | 0.000771 | 114.2 | -1.6368 | -0.000675 ppm | Y 361.104 | -0.00068 |
| Pb | 220.353 | -0.000796u | ppm | 0.000274 | 34.4 | -1.3848 | -0.000796 ppm | Y 361.104 | -0.00080 |
| Sb | 217.582 | 0.002739u | ppm | 0.003161 | 115.4 | -0.90411 | 0.002739 ppm | Y 361.104 | 0.00274 |
| Se | 196.026 | 0.002940u | ppm | 0.002801 | 95.3 | 0.88276 | 0.002940 ppm | Y 361.104 | 0.00294 |
| Si | 251.611 | 0.005848 | ppm | 0.000813 | 13.9 | 57.770 | 0.005848 ppm | Y 361.104 | 0.00585 |
| Sn | 189.927 | -0.000653u | ppm | 0.001403 | 214.8 | 0.082057 | -0.000653 ppm | Y 361.104 | -0.00065 |
| Sr | 216.596 | -0.000280u | ppm | 0.000312 | 111.5 | 0.56183 | -0.000280 ppm | Y 361.104 | -0.00028 |
| Ti | 322.284 | 0.000387u | ppm | 0.000762 | 196.7 | 79.693 | 0.000387 ppm | Y 361.104 | 0.00039 |
| Tl | 190.794 | 0.007047 | ppm | 0.002310 | 32.8 | 2.3100 | 0.007047 ppm | Y 361.104 | 0.00705 |
| V | 289.164 | 0.000561u | ppm | 0.000739 | 131.6 | -0.51589 | 0.000561 ppm | Y 361.104 | 0.00056 |
| Zn | 206.200 | 0.000732 | ppm | 0.000509 | 69.5 | 1.6583 | 0.000732 ppm | Y 361.104 | 0.00073 |
| Zr | 257.147 | 0.000113u | ppm | 0.000396 | 349.8 | 12.620 | 0.000113 ppm | Y 361.104 | 0.00011 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0867 | 184379 | 1594.621 | 0.9 |

**ICV01-19 (ICV)** **1/14/02, 11:13:54 PM** **Rack 1, Tube 8**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 35.434 | 38.866 | 30.844 |
| Al | 237.312 | -1.1541 | 3.7485 | 1.3328 |
| As | 188.980 | 323.50 | 329.54 | 323.93 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| B | 249.772 | 20.720 | 24.880 | 20.312 |
| Ba | 233.527 | 91.967 | 84.080 | 86.585 |
| Be | 234.861 | 49744 | 50244 | 49589 |
| Ca | 315.887 | 5745.9 | 5762.0 | 5721.8 |
| Cd | 228.802 | 7614.1 | 7662.9 | 7590.9 |
| Co | 231.160 | 5779.8 | 5793.5 | 5746.1 |
| Cr | 267.716 | 28225 | 28098 | 27894 |
| Cu | 324.754 | 29676 | 29790 | 29568 |
| Fe | 261.382 | 1600.9 | 1610.1 | 1602.5 |
| K | 728.181 | 13.306 | 31.460 | 38.103 |
| Li | 610.365 | 42436 | 42505 | 42105 |
| Mg | 279.078 | 890.32 | 889.05 | 882.98 |
| Mn | 293.305 | 12219 | 12244 | 12143 |
| Mo | 202.032 | 4394.8 | 4421.3 | 4403.3 |
| Na | 589.592 | 859.84 | 885.23 | 874.93 |
| Na | 568.821 | -461.75 | -428.98 | -424.66 |
| Ni | 221.648 | 1535.5 | 1544.9 | 1531.5 |
| Pb | 220.353 | 1770.4 | 1775.7 | 1760.1 |
| Sb | 217.582 | 549.22 | 547.55 | 554.91 |
| Se | 196.026 | 239.87 | 242.83 | 238.71 |
| Si | 251.611 | 145.76 | 143.32 | 146.21 |
| Sn | 189.927 | 2.4521 | 0.44915 | 2.0066 |
| Sr | 216.596 | 5908.2 | 5922.8 | 5925.1 |
| Ti | 322.284 | 7308.9 | 7322.2 | 7264.9 |
| Tl | 190.794 | 505.28 | 506.22 | 506.21 |
| V | 289.164 | 6149.1 | 6155.8 | 6119.7 |
| Y | 361.104 | 180630 | 181094 | 182875 |
| Zn | 206.200 | 1088.5 | 1084.2 | 1079.9 |
| Zr | 257.147 | 9283.2 | 9298.9 | 9247.5 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | -0.000566 | ppm | 0.000148 | 26.2 | 35.048 | -0.000566 ppm | Y 361.104 | - |
| Al | 237.312 | 0.001328u | ppm | 0.005106 | 384.4 | 1.3090 | 0.001328 ppm | Y 361.104 | - |
| As | 188.980 | 1.0073 | ppm | 0.010434 | 1.0 | 325.66 | 1.0073 ppm | Y 361.104 | 100.72614 |
| B | 249.772 | 0.001306 | ppm | 0.000252 | 19.3 | 21.971 | 0.001306 ppm | Y 361.104 | - |
| Ba | 233.527 | 0.000134 | ppm | 0.000114 | 85.3 | 87.544 | 0.000134 ppm | Y 361.104 | - |
| Be | 234.861 | 1.0279 | ppm | 0.007048 | 0.7 | 49859 | 1.0279 ppm | Y 361.104 | 102.78903 |
| Ca | 315.887 | 1.0337 | ppm | 0.003739 | 0.4 | 5743.2 | 1.0337 ppm | Y 361.104 | 103.37166 |
| Cd | 228.802 | 1.0439 | ppm | 0.005028 | 0.5 | 7622.7 | 1.0439 ppm | Y 361.104 | 104.38643 |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Co | 231.160 | 1.0669 | ppm | 0.004525 | 0.4 | 5773.1 | 1.0669 ppm | Y 361.104 | 106.69145 |
| Cr | 267.716 | 1.0519 | ppm | 0.006262 | 0.6 | 28072 | 1.0519 ppm | Y 361.104 | 105.18631 |
| Cu | 324.754 | 1.0408 | ppm | 0.003905 | 0.4 | 29678 | 1.0408 ppm | Y 361.104 | 104.08321 |
| Fe | 261.382 | 1.0552 | ppm | 0.003249 | 0.3 | 1604.5 | 1.0552 ppm | Y 361.104 | 105.52306 |
| K | 728.181 | 0.000600u | ppm | 0.004204 | 700.7 | 27.623 | 0.000600 ppm | Y 361.104 | - |
| Li | 610.365 | 1.0263 | ppm | 0.005315 | 0.5 | 42349 | 1.0263 ppm | Y 361.104 | 102.62133 |
| Mg | 279.078 | 1.0324 | ppm | 0.004575 | 0.4 | 887.45 | 1.0324 ppm | Y 361.104 | 103.24480 |
| Mn | 293.305 | 1.0410 | ppm | 0.004478 | 0.4 | 12202 | 1.0410 ppm | Y 361.104 | 104.09531 |
| Mo | 202.032 | 1.0035 | ppm | 0.003086 | 0.3 | 4406.5 | 1.0035 ppm | Y 361.104 | 100.35086 |
| Na | 589.592 | -0.000093u | ppm | 0.000133 | 143.7 | 873.33 | -0.000093 ppm | Y 361.104 | - |
| Ni | 221.648 | 1.0569 | ppm | 0.004717 | 0.4 | 1537.3 | 1.0569 ppm | Y 361.104 | 105.69399 |
| Pb | 220.353 | 1.0877 | ppm | 0.004883 | 0.4 | 1768.7 | 1.0877 ppm | Y 361.104 | 108.77425 |
| Sb | 217.582 | 1.0017 | ppm | 0.006982 | 0.7 | 550.56 | 1.0017 ppm | Y 361.104 | 100.17413 |
| Se | 196.026 | 1.0250 | ppm | 0.009068 | 0.9 | 240.47 | 1.0250 ppm | Y 361.104 | 102.49926 |
| Si | 251.611 | 0.050451 | ppm | 0.000782 | 1.5 | 145.10 | 0.050451 ppm | Y 361.104 | - |
| Sn | 189.927 | 0.000741u | ppm | 0.001226 | 165.6 | 1.6359 | 0.000741 ppm | Y 361.104 | - |
| Sr | 216.596 | 1.0827 | ppm | 0.001670 | 0.2 | 5918.7 | 1.0827 ppm | Y 361.104 | 108.27315 |
| Ti | 322.284 | 0.96589 | ppm | 0.004015 | 0.4 | 7298.7 | 0.96589 ppm | Y 361.104 | 96.58920 |
| Tl | 190.794 | 1.0795 | ppm | 0.001156 | 0.1 | 505.90 | 1.0795 ppm | Y 361.104 | 107.94650 |
| V | 289.164 | 1.0405 | ppm | 0.003235 | 0.3 | 6141.5 | 1.0405 ppm | Y 361.104 | 104.04935 |
| Zn | 206.200 | 1.0882 | ppm | 0.004334 | 0.4 | 1084.2 | 1.0882 ppm | Y 361.104 | 108.82485 |
| Zr | 257.147 | 0.97977 | ppm | 0.002786 | 0.3 | 9276.5 | 0.97977 ppm | Y 361.104 | 97.97672 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0699 | 181533 | 1185.176 | 0.7 |

**ICV01-07 (ICV)** **1/14/02, 11:17:11 PM** **Rack 1, Tube 9**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 13904 | 13888 | 14075 |
| Al | 237.312 | 509.32 | 510.11 | 504.75 |
| As | 188.980 | 0.16365 | -1.6860 | 1.6605 |
| B | 249.772 | 10479 | 10504 | 10499 |
| Ba | 233.527 | 37515 | 37395 | 37892 |
| Be | 234.861 | 0.79217 | -1.5115 | -8.1510 |
| Ca | 315.887 | 134.65 | 130.44 | 131.18 |
| Cd | 228.802 | -1.1246 | 1.4383 | -1.5243 |
| Co | 231.160 | 9.7691 | 10.804 | 11.322 |
| Cr | 267.716 | 8.5126 | 3.1833 | 2.7040 |
| Cu | 324.754 | 123.34 | 124.30 | 126.23 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Fe | 261.382 | 11.923 | 9.2027 | 12.360 |
| K | 728.181 | 30447 | 30522 | 30353 |
| Li | 610.365 | 1082.5 | 1062.7 | 1080.7 |
| Mg | 279.078 | 1.6291 | 1.0657 | 1.0792 |
| Mn | 293.305 | 14.096 | 7.0695 | 10.156 |
| Mo | 202.032 | 28.085 | 24.099 | 19.842 |
| Na | 589.592 | 98802 | 98435 | 98637 |
| Na | 568.821 | -222.49 | -193.04 | -175.33 |
| Ni | 221.648 | 15.241 | 15.402 | 14.986 |
| Pb | 220.353 | -0.20304 | 0.13029 | 0.67596 |
| Sb | 217.582 | -2.6869 | -1.6614 | -2.8054 |
| Se | 196.026 | 0.32555 | 1.5171 | 0.17940 |
| Si | 251.611 | 10258 | 10263 | 10237 |
| Sn | 189.927 | 1715.4 | 1721.8 | 1707.0 |
| Sr | 216.596 | 2.6133 | -1.6640 | -0.50712 |
| Ti | 322.284 | 78.312 | 72.405 | 82.777 |
| Tl | 190.794 | 0.82592 | 0.041323 | 1.3280 |
| V | 289.164 | 2.0718 | -1.0415 | 7.1673 |
| Y | 361.104 | 183656 | 185318 | 186007 |
| Zn | 206.200 | 2.2827 | 1.7835 | 1.2568 |
| Zr | 257.147 | 48.843 | 38.564 | 31.146 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.51494 | ppm | 0.003812 | 0.7 | 13956 | 0.51494 ppm | Y 361.104 | 102.98710 |
| Al | 237.312 | 1.0604 | ppm | 0.006032 | 0.6 | 508.06 | 1.0604 ppm | Y 361.104 | 106.04173 |
| As | 188.980 | 0.000397u | ppm | 0.005187 | 1305.7 | 0.046077 | 0.000397 ppm | Y 361.104 | - |
| B | 249.772 | 1.0453 | ppm | 0.001324 | 0.1 | 10494 | 1.0453 ppm | Y 361.104 | 104.53242 |
| Ba | 233.527 | 1.0655 | ppm | 0.007354 | 0.7 | 37601 | 1.0655 ppm | Y 361.104 | 106.54649 |
| Be | 234.861 | -0.000102u | ppm | 0.000096 | 94.0 | -2.9568 | -0.000102 ppm | Y 361.104 | - |
| Ca | 315.887 | -0.005716u | ppm | 0.000415 | 7.3 | 132.09 | -0.005716 ppm | Y 361.104 | - |
| Cd | 228.802 | 0.000247 | ppm | 0.000220 | 88.8 | -0.40349 | 0.000247 ppm | Y 361.104 | - |
| Co | 231.160 | -0.000329u | ppm | 0.000147 | 44.7 | 10.632 | -0.000329 ppm | Y 361.104 | - |
| Cr | 267.716 | -0.000075u | ppm | 0.000121 | 160.8 | 4.8000 | -0.000075 ppm | Y 361.104 | - |
| Cu | 324.754 | -0.000130u | ppm | 0.000052 | 39.9 | 124.62 | -0.000130 ppm | Y 361.104 | - |
| Fe | 261.382 | -0.003324u | ppm | 0.001126 | 33.9 | 11.162 | -0.003324 ppm | Y 361.104 | - |
| K | 728.181 | 9.8788 | ppm | 0.027194 | 0.3 | 30441 | 9.8788 ppm | Y 361.104 | 98.78777 |
| Li | 610.365 | -0.001133u | ppm | 0.000273 | 24.1 | 1075.3 | -0.001133 ppm | Y 361.104 | - |
| Mg | 279.078 | -0.001167u | ppm | 0.000375 | 32.1 | 1.2580 | -0.001167 ppm | Y 361.104 | - |
| Mn | 293.305 | -0.000302u | ppm | 0.000301 | 99.4 | 10.440 | -0.000302 ppm | Y 361.104 | - |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Mo | 202.032 | 0.004239 | ppm | 0.000940 | 22.2 | 24.009 | 0.004239 ppm | Y 361.104 | - |
| Na | 589.592 | 0.99916 | ppm | 0.001916 | 0.2 | 98625 | 0.99916 ppm | Y 361.104 | 99.91557 |
| Ni | 221.648 | 0.001407 | ppm | 0.000144 | 10.2 | 15.210 | 0.001407 ppm | Y 361.104 | - |
| Pb | 220.353 | -0.000048u | ppm | 0.000272 | 562.5 | 0.20107 | -0.000048 ppm | Y 361.104 | - |
| Sb | 217.582 | 0.000070u | ppm | 0.001138 | 1626.0 | -2.3846 | 0.000070 ppm | Y 361.104 | - |
| Se | 196.026 | 0.002027u | ppm | 0.003130 | 154.4 | 0.67403 | 0.002027 ppm | Y 361.104 | - |
| Si | 251.611 | 5.1287 | ppm | 0.007130 | 0.1 | 10253 | 5.1287 ppm | Y 361.104 | 102.57396 |
| Sn | 189.927 | 1.9986 | ppm | 0.008638 | 0.4 | 1714.7 | 1.9986 ppm | Y 361.104 | 99.93168 |
| Sr | 216.596 | -0.000350u | ppm | 0.000405 | 115.6 | 0.14738 | -0.000350 ppm | Y 361.104 | - |
| Ti | 322.284 | 0.000136u | ppm | 0.000697 | 510.4 | 77.831 | 0.000136 ppm | Y 361.104 | - |
| Tl | 190.794 | 0.003685 | ppm | 0.001387 | 37.6 | 0.73176 | 0.003685 ppm | Y 361.104 | - |
| V | 289.164 | 0.001107 | ppm | 0.000699 | 63.1 | 2.7325 | 0.001107 ppm | Y 361.104 | - |
| Zn | 206.200 | 0.000848 | ppm | 0.000517 | 61.0 | 1.7744 | 0.000848 ppm | Y 361.104 | - |
| Zr | 257.147 | 0.002269 | ppm | 0.000939 | 41.4 | 39.517 | 0.002269 ppm | Y 361.104 | - |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0903 | 184994 | 1208.449 | 0.7 |

**ICV01-31 (ICV)** **1/14/02. 11:20:28 PM** **Rack 1. Tube 10**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 9.1700 | -13.628 | -7.3765 |
| Al | 237.312 | 0.23498 | -2.6492 | 0.67794 |
| As | 188.980 | -1.1031 | 0.80632 | -1.6052 |
| B | 249.772 | 58.421 | 56.027 | 48.611 |
| Ba | 233.527 | 89.406 | 85.255 | 80.388 |
| Be | 234.861 | -2.2619 | -3.9928 | -5.0004 |
| Ca | 315.887 | 112743 | 113882 | 113160 |
| Cd | 228.802 | -0.46344 | -3.7626 | 0.19974 |
| Co | 231.160 | 14.050 | 8.2695 | 9.1171 |
| Cr | 267.716 | 5.0311 | 2.3731 | 10.158 |
| Cu | 324.754 | 133.13 | 148.86 | 134.79 |
| Fe | 261.382 | 4.0573 | 10.574 | 7.1296 |
| K | 728.181 | 64492 | 65001 | 64400 |
| Li | 610.365 | 828.96 | 835.77 | 817.27 |
| Mg | 279.078 | 17665 | 17858 | 17737 |
| Mn | 293.305 | 12.555 | 15.093 | 11.535 |
| Mo | 202.032 | 7.9487 | 9.3136 | 6.1138 |
| Na | 589.592 | 2113584 | 2141729 | 2123254 |
| Na | 568.821 | 4442.2 | 4551.2 | 4543.0 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ni | 221.648 | 0.24716 | 1.6761 | -0.64886 |
| Pb | 220.353 | 0.87079 | -0.37885 | -2.5166 |
| Sb | 217.582 | 1.5177 | -4.3768 | 0.88277 |
| Se | 196.026 | 1.9099 | -0.22594 | 1.7739 |
| Si | 251.611 | 82.889 | 87.684 | 87.705 |
| Sn | 189.927 | 0.47358 | -1.1442 | 0.88646 |
| Sr | 216.596 | 2.3350 | 4.7014 | 4.6023 |
| Ti | 322.284 | 86.240 | 76.165 | 80.565 |
| Tl | 190.794 | -0.84085 | -1.4782 | -1.8719 |
| V | 289.164 | -4.1189 | -6.0464 | 0.26884 |
| Y | 361.104 | 179593 | 179672 | 179241 |
| Zn | 206.200 | 3.7341 | 5.4881 | 3.4243 |
| Zr | 257.147 | 25.477 | 18.543 | 19.395 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.000342u | ppm | 0.000434 | 126.9 | -3.9449 | 0.000342 ppm | Y 361.104 | - |
| Al | 237.312 | 0.000909u | ppm | 0.003763 | 413.8 | -0.57875 | 0.000909 ppm | Y 361.104 | - |
| As | 188.980 | -0.001701u | ppm | 0.003937 | 231.4 | -0.63398 | -0.001701 ppm | Y 361.104 | - |
| B | 249.772 | 0.003791 | ppm | 0.000510 | 13.5 | 54.353 | 0.003791 ppm | Y 361.104 | - |
| Ba | 233.527 | 0.000166 | ppm | 0.000128 | 77.1 | 85.016 | 0.000166 ppm | Y 361.104 | - |
| Be | 234.861 | -0.000119u | ppm | 0.000029 | 24.1 | -3.7517 | -0.000119 ppm | Y 361.104 | - |
| Ca | 315.887 | 20.886 | ppm | 0.10639 | 0.5 | 113262 | 20.886 ppm | Y 361.104 | 104.43021 |
| Cd | 228.802 | 0.000117u | ppm | 0.000290 | 248.9 | -1.3421 | 0.000117 ppm | Y 361.104 | - |
| Co | 231.160 | -0.000366u | ppm | 0.000580 | 158.4 | 10.479 | -0.000366 ppm | Y 361.104 | - |
| Cr | 267.716 | -0.000036u | ppm | 0.000148 | 416.4 | 5.8541 | -0.000036 ppm | Y 361.104 | - |
| Cu | 324.754 | 0.000374 | ppm | 0.000304 | 81.3 | 138.93 | 0.000374 ppm | Y 361.104 | - |
| Fe | 261.382 | -0.005901u | ppm | 0.002146 | 36.4 | 7.2535 | -0.005901 ppm | Y 361.104 | - |
| K | 728.181 | 20.790 | ppm | 0.10248 | 0.5 | 64631 | 20.790 ppm | Y 361.104 | 103.95148 |
| Li | 610.365 | 0.001720u | ppm | 0.000233 | 13.5 | 827.34 | 0.001720 ppm | Y 361.104 | - |
| Mg | 279.078 | 20.695 | ppm | 0.11369 | 0.5 | 17754 | 20.695 ppm | Y 361.104 | 103.47652 |
| Mn | 293.305 | -0.000079u | ppm | 0.000156 | 199.0 | 13.061 | -0.000079 ppm | Y 361.104 | - |
| Mo | 202.032 | 0.000541 | ppm | 0.000366 | 67.7 | 7.7920 | 0.000541 ppm | Y 361.104 | - |
| Na | 589.592 | 21.707 | ppm | 0.14297 | 0.7 | 2126189 | 21.707 ppm | Y 361.104 | 108.53268 |
| Ni | 221.648 | 0.000714 | ppm | 0.000805 | 112.7 | 0.42479 | 0.000714 ppm | Y 361.104 | - |
| Pb | 220.353 | -0.000367u | ppm | 0.001051 | 286.0 | -0.67487 | -0.000367 ppm | Y 361.104 | - |
| Sb | 217.582 | 0.003184u | ppm | 0.005853 | 183.8 | -0.65877 | 0.003184 ppm | Y 361.104 | - |
| Se | 196.026 | 0.004091u | ppm | 0.005101 | 124.7 | 1.1526 | 0.004091 ppm | Y 361.104 | - |
| Si | 251.611 | 0.020081 | ppm | 0.001394 | 6.9 | 86.092 | 0.020081 ppm | Y 361.104 | - |
| Sn | 189.927 | -0.000665u | ppm | 0.001251 | 188.2 | 0.071934 | -0.000665 ppm | Y 361.104 | - |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Sr | 216.596 | 0.000329 | ppm | 0.000245 | 74.5 | 3.8795 | 0.000329 ppm | Y 361.104 | - |
| Ti | 322.284 | 0.000564u | ppm | 0.000676 | 120.0 | 80.990 | 0.000564 ppm | Y 361.104 | - |
| Tl | 190.794 | -0.000886u | ppm | 0.001113 | 125.6 | -1.3970 | -0.000886 ppm | Y 361.104 | - |
| V | 289.164 | 0.000092u | ppm | 0.000546 | 593.0 | -3.2988 | 0.000092 ppm | Y 361.104 | - |
| Zn | 206.200 | 0.003310 | ppm | 0.001122 | 33.9 | 4.2155 | 0.003310 ppm | Y 361.104 | - |
| Zr | 257.147 | 0.001014 | ppm | 0.000400 | 39.4 | 21.138 | 0.001014 ppm | Y 361.104 | - |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0580 | 179502 | 229.326 | 0.1 |

BLA01 (CCB) 1/14/02, 11:23:44 PM Rack 1, Tube 11

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -6.4240 | -20.043 | -23.411 |
| Al | 237.312 | 2.9142 | 5.3642 | 8.2958 |
| As | 188.980 | 0.55262 | 0.18364 | -1.4559 |
| B | 249.772 | 13.319 | 13.390 | 19.677 |
| Ba | 233.527 | 79.727 | 82.615 | 81.259 |
| Be | 234.861 | -3.9879 | -2.8045 | -0.63969 |
| Ca | 315.887 | 116.07 | 109.46 | 117.32 |
| Cd | 228.802 | -2.5023 | -3.1412 | -1.2026 |
| Co | 231.160 | 12.221 | 12.982 | 12.159 |
| Cr | 267.716 | 6.6329 | 5.7135 | 1.6358 |
| Cu | 324.754 | 112.22 | 117.66 | 116.65 |
| Fe | 261.382 | 15.334 | 13.563 | 15.093 |
| K | 728.181 | 14.816 | 2.4956 | 17.964 |
| Li | 610.365 | 1121.0 | 1125.5 | 1129.6 |
| Mg | 279.078 | -1.6717 | -1.1626 | 3.2122 |
| Mn | 293.305 | 13.660 | 9.3303 | 7.0355 |
| Mo | 202.032 | 3.2548 | 2.4929 | 2.3979 |
| Na | 589.592 | 703.20 | 697.90 | 765.00 |
| Na | 568.821 | -430.73 | -419.13 | -431.57 |
| Ni | 221.648 | 0.97789 | -1.1949 | -1.5081 |
| Pb | 220.353 | -1.0703 | -1.9636 | -4.6111 |
| Sb | 217.582 | 1.0141 | -5.6876 | -1.6801 |
| Se | 196.026 | 0.19946 | -1.9298 | 0.10288 |
| Si | 251.611 | 52.925 | 52.873 | 64.647 |
| Sn | 189.927 | -0.34078 | 0.87908 | -0.27097 |
| Sr | 216.596 | 1.9428 | 0.79545 | -2.4091 |
| Ti | 322.284 | 75.869 | 70.395 | 77.739 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Tl | 190.794 | -0.47784 | -0.72128 | -0.30739 |
| V | 289.164 | 7.4417 | -0.45975 | -3.9427 |
| Y | 361.104 | 179479 | 182212 | 178139 |
| Zn | 206.200 | 1.0122 | 1.2063 | 1.7711 |
| Zr | 257.147 | 13.421 | 11.797 | 25.585 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | -0.000125u | ppm | 0.000332 | 264.9 | -16.626 | -0.000125 ppm | Y 361.104 | -0.00013 |
| Al | 237.312 | 0.013622 | ppm | 0.005612 | 41.2 | 5.5247 | 0.013622 ppm | Y 361.104 | 0.01362 |
| As | 188.980 | -0.000481u | ppm | 0.003308 | 687.0 | -0.23988 | -0.000481 ppm | Y 361.104 | -0.00048 |
| B | 249.772 | -0.000086u | ppm | 0.000364 | 424.6 | 15.462 | -0.000086 ppm | Y 361.104 | -0.00009 |
| Ba | 233.527 | 0.000058 | ppm | 0.000041 | 71.0 | 81.200 | 0.000058 ppm | Y 361.104 | 0.00006 |
| Be | 234.861 | -0.000092u | ppm | 0.000035 | 38.2 | -2.4774 | -0.000092 ppm | Y 361.104 | -0.00009 |
| Ca | 315.887 | -0.008793u | ppm | 0.000780 | 8.9 | 114.28 | -0.008793 ppm | Y 361.104 | -0.00879 |
| Cd | 228.802 | -0.000010u | ppm | 0.000135 | 1326.9 | -2.2820 | -0.000010 ppm | Y 361.104 | -0.00001 |
| Co | 231.160 | 0.000066u | ppm | 0.000085 | 129.2 | 12.454 | 0.000066 ppm | Y 361.104 | 0.00007 |
| Cr | 267.716 | -0.000080u | ppm | 0.000100 | 124.1 | 4.6607 | -0.000080 ppm | Y 361.104 | -0.00008 |
| Cu | 324.754 | -0.000449u | ppm | 0.000102 | 22.7 | 115.51 | -0.000449 ppm | Y 361.104 | -0.00045 |
| Fe | 261.382 | -0.001034u | ppm | 0.000632 | 61.1 | 14.663 | -0.001034 ppm | Y 361.104 | -0.00103 |
| K | 728.181 | -0.003335u | ppm | 0.002677 | 80.3 | 11.759 | -0.003335 ppm | Y 361.104 | -0.00334 |
| Li | 610.365 | 0.000111 | ppm | 0.000107 | 95.9 | 1125.3 | 0.000111 ppm | Y 361.104 | 0.00011 |
| Mg | 279.078 | -0.002487u | ppm | 0.003130 | 125.9 | 0.12596 | -0.002487 ppm | Y 361.104 | -0.00249 |
| Mn | 293.305 | -0.000339u | ppm | 0.000287 | 84.7 | 10.009 | -0.000339 ppm | Y 361.104 | -0.00034 |
| Mo | 202.032 | -0.000617u | ppm | 0.000107 | 17.4 | 2.7152 | -0.000617 ppm | Y 361.104 | -0.00062 |
| Na | 589.592 | -0.001669u | ppm | 0.000389 | 23.3 | 722.03 | -0.001669 ppm | Y 361.104 | -0.00167 |
| Ni | 221.648 | 0.000055u | ppm | 0.000930 | 1698.1 | -0.57503 | 0.000055 ppm | Y 361.104 | 0.00005 |
| Pb | 220.353 | -0.001523u | ppm | 0.001130 | 74.2 | -2.5483 | -0.001523 ppm | Y 361.104 | -0.00152 |
| Sb | 217.582 | 0.000544u | ppm | 0.006100 | 1122.1 | -2.1179 | 0.000544 ppm | Y 361.104 | 0.00054 |
| Se | 196.026 | -0.003141u | ppm | 0.005129 | 163.3 | -0.54247 | -0.003141 ppm | Y 361.104 | -0.00314 |
| Si | 251.611 | 0.005369 | ppm | 0.003408 | 63.5 | 56.815 | 0.005369 ppm | Y 361.104 | 0.00537 |
| Sn | 189.927 | -0.000645u | ppm | 0.000799 | 123.9 | 0.089113 | -0.000645 ppm | Y 361.104 | -0.00064 |
| Sr | 216.596 | -0.000363u | ppm | 0.000413 | 113.8 | 0.10971 | -0.000363 ppm | Y 361.104 | -0.00036 |
| Ti | 322.284 | -0.000282u | ppm | 0.000511 | 181.4 | 74.668 | -0.000282 ppm | Y 361.104 | -0.00028 |
| Tl | 190.794 | 0.001026 | ppm | 0.000445 | 43.4 | -0.50217 | 0.001026 ppm | Y 361.104 | 0.00103 |
| V | 289.164 | 0.000817 | ppm | 0.000983 | 120.4 | 1.0131 | 0.000817 ppm | Y 361.104 | 0.00082 |
| Zn | 206.200 | 0.000402 | ppm | 0.000397 | 98.8 | 1.3299 | 0.000402 ppm | Y 361.104 | 0.00040 |
| Zr | 257.147 | 0.000569 | ppm | 0.000796 | 140.0 | 16.934 | 0.000569 ppm | Y 361.104 | 0.00057 |

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| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0606 | 179943 | 2076.050 | 1.2 |

**DLS (CRI)** **1/14/02, 11:27:01 PM** **Rack 1, Tube 12**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 260.37 | 268.38 | 273.00 |
| Al | 237.312 | 23.548 | 23.923 | 20.440 |
| As | 188.980 | 15.849 | 16.906 | 15.994 |
| B | 249.772 | 524.57 | 520.24 | 519.96 |
| Ba | 233.527 | 448.01 | 445.97 | 444.18 |
| Be | 234.861 | 195.18 | 192.52 | 191.86 |
| Ca | 315.887 | 686.26 | 682.83 | 685.41 |
| Cd | 228.802 | 32.418 | 34.848 | 34.502 |
| Co | 231.160 | 68.447 | 66.280 | 69.981 |
| Cr | 267.716 | 281.76 | 285.68 | 285.36 |
| Cu | 324.754 | 697.28 | 689.16 | 700.81 |
| Fe | 261.382 | 50.014 | 49.615 | 52.382 |
| K | 728.181 | 323.65 | 307.17 | 339.40 |
| Li | 610.365 | 1466.5 | 1477.5 | 1464.8 |
| Mg | 279.078 | 85.564 | 85.098 | 86.982 |
| Mn | 293.305 | 133.04 | 137.50 | 125.97 |
| Mo | 202.032 | 43.991 | 45.810 | 44.229 |
| Na | 589.592 | 10235 | 10224 | 10201 |
| Na | 568.821 | -382.69 | -368.12 | -397.60 |
| Ni | 221.648 | 13.840 | 16.339 | 13.936 |
| Pb | 220.353 | 17.880 | 20.880 | 11.629 |
| Sb | 217.582 | 1.5759 | 5.1731 | 5.4885 |
| Se | 196.026 | 3.4065 | 2.1551 | 3.2989 |
| Si | 251.611 | 439.43 | 438.36 | 435.62 |
| Sn | 189.927 | 41.748 | 40.914 | 42.647 |
| Sr | 216.596 | 61.095 | 58.966 | 57.230 |
| Ti | 322.284 | 143.95 | 147.41 | 143.65 |
| Tl | 190.794 | 5.3707 | 5.7193 | 4.7386 |
| V | 289.164 | 64.814 | 59.814 | 59.256 |
| Y | 361.104 | 185750 | 185510 | 187613 |
| Zn | 206.200 | 23.532 | 22.540 | 22.029 |
| Zr | 257.147 | 100.29 | 104.76 | 99.900 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.010317 | ppm | 0.000236 | 2.3 | 267.25 | 0.010317 ppm | Y 361.104 | 103.16958 |
| Al | 237.312 | 0.049234 | ppm | 0.003982 | 8.1 | 22.637 | 0.049234 ppm | Y 361.104 | 98.46815 |
| As | 188.980 | 0.050531 | ppm | 0.001773 | 3.5 | 16.250 | 0.050531 ppm | Y 361.104 | 101.06159 |
| B | 249.772 | 0.050424 | ppm | 0.000258 | 0.5 | 521.59 | 0.050424 ppm | Y 361.104 | 100.84702 |
| Ba | 233.527 | 0.010417 | ppm | 0.000054 | 0.5 | 446.06 | 0.010417 ppm | Y 361.104 | 104.17193 |
| Be | 234.861 | 0.003946 | ppm | 0.000036 | 0.9 | 193.18 | 0.003946 ppm | Y 361.104 | - |
| Ca | 315.887 | 0.096583 | ppm | 0.000329 | 0.3 | 684.83 | 0.096583 ppm | Y 361.104 | 96.58298 |
| Cd | 228.802 | 0.005012 | ppm | 0.000180 | 3.6 | 33.923 | 0.005012 ppm | Y 361.104 | - |
| Co | 231.160 | 0.010369 | ppm | 0.000345 | 3.3 | 68.236 | 0.010369 ppm | Y 361.104 | 103.69067 |
| Cr | 267.716 | 0.010399 | ppm | 0.000082 | 0.8 | 284.27 | 0.010399 ppm | Y 361.104 | 103.98918 |
| Cu | 324.754 | 0.019986 | ppm | 0.000210 | 1.1 | 695.75 | 0.019986 ppm | Y 361.104 | 99.93059 |
| Fe | 261.382 | 0.022775 | ppm | 0.000985 | 4.3 | 50.670 | 0.022775 ppm | Y 361.104 | 91.09813 |
| K | 728.181 | 0.098709 | ppm | 0.005279 | 5.3 | 323.41 | 0.098709 ppm | Y 361.104 | 98.70873 |
| Li | 610.365 | 0.008722 | ppm | 0.000172 | 2.0 | 1469.6 | 0.008722 ppm | Y 361.104 | 87.16000 |
| Mg | 279.078 | 0.097485 | ppm | 0.001144 | 1.2 | 85.881 | 0.097485 ppm | Y 361.104 | 97.48503 |
| Mn | 293.305 | 0.010095 | ppm | 0.000496 | 4.9 | 132.17 | 0.010095 ppm | Y 361.104 | 100.94650 |
| Mo | 202.032 | 0.008951 | ppm | 0.000225 | 2.5 | 44.677 | 0.008951 ppm | Y 361.104 | 89.51370 |
| Na | 589.592 | 0.097265 | ppm | 0.000183 | 0.2 | 10220 | 0.097265 ppm | Y 361.104 | 97.26488 |
| Ni | 221.648 | 0.010204 | ppm | 0.000972 | 9.5 | 14.705 | 0.010204 ppm | Y 361.104 | 102.03895 |
| Pb | 220.353 | 0.010363 | ppm | 0.002896 | 27.9 | 16.796 | 0.010363 ppm | Y 361.104 | 103.63431 |
| Sb | 217.582 | 0.011770 | ppm | 0.003932 | 33.4 | 4.0792 | 0.011770 ppm | Y 361.104 | 117.70097 |
| Se | 196.026 | 0.011773 | ppm | 0.002958 | 25.1 | 2.9535 | 0.011773 ppm | Y 361.104 | 117.72540 |
| Si | 251.611 | 0.19681 | ppm | 0.000986 | 0.5 | 437.80 | 0.19681 ppm | Y 361.104 | 98.40591 |
| Sn | 189.927 | 0.047951 | ppm | 0.001011 | 2.1 | 41.770 | 0.047951 ppm | Y 361.104 | 95.90189 |
| Sr | 216.596 | 0.010429 | ppm | 0.000354 | 3.4 | 59.097 | 0.010429 ppm | Y 361.104 | 104.28578 |
| Ti | 322.284 | 0.009126 | ppm | 0.000280 | 3.1 | 145.00 | 0.009126 ppm | Y 361.104 | 91.25826 |
| Tl | 190.794 | 0.013342 | ppm | 0.001063 | 8.0 | 5.2762 | 0.013342 ppm | Y 361.104 | 133.41782 |
| V | 289.164 | 0.011023 | ppm | 0.000516 | 4.7 | 61.295 | 0.011023 ppm | Y 361.104 | 110.23431 |
| Zn | 206.200 | 0.021905 | ppm | 0.000770 | 3.5 | 22.700 | 0.021905 ppm | Y 361.104 | 109.52433 |
| Zr | 257.147 | 0.009511 | ppm | 0.000285 | 3.0 | 101.65 | 0.009511 ppm | Y 361.104 | 95.10896 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0980 | 186291 | 1151.207 | 0.6 |

**CDL01 (CRI)** **1/14/02, 11:30:18 PM** **Rack 1, Tube 13**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 546.07 | 534.24 | 526.05 |
| Al | 237.312 | 3.3924 | 0.94878 | -1.3539 |
| As | 188.980 | 6.2519 | 6.8837 | 5.9654 |

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| B | 249.772 | 21.834 | 22.480 | 21.271 |
| Ba | 233.527 | 78.945 | 77.864 | 83.700 |
| Be | 234.861 | 500.56 | 491.32 | 497.41 |
| Ca | 315.887 | 118.52 | 124.41 | 116.44 |
| Cd | 228.802 | 76.134 | 74.339 | 76.216 |
| Co | 231.160 | 602.33 | 597.24 | 590.26 |
| Cr | 267.716 | 591.25 | 584.34 | 570.82 |
| Cu | 324.754 | 1623.5 | 1613.8 | 1597.2 |
| Fe | 261.382 | 16.865 | 11.806 | 12.703 |
| K | 728.181 | 19.273 | 8.7720 | 37.610 |
| Li | 610.365 | 1091.6 | 1078.4 | 1033.5 |
| Mg | 279.078 | 0.082762 | 1.7130 | -1.3576 |
| Mn | 293.305 | 396.85 | 386.01 | 384.16 |
| Mo | 202.032 | 2.6310 | 0.98203 | -1.1671 |
| Na | 589.592 | 458.39 | 456.83 | 461.32 |
| Na | 568.821 | -420.74 | -397.46 | -411.32 |
| Ni | 221.648 | 126.01 | 122.91 | 122.78 |
| Pb | 220.353 | 176.86 | 176.21 | 168.03 |
| Sb | 217.582 | 66.058 | 64.132 | 68.436 |
| Se | 196.026 | 3.4112 | 2.0508 | 4.3000 |
| Si | 251.611 | 74.429 | 75.702 | 72.675 |
| Sn | 189.927 | -0.84721 | 1.0246 | 0.43296 |
| Sr | 216.596 | -0.93397 | 4.2227 | 3.5798 |
| Ti | 322.284 | 78.241 | 81.780 | 73.042 |
| Tl | 190.794 | 8.1839 | 7.9969 | 9.9313 |
| V | 289.164 | 630.61 | 629.58 | 619.45 |
| Y | 361.104 | 181844 | 184018 | 185765 |
| Zn | 206.200 | 45.134 | 45.610 | 45.426 |
| Zr | 257.147 | 17.615 | 16.961 | 5.8138 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.020227 | ppm | 0.000371 | 1.8 | 535.45 | 0.020227 ppm | Y 361.104 | 101.13290 |
| Al | 237.312 | 0.004054u | ppm | 0.004944 | 122.0 | 0.99577 | 0.004054 ppm | Y 361.104 | - |
| As | 188.980 | 0.019953 | ppm | 0.001454 | 7.3 | 6.3670 | 0.019953 ppm | Y 361.104 | 99.76690 |
| B | 249.772 | 0.000555 | ppm | 0.000060 | 10.9 | 21.862 | 0.000555 ppm | Y 361.104 | - |
| Ba | 233.527 | 0.000018u | ppm | 0.000088 | 491.7 | 80.170 | 0.000018 ppm | Y 361.104 | - |
| Be | 234.861 | 0.010192 | ppm | 0.000097 | 1.0 | 496.43 | 0.010192 ppm | Y 361.104 | 101.92452 |
| Ca | 315.887 | -0.008404u | ppm | 0.000763 | 9.1 | 119.79 | -0.008404 ppm | Y 361.104 | - |
| Cd | 228.802 | 0.010646 | ppm | 0.000145 | 1.4 | 75.563 | 0.010646 ppm | Y 361.104 | 106.46251 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Co | 231.160 | 0.10787 | ppm | 0.001125 | 1.0 | 596.61 | 0.10787 ppm | Y 361.104 | 107.86620 |
| Cr | 267.716 | 0.021563 | ppm | 0.000390 | 1.8 | 582.14 | 0.021563 ppm | Y 361.104 | 107.81367 |
| Cu | 324.754 | 0.052274 | ppm | 0.000468 | 0.9 | 1611.5 | 0.052274 ppm | Y 361.104 | 104.54881 |
| Fe | 261.382 | -0.000853u | ppm | 0.001777 | 208.5 | 13.791 | -0.000853 ppm | Y 361.104 | - |
| K | 728.181 | -0.000018u | ppm | 0.004780 | 26158.3 | 21.885 | -0.000018 ppm | Y 361.104 | - |
| Li | 610.365 | -0.001319u | ppm | 0.000757 | 57.4 | 1067.8 | -0.001319 ppm | Y 361.104 | - |
| Mg | 279.078 | -0.002443u | ppm | 0.001791 | 73.3 | 0.14604 | -0.002443 ppm | Y 361.104 | - |
| Mn | 293.305 | 0.032030 | ppm | 0.000586 | 1.8 | 389.01 | 0.032030 ppm | Y 361.104 | 106.76597 |
| Mo | 202.032 | -0.001050u | ppm | 0.000434 | 41.4 | 0.81531 | -0.001050 ppm | Y 361.104 | - |
| Na | 589.592 | -0.004415u | ppm | 0.000024 | 0.5 | 458.84 | -0.004415 ppm | Y 361.104 | - |
| Ni | 221.648 | 0.085562 | ppm | 0.001257 | 1.5 | 123.90 | 0.085562 ppm | Y 361.104 | 106.95200 |
| Pb | 220.353 | 0.10662 | ppm | 0.003019 | 2.8 | 173.70 | 0.10662 ppm | Y 361.104 | 106.62137 |
| Sb | 217.582 | 0.12426 | ppm | 0.003901 | 3.1 | 66.209 | 0.12426 ppm | Y 361.104 | 103.54982 |
| Se | 196.026 | 0.013054 | ppm | 0.004832 | 37.0 | 3.2540 | 0.013054 ppm | Y 361.104 | 130.54286 |
| Si | 251.611 | 0.014166 | ppm | 0.000764 | 5.4 | 74.269 | 0.014166 ppm | Y 361.104 | - |
| Sn | 189.927 | -0.000500u | ppm | 0.001116 | 223.2 | 0.20345 | -0.000500 ppm | Y 361.104 | - |
| Sr | 216.596 | 0.000075u | ppm | 0.000514 | 687.2 | 2.2895 | 0.000075 ppm | Y 361.104 | - |
| Ti | 322.284 | 0.000125u | ppm | 0.000589 | 469.7 | 77.688 | 0.000125 ppm | Y 361.104 | - |
| Tl | 190.794 | 0.020178 | ppm | 0.002282 | 11.3 | 8.7040 | 0.020178 ppm | Y 361.104 | 100.89188 |
| V | 289.164 | 0.10638 | ppm | 0.001039 | 1.0 | 626.55 | 0.10638 ppm | Y 361.104 | 106.38477 |
| Zn | 206.200 | 0.044741 | ppm | 0.000242 | 0.5 | 45.390 | 0.044741 ppm | Y 361.104 | 111.85302 |
| Zr | 257.147 | 0.000201u | ppm | 0.000701 | 348.5 | 13.464 | 0.000201 ppm | Y 361.104 | - |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0837 | 183876 | 1964.570 | 1.1 |

HMCS (ICV) 1/14/02, 11:33:36 PM Rack 1, Tube 14

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 54231 | 54281 | 54375 |
| Al | 237.312 | 4837.2 | 4859.9 | 4853.3 |
| As | 188.980 | 3314.4 | 3320.5 | 3344.5 |
| B | 249.772 | 98652 | 98692 | 100102 |
| Ba | 233.527 | 360038 | 360209 | 361104 |
| Be | 234.861 | 485822 | 482564 | 485066 |
| Ca | 315.887 | -119.28 | -131.04 | -126.14 |
| Cd | 228.802 | 73470 | 73549 | 73854 |
| Co | 231.160 | 55097 | 55102 | 55211 |
| Cr | 267.716 | 271657 | 272061 | 272719 |
| Cu | 324.754 | 283761 | 284573 | 284787 |

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Fe | 261.382 | 15452 | 15467 | 15506 |
| K | 728.181 | 29.683 | 30.057 | 51.393 |
| Li | 610.365 | 406457 | 408459 | 407826 |
| Mg | 279.078 | 0.80494 | -4.9711 | -3.9946 |
| Mn | 293.305 | 119014 | 119081 | 119426 |
| Mo | 202.032 | 2.3891 | 1.4442 | 5.8612 |
| Na | 589.592 | 18159 | 18170 | 18099 |
| Na | 568.821 | -435.96 | -459.83 | -425.08 |
| Ni | 221.648 | 14909 | 14930 | 14974 |
| Pb | 220.353 | 16801 | 16795 | 16845 |
| Sb | 217.582 | 12.239 | 9.3286 | 9.8715 |
| Se | 196.026 | 2406.1 | 2398.9 | 2407.9 |
| Si | 251.611 | 350.43 | 382.61 | 398.89 |
| Sn | 189.927 | 3.0026 | 4.8586 | 5.5215 |
| Sr | 216.596 | 56286 | 56842 | 56815 |
| Ti | 322.284 | 80.103 | 76.919 | 84.901 |
| Tl | 190.794 | 4781.9 | 4788.2 | 4794.3 |
| V | 289.164 | 60130 | 60195 | 60350 |
| Y | 361.104 | 178990 | 178568 | 178790 |
| Zn | 206.200 | 10424 | 10350 | 10396 |
| Zr | 257.147 | 96332 | 96554 | 96634 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 1.9775 | ppm | 0.002702 | 0.1 | 54296 | 1.9775 ppm | Y 361.104 | 98.87654 |
| Al | 237.312 | 10.069 | ppm | 0.024377 | 0.2 | 4850.1 | 10.069 ppm | Y 361.104 | 100.69030 |
| As | 188.980 | 10.289 | ppm | 0.049271 | 0.5 | 3326.5 | 10.289 ppm | Y 361.104 | 102.89352 |
| B | 249.772 | 9.8973 | ppm | 0.082425 | 0.8 | 99149 | 9.8973 ppm | Y 361.104 | 98.97262 |
| Ba | 233.527 | 10.233 | ppm | 0.016256 | 0.2 | 360450 | 10.233 ppm | Y 361.104 | 102.33113 |
| Be | 234.861 | 9.9885 | ppm | 0.035144 | 0.4 | 484484 | 9.9885 ppm | Y 361.104 | 99.88461 |
| Ca | 315.887 | -0.018006u | ppm | 0.001090 | 6.1 | -125.49 | -0.018006 ppm | Y 361.104 | - |
| Cd | 228.802 | 10.080 | ppm | 0.027762 | 0.3 | 73624 | 10.080 ppm | Y 361.104 | 100.80483 |
| Co | 231.160 | 10.263 | ppm | 0.012001 | 0.1 | 55137 | 10.263 ppm | Y 361.104 | 102.63015 |
| Cr | 267.716 | 10.199 | ppm | 0.020085 | 0.2 | 272146 | 10.199 ppm | Y 361.104 | 101.99426 |
| Cu | 324.754 | 10.014 | ppm | [illegible] | - | [illegible] | [illegible] | [illegible] | - |
| Fe | 261.382 | 10.249 | ppm | 0.018571 | 0.2 | 15475 | 10.249 ppm | [illegible] | [illegible] |
| K | 728.181 | 0.005080 | ppm | 0.004070 | 80.1 | 37.044 | 0.005080 ppm | Y 361.104 | - |
| Li | 610.365 | 10.114 | ppm | 0.025461 | 0.3 | 407581 | 10.114 ppm | Y 361.104 | 101.13593 |
| Mg | 279.078 | -0.001296u | ppm | 0.003604 | 278.0 | -2.7202 | -0.001296 ppm | Y 361.104 | - |
| Mn | 293.305 | 10.177 | ppm | 0.018865 | 0.2 | 119173 | 10.177 ppm | Y 361.104 | 101.76982 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Mo | 202.032 | -0.000499u | ppm | 0.000530 | 106.3 | 3.2315 | -0.000499 ppm | Y 361.104 | - |
| Na | 589.592 | -0.012130 | ppm | 0.000399 | 3.3 | 18143 | -0.012130 ppm | Y 361.104 | - |
| Ni | 221.648 | 10.267 | ppm | 0.022873 | 0.2 | 14938 | 10.267 ppm | Y 361.104 | 102.66546 |
| Pb | 220.353 | 10.315 | ppm | 0.016896 | 0.2 | 16814 | 10.315 ppm | Y 361.104 | 103.14881 |
| Sb | 217.582 | 0.036707 | ppm | 0.002799 | 7.6 | 10.480 | 0.036707 ppm | Y 361.104 | - |
| Se | 196.026 | 10.256 | ppm | 0.020236 | 0.2 | 2404.3 | 10.256 ppm | Y 361.104 | 102.55729 |
| Si | 251.611 | 0.17335 | ppm | 0.012392 | 7.1 | 377.31 | 0.17335 ppm | Y 361.104 | - |
| Sn | 189.927 | 0.003362 | ppm | 0.001522 | 45.3 | 4.4609 | 0.003362 ppm | Y 361.104 | - |
| Sr | 216.596 | 10.366 | ppm | 0.057382 | 0.6 | 56648 | 10.366 ppm | Y 361.104 | 103.66074 |
| Ti | 322.284 | -0.000573 | ppm | 0.000538 | 93.9 | 80.641 | -0.000573 ppm | Y 361.104 | - |
| Tl | 190.794 | 10.192 | ppm | 0.013181 | 0.1 | 4788.1 | 10.192 ppm | Y 361.104 | 101.92307 |
| V | 289.164 | 10.189 | ppm | 0.019056 | 0.2 | 60225 | 10.189 ppm | Y 361.104 | 101.89194 |
| Zn | 206.200 | 10.441 | ppm | 0.037841 | 0.4 | 10390 | 10.441 ppm | Y 361.104 | 104.41208 |
| Zr | 257.147 | 10.197 | ppm | 0.016552 | 0.2 | 96506 | 10.197 ppm | Y 361.104 | 101.96946 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0537 | 178783 | 210.837 | 0.1 |

**ICS-A (ICSA)** **1/14/02, 11:44:21 PM** **Rack 1, Tube 15**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -29.953 | -23.948 | -15.530 |
| Al | 237.312 | 259031 | 261602 | 257207 |
| As | 188.980 | -2.1639 | 3.1270 | 1.8755 |
| B | 249.772 | -925.71 | -886.88 | -882.41 |
| Ba | 233.527 | 234.02 | 238.97 | 234.50 |
| Be | 234.861 | -1823.4 | -1812.1 | -1987.9 |
| Ca | 315.887 | 2783759 | 2790815 | 2756333 |
| Cd | 228.802 | 16.355 | 7.5972 | 4.9343 |
| Co | 231.160 | 112.98 | 119.01 | 117.50 |
| Cr | 267.716 | 51.782 | 49.446 | 56.243 |
| Cu | 324.754 | -482.61 | -488.38 | -478.41 |
| Fe | 261.382 | 306919 | 308550 | 303841 |
| K | 728.181 | 13.662 | 18.096 | 16.210 |
| Li | 610.365 | -7876.3 | -7955.2 | -7818.2 |
| Mg | 279.078 | 468519 | 471032 | 463077 |
| Mn | 293.305 | 133.87 | 123.09 | 120.63 |
| Mo | 202.032 | -0.11377 | -0.90365 | -1.1062 |
| Na | 589.592 | 6726.1 | 6797.1 | 6661.3 |
| Na | 568.821 | 1198.4 | 1128.3 | 1162.7 |

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| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ni | 221.648 | 4.4290 | 5.1281 | 5.2343 |
| Pb | 220.353 | 188.04 | 186.23 | 178.92 |
| Sb | 217.582 | -25.111 | -16.737 | -32.771 |
| Se | 196.026 | 7.1490 | 6.6272 | 1.6908 |
| Si | 251.611 | 97.762 | 107.84 | 105.47 |
| Sn | 189.927 | 3.0971 | 1.8209 | 0.26474 |
| Sr | 216.596 | 237.50 | 243.93 | 234.26 |
| Ti | 322.284 | 73.939 | 68.802 | 73.056 |
| Tl | 190.794 | -16.689 | -17.115 | -16.136 |
| V | 289.164 | 54.971 | 68.432 | 66.913 |
| Y | 361.104 | 154951 | 155101 | 156682 |
| Zn | 206.200 | 12.397 | 13.569 | 9.9773 |
| Zr | 257.147 | 87.254 | 96.595 | 81.668 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | -0.000423u | ppm | 0.000267 | 63.2 | -23.144 | -0.000423 ppm | Y 361.104 | -0.00042 |
| Al | 237.312 | 540.09 | ppm | 4.6003 | 0.9 | 259280 | 540.09 ppm | Y 361.104 | - |
| As | 188.980 | 0.003188u | ppm | 0.008556 | 268.4 | 0.94619 | 0.003188 ppm | Y 361.104 | 0.00319 |
| B | 249.772 | 0.023820u | ppm | 0.002376 | 10.0 | -898.34 | 0.023820 ppm | Y 361.104 | 0.02382 |
| Ba | 233.527 | 0.004448 | ppm | 0.000078 | 1.7 | 235.83 | 0.004448 ppm | Y 361.104 | 0.00445 |
| Be | 234.861 | -0.005495u | ppm | 0.002028 | 36.9 | -1874.5 | -0.005495 ppm | Y 361.104 | -0.00550 |
| Ca | 315.887 | 512.67 | ppm | 3.3640 | 0.7 | 2776969 | 512.67 ppm | Y 361.104 | - |
| Cd | 228.802 | 0.001621 | ppm | 0.000817 | 50.4 | 9.6289 | 0.001621 ppm | Y 361.104 | 0.00162 |
| Co | 231.160 | 0.003346 | ppm | 0.000583 | 17.4 | 116.49 | 0.003346 ppm | Y 361.104 | 0.00335 |
| Cr | 267.716 | 0.001712 | ppm | 0.000129 | 7.6 | 52.490 | 0.001712 ppm | Y 361.104 | 0.00171 |
| Cu | 324.754 | -0.004054u | ppm | 0.000176 | 4.3 | -483.14 | -0.004054 ppm | Y 361.104 | -0.00405 |
| Fe | 261.382 | 201.72 | ppm | 1.5741 | 0.8 | 306436 | 201.72 ppm | Y 361.104 | - |
| K | 728.181 | -0.001949u | ppm | 0.000729 | 37.4 | 15.989 | -0.001949 ppm | Y 361.104 | -0.00195 |
| Li | 610.365 | -0.002573u | ppm | 0.001711 | 66.5 | -7883.2 | -0.002573 ppm | Y 361.104 | -0.00257 |
| Mg | 279.078 | 545.08 | ppm | 4.7411 | 0.9 | 467543 | 545.08 ppm | Y 361.104 | - |
| Mn | 293.305 | 0.009556 | ppm | 0.000602 | 6.3 | 125.86 | 0.009556 ppm | Y 361.104 | 0.00956 |
| Mo | 202.032 | -0.001397u | ppm | 0.000120 | 8.6 | -0.70786 | -0.001397 ppm | Y 361.104 | -0.00140 |
| Na | 589.592 | 0.060936 | ppm | 0.000709 | 1.2 | 6728.2 | 0.060936 ppm | Y 361.104 | 0.06094 |
| Ni | 221.648 | 0.003793 | ppm | 0.000300 | 7.9 | 4.9305 | 0.003793 ppm | Y 361.104 | 0.00379 |
| Pb | 220.353 | -0.002288 | ppm | 0.002964 | 129.5 | 184.40 | -0.002288 ppm | Y 361.104 | -0.00229 |
| Sb | 217.582 | -0.017865u | ppm | 0.014508 | 81.2 | -24.873 | -0.017865 ppm | Y 361.104 | -0.01786 |
| Se | 196.026 | 0.002826 | ppm | 0.012849 | 454.6 | 5.1557 | 0.002826 ppm | Y 361.104 | 0.00283 |
| Si | 251.611 | 0.035818 | ppm | 0.002648 | 7.4 | 103.69 | 0.035818 ppm | Y 361.104 | 0.03582 |
| Sn | 189.927 | 0.001261u | ppm | 0.001654 | 131.1 | 1.7276 | 0.001261 ppm | Y 361.104 | 0.00126 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Sr | 216.596 | -0.002142 | ppm | 0.000900 | 42.0 | 238.56 | -0.002142 ppm | Y 361.104 | -0.00214 |
| Ti | 322.284 | -0.000652u | ppm | 0.000368 | 56.4 | 71.932 | -0.000652 ppm | Y 361.104 | -0.00065 |
| Tl | 190.794 | 0.009179u | ppm | 0.001050 | 11.4 | -16.647 | 0.009179 ppm | Y 361.104 | 0.00918 |
| V | 289.164 | -0.002626 | ppm | 0.001243 | 47.3 | 63.439 | -0.002626 ppm | Y 361.104 | -0.00263 |
| Zn | 206.200 | 0.011130 | ppm | 0.001846 | 16.6 | 11.981 | 0.011130 ppm | Y 361.104 | 0.01113 |
| Zr | 257.147 | 0.008132 | ppm | 0.000797 | 9.8 | 88.506 | 0.008132 ppm | Y 361.104 | 0.00813 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.91696 | 155578 | 958.968 | 0.6 |

**ICS-AB (ICSAB)** **1/14/02, 11:47:36 PM** **Rack 1, Tube 16**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 5994.1 | 5999.0 | 6028.4 |
| Al | 237.312 | 254412 | 254346 | 254076 |
| As | 188.980 | 32.464 | 32.758 | 34.358 |
| B | 249.772 | -966.66 | -898.19 | -930.52 |
| Ba | 233.527 | 18614 | 18630 | 18648 |
| Be | 234.861 | 24086 | 24296 | 24337 |
| Ca | 315.887 | 2723367 | 2721473 | 2729762 |
| Cd | 228.802 | 7872.4 | 7864.6 | 7867.8 |
| Co | 231.160 | 2781.0 | 2779.6 | 2796.1 |
| Cr | 267.716 | 13561 | 13568 | 13607 |
| Cu | 324.754 | 14863 | 14892 | 14919 |
| Fe | 261.382 | 300654 | 301374 | 301910 |
| K | 728.181 | 34.867 | 24.316 | 39.268 |
| Li | 610.365 | -7745.5 | -7776.5 | -7803.4 |
| Mg | 279.078 | 457813 | 458137 | 459047 |
| Mn | 293.305 | 5957.6 | 5970.9 | 5991.4 |
| Mo | 202.032 | -4.6392 | -3.7037 | -6.5618 |
| Na | 589.592 | 7559.1 | 7568.6 | 7536.8 |
| Na | 568.821 | 1109.3 | 1152.2 | 1153.3 |
| Ni | 221.648 | 1407.6 | 1411.5 | 1419.3 |
| Pb | 220.353 | 1772.4 | 1771.4 | 1779.0 |
| Sb | 217.582 | 328.28 | 321.07 | 326.74 |
| Se | 196.026 | 18.135 | 16.701 | 15.870 |
| Si | 251.611 | 139.04 | 145.13 | 150.06 |
| Sn | 189.927 | -0.98557 | 1.6279 | 1.6406 |
| Sr | 216.596 | 228.78 | 226.56 | 230.80 |
| Ti | 322.284 | 62.214 | 69.164 | 73.716 |

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Tl | 190.794 | 29.798 | 30.319 | 31.307 |
| V | 289.164 | 3123.2 | 3144.4 | 3124.9 |
| Y | 361.104 | 157915 | 158225 | 158085 |
| Zn | 206.200 | 981.67 | 989.24 | 987.39 |
| Zr | 257.147 | 95.070 | 95.457 | 85.413 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.22187 | ppm | 0.000682 | 0.3 | 6007.2 | 0.22187 ppm | Y 361.104 | 110.93335 |
| Al | 237.312 | 529.67 | ppm | 0.37050 | 0.1 | 254278 | 529.67 ppm | Y 361.104 | 105.93379 |
| As | 188.980 | 0.10281 | ppm | 0.003154 | 3.1 | 33.193 | 0.10281 ppm | Y 361.104 | 102.80685 |
| B | 249.772 | 0.018628u | ppm | 0.003417 | 18.3 | -931.79 | 0.018628 ppm | Y 361.104 | - |
| Ba | 233.527 | 0.52674 | ppm | 0.000480 | 0.1 | 18631 | 0.52674 ppm | Y 361.104 | 105.34711 |
| Be | 234.861 | 0.53225 | ppm | 0.002777 | 0.5 | 24240 | 0.53225 ppm | Y 361.104 | 106.45018 |
| Ca | 315.887 | 503.05 | ppm | 0.80208 | 0.2 | 2724867 | 503.05 ppm | Y 361.104 | 100.61034 |
| Cd | 228.802 | 1.0762 | ppm | 0.000533 | 0.0 | 7868.2 | 1.0762 ppm | Y 361.104 | 107.61742 |
| Co | 231.160 | 0.49702 | ppm | 0.001704 | 0.3 | 2785.6 | 0.49702 ppm | Y 361.104 | 99.40450 |
| Cr | 267.716 | 0.50865 | ppm | 0.000937 | 0.2 | 13579 | 0.50865 ppm | Y 361.104 | 101.73033 |
| Cu | 324.754 | 0.53724 | ppm | 0.000987 | 0.2 | 14891 | 0.53724 ppm | Y 361.104 | 107.44853 |
| Fe | 261.382 | 198.34 | ppm | 0.41497 | 0.2 | 301313 | 198.34 ppm | Y 361.104 | 99.17233 |
| K | 728.181 | 0.003569 | ppm | 0.002516 | 70.5 | 32.817 | 0.003569 ppm | Y 361.104 | - |
| Li | 610.365 | -0.004038u | ppm | 0.000721 | 17.9 | -7775.1 | -0.004038 ppm | Y 361.104 | - |
| Mg | 279.078 | 534.34 | ppm | 0.74602 | 0.1 | 458333 | 534.34 ppm | Y 361.104 | 106.86778 |
| Mn | 293.305 | 0.50896 | ppm | 0.001451 | 0.3 | 5973.3 | 0.50896 ppm | Y 361.104 | 101.79261 |
| Mo | 202.032 | -0.002368u | ppm | 0.000332 | 14.0 | -4.9682 | -0.002368 ppm | Y 361.104 | - |
| Na | 589.592 | 0.059750 | ppm | 0.000170 | 0.3 | 7554.8 | 0.059750 ppm | Y 361.104 | - |
| Ni | 221.648 | 0.97103 | ppm | 0.004085 | 0.4 | 1412.8 | 0.97103 ppm | Y 361.104 | 97.10275 |
| Pb | 220.353 | 0.97546 | ppm | 0.002526 | 0.3 | 1774.2 | 0.97546 ppm | Y 361.104 | 97.54611 |
| Sb | 217.582 | 0.61650 | ppm | 0.006874 | 1.1 | 325.36 | 0.61650 ppm | Y 361.104 | 102.74971 |
| Se | 196.026 | 0.053272 | ppm | 0.004889 | 9.2 | 16.902 | 0.053272 ppm | Y 361.104 | 106.54375 |
| Si | 251.611 | 0.056949 | ppm | 0.002772 | 4.9 | 144.75 | 0.056949 ppm | Y 361.104 | - |
| Sn | 189.927 | 0.000289u | ppm | 0.001764 | 610.0 | 0.76096 | 0.000289 ppm | Y 361.104 | - |
| Sr | 216.596 | -0.002748 | ppm | 0.000388 | 14.1 | 228.72 | -0.002748 ppm | Y 361.104 | - |
| Ti | 322.284 | -0.001085u | ppm | 0.000776 | 71.5 | 68.364 | -0.001085 ppm | Y 361.104 | - |
| Tl | 190.794 | 0.10656 | ppm | 0.001639 | 1.5 | 30.475 | 0.10656 ppm | Y 361.104 | 106.55750 |
| V | 289.164 | 0.51695 | ppm | 0.001990 | 0.4 | 3130.8 | 0.51695 ppm | Y 361.104 | 103.38924 |
| Zn | 206.200 | 0.99138 | ppm | 0.003979 | 0.4 | 986.10 | 0.99138 ppm | Y 361.104 | 99.13750 |
| Zr | 257.147 | 0.008484 | ppm | 0.000601 | 7.1 | 91.980 | 0.008484 ppm | Y 361.104 | - |



| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.93168 | 158075 | 155.495 | 0.1 |

CCV (CCV) **1/14/02, 11:50:50 PM** **Rack 1, Tube 17**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 28095 | 28128 | 28532 |
| Al | 237.312 | 2484.9 | 2490.6 | 2527.5 |
| As | 188.980 | 1692.1 | 1681.0 | 1723.1 |
| B | 249.772 | 20358 | 20477 | 20878 |
| Ba | 233.527 | 180505 | 180324 | 183621 |
| Be | 234.861 | 250209 | 250136 | 254883 |
| Ca | 315.887 | 277337 | 277029 | 282108 |
| Cd | 228.802 | 37747 | 37707 | 38355 |
| Co | 231.160 | 27417 | 27383 | 27896 |
| Cr | 267.716 | 135924 | 135894 | 138331 |
| Cu | 324.754 | 143211 | 142795 | 146514 |
| Fe | 261.382 | 7661.6 | 7669.3 | 7812.8 |
| K | 728.181 | 169684 | 169879 | 173069 |
| Li | 610.365 | 205618 | 205855 | 209474 |
| Mg | 279.078 | 42839 | 42806 | 43641 |
| Mn | 293.305 | 59857 | 59875 | 60987 |
| Mo | 202.032 | 4315.4 | 4329.6 | 4426.8 |
| Na | 589.592 | 5468857 | 5459359 | 5563960 |
| Na | 568.821 | 11934 | 11967 | 12170 |
| Ni | 221.648 | 7394.7 | 7403.3 | 7523.8 |
| Pb | 220.353 | 8342.6 | 8331.2 | 8486.4 |
| Sb | 217.582 | 552.44 | 556.58 | 562.53 |
| Se | 196.026 | 1212.1 | 1217.3 | 1237.2 |
| Si | 251.611 | 9976.5 | 10004 | 10194 |
| Sn | 189.927 | 4225.8 | 4237.1 | 4300.9 |
| Sr | 216.596 | 28446 | 27878 | 28799 |
| Ti | 322.284 | 35977 | 35974 | 36604 |
| Tl | 190.794 | 2360.9 | 2360.1 | 2412.0 |
| V | 289.164 | 30220 | 30402 | 30758 |
| Y | 361.104 | 170119 | 170590 | 168508 |
| Zn | 206.200 | 5172.1 | 5160.4 | 5253.8 |
| Zr | 257.147 | 49037 | 49007 | 49895 |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 1.0294 | ppm | 0.008969 | 0.9 | 28251 | 1.0294 ppm | Y 361.104 | 102.94054 |
| Al | 237.312 | 5.1935 | ppm | 0.048183 | 0.9 | 2501.0 | 5.1935 ppm | Y 361.104 | 103.86967 |
| As | 188.980 | 5.2544 | ppm | 0.067497 | 1.3 | 1698.7 | 5.2544 ppm | Y 361.104 | 105.08762 |
| B | 249.772 | 2.0543 | ppm | 0.027184 | 1.3 | 20571 | 2.0543 ppm | Y 361.104 | 102.71403 |
| Ba | 233.527 | 5.1512 | ppm | 0.052627 | 1.0 | 181484 | 5.1512 ppm | Y 361.104 | 103.02329 |
| Be | 234.861 | 5.1900 | ppm | 0.056075 | 1.1 | 251743 | 5.1900 ppm | Y 361.104 | 103.80090 |
| Ca | 315.887 | 51.479 | ppm | 0.52594 | 1.0 | 278825 | 51.479 ppm | Y 361.104 | 102.95842 |
| Cd | 228.802 | 5.1943 | ppm | 0.049646 | 1.0 | 37937 | 5.1943 ppm | Y 361.104 | 103.88603 |
| Co | 231.160 | 5.1247 | ppm | 0.053291 | 1.0 | 27566 | 5.1247 ppm | Y 361.104 | 102.49303 |
| Cr | 267.716 | 5.1237 | ppm | 0.052416 | 1.0 | 136717 | 5.1237 ppm | Y 361.104 | 102.47421 |
| Cu | 324.754 | 5.0747 | ppm | 0.071755 | 1.4 | 144174 | 5.0747 ppm | Y 361.104 | 101.49318 |
| Fe | 261.382 | 5.1127 | ppm | 0.056067 | 1.1 | 7714.6 | 5.1127 ppm | Y 361.104 | 102.25383 |
| K | 728.181 | 53.503 | ppm | 0.57002 | 1.1 | 170877 | 53.503 ppm | Y 361.104 | 107.00663 |
| Li | 610.365 | 5.1445 | ppm | 0.053769 | 1.0 | 206982 | 5.1445 ppm | Y 361.104 | 102.88991 |
| Mg | 279.078 | 50.240 | ppm | 0.55130 | 1.1 | 43096 | 50.240 ppm | Y 361.104 | 100.47996 |
| Mn | 293.305 | 5.1437 | ppm | 0.055281 | 1.1 | 60240 | 5.1437 ppm | Y 361.104 | 102.87337 |
| Mo | 202.032 | 0.99229 | ppm | 0.013822 | 1.4 | 4357.3 | 0.99229 ppm | Y 361.104 | 99.22887 |
| Na | 589.592 | 54.281 | ppm | 0.54373 | 1.0 | 5497392 | 54.281 ppm | Y 361.104 | 108.56189 |
| Ni | 221.648 | 5.1050 | ppm | 0.049564 | 1.0 | 7440.6 | 5.1050 ppm | Y 361.104 | 102.10062 |
| Pb | 220.353 | 5.1475 | ppm | 0.053066 | 1.0 | 8386.7 | 5.1475 ppm | Y 361.104 | 102.94984 |
| Sb | 217.582 | 1.0190 | ppm | 0.009175 | 0.9 | 557.18 | 1.0190 ppm | Y 361.104 | 101.90063 |
| Se | 196.026 | 5.2131 | ppm | 0.056467 | 1.1 | 1222.2 | 5.2131 ppm | Y 361.104 | 104.26102 |
| Si | 251.611 | 5.0345 | ppm | 0.059554 | 1.2 | 10058 | 5.0345 ppm | Y 361.104 | 100.68944 |
| Sn | 189.927 | 4.9579 | ppm | 0.047244 | 1.0 | 4254.6 | 4.9579 ppm | Y 361.104 | 99.15791 |
| Sr | 216.596 | 5.1921 | ppm | 0.085054 | 1.6 | 28374 | 5.1921 ppm | Y 361.104 | 103.84155 |
| Ti | 322.284 | 4.8330 | ppm | 0.048549 | 1.0 | 36185 | 4.8330 ppm | Y 361.104 | 96.66005 |
| Tl | 190.794 | 5.0577 | ppm | 0.063565 | 1.3 | 2377.7 | 5.0577 ppm | Y 361.104 | 101.15350 |
| V | 289.164 | 5.1550 | ppm | 0.046109 | 0.9 | 30460 | 5.1550 ppm | Y 361.104 | 103.09969 |
| Zn | 206.200 | 5.2200 | ppm | 0.051270 | 1.0 | 5195.5 | 5.2200 ppm | Y 361.104 | 104.40025 |
| Zr | 257.147 | 5.2117 | ppm | 0.053253 | 1.0 | 49313 | 5.2117 ppm | Y 361.104 | 104.23344 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0004 | 169739 | 1091.896 | 0.6 |

**BLA01 (CCB)** **1/14/02, 11:54:05 PM** **Rack 1, Tube 18**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -5.0040 | 1.1596 | -2.1826 |
| Al | 237.312 | -2.0990 | -2.0566 | -4.2690 |
| As | 188.980 | -1.1251 | 1.3575 | -0.50467 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| B | 249.772 | 114.08 | 89.603 | 68.221 |
| Ba | 233.527 | 81.954 | 81.016 | 78.119 |
| Be | 234.861 | -3.1762 | -8.1214 | -3.2200 |
| Ca | 315.887 | 129.74 | 140.88 | 136.27 |
| Cd | 228.802 | -0.27229 | -0.81701 | -1.6963 |
| Co | 231.160 | 16.603 | 9.0048 | 10.840 |
| Cr | 267.716 | 0.77032 | 2.4984 | 4.4234 |
| Cu | 324.754 | 134.47 | 128.79 | 136.23 |
| Fe | 261.382 | 6.4227 | 8.7294 | 12.283 |
| K | 728.181 | 13.226 | 2.6343 | 29.820 |
| Li | 610.365 | 1168.8 | 1106.8 | 1122.1 |
| Mg | 279.078 | 3.3548 | 2.3832 | 0.41953 |
| Mn | 293.305 | 3.2680 | 7.1245 | 10.508 |
| Mo | 202.032 | 21.334 | 21.000 | 15.608 |
| Na | 589.592 | 682.38 | 697.26 | 692.29 |
| Na | 568.821 | -456.22 | -421.07 | -419.20 |
| Ni | 221.648 | 0.69222 | -1.4429 | 0.007881 |
| Pb | 220.353 | -2.9781 | -1.1053 | -2.2067 |
| Sb | 217.582 | -3.0432 | -4.0655 | -2.3048 |
| Se | 196.026 | -1.4640 | -0.12461 | -2.0434 |
| Si | 251.611 | 60.109 | 66.404 | 63.162 |
| Sn | 189.927 | 1.3523 | -1.3531 | 1.6692 |
| Sr | 216.596 | 0.50557 | -0.94721 | -2.7115 |
| Ti | 322.284 | 78.842 | 70.900 | 74.146 |
| Tl | 190.794 | 4.1220 | 3.0997 | -0.27459 |
| V | 289.164 | 4.8390 | 6.0016 | -5.7404 |
| Y | 361.104 | 177462 | 178767 | 180941 |
| Zn | 206.200 | -0.26800 | 2.6704 | 3.0763 |
| Zr | 257.147 | 15.367 | 9.4005 | 14.077 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.000414 | ppm | 0.000114 | 27.5 | -2.0090 | 0.000414 ppm | Y 361.104 | 0.00041 |
| Al | 237.312 | -0.003735u | ppm | 0.002636 | 70.6 | -2.8082 | -0.003735 ppm | Y 361.104 | -0.00374 |
| As | 188.980 | -0.000021u | ppm | 0.003998 | 18855.5 | -0.090768 | -0.000021 ppm | Y 361.104 | -0.00002 |
| B | 249.772 | 0.007412 | ppm | 0.002289 | 30.9 | 90.636 | 0.007412 ppm | Y 361.104 | 0.00741 |
| Ba | 233.527 | 0.000034u | ppm | 0.000057 | 167.1 | 80.363 | 0.000034 ppm | Y 361.104 | 0.00003 |
| Be | 234.861 | -0.000141u | ppm | 0.000059 | 41.6 | -4.8392 | -0.000141 ppm | Y 361.104 | -0.00014 |
| Ca | 315.887 | -0.004849u | ppm | 0.001034 | 21.3 | 135.63 | -0.004849 ppm | Y 361.104 | -0.00485 |
| Cd | 228.802 | 0.000176 | ppm | 0.000098 | 56.0 | -0.92855 | 0.000176 ppm | Y 361.104 | 0.00018 |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Co | 231.160 | 0.000020u | ppm | 0.000736 | 3701.1 | 12.149 | 0.000020 ppm | Y 361.104 | 0.00002 |
| Cr | 267.716 | -0.000159u | ppm | 0.000068 | 43.1 | 2.5641 | -0.000159 ppm | Y 361.104 | -0.00016 |
| Cu | 324.754 | 0.000171 | ppm | 0.000137 | 80.0 | 133.16 | 0.000171 ppm | Y 361.104 | 0.00017 |
| Fe | 261.382 | -0.004663u | ppm | 0.001944 | 41.7 | 9.1451 | -0.004663 ppm | Y 361.104 | -0.00466 |
| K | 728.181 | -0.002200u | ppm | 0.004488 | 204.0 | 15.227 | -0.002200 ppm | Y 361.104 | -0.00220 |
| Li | 610.365 | 0.000292u | ppm | 0.000804 | 274.9 | 1132.5 | 0.000292 ppm | Y 361.104 | 0.00029 |
| Mg | 279.078 | -0.000240u | ppm | 0.001743 | 725.9 | 2.0525 | -0.000240 ppm | Y 361.104 | -0.00024 |
| Mn | 293.305 | -0.000599u | ppm | 0.000309 | 51.6 | 6.9668 | -0.000599 ppm | Y 361.104 | -0.00060 |
| Mo | 202.032 | 0.003168 | ppm | 0.000733 | 23.1 | 19.314 | 0.003168 ppm | Y 361.104 | 0.00317 |
| Na | 589.592 | -0.001996u | ppm | 0.000079 | 4.0 | 690.64 | -0.001996 ppm | Y 361.104 | -0.00200 |
| Ni | 221.648 | 0.000274u | ppm | 0.000749 | 273.5 | -0.24760 | 0.000274 ppm | Y 361.104 | 0.00027 |
| Pb | 220.353 | -0.001233u | ppm | 0.000577 | 46.8 | -2.0967 | -0.001233 ppm | Y 361.104 | -0.00123 |
| Sb | 217.582 | -0.001302u | ppm | 0.001599 | 122.9 | -3.1378 | -0.001302 ppm | Y 361.104 | -0.00130 |
| Se | 196.026 | -0.005991u | ppm | 0.004198 | 70.1 | -1.2107 | -0.005991 ppm | Y 361.104 | -0.00599 |
| Si | 251.611 | 0.008590 | ppm | 0.001582 | 18.4 | 63.225 | 0.008590 ppm | Y 361.104 | 0.00859 |
| Sn | 189.927 | -0.000100u | ppm | 0.001937 | 1932.9 | 0.55614 | -0.000100 ppm | Y 361.104 | -0.00010 |
| Sr | 216.596 | -0.000574u | ppm | 0.000295 | 51.3 | -1.0511 | -0.000574 ppm | Y 361.104 | -0.00057 |
| Ti | 322.284 | -0.000290u | ppm | 0.000535 | 184.1 | 74.629 | -0.000290 ppm | Y 361.104 | -0.00029 |
| Tl | 190.794 | 0.007060 | ppm | 0.004922 | 69.7 | 2.3157 | 0.007060 ppm | Y 361.104 | 0.00706 |
| V | 289.164 | 0.000935u | ppm | 0.001091 | 116.7 | 1.7001 | 0.000935 ppm | Y 361.104 | 0.00093 |
| Zn | 206.200 | 0.000901u | ppm | 0.001839 | 204.1 | 1.8262 | 0.000901 ppm | Y 361.104 | 0.00090 |
| Zr | 257.147 | 0.000147u | ppm | 0.000332 | 225.3 | 12.948 | 0.000147 ppm | Y 361.104 | 0.00015 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0553 | 179057 | 1757.277 | 1.0 |

Q1325137 BLA02 (Samp) 1/14/02, 11:57:20 PM Rack 1, Tube 19

Weight: 1 Volume: 1 Dilution: 1

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -7.8094 | -12.013 | -4.3608 |
| Al | 237.312 | -0.75898 | -0.44050 | -1.6083 |
| As | 188.980 | -1.7835 | -0.069926 | 0.22185 |
| B | 249.772 | 32.776 | 32.084 | 29.182 |
| Ba | 233.527 | 78.258 | 74.932 | 77.365 |
| Be | 234.861 | -1.8597 | -0.92652 | -2.4601 |
| Ca | 315.887 | 147.91 | 155.68 | 152.90 |
| Cd | 228.802 | -3.3265 | 2.5211 | -1.6455 |
| Co | 231.160 | 10.241 | 9.9129 | 10.922 |
| Cr | 267.716 | 6.2384 | 0.42190 | 7.0312 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Cu | 324.754 | 121.51 | 119.46 | 125.87 |
| Fe | 261.382 | 8.2374 | 10.017 | 8.3031 |
| K | 728.181 | 57.317 | 53.034 | 68.999 |
| Li | 610.365 | 1080.0 | 1092.3 | 1110.9 |
| Mg | 279.078 | -1.5834 | 4.1574 | -1.1924 |
| Mn | 293.305 | 13.239 | 8.1958 | 11.880 |
| Mo | 202.032 | 7.6726 | 4.0945 | 5.2764 |
| Na | 589.592 | 1841.9 | 1828.6 | 1866.2 |
| Na | 568.821 | -416.20 | -397.52 | -422.20 |
| Ni | 221.648 | -1.5927 | -1.0164 | 0.36687 |
| Pb | 220.353 | -4.5483 | -0.92793 | 0.37506 |
| Sb | 217.582 | -1.7533 | -2.2108 | -1.1331 |
| Se | 196.026 | 1.5142 | 1.7066 | 0.47847 |
| Si | 251.611 | 62.164 | 64.508 | 67.855 |
| Sn | 189.927 | 1.4186 | -0.59284 | -0.53154 |
| Sr | 216.596 | -0.46471 | 0.93575 | 0.85775 |
| Ti | 322.284 | 77.933 | 72.151 | 74.082 |
| Tl | 190.794 | -1.0607 | -1.4714 | 0.48357 |
| V | 289.164 | 1.6728 | 1.4896 | -2.1469 |
| Y | 361.104 | 181655 | 181143 | 179407 |
| Zn | 206.200 | 5.9369 | 3.7463 | 4.7673 |
| Zr | 257.147 | 24.892 | 25.616 | 20.934 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.000189 | ppm | 0.000141 | 74.8 | -8.0609 | 0.000189 ppm | Y 361.104 | 1.0000 |
| Al | 237.312 | 0.000163u | ppm | 0.001257 | 770.8 | -0.93592 | 0.000163 ppm | Y 361.104 | 1.0000 |
| As | 188.980 | -0.001422u | ppm | 0.003352 | 235.7 | -0.54387 | -0.001422 ppm | Y 361.104 | 1.0000 |
| B | 249.772 | 0.001497 | ppm | 0.000190 | 12.7 | 31.347 | 0.001497 ppm | Y 361.104 | 1.0000 |
| Ba | 233.527 | -0.000066u | ppm | 0.000049 | 74.4 | 76.852 | -0.000066 ppm | Y 361.104 | 1.0000 |
| Be | 234.861 | -0.000077u | ppm | 0.000016 | 20.6 | -1.7488 | -0.000077 ppm | Y 361.104 | 1.0000 |
| Ca | 315.887 | -0.001788u | ppm | 0.000727 | 40.7 | 152.16 | -0.001788 ppm | Y 361.104 | 1.0000 |
| Cd | 228.802 | 0.000189u | ppm | 0.000412 | 218.0 | -0.81698 | 0.000189 ppm | Y 361.104 | 1.0000 |
| Co | 231.160 | -0.000327u | ppm | 0.000096 | 29.2 | 10.358 | -0.000327 ppm | Y 361.104 | 1.0000 |
| Cr | 267.716 | -0.000084u | ppm | 0.000135 | 161.1 | 4.5638 | -0.000084 ppm | Y 361.104 | 1.0000 |
| Cu | 324.754 | -0.000212u | ppm | 0.000115 | 54.5 | 122.28 | -0.000212 ppm | Y 361.104 | 1.0000 |
| Fe | 261.382 | -0.004855u | ppm | 0.000664 | 13.7 | 8.8525 | -0.004855 ppm | Y 361.104 | 1.0000 |
| K | 728.181 | 0.012393 | ppm | 0.002706 | 21.8 | 59.783 | 0.012393 ppm | Y 361.104 | 1.0000 |
| Li | 610.365 | -0.000655u | ppm | 0.000387 | 59.1 | 1094.4 | -0.000655 ppm | Y 361.104 | 1.0000 |
| Mg | 279.078 | -0.002096u | ppm | 0.003739 | 178.4 | 0.46051 | -0.002096 ppm | Y 361.104 | 1.0000 |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Mn | 293.305 | -0.000246u | ppm | 0.000223 | 90.7 | 11.105 | -0.000246 ppm | Y 361.104 | 1.0000 |
| Mo | 202.032 | 0.000060u | ppm | 0.000416 | 695.7 | 5.6812 | 0.000060 ppm | Y 361.104 | 1.0000 |
| Na | 589.592 | 0.010061 | ppm | 0.000199 | 2.0 | 1845.6 | 0.010061 ppm | Y 361.104 | 1.0000 |
| Na | 568.821 | -v | ppm | 0.051162 | 11.2 | -411.97 | - ppm | Y 361.104 | 1.0000 |
| Ni | 221.648 | -0.000071u | ppm | 0.000692 | 972.2 | -0.74743 | -0.000071 ppm | Y 361.104 | 1.0000 |
| Pb | 220.353 | -0.000998u | ppm | 0.001565 | 156.9 | -1.7004 | -0.000998 ppm | Y 361.104 | 1.0000 |
| Sb | 217.582 | 0.001301 | ppm | 0.000978 | 75.2 | -1.6991 | 0.001301 ppm | Y 361.104 | 1.0000 |
| Se | 196.026 | 0.004434 | ppm | 0.002818 | 63.5 | 1.2331 | 0.004434 ppm | Y 361.104 | 1.0000 |
| Si | 251.611 | 0.009403 | ppm | 0.001437 | 15.3 | 64.842 | 0.009403 ppm | Y 361.104 | 1.0000 |
| Sn | 189.927 | -0.000635u | ppm | 0.001334 | 210.2 | 0.098068 | -0.000635 ppm | Y 361.104 | 1.0000 |
| Sr | 216.596 | -0.000301u | ppm | 0.000144 | 47.9 | 0.44293 | -0.000301 ppm | Y 361.104 | 1.0000 |
| Ti | 322.284 | -0.000275u | ppm | 0.000394 | 143.2 | 74.722 | -0.000275 ppm | Y 361.104 | 1.0000 |
| Tl | 190.794 | 0.000641u | ppm | 0.002205 | 344.0 | -0.68284 | 0.000641 ppm | Y 361.104 | 1.0000 |
| V | 289.164 | 0.000704 | ppm | 0.000363 | 51.6 | 0.33850 | 0.000704 ppm | Y 361.104 | 1.0000 |
| Zn | 206.200 | 0.003916 | ppm | 0.001105 | 28.2 | 4.8168 | 0.003916 ppm | Y 361.104 | 1.0000 |
| Zr | 257.147 | 0.001296 | ppm | 0.000266 | 20.6 | 23.814 | 0.001296 ppm | Y 361.104 | 1.0000 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0652 | 180735 | 1177.808 | 0.7 |

**Q1325140 LCS (Samp)** **1/15/02, 12:00:36 AM** **Rack 1, Tube 20**

Weight: 1 Volume: 1 Dilution: 1

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 14270 | 14289 | 14211 |
| Al | 237.312 | 10183 | 10192 | 10125 |
| As | 188.980 | 6804.4 | 6814.8 | 6741.2 |
| B | 249.772 | 9833.9 | 9873.3 | 9850.1 |
| Ba | 233.527 | 712902 | 719013 | 710451 |
| Be | 234.861 | 25535 | 25396 | 25347 |
| Ca | 315.887 | 549479 | 549743 | 546909 |
| Cd | 228.802 | 3714.3 | 3730.4 | 3719.6 |
| Co | 231.160 | 28040 | 28278 | 28044 |
| Cr | 267.716 | 55900 | 55883 | 55566 |
| Cu | 324.754 | 74202 | 74200 | 73783 |
| Fe | 261.382 | 15657 | 15642 | 15563 |
| K | 728.181 | 347132 | 345986 | 345511 |
| Li | 610.365 | 39523 | 39385 | 39256 |
| Mg | 279.078 | 88709 | 88737 | 88276 |
| Mn | 293.305 | 60950 | 60935 | 60616 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Mo | 202.032 | 4568.6 | 4602.6 | 4580.9 |
| Na | 589.592 | 11021885 | 11015014 | 10922236 |
| Na | 568.821 | 25862 | 25945 | 25716 |
| Ni | 221.648 | 7493.4 | 7483.5 | 7435.9 |
| Pb | 220.353 | 8421.1 | 8437.3 | 8381.7 |
| Sb | 217.582 | 2848.0 | 2827.5 | 2828.0 |
| Se | 196.026 | 5021.3 | 5045.0 | 5014.7 |
| Si | 251.611 | 19379 | 19366 | 19286 |
| Sn | 189.927 | -1.4107 | 0.87361 | -0.74736 |
| Sr | 216.596 | 5708.9 | 5753.2 | 5736.1 |
| Ti | 322.284 | 7278.0 | 7271.5 | 7222.2 |
| Tl | 190.794 | 9965.2 | 10005 | 9979.8 |
| V | 289.164 | 31221 | 31046 | 30868 |
| Y | 361.104 | 168575 | 168742 | 168756 |
| Zn | 206.200 | 5122.3 | 5153.8 | 5117.9 |
| Zr | 257.147 | 46.677 | 43.251 | 49.113 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.52602 | ppm | 0.001509 | 0.3 | 14257 | 0.52602 ppm | Y 361.104 | 1.0000 |
| Al | 237.312 | 21.178 | ppm | 0.076259 | 0.4 | 10167 | 21.178 ppm | Y 361.104 | 1.0000 |
| As | 188.980 | 20.999 | ppm | 0.12316 | 0.6 | 6786.8 | 20.999 ppm | Y 361.104 | 1.0000 |
| B | 249.772 | 0.98746 | ppm | 0.001979 | 0.2 | 9852.4 | 0.98746 ppm | Y 361.104 | 1.0000 |
| Ba | 233.527 | 20.276 | ppm | 0.12521 | 0.6 | 714122 | 20.276 ppm | Y 361.104 | 1.0000 |
| Be | 234.861 | 0.52577 | ppm | 0.002003 | 0.4 | 25426 | 0.52577 ppm | Y 361.104 | 1.0000 |
| Ca | 315.887 | 101.27 | ppm | 0.28908 | 0.3 | 548710 | 101.27 ppm | Y 361.104 | 1.0000 |
| Cd | 228.802 | 0.53859 | ppm | 0.001125 | 0.2 | 3721.5 | 0.53859 ppm | Y 361.104 | 1.0000 |
| Co | 231.160 | 5.1896 | ppm | 0.025334 | 0.5 | 28121 | 5.1896 ppm | Y 361.104 | 1.0000 |
| Cr | 267.716 | 2.0904 | ppm | 0.007053 | 0.3 | 55783 | 2.0904 ppm | Y 361.104 | 1.0000 |
| Cu | 324.754 | 2.6062 | ppm | 0.008498 | 0.3 | 74061 | 2.6062 ppm | Y 361.104 | 1.0000 |
| Fe | 261.382 | 10.311 | ppm | 0.033317 | 0.3 | 15621 | 10.311 ppm | Y 361.104 | 1.0000 |
| K | 728.181 | 104.13 | ppm | 0.23305 | 0.2 | 346210 | 104.13 ppm | Y 361.104 | 1.0000 |
| Li | 610.365 | 0.99592 | ppm | 0.003325 | 0.3 | 39388 | 0.99592 ppm | Y 361.104 | 1.0000 |
| Mg | 279.078 | 103.26 | ppm | 0.30127 | 0.3 | 88574 | 103.26 ppm | Y 361.104 | 1.0000 |
| Mn | 293.305 | 5.1944 | ppm | 0.016125 | 0.3 | 60833 | 5.1944 ppm | Y 361.104 | 1.0000 |
| Mo | 202.032 | 1.0440 | ppm | 0.003925 | 0.4 | 4584.0 | 1.0440 ppm | Y 361.104 | 1.0000 |
| Na | 589.592 | 103.39 | ppm | 0.48309 | 0.5 | 10986379 | 103.39 ppm | Y 361.104 | 1.0000 |
| Na | 568.821 | 103.87 | ppm | 0.46234 | 0.4 | 25841 | 103.87 ppm | Y 361.104 | 1.0000 |
| Ni | 221.648 | 5.1155 | ppm | 0.021108 | 0.4 | 7470.9 | 5.1155 ppm | Y 361.104 | 1.0000 |
| Pb | 220.353 | 5.1606 | ppm | 0.017543 | 0.3 | 8413.3 | 5.1606 ppm | Y 361.104 | 1.0000 |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Sb | 217.582 | 5.1393 | ppm | 0.021231 | 0.4 | 2834.5 | 5.1393 ppm | Y 361.104 | 1.0000 |
| Se | 196.026 | 21.444 | ppm | 0.067952 | 0.3 | 5027.0 | 21.444 ppm | Y 361.104 | 1.0000 |
| Si | 251.611 | 9.7003 | ppm | 0.025405 | 0.3 | 19343 | 9.7003 ppm | Y 361.104 | 1.0000 |
| Sn | 189.927 | -0.000821u | ppm | 0.001370 | 166.9 | -0.42815 | -0.000821 ppm | Y 361.104 | 1.0000 |
| Sr | 216.596 | 1.0485 | ppm | 0.004090 | 0.4 | 5732.7 | 1.0485 ppm | Y 361.104 | 1.0000 |
| Ti | 322.284 | 0.96098 | ppm | 0.004088 | 0.4 | 7257.2 | 0.96098 ppm | Y 361.104 | 1.0000 |
| Tl | 190.794 | 21.333 | ppm | 0.043644 | 0.2 | 9983.5 | 21.333 ppm | Y 361.104 | 1.0000 |
| V | 289.164 | 5.2511 | ppm | 0.029785 | 0.6 | 31045 | 5.2511 ppm | Y 361.104 | 1.0000 |
| Zn | 206.200 | 5.1638 | ppm | 0.019724 | 0.4 | 5131.3 | 5.1638 ppm | Y 361.104 | 1.0000 |
| Zr | 257.147 | 0.004352 | ppm | 0.000311 | 7.2 | 46.347 | 0.004352 ppm | Y 361.104 | 1.0000 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.99425 | 168691 | 100.449 | 0.1 |

**A581216 1:5 (Samp)** **1/15/02, 12:03:51 AM** **Rack 1, Tube 21**
Weight: 1 Volume: 1 Dilution: 1

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -10.498 | -7.9087 | -11.367 |
| Al | 237.312 | -2.7559 | -1.5517 | -0.079809 |
| As | 188.980 | 0.072685 | 2.0124 | 1.8552 |
| B | 249.772 | 2978.6 | 2967.1 | 3000.8 |
| Ba | 233.527 | 2392.4 | 2391.8 | 2395.6 |
| Be | 234.861 | -2.3763 | -3.1138 | -2.0521 |
| Ca | 315.887 | 2916.4 | 2924.8 | 2903.7 |
| Cd | 228.802 | -3.4783 | -2.2848 | 0.54483 |
| Co | 231.160 | 7.6164 | 6.9836 | 6.6722 |
| Cr | 267.716 | 12.457 | 11.782 | 0.63236 |
| Cu | 324.754 | 201.09 | 200.21 | 184.50 |
| Fe | 261.382 | 24.567 | 24.880 | 31.233 |
| K | 728.181 | 2384.4 | 2394.8 | 2389.3 |
| Li | 610.365 | 1381.5 | 1336.9 | 1380.9 |
| Mg | 279.078 | 272.69 | 272.39 | 268.73 |
| Mn | 293.305 | 16.827 | 17.520 | 10.584 |
| Mo | 202.032 | 22.492 | 20.439 | 19.297 |
| Na | 589.592 | 20278928 | 18972028 | 18879030 |
| Na | 568.821 | 53522 | 53706 | 53468 |
| Ni | 221.648 | 4.0625 | 0.48055 | 2.9220 |
| Pb | 220.353 | -2.9317 | -4.6720 | -2.6935 |
| Sb | 217.582 | -4.5837 | -3.7911 | 0.20674 |

SD



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Se | 196.026 | 3.9598 | 3.0485 | 2.3660 |
| Si | 251.611 | 1453.3 | 1459.2 | 1448.6 |
| Sn | 189.927 | -0.41351 | 0.067327 | 0.96642 |
| Sr | 216.596 | 156.83 | 151.43 | 152.64 |
| Ti | 322.284 | 81.502 | 75.125 | 79.805 |
| Tl | 190.794 | 15.994 | 13.559 | 12.841 |
| V | 289.164 | 10.290 | 7.4292 | 7.0880 |
| Y | 361.104 | 177136 | 177564 | 179314 |
| Zn | 206.200 | 18.834 | 18.739 | 16.006 |
| Zr | 257.147 | 23.547 | 16.333 | 25.654 |

Na
1100

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.000120 | ppm | 0.000066 | 55.1 | -9.9245 | 0.000120 ppm | Y 361.104 | 1.0000 |
| Al | 237.312 | -0.000932u | ppm | 0.002792 | 299.6 | -1.4624 | -0.000932 ppm | Y 361.104 | 1.0000 |
| As | 188.980 | 0.004323 | ppm | 0.003333 | 77.1 | 1.3134 | 0.004323 ppm | Y 361.104 | 1.0000 |
| B | 249.772 | 0.29591 | ppm | 0.001705 | 0.6 | 2982.2 | 0.29591 ppm | Y 361.104 | 1.0000 |
| Ba | 233.527 | 0.065711 | ppm | 0.000059 | 0.1 | 2393.3 | 0.065711 ppm | Y 361.104 | 1.0000 |
| Be | 234.861 | -0.000091u | ppm | 0.000011 | 12.3 | -2.5141 | -0.000091 ppm | Y 361.104 | 1.0000 |
| Ca | 315.887 | 0.50842 | ppm | 0.001967 | 0.4 | 2915.0 | 0.50842 ppm | Y 361.104 | 1.0000 |
| Cd | 228.802 | 0.000071u | ppm | 0.000283 | 398.2 | -1.7394 | 0.000071 ppm | Y 361.104 | 1.0000 |
| Co | 231.160 | -0.000930u | ppm | 0.000089 | 9.6 | 7.0907 | -0.000930 ppm | Y 361.104 | 1.0000 |
| Cr | 267.716 | 0.000056u | ppm | 0.000249 | 446.9 | 8.2904 | 0.000056 ppm | Y 361.104 | 1.0000 |
| Cu | 324.754 | 0.002358 | ppm | 0.000329 | 13.9 | 195.27 | 0.002358 ppm | Y 361.104 | 1.0000 |
| Fe | 261.382 | 0.007017 | ppm | 0.002476 | 35.3 | 26.893 | 0.007017 ppm | Y 361.104 | 1.0000 |
| K | 728.181 | 0.77485 | ppm | 0.001702 | 0.2 | 2389.5 | 0.77485 ppm | Y 361.104 | 1.0000 |
| Li | 610.365 | 0.006333 | ppm | 0.000636 | 10.0 | 1366.4 | 0.006333 ppm | Y 361.104 | 1.0000 |
| Mg | 279.078 | 0.31362 | ppm | 0.002568 | 0.8 | 271.27 | 0.31362 ppm | Y 361.104 | 1.0000 |
| Mn | 293.305 | 0.000085u | ppm | 0.000326 | 383.9 | 14.977 | 0.000085 ppm | Y 361.104 | 1.0000 |
| Mo | 202.032 | 0.003494 | ppm | 0.000369 | 10.6 | 20.742 | 0.003494 ppm | Y 361.104 | 1.0000 |
| Na | 589.592 | -o | ppm | 6.7946 | 3.8 | 19376662 | - ppm | Y 361.104 | 1.0000 |
| Na | 568.821 | 215.01 | ppm | 0.49580 | 0.2 | 53565 | 215.01 ppm | Y 361.104 | 1.0000 |
| Ni | 221.648 | 0.000859 | ppm | 0.001257 | 146.3 | 2.4883 | 0.000859 ppm | Y 361.104 | 1.0000 |
| Pb | 220.353 | -0.002051u | ppm | 0.000663 | 32.3 | -3.4324 | -0.002051 ppm | Y 361.104 | 1.0000 |
| Sb | 217.582 | -0.000548u | ppm | 0.004645 | 847.5 | -2.7227 | -0.000548 ppm | Y 361.104 | 1.0000 |
| Se | 196.026 | 0.012503 | ppm | 0.003411 | 27.3 | 3.1248 | 0.012503 ppm | Y 361.104 | 1.0000 |
| Si | 251.611 | 0.70730 | ppm | 0.002670 | 0.4 | 1453.7 | 0.70730 ppm | Y 361.104 | 1.0000 |
| Sn | 189.927 | -0.000508u | ppm | 0.000817 | 160.8 | 0.20675 | -0.000508 ppm | Y 361.104 | 1.0000 |
| Sr | 216.596 | 0.027723 | ppm | 0.000519 | 1.9 | 153.63 | 0.027723 ppm | Y 361.104 | 1.0000 |
| Ti | 322.284 | 0.000269u | ppm | 0.000442 | 164.3 | 78.811 | 0.000269 ppm | Y 361.104 | 1.0000 |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Tl | 190.794 | 0.032339 | ppm | 0.003535 | 10.9 | 14.132 | 0.032339 ppm | Y 361.104 | 1.0000 |
| V | 289.164 | 0.002043 | ppm | 0.000296 | 14.5 | 8.2689 | 0.002043 ppm | Y 361.104 | 1.0000 |
| Zn | 206.200 | 0.017058 | ppm | 0.001618 | 9.5 | 17.860 | 0.017058 ppm | Y 361.104 | 1.0000 |
| Zr | 257.147 | 0.001088 | ppm | 0.000517 | 47.5 | 21.845 | 0.001088 ppm | Y 361.104 | 1.0000 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0491 | 178004 | 1154.107 | 0.6 |

A581216 (Samp) 1/15/02, 12:07:07 AM Rack 1, Tube 22

Weight: 1 Volume: 1 Dilution: 1

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -17.102 | -14.642 | -29.493 |
| Al | 237.312 | 0.64264 | -0.30909 | -2.8131 |
| As | 188.980 | -0.18602 | -0.72013 | -0.047486 |
| B | 249.772 | 14858 | 15289 | 15347 |
| Ba | 233.527 | 11760 | 11814 | 11845 |
| Be | 234.861 | -10.854 | -7.0617 | -3.5767 |
| Ca | 315.887 | 13905 | 14274 | 14300 |
| Cd | 228.802 | -2.9178 | 0.86735 | -2.6625 |
| Co | 231.160 | 13.847 | 10.139 | 11.747 |
| Cr | 267.716 | 10.982 | 10.485 | 16.393 |
| Cu | 324.754 | 300.70 | 310.31 | 321.81 |
| Fe | 261.382 | 87.470 | 99.673 | 95.097 |
| K | 728.181 | 16748 | 17128 | 17217 |
| Li | 610.365 | 2373.3 | 2461.8 | 2424.4 |
| Mg | 279.078 | 1302.6 | 1340.4 | 1342.2 |
| Mn | 293.305 | 33.217 | 39.814 | 36.351 |
| Mo | 202.032 | 4.6910 | 8.9675 | 9.1601 |
| Na | 589.592 | 30833638 | 31803390 | 31770192 |
| Na | 568.821 | 280570 | 287920 | 289668 |
| Ni | 221.648 | 9.1593 | 9.1012 | 8.8662 |
| Pb | 220.353 | -8.7244 | -6.7202 | -2.3180 |
| Sb | 217.582 | -1.3887 | -4.2074 | -1.8292 |
| Se | 196.026 | 1.0936 | -0.30961 | 1.9277 |
| Si | 251.611 | 7136.8 | 7327.5 | 7352.2 |
| Sn | 189.927 | 1.8040 | 0.82131 | -1.0705 |
| Sr | 216.596 | 756.75 | 786.60 | 786.01 |
| Ti | 322.284 | 79.359 | 91.914 | 80.784 |
| Tl | 190.794 | 0.89437 | 1.0984 | 1.2774 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| V | 289.164 | 0.77723 | 10.898 | 0.079957 |
| Y | 361.104 | 169224 | 165307 | 165469 |
| Zn | 206.200 | 92.455 | 96.855 | 98.744 |
| Zr | 257.147 | 63.380 | 64.327 | 70.107 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | -0.000278u | ppm | 0.000293 | 105.6 | -20.412 | -0.000278 ppm | Y 361.104 | 1.0000 |
| Al | 237.312 | 0.000378u | ppm | 0.003718 | 984.6 | -0.82650 | 0.000378 ppm | Y 361.104 | 1.0000 |
| As | 188.980 | -0.000725u | ppm | 0.001099 | 151.6 | -0.31788 | -0.000725 ppm | Y 361.104 | 1.0000 |
| B | 249.772 | 1.5113 | ppm | 0.026643 | 1.8 | 15165 | 1.5113 ppm | Y 361.104 | 1.0000 |
| Ba | 233.527 | 0.33300 | ppm | 0.001225 | 0.4 | 11806 | 0.33300 ppm | Y 361.104 | 1.0000 |
| Be | 234.861 | -0.000180u | ppm | 0.000075 | 41.8 | -7.1640 | -0.000180 ppm | Y 361.104 | 1.0000 |
| Ca | 315.887 | 2.5850 | ppm | 0.040785 | 1.6 | 14160 | 2.5850 ppm | Y 361.104 | 1.0000 |
| Cd | 228.802 | 0.000086u | ppm | 0.000289 | 335.0 | -1.5710 | 0.000086 ppm | Y 361.104 | 1.0000 |
| Co | 231.160 | -0.000061u | ppm | 0.000345 | 562.7 | 11.911 | -0.000061 ppm | Y 361.104 | 1.0000 |
| Cr | 267.716 | 0.000218 | ppm | 0.000123 | 56.3 | 12.620 | 0.000218 ppm | Y 361.104 | 1.0000 |
| Cu | 324.754 | 0.006436 | ppm | 0.000372 | 5.8 | 310.94 | 0.006436 ppm | Y 361.104 | 1.0000 |
| Fe | 261.382 | 0.051236 | ppm | 0.004058 | 7.9 | 94.080 | 0.051236 ppm | Y 361.104 | 1.0000 |
| K | 728.181 | 5.5442 | ppm | 0.080795 | 1.5 | 17031 | 5.5442 ppm | Y 361.104 | 1.0000 |
| Li | 610.365 | 0.033441 | ppm | 0.001106 | 3.3 | 2419.8 | 0.033441 ppm | Y 361.104 | 1.0000 |
| Mg | 279.078 | 1.5461 | ppm | 0.026056 | 1.7 | 1328.4 | 1.5461 ppm | Y 361.104 | 1.0000 |
| Mn | 293.305 | 0.001920 | ppm | 0.000282 | 14.7 | 36.460 | 0.001920 ppm | Y 361.104 | 1.0000 |
| Mo | 202.032 | 0.000499u | ppm | 0.000576 | 115.5 | 7.6062 | 0.000499 ppm | Y 361.104 | 1.0000 |
| Na | 589.592 | -ob | ppm | 4.7789 | 1.7 | 31469072 | - ppm | Y 361.104 | 1.0000 |
| Na | 568.821 | 1139.1b | ppm | 19.189 | 1.7 | 286052 | 1139.1 ppm | Y 361.104 | 1.0000 |
| Ni | 221.648 | -0.000054 | ppm | 0.000107 | 197.8 | 9.0422 | -0.000054 ppm | Y 361.104 | 1.0000 |
| Pb | 220.353 | -0.003579u | ppm | 0.002011 | 56.2 | -5.9209 | -0.003579 ppm | Y 361.104 | 1.0000 |
| Sb | 217.582 | -0.000092u | ppm | 0.002743 | 2966.4 | -2.4751 | -0.000092 ppm | Y 361.104 | 1.0000 |
| Se | 196.026 | 0.003029u | ppm | 0.004823 | 159.3 | 0.90390 | 0.003029 ppm | Y 361.104 | 1.0000 |
| Si | 251.611 | 3.6310 | ppm | 0.059227 | 1.6 | 7272.2 | 3.6310 ppm | Y 361.104 | 1.0000 |
| Sn | 189.927 | -0.000146u | ppm | 0.001704 | 1166.3 | 0.51825 | -0.000146 ppm | Y 361.104 | 1.0000 |
| Sr | 216.596 | 0.14168 | ppm | 0.003122 | 2.2 | 776.45 | 0.14168 ppm | Y 361.104 | 1.0000 |
| Ti | 322.284 | 0.000968 | ppm | 0.000920 | 95.0 | 84.019 | 0.000968 ppm | Y 361.104 | 1.0000 |
| Tl | 190.794 | 0.004440 | ppm | 0.000410 | 9.2 | 1.0900 | 0.004440 ppm | Y 361.104 | 1.0000 |
| V | 289.164 | 0.001305 | ppm | 0.001021 | 78.2 | 3.9185 | 0.001305 ppm | Y 361.104 | 1.0000 |
| Zn | 206.200 | 0.095826 | ppm | 0.003252 | 3.4 | 96.018 | 0.095826 ppm | Y 361.104 | 1.0000 |
| Zr | 257.147 | 0.005748 | ppm | 0.000385 | 6.7 | 65.938 | 0.005748 ppm | Y 361.104 | 1.0000 |

2/6

0.14

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.98232 | 166667 | 2216.005 | 1.3 |

**Q1325141 SP102 (Samp)** **1/15/02, 12:10:23 AM** **Rack 1, Tube 23**

Weight: 1 Volume: 1 Dilution: 1

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 1466.5 | 1460.8 | 1473.4 |
| Al | 237.312 | 1068.2 | 1072.8 | 1064.7 |
| As | 188.980 | 728.19 | 728.66 | 724.01 |
| B | 249.772 | 25619 | 25721 | 25595 |
| Ba | 233.527 | 85994 | 85978 | 85871 |
| Be | 234.861 | 2662.5 | 2670.4 | 2659.8 |
| Ca | 315.887 | 572781 | 574389 | 570999 |
| Cd | 228.802 | 379.16 | 384.28 | 378.28 |
| Co | 231.160 | 2846.9 | 2837.2 | 2832.1 |
| Cr | 267.716 | 5688.2 | 5713.4 | 5685.0 |
| Cu | 324.754 | 7775.6 | 7849.2 | 7827.0 |
| Fe | 261.382 | 1652.2 | 1651.9 | 1650.7 |
| K | 728.181 | 493023 | 491978 | 493353 |
| Li | 610.365 | 39181 | 39114 | 39109 |
| Mg | 279.078 | 88692 | 88731 | 88469 |
| Mn | 293.305 | 6070.2 | 6087.1 | 6054.4 |
| Mo | 202.032 | 4632.3 | 4672.7 | 4669.2 |
| Na | 589.592 | 31607344 | 31871158 | 31797104 |
| Na | 568.821 | 320625 | 321731 | 320723 |
| Ni | 221.648 | 763.45 | 764.58 | 760.83 |
| Pb | 220.353 | 838.01 | 841.80 | 838.53 |
| Sb | 217.582 | 293.51 | 298.97 | 296.10 |
| Se | 196.026 | 529.80 | 536.42 | 533.84 |
| Si | 251.611 | 9711.2 | 9712.6 | 9728.6 |
| Sn | 189.927 | 1.7385 | 2.4358 | 0.33610 |
| Sr | 216.596 | 6714.7 | 6667.8 | 6679.6 |
| Ti | 322.284 | 7323.1 | 7334.4 | 7320.6 |
| Tl | 190.794 | 1370.1 | 1389.5 | 1382.9 |
| V | 289.164 | 3168.4 | 3168.5 | 3163.5 |
| Y | 361.104 | 161252 | 162144 | 162005 |
| Zn | 206.200 | 614.89 | 620.27 | 599.52 |
| Zr | 257.147 | 82.097 | 80.282 | 87.323 |

AS81216



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.054542 | ppm | 0.000233 | 0.4 | 1466.9 | 0.054542 ppm | Y 361.104 | 1.0000 |
| Al | 237.312 | 2.2277 | ppm | 0.008541 | 0.4 | 1068.6 | 2.2277 ppm | Y 361.104 | 1.0000 |
| As | 188.980 | 2.2491 | ppm | 0.007922 | 0.4 | 726.95 | 2.2491 ppm | Y 361.104 | 1.0000 |
| B | 249.772 | 2.5575 | ppm | 0.006688 | 0.3 | 25645 | 2.5575 ppm | Y 361.104 | 1.0000 |
| Ba | 233.527 | 2.4383 | ppm | 0.001903 | 0.1 | 85948 | 2.4383 ppm | Y 361.104 | 1.0000 |
| Be | 234.861 | 0.055055 | ppm | 0.000113 | 0.2 | 2664.2 | 0.055055 ppm | Y 361.104 | 1.0000 |
| Ca | 315.887 | 105.73 | ppm | 0.31314 | 0.3 | 572723 | 105.73 ppm | Y 361.104 | 1.0000 |
| Cd | 228.802 | 0.055498 | ppm | 0.000444 | 0.8 | 380.57 | 0.055498 ppm | Y 361.104 | 1.0000 |
| Co | 231.160 | 0.52149 | ppm | 0.001390 | 0.3 | 2838.7 | 0.52149 ppm | Y 361.104 | 1.0000 |
| Cr | 267.716 | 0.21321 | ppm | 0.000584 | 0.3 | 5695.5 | 0.21321 ppm | Y 361.104 | 1.0000 |
| Cu | 324.754 | 0.27079 | ppm | 0.001329 | 0.5 | 7817.2 | 0.27079 ppm | Y 361.104 | 1.0000 |
| Fe | 261.382 | 1.0823 | ppm | 0.000527 | 0.0 | 1651.6 | 1.0823 ppm | Y 361.104 | 1.0000 |
| K | 728.181 | 145.13 | ppm | 0.20088 | 0.1 | 492785 | 145.13 ppm | Y 361.104 | 1.0000 |
| Li | 610.365 | 0.99153 | ppm | 0.000990 | 0.1 | 39135 | 0.99153 ppm | Y 361.104 | 1.0000 |
| Mg | 279.078 | 103.33 | ppm | 0.16488 | 0.2 | 88631 | 103.33 ppm | Y 361.104 | 1.0000 |
| Mn | 293.305 | 0.51727 | ppm | 0.001396 | 0.3 | 6070.5 | 0.51727 ppm | Y 361.104 | 1.0000 |
| Mo | 202.032 | 1.0609 | ppm | 0.005104 | 0.5 | 4658.1 | 1.0609 ppm | Y 361.104 | 1.0000 |
| Na | 589.592 | -ob | ppm | 1.1811 | 0.4 | 31758536 | - ppm | Y 361.104 | 1.0000 |
| Na | 568.821 | 1277.0b | ppm | 2.4322 | 0.2 | 321026 | 1277.0 ppm | Y 361.104 | 1.0000 |
| Ni | 221.648 | 0.51566 | ppm | 0.001323 | 0.3 | 762.95 | 0.51566 ppm | Y 361.104 | 1.0000 |
| Pb | 220.353 | 0.51720 | ppm | 0.001261 | 0.2 | 839.44 | 0.51720 ppm | Y 361.104 | 1.0000 |
| Sb | 217.582 | 0.54094 | ppm | 0.004934 | 0.9 | 296.19 | 0.54094 ppm | Y 361.104 | 1.0000 |
| Se | 196.026 | 2.2744 | ppm | 0.014238 | 0.6 | 533.35 | 2.2744 ppm | Y 361.104 | 1.0000 |
| Si | 251.611 | 4.8597 | ppm | 0.004874 | 0.1 | 9717.5 | 4.8597 ppm | Y 361.104 | 1.0000 |
| Sn | 189.927 | 0.000748u | ppm | 0.001247 | 166.6 | 1.5034 | 0.000748 ppm | Y 361.104 | 1.0000 |
| Sr | 216.596 | 1.2231 | ppm | 0.004459 | 0.4 | 6687.4 | 1.2231 ppm | Y 361.104 | 1.0000 |
| Ti | 322.284 | 0.96966 | ppm | 0.000984 | 0.1 | 7326.1 | 0.96966 ppm | Y 361.104 | 1.0000 |
| Tl | 190.794 | 2.9541 | ppm | 0.021125 | 0.7 | 1380.9 | 2.9541 ppm | Y 361.104 | 1.0000 |
| V | 289.164 | 0.53692 | ppm | 0.000483 | 0.1 | 3166.8 | 0.53692 ppm | Y 361.104 | 1.0000 |
| Zn | 206.200 | 0.61428 | ppm | 0.010854 | 1.8 | 611.56 | 0.61428 ppm | Y 361.104 | 1.0000 |
| Zr | 257.147 | 0.008310 | ppm | 0.000386 | 4.6 | 83.234 | 0.008310 ppm | Y 361.104 | 1.0000 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.95363 | 161800 | 479.741 | 0.3 |

Q1325142 DPS02 (Samp) 1/15/02, 12:13:39 AM Rack 1, Tube 24
Weight: 1 Volume: 1 Dilution: 1

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 1464.8 | 1463.3 | 1463.2 |
| Al | 237.312 | 1056.8 | 1057.2 | 1057.5 |
| As | 188.980 | 723.25 | 729.91 | 732.58 |
| B | 249.772 | 25349 | 25431 | 25646 |
| Ba | 233.527 | 85608 | 84973 | 84284 |
| Be | 234.861 | 2657.6 | 2649.4 | 2656.9 |
| Ca | 315.887 | 571127 | 570650 | 571398 |
| Cd | 228.802 | 386.62 | 381.53 | 388.09 |
| Co | 231.160 | 2833.9 | 2823.2 | 2839.4 |
| Cr | 267.716 | 5690.9 | 5665.2 | 5697.7 |
| Cu | 324.754 | 7826.5 | 7789.0 | 7858.8 |
| Fe | 261.382 | 1650.7 | 1648.3 | 1653.9 |
| K | 728.181 | 490908 | 490298 | 491926 |
| Li | 610.365 | 38916 | 38859 | 38905 |
| Mg | 279.078 | 88190 | 87955 | 88382 |
| Mn | 293.305 | 6070.0 | 6046.8 | 6083.1 |
| Mo | 202.032 | 4659.6 | 4651.8 | 4698.8 |
| Na | 589.592 | 31745896 | 31358554 | 31213786 |
| Na | 568.821 | 318573 | 318801 | 320315 |
| Ni | 221.648 | 762.43 | 758.74 | 762.65 |
| Pb | 220.353 | 840.06 | 834.83 | 835.28 |
| Sb | 217.582 | 294.40 | 294.71 | 293.49 |
| Se | 196.026 | 536.95 | 538.01 | 543.52 |
| Si | 251.611 | 9674.7 | 9666.6 | 9710.3 |
| Sn | 189.927 | -0.30832 | 0.28549 | 0.80768 |
| Sr | 216.596 | 6657.8 | 6632.5 | 6657.9 |
| Ti | 322.284 | 7290.2 | 7296.4 | 7303.3 |
| Tl | 190.794 | 1376.0 | 1384.8 | 1393.7 |
| V | 289.164 | 3155.1 | 3163.9 | 3174.8 |
| Y | 361.104 | 162696 | 163141 | 164116 |
| Zn | 206.200 | 608.63 | 606.32 | 619.61 |
| Zr | 257.147 | 90.428 | 87.199 | 81.543 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.054427 | ppm | 0.000032 | 0.1 | 1463.8 | 0.054427 ppm | Y 361.104 | 1.0000 |
| Al | 237.312 | 2.2040 | ppm | 0.000801 | 0.0 | 1057.2 | 2.2040 ppm | Y 361.104 | 1.0000 |
| As | 188.980 | 2.2541 | ppm | 0.014857 | 0.7 | 728.58 | 2.2541 ppm | Y 361.104 | 1.0000 |

A581216



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| B | 249.772 | 2.5406 | ppm | 0.015319 | 0.6 | 25476 | 2.5406 ppm | Y 361.104 | 1.0000 |
| Ba | 233.527 | 2.4101 | ppm | 0.018800 | 0.8 | 84955 | 2.4101 ppm | Y 361.104 | 1.0000 |
| Be | 234.861 | 0.054858 | ppm | 0.000094 | 0.2 | 2654.7 | 0.054858 ppm | Y 361.104 | 1.0000 |
| Ca | 315.887 | 105.43 | ppm | 0.069914 | 0.1 | 571059 | 105.43 ppm | Y 361.104 | 1.0000 |
| Cd | 228.802 | 0.056168 | ppm | 0.000471 | 0.8 | 385.41 | 0.056168 ppm | Y 361.104 | 1.0000 |
| Co | 231.160 | 0.52029 | ppm | 0.001527 | 0.3 | 2832.2 | 0.52029 ppm | Y 361.104 | 1.0000 |
| Cr | 267.716 | 0.21280 | ppm | 0.000644 | 0.3 | 5684.6 | 0.21280 ppm | Y 361.104 | 1.0000 |
| Cu | 324.754 | 0.27105 | ppm | 0.001230 | 0.5 | 7824.8 | 0.27105 ppm | Y 361.104 | 1.0000 |
| Fe | 261.382 | 1.0819 | ppm | 0.001854 | 0.2 | 1650.9 | 1.0819 ppm | Y 361.104 | 1.0000 |
| K | 728.181 | 144.64 | ppm | 0.23005 | 0.2 | 491044 | 144.64 ppm | Y 361.104 | 1.0000 |
| Li | 610.365 | 0.98539 | ppm | 0.000754 | 0.1 | 38893 | 0.98539 ppm | Y 361.104 | 1.0000 |
| Mg | 279.078 | 102.80 | ppm | 0.24963 | 0.2 | 88176 | 102.80 ppm | Y 361.104 | 1.0000 |
| Mn | 293.305 | 0.51693 | ppm | 0.001570 | 0.3 | 6066.6 | 0.51693 ppm | Y 361.104 | 1.0000 |
| Mo | 202.032 | 1.0636 | ppm | 0.005749 | 0.5 | 4670.1 | 1.0636 ppm | Y 361.104 | 1.0000 |
| Na | 589.592 | -ob | ppm | 2.3881 | 0.8 | 31439414 | - ppm | Y 361.104 | 1.0000 |
| Na | 568.821 | 1269.9b | ppm | 3.7641 | 0.3 | 319230 | 1269.9 ppm | Y 361.104 | 1.0000 |
| Ni | 221.648 | 0.51453 | ppm | 0.001510 | 0.3 | 761.27 | 0.51453 ppm | Y 361.104 | 1.0000 |
| Pb | 220.353 | 0.51554 | ppm | 0.001779 | 0.3 | 836.72 | 0.51554 ppm | Y 361.104 | 1.0000 |
| Sb | 217.582 | 0.53733 | ppm | 0.001151 | 0.2 | 294.20 | 0.53733 ppm | Y 361.104 | 1.0000 |
| Se | 196.026 | 2.3006 | ppm | 0.015037 | 0.7 | 539.49 | 2.3006 ppm | Y 361.104 | 1.0000 |
| Si | 251.611 | 4.8428 | ppm | 0.011671 | 0.2 | 9683.9 | 4.8428 ppm | Y 361.104 | 1.0000 |
| Sn | 189.927 | -0.000699u | ppm | 0.000651 | 93.2 | 0.26162 | -0.000699 ppm | Y 361.104 | 1.0000 |
| Sr | 216.596 | 1.2162 | ppm | 0.002675 | 0.2 | 6649.4 | 1.2162 ppm | Y 361.104 | 1.0000 |
| Ti | 322.284 | 0.96571 | ppm | 0.000879 | 0.1 | 7296.6 | 0.96571 ppm | Y 361.104 | 1.0000 |
| Tl | 190.794 | 2.9626 | ppm | 0.018925 | 0.6 | 1384.8 | 2.9626 ppm | Y 361.104 | 1.0000 |
| V | 289.164 | 0.53654 | ppm | 0.001663 | 0.3 | 3164.6 | 0.53654 ppm | Y 361.104 | 1.0000 |
| Zn | 206.200 | 0.61424 | ppm | 0.007158 | 1.2 | 611.52 | 0.61424 ppm | Y 361.104 | 1.0000 |
| Zr | 257.147 | 0.008641 | ppm | 0.000475 | 5.5 | 86.390 | 0.008641 ppm | Y 361.104 | 1.0000 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.96258 | 163318 | 726.118 | 0.4 |

A581214 (Samp) 1/15/02, 12:16:56 AM Rack 1, Tube 25
Weight: 1 Volume: 1 Dilution: 1

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -947.44 | -1008.8 | -957.43 |
| Al | 237.312 | 31.941 | 37.401 | 40.045 |
| As | 188.980 | 0.82269 | -0.038799 | 1.0543 |
| B | 249.772 | 34204 | 36299 | 35013 |

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| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ba | 233.527 | 434458 | 458768 | 447107 |
| Be | 234.861 | -58.254 | -56.307 | -50.603 |
| Ca | 315.887 | 1854644 | 1971922 | 1887809 |
| Cd | 228.802 | -6.7081 | -0.19235 | -5.2934 |
| Co | 231.160 | 16.992 | 16.633 | 10.311 |
| Cr | 267.716 | 198.35 | 191.05 | 190.78 |
| Cu | 324.754 | 1456.6 | 1531.2 | 1479.5 |
| Fe | 261.382 | 8193.2 | 8672.7 | 8332.2 |
| K | 728.181 | 332206 | 353300 | 338722 |
| Li | 610.365 | 6763.7 | 7125.3 | 6936.9 |
| Mg | 279.078 | 192749 | 204225 | 196404 |
| Mn | 293.305 | 5229.1 | 5553.8 | 5315.3 |
| Mo | 202.032 | 30.903 | 28.700 | 24.038 |
| Na | 589.592 | 13734408 | 15269766 | 14108202 |
| Na | 568.821 | 2767275 | 2881016 | 2798870 |
| Ni | 221.648 | 38.722 | 40.048 | 40.861 |
| Pb | 220.353 | -6.6247 | -11.128 | -11.727 |
| Sb | 217.582 | -0.31086 | 7.9633 | -3.9270 |
| Se | 196.026 | 1.9760 | 3.5743 | 1.2525 |
| Si | 251.611 | 11822 | 12536 | 12057 |
| Sn | 189.927 | 1.9500 | 3.2602 | 6.5054 |
| Sr | 216.596 | 132230 | 139240 | 137835 |
| Ti | 322.284 | 79.152 | 96.918 | 94.103 |
| Tl | 190.794 | -4.3126 | -1.0987 | -2.3242 |
| V | 289.164 | 33.001 | 39.720 | 48.809 |
| Y | 361.104 | 131450 | 126820 | 130453 |
| Zn | 206.200 | 59.052 | 61.903 | 61.297 |
| Zr | 257.147 | 229.53 | 241.50 | 240.37 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | -0.035370u | ppm | 0.001213 | 3.4 | -971.21 | -0.035370 ppm | Y 361.104 | 1.0000 |
| Al | 237.312 | 0.078481 | ppm | 0.008609 | 11.0 | 36.462 | 0.078481 ppm | Y 361.104 | 1.0000 |
| As | 188.980 | 0.002098 | ppm | 0.001782 | 85.0 | 0.61274 | 0.002098 ppm | Y 361.104 | 1.0000 |
| B | 249.772 | 3.5105 | ppm | 0.10540 | 3.0 | 35172 | 3.5105 ppm | Y 361.104 | 1.0000 |
| Ba | 233.527 | 12.684 | ppm | 0.34554 | 2.7 | 446771 | 12.684 ppm | Y 361.104 | 1.0000 |
| Be | 234.861 | -0.000267u | ppm | 0.000082 | 30.7 | -55.055 | -0.000267 ppm | Y 361.104 | 1.0000 |
| Ca | 315.887 | 351.73 | ppm | 11.164 | 3.2 | 1904792 | 351.73 ppm | Y 361.104 | 1.0000 |
| Cd | 228.802 | -0.000252u | ppm | 0.000469 | 186.2 | -4.0646 | -0.000252 ppm | Y 361.104 | 1.0000 |
| Co | 231.160 | -0.001572u | ppm | 0.000693 | 44.1 | 14.616 | -0.001572 ppm | Y 361.104 | 1.0000 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Cr | 267.716 | 0.006996 | ppm | 0.000161 | 2.3 | 193.40 | 0.006996 ppm | Y 361.104 | 1.0000 |
| Cu | 324.754 | 0.048392 | ppm | 0.001346 | 2.8 | 1489.1 | 0.048392 ppm | Y 361.104 | 1.0000 |
| Fe | 261.382 | 5.5187 | ppm | 0.16241 | 2.9 | 8399.4 | 5.5187 ppm | Y 361.104 | 1.0000 |
| K | 728.181 | 102.79 | ppm | 3.0210 | 2.9 | 341409 | 102.79 ppm | Y 361.104 | 1.0000 |
| Li | 610.365 | 0.29675 | ppm | 0.004500 | 1.5 | 6942.0 | 0.29675 ppm | Y 361.104 | 1.0000 |
| Mg | 279.078 | 230.59 | ppm | 6.8345 | 3.0 | 197793 | 230.59 ppm | Y 361.104 | 1.0000 |
| Mn | 293.305 | 0.45710 | ppm | 0.014365 | 3.1 | 5366.1 | 0.45710 ppm | Y 361.104 | 1.0000 |
| Mo | 202.032 | 0.005122 | ppm | 0.000799 | 15.6 | 27.881 | 0.005122 ppm | Y 361.104 | 1.0000 |
| Na | 589.592 | -o | ppm | 6.9498 | 5.2 | 14370792 | - ppm | Y 361.104 | 1.0000 |
| Na | 568.821 | -x | ppm | 233.37 | 2.1 | 2815720 | - ppm | Y 361.104 | 1.0000 |
| Ni | 221.648 | 0.016604 | ppm | 0.000741 | 4.5 | 39.877 | 0.016604 ppm | Y 361.104 | 1.0000 |
| Pb | 220.353 | -0.005984u | ppm | 0.001711 | 28.6 | -9.8266 | -0.005984 ppm | Y 361.104 | 1.0000 |
| Sb | 217.582 | 0.007262u | ppm | 0.011027 | 151.8 | 1.2418 | 0.007262 ppm | Y 361.104 | 1.0000 |
| Se | 196.026 | 0.008657 | ppm | 0.005068 | 58.5 | 2.2676 | 0.008657 ppm | Y 361.104 | 1.0000 |
| Si | 251.611 | 6.0761 | ppm | 0.18269 | 3.0 | 12138 | 6.0761 ppm | Y 361.104 | 1.0000 |
| Sn | 189.927 | 0.003799 | ppm | 0.002734 | 72.0 | 3.9052 | 0.003799 ppm | Y 361.104 | 1.0000 |
| Sr | 216.596 | 24.962 | ppm | 0.67856 | 2.7 | 136435 | 24.962 ppm | Y 361.104 | 1.0000 |
| Ti | 322.284 | 0.001828 | ppm | 0.001279 | 70.0 | 90.057 | 0.001828 ppm | Y 361.104 | 1.0000 |
| Tl | 190.794 | -0.002614u | ppm | 0.003470 | 132.7 | -2.5785 | -0.002614 ppm | Y 361.104 | 1.0000 |
| V | 289.164 | 0.008241 | ppm | 0.001337 | 16.2 | 40.510 | 0.008241 ppm | Y 361.104 | 1.0000 |
| Zn | 206.200 | 0.060257 | ppm | 0.001514 | 2.5 | 60.751 | 0.060257 ppm | Y 361.104 | 1.0000 |
| Zr | 257.147 | 0.023838 | ppm | 0.000698 | 2.9 | 237.13 | 0.023838 ppm | Y 361.104 | 1.0000 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.76370 | 129575 | 2436.784 | 1.9 |

A581215 (Samp) 1/15/02, 12:20:13 AM Rack 1, Tube 26
Weight: 1 Volume: 1 Dilution: 1

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -129.93 | -131.88 | -134.24 |
| Al | 237.312 | -5.8513 | -6.1268 | -12.839 |
| As | 188.980 | -1.1216 | -1.2094 | 1.1690 |
| B | 249.772 | 22718 | 22797 | 22863 |
| Ba | 233.527 | 5747.4 | 5737.2 | 5739.2 |
| Be | 234.861 | -221.68 | -235.54 | -213.11 |
| Ca | 315.887 | 207368 | 206866 | 206912 |
| Cd | 228.802 | 1.6282 | 1.9354 | -1.4978 |
| Co | 231.160 | 20.279 | 24.337 | 25.994 |
| Cr | 267.716 | 104.45 | 105.02 | 104.08 |

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24996

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| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Cu | 324.754 | 348.15 | 343.53 | 358.59 |
| Fe | 261.382 | 36413 | 36368 | 36405 |
| K | 728.181 | 86526 | 87132 | 87846 |
| Li | 610.365 | 4555.4 | 4536.5 | 4550.9 |
| Mg | 279.078 | 14168 | 14130 | 14138 |
| Mn | 293.305 | 3641.7 | 3643.3 | 3644.8 |
| Mo | 202.032 | 12.590 | 16.762 | 9.7606 |
| Na | 589.592 | 22578532 | 21159304 | 20184898 |
| Na | 568.821 | 1027472 | 1029856 | 1030004 |
| Ni | 221.648 | 43.909 | 45.023 | 42.936 |
| Pb | 220.353 | 2.4537 | -1.0596 | 4.7406 |
| Sb | 217.582 | -1.7149 | -5.5893 | -3.1482 |
| Se | 196.026 | 0.47750 | 2.6148 | -0.63762 |
| Si | 251.611 | 9543.1 | 9554.2 | 9576.5 |
| Sn | 189.927 | 2.3645 | 1.0323 | 1.6063 |
| Sr | 216.596 | 14046 | 13990 | 14043 |
| Ti | 322.284 | 105.34 | 92.421 | 90.137 |
| Tl | 190.794 | -5.1907 | -4.1941 | -2.4769 |
| V | 289.164 | 19.604 | 11.130 | 10.154 |
| Y | 361.104 | 151613 | 153065 | 154175 |
| Zn | 206.200 | 7.1566 | 5.5759 | 7.4986 |
| Zr | 257.147 | 33.202 | 35.620 | 33.462 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | -0.004388u | ppm | 0.000079 | 1.8 | -132.02 | -0.004388 ppm | Y 361.104 | 1.0000 |
| Al | 237.312 | -0.014799u | ppm | 0.008243 | 55.7 | -8.2725 | -0.014799 ppm | Y 361.104 | 1.0000 |
| As | 188.980 | -0.000940u | ppm | 0.004172 | 443.8 | -0.38734 | -0.000940 ppm | Y 361.104 | 1.0000 |
| B | 249.772 | 2.2860 | ppm | 0.007236 | 0.3 | 22793 | 2.2860 ppm | Y 361.104 | 1.0000 |
| Ba | 233.527 | 0.16078 | ppm | 0.000153 | 0.1 | 5741.3 | 0.16078 ppm | Y 361.104 | 1.0000 |
| Be | 234.861 | -0.000706u | ppm | 0.000233 | 33.0 | -223.44 | -0.000706 ppm | Y 361.104 | 1.0000 |
| Ca | 315.887 | 38.206 | ppm | 0.051316 | 0.1 | 207049 | 38.206 ppm | Y 361.104 | 1.0000 |
| Cd | 228.802 | 0.000393 | ppm | 0.000260 | 66.0 | 0.68859 | 0.000393 ppm | Y 361.104 | 1.0000 |
| Co | 231.160 | 0.000229 | ppm | 0.000546 | 238.2 | 23.536 | 0.000229 ppm | Y 361.104 | 1.0000 |
| Cr | 267.716 | 0.003664 | ppm | 0.000018 | 0.5 | 104.51 | 0.003664 ppm | Y 361.104 | 1.0000 |
| Cu | 324.754 | 0.009885 | ppm | 0.000272 | 2.7 | 350.09 | 0.009885 ppm | Y 361.104 | 1.0000 |
| Fe | 261.382 | 23.949 | ppm | 0.015930 | 0.1 | 36395 | 23.949 ppm | Y 361.104 | 1.0000 |
| K | 728.181 | 27.877 | ppm | 0.20663 | 0.7 | 87168 | 27.877 ppm | Y 361.104 | 1.0000 |
| Li | 610.365 | 0.10177 | ppm | 0.000246 | 0.2 | 4547.6 | 0.10177 ppm | Y 361.104 | 1.0000 |
| Mg | 279.078 | 16.484 | ppm | 0.023214 | 0.1 | 14145 | 16.484 ppm | Y 361.104 | 1.0000 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Mn | 293.305 | 0.30997 | ppm | 0.000132 | 0.0 | 3643.3 | 0.30997 ppm | Y 361.104 | 1.0000 |
| Mo | 202.032 | 0.001737 | ppm | 0.000803 | 46.2 | 13.037 | 0.001737 ppm | Y 361.104 | 1.0000 |
| Na | 589.592 | -ob | ppm | 10.448 | 5.4 | 21307578 | - ppm | Y 361.104 | 1.0000 |
| Na | 568.821 | 4092.2b | ppm | 5.6484 | 0.1 | 1029111 | 4092.2 ppm | Y 361.104 | 1.0000 |
| Ni | 221.648 | 0.021799 | ppm | 0.000717 | 3.3 | 43.956 | 0.021799 ppm | Y 361.104 | 1.0000 |
| Pb | 220.353 | 0.001307u | ppm | 0.001793 | 137.2 | 2.0449 | 0.001307 ppm | Y 361.104 | 1.0000 |
| Sb | 217.582 | 0.000793u | ppm | 0.003544 | 447.1 | -3.4841 | 0.000793 ppm | Y 361.104 | 1.0000 |
| Se | 196.026 | 0.001836u | ppm | 0.007051 | 384.1 | 0.81824 | 0.001836 ppm | Y 361.104 | 1.0000 |
| Si | 251.611 | 4.7804 | ppm | 0.008537 | 0.2 | 9557.9 | 4.7804 ppm | Y 361.104 | 1.0000 |
| Sn | 189.927 | 0.001197 | ppm | 0.000779 | 65.1 | 1.6677 | 0.001197 ppm | Y 361.104 | 1.0000 |
| Sr | 216.596 | 2.5605 | ppm | 0.005775 | 0.2 | 14026 | 2.5605 ppm | Y 361.104 | 1.0000 |
| Ti | 322.284 | 0.002607 | ppm | 0.001098 | 42.1 | 95.966 | 0.002607 ppm | Y 361.104 | 1.0000 |
| Tl | 190.794 | -0.002148u | ppm | 0.002936 | 136.7 | -3.9539 | -0.002148 ppm | Y 361.104 | 1.0000 |
| V | 289.164 | 0.002072 | ppm | 0.000876 | 42.3 | 13.629 | 0.002072 ppm | Y 361.104 | 1.0000 |
| Zn | 206.200 | 0.005846 | ppm | 0.001034 | 17.7 | 6.7437 | 0.005846 ppm | Y 361.104 | 1.0000 |
| Zr | 257.147 | 0.002384 | ppm | 0.000140 | 5.9 | 34.095 | 0.002384 ppm | Y 361.104 | 1.0000 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.90148 | 152951 | 1284.930 | 0.8 |

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**A581217 (Samp)** **1/15/02, 12:23:29 AM** **Rack 1, Tube 27**

Weight: 1 Volume: 1 Dilution: 1

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -23.803 | -7.3426 | -20.100 |
| Al | 237.312 | 8.6322 | 9.6549 | 9.0300 |
| As | 188.980 | -0.59127 | -1.9017 | 0.33899 |
| B | 249.772 | 14670 | 14696 | 14771 |
| Ba | 233.527 | 13756 | 13783 | 13728 |
| Be | 234.861 | -4.2799 | -7.3758 | -5.8702 |
| Ca | 315.887 | 18206 | 18197 | 18224 |
| Cd | 228.802 | -1.4376 | 1.9417 | -3.1083 |
| Co | 231.160 | 9.6008 | 7.5964 | 11.123 |
| Cr | 267.716 | 16.655 | 9.9362 | 14.268 |
| Cu | 324.754 | 184.93 | 186.77 | 192.22 |
| Fe | 261.382 | 60.864 | 58.887 | 59.787 |
| K | 728.181 | 19943 | 19922 | 20145 |
| Li | 610.365 | 2512.2 | 2502.3 | 2461.1 |
| Mg | 279.078 | 1640.7 | 1641.6 | 1646.6 |
| Mn | 293.305 | 33.452 | 39.506 | 36.062 |

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| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Mo | 202.032 | 5.4518 | 2.4869 | 7.6519 |
| Na | 589.592 | 30205984 | 29670030 | 29682014 |
| Na | 568.821 | 316738 | 316031 | 317787 |
| Ni | 221.648 | 10.265 | 10.270 | 10.586 |
| Pb | 220.353 | -7.5897 | -7.0831 | -4.6815 |
| Sb | 217.582 | -3.2101 | -7.1819 | -0.90578 |
| Se | 196.026 | 0.25137 | 1.0017 | 0.38507 |
| Si | 251.611 | 7134.9 | 7138.1 | 7163.5 |
| Sn | 189.927 | 1.8127 | 1.4538 | 0.41849 |
| Sr | 216.596 | 956.07 | 956.90 | 959.00 |
| Ti | 322.284 | 80.804 | 76.195 | 83.897 |
| Tl | 190.794 | 0.73051 | -0.33781 | 0.42925 |
| V | 289.164 | 7.0924 | 10.696 | -1.2151 |
| Y | 361.104 | 168896 | 169318 | 170361 |
| Zn | 206.200 | 2.1552 | 5.0250 | 1.8186 |
| Zr | 257.147 | 70.966 | 65.300 | 70.689 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | -0.000155u | ppm | 0.000318 | 205.2 | -17.082 | -0.000155 ppm | Y 361.104 | 1.0000 |
| Al | 237.312 | 0.021067 | ppm | 0.001074 | 5.1 | 9.1057 | 0.021067 ppm | Y 361.104 | 1.0000 |
| As | 188.980 | -0.001963u | ppm | 0.003483 | 177.5 | -0.71799 | -0.001963 ppm | Y 361.104 | 1.0000 |
| B | 249.772 | 1.4662 | ppm | 0.005255 | 0.4 | 14712 | 1.4662 ppm | Y 361.104 | 1.0000 |
| Ba | 233.527 | 0.38836 | ppm | 0.000783 | 0.2 | 13756 | 0.38836 ppm | Y 361.104 | 1.0000 |
| Be | 234.861 | -0.000156u | ppm | 0.000032 | 20.5 | -5.8420 | -0.000156 ppm | Y 361.104 | 1.0000 |
| Ca | 315.887 | 3.3327 | ppm | 0.002612 | 0.1 | 18209 | 3.3327 ppm | Y 361.104 | 1.0000 |
| Cd | 228.802 | 0.000181u | ppm | 0.000352 | 194.7 | -0.86806 | 0.000181 ppm | Y 361.104 | 1.0000 |
| Co | 231.160 | -0.000510u | ppm | 0.000329 | 64.4 | 9.4401 | -0.000510 ppm | Y 361.104 | 1.0000 |
| Cr | 267.716 | 0.000255 | ppm | 0.000128 | 50.0 | 13.620 | 0.000255 ppm | Y 361.104 | 1.0000 |
| Cu | 324.754 | 0.002105 | ppm | 0.000134 | 6.3 | 187.97 | 0.002105 ppm | Y 361.104 | 1.0000 |
| Fe | 261.382 | 0.028696 | ppm | 0.000652 | 2.3 | 59.846 | 0.028696 ppm | Y 361.104 | 1.0000 |
| K | 728.181 | 6.5077 | ppm | 0.039899 | 0.6 | 20003 | 6.5077 ppm | Y 361.104 | 1.0000 |
| Li | 610.365 | 0.035557 | ppm | 0.000675 | 1.9 | 2491.9 | 0.035557 ppm | Y 361.104 | 1.0000 |
| Mg | 279.078 | 1.9128 | ppm | 0.003680 | 0.2 | 1643.0 | 1.9128 ppm | Y 361.104 | 1.0000 |
| Mn | 293.305 | 0.001910 | ppm | 0.000259 | 13.6 | 36.340 | 0.001910 ppm | Y 361.104 | 1.0000 |
| Mo | 202.032 | -0.000051u | ppm | 0.000591 | 1166.3 | 5.1969 | -0.000051 ppm | Y 361.104 | 1.0000 |
| Na | 589.592 | -ob | ppm | 2.6564 | 1.0 | 29852678 | - ppm | Y 361.104 | 1.0000 |
| Na | 568.821 | 1261.5b | ppm | 3.5111 | 0.3 | 316852 | 1261.5 ppm | Y 361.104 | 1.0000 |
| Ni | 221.648 | 0.000977 | ppm | 0.000126 | 12.9 | 10.373 | 0.000977 ppm | Y 361.104 | 1.0000 |
| Pb | 220.353 | -0.003918u | ppm | 0.000953 | 24.3 | -6.4514 | -0.003918 ppm | Y 361.104 | 1.0000 |



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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Sb | 217.582 | -0.002430u | ppm | 0.005743 | 236.4 | -3.7659 | -0.002430 ppm | Y 361.104 | 1.0000 |
| Se | 196.026 | 0.001502 | ppm | 0.001707 | 113.6 | 0.54603 | 0.001502 ppm | Y 361.104 | 1.0000 |
| Si | 251.611 | 3.5673 | ppm | 0.007879 | 0.2 | 7145.5 | 3.5673 ppm | Y 361.104 | 1.0000 |
| Sn | 189.927 | 0.000682u | ppm | 0.000844 | 123.7 | 1.2284 | 0.000682 ppm | Y 361.104 | 1.0000 |
| Sr | 216.596 | 0.17477 | ppm | 0.000276 | 0.2 | 957.32 | 0.17477 ppm | Y 361.104 | 1.0000 |
| Ti | 322.284 | 0.000471u | ppm | 0.000519 | 110.2 | 80.299 | 0.000471 ppm | Y 361.104 | 1.0000 |
| Tl | 190.794 | 0.002691 | ppm | 0.001178 | 43.8 | 0.27399 | 0.002691 ppm | Y 361.104 | 1.0000 |
| V | 289.164 | 0.001577 | ppm | 0.001030 | 65.3 | 5.5245 | 0.001577 ppm | Y 361.104 | 1.0000 |
| Zn | 206.200 | 0.002084 | ppm | 0.001776 | 85.2 | 2.9996 | 0.002084 ppm | Y 361.104 | 1.0000 |
| Zr | 257.147 | 0.006069 | ppm | 0.000338 | 5.6 | 68.985 | 0.006069 ppm | Y 361.104 | 1.0000 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.99916 | 169525 | 754.301 | 0.4 |

**A581218 (Samp)** **1/15/02, 12:26:47 AM** **Rack 1, Tube 28**

Weight: 1 Volume: 1 Dilution: 1

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -14.390 | -9.6354 | -18.610 |
| Al | 237.312 | 7.2529 | 5.6909 | 5.5716 |
| As | 188.980 | 0.63635 | -0.044372 | -0.75052 |
| B | 249.772 | 4128.6 | 4154.3 | 4120.4 |
| Ba | 233.527 | 2583.1 | 2593.7 | 2572.0 |
| Be | 234.861 | -8.6075 | -13.806 | -6.2386 |
| Ca | 315.887 | 327520 | 329528 | 327887 |
| Cd | 228.802 | -5.4030 | -0.40440 | -0.10464 |
| Co | 231.160 | 18.323 | 14.019 | 13.572 |
| Cr | 267.716 | 13.305 | 16.283 | 6.6644 |
| Cu | 324.754 | 395.02 | 388.84 | 372.96 |
| Fe | 261.382 | 883.89 | 885.35 | 876.71 |
| K | 728.181 | 7542.4 | 7575.8 | 7559.2 |
| Li | 610.365 | 760.49 | 761.67 | 776.95 |
| Mg | 279.078 | 22188 | 22357 | 22202 |
| Mn | 293.305 | 847.04 | 845.78 | 844.50 |
| Mo | 202.032 | 9.6354 | 10.625 | 6.5070 |
| Na | 589.592 | 22483404 | 23231602 | 22429410 |
| Na | 568.821 | 67274 | 67698 | 67294 |
| Ni | 221.648 | 39.501 | 36.555 | 38.126 |
| Pb | 220.353 | -0.24309 | -2.2965 | -1.2045 |
| Sb | 217.582 | -4.1435 | 0.65434 | 2.0040 |

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| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Se | 196.026 | -0.70274 | -0.20735 | -1.3414 |
| Si | 251.611 | 24533 | 24580 | 24655 |
| Sn | 189.927 | 1.1661 | -2.0540 | 1.6482 |
| Sr | 216.596 | 758.68 | 764.00 | 761.97 |
| Ti | 322.284 | 90.291 | 87.790 | 85.472 |
| Tl | 190.794 | -2.7266 | -1.3563 | -1.4804 |
| V | 289.164 | 15.263 | 3.8764 | 10.809 |
| Y | 361.104 | 174906 | 173696 | 174509 |
| Zn | 206.200 | 220.57 | 216.06 | 219.83 |
| Zr | 257.147 | 23.616 | 23.049 | 17.909 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | -0.000037u | ppm | 0.000166 | 442.2 | -14.212 | -0.000037 ppm | Y 361.104 | 1.0000 |
| Al | 237.312 | 0.015045 | ppm | 0.001954 | 13.0 | 6.1718 | 0.015045 ppm | Y 361.104 | 1.0000 |
| As | 188.980 | 0.000096u | ppm | 0.002146 | 2225.8 | -0.052849 | 0.000096 ppm | Y 361.104 | 1.0000 |
| B | 249.772 | 0.41117 | ppm | 0.001763 | 0.4 | 4134.4 | 0.41117 ppm | Y 361.104 | 1.0000 |
| Ba | 233.527 | 0.071098 | ppm | 0.000308 | 0.4 | 2583.0 | 0.071098 ppm | Y 361.104 | 1.0000 |
| Be | 234.861 | -0.000143u | ppm | 0.000080 | 55.6 | -9.5508 | -0.000143 ppm | Y 361.104 | 1.0000 |
| Ca | 315.887 | 60.599 | ppm | 0.19752 | 0.3 | 328312 | 60.599 ppm | Y 361.104 | 1.0000 |
| Cd | 228.802 | 0.000032u | ppm | 0.000407 | 1283.6 | -1.9707 | 0.000032 ppm | Y 361.104 | 1.0000 |
| Co | 231.160 | 0.000360 | ppm | 0.000487 | 135.4 | 15.305 | 0.000360 ppm | Y 361.104 | 1.0000 |
| Cr | 267.716 | 0.000198u | ppm | 0.000185 | 93.0 | 12.084 | 0.000198 ppm | Y 361.104 | 1.0000 |
| Cu | 324.754 | 0.009110 | ppm | 0.000401 | 4.4 | 385.61 | 0.009110 ppm | Y 361.104 | 1.0000 |
| Fe | 261.382 | 0.56992 | ppm | 0.003042 | 0.5 | 881.98 | 0.56992 ppm | Y 361.104 | 1.0000 |
| K | 728.181 | 2.4633 | ppm | 0.005441 | 0.2 | 7559.2 | 2.4633 ppm | Y 361.104 | 1.0000 |
| Li | 610.365 | 0.017355u | ppm | 0.000228 | 1.3 | 766.37 | 0.017355 ppm | Y 361.104 | 1.0000 |
| Mg | 279.078 | 25.936 | ppm | 0.10941 | 0.4 | 22249 | 25.936 ppm | Y 361.104 | 1.0000 |
| Mn | 293.305 | 0.071041 | ppm | 0.000108 | 0.2 | 845.78 | 0.071041 ppm | Y 361.104 | 1.0000 |
| Mo | 202.032 | 0.000799 | ppm | 0.000490 | 61.4 | 8.9226 | 0.000799 ppm | Y 361.104 | 1.0000 |
| Na | 589.592 | -o | ppm | 3.8919 | 1.9 | 22714806 | - ppm | Y 361.104 | 1.0000 |
| Na | 568.821 | 269.40 | ppm | 0.95013 | 0.4 | 67422 | 269.40 ppm | Y 361.104 | 1.0000 |
| Ni | 221.648 | 0.003760 | ppm | 0.001012 | 26.9 | 38.061 | 0.003760 ppm | Y 361.104 | 1.0000 |
| Pb | 220.353 | -0.000704u | ppm | 0.000630 | 89.5 | -1.2481 | -0.000704 ppm | Y 361.104 | 1.0000 |
| Sb | 217.582 | 0.003564u | ppm | 0.005845 | 164.0 | -0.49505 | 0.003564 ppm | Y 361.104 | 1.0000 |
| Se | 196.026 | -0.004048u | ppm | 0.002425 | 59.9 | -0.75051 | -0.004048 ppm | Y 361.104 | 1.0000 |
| Si | 251.611 | 12.333 | ppm | 0.030871 | 0.3 | 24589 | 12.333 ppm | Y 361.104 | 1.0000 |
| Sn | 189.927 | -0.000452u | ppm | 0.002347 | 519.4 | 0.25342 | -0.000452 ppm | Y 361.104 | 1.0000 |
| Sr | 216.596 | 0.13884 | ppm | 0.000491 | 0.4 | 761.55 | 0.13884 ppm | Y 361.104 | 1.0000 |
| Ti | 322.284 | 0.001491 | ppm | 0.000323 | 21.6 | 87.851 | 0.001491 ppm | Y 361.104 | 1.0000 |

0.14



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Tl | 190.794 | -0.002155u | ppm | 0.001367 | 63.5 | -2.0211 | -0.002155 ppm | Y 361.104 | 1.0000 |
| V | 289.164 | 0.002470 | ppm | 0.000967 | 39.2 | 9.9827 | 0.002470 ppm | Y 361.104 | 1.0000 |
| Zn | 206.200 | 0.21958 | ppm | 0.002439 | 1.1 | 218.82 | 0.21958 ppm | Y 361.104 | 1.0000 |
| Zr | 257.147 | 0.001056 | ppm | 0.000332 | 31.5 | 21.525 | 0.001056 ppm | Y 361.104 | 1.0000 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0277 | 174370 | 617.072 | 0.4 |

CCV (CCV) **1/15/02, 12:30:04 AM** **Rack 1, Tube 29**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 28255 | 28445 | 28260 |
| Al | 237.312 | 2505.1 | 2535.6 | 2526.7 |
| As | 188.980 | 1706.8 | 1729.0 | 1728.5 |
| B | 249.772 | 20490 | 20784 | 20817 |
| Ba | 233.527 | 181459 | 183216 | 182992 |
| Be | 234.861 | 250855 | 253723 | 253773 |
| Ca | 315.887 | 277666 | 280376 | 280194 |
| Cd | 228.802 | 37685 | 38016 | 37970 |
| Co | 231.160 | 27596 | 27915 | 27846 |
| Cr | 267.716 | 136413 | 137688 | 137601 |
| Cu | 324.754 | 144137 | 146152 | 145323 |
| Fe | 261.382 | 7697.0 | 7776.0 | 7754.7 |
| K | 728.181 | 171476 | 173107 | 173482 |
| Li | 610.365 | 204625 | 206548 | 206735 |
| Mg | 279.078 | 42911 | 43359 | 43302 |
| Mn | 293.305 | 60180 | 60775 | 60736 |
| Mo | 202.032 | 4351.6 | 4412.2 | 4428.8 |
| Na | 589.592 | 5443508 | 5507388 | 5484712 |
| Na | 568.821 | 12143 | 12227 | 12201 |
| Ni | 221.648 | 7416.4 | 7508.2 | 7494.9 |
| Pb | 220.353 | 8380.1 | 8449.7 | 8447.4 |
| Sb | 217.582 | 561.55 | 561.04 | 565.60 |
| Se | 196.026 | 1238.4 | 1251.9 | 1236.5 |
| Si | 251.611 | 10098 | 10234 | 10244 |
| Sn | 189.927 | 4230.1 | 4293.1 | 4288.9 |
| Sr | 216.596 | 28366 | 28876 | 28596 |
| Ti | 322.284 | 36232 | 36589 | 36563 |
| Tl | 190.794 | 2366.1 | 2386.3 | 2397.5 |
| V | 289.164 | 30387 | 30717 | 30688 |

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| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Y | 361.104 | 178390 | 177871 | 178275 |
| Zn | 206.200 | 5152.2 | 5220.7 | 5206.5 |
| Zr | 257.147 | 49350 | 49758 | 49786 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 1.0318 | ppm | 0.003997 | 0.4 | 28320 | 1.0318 ppm | Y 361.104 | 103.18309 |
| Al | 237.312 | 5.2380 | ppm | 0.032594 | 0.6 | 2522.5 | 5.2380 ppm | Y 361.104 | 104.75933 |
| As | 188.980 | 5.3247 | ppm | 0.039331 | 0.7 | 1721.4 | 5.3247 ppm | Y 361.104 | 106.49307 |
| B | 249.772 | 2.0668 | ppm | 0.017966 | 0.9 | 20697 | 2.0668 ppm | Y 361.104 | 103.34226 |
| Ba | 233.527 | 5.1816 | ppm | 0.027158 | 0.5 | 182556 | 5.1816 ppm | Y 361.104 | 103.63227 |
| Be | 234.861 | 5.2115 | ppm | 0.034433 | 0.7 | 252784 | 5.2115 ppm | Y 361.104 | 104.23023 |
| Ca | 315.887 | 51.588 | ppm | 0.27978 | 0.5 | 279412 | 51.588 ppm | Y 361.104 | 103.17556 |
| Cd | 228.802 | 5.1880 | ppm | 0.024478 | 0.5 | 37890 | 5.1880 ppm | Y 361.104 | 103.76077 |
| Co | 231.160 | 5.1655 | ppm | 0.031152 | 0.6 | 27786 | 5.1655 ppm | Y 361.104 | 103.31074 |
| Cr | 267.716 | 5.1431 | ppm | 0.026702 | 0.5 | 137234 | 5.1431 ppm | Y 361.104 | 102.86192 |
| Cu | 324.754 | 5.1110 | ppm | 0.035659 | 0.7 | 145204 | 5.1110 ppm | Y 361.104 | 102.21931 |
| Fe | 261.382 | 5.1314 | ppm | 0.026910 | 0.5 | 7742.6 | 5.1314 ppm | Y 361.104 | 102.62709 |
| K | 728.181 | 54.047 | ppm | 0.31968 | 0.6 | 172688 | 54.047 ppm | Y 361.104 | 108.09311 |
| Li | 610.365 | 5.1193 | ppm | 0.029063 | 0.6 | 205969 | 5.1193 ppm | Y 361.104 | 102.38678 |
| Mg | 279.078 | 50.350 | ppm | 0.28459 | 0.6 | 43191 | 50.350 ppm | Y 361.104 | 100.70099 |
| Mn | 293.305 | 5.1713 | ppm | 0.028410 | 0.5 | 60564 | 5.1713 ppm | Y 361.104 | 103.42667 |
| Mo | 202.032 | 1.0015 | ppm | 0.009268 | 0.9 | 4397.5 | 1.0015 ppm | Y 361.104 | 100.14685 |
| Na | 589.592 | 54.103 | ppm | 0.30462 | 0.6 | 5478536 | 54.103 ppm | Y 361.104 | 108.20634 |
| Ni | 221.648 | 5.1273 | ppm | 0.034052 | 0.7 | 7473.2 | 5.1273 ppm | Y 361.104 | 102.54599 |
| Pb | 220.353 | 5.1715 | ppm | 0.024253 | 0.5 | 8425.8 | 5.1715 ppm | Y 361.104 | 103.42915 |
| Sb | 217.582 | 1.0291 | ppm | 0.004521 | 0.4 | 562.73 | 1.0291 ppm | Y 361.104 | 102.90654 |
| Se | 196.026 | 5.2986 | ppm | 0.035907 | 0.7 | 1242.3 | 5.2986 ppm | Y 361.104 | 105.97282 |
| Si | 251.611 | 5.1016 | ppm | 0.041001 | 0.8 | 10192 | 5.1016 ppm | Y 361.104 | 102.03244 |
| Sn | 189.927 | 4.9766 | ppm | 0.041056 | 0.8 | 4270.7 | 4.9766 ppm | Y 361.104 | 99.53281 |
| Sr | 216.596 | 5.2357 | ppm | 0.046747 | 0.9 | 28613 | 5.2357 ppm | Y 361.104 | 104.71426 |
| Ti | 322.284 | 4.8700 | ppm | 0.026678 | 0.5 | 36462 | 4.8700 ppm | Y 361.104 | 97.40068 |
| Tl | 190.794 | 5.0695 | ppm | 0.034070 | 0.7 | 2383.3 | 5.0695 ppm | Y 361.104 | 101.39024 |
| V | 289.164 | 5.1782 | ppm | 0.030799 | 0.6 | 30597 | 5.1782 ppm | Y 361.104 | 103.56322 |
| Zn | 206.200 | 5.2176 | ppm | 0.036448 | 0.7 | 5193.1 | 5.2176 ppm | Y 361.104 | 104.35210 |
| Zr | 257.147 | 5.2453 | ppm | 0.025782 | 0.5 | 49631 | 5.2453 ppm | Y 361.104 | 104.90691 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0502 | 178179 | 272.781 | 0.2 |



**BLA01 (CCB)** 1/15/02, 12:33:22 AM **Rack 1, Tube 30**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 5.6105 | -11.969 | -6.8482 |
| Al | 237.312 | -0.82258 | -1.1648 | -0.71356 |
| As | 188.980 | 0.31451 | 0.29016 | 1.3891 |
| B | 249.772 | 166.33 | 139.96 | 128.39 |
| Ba | 233.527 | 85.596 | 83.574 | 82.862 |
| Be | 234.861 | 6.1453 | 3.1789 | 3.1727 |
| Ca | 315.887 | 112.86 | 112.17 | 119.79 |
| Cd | 228.802 | -2.7739 | -0.19676 | -4.6119 |
| Co | 231.160 | 10.271 | 9.0550 | 8.6594 |
| Cr | 267.716 | 6.2363 | 10.462 | 2.5839 |
| Cu | 324.754 | 113.99 | 115.71 | 123.03 |
| Fe | 261.382 | 6.3255 | 10.842 | 11.556 |
| K | 728.181 | 41.264 | 8.7966 | 24.766 |
| Li | 610.365 | 998.93 | 999.28 | 1032.7 |
| Mg | 279.078 | -3.0058 | 5.3385 | 5.0151 |
| Mn | 293.305 | 6.4132 | 10.575 | 7.0575 |
| Mo | 202.032 | 24.284 | 18.987 | 17.785 |
| Na | 589.592 | 1386.6 | 1303.0 | 1451.8 |
| Na | 568.821 | -394.71 | -372.34 | -378.33 |
| Ni | 221.648 | -0.97083 | -1.8571 | -2.6062 |
| Pb | 220.353 | -3.1330 | -0.95851 | 1.5623 |
| Sb | 217.582 | -3.2263 | 2.0838 | 1.5092 |
| Se | 196.026 | -0.13092 | 3.0094 | 1.0470 |
| Si | 251.611 | 57.491 | 58.761 | 58.428 |
| Sn | 189.927 | 1.6682 | 0.93123 | 1.4211 |
| Sr | 216.596 | 2.0219 | 0.85680 | 0.74300 |
| Ti | 322.284 | 68.158 | 72.467 | 81.696 |
| Tl | 190.794 | 6.2125 | 3.8801 | 2.8525 |
| V | 289.164 | -3.4912 | -3.1454 | -1.4535 |
| Y | 361.104 | 188028 | 189285 | 185875 |
| Zn | 206.200 | 1.9557 | 0.90968 | 1.8119 |
| Zr | 257.147 | 12.434 | 10.416 | 14.586 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.000327 | ppm | 0.000333 | 102.1 | -4.4023 | 0.000327 ppm | Y 361.104 | 0.00033 |
| Al | 237.312 | 0.000241u | ppm | 0.000490 | 203.4 | -0.90033 | 0.000241 ppm | Y 361.104 | 0.00024 |
| As | 188.980 | 0.002316 | ppm | 0.001942 | 83.8 | 0.66459 | 0.002316 ppm | Y 361.104 | 0.00232 |
| B | 249.772 | 0.012825 | ppm | 0.001940 | 15.1 | 144.89 | 0.012825 ppm | Y 361.104 | 0.01283 |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ba | 233.527 | 0.000138 | ppm | 0.000040 | 29.3 | 84.011 | 0.000138 ppm | Y 361.104 | 0.00014 |
| Be | 234.861 | 0.000045 | ppm | 0.000035 | 78.8 | 4.1656 | 0.000045 ppm | Y 361.104 | 0.00004 |
| Ca | 315.887 | -0.008670u | ppm | 0.000779 | 9.0 | 114.94 | -0.008670 ppm | Y 361.104 | -0.00867 |
| Cd | 228.802 | -0.000040u | ppm | 0.000303 | 766.0 | -2.5275 | -0.000040 ppm | Y 361.104 | -0.00004 |
| Co | 231.160 | -0.000537u | ppm | 0.000156 | 29.1 | 9.3285 | -0.000537 ppm | Y 361.104 | -0.00054 |
| Cr | 267.716 | -0.000014u | ppm | 0.000148 | 1045.3 | 6.4273 | -0.000014 ppm | Y 361.104 | -0.00001 |
| Cu | 324.754 | -0.000378u | ppm | 0.000169 | 44.7 | 117.58 | -0.000378 ppm | Y 361.104 | -0.00038 |
| Fe | 261.382 | -0.004375u | ppm | 0.001867 | 42.7 | 9.5747 | -0.004375 ppm | Y 361.104 | -0.00437 |
| K | 728.181 | 0.000982u | ppm | 0.005317 | 541.5 | 24.942 | 0.000982 ppm | Y 361.104 | 0.00098 |
| Li | 610.365 | -0.002751u | ppm | 0.000482 | 17.5 | 1010.3 | -0.002751 ppm | Y 361.104 | -0.00275 |
| Mg | 279.078 | 0.000222u | ppm | 0.005511 | 2477.8 | 2.4493 | 0.000222 ppm | Y 361.104 | 0.00022 |
| Mn | 293.305 | -0.000510u | ppm | 0.000191 | 37.5 | 8.0153 | -0.000510 ppm | Y 361.104 | -0.00051 |
| Mo | 202.032 | 0.003405 | ppm | 0.000788 | 23.2 | 20.352 | 0.003405 ppm | Y 361.104 | 0.00340 |
| Na | 589.592 | 0.005202 | ppm | 0.000778 | 15.0 | 1380.5 | 0.005202 ppm | Y 361.104 | 0.00520 |
| Ni | 221.648 | -0.000796u | ppm | 0.000562 | 70.7 | -1.8114 | -0.000796 ppm | Y 361.104 | -0.00080 |
| Pb | 220.353 | -0.000464u | ppm | 0.001442 | 310.8 | -0.84307 | -0.000464 ppm | Y 361.104 | -0.00046 |
| Sb | 217.582 | 0.004596u | ppm | 0.005272 | 114.7 | 0.12222 | 0.004596 ppm | Y 361.104 | 0.00460 |
| Se | 196.026 | 0.004756u | ppm | 0.006767 | 142.3 | 1.3085 | 0.004756 ppm | Y 361.104 | 0.00476 |
| Si | 251.611 | 0.006078 | ppm | 0.000331 | 5.4 | 58.226 | 0.006078 ppm | Y 361.104 | 0.00608 |
| Sn | 189.927 | 0.000814 | ppm | 0.000437 | 53.7 | 1.3402 | 0.000814 ppm | Y 361.104 | 0.00081 |
| Sr | 216.596 | -0.000161u | ppm | 0.000130 | 80.2 | 1.2072 | -0.000161 ppm | Y 361.104 | -0.00016 |
| Ti | 322.284 | -0.000360u | ppm | 0.000926 | 256.9 | 74.107 | -0.000360 ppm | Y 361.104 | -0.00036 |
| Tl | 190.794 | 0.011340 | ppm | 0.003683 | 32.5 | 4.3150 | 0.011340 ppm | Y 361.104 | 0.01134Z |
| V | 289.164 | 0.000194 | ppm | 0.000184 | 94.5 | -2.6967 | 0.000194 ppm | Y 361.104 | 0.00019 |
| Zn | 206.200 | 0.000631u | ppm | 0.000571 | 90.5 | 1.5591 | 0.000631 ppm | Y 361.104 | 0.00063 |
| Zr | 257.147 | 0.000097u | ppm | 0.000220 | 226.1 | 12.479 | 0.000097 ppm | Y 361.104 | 0.00010 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.1065 | 187729 | 1724.755 | 0.9 |

**DLS (CRI)** **1/15/02, 12:36:36 AM** **Rack 1, Tube 31**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 277.94 | 276.06 | 272.16 |
| Al | 237.312 | 23.002 | 20.404 | 22.743 |
| As | 188.980 | 16.600 | 16.298 | 17.133 |
| B | 249.772 | 564.17 | 565.29 | 562.10 |
| Ba | 233.527 | 449.46 | 451.68 | 445.59 |
| Be | 234.861 | 194.44 | 198.94 | 198.48 |
| Ca | 315.887 | 687.17 | 687.76 | 687.81 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Cd | 228.802 | 35.240 | 37.976 | 33.776 |
| Co | 231.160 | 66.188 | 69.900 | 66.939 |
| Cr | 267.716 | 284.44 | 288.69 | 286.94 |
| Cu | 324.754 | 699.09 | 699.19 | 699.93 |
| Fe | 261.382 | 46.920 | 48.277 | 48.024 |
| K | 728.181 | 329.42 | 316.60 | 330.53 |
| Li | 610.365 | 1424.8 | 1454.9 | 1455.2 |
| Mg | 279.078 | 89.414 | 88.558 | 88.512 |
| Mn | 293.305 | 133.14 | 137.43 | 129.28 |
| Mo | 202.032 | 47.384 | 48.814 | 45.742 |
| Na | 589.592 | 10737 | 10705 | 10613 |
| Na | 568.821 | -372.58 | -367.14 | -410.38 |
| Ni | 221.648 | 15.205 | 15.863 | 13.485 |
| Pb | 220.353 | 14.497 | 16.421 | 16.081 |
| Sb | 217.582 | 3.9553 | 6.1698 | 6.4605 |
| Se | 196.026 | 3.7225 | 2.3208 | 1.4348 |
| Si | 251.611 | 437.32 | 435.45 | 439.57 |
| So | 189.927 | 42.619 | 41.214 | 42.318 |
| Sr | 216.596 | 62.779 | 57.761 | 58.288 |
| Ti | 322.284 | 151.13 | 148.31 | 145.91 |
| Tl | 190.794 | 5.4344 | 2.4326 | 5.1850 |
| V | 289.164 | 69.256 | 60.655 | 62.794 |
| Y | 361.104 | 188141 | 185826 | 186995 |
| Zn | 206.200 | 24.208 | 21.757 | 23.291 |
| Zr | 257.147 | 115.53 | 108.50 | 115.53 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.010614 | ppm | 0.000109 | 1.0 | 275.39 | 0.010614 ppm | Y 361.104 | 106.14192 |
| Al | 237.312 | 0.048008 | ppm | 0.002981 | 6.2 | 22.050 | 0.048008 ppm | Y 361.104 | 96.01555 |
| As | 188.980 | 0.051852 | ppm | 0.001309 | 2.5 | 16.677 | 0.051852 ppm | Y 361.104 | 103.70495 |
| B | 249.772 | 0.054640 | ppm | 0.000161 | 0.3 | 563.86 | 0.054640 ppm | Y 361.104 | 109.28086 |
| Ba | 233.527 | 0.010498 | ppm | 0.000088 | 0.8 | 448.91 | 0.010498 ppm | Y 361.104 | 104.98208 |
| Be | 234.861 | 0.004030 | ppm | 0.000051 | 1.3 | 197.28 | 0.004030 ppm | Y 361.104 | - |
| Ca | 315.887 | 0.097106 | ppm | 0.000066 | 0.1 | 687.58 | 0.097106 ppm | Y 361.104 | 97.10575 |
| Cd | 228.802 | 0.005252 | ppm | 0.000292 | 5.6 | 35.664 | 0.005252 ppm | Y 361.104 | - |
| Co | 231.160 | 0.010250 | ppm | 0.000364 | 3.6 | 67.675 | 0.010250 ppm | Y 361.104 | 102.50394 |
| Cr | 267.716 | 0.010490 | ppm | 0.000080 | 0.8 | 286.69 | 0.010490 ppm | Y 361.104 | 104.89729 |
| Cu | 324.754 | 0.020114 | ppm | 0.000016 | 0.1 | 699.40 | 0.020114 ppm | Y 361.104 | 100.57222 |
| Fe | 261.382 | 0.020842 | ppm | 0.000475 | 2.3 | 47.740 | 0.020842 ppm | Y 361.104 | 83.36716 |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| K | 728.181 | 0.099400 | ppm | 0.002536 | 2.6 | 325.52 | 0.099400 ppm | Y 361.104 | 99.39969 |
| Li | 610.365 | 0.008110 | ppm | 0.000434 | 5.4 | 1445.0 | 0.008110 ppm | Y 361.104 | 81.09707 |
| Mg | 279.078 | 0.10092 | ppm | 0.000592 | 0.6 | 88.828 | 0.10092 ppm | Y 361.104 | 100.92047 |
| Mn | 293.305 | 0.010189 | ppm | 0.000348 | 3.4 | 133.28 | 0.010189 ppm | Y 361.104 | 101.89351 |
| Mo | 202.032 | 0.009552 | ppm | 0.000351 | 3.7 | 47.313 | 0.009552 ppm | Y 361.104 | 95.52473 |
| Na | 589.592 | 0.10212 | ppm | 0.000671 | 0.7 | 10685 | 0.10212 ppm | Y 361.104 | 102.11534 |
| Ni | 221.648 | 0.010304 | ppm | 0.000843 | 8.2 | 14.851 | 0.010304 ppm | Y 361.104 | 103.04312 |
| Pb | 220.353 | 0.009672 | ppm | 0.000630 | 6.5 | 15.666 | 0.009672 ppm | Y 361.104 | 96.71861 |
| Sb | 217.582 | 0.014392 | ppm | 0.002479 | 17.2 | 5.5286 | 0.014392 ppm | Y 361.104 | 143.91647 |
| Se | 196.026 | 0.009807 | ppm | 0.004921 | 50.2 | 2.4927 | 0.009807 ppm | Y 361.104 | 98.06831 |
| Si | 251.611 | 0.19663 | ppm | 0.001036 | 0.5 | 437.45 | 0.19663 ppm | Y 361.104 | 98.31571 |
| Sn | 189.927 | 0.048277 | ppm | 0.000863 | 1.8 | 42.050 | 0.048277 ppm | Y 361.104 | 96.55499 |
| Sr | 216.596 | 0.010523 | ppm | 0.000505 | 4.8 | 59.609 | 0.010523 ppm | Y 361.104 | 105.22781 |
| Ti | 322.284 | 0.009587 | ppm | 0.000350 | 3.6 | 148.45 | 0.009587 ppm | Y 361.104 | 95.86557 |
| Tl | 190.794 | 0.011362 | ppm | 0.003563 | 31.4 | 4.3507 | 0.011362 ppm | Y 361.104 | 113.61530 |
| V | 289.164 | 0.011519 | ppm | 0.000755 | 6.6 | 64.235 | 0.011519 ppm | Y 361.104 | 115.19090 |
| Zn | 206.200 | 0.022292 | ppm | 0.001248 | 5.6 | 23.085 | 0.022292 ppm | Y 361.104 | 111.46199 |
| Zr | 257.147 | 0.010731 | ppm | 0.000429 | 4.0 | 113.19 | 0.010731 ppm | Y 361.104 | 107.30511 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.1021 | 186988 | 1157.208 | 0.6 |

**CDL01 (CRI)** **1/15/02, 12:39:51 AM** **Rack 1, Tube 32**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 548.58 | 547.37 | 536.89 |
| Al | 237.312 | 6.1849 | 4.0276 | 2.7047 |
| As | 188.980 | 4.9522 | 4.9957 | 6.1959 |
| B | 249.772 | 37.265 | 38.512 | 36.013 |
| Ba | 233.527 | 75.672 | 78.070 | 74.754 |
| Be | 234.861 | 503.98 | 499.55 | 495.33 |
| Ca | 315.887 | 115.08 | 112.23 | 115.49 |
| Cd | 228.802 | 79.321 | 73.548 | 75.371 |
| Co | 231.160 | 604.60 | 596.29 | 592.09 |
| Cr | 267.716 | 598.39 | 585.56 | 579.51 |
| Cu | 324.754 | 1632.5 | 1607.3 | 1605.1 |
| Fe | 261.382 | 11.006 | 9.7665 | 11.272 |
| K | 728.181 | 13.701 | 18.605 | 11.430 |
| Li | 610.365 | 1078.9 | 1065.2 | 1058.8 |
| Mg | 279.078 | 1.0156 | 0.27041 | 3.0218 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Mn | 293.305 | 397.27 | 380.50 | 387.87 |
| Mo | 202.032 | 3.9900 | 0.28837 | 3.5086 |
| Na | 589.592 | 617.04 | 594.08 | 596.12 |
| Na | 568.821 | -434.21 | -456.08 | -415.92 |
| Ni | 221.648 | 127.78 | 123.61 | 125.85 |
| Pb | 220.353 | 179.39 | 180.02 | 172.66 |
| Sb | 217.582 | 64.908 | 63.895 | 63.914 |
| Se | 196.026 | 3.0398 | 3.1405 | 5.0375 |
| Si | 251.611 | 72.054 | 73.999 | 71.227 |
| Sn | 189.927 | 1.1008 | 0.57196 | 1.0597 |
| Sr | 216.596 | 1.7930 | 6.1571 | -0.70579 |
| Ti | 322.284 | 68.938 | 73.160 | 73.361 |
| Tl | 190.794 | 13.236 | 11.311 | 11.305 |
| V | 289.164 | 638.25 | 643.46 | 630.58 |
| Y | 361.104 | 181981 | 182720 | 184474 |
| Zn | 206.200 | 44.568 | 44.961 | 44.483 |
| Zr | 257.147 | 14.064 | 17.639 | 10.855 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.020552 | ppm | 0.000237 | 1.2 | 544.28 | 0.020552 ppm | Y 361.104 | 102.75928 |
| Al | 237.312 | 0.010947 | ppm | 0.003659 | 33.4 | 4.3057 | 0.010947 ppm | Y 361.104 | - |
| As | 188.980 | 0.016904 | ppm | 0.002184 | 12.9 | 5.3813 | 0.016904 ppm | Y 361.104 | 84.51817 |
| B | 249.772 | 0.002091 | ppm | 0.000125 | 6.0 | 37.263 | 0.002091 ppm | Y 361.104 | - |
| Ba | 233.527 | -0.000096u | ppm | 0.000049 | 50.7 | 76.165 | -0.000096 ppm | Y 361.104 | - |
| Be | 234.861 | 0.010258 | ppm | 0.000089 | 0.9 | 499.62 | 0.010258 ppm | Y 361.104 | 102.57917 |
| Ca | 315.887 | -0.009427u | ppm | 0.000328 | 3.5 | 114.27 | -0.009427 ppm | Y 361.104 | - |
| Cd | 228.802 | 0.010712 | ppm | 0.000404 | 3.8 | 76.080 | 0.010712 ppm | Y 361.104 | 107.12395 |
| Co | 231.160 | 0.10808 | ppm | 0.001182 | 1.1 | 597.66 | 0.10808 ppm | Y 361.104 | 108.08159 |
| Cr | 267.716 | 0.021776 | ppm | 0.000361 | 1.7 | 587.82 | 0.021776 ppm | Y 361.104 | 108.87851 |
| Cu | 324.754 | 0.052396 | ppm | 0.000536 | 1.0 | 1615.0 | 0.052396 ppm | Y 361.104 | 104.79177 |
| Fe | 261.382 | -0.002885u | ppm | 0.000529 | 18.3 | 10.681 | -0.002885 ppm | Y 361.104 | - |
| K | 728.181 | -0.002410u | ppm | 0.001201 | 49.8 | 14.579 | -0.002410 ppm | Y 361.104 | - |
| Li | 610.365 | -0.001324u | ppm | 0.000256 | 19.3 | 1067.7 | -0.001324 ppm | Y 361.104 | - |
| Mg | 279.078 | -0.000938u | ppm | 0.001659 | 176.8 | 1.4359 | -0.000938 ppm | Y 361.104 | - |
| Mn | 293.305 | 0.031991 | ppm | 0.000718 | 2.2 | 388.55 | 0.031991 ppm | Y 361.104 | 106.63588 |
| Mo | 202.032 | -0.000644u | ppm | 0.000459 | 71.3 | 2.5957 | -0.000644 ppm | Y 361.104 | - |
| Na | 589.592 | -0.002915u | ppm | 0.000133 | 4.6 | 602.42 | -0.002915 ppm | Y 361.104 | - |
| Ni | 221.648 | 0.086830 | ppm | 0.001434 | 1.7 | 125.75 | 0.086830 ppm | Y 361.104 | 108.53800 |
| Pb | 220.353 | 0.10887 | ppm | 0.002500 | 2.3 | 177.36 | 0.10887 ppm | Y 361.104 | 108.86535 |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Sb | 217.582 | 0.12070 | ppm | 0.001048 | 0.9 | 64.239 | 0.12070 ppm | Y 361.104 | 100.58166 |
| Se | 196.026 | 0.015124 | ppm | 0.004801 | 31.7 | 3.7392 | 0.015124 ppm | Y 361.104 | 151.24414R |
| Si | 251.611 | 0.013240 | ppm | 0.000715 | 5.4 | 72.427 | 0.013240 ppm | Y 361.104 | - |
| Sn | 189.927 | 0.000325u | ppm | 0.000343 | 105.4 | 0.91082 | 0.000325 ppm | Y 361.104 | - |
| Sr | 216.596 | 0.000099u | ppm | 0.000636 | 643.2 | 2.4148 | 0.000099 ppm | Y 361.104 | - |
| Ti | 322.284 | -0.000661u | ppm | 0.000334 | 50.6 | 71.820 | -0.000661 ppm | Y 361.104 | - |
| Tl | 190.794 | 0.027121 | ppm | 0.002382 | 8.8 | 11.951 | 0.027121 ppm | Y 361.104 | 135.60442 |
| V | 289.164 | 0.10822 | ppm | 0.001092 | 1.0 | 637.43 | 0.10822 ppm | Y 361.104 | 108.21926 |
| Zn | 206.200 | 0.044015 | ppm | 0.000257 | 0.6 | 44.670 | 0.044015 ppm | Y 361.104 | 110.03732 |
| Zr | 257.147 | 0.000277u | ppm | 0.000359 | 129.5 | 14.186 | 0.000277 ppm | Y 361.104 | - |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0789 | 183058 | 1280.382 | 0.7 |

ICS-A (ICSA) 1/15/02, 12:43:06 AM **Rack 1. Tube 33**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -20.489 | -12.247 | -25.243 |
| Al | 237.312 | 257808 | 256867 | 260310 |
| As | 188.980 | 0.20425 | -0.12436 | 1.7017 |
| B | 249.772 | -904.30 | -883.99 | -950.80 |
| Ba | 233.527 | 243.09 | 231.79 | 230.37 |
| Be | 234.861 | -1881.4 | -1757.6 | -1864.2 |
| Ca | 315.887 | 2742175 | 2737206 | 2771980 |
| Cd | 228.802 | 8.5198 | 8.8366 | 6.9207 |
| Co | 231.160 | 102.84 | 111.17 | 110.57 |
| Cr | 267.716 | 52.530 | 49.675 | 57.560 |
| Cu | 324.754 | -492.96 | -490.97 | -498.05 |
| Fe | 261.382 | 302995 | 302444 | 306886 |
| K | 728.181 | 22.007 | 43.131 | 36.822 |
| Li | 610.365 | -7704.1 | -7717.7 | -7829.1 |
| Mg | 279.078 | 459359 | 461309 | 466934 |
| Mn | 293.305 | 119.38 | 131.84 | 123.18 |
| Mo | 202.032 | -0.097443 | 3.8674 | 1.0010 |
| Na | 589.592 | 6951.7 | 6920.5 | 7013.1 |
| Na | 568.821 | 1174.3 | 1200.1 | 1203.6 |
| Ni | 221.648 | 5.1104 | 6.7421 | 4.2384 |
| Pb | 220.353 | 184.79 | 181.11 | 179.28 |
| Sb | 217.582 | -17.429 | -25.571 | -17.446 |
| Se | 196.026 | 6.3720 | 8.7819 | 6.5537 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Si | 251.611 | 100.99 | 104.75 | 106.02 |
| Sn | 189.927 | 1.3338 | -0.62602 | 0.54899 |
| Sr | 216.596 | 237.42 | 230.16 | 237.83 |
| Ti | 322.284 | 70.054 | 73.253 | 85.066 |
| Tl | 190.794 | -19.309 | -14.834 | -16.375 |
| V | 289.164 | 74.511 | 63.936 | 64.635 |
| Y | 361.104 | 160738 | 161531 | 159598 |
| Zn | 206.200 | 14.406 | 11.709 | 13.052 |
| Zr | 257.147 | 90.110 | 82.011 | 82.609 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | -0.000281u | ppm | 0.000242 | 86.3 | -19.326 | -0.000281 ppm | Y 361.104 | -0.00028 |
| Al | 237.312 | 538.10 | ppm | 3.7066 | 0.7 | 258328 | 538.10 ppm | Y 361.104 | - |
| As | 188.980 | 0.002098u | ppm | 0.003012 | 143.6 | 0.59387 | 0.002098 ppm | Y 361.104 | 0.00210 |
| B | 249.772 | 0.021480u | ppm | 0.003417 | 15.9 | -913.03 | 0.021480 ppm | Y 361.104 | 0.02148 |
| Ba | 233.527 | 0.004426 | ppm | 0.000198 | 4.5 | 235.08 | 0.004426 ppm | Y 361.104 | 0.00443 |
| Be | 234.861 | -0.004921u | ppm | 0.001383 | 28.1 | -1834.4 | -0.004921 ppm | Y 361.104 | -0.00492 |
| Ca | 315.887 | 507.78 | ppm | 3.4731 | 0.7 | 2750454 | 507.78 ppm | Y 361.104 | - |
| Cd | 228.802 | 0.001410 | ppm | 0.000140 | 10.0 | 8.0924 | 0.001410 ppm | Y 361.104 | 0.00141 |
| Co | 231.160 | 0.001882 | ppm | 0.000862 | 45.8 | 108.19 | 0.001882 ppm | Y 361.104 | 0.00188 |
| Cr | 267.716 | 0.001741 | ppm | 0.000150 | 8.6 | 53.255 | 0.001741 ppm | Y 361.104 | 0.00174 |
| Cu | 324.754 | -0.004569u | ppm | 0.000129 | 2.8 | -493.99 | -0.004569 ppm | Y 361.104 | -0.00457 |
| Fe | 261.382 | 200.19 | ppm | 1.5941 | 0.8 | 304108 | 200.19 ppm | Y 361.104 | - |
| K | 728.181 | 0.003944 | ppm | 0.003551 | 90.0 | 33.986 | 0.003944 ppm | Y 361.104 | 0.00394 |
| Li | 610.365 | -0.001380u | ppm | 0.001706 | 123.7 | -7750.3 | -0.001380 ppm | Y 361.104 | -0.00138 |
| Mg | 279.078 | 539.24 | ppm | 4.5852 | 0.9 | 462534 | 539.24 ppm | Y 361.104 | - |
| Mn | 293.305 | 0.009465 | ppm | 0.000545 | 5.8 | 124.80 | 0.009465 ppm | Y 361.104 | 0.00947 |
| Mo | 202.032 | -0.000873u | ppm | 0.000467 | 53.5 | 1.5903 | -0.000873 ppm | Y 361.104 | -0.00087 |
| Na | 589.592 | 0.063375 | ppm | 0.000492 | 0.8 | 6961.8 | 0.063375 ppm | Y 361.104 | 0.06337 |
| Ni | 221.648 | 0.004090 | ppm | 0.000873 | 21.3 | 5.3636 | 0.004090 ppm | Y 361.104 | 0.00409 |
| Pb | 220.353 | -0.003501 | ppm | 0.001723 | 49.2 | 181.73 | -0.003501 ppm | Y 361.104 | -0.00350 |
| Sb | 217.582 | -0.009492u | ppm | 0.008495 | 89.5 | -20.149 | -0.009492 ppm | Y 361.104 | -0.00949 |
| Se | 196.026 | 0.011795 | ppm | 0.005725 | 48.5 | 7.2359 | 0.011795 ppm | Y 361.104 | 0.01180 |
| Si | 251.611 | 0.035881 | ppm | 0.001315 | 3.7 | 103.92 | 0.035881 ppm | Y 361.104 | 0.03588 |
| Sn | 189.927 | -0.000265u | ppm | 0.001150 | 434.7 | 0.41891 | -0.000265 ppm | Y 361.104 | -0.00026 |
| Sr | 216.596 | -0.002424 | ppm | 0.000790 | 32.6 | 235.14 | -0.002424 ppm | Y 361.104 | -0.00242 |
| Ti | 322.284 | -0.000091u | ppm | 0.001059 | 1159.0 | 76.125 | -0.000091 ppm | Y 361.104 | -0.00009 |
| Tl | 190.794 | 0.008470u | ppm | 0.004864 | 57.4 | -16.839 | 0.008470 ppm | Y 361.104 | 0.00847 |
| V | 289.164 | -0.001802 | ppm | 0.000997 | 55.3 | 67.694 | -0.001802 ppm | Y 361.104 | -0.00180 |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Zn | 206.200 | 0.012212 | ppm | 0.001359 | 11.1 | 13.056 | 0.012212 ppm | Y 361.104 | 0.01221 |
| Zr | 257.147 | 0.007752 | ppm | 0.000477 | 6.2 | 84.910 | 0.007752 ppm | Y 361.104 | 0.00775 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.94669 | 160622 | 971.634 | 0.6 |

ICS-AB (ICSAB) 1/15/02, 12:46:21 AM Rack 1, Tube 34

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 6039.6 | 6028.8 | 6033.7 |
| Al | 237.312 | 258146 | 257313 | 256545 |
| As | 188.980 | 32.281 | 35.144 | 31.581 |
| B | 249.772 | -873.39 | -889.60 | -911.00 |
| Ba | 233.527 | 18662 | 18679 | 18633 |
| Be | 234.861 | 24092 | 24203 | 24159 |
| Ca | 315.887 | 2724737 | 2726135 | 2728113 |
| Cd | 228.802 | 7927.0 | 7916.3 | 7932.9 |
| Co | 231.160 | 2774.0 | 2782.6 | 2795.5 |
| Cr | 267.716 | 13607 | 13613 | 13573 |
| Cu | 324.754 | 15004 | 15009 | 14958 |
| Fe | 261.382 | 301126 | 301156 | 300971 |
| K | 728.181 | 37.844 | 33.503 | 51.385 |
| Li | 610.365 | -7532.5 | -7547.0 | -7570.5 |
| Mg | 279.078 | 458249 | 458392 | 458234 |
| Mn | 293.305 | 5978.7 | 5986.7 | 5990.5 |
| Mo | 202.032 | -3.1349 | -2.5605 | -4.6834 |
| Na | 589.592 | 7920.4 | 7904.3 | 7859.2 |
| Na | 568.821 | 1139.2 | 1145.5 | 1138.4 |
| Ni | 221.648 | 1410.4 | 1413.9 | 1410.1 |
| Pb | 220.353 | 1779.0 | 1773.3 | 1765.4 |
| Sb | 217.582 | 323.36 | 326.91 | 319.66 |
| Se | 196.026 | 16.877 | 19.721 | 14.877 |
| Si | 251.611 | 137.34 | 140.34 | 141.35 |
| Sn | 189.927 | -2.2545 | -0.86034 | 3.7149 |
| Sr | 216.596 | 234.14 | 233.88 | 228.39 |
| Ti | 322.284 | 81.378 | 72.674 | 64.535 |
| Tl | 190.794 | 26.753 | 29.206 | 31.954 |
| V | 289.164 | 3143.1 | 3129.0 | 3133.3 |
| Y | 361.104 | 160966 | 160727 | 160356 |
| Zn | 206.200 | 989.61 | 993.48 | 986.68 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Zr | 257.147 | 95.750 | 98.684 | 81.990 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.22286 | ppm | 0.000200 | 0.1 | 6034.0 | 0.22286 ppm | Y 361.104 | 111.42908 |
| Al | 237.312 | 536.04 | ppm | 1.6688 | 0.3 | 257335 | 536.04 ppm | Y 361.104 | 107.20717 |
| As | 188.980 | 0.10222 | ppm | 0.005840 | 5.7 | 33.002 | 0.10222 ppm | Y 361.104 | 102.21523 |
| B | 249.772 | 0.022579u | ppm | 0.001882 | 8.3 | -891.33 | 0.022579 ppm | Y 361.104 | - |
| Ba | 233.527 | 0.52751 | ppm | 0.000651 | 0.1 | 18658 | 0.52751 ppm | Y 361.104 | 105.50211 |
| Be | 234.861 | 0.53040 | ppm | 0.001153 | 0.2 | 24151 | 0.53040 ppm | Y 361.104 | 106.08045 |
| Ca | 315.887 | 503.32 | ppm | 0.31322 | 0.1 | 2726328 | 503.32 ppm | Y 361.104 | 100.66402 |
| Cd | 228.802 | 1.0840 | ppm | 0.001150 | 0.1 | 7925.4 | 1.0840 ppm | Y 361.104 | 108.39949 |
| Co | 231.160 | 0.49677 | ppm | 0.002009 | 0.4 | 2784.1 | 0.49677 ppm | Y 361.104 | 99.35364 |
| Cr | 267.716 | 0.50937 | ppm | 0.000813 | 0.2 | 13598 | 0.50937 ppm | Y 361.104 | 101.87340 |
| Cu | 324.754 | 0.54073 | ppm | 0.001006 | 0.2 | 14991 | 0.54073 ppm | Y 361.104 | 108.14535 |
| Fe | 261.382 | 198.19 | ppm | 0.065507 | 0.0 | 301084 | 198.19 ppm | Y 361.104 | 99.09715 |
| K | 728.181 | 0.006219 | ppm | 0.003055 | 49.1 | 40.911 | 0.006219 ppm | Y 361.104 | - |
| Li | 610.365 | 0.001680u | ppm | 0.000477 | 28.4 | -7550.0 | 0.001680 ppm | Y 361.104 | - |
| Mg | 279.078 | 534.29 | ppm | 0.10209 | 0.0 | 458292 | 534.29 ppm | Y 361.104 | 106.85817 |
| Mn | 293.305 | 0.50999 | ppm | 0.000515 | 0.1 | 5985.3 | 0.50999 ppm | Y 361.104 | 101.99767 |
| Mo | 202.032 | -0.002024u | ppm | 0.000250 | 12.4 | -3.4596 | -0.002024 ppm | Y 361.104 | - |
| Na | 589.592 | 0.063282 | ppm | 0.000331 | 0.5 | 7894.6 | 0.063282 ppm | Y 361.104 | - |
| Ni | 221.648 | 0.97010 | ppm | 0.001459 | 0.2 | 1411.5 | 0.97010 ppm | Y 361.104 | 97.01023 |
| Pb | 220.353 | 0.97308 | ppm | 0.004170 | 0.4 | 1772.6 | 0.97308 ppm | Y 361.104 | 97.30754 |
| Sb | 217.582 | 0.61277 | ppm | 0.006556 | 1.1 | 323.31 | 0.61277 ppm | Y 361.104 | 102.12756 |
| Se | 196.026 | 0.054235 | ppm | 0.010383 | 19.1 | 17.158 | 0.054235 ppm | Y 361.104 | 108.47044 |
| Si | 251.611 | 0.054400 | ppm | 0.001047 | 1.9 | 139.68 | 0.054400 ppm | Y 361.104 | - |
| Sn | 189.927 | -0.000365u | ppm | 0.003641 | 997.8 | 0.20003 | -0.000365 ppm | Y 361.104 | - |
| Sr | 216.596 | -0.002089 | ppm | 0.000594 | 28.4 | 232.14 | -0.002089 ppm | Y 361.104 | - |
| Ti | 322.284 | -0.000482u | ppm | 0.001128 | 233.8 | 72.863 | -0.000482 ppm | Y 361.104 | - |
| Tl | 190.794 | 0.10410 | ppm | 0.005566 | 5.3 | 29.304 | 0.10410 ppm | Y 361.104 | 104.09727 |
| V | 289.164 | 0.51768 | ppm | 0.001224 | 0.2 | 3135.1 | 0.51768 ppm | Y 361.104 | 103.53664 |
| Zn | 206.200 | 0.99523 | ppm | 0.003434 | 0.3 | 989.92 | 0.99523 ppm | Y 361.104 | 99.52258 |
| Zr | 257.147 | 0.008501 | ppm | 0.000942 | 11.1 | 92.142 | 0.008501 ppm | Y 361.104 | - |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.94705 | 160683 | 307.237 | 0.2 |

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CCV (CCV) 1/15/02, 12:49:37 AM Rack 1, Tube 35

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 28889 | 28877 | 28585 |
| Al | 237.312 | 2575.4 | 2582.8 | 2569.2 |
| As | 188.980 | 1751.3 | 1742.1 | 1734.2 |
| B | 249.772 | 20823 | 20961 | 20952 |
| Ba | 233.527 | 186073 | 186116 | 185271 |
| Be | 234.861 | 258046 | 257819 | 256891 |
| Ca | 315.887 | 285358 | 285082 | 283956 |
| Cd | 228.802 | 38576 | 38580 | 38579 |
| Co | 231.160 | 28354 | 28338 | 28162 |
| Cr | 267.716 | 139870 | 139974 | 139296 |
| Cu | 324.754 | 147970 | 148038 | 148048 |
| Fe | 261.382 | 7907.1 | 7904.0 | 7879.4 |
| K | 728.181 | 175937 | 175682 | 175777 |
| Li | 610.365 | 210523 | 210300 | 209571 |
| Mg | 279.078 | 44069 | 44083 | 43885 |
| Mn | 293.305 | 61710 | 61727 | 61516 |
| Mo | 202.032 | 4450.5 | 4471.9 | 4473.3 |
| Na | 589.592 | 5598960 | 5598647 | 5569672 |
| Na | 568.821 | 12399 | 12436 | 12382 |
| Ni | 221.648 | 7622.0 | 7607.7 | 7582.9 |
| Pb | 220.353 | 8554.5 | 8570.5 | 8528.5 |
| Sb | 217.582 | 566.16 | 573.60 | 564.03 |
| Se | 196.026 | 1257.5 | 1265.4 | 1257.4 |
| Si | 251.611 | 10282 | 10344 | 10334 |
| Sn | 189.927 | 4322.3 | 4352.7 | 4353.5 |
| Sr | 216.596 | 29284 | 29213 | 29086 |
| Ti | 322.284 | 37168 | 37176 | 37079 |
| Tl | 190.794 | 2423.3 | 2423.2 | 2417.1 |
| V | 289.164 | 31171 | 31214 | 31078 |
| Y | 361.104 | 171540 | 172576 | 173011 |
| Zn | 206.200 | 5273.0 | 5288.7 | 5256.9 |
| Zr | 257.147 | 50533 | 50578 | 50386 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 1.0487 | ppm | 0.006338 | 0.6 | 28784 | 1.0487 ppm | Y 361.104 | 104.87035 |
| Al | 237.312 | 5.3487 | ppm | 0.014110 | 0.3 | 2575.8 | 5.3487 ppm | Y 361.104 | 106.97449 |
| As | 188.980 | 5.3898 | ppm | 0.026461 | 0.5 | 1742.5 | 5.3898 ppm | Y 361.104 | 107.79500 |
| B | 249.772 | 2.0884 | ppm | 0.007699 | 0.4 | 20912 | 2.0884 ppm | Y 361.104 | 104.42017 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ba | 233.527 | 5.2743 | ppm | 0.013520 | 0.3 | 185820 | 5.2743 ppm | Y 361.104 | 105.48608 |
| Be | 234.861 | 5.3105 | ppm | 0.012618 | 0.2 | 257586 | 5.3105 ppm | Y 361.104 | 106.21016 |
| Ca | 315.887 | 52.583 | ppm | 0.13714 | 0.3 | 284799 | 52.583 ppm | Y 361.104 | 105.16592 |
| Cd | 228.802 | 5.2822 | ppm | 0.000294 | 0.0 | 38578 | 5.2822 ppm | Y 361.104 | 105.64462 |
| Co | 231.160 | 5.2584 | ppm | 0.019724 | 0.4 | 28285 | 5.2584 ppm | Y 361.104 | 105.16708 |
| Cr | 267.716 | 5.2360 | ppm | 0.013677 | 0.3 | 139713 | 5.2360 ppm | Y 361.104 | 104.72060 |
| Cu | 324.754 | 5.2101 | ppm | 0.001497 | 0.0 | 148018 | 5.2101 ppm | Y 361.104 | 104.20218 |
| Fe | 261.382 | 5.2336 | ppm | 0.009994 | 0.2 | 7896.8 | 5.2336 ppm | Y 361.104 | 104.67197 |
| K | 728.181 | 54.978 | ppm | 0.038552 | 0.1 | 175799 | 54.978 ppm | Y 361.104 | 109.95679 |
| Li | 610.365 | 5.2233 | ppm | 0.012396 | 0.2 | 210131 | 5.2233 ppm | Y 361.104 | 104.46662 |
| Mg | 279.078 | 51.309 | ppm | 0.12842 | 0.3 | 44012 | 51.309 ppm | Y 361.104 | 102.61710 |
| Mn | 293.305 | 5.2642 | ppm | 0.010009 | 0.2 | 61651 | 5.2642 ppm | Y 361.104 | 105.28430 |
| Mo | 202.032 | 1.0169 | ppm | 0.002919 | 0.3 | 4465.2 | 1.0169 ppm | Y 361.104 | 101.69028 |
| Na | 589.592 | 55.140 | ppm | 0.15791 | 0.3 | 5589093 | 55.140 ppm | Y 361.104 | 110.28068Q |
| Ni | 221.648 | 5.2172 | ppm | 0.013575 | 0.3 | 7604.2 | 5.2172 ppm | Y 361.104 | 104.34464 |
| Pb | 220.353 | 5.2484 | ppm | 0.013018 | 0.2 | 8551.2 | 5.2484 ppm | Y 361.104 | 104.96838 |
| Sb | 217.582 | 1.0386 | ppm | 0.009093 | 0.9 | 567.93 | 1.0386 ppm | Y 361.104 | 103.85825 |
| Se | 196.026 | 5.3746 | ppm | 0.019600 | 0.4 | 1260.1 | 5.3746 ppm | Y 361.104 | 107.49160 |
| Si | 251.611 | 5.1660 | ppm | 0.016532 | 0.3 | 10320 | 5.1660 ppm | Y 361.104 | 103.31997 |
| Sn | 189.927 | 5.0607 | ppm | 0.020713 | 0.4 | 4342.9 | 5.0607 ppm | Y 361.104 | 101.21438 |
| Sr | 216.596 | 5.3421 | ppm | 0.018336 | 0.3 | 29194 | 5.3421 ppm | Y 361.104 | 106.84286 |
| Ti | 322.284 | 4.9610 | ppm | 0.007189 | 0.1 | 37141 | 4.9610 ppm | Y 361.104 | 99.21967 |
| Tl | 190.794 | 5.1500 | ppm | 0.007594 | 0.1 | 2421.2 | 5.1500 ppm | Y 361.104 | 102.99983 |
| V | 289.164 | 5.2725 | ppm | 0.011690 | 0.2 | 31155 | 5.2725 ppm | Y 361.104 | 105.44967 |
| Zn | 206.200 | 5.2977 | ppm | 0.016057 | 0.3 | 5272.9 | 5.2977 ppm | Y 361.104 | 105.95405 |
| Zr | 257.147 | 5.3370 | ppm | 0.010641 | 0.2 | 50499 | 5.3370 ppm | Y 361.104 | 106.74098 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0160 | 172376 | 755.734 | 0.4 |

BLA01 (CCB) 1/15/02, 12:52:52 AM Rack 1, Tube 36

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -1.2778 | -7.4629 | 12.988 |
| Al | 237.312 | -0.004716 | -3.9726 | -3.2545 |
| As | 188.980 | 1.6498 | 0.12133 | 0.57665 |
| B | 249.772 | 149.59 | 131.01 | 112.74 |
| Ba | 233.527 | 82.702 | 80.508 | 85.140 |
| Be | 234.861 | -1.3190 | -0.44803 | -2.8884 |
| Ca | 315.887 | 112.93 | 118.70 | 117.62 |

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| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Cd | 228.802 | -1.3477 | -3.9975 | -1.1315 |
| Co | 231.160 | 11.650 | 7.9584 | 10.858 |
| Cr | 267.716 | 5.7345 | 3.9019 | 3.5769 |
| Cu | 324.754 | 111.93 | 107.73 | 121.61 |
| Fe | 261.382 | 8.6361 | 9.3373 | 10.051 |
| K | 728.181 | 17.195 | 27.777 | 15.138 |
| Li | 610.365 | 1002.8 | 1047.2 | 1045.7 |
| Mg | 279.078 | 1.4784 | 0.48877 | 2.2988 |
| Mn | 293.305 | 4.4475 | 12.370 | 7.1955 |
| Mo | 202.032 | 18.942 | 16.709 | 12.237 |
| Na | 589.592 | 744.83 | 746.59 | 717.51 |
| Na | 568.821 | -400.46 | -433.59 | -421.39 |
| Ni | 221.648 | 0.63967 | -0.48422 | -0.61967 |
| Pb | 220.353 | -2.1887 | -2.5077 | -1.8716 |
| Sb | 217.582 | -2.0583 | -2.0608 | -2.1955 |
| Se | 196.026 | 1.8193 | -0.87142 | 1.3824 |
| Si | 251.611 | 51.897 | 58.522 | 57.512 |
| Sn | 189.927 | 0.11163 | 0.17417 | 1.5859 |
| Sr | 216.596 | 1.3112 | 2.9480 | -0.70108 |
| Ti | 322.284 | 78.243 | 83.601 | 79.171 |
| Tl | 190.794 | 3.4068 | 2.8049 | 4.9027 |
| V | 289.164 | -3.7998 | 1.3030 | 4.0539 |
| Y | 361.104 | 185400 | 184088 | 183651 |
| Zn | 206.200 | 0.49358 | 2.4479 | 2.5634 |
| Zr | 257.147 | 9.0308 | 11.792 | 10.008 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.000541 | ppm | 0.000387 | 71.5 | 1.4157 | 0.000541 ppm | Y 361.104 | 0.00054 |
| Al | 237.312 | -0.002905u | ppm | 0.004404 | 151.6 | -2.4106 | -0.002905 ppm | Y 361.104 | -0.00291 |
| As | 188.980 | 0.002681 | ppm | 0.002428 | 90.6 | 0.78258 | 0.002681 ppm | Y 361.104 | 0.00268 |
| B | 249.772 | 0.011450 | ppm | 0.001838 | 16.1 | 131.11 | 0.011450 ppm | Y 361.104 | 0.01145 |
| Ba | 233.527 | 0.000103 | ppm | 0.000066 | 64.1 | 82.783 | 0.000103 ppm | Y 361.104 | 0.00010 |
| Be | 234.861 | -0.000073u | ppm | 0.000025 | 34.9 | -1.5518 | -0.000073 ppm | Y 361.104 | -0.00007 |
| Ca | 315.887 | -0.008398u | ppm | 0.000566 | 6.7 | 116.41 | -0.008398 ppm | Y 361.104 | -0.00840 |
| Cd | 228.802 | 0.000011u | ppm | 0.000218 | 1937.2 | -2.1589 | 0.000011 ppm | Y 361.104 | 0.00001 |
| Co | 231.160 | -0.000417u | ppm | 0.000456 | 109.4 | 9.8554 | -0.000417 ppm | Y 361.104 | -0.00042 |
| Cr | 267.716 | -0.000090u | ppm | 0.000044 | 48.5 | 4.4044 | -0.000090 ppm | Y 361.104 | -0.00009 |
| Cu | 324.754 | -0.000512u | ppm | 0.000251 | 48.9 | 113.76 | -0.000512 ppm | Y 361.104 | -0.00051 |
| Fe | 261.382 | -0.004533u | ppm | 0.000466 | 10.3 | 9.3416 | -0.004533 ppm | Y 361.104 | -0.00453 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| K | 728.181 | -0.000626u | ppm | 0.002221 | 355.0 | 20.036 | -0.000626 ppm | Y 361.104 | -0.00063 |
| Li | 610.365 | -0.002214u | ppm | 0.000627 | 28.3 | 1031.9 | -0.002214 ppm | Y 361.104 | -0.00221 |
| Mg | 279.078 | -0.000975u | ppm | 0.001057 | 108.4 | 1.4220 | -0.000975 ppm | Y 361.104 | -0.00098 |
| Mn | 293.305 | -0.000511u | ppm | 0.000344 | 67.3 | 8.0044 | -0.000511 ppm | Y 361.104 | -0.00051 |
| Mo | 202.032 | 0.002404 | ppm | 0.000778 | 32.4 | 15.963 | 0.002404 ppm | Y 361.104 | 0.00240 |
| Na | 589.592 | -0.001521u | ppm | 0.000170 | 11.2 | 736.31 | -0.001521 ppm | Y 361.104 | -0.00152 |
| Ni | 221.648 | 0.000344 | ppm | 0.000475 | 138.0 | -0.15474 | 0.000344 ppm | Y 361.104 | 0.00034 |
| Pb | 220.353 | -0.001292u | ppm | 0.000195 | 15.1 | -2.1893 | -0.001292 ppm | Y 361.104 | -0.00129 |
| Sb | 217.582 | 0.000567 | ppm | 0.000142 | 25.0 | -2.1049 | 0.000567 ppm | Y 361.104 | 0.00057 |
| Se | 196.026 | 0.002488u | ppm | 0.006160 | 247.6 | 0.77674 | 0.002488 ppm | Y 361.104 | 0.00249 |
| Si | 251.611 | 0.004948 | ppm | 0.001794 | 36.3 | 55.977 | 0.004948 ppm | Y 361.104 | 0.00495 |
| Sn | 189.927 | -0.000021u | ppm | 0.000972 | 4557.7 | 0.62391 | -0.000021 ppm | Y 361.104 | -0.00002 |
| Sr | 216.596 | -0.000165u | ppm | 0.000334 | 203.0 | 1.1860 | -0.000165 ppm | Y 361.104 | -0.00016 |
| Ti | 322.284 | 0.000475 | ppm | 0.000383 | 80.8 | 80.338 | 0.000475 ppm | Y 361.104 | 0.00047 |
| Tl | 190.794 | 0.010031 | ppm | 0.002311 | 23.0 | 3.7048 | 0.010031 ppm | Y 361.104 | 0.01003Z |
| V | 289.164 | 0.000736 | ppm | 0.000672 | 91.3 | 0.51904 | 0.000736 ppm | Y 361.104 | 0.00074 |
| Zn | 206.200 | 0.000910u | ppm | 0.001172 | 128.8 | 1.8349 | 0.000910 ppm | Y 361.104 | 0.00091 |
| Zr | 257.147 | -0.000134u | ppm | 0.000148 | 110.1 | 10.277 | -0.000134 ppm | Y 361.104 | -0.00013 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0867 | 184380 | 910.426 | 0.5 |

**Q1324672 BLA02 (Samp)** **1/15/02, 12:56:08 AM** **Rack 1, Tube 37**

Weight: 1 Volume: 1 Dilution: 1

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -16.221 | 1.5179 | -7.9156 |
| Al | 237.312 | 4.4756 | 1.9251 | 0.65435 |
| As | 188.980 | 1.4059 | -0.91361 | 0.12249 |
| B | 249.772 | 67.363 | 62.054 | 57.876 |
| Ba | 233.527 | 79.332 | 78.958 | 79.399 |
| Be | 234.861 | -0.58615 | -0.73473 | 1.6060 |
| Ca | 315.887 | 211.98 | 206.14 | 211.25 |
| Cd | 228.802 | -1.5360 | -1.6800 | -2.6464 |
| Co | 231.160 | 12.787 | 9.7932 | 6.9949 |
| Cr | 267.716 | 6.4457 | 3.4980 | 7.8693 |
| Cu | 324.754 | 105.14 | 119.33 | 123.12 |
| Fe | 261.382 | 7.9557 | 12.643 | 11.150 |
| K | 728.181 | 19.140 | 10.608 | 21.206 |
| Li | 610.365 | 1076.5 | 1054.3 | 1042.5 |

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Blank (Blk) 1/15/02, 9:18:51 PM Rack 1, Tube 1

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -4.8929 | -6.9270 | -19.590 |
| Al | 237.312 | -4.1859 | -2.1770 | 0.59129 |
| As | 188.980 | 1.3119 | 0.36435 | -0.17587 |
| B | 249.772 | 0.86452 | 4.5377 | 7.3808 |
| Ba | 233.527 | 118.29 | 123.97 | 118.05 |
| Be | 234.861 | -2.7949 | -7.0226 | -1.7823 |
| Ca | 315.887 | 191.75 | 192.03 | 198.08 |
| Cd | 228.802 | -1.7637 | -4.0251 | 0.65609 |
| Co | 231.160 | 12.876 | 12.007 | 12.997 |
| Cr | 267.716 | 8.9634 | 9.1941 | 3.1827 |
| Cu | 324.754 | 119.06 | 119.21 | 119.72 |
| Fe | 261.382 | 12.355 | 10.009 | 8.5212 |
| K | 728.181 | 42.221 | 33.716 | 25.697 |
| Li | 610.365 | 1133.0 | 1158.8 | 1152.1 |
| Mg | 279.078 | 4.9231 | 6.0942 | 5.1258 |
| Mn | 293.305 | 7.8925 | 16.430 | 8.6565 |
| Mo | 202.032 | 5.9979 | 5.2721 | -0.78263 |
| Na | 589.592 | 923.81 | 900.38 | 900.52 |
| Na | 568.821 | -428.34 | -431.65 | -442.84 |
| Ni | 221.648 | 1.5801 | -0.32818 | -0.43625 |
| Pb | 220.353 | 0.13881 | -0.96203 | 0.20224 |
| Sb | 217.582 | -1.7518 | 0.25626 | -0.36877 |
| Se | 196.026 | -1.3108 | 1.2897 | 0.33119 |
| Si | 251.611 | 32.205 | 36.931 | 34.482 |
| Sn | 189.927 | 0.67746 | 1.0134 | 0.10341 |
| Sr | 216.596 | 3.1224 | 3.2621 | 5.8345 |
| Ti | 322.284 | 78.474 | 78.510 | 75.228 |
| Tl | 190.794 | -1.3415 | -1.0951 | -2.4279 |
| V | 289.164 | 2.5705 | -0.56752 | 1.2770 |
| Y | 361.104 | 196790 | 196988 | 199602 |
| Zn | 206.200 | 1.3973 | -0.49465 | 0.28436 |
| Zr | 257.147 | 12.979 | 10.874 | 15.884 |

| El | Wavelen. | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.000000 | ppm | 7.963 | 76.1 | -10.470 |
| Al | 237.312 | 0.000000 | ppm | 2.399 | 124.7 | -1.9239 |
| As | 188.980 | 0.000000 | ppm | 0.753 | 150.6 | 0.50013 |
| B | 249.772 | 0.000000 | ppm | 3.267 | 76.7 | 4.2610 |

ICP #334 1/15/02

CCV=S11513
DLS=S11564
CDL01=S11524
HMCS=STD2
ICS-A=S11515
ICS-AB=S11527

ICV01-19=S11514
ICV01-07=S11459
ICV01-31=S11526

STD2=S11371
MADE 10-30-01

STD3=S11525
MADE 12-20-01

STD4=S11516
MADE 12-18-01

STD3X=S11461

JPK #3506

020115JPKU

A581214 Na, K
215 Na
217 Na
(Dilutions)



| El | Wavelen. | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|---|
| Ba | 233.527 | 0.000000 | ppm | 3.354 | 2.8 | 120.10 |
| Be | 234.861 | 0.000000 | ppm | 2.780 | 71.9 | -3.8666 |
| Ca | 315.887 | 0.000000 | ppm | 3.575 | 1.8 | 193.95 |
| Cd | 228.802 | 0.000000 | ppm | 2.341 | 136.8 | -1.7109 |
| Co | 231.160 | 0.000000 | ppm | 0.540 | 4.3 | 12.626 |
| Cr | 267.716 | 0.000000 | ppm | 3.406 | 47.9 | 7.1134 |
| Cu | 324.754 | 0.000000 | ppm | 0.348 | 0.3 | 119.33 |
| Fe | 261.382 | 0.000000 | ppm | 1.933 | 18.8 | 10.295 |
| K | 728.181 | 0.000000 | ppm | 8.263 | 24.4 | 33.878 |
| Li | 610.365 | 0.000000 | ppm | 13.382 | 1.2 | 1148.0 |
| Mg | 279.078 | 0.000000 | ppm | 0.626 | 11.6 | 5.3810 |
| Mn | 293.305 | 0.000000 | ppm | 4.724 | 43.0 | 10.993 |
| Mo | 202.032 | 0.000000 | ppm | 3.723 | 106.5 | 3.4958 |
| Na | 589.592 | 0.000000 | ppm | 13.484 | 1.5 | 908.24 |
| Na | 568.821 | 0.000000 | ppm | 7.598 | 1.7 | -434.28 |
| Ni | 221.648 | 0.000000 | ppm | 1.134 | 417.2 | 0.27188 |
| Pb | 220.353 | 0.000000 | ppm | 0.655 | 316.3 | -0.20699 |
| Sb | 217.582 | 0.000000 | ppm | 1.028 | 165.4 | -0.62144 |
| Se | 196.026 | 0.000000 | ppm | 1.315 | 1272.2 | 0.10337 |
| Si | 251.611 | 0.000000 | ppm | 2.364 | 6.8 | 34.539 |
| Sn | 189.927 | 0.000000 | ppm | 0.460 | 76.9 | 0.59808 |
| Sr | 216.596 | 0.000000 | ppm | 1.527 | 37.5 | 4.0730 |
| Ti | 322.284 | 0.000000 | ppm | 1.884 | 2.4 | 77.404 |
| Tl | 190.794 | 0.000000 | ppm | 0.709 | 43.7 | -1.6215 |
| V | 289.164 | 0.000000 | ppm | 1.577 | 144.2 | 1.0933 |
| Zn | 206.200 | 0.000000 | ppm | 0.951 | 240.3 | 0.39569 |
| Zr | 257.147 | 0.000000 | ppm | 2.516 | 19.0 | 13.246 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.000000 | 197793 | 1569.474 | 0.8 |

Standard 2 (Std) 1/15/02, 9:22:07 PM Rack 1, Tube 2

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 54185 | 54410 | 54599 |
| Al | 237.312 | 4639.7 | 4668.8 | 4678.2 |
| As | 188.980 | 3183.6 | 3193.0 | 3234.7 |
| B | 249.772 | 94873 | 95566 | 94596 |
| Ba | 233.527 | 349706 | 351391 | 353770 |
| Be | 234.861 | 476196 | 476332 | 479171 |

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| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Cd | 228.802 | 72458 | 72680 | 73052 |
| Co | 231.160 | 52922 | 53106 | 53468 |
| Cr | 267.716 | 267328 | 268624 | 269894 |
| Cu | 324.754 | 280889 | 282883 | 283327 |
| Fe | 261.382 | 15038 | 15099 | 15185 |
| Li | 610.365 | 394747 | 395678 | 396863 |
| Mn | 293.305 | 117856 | 118291 | 118890 |
| Ni | 221.648 | 14431 | 14503 | 14567 |
| Pb | 220.353 | 16018 | 16110 | 16201 |
| Se | 196.026 | 2278.8 | 2300.0 | 2312.5 |
| Sr | 216.596 | 53824 | 54186 | 54094 |
| Tl | 190.794 | 4546.3 | 4562.9 | 4580.4 |
| V | 289.164 | 60456 | 60722 | 60995 |
| Y | 361.104 | 195870 | 198145 | 197922 |
| Zn | 206.200 | 9570.1 | 9597.4 | 9601.8 |
| Zr | 257.147 | 94689 | 95230 | 95637 |

| El | Wavelen. | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|---|
| Ag | 328.068 | 2.0000 | ppm | 207.274 | 0.4 | 54398 |
| Al | 237.312 | 10.000 | ppm | 20.071 | 0.4 | 4662.2 |
| As | 188.980 | 10.000 | ppm | 27.208 | 0.8 | 3203.7 |
| B | 249.772 | 10.000 | ppm | 499.415 | 0.5 | 95012 |
| Ba | 233.527 | 10.000 | ppm | 2041.819 | 0.6 | 351622 |
| Be | 234.861 | 10.000 | ppm | 1680.008 | 0.4 | 477233 |
| Cd | 228.802 | 10.000 | ppm | 300.360 | 0.4 | 72730 |
| Co | 231.160 | 10.000 | ppm | 277.962 | 0.5 | 53165 |
| Cr | 267.716 | 10.000 | ppm | 1283.131 | 0.5 | 268615 |
| Cu | 324.754 | 10.000 | ppm | 1298.141 | 0.5 | 282366 |
| Fe | 261.382 | 10.000 | ppm | 73.878 | 0.5 | 15107 |
| Li | 610.365 | 10.000 | ppm | 1060.778 | 0.3 | 395763 |
| Mn | 293.305 | 10.000 | ppm | 519.270 | 0.4 | 118346 |
| Ni | 221.648 | 10.000 | ppm | 68.180 | 0.5 | 14500 |
| Pb | 220.353 | 10.000 | ppm | 91.743 | 0.6 | 16110 |
| Se | 196.026 | 10.000 | ppm | 17.012 | 0.7 | 2297.1 |
| Sr | 216.596 | 10.000 | ppm | 188.214 | 0.3 | 54035 |
| Tl | 190.794 | 10.000 | ppm | 17.049 | 0.4 | 4563.2 |
| V | 289.164 | 10.000 | ppm | 269.607 | 0.4 | 60724 |
| Zn | 206.200 | 10.000 | ppm | 17.174 | 0.2 | 9589.8 |
| Zr | 257.147 | 10.000 | ppm | 475.570 | 0.5 | 95185 |



| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0000 | 197312 | 1254.321 | 0.6 |

**Standard 4 (Std)** **1/15/02, 9:25:24 PM** **Rack 1, Tube 3**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Mo | 202.032 | 8671.5 | 8725.0 | 8744.0 |
| Sb | 217.582 | 1061.4 | 1061.8 | 1068.6 |
| Si | 251.611 | 18540 | 18636 | 18860 |
| Sn | 189.927 | 8256.6 | 8257.8 | 8325.8 |
| Ti | 322.284 | 72510 | 72567 | 72678 |
| Y | 361.104 | 205601 | 205755 | 206634 |

| El | Wavelen. | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|---|
| Mo | 202.032 | 2.0000 | ppm | 37.582 | 0.4 | 8713.5 |
| Sb | 217.582 | 2.0000 | ppm | 4.018 | 0.4 | 1063.9 |
| Si | 251.611 | 10.000 | ppm | 164.208 | 0.9 | 18679 |
| Sn | 189.927 | 10.000 | ppm | 39.592 | 0.5 | 8280.1 |
| Ti | 322.284 | 10.000 | ppm | 85.736 | 0.1 | 72585 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0440 | 205997 | 557.595 | 0.3 |

**Standard 3 (Std)** **1/15/02, 9:28:40 PM** **Rack 1, Tube 4**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| K | 728.181 | 29609 | 29609 | 29637 |
| Na | 589.592 | 955518 | 959478 | 955379 |
| Na | 568.821 | 1884.9 | 1908.1 | 1867.0 |
| Y | 361.104 | 205663 | 206236 | 207811 |

| El | Wavelen. | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|---|
| K | 728.181 | 10.000 | ppm | 16.219 | 0.1 | 29619 |
| Na | 589.592 | 10.000 | ppm | 2327.330 | 0.2 | 956792 |
| Na | 568.821 | 10.000 | ppm | 20.608 | 1.1 | 1886.7 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0469 | 206570 | 1112.473 | 0.5 |

Std 3 10 X (Std) 1/15/02, 9:31:57 PM Rack 1, Tube 5

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ca | 315.887 | 543361 | 544462 | 544534 |
| K | 728.181 | 321361 | 321334 | 322081 |
| Mg | 279.078 | 84992 | 85282 | 85093 |
| Na | 589.592 | 10523653 | 10561734 | 10562035 |
| Na | 568.821 | 25180 | 25312 | 25218 |
| Y | 361.104 | 195354 | 195352 | 195052 |

| El | Wavelen. | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|---|
| Ca | 315.887 | 100.00 | ppm | 657.522 | 0.1 | 544119 |
| K | 728.181 | 100.00 | ppm | 423.753 | 0.1 | 321592 |
| Mg | 279.078 | 100.00 | ppm | 147.301 | 0.2 | 85122 |
| Na | 589.592 | 100.00 | ppm | 22073.480 | 0.2 | 10549141 |
| Na | 568.821 | 100.00 | ppm | 67.581 | 0.3 | 25236 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.98956 | 195253 | 173.574 | 0.1 |

Ag 328.068 Calibration (ppm) 1/15/02, 9:31:57 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -10.470 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 54398 | 2.0000 | 2.0000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 27204.3 x + -10.4698

Al 237.312 Calibration (ppm) 1/15/02, 9:31:57 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -1.9239 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 4662.2 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 466.415 x + -1.92385

As 188.980 Calibration (ppm) 1/15/02, 9:31:57 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 0.50013 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 3203.7 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 320.324 x + 0.500126



B 249.772 Calibration (ppm) 1/15/02, 9:31:57 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 4.2610 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 95012 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 9500.75 x + 4.26103

Ba 233.527 Calibration (ppm) 1/15/02, 9:31:57 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 120.10 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 351622 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 35150.2 x + 120.102

Be 234.861 Calibration (ppm) 1/15/02, 9:31:57 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -3.8666 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 477233 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 47723.7 x + -3.86662

Ca 315.887 Calibration (ppm) 1/15/02, 9:31:57 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 193.95 | 0.000000 | 0.000000 | - | - |
| Std 3 10 X | | 544119 | 100.00 | 100.00 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 5439.25 x + 193.954

Cd 228.802 Calibration (ppm) 1/15/02, 9:31:57 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -1.7109 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 72730 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 7273.17 x + -1.71091

Co 231.160 Calibration (ppm) 1/15/02, 9:31:57 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 12.626 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 53165 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 5315.27 x + 12.6264

Cr 267.716 Calibration (ppm) 1/15/02, 9:31:57 PM Correlation Coefficient: 1.000000

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 7.1134 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 268615 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 26860.8 x + 7.1134

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**Cu 324.754 Calibration (ppm)** 1/15/02, 9:31:57 PM **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 119.33 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 282366 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 28224.7 x + 119.331

**Fe 261.382 Calibration (ppm)** 1/15/02, 9:31:57 PM **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 10.295 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 15107 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 1509.7 x + 10.2951

**K 728.181 Calibration (ppm)** 1/15/02, 9:31:57 PM **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 33.878 | 0.000000 | 0.000000 | - | - |
| Standard 3 | | 29619 | 10.000 | 10.000 | 0.000000 | 0.0 |
| Std 3 10 X | | 321592 | 100.00 | 100.00 | 0.000000 | 0.0 |

Curve Type: Quadratic Equation: $y = 2.85684 x^2 + 2929.9 x + 33.8782$

**Li 610.365 Calibration (ppm)** 1/15/02, 9:31:57 PM **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 1148.0 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 395763 | 10.000 | 10.000 | 0.000001 | 0.0 |

Curve Type: Linear Equation: y = 39461.5 x + 1147.99

**Mg 279.078 Calibration (ppm)** 1/15/02, 9:31:57 PM **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 5.3810 | 0.000000 | 0.000000 | - | - |
| Std 3 10 X | | 85122 | 100.00 | 100.00 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 851.168 x + 5.38102

**Mn 293.305 Calibration (ppm)** 1/15/02, 9:31:57 PM **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 10.993 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 118346 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 11833.5 x + 10.993



**Mo 202.032 Calibration (ppm)** 1/15/02, 9:31:57 PM **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 3.4958 | 0.000000 | 0.000000 | - | - |
| Standard 4 | | 8713.5 | 2.0000 | 2.0000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 4355.01 x + 3.49579

**Na 589.592 Calibration (ppm)** 1/15/02, 9:31:57 PM **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 908.24 | 0.000000 | 0.000000 | - | - |
| Standard 3 | | 956792 | 10.000 | 10.000 | 0.000000 | 0.0 |
| Std 3 10 X | | 10549141 | 100.00 | 100.00 | 0.000000 | 0.0 |

Curve Type: Quadratic Equation: $y = 109.933 x^2 + 94489 x + 908.235$

**Na 568.821 Calibration (ppm)** 1/15/02, 9:31:57 PM **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -434.28 | 0.000000 | 1.0540 | - | - |
| Standard 3 | | 1886.7 | 10.000 | 10.000 | 0.000000 | 0.0 |
| Std 3 10 X | | 25236 | 100.00 | 100.00 | 0.000008 | 0.0 |

Curve Type: Linear Equation: y = 259.442 x + -707.743

**Ni 221.648 Calibration (ppm)** 1/15/02, 9:31:57 PM **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 0.27188 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 14500 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 1450.01 x + 0.271877

**Pb 220.353 Calibration (ppm)** 1/15/02, 9:31:57 PM **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -0.20699 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 16110 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 1610.99 x + -0.206991

**Sb 217.582 Calibration (ppm)** 1/15/02, 9:31:57 PM **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -0.62144 | 0.000000 | 0.000000 | - | - |
| Standard 4 | | 1063.9 | 2.0000 | 2.0000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 532.279 x + -0.621438

**Se 196.026 Calibration (ppm)** **1/15/02, 9:31:57 PM** **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 0.10337 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 2297.1 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 229.701 x + 0.103372

**Si 251.611 Calibration (ppm)** **1/15/02, 9:31:57 PM** **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 34.539 | 0.000000 | 0.000000 | - | - |
| Standard 4 | | 18679 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 1864.44 x + 34.5395

**Sn 189.927 Calibration (ppm)** **1/15/02, 9:31:57 PM** **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 0.59808 | 0.000000 | 0.000000 | - | - |
| Standard 4 | | 8280.1 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 827.946 x + 0.598078

**Sr 216.596 Calibration (ppm)** **1/15/02, 9:31:57 PM** **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 4.0730 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 54035 | 10.000 | 10.000 | 0.000001 | 0.0 |

Curve Type: Linear Equation: y = 5403.05 x + 4.07301

**Ti 322.284 Calibration (ppm)** **1/15/02, 9:31:57 PM** **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 77.404 | 0.000000 | 0.000000 | - | - |
| Standard 4 | | 72585 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 7250.75 x + 77.4041

**Tl 190.794 Calibration (ppm)** **1/15/02, 9:31:57 PM** **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | -1.6215 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 4563.2 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 456.479 x + -1.6215

**V 289.164 Calibration (ppm)** **1/15/02, 9:31:57 PM** **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 1.0933 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 60724 | 10.000 | 10.000 | 0.000001 | 0.0 |

Curve Type: Linear Equation: y = 6072.34 x + 1.09332



**Zn 206.200 Calibration (ppm)** **1/15/02, 9:31:57 PM** **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 0.39569 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 9589.8 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 958.936 x + 0.395689

**Zr 257.147 Calibration (ppm)** **1/15/02, 9:31:57 PM** **Correlation Coefficient: 1.000000**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 13.246 | 0.000000 | 0.000000 | - | - |
| Standard 2 | | 95185 | 10.000 | 10.000 | 0.000000 | 0.0 |

Curve Type: Linear Equation: y = 9517.21 x + 13.2458

**CCV (CCV)** **1/15/02, 9:35:14 PM** **Rack 1, Tube 6**

| El | Wavelen. | Replicates Intensity (c/s) | | | |
|---|---|---|---|---|---|
| Ag | 328.068 | 28078 | 28304 | 28186 | |
| Al | 237.312 | 2397.9 | 2421.5 | 2404.6 | |
| As | 188.980 | 1660.8 | 1667.3 | 1659.5 | |
| B | 249.772 | 19492 | 19740 | 19723 | |
| Ba | 233.527 | 179183 | 180711 | 179828 | |
| Be | 234.861 | 247877 | 250185 | 248887 | |
| Ca | 315.887 | 275568 | 277993 | 276710 | |
| Cd | 228.802 | 37010 | 37331 | 37229 | |
| Co | 231.160 | 26837 | 27059 | 26890 | |
| Cr | 267.716 | 135554 | 136666 | 136173 | |
| Cu | 324.754 | 142597 | 143548 | 143496 | |
| Fe | 261.382 | 7574.0 | 7639.3 | 7611.1 | |
| K | 728.181 | 163893 | 164886 | 163871 | |
| Li | 610.365 | 200969 | 202550 | 201724 | |
| Mg | 279.078 | 42027 | 42378 | 42207 | |
| Mn | 293.305 | 60306 | 60801 | 60536 | |
| Mo | 202.032 | 4397.6 | 4465.8 | 4442.3 | |
| Na | 589.592 | 5362190 | 5392145 | 5386657 | |
| Na | 568.821 | 11932 | 12009 | 12007 | |
| Ni | 221.648 | 7305.0 | 7347.1 | 7312.5 | |
| Pb | 220.353 | 8124.8 | 8181.8 | 8152.1 | |
| Sb | 217.582 | 550.48 | 550.91 | 550.58 | |
| Se | 196.026 | 1182.5 | 1185.0 | 1188.1 | |
| Si | 251.611 | 9673.1 | 9745.2 | 9709.6 | |

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| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Sn | 189.927 | 4139.5 | 4161.7 | 4181.7 |
| Sr | 216.596 | 27447 | 27536 | 27528 |
| Ti | 322.284 | 36173 | 36489 | 36305 |
| Tl | 190.794 | 2273.4 | 2302.1 | 2297.5 |
| V | 289.164 | 30891 | 31154 | 31045 |
| Y | 361.104 | 198003 | 196621 | 197301 |
| Zn | 206.200 | 4798.8 | 4826.5 | 4845.7 |
| Zr | 257.147 | 48978 | 49347 | 49213 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 1.0238 | ppm | 0.004157 | 0.4 | 28189 | 1.0238 ppm | Y 361.104 | 102.38351 |
| Al | 237.312 | 5.1485 | ppm | 0.026094 | 0.5 | 2408.0 | 5.1485 ppm | Y 361.104 | 102.96974 |
| As | 188.980 | 5.1868 | ppm | 0.012987 | 0.3 | 1662.5 | 5.1868 ppm | Y 361.104 | 103.73522 |
| B | 249.772 | 2.0716 | ppm | 0.014561 | 0.7 | 19652 | 2.0716 ppm | Y 361.104 | 103.57782 |
| Ba | 233.527 | 5.1143 | ppm | 0.021823 | 0.4 | 179907 | 5.1143 ppm | Y 361.104 | 102.28608 |
| Be | 234.861 | 5.2181 | ppm | 0.024242 | 0.5 | 248983 | 5.2181 ppm | Y 361.104 | 104.36160 |
| Ca | 315.887 | 50.866 | ppm | 0.22309 | 0.4 | 276757 | 50.866 ppm | Y 361.104 | 101.73145 |
| Cd | 228.802 | 5.1201 | ppm | 0.022605 | 0.4 | 37190 | 5.1201 ppm | Y 361.104 | 102.40285 |
| Co | 231.160 | 5.0710 | ppm | 0.021794 | 0.4 | 26929 | 5.0710 ppm | Y 361.104 | 101.42036 |
| Cr | 267.716 | 5.0678 | ppm | 0.020754 | 0.4 | 136131 | 5.0678 ppm | Y 361.104 | 101.35514 |
| Cu | 324.754 | 5.0725 | ppm | 0.018938 | 0.4 | 143214 | 5.0725 ppm | Y 361.104 | 101.45084 |
| Fe | 261.382 | 5.0766 | ppm | 0.021681 | 0.4 | 7608.1 | 5.0766 ppm | Y 361.104 | 101.53117 |
| K | 728.181 | 53.264 | ppm | 0.17929 | 0.3 | 164217 | 53.264 ppm | Y 361.104 | 106.52821 |
| Li | 610.365 | 5.1055 | ppm | 0.020034 | 0.4 | 201748 | 5.1055 ppm | Y 361.104 | 102.10975 |
| Mg | 279.078 | 49.577 | ppm | 0.20616 | 0.4 | 42204 | 49.577 ppm | Y 361.104 | 99.15466 |
| Mn | 293.305 | 5.1157 | ppm | 0.020906 | 0.4 | 60548 | 5.1157 ppm | Y 361.104 | 102.31456 |
| Mo | 202.032 | 1.0176 | ppm | 0.007951 | 0.8 | 4435.3 | 1.0176 ppm | Y 361.104 | 101.76260 |
| Na | 589.592 | 53.494 | ppm | 0.15008 | 0.3 | 5380331 | 53.494 ppm | Y 361.104 | 106.98889 |
| Ni | 221.648 | 5.0441 | ppm | 0.015479 | 0.3 | 7321.6 | 5.0441 ppm | Y 361.104 | 100.88179 |
| Pb | 220.353 | 5.0628 | ppm | 0.017688 | 0.3 | 8152.9 | 5.0628 ppm | Y 361.104 | 101.25513 |
| Sb | 217.582 | 1.0422 | ppm | 0.000424 | 0.0 | 550.66 | 1.0422 ppm | Y 361.104 | 104.22228 |
| Se | 196.026 | 5.1593 | ppm | 0.012334 | 0.2 | 1185.2 | 5.1593 ppm | Y 361.104 | 103.18669 |
| Si | 251.611 | 5.1923 | ppm | 0.019320 | 0.4 | 9709.3 | 5.1923 ppm | Y 361.104 | 103.84617 |
| Sn | 189.927 | 5.0226 | ppm | 0.025495 | 0.5 | 4161.0 | 5.0226 ppm | Y 361.104 | 100.45289 |
| Sr | 216.596 | 5.0907 | ppm | 0.009115 | 0.2 | 27504 | 5.0907 ppm | Y 361.104 | 101.81389 |
| Ti | 322.284 | 4.9973 | ppm | 0.021928 | 0.4 | 36322 | 4.9973 ppm | Y 361.104 | 99.94511 |
| Tl | 190.794 | 4.9920 | ppm | 0.033840 | 0.7 | 2291.0 | 4.9920 ppm | Y 361.104 | 99.83982 |
| V | 289.164 | 5.1296 | ppm | 0.021732 | 0.4 | 31030 | 5.1296 ppm | Y 361.104 | 102.59274 |
| Zn | 206.200 | 5.0150 | ppm | 0.024617 | 0.5 | 4823.7 | 5.0150 ppm | Y 361.104 | 100.29969 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Zr | 257.147 | 5.1679 | ppm | 0.019652 | 0.4 | 49179 | 5.1679 ppm | Y 361.104 | 103.35796 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.99998 | 197308 | 691.205 | 0.4 |

**BLA01 (CCB)** **1/15/02, 9:38:30 PM** **Rack 1, Tube 7**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -8.9446 | 17.905 | -5.5873 |
| Al | 237.312 | -3.1910 | -6.3953 | 0.091854 |
| As | 188.980 | 1.0541 | 0.22373 | 2.5183 |
| B | 249.772 | 269.47 | 243.50 | 226.77 |
| Ba | 233.527 | 120.81 | 122.26 | 129.07 |
| Be | 234.861 | -0.005739 | -1.3690 | 0.28486 |
| Ca | 315.887 | 196.36 | 190.81 | 194.11 |
| Cd | 228.802 | -3.4237 | -4.6708 | -2.3958 |
| Co | 231.160 | 9.9720 | 4.6172 | 11.930 |
| Cr | 267.716 | -1.0252 | 1.9492 | 0.58079 |
| Cu | 324.754 | 104.48 | 104.49 | 107.71 |
| Fe | 261.382 | 10.257 | 12.366 | 11.599 |
| K | 728.181 | 33.536 | 38.734 | 54.990 |
| Li | 610.365 | 1055.2 | 1079.3 | 1098.8 |
| Mg | 279.078 | 2.0000 | 4.0172 | 5.5195 |
| Mn | 293.305 | 11.390 | 16.032 | 5.7882 |
| Mo | 202.032 | 18.758 | 12.095 | 12.004 |
| Na | 589.592 | 806.64 | 799.99 | 815.54 |
| Na | 568.821 | 407.72 | 429.64 | 425.96 |
| Ni | 221.648 | -0.45422 | -0.91433 | -0.19330 |
| Pb | 220.353 | -4.1921 | -1.5437 | -0.094994 |
| Sb | 217.582 | 1.1268 | -0.73578 | -3.7230 |
| Se | 196.026 | 4.4397 | 1.8795 | 0.45086 |
| Si | 251.611 | 43.691 | 40.681 | 39.679 |
| Sn | 189.927 | -1.3285 | -0.10530 | -0.12542 |
| Sr | 216.596 | 2.4353 | 3.0628 | 2.0446 |
| Ti | 322.284 | 73.924 | 74.633 | 73.443 |
| Tl | 190.794 | 2.0906 | 2.3347 | 1.4607 |
| V | 289.164 | -3.5833 | -1.3927 | -1.0473 |
| Y | 361.104 | 206166 | 207531 | 205518 |
| Zn | 206.200 | 1.1071 | -0.033020 | 0.88568 |
| Zr | 257.147 | 9.0378 | 10.349 | 12.272 |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.000426 | ppm | 0.000538 | 126.1 | 1.1242 | 0.000426 ppm | Y 361.104 | 0.00043 |
| Al | 237.312 | -0.002662u | ppm | 0.006954 | 261.3 | -3.1648 | -0.002662 ppm | Y 361.104 | -0.00266 |
| As | 188.980 | 0.002395u | ppm | 0.003627 | 151.4 | 1.2654 | 0.002395 ppm | Y 361.104 | 0.00240 |
| B | 249.772 | 0.025489 | ppm | 0.002264 | 8.9 | 246.58 | 0.025489 ppm | Y 361.104 | 0.02549 |
| Ba | 233.527 | 0.000112 | ppm | 0.000126 | 111.8 | 124.05 | 0.000112 ppm | Y 361.104 | 0.00011 |
| Be | 234.861 | 0.000069 | ppm | 0.000019 | 26.8 | -0.36328 | 0.000069 ppm | Y 361.104 | 0.00007 |
| Ca | 315.887 | -0.000046u | ppm | 0.000513 | 1117.2 | 193.76 | -0.000046 ppm | Y 361.104 | -0.00005 |
| Cd | 228.802 | -0.000241u | ppm | 0.000157 | 65.0 | -3.4968 | -0.000241 ppm | Y 361.104 | -0.00024 |
| Co | 231.160 | -0.000697u | ppm | 0.000712 | 102.2 | 8.8398 | -0.000697 ppm | Y 361.104 | -0.00070 |
| Cr | 267.716 | -0.000246u | ppm | 0.000055 | 22.5 | 0.50159 | -0.000246 ppm | Y 361.104 | -0.00025 |
| Cu | 324.754 | -0.000487u | ppm | 0.000066 | 13.5 | 105.56 | -0.000487 ppm | Y 361.104 | -0.00049 |
| Fe | 261.382 | 0.000743u | ppm | 0.000707 | 95.2 | 11.407 | 0.000743 ppm | Y 361.104 | 0.00074 |
| K | 728.181 | 0.002918u | ppm | 0.003820 | 130.9 | 42.420 | 0.002918 ppm | Y 361.104 | 0.00292 |
| Li | 610.365 | -0.001782u | ppm | 0.000553 | 31.1 | 1077.7 | -0.001782 ppm | Y 361.104 | -0.00178 |
| Mg | 279.078 | -0.001799u | ppm | 0.002075 | 115.4 | 3.8456 | -0.001799 ppm | Y 361.104 | -0.00180 |
| Mn | 293.305 | 0.000006u | ppm | 0.000433 | 7077.0 | 11.070 | 0.000006 ppm | Y 361.104 | 0.00001 |
| Mo | 202.032 | 0.002478 | ppm | 0.000889 | 35.9 | 14.286 | 0.002478 ppm | Y 361.104 | 0.00248 |
| Na | 589.592 | -0.001063u | ppm | 0.000083 | 7.8 | 807.39 | -0.001063 ppm | Y 361.104 | -0.00106 |
| Ni | 221.648 | -0.000569u | ppm | 0.000252 | 44.3 | -0.52062 | -0.000569 ppm | Y 361.104 | -0.00057 |
| Pb | 220.353 | -0.001111u | ppm | 0.001290 | 116.1 | -1.9436 | -0.001111 ppm | Y 361.104 | -0.00111 |
| Sb | 217.582 | -0.000925u | ppm | 0.004596 | 496.7 | -1.1107 | -0.000925 ppm | Y 361.104 | -0.00093 |
| Se | 196.026 | 0.009374 | ppm | 0.008798 | 93.9 | 2.2567 | 0.009374 ppm | Y 361.104 | 0.00937 |
| Si | 251.611 | 0.003651 | ppm | 0.001120 | 30.7 | 41.350 | 0.003651 ppm | Y 361.104 | 0.00365 |
| Sn | 189.927 | -0.001351u | ppm | 0.000846 | 62.6 | -0.51975 | -0.001351 ppm | Y 361.104 | -0.00135 |
| Sr | 216.596 | -0.000285u | ppm | 0.000095 | 33.4 | 2.5142 | -0.000285 ppm | Y 361.104 | -0.00028 |
| Ti | 322.284 | -0.000456u | ppm | 0.000083 | 18.1 | 74.000 | -0.000456 ppm | Y 361.104 | -0.00046 |
| Tl | 190.794 | 0.007822 | ppm | 0.000988 | 12.6 | 1.9620 | 0.007822 ppm | Y 361.104 | 0.00782 |
| V | 289.164 | -0.000532u | ppm | 0.000226 | 42.6 | -2.0078 | -0.000532 ppm | Y 361.104 | -0.00053 |
| Zn | 206.200 | 0.000296u | ppm | 0.000630 | 213.2 | 0.65324 | 0.000296 ppm | Y 361.104 | 0.00030 |
| Zr | 257.147 | -0.000283u | ppm | 0.000171 | 60.5 | 10.553 | -0.000283 ppm | Y 361.104 | -0.00028 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0461 | 206405 | 1027.308 | 0.5 |

**ICV01-19 (ICV)** **1/15/02, 9:41:46 PM** **Rack 1, Tube 8**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 34.041 | 44.963 | 42.945 |
| Al | 237.312 | -0.66875 | -1.1166 | 0.95750 |
| As | 188.980 | 325.32 | 323.18 | 320.41 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| B | 249.772 | 142.78 | 136.39 | 119.54 |
| Ba | 233.527 | 136.98 | 132.21 | 130.12 |
| Be | 234.861 | 50081 | 49390 | 48644 |
| Ca | 315.887 | 5796.2 | 5761.7 | 5683.1 |
| Cd | 228.802 | 7576.8 | 7560.3 | 7516.2 |
| Co | 231.160 | 5761.3 | 5713.9 | 5645.0 |
| Cr | 267.716 | 28465 | 28319 | 27947 |
| Cu | 324.754 | 30053 | 29866 | 29306 |
| Fe | 261.382 | 1618.6 | 1610.7 | 1584.7 |
| K | 728.181 | 39.964 | 73.345 | 55.245 |
| Li | 610.365 | 41544 | 41321 | 40841 |
| Mg | 279.078 | 874.54 | 871.84 | 858.56 |
| Mn | 293.305 | 12468 | 12419 | 12255 |
| Mo | 202.032 | 4555.7 | 4561.3 | 4508.7 |
| Na | 589.592 | 480.02 | 482.68 | 470.14 |
| Na | 568.821 | -458.93 | -423.75 | -460.66 |
| Ni | 221.648 | 1538.9 | 1529.9 | 1515.7 |
| Pb | 220.353 | 1745.6 | 1738.6 | 1716.8 |
| Sb | 217.582 | 554.67 | 556.16 | 548.22 |
| Se | 196.026 | 244.32 | 236.83 | 234.27 |
| Si | 251.611 | 127.89 | 128.87 | 123.11 |
| Sn | 189.927 | 0.92927 | 0.12213 | -0.47499 |
| Sr | 216.596 | 5836.4 | 5773.4 | 5669.1 |
| Ti | 322.284 | 7506.0 | 7458.2 | 7380.5 |
| Tl | 190.794 | 491.78 | 491.91 | 487.09 |
| V | 289.164 | 6397.0 | 6358.7 | 6281.1 |
| Y | 361.104 | 205037 | 206133 | 208469 |
| Zn | 206.200 | 1028.5 | 1019.7 | 1006.2 |
| Zr | 257.147 | 9506.3 | 9431.4 | 9319.6 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | -0.000563 | ppm | 0.000214 | 37.9 | 40.650 | -0.000563 ppm | Y 361.104 | - |
| Al | 237.312 | -0.000075 | ppm | 0.002340 | 3131.3 | -0.27595 | -0.000075 ppm | Y 361.104 | - |
| As | 188.980 | 1.0061 | ppm | 0.007690 | 0.8 | 322.97 | 1.0061 ppm | Y 361.104 | 100.60935 |
| B | 249.772 | 0.014269 | ppm | 0.001264 | 8.9 | 132.90 | 0.014269 ppm | Y 361.104 | - |
| Ba | 233.527 | 0.000263 | ppm | 0.000100 | 38.1 | 133.10 | 0.000263 ppm | Y 361.104 | - |
| Be | 234.861 | 1.0348 | ppm | 0.015059 | 1.5 | 49372 | 1.0348 ppm | Y 361.104 | 103.47818 |
| Ca | 315.887 | 1.0242 | ppm | 0.010657 | 1.0 | 5747.0 | 1.0242 ppm | Y 361.104 | 102.42259 |
| Cd | 228.802 | 1.0397 | ppm | 0.004309 | 0.4 | 7551.1 | 1.0397 ppm | Y 361.104 | 103.97095 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Co | 231.160 | 1.0682 | ppm | 0.011004 | 1.0 | 5706.7 | 1.0682 ppm | Y 361.104 | 106.81610 |
| Cr | 267.716 | 1.0512 | ppm | 0.009937 | 0.9 | 28244 | 1.0512 ppm | Y 361.104 | 105.12267 |
| Cu | 324.754 | 1.0499 | ppm | 0.013774 | 1.3 | 29742 | 1.0499 ppm | Y 361.104 | 104.98788 |
| Fe | 261.382 | 1.0657 | ppm | 0.011749 | 1.1 | 1604.7 | 1.0657 ppm | Y 361.104 | 106.56541 |
| K | 728.181 | 0.006328 | ppm | 0.005703 | 90.1 | 56.185 | 0.006328 ppm | Y 361.104 | - |
| Li | 610.365 | 1.0163 | ppm | 0.009102 | 0.9 | 41235 | 1.0163 ppm | Y 361.104 | 101.62943 |
| Mg | 279.078 | 1.0143 | ppm | 0.010046 | 1.0 | 868.31 | 1.0143 ppm | Y 361.104 | 101.42953 |
| Mn | 293.305 | 1.0453 | ppm | 0.009436 | 0.9 | 12380 | 1.0453 ppm | Y 361.104 | 104.52877 |
| Mo | 202.032 | 1.0421 | ppm | 0.006626 | 0.6 | 4541.9 | 1.0421 ppm | Y 361.104 | 104.21077 |
| Na | 589.592 | -0.004558u | ppm | 0.000070 | 1.5 | 477.61 | -0.004558 ppm | Y 361.104 | - |
| Ni | 221.648 | 1.0544 | ppm | 0.008053 | 0.8 | 1528.2 | 1.0544 ppm | Y 361.104 | 105.44405 |
| Pb | 220.353 | 1.0788 | ppm | 0.009339 | 0.9 | 1733.7 | 1.0788 ppm | Y 361.104 | 107.88138 |
| Sb | 217.582 | 1.0415 | ppm | 0.007929 | 0.8 | 553.02 | 1.0415 ppm | Y 361.104 | 104.14929 |
| Se | 196.026 | 1.0377 | ppm | 0.022757 | 2.2 | 238.47 | 1.0377 ppm | Y 361.104 | 103.77348 |
| Si | 251.611 | 0.050070 | ppm | 0.001653 | 3.3 | 126.63 | 0.050070 ppm | Y 361.104 | - |
| Sn | 189.927 | -0.000930u | ppm | 0.000851 | 91.6 | 0.19214 | -0.000930 ppm | Y 361.104 | - |
| Sr | 216.596 | 1.0655 | ppm | 0.015642 | 1.5 | 5759.7 | 1.0655 ppm | Y 361.104 | 106.54676 |
| Ti | 322.284 | 1.0155 | ppm | 0.008733 | 0.9 | 7448.2 | 1.0155 ppm | Y 361.104 | 101.54965 |
| Tl | 190.794 | 1.0727 | ppm | 0.006020 | 0.6 | 490.26 | 1.0727 ppm | Y 361.104 | 107.26836 |
| V | 289.164 | 1.0494 | ppm | 0.009727 | 0.9 | 6345.6 | 1.0494 ppm | Y 361.104 | 104.94361 |
| Zn | 206.200 | 1.0579 | ppm | 0.011713 | 1.1 | 1018.1 | 1.0579 ppm | Y 361.104 | 105.78910 |
| Zr | 257.147 | 0.98902 | ppm | 0.009874 | 1.0 | 9419.1 | 0.98902 ppm | Y 361.104 | 98.90187 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0468 | 206546 | 1753.290 | 0.8 |

**ICV01-07 (ICV)** 1/15/02, 9:45:03 PM **Rack 1, Tube 9**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 13739 | 14012 | 13898 |
| Al | 237.312 | 466.73 | 488.66 | 482.82 |
| As | 188.980 | -0.11029 | -0.15686 | 1.4119 |
| B | 249.772 | 9549.6 | 10043 | 10047 |
| Ba | 233.527 | 36989 | 37277 | 37658 |
| Be | 234.861 | -1.0921 | -3.2138 | 1.1661 |
| Ca | 315.887 | 105.48 | 106.23 | 105.42 |
| Cd | 228.802 | -0.33564 | 0.051828 | 1.3199 |
| Co | 231.160 | 8.0909 | 9.1397 | 9.9483 |
| Cr | 267.716 | 0.56156 | 3.9941 | 5.0768 |
| Cu | 324.754 | 114.86 | 120.35 | 117.17 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Fe | 261.382 | 12.474 | 9.6859 | 12.572 |
| K | 728.181 | 29161 | 30388 | 30329 |
| Li | 610.365 | 1084.1 | 1073.6 | 1044.7 |
| Mg | 279.078 | -0.65934 | -2.2169 | -1.0437 |
| Mn | 293.305 | 9.6205 | -1.7020 | 7.2488 |
| Mo | 202.032 | 14.430 | 17.175 | 13.539 |
| Na | 589.592 | 94152 | 98342 | 97961 |
| Na | 568.821 | -191.91 | -191.03 | -194.28 |
| Ni | 221.648 | 13.347 | 14.480 | 13.935 |
| Pb | 220.353 | 0.54364 | 3.1896 | -2.2874 |
| Sb | 217.582 | -0.77220 | -3.5797 | 1.9857 |
| Se | 196.026 | 0.082621 | -1.8817 | 1.4059 |
| Si | 251.611 | 9619.2 | 10096 | 10065 |
| Sn | 189.927 | 1601.9 | 1680.2 | 1677.7 |
| Sr | 216.596 | -0.33734 | 2.5872 | -1.5125 |
| Ti | 322.284 | 72.006 | 74.158 | 74.316 |
| Tl | 190.794 | 0.79585 | -0.60864 | 1.0196 |
| V | 289.164 | -3.7619 | 1.7610 | -0.67052 |
| Y | 361.104 | 214079 | 208811 | 210576 |
| Zn | 206.200 | 2.5532 | 0.15495 | 1.1499 |
| Zr | 257.147 | 40.274 | 28.999 | 27.669 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.51071 | ppm | 0.005036 | 1.0 | 13883 | 0.51071 ppm | Y 361.104 | 102.14180 |
| Al | 237.312 | 1.0320 | ppm | 0.024349 | 2.4 | 479.41 | 1.0320 ppm | Y 361.104 | 103.19794 |
| As | 188.980 | -0.000369u | ppm | 0.002786 | 755.9 | 0.38157 | -0.000369 ppm | Y 361.104 | - |
| B | 249.772 | 1.0394 | ppm | 0.030084 | 2.9 | 9879.6 | 1.0394 ppm | Y 361.104 | 103.94302 |
| Ba | 233.527 | 1.0580 | ppm | 0.009545 | 0.9 | 37308 | 1.0580 ppm | Y 361.104 | 105.79691 |
| Be | 234.861 | 0.000055 | ppm | 0.000046 | 83.9 | -1.0466 | 0.000055 ppm | Y 361.104 | - |
| Ca | 315.887 | -0.016437u | ppm | 0.000083 | 0.5 | 105.71 | -0.016437 ppm | Y 361.104 | - |
| Cd | 228.802 | 0.000283 | ppm | 0.000119 | 42.1 | 0.34536 | 0.000283 ppm | Y 361.104 | - |
| Co | 231.160 | -0.000717u | ppm | 0.000175 | 24.4 | 9.0596 | -0.000717 ppm | Y 361.104 | - |
| Cr | 267.716 | -0.000145u | ppm | 0.000088 | 60.4 | 3.2108 | -0.000145 ppm | Y 361.104 | - |
| Cu | 324.754 | -0.000066u | ppm | 0.000098 | 148.4 | 117.46 | -0.000066 ppm | Y 361.104 | - |
| Fe | 261.382 | 0.000866u | ppm | 0.001085 | 125.3 | 11.577 | 0.000866 ppm | Y 361.104 | - |
| K | 728.181 | 10.114 | ppm | 0.23159 | 2.3 | 29959 | 10.114 ppm | Y 361.104 | 101.14037 |
| Li | 610.365 | -0.002048u | ppm | 0.000518 | 25.3 | 1067.5 | -0.002048 ppm | Y 361.104 | - |
| Mg | 279.078 | -0.007852u | ppm | 0.000953 | 12.1 | -1.3066 | -0.007852 ppm | Y 361.104 | - |
| Mn | 293.305 | -0.000502u | ppm | 0.000505 | 100.5 | 5.0558 | -0.000502 ppm | Y 361.104 | - |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Mo | 202.032 | 0.002653 | ppm | 0.000435 | 16.4 | 15.048 | 0.002653 ppm | Y 361.104 | - |
| Na | 589.592 | 0.99401 | ppm | 0.024463 | 2.5 | 96818 | 0.99401 ppm | Y 361.104 | 99.40055 |
| Ni | 221.648 | 0.000191 | ppm | 0.000391 | 204.5 | 13.920 | 0.000191 ppm | Y 361.104 | - |
| Pb | 220.353 | 0.000180u | ppm | 0.001700 | 943.6 | 0.48198 | 0.000180 ppm | Y 361.104 | - |
| Sb | 217.582 | -0.000312u | ppm | 0.005228 | 1674.7 | -0.78872 | -0.000312 ppm | Y 361.104 | - |
| Se | 196.026 | -0.001041u | ppm | 0.007201 | 692.1 | -0.13106 | -0.001041 ppm | Y 361.104 | - |
| Si | 251.611 | 5.3057 | ppm | 0.14309 | 2.7 | 9926.8 | 5.3057 ppm | Y 361.104 | 106.11442 |
| Sn | 189.927 | 1.9961 | ppm | 0.053735 | 2.7 | 1653.3 | 1.9961 ppm | Y 361.104 | 99.80488 |
| Sr | 216.596 | -0.000700u | ppm | 0.000391 | 55.8 | 0.24580 | -0.000700 ppm | Y 361.104 | - |
| Ti | 322.284 | -0.000527u | ppm | 0.000178 | 33.8 | 73.494 | -0.000527 ppm | Y 361.104 | - |
| Tl | 190.794 | 0.004417 | ppm | 0.001933 | 43.8 | 0.40227 | 0.004417 ppm | Y 361.104 | - |
| V | 289.164 | -0.000352u | ppm | 0.000456 | 129.6 | -0.89046 | -0.000352 ppm | Y 361.104 | - |
| Zn | 206.200 | 0.000955u | ppm | 0.001257 | 131.6 | 1.2860 | 0.000955 ppm | Y 361.104 | - |
| Zr | 257.147 | 0.001344 | ppm | 0.000728 | 54.2 | 32.314 | 0.001344 ppm | Y 361.104 | - |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0702 | 211155 | 2681.471 | 1.3 |

**ICV01-31 (ICV)** **1/15/02, 9:48:19 PM** **Rack 1, Tube 10**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -1.9267 | 8.8332 | -16.384 |
| Al | 237.312 | -0.85156 | -1.8659 | 0.96602 |
| As | 188.980 | -0.33673 | 0.16847 | -1.6334 |
| B | 249.772 | 168.71 | 156.44 | 141.60 |
| Ba | 233.527 | 122.80 | 119.74 | 130.97 |
| Be | 234.861 | -2.8113 | -7.0580 | -4.4357 |
| Ca | 315.887 | 110793 | 111053 | 110352 |
| Cd | 228.802 | 0.12122 | 0.76813 | -1.7076 |
| Co | 231.160 | 9.3350 | 9.5547 | 12.119 |
| Cr | 267.716 | 2.9049 | 6.7111 | 1.2780 |
| Cu | 324.754 | 115.87 | 112.71 | 120.21 |
| Fe | 261.382 | 12.510 | 14.460 | 10.281 |
| K | 728.181 | 62125 | 62420 | 62091 |
| Li | 610.365 | 770.16 | 758.64 | 792.52 |
| Mg | 279.078 | 17106 | 17171 | 17034 |
| Mn | 293.305 | 12.009 | 7.9273 | 11.999 |
| Mo | 202.032 | 5.3910 | 5.4905 | 5.2035 |
| Na | 589.592 | 2095233 | 2094875 | 2077802 |
| Na | 568.821 | 4447.1 | 4502.2 | 4406.0 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ni | 221.648 | 0.15113 | -0.24290 | -0.86857 |
| Pb | 220.353 | 0.22490 | -2.5057 | -2.0355 |
| Sb | 217.582 | -2.3139 | -3.1705 | 0.33555 |
| Se | 196.026 | 0.68118 | -1.3982 | 0.90514 |
| Si | 251.611 | 67.618 | 66.979 | 64.726 |
| Sn | 189.927 | -1.4437 | -0.30774 | -0.13503 |
| Sr | 216.596 | 5.9748 | 6.6057 | 5.2589 |
| Ti | 322.284 | 89.739 | 79.813 | 77.598 |
| Tl | 190.794 | -0.30711 | 0.56327 | 0.23896 |
| V | 289.164 | 2.1118 | 0.70167 | 4.9418 |
| Y | 361.104 | 207282 | 207930 | 209231 |
| Zn | 206.200 | 2.7875 | 1.8169 | 1.7826 |
| Zr | 257.147 | 15.701 | 13.755 | 13.422 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.000268u | ppm | 0.000465 | 173.5 | -3.1591 | 0.000268 ppm | Y 361.104 | - |
| Al | 237.312 | 0.002870 | ppm | 0.003076 | 107.2 | -0.58382 | 0.002870 ppm | Y 361.104 | - |
| As | 188.980 | -0.003429u | ppm | 0.002902 | 84.6 | -0.60056 | -0.003429 ppm | Y 361.104 | - |
| B | 249.772 | 0.015912 | ppm | 0.001429 | 9.0 | 155.59 | 0.015912 ppm | Y 361.104 | - |
| Ba | 233.527 | 0.000125u | ppm | 0.000165 | 132.0 | 124.50 | 0.000125 ppm | Y 361.104 | - |
| Be | 234.861 | -0.000023u | ppm | 0.000045 | 193.5 | -4.7683 | -0.000023 ppm | Y 361.104 | - |
| Ca | 315.887 | 20.322 | ppm | 0.065154 | 0.3 | 110732 | 20.322 ppm | Y 361.104 | 101.61191 |
| Cd | 228.802 | 0.000194 | ppm | 0.000177 | 91.1 | -0.27275 | 0.000194 ppm | Y 361.104 | - |
| Co | 231.160 | -0.000459u | ppm | 0.000291 | 63.5 | 10.336 | -0.000459 ppm | Y 361.104 | - |
| Cr | 267.716 | -0.000130u | ppm | 0.000104 | 80.1 | 3.6313 | -0.000130 ppm | Y 361.104 | - |
| Cu | 324.754 | -0.000108u | ppm | 0.000133 | 124.0 | 116.26 | -0.000108 ppm | Y 361.104 | - |
| Fe | 261.382 | 0.001415u | ppm | 0.001385 | 97.9 | 12.417 | 0.001415 ppm | Y 361.104 | - |
| K | 728.181 | 20.800 | ppm | 0.059338 | 0.3 | 62212 | 20.800 ppm | Y 361.104 | 104.00048 |
| Li | 610.365 | -0.000668u | ppm | 0.000437 | 65.3 | 773.77 | -0.000668 ppm | Y 361.104 | - |
| Mg | 279.078 | 20.088 | ppm | 0.080734 | 0.4 | 17104 | 20.088 ppm | Y 361.104 | 100.44044 |
| Mn | 293.305 | -0.000030u | ppm | 0.000199 | 667.9 | 10.645 | -0.000030 ppm | Y 361.104 | - |
| Mo | 202.032 | 0.000428 | ppm | 0.000033 | 7.8 | 5.3617 | 0.000428 ppm | Y 361.104 | - |
| Na | 589.592 | 21.561 | ppm | 0.10040 | 0.5 | 2089303 | 21.561 ppm | Y 361.104 | 107.80556 |
| Ni | 221.648 | -0.000454u | ppm | 0.000355 | 78.1 | -0.32011 | -0.000454 ppm | Y 361.104 | - |
| Pb | 220.353 | -0.000803u | ppm | 0.000906 | 112.8 | -1.4388 | -0.000803 ppm | Y 361.104 | - |
| Sb | 217.582 | -0.002063u | ppm | 0.003434 | 166.5 | -1.7163 | -0.002063 ppm | Y 361.104 | - |
| Se | 196.026 | -0.000176u | ppm | 0.005529 | 3139.0 | 0.062718 | -0.000176 ppm | Y 361.104 | - |
| Si | 251.611 | 0.017111 | ppm | 0.000815 | 4.8 | 66.441 | 0.017111 ppm | Y 361.104 | - |
| Sn | 189.927 | -0.001483u | ppm | 0.000859 | 57.9 | -0.62883 | -0.001483 ppm | Y 361.104 | - |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Sr | 216.596 | 0.000351 | ppm | 0.000125 | 35.6 | 5.9465 | 0.000351 ppm | Y 361.104 | - |
| Ti | 322.284 | 0.000702 | ppm | 0.000892 | 127.1 | 82.383 | 0.000702 ppm | Y 361.104 | - |
| Tl | 190.794 | 0.003879 | ppm | 0.000964 | 24.8 | 0.16504 | 0.003879 ppm | Y 361.104 | - |
| V | 289.164 | 0.000223u | ppm | 0.000356 | 159.5 | 2.5851 | 0.000223 ppm | Y 361.104 | - |
| Zn | 206.200 | 0.001835 | ppm | 0.000595 | 32.4 | 2.1290 | 0.001835 ppm | Y 361.104 | - |
| Zr | 257.147 | 0.000111 | ppm | 0.000129 | 116.2 | 14.293 | 0.000111 ppm | Y 361.104 | - |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0549 | 208148 | 992.960 | 0.5 |

**BLA01 (CCB)** 1/15/02, 9:51:35 PM **Rack 1, Tube 11**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -21.399 | 0.58891 | -10.172 |
| Al | 237.312 | -0.58160 | -1.7573 | -1.9964 |
| As | 188.980 | 0.40440 | 1.0922 | -3.3621 |
| B | 249.772 | 84.023 | 82.004 | 72.846 |
| Ba | 233.527 | 121.82 | 124.89 | 123.93 |
| Be | 234.861 | -1.7268 | -0.064721 | 1.3966 |
| Ca | 315.887 | 192.45 | 193.36 | 199.14 |
| Cd | 228.802 | -0.14702 | -0.47767 | -4.3525 |
| Co | 231.160 | 9.9776 | 11.674 | 10.512 |
| Cr | 267.716 | 4.7441 | 4.3212 | 7.8523 |
| Cu | 324.754 | 105.97 | 116.92 | 104.90 |
| Fe | 261.382 | 7.0357 | 7.8717 | 10.884 |
| K | 728.181 | 39.414 | 51.343 | 38.812 |
| Li | 610.365 | 1073.9 | 1064.5 | 1072.0 |
| Mg | 279.078 | 7.7962 | 4.6101 | 5.9685 |
| Mn | 293.305 | 0.007022 | 9.4721 | 10.224 |
| Mo | 202.032 | 2.5886 | 0.65047 | 1.8240 |
| Na | 589.592 | 793.93 | 800.90 | 806.16 |
| Na | 568.821 | -440.51 | -426.98 | -428.16 |
| Ni | 221.648 | -0.68177 | -0.65018 | 0.31913 |
| Pb | 220.353 | -1.0294 | -0.41095 | -3.2239 |
| Sb | 217.582 | -2.4771 | 4.0197 | 0.31981 |
| Se | 196.026 | 3.0697 | 2.0718 | -0.010213 |
| Si | 251.611 | 34.726 | 35.513 | 35.423 |
| Sn | 189.927 | -0.41802 | 0.12894 | 1.0336 |
| Sr | 216.596 | 1.2463 | 1.3112 | 4.2962 |
| Ti | 322.284 | 75.113 | 77.143 | 71.759 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Tl | 190.794 | -0.66545 | 0.42260 | 0.22583 |
| V | 289.164 | -1.8308 | 1.7642 | -4.6888 |
| Y | 361.104 | 208889 | 208070 | 207574 |
| Zn | 206.200 | 0.25805 | 1.1626 | 0.12905 |
| Zr | 257.147 | 4.7564 | 10.430 | 8.1344 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.000006u | ppm | 0.000404 | 7154.3 | -10.327 | 0.000006 ppm | Y 361.104 | 0.00001 |
| Al | 237.312 | 0.001025u | ppm | 0.001624 | 158.4 | -1.4451 | 0.001025 ppm | Y 361.104 | 0.00102 |
| As | 188.980 | -0.003496u | ppm | 0.007486 | 214.2 | -0.62184 | -0.003496 ppm | Y 361.104 | -0.00350 |
| B | 249.772 | 0.007915 | ppm | 0.000627 | 7.9 | 79.624 | 0.007915 ppm | Y 361.104 | 0.00791 |
| Ba | 233.527 | 0.000098 | ppm | 0.000045 | 45.6 | 123.55 | 0.000098 ppm | Y 361.104 | 0.00010 |
| Be | 234.861 | 0.000074 | ppm | 0.000033 | 44.5 | -0.13162 | 0.000074 ppm | Y 361.104 | 0.00007 |
| Ca | 315.887 | 0.000178u | ppm | 0.000667 | 374.9 | 194.98 | 0.000178 ppm | Y 361.104 | 0.00018 |
| Cd | 228.802 | 0.000003u | ppm | 0.000322 | 10605.9 | -1.6591 | 0.000003 ppm | Y 361.104 | 0.00000 |
| Co | 231.160 | -0.000361u | ppm | 0.000163 | 45.2 | 10.721 | -0.000361 ppm | Y 361.104 | -0.00036 |
| Cr | 267.716 | -0.000055u | ppm | 0.000072 | 130.8 | 5.6392 | -0.000055 ppm | Y 361.104 | -0.00005 |
| Cu | 324.754 | -0.000355u | ppm | 0.000236 | 66.3 | 109.26 | -0.000355 ppm | Y 361.104 | -0.00036 |
| Fe | 261.382 | -0.001118u | ppm | 0.001341 | 119.9 | 8.5970 | -0.001118 ppm | Y 361.104 | -0.00112 |
| K | 728.181 | 0.003181 | ppm | 0.002412 | 75.8 | 43.190 | 0.003181 ppm | Y 361.104 | 0.00318 |
| Li | 610.365 | -0.001974u | ppm | 0.000127 | 6.4 | 1070.1 | -0.001974 ppm | Y 361.104 | -0.00197 |
| Mg | 279.078 | 0.000879u | ppm | 0.001878 | 213.6 | 6.1249 | 0.000879 ppm | Y 361.104 | 0.00088 |
| Mn | 293.305 | -0.000374u | ppm | 0.000481 | 128.5 | 6.5676 | -0.000374 ppm | Y 361.104 | -0.00037 |
| Mo | 202.032 | -0.000415u | ppm | 0.000224 | 54.0 | 1.6877 | -0.000415 ppm | Y 361.104 | -0.00042 |
| Na | 589.592 | -0.001138u | ppm | 0.000065 | 5.7 | 800.33 | -0.001138 ppm | Y 361.104 | -0.00114 |
| Ni | 221.648 | -0.000437u | ppm | 0.000392 | 89.8 | -0.33761 | -0.000437 ppm | Y 361.104 | -0.00044 |
| Pb | 220.353 | -0.000877u | ppm | 0.000918 | 104.7 | -1.5547 | -0.000877 ppm | Y 361.104 | -0.00088 |
| Sb | 217.582 | 0.002328u | ppm | 0.006122 | 263.0 | 0.62080 | 0.002328 ppm | Y 361.104 | 0.00233 |
| Se | 196.026 | 0.006997u | ppm | 0.006841 | 97.8 | 1.7104 | 0.006997 ppm | Y 361.104 | 0.00700 |
| Si | 251.611 | 0.000364 | ppm | 0.000231 | 63.6 | 35.221 | 0.000364 ppm | Y 361.104 | 0.00036 |
| Sn | 189.927 | -0.000424u | ppm | 0.000885 | 209.0 | 0.24818 | -0.000424 ppm | Y 361.104 | -0.00042 |
| Sr | 216.596 | -0.000327u | ppm | 0.000322 | 98.7 | 2.2846 | -0.000327 ppm | Y 361.104 | -0.00033 |
| Ti | 322.284 | -0.000361u | ppm | 0.000375 | 103.9 | 74.672 | -0.000361 ppm | Y 361.104 | -0.00036 |
| Tl | 190.794 | 0.003505 | ppm | 0.001270 | 36.2 | -0.005674 | 0.003505 ppm | Y 361.104 | 0.00350 |
| V | 289.164 | -0.000465u | ppm | 0.000533 | 114.6 | -1.5851 | -0.000465 ppm | Y 361.104 | -0.00046 |
| Zn | 206.200 | 0.000154u | ppm | 0.000587 | 381.5 | 0.51657 | 0.000154 ppm | Y 361.104 | 0.00015 |
| Zr | 257.147 | -0.000575u | ppm | 0.000300 | 52.1 | 7.7734 | -0.000575 ppm | Y 361.104 | -0.00058 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0551 | 208178 | 663.846 | 0.3 |

DLS (CRI) 1/15/02, 9:54:52 PM Rack 1, Tube 12

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 268.27 | 255.23 | 271.15 |
| Al | 237.312 | 20.761 | 20.366 | 22.167 |
| As | 188.980 | 15.693 | 15.910 | 16.139 |
| B | 249.772 | 528.52 | 525.84 | 544.28 |
| Ba | 233.527 | 479.83 | 476.19 | 492.25 |
| Be | 234.861 | 192.60 | 185.91 | 196.17 |
| Ca | 315.887 | 664.73 | 657.65 | 685.28 |
| Cd | 228.802 | 32.696 | 33.386 | 35.222 |
| Co | 231.160 | 59.974 | 65.119 | 66.909 |
| Cr | 267.716 | 275.18 | 271.76 | 284.89 |
| Cu | 324.754 | 673.55 | 662.52 | 703.47 |
| Fe | 261.382 | 47.626 | 49.273 | 50.424 |
| K | 728.181 | 344.70 | 340.07 | 352.58 |
| Li | 610.365 | 1424.5 | 1421.3 | 1447.4 |
| Mg | 279.078 | 85.697 | 81.411 | 87.367 |
| Mn | 293.305 | 136.71 | 124.55 | 135.42 |
| Mo | 202.032 | 45.151 | 45.887 | 46.914 |
| Na | 589.592 | 10038 | 9915.1 | 10390 |
| Na | 568.821 | -425.06 | -399.46 | -426.19 |
| Ni | 221.648 | 14.571 | 15.661 | 14.180 |
| Pb | 220.353 | 18.544 | 13.297 | 14.306 |
| Sb | 217.582 | 5.5203 | -0.69207 | 5.0022 |
| Se | 196.026 | 1.8882 | 1.0884 | 2.0371 |
| Si | 251.611 | 411.92 | 400.93 | 422.78 |
| Sn | 189.927 | 40.798 | 39.613 | 42.690 |
| Sr | 216.596 | 56.391 | 57.300 | 60.322 |
| Ti | 322.284 | 140.90 | 140.14 | 142.16 |
| Tl | 190.794 | 3.0157 | 4.5818 | 3.2950 |
| V | 289.164 | 63.285 | 59.325 | 61.174 |
| Y | 361.104 | 212690 | 214068 | 208000 |
| Zn | 206.200 | 19.975 | 20.629 | 23.209 |
| Zr | 257.147 | 94.748 | 96.681 | 102.34 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.010099 | ppm | 0.000312 | 3.1 | 264.88 | 0.010099 ppm | Y 361.104 | 100.99022 |
| Al | 237.312 | 0.049325 | ppm | 0.002029 | 4.1 | 21.098 | 0.049325 ppm | Y 361.104 | 98.65018 |
| As | 188.980 | 0.048119 | ppm | 0.000696 | 1.4 | 15.914 | 0.048119 ppm | Y 361.104 | 96.23895 |
| B | 249.772 | 0.055640 | ppm | 0.001049 | 1.9 | 532.88 | 0.055640 ppm | Y 361.104 | 111.27969 |
| Ba | 233.527 | 0.010316 | ppm | 0.000240 | 2.3 | 482.76 | 0.010316 ppm | Y 361.104 | 103.16250 |
| Be | 234.861 | 0.004095 | ppm | 0.000109 | 2.7 | 191.56 | 0.004095 ppm | Y 361.104 | - |
| Ca | 315.887 | 0.087386 | ppm | 0.002639 | 3.0 | 669.22 | 0.087386 ppm | Y 361.104 | 87.38568 |
| Cd | 228.802 | 0.004946 | ppm | 0.000180 | 3.6 | 33.768 | 0.004946 ppm | Y 361.104 | - |
| Co | 231.160 | 0.009642 | ppm | 0.000677 | 7.0 | 64.001 | 0.009642 ppm | Y 361.104 | 96.42136 |
| Cr | 267.716 | 0.010058 | ppm | 0.000253 | 2.5 | 277.28 | 0.010058 ppm | Y 361.104 | 100.58018 |
| Cu | 324.754 | 0.019865 | ppm | 0.000751 | 3.8 | 679.85 | 0.019865 ppm | Y 361.104 | 99.32546 |
| Fe | 261.382 | 0.025810 | ppm | 0.000932 | 3.6 | 49.108 | 0.025810 ppm | Y 361.104 | 103.23842 |
| K | 728.181 | 0.10644 | ppm | 0.002159 | 2.0 | 345.78 | 0.10644 ppm | Y 361.104 | 106.44451 |
| Li | 610.365 | 0.007210 | ppm | 0.000360 | 5.0 | 1431.1 | 0.007210 ppm | Y 361.104 | 72.09796 |
| Mg | 279.078 | 0.093335 | ppm | 0.003609 | 3.9 | 84.825 | 0.093335 ppm | Y 361.104 | 93.33516 |
| Mn | 293.305 | 0.010245 | ppm | 0.000564 | 5.5 | 132.23 | 0.010245 ppm | Y 361.104 | 102.45055 |
| Mo | 202.032 | 0.009756 | ppm | 0.000203 | 2.1 | 45.984 | 0.009756 ppm | Y 361.104 | 97.56151 |
| Na | 589.592 | 0.097231 | ppm | 0.002605 | 2.7 | 10114 | 0.097231 ppm | Y 361.104 | 97.23080 |
| Ni | 221.648 | 0.009665 | ppm | 0.000529 | 5.5 | 14.804 | 0.009665 ppm | Y 361.104 | 96.64875 |
| Pb | 220.353 | 0.009652 | ppm | 0.001728 | 17.9 | 15.382 | 0.009652 ppm | Y 361.104 | 96.52492 |
| Sb | 217.582 | 0.007333u | ppm | 0.006476 | 88.3 | 3.2768 | 0.007333 ppm | Y 361.104 | 73.32890 |
| Se | 196.026 | 0.006826 | ppm | 0.002221 | 32.5 | 1.6712 | 0.006826 ppm | Y 361.104 | 68.25566 |
| Si | 251.611 | 0.20239 | ppm | 0.005860 | 2.9 | 411.88 | 0.20239 ppm | Y 361.104 | 101.19292 |
| Sn | 189.927 | 0.048834 | ppm | 0.001875 | 3.8 | 41.034 | 0.048834 ppm | Y 361.104 | 97.66759 |
| Sr | 216.596 | 0.009984 | ppm | 0.000381 | 3.8 | 58.004 | 0.009984 ppm | Y 361.104 | 99.83978 |
| Ti | 322.284 | 0.008785 | ppm | 0.000140 | 1.6 | 141.07 | 0.008785 ppm | Y 361.104 | 87.85427 |
| Tl | 190.794 | 0.011430 | ppm | 0.001830 | 16.0 | 3.6309 | 0.011430 ppm | Y 361.104 | 114.29626 |
| V | 289.164 | 0.009930 | ppm | 0.000326 | 3.3 | 61.261 | 0.009930 ppm | Y 361.104 | 99.30090 |
| Zn | 206.200 | 0.021764 | ppm | 0.001783 | 8.2 | 21.271 | 0.021764 ppm | Y 361.104 | 108.81794 |
| Zr | 257.147 | 0.008887 | ppm | 0.000414 | 4.7 | 97.922 | 0.008887 ppm | Y 361.104 | 88.87112 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0723 | 211586 | 3180.862 | 1.5 |

CDL01 (CRI) 1/15/02, 9:58:09 PM Rack 1, Tube 13

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 518.26 | 521.34 | 560.89 |
| Al | 237.312 | 0.34347 | -4.7778 | -4.2232 |
| As | 188.980 | 6.7486 | 6.8436 | 7.1458 |

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| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| B | 249.772 | 44.967 | 47.966 | 44.480 |
| Ba | 233.527 | 119.84 | 118.99 | 121.58 |
| Be | 234.861 | 482.40 | 481.88 | 506.44 |
| Ca | 315.887 | 109.73 | 108.48 | 108.17 |
| Cd | 228.802 | 70.387 | 72.281 | 74.635 |
| Co | 231.160 | 567.95 | 572.25 | 600.40 |
| Cr | 267.716 | 569.59 | 576.20 | 604.89 |
| Cu | 324.754 | 1552.7 | 1576.3 | 1655.2 |
| Fe | 261.382 | 10.906 | 8.9840 | 15.490 |
| K | 728.181 | 36.504 | 60.979 | 22.865 |
| Li | 610.365 | 1020.6 | 1033.6 | 1084.5 |
| Mg | 279.078 | 0.36043 | 0.87802 | 3.7457 |
| Mn | 293.305 | 385.86 | 385.25 | 404.33 |
| Mo | 202.032 | 3.6644 | 1.5791 | 0.44619 |
| Na | 589.592 | 302.78 | 299.77 | 327.99 |
| Na | 568.821 | -380.19 | -412.10 | -445.29 |
| Ni | 221.648 | 118.41 | 119.31 | 127.53 |
| Pb | 220.353 | 166.60 | 168.17 | 175.42 |
| Sb | 217.582 | 65.464 | 65.425 | 67.928 |
| Se | 196.026 | 2.7016 | 0.94111 | 2.5470 |
| Si | 251.611 | 59.553 | 57.517 | 59.160 |
| Sn | 189.927 | -0.38580 | 0.59979 | -0.56587 |
| Sr | 216.596 | 2.7115 | 1.9791 | -1.9385 |
| Ti | 322.284 | 73.963 | 76.656 | 71.128 |
| Tl | 190.794 | 11.004 | 8.1287 | 8.0970 |
| V | 289.164 | 632.59 | 624.79 | 664.68 |
| Y | 361.104 | 213017 | 209919 | 205509 |
| Zn | 206.200 | 41.136 | 39.936 | 42.935 |
| Zr | 257.147 | 7.6502 | 11.037 | 10.166 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.019996 | ppm | 0.000874 | 4.4 | 533.50 | 0.019996 ppm | Y 361.104 | 99.97792 |
| Al | 237.312 | -0.002196u | ppm | 0.006025 | 274.4 | -2.8858 | -0.002196 ppm | Y 361.104 | - |
| As | 188.980 | 0.020019 | ppm | 0.000648 | 3.2 | 6.9126 | 0.020019 ppm | Y 361.104 | 100.09418 |
| B | 249.772 | 0.004359 | ppm | 0.000199 | 4.6 | 45.805 | 0.004359 ppm | Y 361.104 | - |
| Ba | 233.527 | -0.000010u | ppm | 0.000038 | 382.2 | 120.14 | -0.000010 ppm | Y 361.104 | - |
| Be | 234.861 | 0.010349 | ppm | 0.000294 | 2.8 | 490.24 | 0.010349 ppm | Y 361.104 | 103.49037 |
| Ca | 315.887 | -0.016285u | ppm | 0.000152 | 0.9 | 108.80 | -0.016285 ppm | Y 361.104 | - |
| Cd | 228.802 | 0.010207 | ppm | 0.000293 | 2.9 | 72.434 | 0.010207 ppm | Y 361.104 | 102.07027 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Co | 231.160 | 0.10611 | ppm | 0.003316 | 3.1 | 580.20 | 0.10611 ppm | Y 361.104 | 106.11187 |
| Cr | 267.716 | 0.021461 | ppm | 0.000699 | 3.3 | 583.56 | 0.021461 ppm | Y 361.104 | 107.30282 |
| Cu | 324.754 | 0.052322 | ppm | 0.001900 | 3.6 | 1594.7 | 0.052322 ppm | Y 361.104 | 104.64406 |
| Fe | 261.382 | 0.001734u | ppm | 0.002214 | 127.7 | 11.793 | 0.001734 ppm | Y 361.104 | - |
| K | 728.181 | 0.002133u | ppm | 0.006591 | 309.1 | 40.116 | 0.002133 ppm | Y 361.104 | - |
| Li | 610.365 | -0.002586u | ppm | 0.000856 | 33.1 | 1046.2 | -0.002586 ppm | Y 361.104 | - |
| Mg | 279.078 | -0.004344u | ppm | 0.002142 | 49.3 | 1.6614 | -0.004344 ppm | Y 361.104 | - |
| Mn | 293.305 | 0.032182 | ppm | 0.000917 | 2.8 | 391.81 | 0.032182 ppm | Y 361.104 | 107.27222 |
| Mo | 202.032 | -0.000367u | ppm | 0.000375 | 102.1 | 1.8966 | -0.000367 ppm | Y 361.104 | - |
| Na | 589.592 | -0.006323u | ppm | 0.000164 | 2.6 | 310.18 | -0.006323 ppm | Y 361.104 | - |
| Ni | 221.648 | 0.083776 | ppm | 0.003469 | 4.1 | 121.75 | 0.083776 ppm | Y 361.104 | 104.72049 |
| Pb | 220.353 | 0.10566 | ppm | 0.002922 | 2.8 | 170.06 | 0.10566 ppm | Y 361.104 | 105.66148 |
| Sb | 217.582 | 0.12578 | ppm | 0.002694 | 2.1 | 66.272 | 0.12578 ppm | Y 361.104 | 104.81414 |
| Se | 196.026 | 0.008533 | ppm | 0.004244 | 49.7 | 2.0632 | 0.008533 ppm | Y 361.104 | 85.33127 |
| Si | 251.611 | 0.013006 | ppm | 0.000579 | 4.5 | 58.743 | 0.013006 ppm | Y 361.104 | - |
| Sn | 189.927 | -0.000854u | ppm | 0.000758 | 88.8 | -0.11729 | -0.000854 ppm | Y 361.104 | - |
| Sr | 216.596 | -0.000543u | ppm | 0.000463 | 85.3 | 0.91734 | -0.000543 ppm | Y 361.104 | - |
| Ti | 322.284 | -0.000463u | ppm | 0.000381 | 82.3 | 73.916 | -0.000463 ppm | Y 361.104 | - |
| Tl | 190.794 | 0.022866 | ppm | 0.003656 | 16.0 | 9.0765 | 0.022866 ppm | Y 361.104 | 114.33133 |
| V | 289.164 | 0.10543 | ppm | 0.003482 | 3.3 | 640.69 | 0.10543 ppm | Y 361.104 | 105.43145 |
| Zn | 206.200 | 0.042657 | ppm | 0.001574 | 3.7 | 41.336 | 0.042657 ppm | Y 361.104 | 106.64216 |
| Zr | 257.147 | -0.000382u | ppm | 0.000185 | 48.4 | 9.6176 | -0.000382 ppm | Y 361.104 | - |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0617 | 209482 | 3773.162 | 1.8 |

**HMCS (ICV)** **1/15/02, 10:01:26 PM** **Rack 1, Tube 14**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 53748 | 53591 | 53569 |
| Al | 237.312 | 4634.1 | 4622.5 | 4616.2 |
| As | 188.980 | 3170.7 | 3163.9 | 3152.6 |
| B | 249.772 | 94454 | 95994 | 94489 |
| Ba | 233.527 | 350551 | 349968 | 349294 |
| Be | 234.861 | 465481 | 462798 | 462401 |
| Ca | 315.887 | -62.320 | -54.310 | -58.599 |
| Cd | 228.802 | 71603 | 71410 | 70633 |
| Co | 231.160 | 52652 | 52528 | 52409 |
| Cr | 267.716 | 265899 | 265335 | 264679 |
| Cu | 324.754 | 278481 | 279226 | 277175 |

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Fe | 261.382 | 15001 | 14947 | 14900 |
| K | 728.181 | 51.536 | 60.682 | 75.498 |
| Li | 610.365 | 385651 | 385076 | 383756 |
| Mg | 279.078 | 4.6722 | 2.4244 | 2.3958 |
| Mn | 293.305 | 117220 | 117038 | 116779 |
| Mo | 202.032 | 4.0278 | 3.5998 | 3.5107 |
| Na | 589.592 | 19858 | 19831 | 19662 |
| Na | 568.821 | -454.91 | -431.08 | -445.15 |
| Ni | 221.648 | 14344 | 14288 | 14279 |
| Pb | 220.353 | 15989 | 15945 | 15926 |
| Sb | 217.582 | 19.154 | 12.878 | 11.170 |
| Se | 196.026 | 2285.6 | 2286.0 | 2272.6 |
| Si | 251.611 | 304.15 | 309.87 | 312.50 |
| Sn | 189.927 | 4.9778 | 5.4873 | 5.7566 |
| Sr | 216.596 | 53947 | 53745 | 53213 |
| Ti | 322.284 | 83.198 | 82.733 | 81.278 |
| Tl | 190.794 | 4529.1 | 4522.6 | 4509.9 |
| V | 289.164 | 60167 | 60045 | 59957 |
| Y | 361.104 | 206517 | 208023 | 207729 |
| Zn | 206.200 | 9454.9 | 9460.3 | 9434.4 |
| Zr | 257.147 | 94590 | 94434 | 94169 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 1.9476 | ppm | 0.003603 | 0.2 | 53636 | 1.9476 ppm | Y 361.104 | 97.38117 |
| Al | 237.312 | 9.8832 | ppm | 0.019523 | 0.2 | 4624.3 | 9.8832 ppm | Y 361.104 | 98.83232 |
| As | 188.980 | 9.8678 | ppm | 0.028625 | 0.3 | 3162.4 | 9.8678 ppm | Y 361.104 | 98.67844 |
| B | 249.772 | 10.004 | ppm | 0.092541 | 0.9 | 94979 | 10.004 ppm | Y 361.104 | 100.03551 |
| Ba | 233.527 | 9.9511 | ppm | 0.017897 | 0.2 | 349938 | 9.9511 ppm | Y 361.104 | 99.51065 |
| Be | 234.861 | 9.7151 | ppm | 0.035104 | 0.4 | 463560 | 9.7151 ppm | Y 361.104 | 97.15108 |
| Ca | 315.887 | -0.009803u | ppm | 0.000737 | 7.5 | -58.410 | -0.009803 ppm | Y 361.104 | - |
| Cd | 228.802 | 9.8042 | ppm | 0.070582 | 0.7 | 71216 | 9.8042 ppm | Y 361.104 | 98.04230 |
| Co | 231.160 | 9.9041 | ppm | 0.022936 | 0.2 | 52530 | 9.9041 ppm | Y 361.104 | 99.04099 |
| Cr | 267.716 | 9.8767 | ppm | 0.022715 | 0.2 | 265304 | 9.8767 ppm | Y 361.104 | 98.76743 |
| Cu | 324.754 | 9.8615 | ppm | 0.036776 | 0.4 | 278294 | 9.8615 ppm | Y 361.104 | 98.61525 |
| Fe | 261.382 | 9.9642 | ppm | 0.033366 | 0.3 | 14950 | 9.9642 ppm | Y 361.104 | 99.64166 |
| K | 728.181 | 0.009930 | ppm | 0.004127 | 41.6 | 62.572 | 0.009930 ppm | Y 361.104 | - |
| Li | 610.365 | 9.7229 | ppm | 0.024619 | 0.3 | 384828 | 9.7229 ppm | Y 361.104 | 97.22900 |
| Mg | 279.078 | 0.001858u | ppm | 0.001534 | 82.6 | 3.1641 | 0.001858 ppm | Y 361.104 | - |
| Mn | 293.305 | 9.8873 | ppm | 0.018764 | 0.2 | 117012 | 9.8873 ppm | Y 361.104 | 98.87337 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Mo | 202.032 | 0.000050 | ppm | 0.000063 | 127.4 | 3.7128 | 0.000050 ppm | Y 361.104 | - |
| Na | 589.592 | 0.013093 | ppm | 0.001124 | 8.6 | 19784 | 0.013093 ppm | Y 361.104 | - |
| Ni | 221.648 | 9.8718 | ppm | 0.024522 | 0.2 | 14304 | 9.8718 ppm | Y 361.104 | 98.71795 |
| Pb | 220.353 | 9.9019 | ppm | 0.019941 | 0.2 | 15953 | 9.9019 ppm | Y 361.104 | 99.01938 |
| Sb | 217.582 | 0.040995 | ppm | 0.007898 | 19.3 | 14.401 | 0.040995 ppm | Y 361.104 | - |
| Se | 196.026 | 9.9315 | ppm | 0.033307 | 0.3 | 2281.4 | 9.9315 ppm | Y 361.104 | 99.31493 |
| Si | 251.611 | 0.15345 | ppm | 0.002290 | 1.5 | 308.84 | 0.15345 ppm | Y 361.104 | - |
| Sn | 189.927 | 0.004650 | ppm | 0.000478 | 10.3 | 5.4072 | 0.004650 ppm | Y 361.104 | - |
| Sr | 216.596 | 9.9281 | ppm | 0.070206 | 0.7 | 53635 | 9.9281 ppm | Y 361.104 | 99.28075 |
| Ti | 322.284 | -0.000394 | ppm | 0.000138 | 35.0 | 82.403 | -0.000394 ppm | Y 361.104 | - |
| Tl | 190.794 | 9.8558 | ppm | 0.021361 | 0.2 | 4520.5 | 9.8558 ppm | Y 361.104 | 98.55794 |
| V | 289.164 | 9.9257 | ppm | 0.017319 | 0.2 | 60056 | 9.9257 ppm | Y 361.104 | 99.25734 |
| Zn | 206.200 | 9.8261 | ppm | 0.014270 | 0.1 | 9449.9 | 9.8261 ppm | Y 361.104 | 98.26093 |
| Zr | 257.147 | 9.9172 | ppm | 0.022347 | 0.2 | 94398 | 9.9172 ppm | Y 361.104 | 99.17226 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0512 | 207423 | 798.205 | 0.4 |

**ICS-A (ICSA)** **1/15/02, 10:04:44 PM** **Rack 1, Tube 15**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -18.409 | -15.185 | -22.137 |
| Al | 237.312 | 249887 | 249629 | 250421 |
| As | 188.980 | 0.89538 | -1.9197 | 0.38273 |
| B | 249.772 | -276.28 | -370.59 | -458.30 |
| Ba | 233.527 | 275.16 | 271.85 | 279.63 |
| Be | 234.861 | -1914.0 | -1722.3 | -2023.7 |
| Ca | 315.887 | 2695043 | 2698465 | 2704433 |
| Cd | 228.802 | 14.737 | 10.652 | 10.028 |
| Co | 231.160 | 114.70 | 105.35 | 106.43 |
| Cr | 267.716 | 58.284 | 49.856 | 55.810 |
| Cu | 324.754 | -511.61 | -512.48 | -513.47 |
| Fe | 261.382 | 295690 | 295868 | 296346 |
| K | 728.181 | 47.734 | 66.889 | 84.108 |
| Li | 610.365 | -7783.0 | -7732.6 | -7648.8 |
| Mg | 279.078 | 447491 | 446729 | 447568 |
| Mn | 293.305 | 123.54 | 126.67 | 126.01 |
| Mo | 202.032 | -1.2488 | -5.9985 | 0.25117 |
| Na | 589.592 | 6260.1 | 6268.8 | 6249.2 |
| Na | 568.821 | 1159.4 | 1179.0 | 1161.7 |

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| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ni | 221.648 | 3.6255 | 3.3906 | 6.2343 |
| Pb | 220.353 | 170.52 | 173.14 | 175.00 |
| Sb | 217.582 | -14.255 | -20.089 | -17.082 |
| Se | 196.026 | 9.3462 | -0.014703 | -0.36123 |
| Si | 251.611 | 89.314 | 86.357 | 79.006 |
| Sn | 189.927 | 1.4356 | -0.40953 | 0.63159 |
| Sr | 216.596 | 229.06 | 234.96 | 231.33 |
| Ti | 322.284 | 65.976 | 75.143 | 76.791 |
| Tl | 190.794 | -16.453 | -14.337 | -18.239 |
| V | 289.164 | 69.719 | 62.354 | 73.792 |
| Y | 361.104 | 185892 | 186835 | 186857 |
| Zn | 206.200 | 8.6755 | 11.273 | 11.928 |
| Zr | 257.147 | 91.868 | 93.047 | 94.211 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | -0.000355u | ppm | 0.000128 | 36.0 | -18.577 | -0.000355 ppm | Y 361.104 | -0.00036 |
| Al | 237.312 | 535.96 | ppm | 0.86687 | 0.2 | 249979 | 535.96 ppm | Y 361.104 | - |
| As | 188.980 | -0.002222u | ppm | 0.004681 | 210.6 | -0.21386 | -0.002222 ppm | Y 361.104 | -0.00222 |
| B | 249.772 | 0.071902u | ppm | 0.009581 | 13.3 | -368.39 | 0.071902 ppm | Y 361.104 | 0.07190 |
| Ba | 233.527 | 0.004421 | ppm | 0.000111 | 2.5 | 275.55 | 0.004421 ppm | Y 361.104 | 0.00442 |
| Be | 234.861 | -0.007405u | ppm | 0.003197 | 43.2 | -1886.7 | -0.007405 ppm | Y 361.104 | -0.00741 |
| Ca | 315.887 | 496.12 | ppm | 0.87375 | 0.2 | 2699314 | 496.12 ppm | Y 361.104 | - |
| Cd | 228.802 | 0.001854 | ppm | 0.000352 | 19.0 | 11.805 | 0.001854 ppm | Y 361.104 | 0.00185 |
| Co | 231.160 | 0.002541 | ppm | 0.000963 | 37.9 | 108.83 | 0.002541 ppm | Y 361.104 | 0.00254 |
| Cr | 267.716 | 0.001770 | ppm | 0.000161 | 9.1 | 54.650 | 0.001770 ppm | Y 361.104 | 0.00177 |
| Cu | 324.754 | -0.005508u | ppm | 0.000033 | 0.6 | -512.52 | -0.005508 ppm | Y 361.104 | -0.00551 |
| Fe | 261.382 | 196.04 | ppm | 0.22472 | 0.1 | 295968 | 196.04 ppm | Y 361.104 | - |
| K | 728.181 | 0.011050 | ppm | 0.006210 | 56.2 | 66.244 | 0.011050 ppm | Y 361.104 | 0.01105 |
| Li | 610.365 | -0.009495u | ppm | 0.001718 | 18.1 | -7721.5 | -0.009495 ppm | Y 361.104 | -0.00949 |
| Mg | 279.078 | 525.46 | ppm | 0.54510 | 0.1 | 447263 | 525.46 ppm | Y 361.104 | - |
| Mn | 293.305 | 0.009669 | ppm | 0.000140 | 1.4 | 125.41 | 0.009669 ppm | Y 361.104 | 0.00967 |
| Mo | 202.032 | -0.001338u | ppm | 0.000749 | 56.0 | -2.3320 | -0.001338 ppm | Y 361.104 | -0.00134 |
| Na | 589.592 | 0.056552 | ppm | 0.000104 | 0.2 | 6259.4 | 0.056552 ppm | Y 361.104 | 0.05655 |
| Ni | 221.648 | 0.002796 | ppm | 0.001089 | 38.9 | 4.4168 | 0.002796 ppm | Y 361.104 | 0.00280 |
| Pb | 220.353 | -0.003920 | ppm | 0.001399 | 35.7 | 172.89 | -0.003920 ppm | Y 361.104 | -0.00392 |
| Sb | 217.582 | -0.009066u | ppm | 0.005481 | 60.5 | -17.142 | -0.009066 ppm | Y 361.104 | -0.00907 |
| Se | 196.026 | -0.005127u | ppm | 0.023976 | 467.6 | 2.9901 | -0.005127 ppm | Y 361.104 | -0.00513 |
| Si | 251.611 | 0.033664 | ppm | 0.002847 | 8.5 | 84.892 | 0.033664 ppm | Y 361.104 | 0.03366 |
| Sn | 189.927 | -0.000061u | ppm | 0.001117 | 1845.5 | 0.55257 | -0.000061 ppm | Y 361.104 | -0.00006 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Sr | 216.596 | -0.001707 | ppm | 0.000550 | 32.2 | 231.78 | -0.001707 ppm | Y 361.104 | -0.00171 |
| Ti | 322.284 | -0.000646u | ppm | 0.000804 | 124.4 | 72.636 | -0.000646 ppm | Y 361.104 | -0.00065 |
| Tl | 190.794 | 0.008935u | ppm | 0.004278 | 47.9 | -16.343 | 0.008935 ppm | Y 361.104 | 0.00893 |
| V | 289.164 | -0.002391 | ppm | 0.000955 | 39.9 | 68.622 | -0.002391 ppm | Y 361.104 | -0.00239 |
| Zn | 206.200 | 0.010689 | ppm | 0.001794 | 16.8 | 10.625 | 0.010689 ppm | Y 361.104 | 0.01069 |
| Zr | 257.147 | 0.008384 | ppm | 0.000123 | 1.5 | 93.042 | 0.008384 ppm | Y 361.104 | 0.00838 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.94534 | 186528 | 550.955 | 0.3 |

**ICS-AB (ICSAB)** **1/15/02, 10:07:58 PM** **Rack 1, Tube 16**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 5953.9 | 6116.0 | 5834.5 |
| Al | 237.312 | 245437 | 251132 | 239133 |
| As | 188.980 | 31.039 | 35.846 | 29.783 |
| B | 249.772 | -731.95 | -699.83 | -730.90 |
| Ba | 233.527 | 18321 | 18852 | 17865 |
| Be | 234.861 | 23456 | 23827 | 22863 |
| Ca | 315.887 | 2690255 | 2764457 | 2617567 |
| Cd | 228.802 | 7771.5 | 7921.2 | 7364.9 |
| Co | 231.160 | 2676.9 | 2774.4 | 2627.2 |
| Cr | 267.716 | 13337 | 13812 | 12998 |
| Cu | 324.754 | 14700 | 15162 | 14343 |
| Fe | 261.382 | 293646 | 303044 | 286047 |
| K | 728.181 | 71.744 | 62.019 | 49.031 |
| Li | 610.365 | -7695.4 | -7662.5 | -7494.1 |
| Mg | 279.078 | 443299 | 457945 | 432916 |
| Mn | 293.305 | 5929.1 | 6125.3 | 5790.3 |
| Mo | 202.032 | -4.2633 | -8.3123 | -1.3280 |
| Na | 589.592 | 7269.2 | 7479.1 | 7087.8 |
| Na | 568.821 | 1119.7 | 1135.0 | 1076.9 |
| Ni | 221.648 | 1364.2 | 1409.5 | 1332.1 |
| Pb | 220.353 | 1709.2 | 1766.5 | 1661.2 |
| Sb | 217.582 | 322.75 | 334.80 | 312.52 |
| Se | 196.026 | 18.513 | 13.993 | 13.248 |
| Si | 251.611 | 129.49 | 117.87 | 120.63 |
| Sn | 189.927 | 4.2792 | -1.3389 | 6.0568 |
| Sr | 216.596 | 226.41 | 225.28 | 221.26 |
| Ti | 322.284 | 73.154 | 71.992 | 76.259 |

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Tl | 190.794 | 27.202 | 25.010 | 29.194 |
| V | 289.164 | 3137.6 | 3240.8 | 3068.0 |
| Y | 361.104 | 186079 | 180813 | 187633 |
| Zn | 206.200 | 909.08 | 942.20 | 885.89 |
| Zr | 257.147 | 97.793 | 105.59 | 99.212 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.21971 | ppm | 0.005193 | 2.4 | 5968.2 | 0.21971 ppm | Y 361.104 | 109.85390 |
| Al | 237.312 | 525.79 | ppm | 12.868 | 2.4 | 245234 | 525.79 ppm | Y 361.104 | 105.15796 |
| As | 188.980 | 0.098887 | ppm | 0.009990 | 10.1 | 32.223 | 0.098887 ppm | Y 361.104 | 98.88686 |
| B | 249.772 | 0.034222u | ppm | 0.001921 | 5.6 | -720.89 | 0.034222 ppm | Y 361.104 | - |
| Ba | 233.527 | 0.51845 | ppm | 0.014045 | 2.7 | 18346 | 0.51845 ppm | Y 361.104 | 103.69095 |
| Be | 234.861 | 0.52189 | ppm | 0.010186 | 2.0 | 23382 | 0.52189 ppm | Y 361.104 | 104.37749 |
| Ca | 315.887 | 494.54 | ppm | 13.503 | 2.7 | 2690759 | 494.54 ppm | Y 361.104 | 98.90878 |
| Cd | 228.802 | 1.0570 | ppm | 0.039577 | 3.7 | 7685.9 | 1.0570 ppm | Y 361.104 | 105.69784 |
| Co | 231.160 | 0.48651 | ppm | 0.014087 | 2.9 | 2692.9 | 0.48651 ppm | Y 361.104 | 97.30274 |
| Cr | 267.716 | 0.49794 | ppm | 0.015218 | 3.1 | 13382 | 0.49794 ppm | Y 361.104 | 99.58832 |
| Cu | 324.754 | 0.53486 | ppm | 0.014564 | 2.7 | 14735 | 0.53486 ppm | Y 361.104 | 106.97143 |
| Fe | 261.382 | 194.90 | ppm | 5.6398 | 2.9 | 294246 | 194.90 ppm | Y 361.104 | 97.44852 |
| K | 728.181 | 0.009243 | ppm | 0.003889 | 42.1 | 60.931 | 0.009243 ppm | Y 361.104 | - |
| Li | 610.365 | -0.007539u | ppm | 0.002736 | 36.3 | -7617.3 | -0.007539 ppm | Y 361.104 | - |
| Mg | 279.078 | 522.48 | ppm | 14.774 | 2.8 | 444720 | 522.48 ppm | Y 361.104 | 104.49520 |
| Mn | 293.305 | 0.50173 | ppm | 0.014224 | 2.8 | 5948.2 | 0.50173 ppm | Y 361.104 | 100.34595 |
| Mo | 202.032 | -0.001867u | ppm | 0.000805 | 43.1 | -4.6345 | -0.001867 ppm | Y 361.104 | - |
| Na | 589.592 | 0.057697 | ppm | 0.002072 | 3.6 | 7278.7 | 0.057697 ppm | Y 361.104 | - |
| Ni | 221.648 | 0.94399 | ppm | 0.026815 | 2.8 | 1368.6 | 0.94399 ppm | Y 361.104 | 94.39868 |
| Pb | 220.353 | 0.95384 | ppm | 0.032705 | 3.4 | 1712.3 | 0.95384 ppm | Y 361.104 | 95.38413 |
| Sb | 217.582 | 0.63162 | ppm | 0.020956 | 3.3 | 323.35 | 0.63162 ppm | Y 361.104 | 105.26962 |
| Se | 196.026 | 0.048500 | ppm | 0.012404 | 25.6 | 15.251 | 0.048500 ppm | Y 361.104 | 96.99908 |
| Si | 251.611 | 0.054456 | ppm | 0.003257 | 6.0 | 122.67 | 0.054456 ppm | Y 361.104 | - |
| Sn | 189.927 | 0.003045u | ppm | 0.004663 | 153.1 | 2.9991 | 0.003045 ppm | Y 361.104 | - |
| Sr | 216.596 | -0.002412 | ppm | 0.000501 | 20.8 | 224.32 | -0.002412 ppm | Y 361.104 | - |
| Ti | 322.284 | -0.000440u | ppm | 0.000304 | 69.2 | 73.802 | -0.000440 ppm | Y 361.104 | - |
| Tl | 190.794 | 0.10122 | ppm | 0.004585 | 4.5 | 27.135 | 0.10122 ppm | Y 361.104 | 101.22207 |
| V | 289.164 | 0.50720 | ppm | 0.014320 | 2.8 | 3148.8 | 0.50720 ppm | Y 361.104 | 101.43913 |
| Zn | 206.200 | 0.94964 | ppm | 0.029509 | 3.1 | 912.39 | 0.94964 ppm | Y 361.104 | 94.96381 |
| Zr | 257.147 | 0.009190 | ppm | 0.000436 | 4.7 | 100.86 | 0.009190 ppm | Y 361.104 | - |



| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.93680 | 184842 | 3574.258 | 1.9 |

**CCV (CCV)** **1/15/02, 10:11:13 PM** **Rack 1, Tube 17**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 28238 | 28039 | 28862 |
| Al | 237.312 | 2500.1 | 2482.3 | 2570.4 |
| As | 188.980 | 1672.9 | 1659.0 | 1713.9 |
| B | 249.772 | 19804 | 19715 | 20390 |
| Ba | 233.527 | 180191 | 179028 | 184308 |
| Be | 234.861 | 247538 | 244886 | 252892 |
| Ca | 315.887 | 276605 | 274560 | 283476 |
| Cd | 228.802 | 37215 | 37123 | 38154 |
| Co | 231.160 | 26958 | 26733 | 27637 |
| Cr | 267.716 | 136100 | 135108 | 139536 |
| Cu | 324.754 | 144279 | 143623 | 146969 |
| Fe | 261.382 | 7634.6 | 7563.1 | 7814.0 |
| K | 728.181 | 165396 | 163642 | 168359 |
| Li | 610.365 | 200853 | 199162 | 205345 |
| Mg | 279.078 | 42064 | 41715 | 43087 |
| Mn | 293.305 | 60495 | 60030 | 61979 |
| Mo | 202.032 | 4412.5 | 4411.4 | 4561.0 |
| Na | 589.592 | 5423011 | 5369711 | 5520466 |
| Na | 568.821 | 12019 | 11991 | 12317 |
| Ni | 221.648 | 7317.9 | 7250.9 | 7487.0 |
| Pb | 220.353 | 8164.1 | 8093.8 | 8374.2 |
| Sb | 217.582 | 552.68 | 549.09 | 564.21 |
| Se | 196.026 | 1195.5 | 1193.2 | 1228.1 |
| Si | 251.611 | 9748.6 | 9674.8 | 9972.4 |
| Sn | 189.927 | 4174.1 | 4136.1 | 4227.9 |
| Sr | 216.596 | 27438 | 27318 | 28245 |
| Ti | 322.284 | 36368 | 36069 | 37259 |
| Tl | 190.794 | 2286.1 | 2294.6 | 2361.2 |
| V | 289.164 | 31106 | 30861 | 31870 |
| Y | 361.104 | 201705 | 203015 | 199551 |
| Zn | 206.200 | 4840.7 | 4812.2 | 4991.6 |
| Zr | 257.147 | 49195 | 48928 | 50449 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 1.0308 | ppm | 0.015787 | 1.5 | 28380 | 1.0308 ppm | Y 361.104 | 103.08060 |
| Al | 237.312 | 5.3834 | ppm | 0.099960 | 1.9 | 2517.6 | 5.3834 ppm | Y 361.104 | 107.66701 |
| As | 188.980 | 5.2473 | ppm | 0.089086 | 1.7 | 1681.9 | 5.2473 ppm | Y 361.104 | 104.94658 |
| B | 249.772 | 2.1050 | ppm | 0.038613 | 1.8 | 19970 | 2.1050 ppm | Y 361.104 | 105.25208 |
| Ba | 233.527 | 5.1504 | ppm | 0.078923 | 1.5 | 181176 | 5.1504 ppm | Y 361.104 | 103.00767 |
| Be | 234.861 | 5.2067 | ppm | 0.085460 | 1.6 | 248439 | 5.2067 ppm | Y 361.104 | 104.13365 |
| Ca | 315.887 | 51.133 | ppm | 0.85869 | 1.7 | 278214 | 51.133 ppm | Y 361.104 | 102.26686 |
| Cd | 228.802 | 5.1624 | ppm | 0.078437 | 1.5 | 37497 | 5.1624 ppm | Y 361.104 | 103.24890 |
| Co | 231.160 | 5.1048 | ppm | 0.088532 | 1.7 | 27109 | 5.1048 ppm | Y 361.104 | 102.09649 |
| Cr | 267.716 | 5.0969 | ppm | 0.086511 | 1.7 | 136915 | 5.0969 ppm | Y 361.104 | 101.93864 |
| Cu | 324.754 | 5.1343 | ppm | 0.062823 | 1.2 | 144957 | 5.1343 ppm | Y 361.104 | 102.68651 |
| Fe | 261.382 | 5.1182 | ppm | 0.085611 | 1.7 | 7670.5 | 5.1182 ppm | Y 361.104 | 102.36442 |
| K | 728.181 | 53.753 | ppm | 0.73647 | 1.4 | 165799 | 53.753 ppm | Y 361.104 | 107.50568 |
| Li | 610.365 | 5.1066 | ppm | 0.080970 | 1.6 | 201786 | 5.1066 ppm | Y 361.104 | 102.13174 |
| Mg | 279.078 | 49.677 | ppm | 0.83750 | 1.7 | 42288 | 49.677 ppm | Y 361.104 | 99.35305 |
| Mn | 293.305 | 5.1400 | ppm | 0.086025 | 1.7 | 60835 | 5.1400 ppm | Y 361.104 | 102.79961 |
| Mo | 202.032 | 1.0237 | ppm | 0.019767 | 1.9 | 4461.6 | 1.0237 ppm | Y 361.104 | 102.36825 |
| Na | 589.592 | 54.033 | ppm | 0.71841 | 1.3 | 5437729 | 54.033 ppm | Y 361.104 | 108.06647 |
| Ni | 221.648 | 5.0650 | ppm | 0.083910 | 1.7 | 7351.9 | 5.0650 ppm | Y 361.104 | 101.29955 |
| Pb | 220.353 | 5.0986 | ppm | 0.090563 | 1.8 | 8210.7 | 5.0986 ppm | Y 361.104 | 101.97195 |
| Sb | 217.582 | 1.0510 | ppm | 0.014834 | 1.4 | 555.33 | 1.0510 ppm | Y 361.104 | 105.10329 |
| Se | 196.026 | 5.2480 | ppm | 0.085002 | 1.6 | 1205.6 | 5.2480 ppm | Y 361.104 | 104.96100 |
| Si | 251.611 | 5.2403 | ppm | 0.083128 | 1.6 | 9798.6 | 5.2403 ppm | Y 361.104 | 104.80504 |
| Sn | 189.927 | 5.0449 | ppm | 0.055713 | 1.1 | 4179.4 | 5.0449 ppm | Y 361.104 | 100.89709 |
| Sr | 216.596 | 5.1209 | ppm | 0.093395 | 1.8 | 27667 | 5.1209 ppm | Y 361.104 | 102.41772 |
| Ti | 322.284 | 5.0307 | ppm | 0.085364 | 1.7 | 36565 | 5.0307 ppm | Y 361.104 | 100.61492 |
| Tl | 190.794 | 5.0420 | ppm | 0.090092 | 1.8 | 2314.0 | 5.0420 ppm | Y 361.104 | 100.84096 |
| V | 289.164 | 5.1708 | ppm | 0.086648 | 1.7 | 31279 | 5.1708 ppm | Y 361.104 | 103.41574 |
| Zn | 206.200 | 5.0752 | ppm | 0.10055 | 2.0 | 4881.5 | 5.0752 ppm | Y 361.104 | 101.50344 |
| Zr | 257.147 | 5.2041 | ppm | 0.085321 | 1.6 | 49524 | 5.2041 ppm | Y 361.104 | 104.08231 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0208 | 201423 | 1749.140 | 0.9 |

**BLA01 (CCB)** **1/15/02, 10:14:27 PM** **Rack 1, Tube 18**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 0.38479 | -8.5184 | -8.4514 |
| Al | 237.312 | 0.46580 | -2.6862 | -2.1957 |
| As | 188.980 | 0.67302 | 1.9615 | 2.8308 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| B | 249.772 | 293.46 | 268.34 | 244.02 |
| Ba | 233.527 | 124.46 | 123.60 | 127.40 |
| Be | 234.861 | 0.23503 | -1.9408 | -0.85533 |
| Ca | 315.887 | 191.15 | 186.80 | 188.75 |
| Cd | 228.802 | -0.71633 | 0.88900 | -0.18826 |
| Co | 231.160 | 11.035 | 9.7549 | 12.251 |
| Cr | 267.716 | 1.9781 | -0.80182 | 8.8282 |
| Cu | 324.754 | 97.755 | 98.771 | 98.145 |
| Fe | 261.382 | 8.2062 | 10.660 | 9.1385 |
| K | 728.181 | 28.983 | 46.039 | 47.080 |
| Li | 610.365 | 1004.9 | 1032.4 | 1000.8 |
| Mg | 279.078 | 4.6039 | 4.7378 | 6.3357 |
| Mn | 293.305 | 7.0560 | 13.157 | 13.309 |
| Mo | 202.032 | 12.903 | 13.164 | 9.0279 |
| Na | 589.592 | 797.87 | 808.24 | 778.40 |
| Na | 568.821 | -418.92 | -411.94 | -424.37 |
| Ni | 221.648 | -3.0937 | -0.65496 | -1.3450 |
| Pb | 220.353 | -2.4284 | 0.85810 | 2.7126 |
| Sb | 217.582 | -0.86268 | -5.1347 | -0.049080 |
| Se | 196.026 | 0.54278 | 0.32885 | 0.73296 |
| Si | 251.611 | 40.608 | 38.404 | 39.519 |
| Sn | 189.927 | 0.79732 | 0.079972 | -0.64081 |
| Sr | 216.596 | 1.1454 | 2.3625 | 2.6982 |
| Ti | 322.284 | 77.492 | 63.282 | 73.969 |
| Tl | 190.794 | 2.4073 | 1.3000 | 3.2686 |
| V | 289.164 | -4.3913 | 0.52926 | 3.3381 |
| Y | 361.104 | 215272 | 213896 | 215755 |
| Zn | 206.200 | 0.90319 | 0.10727 | 0.13927 |
| Zr | 257.147 | 9.6965 | 17.410 | 7.0355 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.000181 | ppm | 0.000188 | 104.2 | -5.5283 | 0.000181 ppm | Y 361.104 | 0.00018 |
| Al | 237.312 | 0.000965u | ppm | 0.003636 | 376.7 | -1.4720 | 0.000965 ppm | Y 361.104 | 0.00097 |
| As | 188.980 | 0.004132 | ppm | 0.003389 | 82.0 | 1.8218 | 0.004132 ppm | Y 361.104 | 0.00413 |
| B | 249.772 | 0.027807 | ppm | 0.002602 | 9.4 | 268.61 | 0.027807 ppm | Y 361.104 | 0.02781 |
| Ba | 233.527 | 0.000144 | ppm | 0.000057 | 39.4 | 125.15 | 0.000144 ppm | Y 361.104 | 0.00014 |
| Be | 234.861 | 0.000058 | ppm | 0.000023 | 39.0 | -0.85371 | 0.000058 ppm | Y 361.104 | 0.00006 |
| Ca | 315.887 | -0.000938u | ppm | 0.000400 | 42.7 | 188.90 | -0.000938 ppm | Y 361.104 | -0.00094 |
| Cd | 228.802 | 0.000241 | ppm | 0.000112 | 46.6 | -0.005195 | 0.000241 ppm | Y 361.104 | 0.00024 |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Co | 231.160 | -0.000278u | ppm | 0.000235 | 84.4 | 11.014 | -0.000278 ppm | Y 361.104 | -0.00028 |
| Cr | 267.716 | -0.000141u | ppm | 0.000185 | 131.2 | 3.3348 | -0.000141 ppm | Y 361.104 | -0.00014 |
| Cu | 324.754 | -0.000747u | ppm | 0.000018 | 2.4 | 98.224 | -0.000747 ppm | Y 361.104 | -0.00075 |
| Fe | 261.382 | -0.000620u | ppm | 0.000821 | 132.3 | 9.3350 | -0.000620 ppm | Y 361.104 | -0.00062 |
| K | 728.181 | 0.002331u | ppm | 0.003468 | 148.8 | 40.701 | 0.002331 ppm | Y 361.104 | 0.00233 |
| Li | 610.365 | -0.003429u | ppm | 0.000436 | 12.7 | 1012.7 | -0.003429 ppm | Y 361.104 | -0.00343 |
| Mg | 279.078 | -0.000177u | ppm | 0.001132 | 640.3 | 5.2258 | -0.000177 ppm | Y 361.104 | -0.00018 |
| Mn | 293.305 | 0.000015u | ppm | 0.000301 | 2024.7 | 11.174 | 0.000015 ppm | Y 361.104 | 0.00001 |
| Mo | 202.032 | 0.001883 | ppm | 0.000532 | 28.2 | 11.698 | 0.001883 ppm | Y 361.104 | 0.00188 |
| Na | 589.592 | -0.001197u | ppm | 0.000160 | 13.4 | 794.83 | -0.001197 ppm | Y 361.104 | -0.00120 |
| Ni | 221.648 | -0.001379u | ppm | 0.000867 | 62.9 | -1.6979 | -0.001379 ppm | Y 361.104 | -0.00138 |
| Pb | 220.353 | 0.000330u | ppm | 0.001616 | 489.6 | 0.38076 | 0.000330 ppm | Y 361.104 | 0.00033 |
| Sb | 217.582 | -0.002625u | ppm | 0.005132 | 195.5 | -2.0155 | -0.002625 ppm | Y 361.104 | -0.00263 |
| Se | 196.026 | 0.001879 | ppm | 0.000880 | 46.8 | 0.53486 | 0.001879 ppm | Y 361.104 | 0.00188 |
| Si | 251.611 | 0.002664 | ppm | 0.000591 | 22.2 | 39.510 | 0.002664 ppm | Y 361.104 | 0.00266 |
| Sn | 189.927 | -0.000628u | ppm | 0.000868 | 138.2 | 0.078828 | -0.000628 ppm | Y 361.104 | -0.00063 |
| Sr | 216.596 | -0.000367u | ppm | 0.000151 | 41.2 | 2.0687 | -0.000367 ppm | Y 361.104 | -0.00037 |
| Ti | 322.284 | -0.000790u | ppm | 0.001021 | 129.3 | 71.581 | -0.000790 ppm | Y 361.104 | -0.00079 |
| Tl | 190.794 | 0.008615 | ppm | 0.002162 | 25.1 | 2.3253 | 0.008615 ppm | Y 361.104 | 0.00862 |
| V | 289.164 | -0.000231u | ppm | 0.000644 | 279.2 | -0.17465 | -0.000231 ppm | Y 361.104 | -0.00023 |
| Zn | 206.200 | 0.000014u | ppm | 0.000470 | 3324.3 | 0.38325 | 0.000014 ppm | Y 361.104 | 0.00001 |
| Zr | 257.147 | -0.000196u | ppm | 0.000566 | 288.8 | 11.381 | -0.000196 ppm | Y 361.104 | -0.00020 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0895 | 214974 | 964.281 | 0.4 |

**A581214 1:50 (Samp)** **1/15/02, 10:17:43 PM** **Rack 1, Tube 19**
Weight: 1 Volume: 1 Dilution: 50

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -33.180 | -22.036 | -32.932 |
| Al | 237.312 | 4.6025 | 6.1640 | 5.1359 |
| As | 188.980 | -1.3144 | 2.0548 | -1.0690 |
| B | 249.772 | 745.23 | 737.11 | 736.79 |
| Ba | 233.527 | 8943.6 | 8889.3 | 8986.9 |
| Be | 234.861 | -3.2405 | 4.0607 | -3.4102 |
| Ca | 315.887 | 38392 | 38049 | 38323 |
| Cd | 228.802 | -0.87409 | 2.5900 | -1.4389 |
| Co | 231.160 | 10.614 | 7.4220 | 11.755 |
| Cr | 267.716 | 9.8018 | 8.6419 | 6.9438 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Cu | 324.754 | 137.67 | 128.39 | 131.19 |
| Fe | 261.382 | 184.78 | 185.20 | 177.21 |
| K | 728.181 | 2412.0 | 2376.1 | 2395.3 |
| Li | 610.365 | 1257.0 | 1262.8 | 1245.9 |
| Mg | 279.078 | 3901.6 | 3863.7 | 3892.3 |
| Mn | 293.305 | 116.68 | 116.06 | 119.22 |
| Mo | 202.032 | 3.5123 | 4.6529 | 0.75300 |
| Na | 589.592 | 21784360 | 21631462 | 21839836 |
| Na | 568.821 | 65626 | 65351 | 65657 |
| Ni | 221.648 | 0.31854 | -0.77425 | 0.76330 |
| Pb | 220.353 | -0.90422 | -1.1287 | -2.9787 |
| Sb | 217.582 | -0.095974 | 2.5020 | -1.0383 |
| Se | 196.026 | 1.1124 | 1.6121 | 2.6277 |
| Si | 251.611 | 226.26 | 226.53 | 225.35 |
| Sn | 189.927 | 0.083335 | -0.44223 | 1.8505 |
| Sr | 216.596 | 2676.7 | 2662.4 | 2666.3 |
| Ti | 322.284 | 77.346 | 77.676 | 73.593 |
| Tl | 190.794 | 1.2433 | 0.17843 | 0.72654 |
| V | 289.164 | 3.5522 | -1.4713 | 1.4553 |
| Y | 361.104 | 206809 | 208232 | 206543 |
| Zn | 206.200 | 4.2745 | 1.6742 | 3.0691 |
| Zr | 257.147 | 16.729 | 8.2398 | 13.994 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | -0.000696u | ppm | 0.000234 | 33.6 | -29.383 | -0.034807 ppm | Y 361.104 | 1.0000 |
| Al | 237.312 | 0.015497 | ppm | 0.001702 | 11.0 | 5.3008 | 0.77484 ppm | Y 361.104 | 1.0000 |
| As | 188.980 | -0.001898u | ppm | 0.005864 | 309.0 | -0.10953 | -0.094877 ppm | Y 361.104 | 1.0000 |
| B | 249.772 | 0.077457 | ppm | 0.000504 | 0.7 | 739.71 | 3.8729 ppm | Y 361.104 | 1.0000 |
| Ba | 233.527 | 0.25092 | ppm | 0.001392 | 0.6 | 8940.0 | 12.546 ppm | Y 361.104 | 1.0000 |
| Be | 234.861 | 0.000077 | ppm | 0.000089 | 116.0 | -0.86330 | 0.003852 ppm | Y 361.104 | 1.0000 |
| Ca | 315.887 | 6.9975 | ppm | 0.033396 | 0.5 | 38255 | 349.87 ppm | Y 361.104 | 1.0000 |
| Cd | 228.802 | 0.000246 | ppm | 0.000300 | 121.9 | 0.092340 | 0.012306 ppm | Y 361.104 | 1.0000 |
| Co | 231.160 | -0.000548u | ppm | 0.000423 | 77.1 | 9.9304 | -0.027396 ppm | Y 361.104 | 1.0000 |
| Cr | 267.716 | 0.000050u | ppm | 0.000054 | 106.4 | 8.4625 | 0.002515 ppm | Y 361.104 | 1.0000 |
| Cu | 324.754 | 0.000475 | ppm | 0.000169 | 35.5 | 132.42 | 0.023734 ppm | Y 361.104 | 1.0000 |
| Fe | 261.382 | 0.11400 | ppm | 0.002979 | 2.6 | 182.40 | 5.6999 ppm | Y 361.104 | 1.0000 |
| K | 728.181 | 0.80506 | ppm | 0.006124 | 0.8 | 2394.5 | 40.253 ppm | Y 361.104 | 1.0000 |
| Li | 610.365 | 0.005752 | ppm | 0.000217 | 3.8 | 1255.2 | 0.28761 ppm | Y 361.104 | 1.0000 |
| Mg | 279.078 | 4.5590 | ppm | 0.023177 | 0.5 | 3885.9 | 227.95 ppm | Y 361.104 | 1.0000 |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Mn | 293.305 | 0.008985 | ppm | 0.000141 | 1.6 | 117.32 | 0.44927 ppm | Y 361.104 | 1.0000 |
| Mo | 202.032 | -0.000120u | ppm | 0.000460 | 383.4 | 2.9727 | -0.006005 ppm | Y 361.104 | 1.0000 |
| Na | 589.592 | -o | ppm | 0.92651 | 0.5 | 21751886 | - ppm | Y 361.104 | 1.0000 |
| Na | 568.821 | 255.29 | ppm | 0.64892 | 0.3 | 65545 | 12764 ppm | Y 361.104 | 1.0000 |
| Ni | 221.648 | -0.000311u | ppm | 0.000546 | 175.6 | 0.10253 | -0.015538 ppm | Y 361.104 | 1.0000 |
| Pb | 220.353 | -0.000951u | ppm | 0.000707 | 74.3 | -1.6705 | -0.047540 ppm | Y 361.104 | 1.0000 |
| Sb | 217.582 | 0.002031u | ppm | 0.003445 | 169.6 | 0.45590 | 0.10155 ppm | Y 361.104 | 1.0000 |
| Se | 196.026 | 0.007314 | ppm | 0.003362 | 46.0 | 1.7841 | 0.36568 ppm | Y 361.104 | 1.0000 |
| Si | 251.611 | 0.10272 | ppm | 0.000330 | 0.3 | 226.05 | 5.1358 ppm | Y 361.104 | 1.0000 |
| Sn | 189.927 | -0.000123u | ppm | 0.001451 | 1179.2 | 0.49721 | -0.006151 ppm | Y 361.104 | 1.0000 |
| Sr | 216.596 | 0.49313 | ppm | 0.001365 | 0.3 | 2668.5 | 24.656 ppm | Y 361.104 | 1.0000 |
| Ti | 322.284 | -0.000149u | ppm | 0.000313 | 210.3 | 76.205 | -0.007437 ppm | Y 361.104 | 1.0000 |
| Tl | 190.794 | 0.005103 | ppm | 0.001167 | 22.9 | 0.71609 | 0.25515 ppm | Y 361.104 | 1.0000 |
| V | 289.164 | 0.000006u | ppm | 0.000416 | 6519.9 | 1.1787 | 0.000319 ppm | Y 361.104 | 1.0000 |
| Zn | 206.200 | 0.002749 | ppm | 0.001357 | 49.4 | 3.0059 | 0.13747 ppm | Y 361.104 | 1.0000 |
| Zr | 257.147 | -0.000027u | ppm | 0.000455 | 1677.9 | 12.988 | -0.001357 ppm | Y 361.104 | 1.0000 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0501 | 207195 | 907.822 | 0.4 |

**A581215 1:50 (Samp)** **1/15/02, 10:20:58 PM** **Rack 1, Tube 20**
Weight: 1 Volume: 1 Dilution: 50

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -0.48959 | -13.913 | -17.991 |
| Al | 237.312 | -2.3003 | -3.8353 | -4.7943 |
| As | 188.980 | 0.32671 | 1.0672 | 1.8805 |
| B | 249.772 | 502.30 | 492.11 | 487.56 |
| Ba | 233.527 | 230.75 | 226.66 | 226.97 |
| Be | 234.861 | -10.523 | -10.312 | -6.3881 |
| Ca | 315.887 | 4213.0 | 4185.7 | 4161.8 |
| Cd | 228.802 | -1.0081 | 0.54642 | -1.2108 |
| Co | 231.160 | 9.9352 | 11.296 | 11.135 |
| Cr | 267.716 | 4.5615 | 9.9339 | 4.1700 |
| Cu | 324.754 | 124.75 | 111.93 | 112.33 |
| Fe | 261.382 | 726.63 | 724.84 | 722.92 |
| K | 728.181 | 774.17 | 751.81 | 767.37 |
| Li | 610.365 | 1130.7 | 1098.1 | 1067.1 |
| Mg | 279.078 | 292.18 | 292.22 | 286.85 |
| Mn | 293.305 | 86.862 | 86.992 | 78.786 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Mo | 202.032 | 0.67126 | 0.97212 | 1.9586 |
| Na | 589.592 | 7685068 | 7620534 | 7606240 |
| Na | 568.821 | 18839 | 18761 | 18660 |
| Ni | 221.648 | -0.33470 | 0.84895 | 1.4237 |
| Pb | 220.353 | -1.6545 | 2.3540 | -0.23068 |
| Sb | 217.582 | -2.0845 | -2.2510 | 0.20554 |
| Se | 196.026 | -0.48997 | 0.64945 | -0.020507 |
| Si | 251.611 | 202.95 | 205.69 | 196.97 |
| Sn | 189.927 | 2.5258 | 0.44147 | 1.0643 |
| Sr | 216.596 | 260.68 | 262.00 | 261.51 |
| Ti | 322.284 | 78.900 | 74.508 | 67.271 |
| Tl | 190.794 | -0.54560 | -1.9020 | 1.7835 |
| V | 289.164 | 0.23876 | -1.7749 | 0.79656 |
| Y | 361.104 | 212202 | 213990 | 217211 |
| Zn | 206.200 | 2.7196 | 2.4380 | 2.4313 |
| Zr | 257.147 | 9.2702 | 12.724 | 8.6937 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | -0.000012u | ppm | 0.000337 | 2810.6 | -10.798 | -0.000599 ppm | Y 361.104 | 1.0000 |
| Al | 237.312 | -0.003682u | ppm | 0.002697 | 73.3 | -3.6433 | -0.18408 ppm | Y 361.104 | 1.0000 |
| As | 188.980 | 0.001853u | ppm | 0.002426 | 130.9 | 1.0915 | 0.092651 ppm | Y 361.104 | 1.0000 |
| B | 249.772 | 0.051798 | ppm | 0.000794 | 1.5 | 493.99 | 2.5899 ppm | Y 361.104 | 1.0000 |
| Ba | 233.527 | 0.003073 | ppm | 0.000065 | 2.1 | 228.13 | 0.15366 ppm | Y 361.104 | 1.0000 |
| Be | 234.861 | -0.000036u | ppm | 0.000049 | 134.5 | -9.0743 | -0.001814 ppm | Y 361.104 | 1.0000 |
| Ca | 315.887 | 0.73409 | ppm | 0.004703 | 0.6 | 4186.8 | 36.704 ppm | Y 361.104 | 1.0000 |
| Cd | 228.802 | 0.000162 | ppm | 0.000132 | 81.5 | -0.55748 | 0.008105 ppm | Y 361.104 | 1.0000 |
| Co | 231.160 | -0.000365u | ppm | 0.000140 | 38.3 | 10.789 | -0.018259 ppm | Y 361.104 | 1.0000 |
| Cr | 267.716 | -0.000033u | ppm | 0.000120 | 361.7 | 6.2218 | -0.001657 ppm | Y 361.104 | 1.0000 |
| Cu | 324.754 | -0.000064u | ppm | 0.000258 | 403.8 | 116.34 | -0.003196 ppm | Y 361.104 | 1.0000 |
| Fe | 261.382 | 0.47327 | ppm | 0.001228 | 0.3 | 724.80 | 23.664 ppm | Y 361.104 | 1.0000 |
| K | 728.181 | 0.24929 | ppm | 0.003910 | 1.6 | 764.45 | 12.464 ppm | Y 361.104 | 1.0000 |
| Li | 610.365 | -0.000934u | ppm | 0.000806 | 86.3 | 1098.6 | -0.046681 ppm | Y 361.104 | 1.0000 |
| Mg | 279.078 | 0.33479 | ppm | 0.003626 | 1.1 | 290.42 | 16.740 ppm | Y 361.104 | 1.0000 |
| Mn | 293.305 | 0.006188 | ppm | 0.000397 | 6.4 | 84.214 | 0.30938 ppm | Y 361.104 | 1.0000 |
| Mo | 202.032 | -0.000527u | ppm | 0.000155 | 29.3 | 1.2007 | -0.026351 ppm | Y 361.104 | 1.0000 |
| Na | 589.592 | 74.381 | ppm | 0.37882 | 0.5 | 7637280 | 3719.0 ppm | Y 361.104 | 1.0000 |
| Na | 568.821 | 75.001 | ppm | 0.34569 | 0.5 | 18753 | 3750.1 ppm | Y 361.104 | 1.0000 |
| Ni | 221.648 | 0.000086u | ppm | 0.000618 | 715.3 | 0.64600 | 0.004322 ppm | Y 361.104 | 1.0000 |
| Pb | 220.353 | 0.000186u | ppm | 0.001261 | 677.6 | 0.15627 | 0.009308 ppm | Y 361.104 | 1.0000 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Sb | 217.582 | -0.001371u | ppm | 0.002579 | 188.1 | -1.3767 | -0.068550 ppm | Y 361.104 | 1.0000 |
| Se | 196.026 | -0.000264u | ppm | 0.002493 | 945.5 | 0.046325 | -0.013183 ppm | Y 361.104 | 1.0000 |
| Si | 251.611 | 0.089766 | ppm | 0.002392 | 2.7 | 201.87 | 4.4883 ppm | Y 361.104 | 1.0000 |
| Sn | 189.927 | 0.000900u | ppm | 0.001292 | 143.6 | 1.3439 | 0.044995 ppm | Y 361.104 | 1.0000 |
| Sr | 216.596 | 0.047524 | ppm | 0.000124 | 0.3 | 261.40 | 2.3762 ppm | Y 361.104 | 1.0000 |
| Ti | 322.284 | -0.000514u | ppm | 0.000810 | 157.7 | 73.560 | -0.025677 ppm | Y 361.104 | 1.0000 |
| Tl | 190.794 | 0.003115u | ppm | 0.004083 | 131.1 | -0.22136 | 0.15574 ppm | Y 361.104 | 1.0000 |
| V | 289.164 | -0.000260u | ppm | 0.000223 | 85.6 | -0.24652 | -0.013015 ppm | Y 361.104 | 1.0000 |
| Zn | 206.200 | 0.002253 | ppm | 0.000172 | 7.6 | 2.5296 | 0.11266 ppm | Y 361.104 | 1.0000 |
| Zr | 257.147 | -0.000317u | ppm | 0.000229 | 72.2 | 10.229 | -0.015857 ppm | Y 361.104 | 1.0000 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0869 | 214468 | 2538.460 | 1.2 |

**A581217 1:50 (Samp)** **1/15/02, 10:24:14 PM** **Rack 1, Tube 21**
Weight: 1 Volume: 1 Dilution: 50

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -0.088662 | -12.740 | -5.6018 |
| Al | 237.312 | -3.7336 | -4.2000 | -3.0557 |
| As | 188.980 | -0.099484 | 0.72964 | 0.54116 |
| B | 249.772 | 343.54 | 340.11 | 332.09 |
| Ba | 233.527 | 394.05 | 388.66 | 384.23 |
| Be | 234.861 | -1.4132 | -4.7481 | -1.3593 |
| Ca | 315.887 | 556.30 | 555.83 | 546.63 |
| Cd | 228.802 | -2.1060 | -0.67045 | -0.70270 |
| Co | 231.160 | 11.303 | 14.436 | 10.222 |
| Cr | 267.716 | 5.0068 | 2.8393 | 1.9917 |
| Cu | 324.754 | 114.35 | 111.30 | 103.10 |
| Fe | 261.382 | 9.6315 | 12.127 | 8.7032 |
| K | 728.181 | 260.80 | 237.19 | 244.43 |
| Li | 610.365 | 1021.8 | 1055.7 | 1014.7 |
| Mg | 279.078 | 34.865 | 40.547 | 37.675 |
| Mn | 293.305 | 7.0252 | 8.0273 | 15.149 |
| Mo | 202.032 | 0.97132 | 1.5915 | 1.9497 |
| Na | 589.592 | 2347789 | 2336889 | 2330621 |
| Na | 568.821 | 5125.1 | 5149.6 | 5091.5 |
| Ni | 221.648 | -1.0959 | 0.17649 | 1.3765 |
| Pb | 220.353 | 0.79750 | 0.15518 | -2.0468 |
| Sb | 217.582 | -2.0849 | -3.3482 | 2.4216 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Se | 196.026 | -0.98789 | -1.5186 | -0.81206 |
| Si | 251.611 | 170.69 | 169.96 | 169.11 |
| Sn | 189.927 | -0.81493 | 0.34286 | 0.21421 |
| Sr | 216.596 | 22.677 | 20.194 | 18.445 |
| Ti | 322.284 | 80.105 | 67.034 | 71.659 |
| Tl | 190.794 | 0.49265 | -1.8622 | -0.88703 |
| V | 289.164 | -0.28709 | -8.8304 | -7.2803 |
| Y | 361.104 | 214518 | 214918 | 218569 |
| Zn | 206.200 | 0.53006 | 2.4781 | 1.7582 |
| Zr | 257.147 | 8.4568 | 9.5054 | 10.627 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.000159u | ppm | 0.000233 | 146.4 | -6.1437 | 0.007963 ppm | Y 361.104 | 1.0000 |
| Al | 237.312 | -0.003731u | ppm | 0.001234 | 33.1 | -3.6631 | -0.18655 ppm | Y 361.104 | 1.0000 |
| As | 188.980 | -0.000335u | ppm | 0.001357 | 404.4 | 0.39044 | -0.016775 ppm | Y 361.104 | 1.0000 |
| B | 249.772 | 0.035172 | ppm | 0.000618 | 1.8 | 338.58 | 1.7586 ppm | Y 361.104 | 1.0000 |
| Ba | 233.527 | 0.007649 | ppm | 0.000140 | 1.8 | 388.98 | 0.38247 ppm | Y 361.104 | 1.0000 |
| Be | 234.861 | 0.000024u | ppm | 0.000041 | 169.9 | -2.5069 | 0.001197 ppm | Y 361.104 | 1.0000 |
| Ca | 315.887 | 0.065985 | ppm | 0.001002 | 1.5 | 552.92 | 3.2993 ppm | Y 361.104 | 1.0000 |
| Cd | 228.802 | 0.000076u | ppm | 0.000113 | 148.0 | -1.1597 | 0.003808 ppm | Y 361.104 | 1.0000 |
| Co | 231.160 | -0.000107u | ppm | 0.000412 | 386.0 | 11.987 | -0.005335 ppm | Y 361.104 | 1.0000 |
| Cr | 267.716 | -0.000143u | ppm | 0.000058 | 40.6 | 3.2793 | -0.007137 ppm | Y 361.104 | 1.0000 |
| Cu | 324.754 | -0.000344u | ppm | 0.000206 | 59.9 | 109.58 | -0.017192 ppm | Y 361.104 | 1.0000 |
| Fe | 261.382 | -0.000082u | ppm | 0.001173 | 1432.4 | 10.154 | -0.004094 ppm | Y 361.104 | 1.0000 |
| K | 728.181 | 0.072896 | ppm | 0.004128 | 5.7 | 247.47 | 3.6448 ppm | Y 361.104 | 1.0000 |
| Li | 610.365 | -0.002944u | ppm | 0.000555 | 18.9 | 1030.7 | -0.14719 ppm | Y 361.104 | 1.0000 |
| Mg | 279.078 | 0.037971 | ppm | 0.003338 | 8.8 | 37.696 | 1.8985 ppm | Y 361.104 | 1.0000 |
| Mn | 293.305 | -0.000079u | ppm | 0.000374 | 476.0 | 10.067 | -0.003932 ppm | Y 361.104 | 1.0000 |
| Mo | 202.032 | -0.000457u | ppm | 0.000114 | 24.9 | 1.5042 | -0.022866 ppm | Y 361.104 | 1.0000 |
| Na | 589.592 | 24.065 | ppm | 0.087063 | 0.4 | 2338433 | 1203.2 ppm | Y 361.104 | 1.0000 |
| Na | 568.821 | 22.471 | ppm | 0.11255 | 0.5 | 5122.1 | 1123.5 ppm | Y 361.104 | 1.0000 |
| Ni | 221.648 | -0.000224u | ppm | 0.000853 | 380.2 | 0.15236 | -0.011215 ppm | Y 361.104 | 1.0000 |
| Pb | 220.353 | -0.000137u | ppm | 0.000926 | 675.4 | -0.36470 | -0.006855 ppm | Y 361.104 | 1.0000 |
| Sb | 217.582 | -0.000724u | ppm | 0.005698 | 787.2 | -1.0038 | -0.036194 ppm | Y 361.104 | 1.0000 |
| Se | 196.026 | -0.005265u | ppm | 0.001601 | 30.4 | -1.1062 | -0.26324 ppm | Y 361.104 | 1.0000 |
| Si | 251.611 | 0.072613 | ppm | 0.000424 | 0.6 | 169.92 | 3.6307 ppm | Y 361.104 | 1.0000 |
| Sn | 189.927 | -0.000827u | ppm | 0.000766 | 92.7 | -0.085955 | -0.041353 ppm | Y 361.104 | 1.0000 |
| Sr | 216.596 | 0.003033 | ppm | 0.000394 | 13.0 | 20.439 | 0.15166 ppm | Y 361.104 | 1.0000 |
| Ti | 322.284 | -0.000601u | ppm | 0.000914 | 152.1 | 72.932 | -0.030046 ppm | Y 361.104 | 1.0000 |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Tl | 190.794 | 0.001870u | ppm | 0.002592 | 138.6 | -0.75217 | 0.093506 ppm | Y 361.104 | 1.0000 |
| V | 289.164 | -0.001103u | ppm | 0.000750 | 67.9 | -5.4660 | -0.055168 ppm | Y 361.104 | 1.0000 |
| Zn | 206.200 | 0.001272 | ppm | 0.001027 | 80.7 | 1.5888 | 0.063617 ppm | Y 361.104 | 1.0000 |
| Zr | 257.147 | -0.000391u | ppm | 0.000114 | 29.2 | 9.5297 | -0.019533 ppm | Y 361.104 | 1.0000 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0947 | 216001 | 2232.396 | 1.0 |

CCV (CCV) 1/15/02, 10:27:29 PM Rack 1, Tube 22

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 27621 | 28076 | 28215 |
| Al | 237.312 | 2385.0 | 2434.2 | 2442.7 |
| As | 188.980 | 1655.1 | 1667.8 | 1692.0 |
| B | 249.772 | 19417 | 19869 | 20010 |
| Ba | 233.527 | 176986 | 180606 | 181602 |
| Be | 234.861 | 243395 | 248996 | 250348 |
| Ca | 315.887 | 271815 | 277104 | 278764 |
| Cd | 228.802 | 36561 | 37227 | 37591 |
| Co | 231.160 | 26431 | 26989 | 27114 |
| Cr | 267.716 | 133423 | 136284 | 137190 |
| Cu | 324.754 | 142536 | 145161 | 146178 |
| Fe | 261.382 | 7478.4 | 7639.6 | 7691.4 |
| K | 728.181 | 163040 | 166154 | 166885 |
| Li | 610.365 | 197123 | 201013 | 202469 |
| Mg | 279.078 | 41254 | 42143 | 42352 |
| Mn | 293.305 | 59378 | 60641 | 61007 |
| Mo | 202.032 | 4353.9 | 4448.1 | 4484.1 |
| Na | 589.592 | 5266707 | 5359875 | 5397003 |
| Na | 568.821 | 11877 | 12115 | 12191 |
| Ni | 221.648 | 7191.5 | 7329.4 | 7377.1 |
| Pb | 220.353 | 8018.0 | 8174.5 | 8210.1 |
| Sb | 217.582 | 549.70 | 566.68 | 567.32 |
| Se | 196.026 | 1184.7 | 1203.4 | 1211.5 |
| Si | 251.611 | 9647.3 | 9829.1 | 9868.5 |
| Sn | 189.927 | 4095.7 | 4210.9 | 4223.6 |
| Sr | 216.596 | 27035 | 27654 | 27913 |
| Ti | 322.284 | 35794 | 36588 | 36774 |
| Tl | 190.794 | 2261.1 | 2307.6 | 2328.1 |
| V | 289.164 | 30421 | 30996 | 31197 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Y | 361.104 | 208169 | 205401 | 204237 |
| Zn | 206.200 | 4687.7 | 4791.8 | 4840.9 |
| Zr | 257.147 | 48490 | 49450 | 49732 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 1.0158 | ppm | 0.011419 | 1.1 | 27971 | 1.0158 ppm | Y 361.104 | 101.58022 |
| Al | 237.312 | 5.1755 | ppm | 0.066848 | 1.3 | 2420.6 | 5.1755 ppm | Y 361.104 | 103.51044 |
| As | 188.980 | 5.2153 | ppm | 0.058571 | 1.1 | 1671.7 | 5.2153 ppm | Y 361.104 | 104.30594 |
| B | 249.772 | 2.0835 | ppm | 0.032583 | 1.6 | 19765 | 2.0835 ppm | Y 361.104 | 104.17389 |
| Ba | 233.527 | 5.1093 | ppm | 0.069092 | 1.4 | 179731 | 5.1093 ppm | Y 361.104 | 102.18591 |
| Be | 234.861 | 5.1887 | ppm | 0.077246 | 1.5 | 247580 | 5.1887 ppm | Y 361.104 | 103.77346 |
| Ca | 315.887 | 50.707 | ppm | 0.66719 | 1.3 | 275894 | 50.707 ppm | Y 361.104 | 101.41438 |
| Cd | 228.802 | 5.1114 | ppm | 0.071785 | 1.4 | 37126 | 5.1114 ppm | Y 361.104 | 102.22848 |
| Co | 231.160 | 5.0550 | ppm | 0.068413 | 1.4 | 26845 | 5.0550 ppm | Y 361.104 | 101.10095 |
| Cr | 267.716 | 5.0492 | ppm | 0.073198 | 1.4 | 135632 | 5.0492 ppm | Y 361.104 | 100.98389 |
| Cu | 324.754 | 5.1225 | ppm | 0.066584 | 1.3 | 144625 | 5.1225 ppm | Y 361.104 | 102.45083 |
| Fe | 261.382 | 5.0732 | ppm | 0.073562 | 1.4 | 7603.1 | 5.0732 ppm | Y 361.104 | 101.46435 |
| K | 728.181 | 53.617 | ppm | 0.63112 | 1.2 | 165360 | 53.617 ppm | Y 361.104 | 107.23447 |
| Li | 610.365 | 5.0662 | ppm | 0.070046 | 1.4 | 200202 | 5.0662 ppm | Y 361.104 | 101.32483 |
| Mg | 279.078 | 49.239 | ppm | 0.68542 | 1.4 | 41916 | 49.239 ppm | Y 361.104 | 98.47871 |
| Mn | 293.305 | 5.0984 | ppm | 0.072206 | 1.4 | 60342 | 5.0984 ppm | Y 361.104 | 101.96716 |
| Mo | 202.032 | 1.0161 | ppm | 0.015443 | 1.5 | 4428.7 | 1.0161 ppm | Y 361.104 | 101.61146 |
| Na | 589.592 | 53.126 | ppm | 0.63229 | 1.2 | 5341195 | 53.126 ppm | Y 361.104 | 106.25175 |
| Ni | 221.648 | 5.0287 | ppm | 0.066474 | 1.3 | 7299.3 | 5.0287 ppm | Y 361.104 | 100.57365 |
| Pb | 220.353 | 5.0511 | ppm | 0.063417 | 1.3 | 8134.2 | 5.0511 ppm | Y 361.104 | 101.02235 |
| Sb | 217.582 | 1.0621 | ppm | 0.018769 | 1.8 | 561.23 | 1.0621 ppm | Y 361.104 | 106.20782 |
| Se | 196.026 | 5.2231 | ppm | 0.059805 | 1.1 | 1199.9 | 5.2231 ppm | Y 361.104 | 104.46147 |
| Si | 251.611 | 5.2311 | ppm | 0.063305 | 1.2 | 9781.6 | 5.2311 ppm | Y 361.104 | 104.62166 |
| Sn | 189.927 | 5.0416 | ppm | 0.085085 | 1.7 | 4176.7 | 5.0416 ppm | Y 361.104 | 100.83296 |
| Sr | 216.596 | 5.0963 | ppm | 0.083497 | 1.6 | 27534 | 5.0963 ppm | Y 361.104 | 101.92527 |
| Ti | 322.284 | 5.0060 | ppm | 0.071787 | 1.4 | 36385 | 5.0060 ppm | Y 361.104 | 100.11910 |
| Tl | 190.794 | 5.0095 | ppm | 0.075218 | 1.5 | 2299.0 | 5.0095 ppm | Y 361.104 | 100.19028 |
| V | 289.164 | 5.1034 | ppm | 0.066301 | 1.3 | 30871 | 5.1034 ppm | Y 361.104 | 102.06752 |
| Zn | 206.200 | 4.9627 | ppm | 0.081601 | 1.6 | 4773.4 | 4.9627 ppm | Y 361.104 | 99.25307 |
| Zr | 257.147 | 5.1726 | ppm | 0.068428 | 1.3 | 49224 | 5.1726 ppm | Y 361.104 | 103.45143 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0437 | 205936 | 2019.953 | 1.0 |

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**BLA01 (CCB)** 1/15/02, 10:30:45 PM Rack 1, Tube 23

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -13.821 | 3.5094 | 0.90461 |
| Al | 237.312 | -1.7871 | -0.16312 | -2.4318 |
| As | 188.980 | -1.5948 | 1.3648 | -0.84397 |
| B | 249.772 | 201.34 | 187.38 | 172.54 |
| Ba | 233.527 | 120.74 | 124.56 | 118.96 |
| Be | 234.861 | -5.0844 | -1.6232 | -1.4246 |
| Ca | 315.887 | 192.77 | 186.35 | 191.59 |
| Cd | 228.802 | -3.9112 | 2.0896 | -3.1123 |
| Co | 231.160 | 6.9494 | 11.554 | 10.735 |
| Cr | 267.716 | 5.3836 | 3.8777 | 9.1168 |
| Cu | 324.754 | 99.951 | 113.67 | 91.995 |
| Fe | 261.382 | 11.452 | 8.7370 | 5.4833 |
| K | 728.181 | 49.246 | 36.740 | 54.407 |
| Li | 610.365 | 1024.4 | 1024.6 | 1011.3 |
| Mg | 279.078 | 4.9024 | 6.0805 | 3.5644 |
| Mn | 293.305 | 6.2218 | 9.7429 | 3.8601 |
| Mo | 202.032 | 15.089 | 10.166 | 11.284 |
| Na | 589.592 | 812.83 | 783.98 | 809.62 |
| Na | 568.821 | -406.09 | -421.21 | -375.09 |
| Ni | 221.648 | -1.3507 | -1.8627 | -2.8741 |
| Pb | 220.353 | 0.89822 | -1.2104 | -2.7079 |
| Sb | 217.582 | -3.6025 | -0.14344 | -1.2563 |
| Se | 196.026 | 1.7433 | 0.57611 | 1.9982 |
| Si | 251.611 | 42.280 | 38.555 | 40.432 |
| Sn | 189.927 | -1.5022 | -0.21765 | -0.27118 |
| Sr | 216.596 | 0.40391 | 0.15542 | 0.47379 |
| Ti | 322.284 | 71.491 | 77.824 | 71.438 |
| Tl | 190.794 | 2.8390 | 4.2652 | 3.2049 |
| V | 289.164 | -4.9680 | 2.0882 | 0.57455 |
| Y | 361.104 | 216102 | 213895 | 213094 |
| Zn | 206.200 | 1.3303 | -0.30920 | -0.92390 |
| Zr | 257.147 | 6.7968 | 12.815 | 13.795 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.000269u | ppm | 0.000344 | 127.6 | -3.1356 | 0.000269 ppm | Y 361.104 | 0.00027 |
| Al | 237.312 | 0.000991u | ppm | 0.002506 | 253.0 | -1.4607 | 0.000991 ppm | Y 361.104 | 0.00099 |
| As | 188.980 | -0.002673u | ppm | 0.004803 | 179.7 | -0.35800 | -0.002673 ppm | Y 361.104 | -0.00267 |
| B | 249.772 | 0.019226 | ppm | 0.001516 | 7.9 | 187.09 | 0.019226 ppm | Y 361.104 | 0.01923 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ba | 233.527 | 0.000037u | ppm | 0.000082 | 217.5 | 121.42 | 0.000037 ppm | Y 361.104 | 0.00004 |
| Be | 234.861 | 0.000019u | ppm | 0.000043 | 221.2 | -2.7107 | 0.000019 ppm | Y 361.104 | 0.00002 |
| Ca | 315.887 | -0.000693u | ppm | 0.000628 | 90.7 | 190.24 | -0.000693 ppm | Y 361.104 | -0.00069 |
| Cd | 228.802 | 0.000006u | ppm | 0.000448 | 7132.6 | -1.6446 | 0.000006 ppm | Y 361.104 | 0.00001 |
| Co | 231.160 | -0.000520u | ppm | 0.000462 | 88.8 | 9.7461 | -0.000520 ppm | Y 361.104 | -0.00052 |
| Cr | 267.716 | -0.000037u | ppm | 0.000100 | 273.2 | 6.1260 | -0.000037 ppm | Y 361.104 | -0.00004 |
| Cu | 324.754 | -0.000618u | ppm | 0.000389 | 62.9 | 101.87 | -0.000618 ppm | Y 361.104 | -0.00062 |
| Fe | 261.382 | -0.001141u | ppm | 0.001979 | 173.5 | 8.5573 | -0.001141 ppm | Y 361.104 | -0.00114 |
| K | 728.181 | 0.004412 | ppm | 0.003101 | 70.3 | 46.798 | 0.004412 ppm | Y 361.104 | 0.00441 |
| Li | 610.365 | -0.003243u | ppm | 0.000193 | 6.0 | 1020.1 | -0.003243 ppm | Y 361.104 | -0.00324 |
| Mg | 279.078 | -0.000619u | ppm | 0.001479 | 238.8 | 4.8491 | -0.000619 ppm | Y 361.104 | -0.00062 |
| Mn | 293.305 | -0.000371u | ppm | 0.000250 | 67.4 | 6.6083 | -0.000371 ppm | Y 361.104 | -0.00037 |
| Mo | 202.032 | 0.001994 | ppm | 0.000593 | 29.7 | 12.180 | 0.001994 ppm | Y 361.104 | 0.00199 |
| Na | 589.592 | -0.001118u | ppm | 0.000167 | 15.0 | 802.14 | -0.001118 ppm | Y 361.104 | -0.00112 |
| Ni | 221.648 | -0.001608u | ppm | 0.000535 | 33.2 | -2.0292 | -0.001608 ppm | Y 361.104 | -0.00161 |
| Pb | 220.353 | -0.000531u | ppm | 0.001125 | 211.8 | -1.0067 | -0.000531 ppm | Y 361.104 | -0.00053 |
| Sb | 217.582 | -0.001972u | ppm | 0.003317 | 168.2 | -1.6674 | -0.001972 ppm | Y 361.104 | -0.00197 |
| Se | 196.026 | 0.005816 | ppm | 0.003301 | 56.8 | 1.4392 | 0.005816 ppm | Y 361.104 | 0.00582 |
| Si | 251.611 | 0.003153 | ppm | 0.000999 | 31.7 | 40.422 | 0.003153 ppm | Y 361.104 | 0.00315 |
| Sn | 189.927 | -0.001525u | ppm | 0.000878 | 57.6 | -0.66369 | -0.001525 ppm | Y 361.104 | -0.00153 |
| Sr | 216.596 | -0.000686u | ppm | 0.000031 | 4.5 | 0.34437 | -0.000686 ppm | Y 361.104 | -0.00069 |
| Ti | 322.284 | -0.000513u | ppm | 0.000506 | 98.6 | 73.584 | -0.000513 ppm | Y 361.104 | -0.00051 |
| Tl | 190.794 | 0.011050 | ppm | 0.001623 | 14.7 | 3.4364 | 0.011050 ppm | Y 361.104 | 0.01105Z |
| V | 289.164 | -0.000329u | ppm | 0.000612 | 186.0 | -0.76841 | -0.000329 ppm | Y 361.104 | -0.00033 |
| Zn | 206.200 | -0.000352u | ppm | 0.001215 | 345.2 | 0.032388 | -0.000352 ppm | Y 361.104 | -0.00035 |
| Zr | 257.147 | -0.000222u | ppm | 0.000398 | 179.6 | 11.135 | -0.000222 ppm | Y 361.104 | -0.00022 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0864 | 214364 | 1557.370 | 0.7 |

**DLS (CRI)** 1/15/02, 10:34:02 PM Rack 1, Tube 24

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 267.12 | 270.27 | 265.47 |
| Al | 237.312 | 21.372 | 21.995 | 20.858 |
| As | 188.980 | 16.382 | 18.172 | 16.519 |
| B | 249.772 | 592.48 | 582.91 | 581.37 |
| Ba | 233.527 | 485.87 | 482.90 | 480.51 |
| Be | 234.861 | 186.01 | 188.79 | 194.49 |
| Ca | 315.887 | 670.68 | 671.22 | 664.96 |

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| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Cd | 228.802 | 33.409 | 34.324 | 31.369 |
| Co | 231.160 | 64.522 | 66.452 | 69.025 |
| Cr | 267.716 | 278.86 | 278.23 | 277.15 |
| Cu | 324.754 | 684.89 | 676.42 | 684.32 |
| Fe | 261.382 | 55.480 | 49.802 | 51.018 |
| K | 728.181 | 354.77 | 352.93 | 351.74 |
| Li | 610.365 | 1357.4 | 1380.0 | 1375.4 |
| Mg | 279.078 | 82.652 | 85.872 | 85.693 |
| Mn | 293.305 | 135.77 | 132.76 | 129.28 |
| Mo | 202.032 | 47.347 | 47.380 | 47.457 |
| Na | 589.592 | 10232 | 10190 | 10163 |
| Na | 568.821 | -382.11 | -398.29 | -375.56 |
| Ni | 221.648 | 14.584 | 13.393 | 13.475 |
| Pb | 220.353 | 16.911 | 20.299 | 14.012 |
| Sb | 217.582 | 5.0406 | 5.4598 | 5.6935 |
| Se | 196.026 | 3.2377 | 2.3645 | 2.1739 |
| Si | 251.611 | 420.15 | 418.16 | 417.47 |
| Sn | 189.927 | 43.584 | 41.220 | 42.792 |
| Sr | 216.596 | 60.625 | 57.754 | 55.967 |
| Ti | 322.284 | 145.60 | 143.04 | 148.05 |
| Tl | 190.794 | 5.2669 | 7.0384 | 5.6103 |
| V | 289.164 | 58.793 | 57.209 | 56.049 |
| Y | 361.104 | 216775 | 218395 | 218996 |
| Zn | 206.200 | 19.937 | 21.681 | 20.147 |
| Zr | 257.147 | 112.33 | 109.07 | 107.70 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.010197 | ppm | 0.000090 | 0.9 | 267.62 | 0.010197 ppm | Y 361.104 | 101.96513 |
| Al | 237.312 | 0.049984 | ppm | 0.001221 | 2.4 | 21.408 | 0.049984 ppm | Y 361.104 | 99.96886 |
| As | 188.980 | 0.051587 | ppm | 0.003109 | 6.0 | 17.025 | 0.051587 ppm | Y 361.104 | 103.17317 |
| B | 249.772 | 0.061187 | ppm | 0.000634 | 1.0 | 585.58 | 0.061187 ppm | Y 361.104 | 122.37429 |
| Ba | 233.527 | 0.010327 | ppm | 0.000076 | 0.7 | 483.09 | 0.010327 ppm | Y 361.104 | 103.26897 |
| Be | 234.861 | 0.004057 | ppm | 0.000091 | 2.2 | 189.76 | 0.004057 ppm | Y 361.104 | - |
| Ca | 315.887 | 0.087346 | ppm | 0.000638 | 0.7 | 668.95 | 0.087346 ppm | Y 361.104 | 87.34627 |
| Cd | 228.802 | 0.004850 | ppm | 0.000208 | 4.3 | 33.034 | 0.004850 ppm | Y 361.104 | - |
| Co | 231.160 | 0.010122 | ppm | 0.000425 | 4.2 | 66.666 | 0.010122 ppm | Y 361.104 | 101.21682 |
| Cr | 267.716 | 0.010088 | ppm | 0.000032 | 0.3 | 278.08 | 0.010088 ppm | Y 361.104 | 100.87864 |
| Cu | 324.754 | 0.019937 | ppm | 0.000168 | 0.8 | 681.87 | 0.019937 ppm | Y 361.104 | 99.68570 |
| Fe | 261.382 | 0.027800 | ppm | 0.001980 | 7.1 | 52.100 | 0.027800 ppm | Y 361.104 | 111.20111 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| K | 728.181 | 0.10896 | ppm | 0.000521 | 0.5 | 353.14 | 0.10896 ppm | Y 361.104 | 108.95685 |
| Li | 610.365 | 0.005686 | ppm | 0.000303 | 5.3 | 1370.9 | 0.005686 ppm | Y 361.104 | 56.85807 |
| Mg | 279.078 | 0.093234 | ppm | 0.002126 | 2.3 | 84.739 | 0.093234 ppm | Y 361.104 | 93.23438 |
| Mn | 293.305 | 0.010277 | ppm | 0.000275 | 2.7 | 132.60 | 0.010277 ppm | Y 361.104 | 102.76773 |
| Mo | 202.032 | 0.010080 | ppm | 0.000013 | 0.1 | 47.395 | 0.010080 ppm | Y 361.104 | 100.80096 |
| Na | 589.592 | 0.098087 | ppm | 0.000366 | 0.4 | 10195 | 0.098087 ppm | Y 361.104 | 98.08667 |
| Ni | 221.648 | 0.008978 | ppm | 0.000459 | 5.1 | 13.817 | 0.008978 ppm | Y 361.104 | 89.77817 |
| Pb | 220.353 | 0.010703 | ppm | 0.001953 | 18.3 | 17.074 | 0.010703 ppm | Y 361.104 | 107.03418 |
| Sb | 217.582 | 0.011318 | ppm | 0.000622 | 5.5 | 5.3980 | 0.011318 ppm | Y 361.104 | 113.18071 |
| Se | 196.026 | 0.010834 | ppm | 0.002470 | 22.8 | 2.5920 | 0.010834 ppm | Y 361.104 | 108.34302 |
| Si | 251.611 | 0.20599 | ppm | 0.000746 | 0.4 | 418.59 | 0.20599 ppm | Y 361.104 | 102.99348 |
| Sn | 189.927 | 0.050642 | ppm | 0.001453 | 2.9 | 42.532 | 0.050642 ppm | Y 361.104 | 101.28436 |
| Sr | 216.596 | 0.010004 | ppm | 0.000435 | 4.3 | 58.115 | 0.010004 ppm | Y 361.104 | 100.03776 |
| Ti | 322.284 | 0.009405 | ppm | 0.000346 | 3.7 | 145.56 | 0.009405 ppm | Y 361.104 | 94.05071 |
| Tl | 190.794 | 0.016558 | ppm | 0.002058 | 12.4 | 5.9718 | 0.016558 ppm | Y 361.104 | 165.57652R |
| V | 289.164 | 0.009285 | ppm | 0.000227 | 2.4 | 57.350 | 0.009285 ppm | Y 361.104 | 92.85117 |
| Zn | 206.200 | 0.021051 | ppm | 0.000993 | 4.7 | 20.588 | 0.021051 ppm | Y 361.104 | 105.25735 |
| Zr | 257.147 | 0.010125 | ppm | 0.000250 | 2.5 | 109.70 | 0.010125 ppm | Y 361.104 | 101.24716 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.1051 | 218055 | 1148.751 | 0.5 |

**CDL01 (CRI)** **1/15/02, 10:37:18 PM** **Rack 1, Tube 25**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 521.35 | 525.09 | 519.17 |
| Al | 237.312 | -1.9130 | -0.010424 | 1.6455 |
| As | 188.980 | 6.0618 | 4.4516 | 5.6254 |
| B | 249.772 | 80.123 | 71.554 | 73.848 |
| Ba | 233.527 | 127.31 | 120.70 | 120.84 |
| Be | 234.861 | 476.93 | 472.97 | 475.47 |
| Ca | 315.887 | 106.27 | 107.53 | 105.52 |
| Cd | 228.802 | 68.888 | 66.588 | 72.375 |
| Co | 231.160 | 560.61 | 562.74 | 568.54 |
| Cr | 267.716 | 562.26 | 566.69 | 568.58 |
| Cu | 324.754 | 1546.8 | 1541.4 | 1555.9 |
| Fe | 261.382 | 10.671 | 9.7297 | 10.705 |
| K | 728.181 | 51.580 | 43.442 | 38.283 |
| Li | 610.365 | 992.33 | 999.65 | 996.46 |
| Mg | 279.078 | -0.47306 | 1.9273 | 0.19763 |

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| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Mn | 293.305 | 371.34 | 371.11 | 373.86 |
| Mo | 202.032 | -0.25332 | 0.67078 | 2.4686 |
| Na | 589.592 | 278.60 | 284.91 | 294.11 |
| Na | 568.821 | -407.04 | -397.08 | -380.06 |
| Ni | 221.648 | 117.03 | 118.47 | 118.95 |
| Pb | 220.353 | 159.34 | 161.18 | 167.16 |
| Sb | 217.582 | 63.609 | 64.143 | 61.496 |
| Se | 196.026 | 3.5097 | 3.5755 | 2.9046 |
| Si | 251.611 | 57.131 | 57.788 | 57.481 |
| Sn | 189.927 | 1.4569 | 0.23935 | 1.8662 |
| Sr | 216.596 | 2.6216 | -0.50988 | 0.13065 |
| Ti | 322.284 | 66.796 | 75.074 | 71.545 |
| Tl | 190.794 | 8.5336 | 10.326 | 10.353 |
| V | 289.164 | 621.51 | 631.28 | 618.82 |
| Y | 361.104 | 218363 | 218436 | 217317 |
| Zn | 206.200 | 40.069 | 38.461 | 42.466 |
| Zr | 257.147 | 12.372 | 12.997 | 9.4318 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.019568 | ppm | 0.000110 | 0.6 | 521.87 | 0.019568 ppm | Y 361.104 | 97.84113 |
| Al | 237.312 | 0.003796 | ppm | 0.003818 | 100.6 | -0.092669 | 0.003796 ppm | Y 361.104 | - |
| As | 188.980 | 0.015233 | ppm | 0.002600 | 17.1 | 5.3796 | 0.015233 ppm | Y 361.104 | 76.16486 |
| B | 249.772 | 0.007450 | ppm | 0.000467 | 6.3 | 75.175 | 0.007450 ppm | Y 361.104 | - |
| Ba | 233.527 | 0.000071 | ppm | 0.000107 | 152.2 | 122.95 | 0.000071 ppm | Y 361.104 | - |
| Be | 234.861 | 0.010032 | ppm | 0.000042 | 0.4 | 475.12 | 0.010032 ppm | Y 361.104 | 100.32234 |
| Ca | 315.887 | -0.016703u | ppm | 0.000187 | 1.1 | 106.44 | -0.016703 ppm | Y 361.104 | - |
| Cd | 228.802 | 0.009767 | ppm | 0.000401 | 4.1 | 69.284 | 0.009767 ppm | Y 361.104 | 97.67434 |
| Co | 231.160 | 0.10309 | ppm | 0.000772 | 0.7 | 563.96 | 0.10309 ppm | Y 361.104 | 103.09017 |
| Cr | 267.716 | 0.020801 | ppm | 0.000121 | 0.6 | 565.84 | 0.020801 ppm | Y 361.104 | 104.00434 |
| Cu | 324.754 | 0.050666 | ppm | 0.000259 | 0.5 | 1548.0 | 0.050666 ppm | Y 361.104 | 101.33245 |
| Fe | 261.382 | 0.000757u | ppm | 0.000367 | 48.4 | 10.368 | 0.000757 ppm | Y 361.104 | - |
| K | 728.181 | 0.003607 | ppm | 0.002288 | 63.4 | 44.435 | 0.003607 ppm | Y 361.104 | - |
| Li | 610.365 | -0.003856u | ppm | 0.000093 | 2.4 | 996.15 | -0.003856 ppm | Y 361.104 | - |
| Mg | 279.078 | -0.005650u | ppm | 0.001455 | 25.8 | 0.55064 | -0.005650 ppm | Y 361.104 | - |
| Mn | 293.305 | 0.030516 | ppm | 0.000129 | 0.4 | 372.11 | 0.030516 ppm | Y 361.104 | 101.72109 |
| Mo | 202.032 | -0.000582u | ppm | 0.000318 | 54.6 | 0.96202 | -0.000582 ppm | Y 361.104 | - |
| Na | 589.592 | -0.006582u | ppm | 0.000083 | 1.3 | 285.87 | -0.006582 ppm | Y 361.104 | - |
| Ni | 221.648 | 0.081296 | ppm | 0.000688 | 0.8 | 118.15 | 0.081296 ppm | Y 361.104 | 101.61977 |
| Pb | 220.353 | 0.10100 | ppm | 0.002536 | 2.5 | 162.56 | 0.10100 ppm | Y 361.104 | 101.00291 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Sb | 217.582 | 0.11978 | ppm | 0.002630 | 2.2 | 63.083 | 0.11978 ppm | Y 361.104 | 99.81699 |
| Se | 196.026 | 0.014047 | ppm | 0.001610 | 11.5 | 3.3299 | 0.014047 ppm | Y 361.104 | 140.46620 |
| Si | 251.611 | 0.012320 | ppm | 0.000176 | 1.4 | 57.467 | 0.012320 ppm | Y 361.104 | - |
| Sn | 189.927 | 0.000722u | ppm | 0.001022 | 141.5 | 1.1875 | 0.000722 ppm | Y 361.104 | - |
| Sr | 216.596 | -0.000575u | ppm | 0.000306 | 53.3 | 0.74746 | -0.000575 ppm | Y 361.104 | - |
| Ti | 322.284 | -0.000846u | ppm | 0.000573 | 67.7 | 71.138 | -0.000846 ppm | Y 361.104 | - |
| Tl | 190.794 | 0.024330 | ppm | 0.002284 | 9.4 | 9.7375 | 0.024330 ppm | Y 361.104 | 121.64803 |
| V | 289.164 | 0.10266 | ppm | 0.001079 | 1.1 | 623.87 | 0.10266 ppm | Y 361.104 | 102.65610 |
| Zn | 206.200 | 0.041612 | ppm | 0.002102 | 5.1 | 40.332 | 0.041612 ppm | Y 361.104 | 104.02953 |
| Zr | 257.147 | -0.000174u | ppm | 0.000200 | 114.7 | 11.600 | -0.000174 ppm | Y 361.104 | - |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.1050 | 218039 | 625.889 | 0.3 |

ICS-A (ICSA) 1/15/02, 10:40:35 PM Rack 1, Tube 26

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -18.253 | -14.924 | -20.674 |
| Al | 237.312 | 247458 | 254129 | 238889 |
| As | 188.980 | -1.7448 | -3.4632 | -0.52890 |
| B | 249.772 | -1046.1 | -1087.1 | -1036.4 |
| Ba | 233.527 | 268.63 | 275.11 | 269.21 |
| Be | 234.861 | -1785.1 | -1800.9 | -1838.5 |
| Ca | 315.887 | 2676302 | 2763787 | 2603958 |
| Cd | 228.802 | 6.8530 | 5.9546 | 8.9318 |
| Co | 231.160 | 119.09 | 111.84 | 101.15 |
| Cr | 267.716 | 52.372 | 50.795 | 51.838 |
| Cu | 324.754 | -517.74 | -523.75 | -497.93 |
| Fe | 261.382 | 293874 | 302219 | 284886 |
| K | 728.181 | 56.414 | 56.696 | 73.283 |
| Li | 610.365 | -7669.6 | -7977.1 | -7474.2 |
| Mg | 279.078 | 442881 | 454548 | 428892 |
| Mn | 293.305 | 127.39 | 130.62 | 118.49 |
| Mo | 202.032 | -0.32483 | 0.69526 | -1.6467 |
| Na | 589.592 | 6283.3 | 6458.4 | 6084.4 |
| Na | 568.821 | 1137.4 | 1189.6 | 1108.7 |
| Ni | 221.648 | 9.2841 | 7.9721 | 7.7342 |
| Pb | 220.353 | 170.00 | 178.08 | 163.30 |
| Sb | 217.582 | -20.634 | -18.398 | -15.725 |
| Se | 196.026 | 3.4946 | 0.16066 | 8.4199 |

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Si | 251.611 | 76.772 | 80.211 | 79.236 |
| Sn | 189.927 | -0.17336 | -2.2591 | -1.3146 |
| Sr | 216.596 | 223.70 | 230.24 | 222.19 |
| Ti | 322.284 | 74.363 | 70.633 | 62.827 |
| Tl | 190.794 | -17.670 | -15.883 | -14.818 |
| V | 289.164 | 62.435 | 64.991 | 58.488 |
| Y | 361.104 | 188286 | 185654 | 193020 |
| Zn | 206.200 | 5.7260 | 9.9496 | 15.082 |
| Zr | 257.147 | 73.146 | 97.229 | 89.730 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | -0.000330u | ppm | 0.000106 | 32.2 | -17.950 | -0.000330 ppm | Y 361.104 | -0.00033 |
| Al | 237.312 | 529.20 | ppm | 16.379 | 3.1 | 246825 | 529.20 ppm | Y 361.104 | - |
| As | 188.980 | -0.007525u | ppm | 0.004603 | 61.2 | -1.9123 | -0.007525 ppm | Y 361.104 | -0.00752 |
| B | 249.772 | -0.001398u | ppm | 0.002831 | 202.5 | -1056.6 | -0.001398 ppm | Y 361.104 | -0.00140 |
| Ba | 233.527 | 0.004291 | ppm | 0.000102 | 2.4 | 270.98 | 0.004291 ppm | Y 361.104 | 0.00429 |
| Be | 234.861 | -0.006011u | ppm | 0.000575 | 9.6 | -1808.2 | -0.006011 ppm | Y 361.104 | -0.00601 |
| Ca | 315.887 | 492.82 | ppm | 14.714 | 3.0 | 2681349 | 492.82 ppm | Y 361.104 | - |
| Cd | 228.802 | 0.001219 | ppm | 0.000210 | 17.2 | 7.2465 | 0.001219 ppm | Y 361.104 | 0.00122 |
| Co | 231.160 | 0.003027 | ppm | 0.001698 | 56.1 | 110.69 | 0.003027 ppm | Y 361.104 | 0.00303 |
| Cr | 267.716 | 0.001659 | ppm | 0.000030 | 1.8 | 51.669 | 0.001659 ppm | Y 361.104 | 0.00166 |
| Cu | 324.754 | -0.005661u | ppm | 0.000479 | 8.5 | -513.14 | -0.005661 ppm | Y 361.104 | -0.00566 |
| Fe | 261.382 | 194.51 | ppm | 5.7420 | 3.0 | 293660 | 194.51 ppm | Y 361.104 | - |
| K | 728.181 | 0.009647 | ppm | 0.003297 | 34.2 | 62.131 | 0.009647 ppm | Y 361.104 | 0.00965 |
| Li | 610.365 | -0.010560u | ppm | 0.006425 | 60.8 | -7706.9 | -0.010560 ppm | Y 361.104 | -0.01056 |
| Mg | 279.078 | 519.41 | ppm | 15.091 | 2.9 | 442107 | 519.41 ppm | Y 361.104 | - |
| Mn | 293.305 | 0.009677 | ppm | 0.000531 | 5.5 | 125.50 | 0.009677 ppm | Y 361.104 | 0.00968 |
| Mo | 202.032 | -0.000900u | ppm | 0.000270 | 29.9 | -0.42541 | -0.000900 ppm | Y 361.104 | -0.00090 |
| Na | 589.592 | 0.056723 | ppm | 0.001980 | 3.5 | 6275.4 | 0.056723 ppm | Y 361.104 | 0.05672 |
| Ni | 221.648 | 0.005501 | ppm | 0.000576 | 10.5 | 8.3301 | 0.005501 ppm | Y 361.104 | 0.00550 |
| Pb | 220.353 | -0.004023 | ppm | 0.004593 | 114.2 | 170.46 | -0.004023 ppm | Y 361.104 | -0.00402 |
| Sb | 217.582 | -0.011321u | ppm | 0.004618 | 40.8 | -18.252 | -0.011321 ppm | Y 361.104 | -0.01132 |
| Se | 196.026 | -0.000431 | ppm | 0.018089 | 4199.8 | 4.0251 | -0.000431 ppm | Y 361.104 | -0.00043 |
| Si | 251.611 | 0.030311 | ppm | 0.000950 | 3.1 | 78.740 | 0.030311 ppm | Y 361.104 | 0.03031 |
| Sn | 189.927 | -0.002236u | ppm | 0.001261 | 56.4 | -1.2490 | -0.002236 ppm | Y 361.104 | -0.00224 |
| Sr | 216.596 | -0.002550 | ppm | 0.000792 | 31.0 | 225.38 | -0.002550 ppm | Y 361.104 | -0.00255 |
| Ti | 322.284 | -0.001110u | ppm | 0.000812 | 73.2 | 69.274 | -0.001110 ppm | Y 361.104 | -0.00111 |
| Tl | 190.794 | 0.009066u | ppm | 0.003157 | 34.8 | -16.124 | 0.009066 ppm | Y 361.104 | 0.00907 |
| V | 289.164 | -0.003380 | ppm | 0.000540 | 16.0 | 61.971 | -0.003380 ppm | Y 361.104 | -0.00338 |



| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Zn | 206.200 | 0.010300 | ppm | 0.004886 | 47.4 | 10.252 | 0.010300 ppm | Y 361.104 | 0.01030 |
| Zr | 257.147 | 0.007719 | ppm | 0.001295 | 16.8 | 86.702 | 0.007719 ppm | Y 361.104 | 0.00772 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.95781 | 188987 | 3732.482 | 2.0 |

**ICS-AB (1CSAB)** **1/15/02, 10:43:52 PM** **Rack 1, Tube 27**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 5869.4 | 5851.3 | 5931.2 |
| Al | 237.312 | 242534 | 241183 | 244359 |
| As | 188.980 | 33.688 | 29.513 | 33.652 |
| B | 249.772 | -1110.6 | -1111.5 | -1127.7 |
| Ba | 233.527 | 17997 | 17929 | 18155 |
| Be | 234.861 | 23040 | 23003 | 23394 |
| Ca | 315.887 | 2631254 | 2626436 | 2657562 |
| Cd | 228.802 | 7570.1 | 7529.2 | 7764.9 |
| Co | 231.160 | 2628.4 | 2623.4 | 2649.7 |
| Cr | 267.716 | 13156 | 13088 | 13285 |
| Cu | 324.754 | 14526 | 14443 | 14672 |
| Fe | 261.382 | 289387 | 287960 | 292326 |
| K | 728.181 | 52.740 | 73.134 | 61.783 |
| Li | 610.365 | -7569.2 | -7466.6 | -7675.1 |
| Mg | 279.078 | 435816 | 434389 | 440479 |
| Mn | 293.305 | 5825.6 | 5795.7 | 5889.2 |
| Mo | 202.032 | -0.018293 | -1.8500 | -0.84874 |
| Na | 589.592 | 7155.6 | 7118.2 | 7201.8 |
| Na | 568.821 | 1110.0 | 1131.1 | 1123.9 |
| Ni | 221.648 | 1348.4 | 1338.1 | 1359.2 |
| Pb | 220.353 | 1669.6 | 1664.9 | 1691.1 |
| Sb | 217.582 | 319.22 | 318.60 | 320.77 |
| Se | 196.026 | 13.750 | 13.227 | 21.529 |
| Si | 251.611 | 114.19 | 119.80 | 119.37 |
| Sn | 189.927 | -1.5567 | -2.0918 | 0.37015 |
| Sr | 216.596 | 229.21 | 214.33 | 224.92 |
| Ti | 322.284 | 70.308 | 66.815 | 64.365 |
| Tl | 190.794 | 25.302 | 26.478 | 26.959 |
| V | 289.164 | 3096.4 | 3095.2 | 3117.1 |
| Y | 361.104 | 190448 | 191088 | 189239 |
| Zn | 206.200 | 892.42 | 880.76 | 888.27 |

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Zr | 257.147 | 77.308 | 85.828 | 74.537 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.21662 | ppm | 0.001541 | 0.7 | 5884.0 | 0.21662 ppm | Y 361.104 | 108.30999 |
| Al | 237.312 | 520.34 | ppm | 3.4178 | 0.7 | 242692 | 520.34 ppm | Y 361.104 | 104.06786 |
| As | 188.980 | 0.099082 | ppm | 0.007492 | 7.6 | 32.284 | 0.099082 ppm | Y 361.104 | 99.08158 |
| B | 249.772 | -0.009064u | ppm | 0.001015 | 11.2 | -1116.6 | -0.009064 ppm | Y 361.104 | - |
| Ba | 233.527 | 0.50939 | ppm | 0.003290 | 0.6 | 18027 | 0.50939 ppm | Y 361.104 | 101.87776 |
| Be | 234.861 | 0.51646 | ppm | 0.004524 | 0.9 | 23146 | 0.51646 ppm | Y 361.104 | 103.29242 |
| Ca | 315.887 | 484.92 | ppm | 3.0802 | 0.6 | 2638417 | 484.92 ppm | Y 361.104 | 96.98440 |
| Cd | 228.802 | 1.0481 | ppm | 0.017316 | 1.7 | 7621.4 | 1.0481 ppm | Y 361.104 | 104.81178 |
| Co | 231.160 | 0.47568 | ppm | 0.002628 | 0.6 | 2633.9 | 0.47568 ppm | Y 361.104 | 95.13628 |
| Cr | 267.716 | 0.49028 | ppm | 0.003733 | 0.8 | 13176 | 0.49028 ppm | Y 361.104 | 98.05573 |
| Cu | 324.754 | 0.52795 | ppm | 0.004120 | 0.8 | 14547 | 0.52795 ppm | Y 361.104 | 105.58974 |
| Fe | 261.382 | 192.01 | ppm | 1.4746 | 0.8 | 289891 | 192.01 ppm | Y 361.104 | 96.00617 |
| K | 728.181 | 0.009797 | ppm | 0.003488 | 35.6 | 62.552 | 0.009797 ppm | Y 361.104 | - |
| Li | 610.365 | -0.010521u | ppm | 0.002643 | 25.1 | -7570.3 | -0.010521 ppm | Y 361.104 | - |
| Mg | 279.078 | 513.28 | ppm | 3.7422 | 0.7 | 436895 | 513.28 ppm | Y 361.104 | 102.65641 |
| Mn | 293.305 | 0.49232 | ppm | 0.004034 | 0.8 | 5836.8 | 0.49232 ppm | Y 361.104 | 98.46378 |
| Mo | 202.032 | -0.001011u | ppm | 0.000211 | 20.8 | -0.90569 | -0.001011 ppm | Y 361.104 | - |
| Na | 589.592 | 0.056596 | ppm | 0.000444 | 0.8 | 7158.5 | 0.056596 ppm | Y 361.104 | - |
| Ni | 221.648 | 0.93017 | ppm | 0.007267 | 0.8 | 1348.6 | 0.93017 ppm | Y 361.104 | 93.01680 |
| Pb | 220.353 | 0.93194 | ppm | 0.008685 | 0.9 | 1675.2 | 0.93194 ppm | Y 361.104 | 93.19406 |
| Sb | 217.582 | 0.62409 | ppm | 0.002105 | 0.3 | 319.53 | 0.62409 ppm | Y 361.104 | 104.01576 |
| Se | 196.026 | 0.052704 | ppm | 0.020242 | 38.4 | 16.169 | 0.052704 ppm | Y 361.104 | 105.40809 |
| Si | 251.611 | 0.051725 | ppm | 0.001675 | 3.2 | 117.79 | 0.051725 ppm | Y 361.104 | - |
| Sn | 189.927 | -0.001898u | ppm | 0.001564 | 82.4 | -1.0928 | -0.001898 ppm | Y 361.104 | - |
| Sr | 216.596 | -0.002050 | ppm | 0.001418 | 69.1 | 222.82 | -0.002050 ppm | Y 361.104 | - |
| Ti | 322.284 | -0.001357u | ppm | 0.000412 | 30.4 | 67.163 | -0.001357 ppm | Y 361.104 | - |
| Tl | 190.794 | 0.098749 | ppm | 0.001867 | 1.9 | 26.246 | 0.098749 ppm | Y 361.104 | 98.74908 |
| V | 289.164 | 0.49980 | ppm | 0.002027 | 0.4 | 3102.9 | 0.49980 ppm | Y 361.104 | 99.96067 |
| Zn | 206.200 | 0.92334 | ppm | 0.006160 | 0.7 | 887.15 | 0.92334 ppm | Y 361.104 | 92.33395 |
| Zr | 257.147 | 0.006918 | ppm | 0.000618 | 8.9 | 79.224 | 0.006918 ppm | Y 361.104 | - |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 0.96425 | 190259 | 939.103 | 0.5 |



CCV (CCV) **1/15/02, 10:47:08 PM** **Rack 1, Tube 28**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 28301 | 28294 | 28295 |
| Al | 237.312 | 2450.1 | 2455.0 | 2459.4 |
| As | 188.980 | 1686.6 | 1694.3 | 1683.5 |
| B | 249.772 | 19743 | 19759 | 19922 |
| Ba | 233.527 | 181941 | 182155 | 181935 |
| Be | 234.861 | 248906 | 249467 | 249738 |
| Ca | 315.887 | 279205 | 279920 | 279500 |
| Cd | 228.802 | 37555 | 37582 | 37460 |
| Co | 231.160 | 27176 | 27224 | 27256 |
| Cr | 267.716 | 137660 | 137742 | 137727 |
| Cu | 324.754 | 145180 | 146410 | 146085 |
| Fe | 261.382 | 7692.3 | 7702.4 | 7711.6 |
| K | 728.181 | 165321 | 166380 | 166323 |
| Li | 610.365 | 202863 | 203463 | 203117 |
| Mg | 279.078 | 42475 | 42550 | 42577 |
| Mn | 293.305 | 61020 | 61187 | 61190 |
| Mo | 202.032 | 4460.0 | 4485.2 | 4491.6 |
| Na | 589.592 | 5446851 | 5427562 | 5439382 |
| Na | 568.821 | 12202 | 12193 | 12193 |
| Ni | 221.648 | 7378.5 | 7389.3 | 7387.4 |
| Pb | 220.353 | 8233.8 | 8251.4 | 8227.8 |
| Sb | 217.582 | 558.29 | 557.54 | 555.35 |
| Se | 196.026 | 1206.9 | 1205.3 | 1209.2 |
| Si | 251.611 | 9820.0 | 9847.5 | 9850.1 |
| Sn | 189.927 | 4221.8 | 4200.5 | 4275.9 |
| Sr | 216.596 | 27862 | 27828 | 28355 |
| Ti | 322.284 | 36707 | 36791 | 36780 |
| Tl | 190.794 | 2314.4 | 2318.8 | 2332.8 |
| V | 289.164 | 31191 | 31266 | 31246 |
| Y | 361.104 | 201941 | 202361 | 203098 |
| Zn | 206.200 | 4872.4 | 4887.3 | 4863.8 |
| Zr | 257.147 | 49749 | 49843 | 49781 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 1.0277 | ppm | 0.000137 | 0.0 | 28297 | 1.0277 ppm | Y 361.104 | 102.76576 |
| Al | 237.312 | 5.2486 | ppm | 0.009928 | 0.2 | 2454.8 | 5.2486 ppm | Y 361.104 | 104.97257 |
| As | 188.980 | 5.2667 | ppm | 0.017469 | 0.3 | 1688.1 | 5.2667 ppm | Y 361.104 | 105.33369 |
| B | 249.772 | 2.0880 | ppm | 0.010437 | 0.5 | 19808 | 2.0880 ppm | Y 361.104 | 104.40167 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ba | 233.527 | 5.1741 | ppm | 0.003565 | 0.1 | 182010 | 5.1741 ppm | Y 361.104 | 103.48252 |
| Be | 234.861 | 5.2262 | ppm | 0.008893 | 0.2 | 249370 | 5.2262 ppm | Y 361.104 | 104.52411 |
| Ca | 315.887 | 51.378 | ppm | 0.066053 | 0.1 | 279541 | 51.378 ppm | Y 361.104 | 102.75567 |
| Cd | 228.802 | 5.1673 | ppm | 0.008811 | 0.2 | 37532 | 5.1673 ppm | Y 361.104 | 103.34606 |
| Co | 231.160 | 5.1255 | ppm | 0.007649 | 0.1 | 27219 | 5.1255 ppm | Y 361.104 | 102.50961 |
| Cr | 267.716 | 5.1265 | ppm | 0.001637 | 0.0 | 137710 | 5.1265 ppm | Y 361.104 | 102.53059 |
| Cu | 324.754 | 5.1674 | ppm | 0.022587 | 0.4 | 145892 | 5.1674 ppm | Y 361.104 | 103.34891 |
| Fe | 261.382 | 5.1393 | ppm | 0.006390 | 0.1 | 7702.1 | 5.1393 ppm | Y 361.104 | 102.78593 |
| K | 728.181 | 53.818 | ppm | 0.18394 | 0.3 | 166008 | 53.818 ppm | Y 361.104 | 107.63517 |
| Li | 610.365 | 5.1412 | ppm | 0.007624 | 0.1 | 203148 | 5.1412 ppm | Y 361.104 | 102.82375 |
| Mg | 279.078 | 49.965 | ppm | 0.062368 | 0.1 | 42534 | 49.965 ppm | Y 361.104 | 99.92981 |
| Mn | 293.305 | 5.1651 | ppm | 0.008211 | 0.2 | 61132 | 5.1651 ppm | Y 361.104 | 103.30232 |
| Mo | 202.032 | 1.0277 | ppm | 0.003841 | 0.4 | 4478.9 | 1.0277 ppm | Y 361.104 | 102.76510 |
| Na | 589.592 | 54.035 | ppm | 0.091417 | 0.2 | 5437932 | 54.035 ppm | Y 361.104 | 108.07009 |
| Ni | 221.648 | 5.0878 | ppm | 0.003965 | 0.1 | 7385.1 | 5.0878 ppm | Y 361.104 | 101.75632 |
| Pb | 220.353 | 5.1154 | ppm | 0.007612 | 0.1 | 8237.7 | 5.1154 ppm | Y 361.104 | 102.30756 |
| Sb | 217.582 | 1.0543 | ppm | 0.002875 | 0.3 | 557.06 | 1.0543 ppm | Y 361.104 | 105.43105 |
| Se | 196.026 | 5.2548 | ppm | 0.008430 | 0.2 | 1207.1 | 5.2548 ppm | Y 361.104 | 105.09549 |
| Si | 251.611 | 5.2620 | ppm | 0.008932 | 0.2 | 9839.2 | 5.2620 ppm | Y 361.104 | 105.24039 |
| Sn | 189.927 | 5.1093 | ppm | 0.046957 | 0.9 | 4232.8 | 5.1093 ppm | Y 361.104 | 102.18654 |
| Sr | 216.596 | 5.1853 | ppm | 0.054575 | 1.1 | 28015 | 5.1853 ppm | Y 361.104 | 103.70690 |
| Ti | 322.284 | 5.0575 | ppm | 0.006324 | 0.1 | 36759 | 5.0575 ppm | Y 361.104 | 101.15079 |
| Tl | 190.794 | 5.0596 | ppm | 0.021055 | 0.4 | 2322.0 | 5.0596 ppm | Y 361.104 | 101.19125 |
| V | 289.164 | 5.1635 | ppm | 0.006383 | 0.1 | 31234 | 5.1635 ppm | Y 361.104 | 103.26926 |
| Zn | 206.200 | 5.0678 | ppm | 0.012399 | 0.2 | 4874.5 | 5.0678 ppm | Y 361.104 | 101.35684 |
| Zr | 257.147 | 5.2322 | ppm | 0.005038 | 0.1 | 49791 | 5.2322 ppm | Y 361.104 | 104.64401 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0261 | 202467 | 585.779 | 0.3 |

**BLA01 (CCB)** **1/15/02, 10:50:26 PM** **Rack 1, Tube 29**

| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | -12.412 | 7.3955 | -0.86314 |
| Al | 237.312 | -3.1858 | -5.1020 | 0.27477 |
| As | 188.980 | 1.1468 | 0.084644 | 1.3866 |
| B | 249.772 | 190.70 | 167.98 | 154.60 |
| Ba | 233.527 | 120.16 | 125.27 | 117.96 |
| Be | 234.861 | -2.1707 | -3.4804 | 1.4449 |
| Ca | 315.887 | 196.56 | 193.49 | 190.74 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Cd | 228.802 | -0.026597 | 2.6339 | -1.4651 |
| Co | 231.160 | 16.301 | 6.9752 | 5.5619 |
| Cr | 267.716 | 2.9698 | 3.9678 | 7.5555 |
| Cu | 324.754 | 102.52 | 100.21 | 103.39 |
| Fe | 261.382 | 9.7125 | 10.497 | 10.097 |
| K | 728.181 | 53.549 | 53.642 | 41.227 |
| Li | 610.365 | 1032.7 | 1008.3 | 1000.3 |
| Mg | 279.078 | 4.6253 | 5.6150 | 6.9950 |
| Mn | 293.305 | 5.6600 | 4.9151 | 14.473 |
| Mo | 202.032 | 12.318 | 10.911 | 6.5038 |
| Na | 589.592 | 835.22 | 804.01 | 802.63 |
| Na | 568.821 | -421.79 | -412.00 | -416.68 |
| Ni | 221.648 | -0.57284 | 0.39829 | -0.92071 |
| Pb | 220.353 | -0.57739 | -2.5597 | -0.64078 |
| Sb | 217.582 | -2.9676 | 0.19601 | -2.6693 |
| Se | 196.026 | 2.9235 | 0.53319 | -0.24041 |
| Si | 251.611 | 38.078 | 38.173 | 38.978 |
| Sn | 189.927 | -1.6228 | -0.44277 | -0.14031 |
| Sr | 216.596 | 1.6204 | 3.0803 | -2.5840 |
| Ti | 322.284 | 74.813 | 69.588 | 73.786 |
| Tl | 190.794 | 4.0875 | 2.5202 | 2.4308 |
| V | 289.164 | -2.5493 | 4.8475 | -2.9774 |
| Y | 361.104 | 212988 | 217397 | 215669 |
| Zn | 206.200 | 0.82474 | 2.0633 | 0.18984 |
| Zr | 257.147 | 15.506 | 12.738 | 15.144 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.000312u | ppm | 0.000366 | 117.2 | -1.9599 | 0.000312 ppm | Y 361.104 | 0.00031 |
| Al | 237.312 | -0.001605u | ppm | 0.005843 | 364.1 | -2.6710 | -0.001605 ppm | Y 361.104 | -0.00160 |
| As | 188.980 | 0.001169u | ppm | 0.002163 | 185.0 | 0.87267 | 0.001169 ppm | Y 361.104 | 0.00117 |
| B | 249.772 | 0.017543 | ppm | 0.001921 | 11.0 | 171.09 | 0.017543 ppm | Y 361.104 | 0.01754 |
| Ba | 233.527 | 0.000029u | ppm | 0.000107 | 365.1 | 121.13 | 0.000029 ppm | Y 361.104 | 0.00003 |
| Be | 234.861 | 0.000047 | ppm | 0.000053 | 113.5 | -1.4021 | 0.000047 ppm | Y 361.104 | 0.00005 |
| Ca | 315.887 | -0.000073u | ppm | 0.000535 | 735.6 | 193.60 | -0.000073 ppm | Y 361.104 | -0.00007 |
| Cd | 228.802 | 0.000290 | ppm | 0.000286 | 98.5 | 0.38072 | 0.000290 ppm | Y 361.104 | 0.00029 |
| Co | 231.160 | -0.000544u | ppm | 0.001098 | 201.7 | 9.6127 | -0.000544 ppm | Y 361.104 | -0.00054 |
| Cr | 267.716 | -0.000085u | ppm | 0.000090 | 105.7 | 4.8310 | -0.000085 ppm | Y 361.104 | -0.00008 |
| Cu | 324.754 | -0.000612u | ppm | 0.000058 | 9.5 | 102.04 | -0.000612 ppm | Y 361.104 | -0.00061 |
| Fe | 261.382 | -0.000119u | ppm | 0.000260 | 218.1 | 10.102 | -0.000119 ppm | Y 361.104 | -0.00012 |

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| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | QC Value |
|---|---|---|---|---|---|---|---|---|---|
| K | 728.181 | 0.005325 | ppm | 0.002437 | 45.8 | 49.473 | 0.005325 ppm | Y 361.104 | 0.00533 |
| Li | 610.365 | -0.003402u | ppm | 0.000427 | 12.6 | 1013.8 | -0.003402 ppm | Y 361.104 | -0.00340 |
| Mg | 279.078 | 0.000433u | ppm | 0.001398 | 322.9 | 5.7451 | 0.000433 ppm | Y 361.104 | 0.00043 |
| Mn | 293.305 | -0.000224u | ppm | 0.000449 | 200.8 | 8.3494 | -0.000224 ppm | Y 361.104 | -0.00022 |
| Mo | 202.032 | 0.001473 | ppm | 0.000697 | 47.3 | 9.9108 | 0.001473 ppm | Y 361.104 | 0.00147 |
| Na | 589.592 | -0.000992u | ppm | 0.000195 | 19.7 | 813.95 | -0.000992 ppm | Y 361.104 | -0.00099 |
| Ni | 221.648 | -0.000459u | ppm | 0.000471 | 102.7 | -0.36508 | -0.000459 ppm | Y 361.104 | -0.00046 |
| Pb | 220.353 | -0.000688u | ppm | 0.000699 | 101.6 | -1.2593 | -0.000688 ppm | Y 361.104 | -0.00069 |
| Sb | 217.582 | -0.002246u | ppm | 0.003282 | 146.1 | -1.8136 | -0.002246 ppm | Y 361.104 | -0.00225 |
| Se | 196.026 | 0.004218u | ppm | 0.007180 | 170.2 | 1.0721 | 0.004218 ppm | Y 361.104 | 0.00422 |
| Si | 251.611 | 0.002074 | ppm | 0.000265 | 12.8 | 38.410 | 0.002074 ppm | Y 361.104 | 0.00207 |
| Sn | 189.927 | -0.001611u | ppm | 0.000946 | 58.7 | -0.73528 | -0.001611 ppm | Y 361.104 | -0.00161 |
| Sr | 216.596 | -0.000619u | ppm | 0.000544 | 87.9 | 0.70558 | -0.000619 ppm | Y 361.104 | -0.00062 |
| Ti | 322.284 | -0.000631u | ppm | 0.000382 | 60.5 | 72.729 | -0.000631 ppm | Y 361.104 | -0.00063 |
| Tl | 190.794 | 0.010122 | ppm | 0.002041 | 20.2 | 3.0129 | 0.010122 ppm | Y 361.104 | 0.01012Z |
| V | 289.164 | -0.000240u | ppm | 0.000724 | 302.0 | -0.22637 | -0.000240 ppm | Y 361.104 | -0.00024 |
| Zn | 206.200 | 0.000684u | ppm | 0.000994 | 145.2 | 1.0260 | 0.000684 ppm | Y 361.104 | 0.00068 |
| Zr | 257.147 | 0.000128u | ppm | 0.000158 | 123.4 | 14.463 | 0.000128 ppm | Y 361.104 | 0.00013 |

| El | Wavelen. | Ratio | Int. (c/s) | SD(Int) | %RSD |
|---|---|---|---|---|---|
| Y | 361.104 | 1.0914 | 215351 | 2221.760 | 1.0 |

**Q1325491 BLA02 (Samp)** 1/15/02, 10:53:43 PM **Rack 1, Tube 30**
Weight: 1 Volume: 1 Dilution: 1

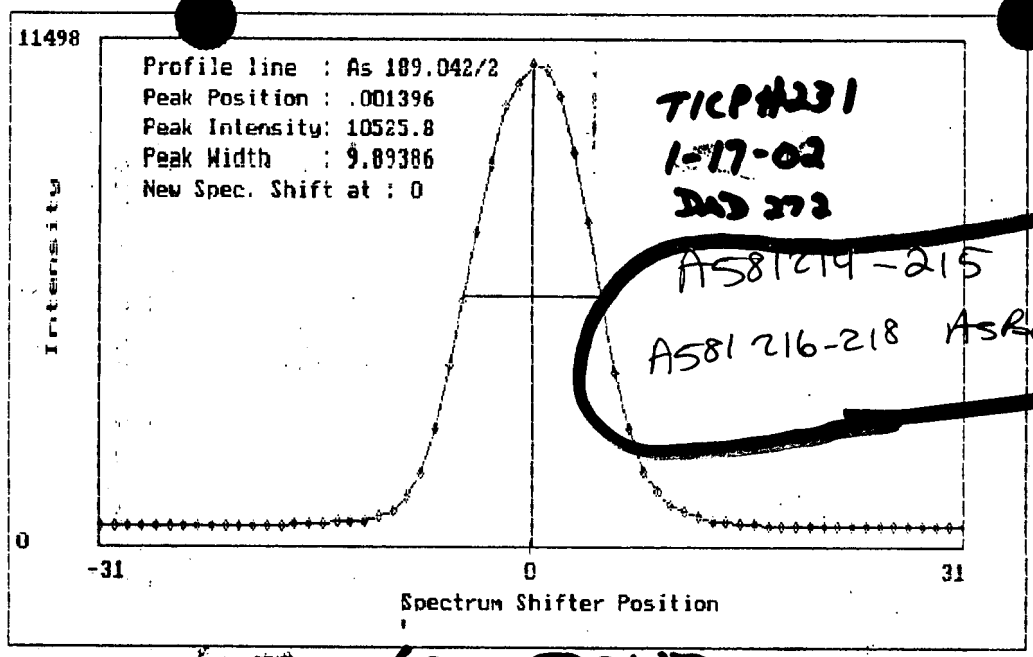
| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Ag | 328.068 | 2.4549 | -5.2687 | 4.6905 |
| Al | 237.312 | -1.2135 | -0.87661 | -1.1930 |
| As | 188.980 | -0.77869 | 0.70079 | 1.0772 |
| B | 249.772 | 109.96 | 109.02 | 103.31 |
| Ba | 233.527 | 120.00 | 124.44 | 124.32 |
| Be | 234.861 | -3.1121 | 0.35501 | -1.3939 |
| Ca | 315.887 | 215.29 | 207.71 | 209.96 |
| Cd | 228.802 | -1.8342 | -0.11984 | -6.4205 |
| Co | 231.160 | 11.526 | 9.6654 | 9.9967 |
| Cr | 267.716 | 10.737 | 2.2928 | 6.5528 |
| Cu | 324.754 | 111.99 | 116.17 | 100.32 |
| Fe | 261.382 | 6.6345 | 11.556 | 11.779 |
| K | 728.181 | 49.217 | 37.170 | 43.959 |
| Li | 610.365 | 995.04 | 975.09 | 988.43 |



| El | Wavelen. | Replicates Intensity (c/s) | | |
|---|---|---|---|---|
| Mg | 279.078 | 4.2282 | -0.60825 | 0.74354 |
| Mn | 293.305 | 23.086 | 10.004 | 10.019 |
| Mo | 202.032 | 1.7011 | 2.5264 | 1.1471 |
| Na | 589.592 | 293.46 | 297.75 | 295.95 |
| Na | 568.821 | -363.13 | -390.56 | -414.90 |
| Ni | 221.648 | -0.82901 | -1.0253 | -0.11083 |
| Pb | 220.353 | -2.7012 | -0.22192 | -1.5117 |
| Sb | 217.582 | -0.89686 | -4.6727 | -2.4149 |
| Se | 196.026 | -0.092822 | 0.72562 | -1.9253 |
| Si | 251.611 | 44.815 | 41.576 | 39.451 |
| Sn | 189.927 | -1.5107 | 0.37047 | -0.018029 |
| Sr | 216.596 | 3.0412 | 3.1518 | 1.9397 |
| Ti | 322.284 | 73.209 | 70.199 | 73.638 |
| Tl | 190.794 | 1.0870 | -1.3604 | -0.48245 |
| V | 289.164 | -1.2917 | 3.7978 | -9.9773 |
| Y | 361.104 | 215387 | 216851 | 218482 |
| Zn | 206.200 | 0.16761 | 0.85681 | 1.3821 |
| Zr | 257.147 | 15.236 | 16.257 | 8.1246 |

| El | Wavelen. | Sol'n Conc. | Units | SD | %RSD | Int. (c/s) | Calc Conc. | IS | DF |
|---|---|---|---|---|---|---|---|---|---|
| Ag | 328.068 | 0.000407 | ppm | 0.000192 | 47.2 | 0.62554 | 0.000407 ppm | Y 361.104 | 1.0000 |
| Al | 237.312 | 0.001776 | ppm | 0.000405 | 22.8 | -1.0944 | 0.001776 ppm | Y 361.104 | 1.0000 |
| As | 188.980 | -0.000514u | ppm | 0.003063 | 595.3 | 0.33311 | -0.000514 ppm | Y 361.104 | 1.0000 |
| B | 249.772 | 0.010842 | ppm | 0.000379 | 3.5 | 107.43 | 0.010842 ppm | Y 361.104 | 1.0000 |
| Ba | 233.527 | 0.000080u | ppm | 0.000072 | 89.8 | 122.92 | 0.000080 ppm | Y 361.104 | 1.0000 |
| Be | 234.861 | 0.000047 | ppm | 0.000036 | 76.5 | -1.3837 | 0.000047 ppm | Y 361.104 | 1.0000 |
| Ca | 315.887 | 0.003123 | ppm | 0.000716 | 22.9 | 210.98 | 0.003123 ppm | Y 361.104 | 1.0000 |
| Cd | 228.802 | -0.000148u | ppm | 0.000448 | 301.8 | -2.7915 | -0.000148 ppm | Y 361.104 | 1.0000 |
| Co | 231.160 | -0.000388u | ppm | 0.000187 | 48.1 | 10.396 | -0.000388 ppm | Y 361.104 | 1.0000 |
| Cr | 267.716 | -0.000022u | ppm | 0.000157 | 720.7 | 6.5275 | -0.000022 ppm | Y 361.104 | 1.0000 |
| Cu | 324.754 | -0.000347u | ppm | 0.000291 | 83.8 | 109.50 | -0.000347 ppm | Y 361.104 | 1.0000 |
| Fe | 261.382 | -0.000195u | ppm | 0.001926 | 986.9 | 9.9900 | -0.000195 ppm | Y 361.104 | 1.0000 |
| K | 728.181 | 0.003269 | ppm | 0.002061 | 63.0 | 43.449 | 0.003269 ppm | Y 361.104 | 1.0000 |
| Li | 610.365 | -0.004100u | ppm | 0.000257 | 6.3 | 986.19 | -0.004100 ppm | Y 361.104 | 1.0000 |
| Mg | 279.078 | -0.004607u | ppm | 0.002932 | 63.6 | 1.4545 | -0.004607 ppm | Y 361.104 | 1.0000 |
| Mn | 293.305 | 0.000285u | ppm | 0.000638 | 223.9 | 14.370 | 0.000285 ppm | Y 361.104 | 1.0000 |
| Mo | 202.032 | -0.000391u | ppm | 0.000159 | 40.7 | 1.7915 | -0.000391 ppm | Y 361.104 | 1.0000 |
| Na | 589.592 | -0.006478u | ppm | 0.000023 | 0.4 | 295.72 | -0.006478 ppm | Y 361.104 | 1.0000 |
| Na | 568.821 | 1.2259 | ppm | 0.099844 | 8.1 | -389.53 | 1.2259 ppm | Y 361.104 | 1.0000 |

99

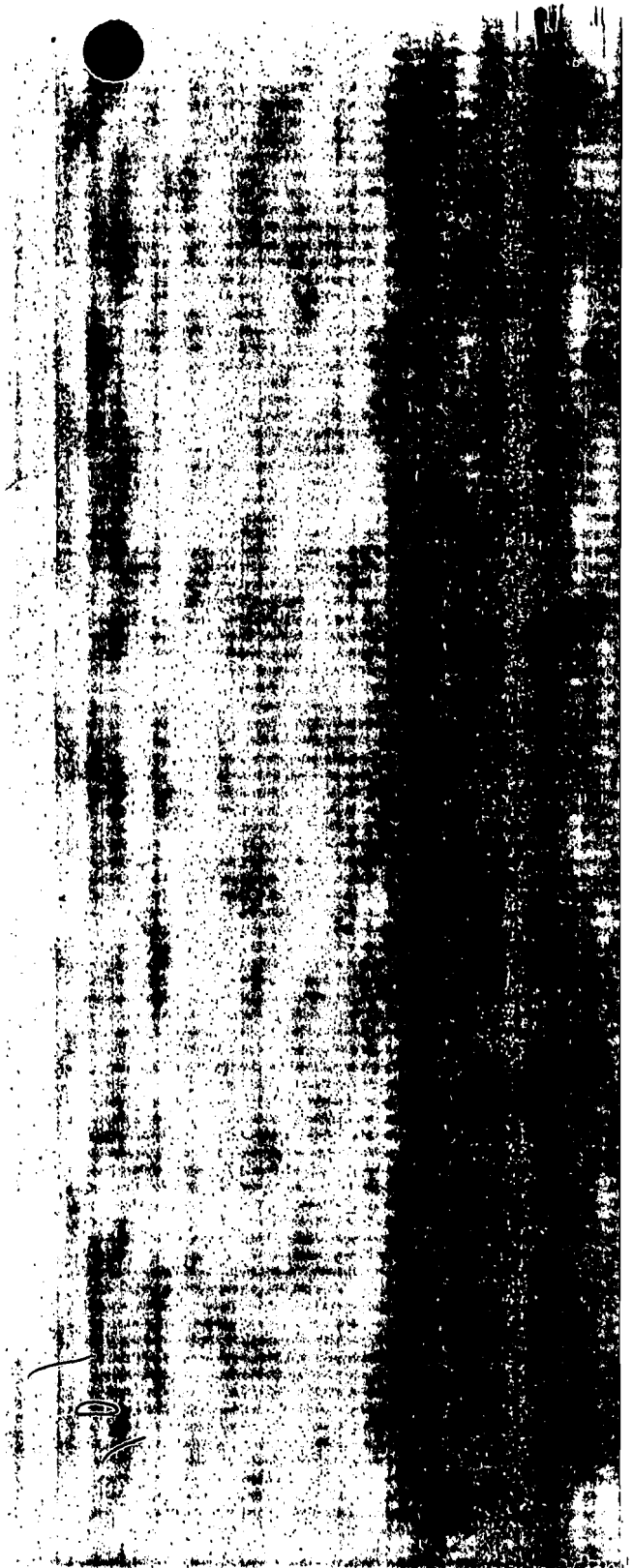



TICP#231
1-17-02
DAD 272

A581214-215 AsPb
A581216-218 AsRePb

trace020117

100



Standardizat[redacted]Rpt.  01/17/02 02:44:42 PM  [redacted]ge 1

Method: IEC_2001  Standard: STD1-Blank
Run Time: 01/17/02 14:40:30

| Elem | As1890 | Tl1908 | Cr2677 | Sb2068 | Ag3280 | V_2924 | Be3130 |
|---|---|---|---|---|---|---|---|
| Avge | -.00671 | -.03029 | .00821 | .06151 | -.03396 | .00026 | 1.7646 |
| SDev | .00059 | .00167 | .00387 | .00961 | .00188 | .00022 | .0157 |
| %RSD | 8.7436 | 5.5004 | 47.177 | 15.620 | 5.5473 | 84.827 | .88874 |
| #1 | -.00712 | -.02912 | .01094 | .05472 | -.03263 | .00010 | 1.7757 |
| #2 | -.00629 | -.03147 | .00547 | .06831 | -.03529 | .00041 | 1.7535 |

| Elem | Co2286 | Mn2576 | Fe2714 | Al3082 | Ca3179 | Mg2790 | 2265-1 |
|---|---|---|---|---|---|---|---|
| Avge | -.00145 | .00000 | .00599 | .18336 | .00346 | .00526 | .00005 |
| SDev | .00015 | .00000 | .00336 | .00015 | .00007 | .00161 | .01204 |
| %RSD | 10.142 | .00000 | 56.115 | .08067 | 2.1516 | 30.542 | 23273. |
| #1 | -.00155 | .00000 | .00836 | .18347 | .00351 | .00640 | .00857 |
| #2 | -.00134 | .00000 | .00361 | .18326 | .00341 | .00413 | .00846 |

| Elem | 2265-2 | 2203-1 | 2203-2 | 1960-1 | 1960-2 |
|---|---|---|---|---|---|
| Avge | -.11349 | .06998 | .01533 | -.00743 | .02307 |
| SDev | .00786 | .01325 | .02300 | .00248 | .02169 |
| %RSD | 6.9221 | 18.941 | 149.99 | 33.353 | 93.987 |
| #1 | -.11904 | .06060 | .03159 | -.00568 | .03841 |
| #2 | -.10793 | .07935 | -.00093 | -.00918 | .00774 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9688 | -- | -- | -- | -- | -- | -- |
| SDev | 3.959522 | -- | -- | -- | -- | -- | -- |
| %RSD | .0408683 | -- | -- | -- | -- | -- | -- |
| #1 | 9686 | -- | -- | -- | -- | -- | -- |
| #2 | 9691 | -- | -- | -- | -- | -- | -- |

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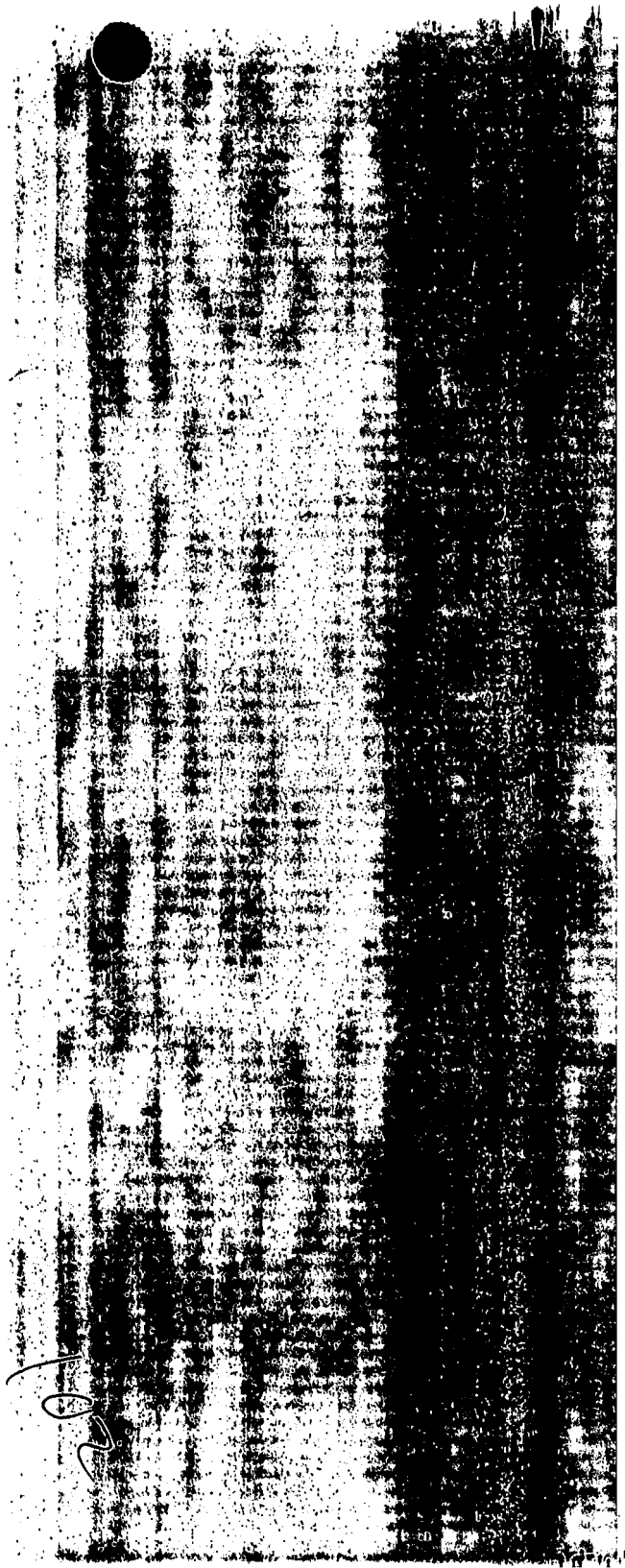
Method: IEC_2001  Standard: STD2
Run Time: 01/17/02 14:44:46

| Elem | As1890 | Tl1908 | Sb2068 | Ag3280 | Be3130 | Co2286 | 2265-1 |
|---|---|---|---|---|---|---|---|
| Avge | 3.2981 | 1.8121 | 6.2616 | 8.3396 | 271.20 | .79912 | 27.530 |
| SDev | .1257 | .0548 | .1697 | .2416 | 7.86 | .02440 | .605 |
| %RSD | 3.8110 | 3.0245 | 2.7100 | 2.8968 | 2.8996 | 3.0528 | 2.1970 |
| #1 | 3.2092 | 1.7733 | 6.1416 | 8.1688 | 265.63 | .78187 | 27.102 |
| #2 | 3.3870 | 1.8508 | 6.3815 | 8.5105 | 276.76 | .81637 | 27.957 |

| Elem | 2265-2 | 2203-1 | 2203-2 | 1960-1 | 1960-2 |
|---|---|---|---|---|---|
| Avge | 114.31 | 7.6730 | 11.354 | 1.6677 | 2.2866 |
| SDev | 2.33 | .1582 | .318 | .0368 | .0566 |
| %RSD | 2.0351 | 2.0623 | 2.8024 | 2.2067 | 2.4755 |
| #1 | 112.66 | 7.5611 | 11.129 | 1.6417 | 2.2466 |
| #2 | 115.95 | 7.7849 | 11.579 | 1.6937 | 2.3267 |





| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9645 | -- | -- | -- | -- | -- | -- |
| SDev | 218.3551 | -- | -- | -- | -- | -- | -- |
| %RSD | 2.263873 | -- | -- | -- | -- | -- | -- |
| #1 | 9800 | -- | -- | -- | -- | -- | -- |
| #2 | 9491 | -- | -- | -- | -- | -- | -- |

Method: IEC_2001 Standard: STD3
Run Time: 01/17/02 14:49:01

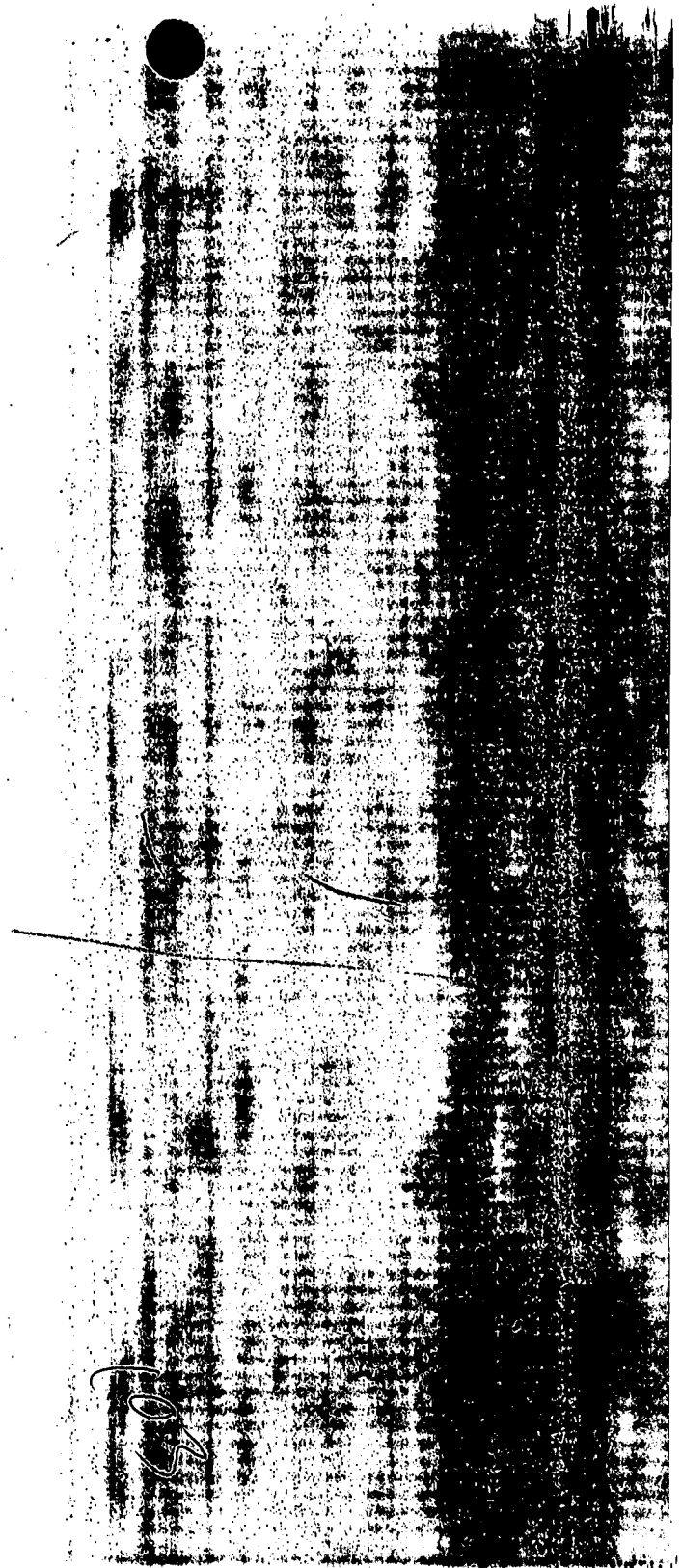
| Elem | Cr2677 |
|---|---|
| Avge | 7.1113 |
| SDev | .0001 |
| %RSD | .00071 |
| #1 | 7.1112 |
| #2 | 7.1113 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9703 | -- | -- | -- | -- | -- | -- |
| SDev | 63.56918 | -- | -- | -- | -- | -- | -- |
| %RSD | .6551733 | -- | -- | -- | -- | -- | -- |
| #1 | 9658 | -- | -- | -- | -- | -- | -- |
| #2 | 9748 | -- | -- | -- | -- | -- | -- |

Method: IEC_2001 Standard: STD5
Run Time: 01/17/02 14:52:16

| Elem | V_2924 | Mn2576 |
|---|---|---|
| Avge | .30924 | .20300 |
| SDev | .00088 | .00051 |
| %RSD | .28393 | .24869 |
| #1 | .30862 | .20265 |
| #2 | .30986 | .20336 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9818 | -- | -- | -- | -- | -- | -- |
| SDev | 101.0458 | -- | -- | -- | -- | -- | -- |
| %RSD | 1.029226 | -- | -- | -- | -- | -- | -- |
| #1 | 9889 | -- | -- | -- | -- | -- | -- |
| #2 | 9746 | -- | -- | -- | -- | -- | -- |





Method: IEC_2001 Standard: STD4
Run Time: 01/17/02 14:56:02

| Elem | Fe2714 | Al3082 | Ca3179 | Mg2790 |
|---|---|---|---|---|
| Avge | 91.208 | 134.44 | 100.60 | 334.14 |
| SDev | .155 | .25 | .15 | .54 |
| %RSD | .16981 | .18617 | .14762 | .16276 |
| #1 | 91.098 | 134.26 | 100.50 | 333.75 |
| #2 | 91.317 | 134.61 | 100.71 | 334.52 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9610 | -- | -- | -- | -- | -- | -- |
| SDev | 4.101081 | -- | -- | -- | -- | -- | -- |
| %RSD | .0426734 | -- | -- | -- | -- | -- | -- |
| #1 | 9613 | -- | -- | -- | -- | -- | -- |
| #2 | 9608 | -- | -- | -- | -- | -- | -- |

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Method: IEC_2001 Sample Name: TCCV Operator: DAD
Run Time: 01/17/02 14:59:18
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .09563 | .09560 | .09545 | .09614 | .09604 | .09885 | 09403 |
| SDev | .00214 | .00120 | .00055 | .00000 | .00047 | .00100 | 00147 |
| %RSD | 2.2339 | 1.2543 | .57737 | .00080 | .48773 | 1.0148 | 1.5589 |
| #1 | .09715 | .09475 | .09506 | .09614 | .09637 | .09814 | 09507 |
| #2 | .09412 | .09645 | .09584 | .09614 | .09571 | .09956 | .09299 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .09543 | .09483 | .09346 | .09596 | .09474 | .09762 | .14311 |
| SDev | .00051 | .00042 | .00005 | .00056 | .00013 | .06668 | 15436 |
| %RSD | .53055 | .43903 | .05657 | .58519 | .13860 | 68.306 | 107.82 |
| #1 | .09507 | .09453 | .09349 | .09636 | .09464 | .05047 | .03400 |
| #2 | .09579 | .09512 | .09342 | .09557 | .09483 | .14477 | .25222 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | .18911 | .17226 | .09623 | .09610 | .09496 | .09592 | .09145 |
| SDev | .18623 | .17328 | .00046 | .00023 | .00251 | .00055 | .00270 |
| %RSD | 98.479 | 100.59 | .47497 | .23626 | 2.6417 | .56862 | 2.9482 |
| #1 | .05742 | .04973 | .09655 | .09593 | .09319 | .09554 | .08954 |
| #2 | .32079 | .29479 | .09591 | .09626 | .09674 | .09631 | 09336 |

| Elem | 1960-2 |
|---|---|
| Avge | .09745 |
| SDev | .00052 |
| %RSD | .53337 |
| #1 | .09782 |
| #2 | .09708 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9771 | -- | -- | -- | -- | -- | -- |
| SDev | 30.33516 | -- | -- | -- | -- | -- | -- |
| %RSD | .3104564 | -- | -- | -- | -- | -- | -- |
| #1 | 9793 | -- | -- | -- | -- | -- | -- |
| #2 | 9750 | -- | -- | -- | -- | -- | -- |

Method: IEC_2001 Sample Name: BLA01 Operator: DAD
Run Time: 01/17/02 15:03:33
Comment:
Mode: CONC Corr. Factor: 1

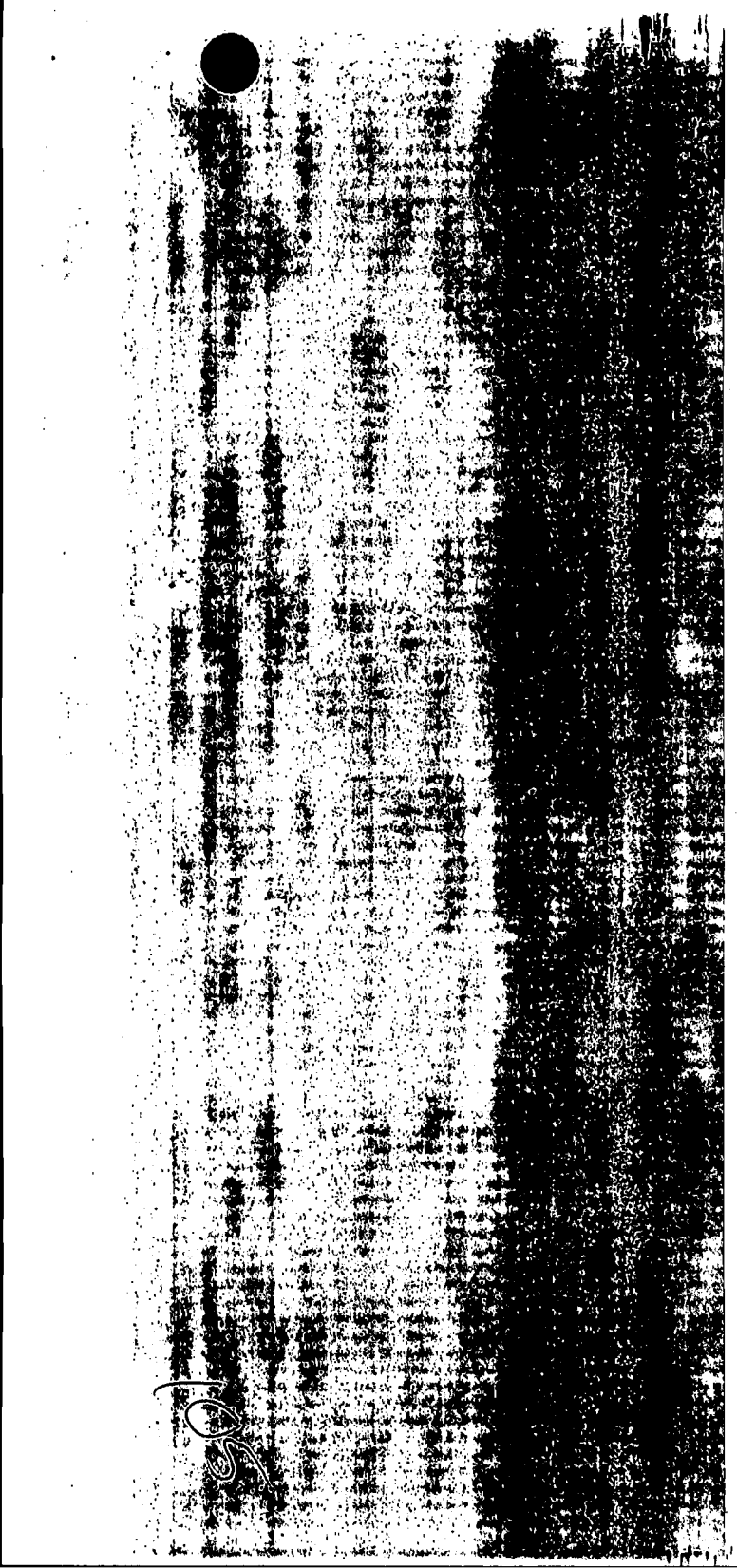
| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .00016 | .00027 | -.00082 | -.00009 | .00172 | -.00025 | -.00225 |
| SDev | .00147 | .00095 | .00225 | .00006 | .00119 | .00027 | .00082 |
| %RSD | 902.50 | 345.25 | 275.12 | 67.092 | 69.232 | 105.95 | 36.230 |
| #1 | .00120 | .00094 | -.00240 | -.00013 | .00257 | -.00006 | -.00283 |
| #2 | -.00087 | -.00039 | .00077 | -.00005 | .00088 | -.00044 | -.00168 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | -.00054 | -.00058 | -.00004 | .00021 | -.00002 | .02431 | .03647 |
| SDev | .00081 | .00023 | .00004 | .00001 | .00002 | .01367 | .03251 |
| %RSD | 149.30 | 39.539 | 97.523 | 3.1438 | 101.23 | 56.205 | 89.125 |
| #1 | .00003 | -.00042 | -.00001 | .00021 | -.00003 | .01465 | .01349 |
| #2 | -.00111 | -.00074 | -.00006 | .00022 | -.00000 | .03398 | .05946 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | .05836 | .05651 | -.00037 | .00005 | .00151 | .00034 | -.00123 |
| SDev | .04344 | .04109 | .00032 | .00007 | .00321 | .00018 | .00091 |
| %RSD | 74.437 | 72.708 | 86.483 | 135.32 | 212.16 | 54.361 | 73.875 |
| #1 | .02764 | .02746 | -.00060 | .00010 | .00378 | -.00047 | -.00187 |
| #2 | .08908 | .08557 | -.00014 | .00000 | -.00076 | -.00021 | -.00059 |

| Elem | 1960-2 |
|---|---|
| Avge | -.00061 |
| SDev | .00292 |
| %RSD | 476.31 |
| #1 | -.00267 |
| #2 | .00145 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9938 | -- | -- | -- | -- | -- | -- |
| SDev | 100.0556 | -- | -- | -- | -- | -- | -- |
| %RSD | 1.006803 | -- | -- | -- | -- | -- | -- |





| | | | | | | | |
|---|---|---|---|---|---|---|---|
| #1 | 9867 | -- | -- | -- | -- | -- | -- |
| #2 | 10009 | -- | -- | -- | -- | -- | -- |

Method: IEC_2001 Sample Name: TICV01-19 Operator: DAD
Run Time: 01/17/02 15:07:49
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | L.04662 | .04947 | .04743 | .04863 | .04808 | .05112 | .04986 |
| SDev | .00231 | .00089 | .00390 | .00000 | .00055 | .00005 | .00062 |
| %RSD | 4.9505 | 1.8005 | 8.2143 | .00489 | 1.1374 | .10114 | 1.2349 |
| #1 | .04826 | .04884 | .05018 | .04862 | .04769 | .05108 | .05029 |
| #2 | L.04499 | .05010 | L.04467 | .04863 | .04846 | .05116 | .04942 |

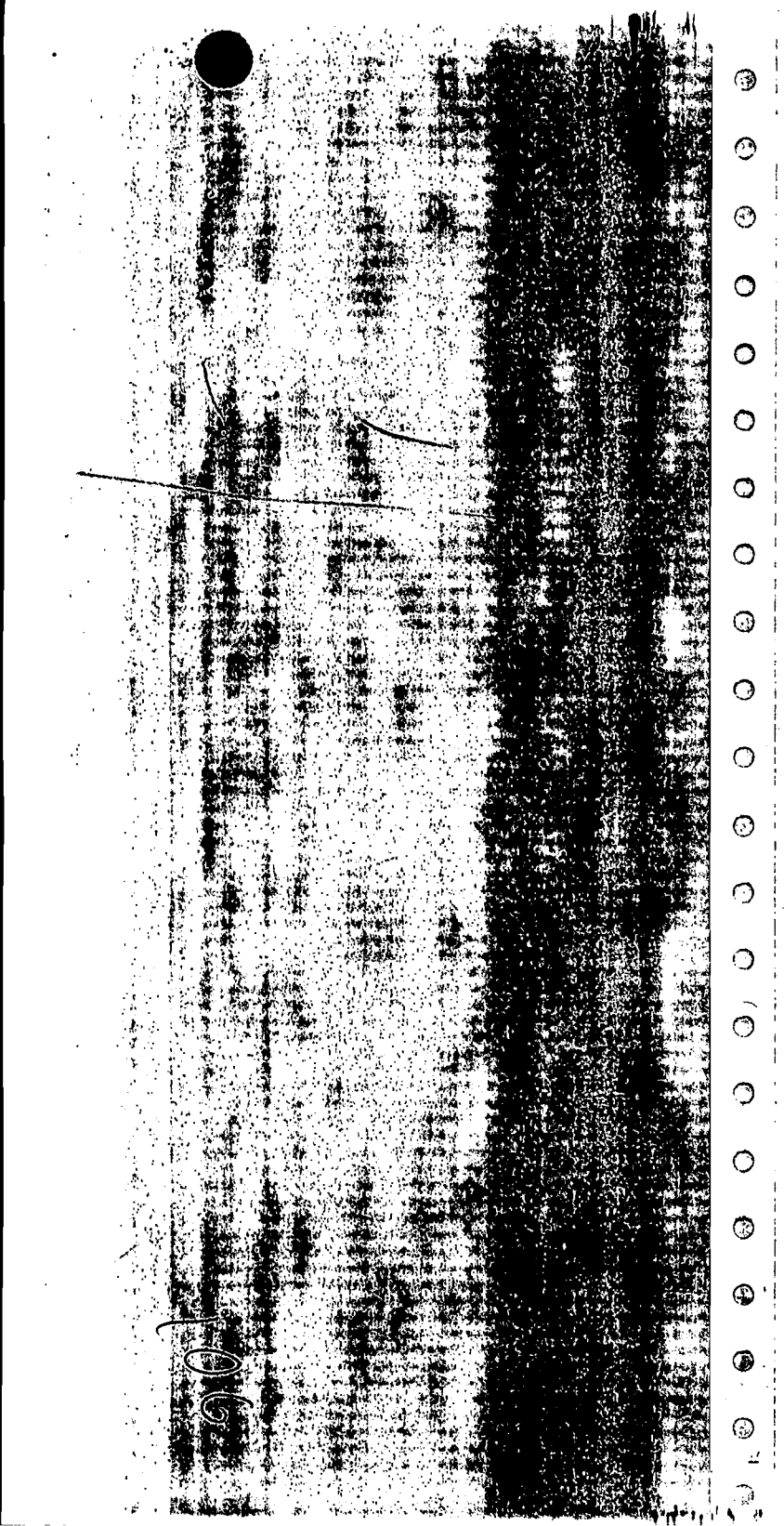
| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | -.00055 | .04833 | .04768 | .04885 | .04886 | .07895 | -.00211 |
| SDev | .00003 | .00007 | .00002 | .00020 | .00011 | .01033 | .01226 |
| %RSD | 5.7956 | .14072 | .03917 | .41756 | .22102 | 13.081 | 579.54 |
| #1 | -.00057 | .04828 | .04769 | .04870 | .04894 | .08626 | -.01078 |
| #2 | -.00052 | .04838 | .04767 | .04899 | .04878 | .07165 | .00655 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | .06763 | .06277 | .04878 | .04855 | .04805 | .05018 | .03985 |
| SDev | .01089 | .01048 | .00014 | .00007 | .00160 | .00054 | .00271 |
| %RSD | 16.105 | 16.693 | .29042 | .15302 | 3.3278 | 1.0705 | 6.7944 |
| #1 | .05993 | .05536 | .04888 | .04850 | .04691 | .04980 | .04176 |
| #2 | .07533 | .07018 | .04868 | .04860 | .04918 | .05056 | .03794 |

| Elem | 1960-2 |
|---|---|
| Avge | .05121 |
| SDev | .00449 |
| %RSD | 8.7659 |
| #1 | .05439 |
| #2 | .04804 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9787 | -- | -- | -- | -- | -- | -- |
| SDev | 13.71746 | -- | -- | -- | -- | -- | -- |
| %RSD | .1401585 | -- | -- | -- | -- | -- | -- |
| #1 | 9797 | -- | -- | -- | -- | -- | -- |
| #2 | 9777 | -- | -- | -- | -- | -- | -- |

Method: IEC_2001 Sample Name: TICV01-07 Operator: DAD
Run Time: 01/17/02 15:12:04
Comment:





Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .01918 | .00613 | .00541 | .00978 | .01975 | .02060 | .11686 |
| SDev | .00052 | .00107 | .00085 | .00005 | .00235 | .00007 | .00089 |
| %RSD | 2.7141 | 17.385 | 15.734 | .51560 | 11.906 | .34374 | .76383 |
| #1 | .01954 | .00538 | .00481 | .00974 | .01808 | .02065 | .11749 |
| #2 | .01881 | .00689 | .00602 | .00981 | .02141 | .02055 | .11623 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .02015 | .10106 | .00948 | .09989 | .02987 | .02005 | -.01348 |
| SDev | .00015 | .00056 | .00003 | .00040 | .00005 | .00599 | .00152 |
| %RSD | .76050 | .55887 | .30763 | .40375 | .18015 | 29.888 | 11.244 |
| #1 | .02004 | .10146 | .00950 | .09960 | .02990 | .01581 | -.01455 |
| #2 | .02026 | .10066 | .00946 | .10017 | .02983 | .02429 | -.01240 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | .00212 | -.00008 | .00964 | .00984 | .00794 | .00523 | .00174 |
| SDev | .00002 | .00129 | .00001 | .00007 | .00195 | .00063 | .00334 |
| %RSD | .86727 | 1714.6 | .13533 | .70157 | 24.557 | 11.956 | 191.89 |
| #1 | .00214 | -.00099 | .00963 | .00980 | .00656 | .00479 | -.00062 |
| #2 | .00211 | .00084 | .00965 | .00989 | .00931 | .00568 | .00411 |

| Elem | 1960-2 |
|---|---|
| Avge | .00725 |
| SDev | .00039 |
| %RSD | 5.4182 |
| #1 | .00753 |
| #2 | .00697 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9781 | -- | -- | -- | -- | -- | -- |
| SDev | 9.333947 | -- | -- | -- | -- | -- | -- |
| %RSD | .0954333 | -- | -- | -- | -- | -- | -- |
| #1 | 9774 | -- | -- | -- | -- | -- | -- |
| #2 | 9787 | -- | -- | -- | -- | -- | -- |

---

Method: IEC_2001 Sample Name: TICV01-47 Operator: DAD
Run Time: 01/17/02 15:16:19
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .00289 | -.00006 | .00186 | -.00033 | -.00004 | .00299 | .00011 |
| SDev | .00002 | .00034 | .00231 | .00004 | .00393 | .00048 | .00181 |
| %RSD | .80700 | 521.38 | 124.13 | 12.794 | 10876. | 15.952 | 1692.6 |
| #1 | .00291 | .00017 | .00349 | -.00030 | -.00281 | .00265 | -.00139 |
| #2 | .00287 | -.00030 | .00023 | -.00036 | .00274 | .00332 | -.00117 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .00097 | -.00022 | -.00005 | .00043 | .00003 | 103.03 | 248.62 |
| SDev | .00032 | .00058 | .00001 | .00013 | .00004 | .17 | .61 |
| %RSD | 32.777 | 264.13 | 18.353 | 31.428 | 142.95 | .16521 | .24733 |
| #1 | .00120 | .00019 | -.00006 | .00033 | .00005 | 103.15 | 249.05 |
| #2 | .00075 | -.00063 | -.00004 | .00052 | -.00000 | 102.91 | 248.18 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | 252.88 | 246.90 | .00330 | -.00214 | .13395 | -.06697 | -.00739 |
| SDev | .48 | .41 | .00012 | .00012 | .00352 | .00125 | .00260 |
| %RSD | .19020 | .16712 | 3.5584 | 5.7043 | 2.6247 | 1.8698 | 35.215 |
| #1 | 253.22 | 247.19 | .00321 | -.00206 | .13643 | -.06786 | -.00923 |
| #2 | 252.54 | 246.61 | .00338 | -.00223 | .13146 | -.06608 | -.00555 |

| Elem | 1960-2 |
|---|---|
| Avge | .00648 |
| SDev | .00476 |
| %RSD | 73.499 |
| #1 | .00985 |
| #2 | .00311 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9827 | -- | -- | -- | -- | -- | -- |
| SDev | 3.111546 | -- | -- | -- | -- | -- | -- |
| %RSD | .0316632 | -- | -- | -- | -- | -- | -- |
| #1 | 9825 | -- | -- | -- | -- | -- | -- |
| #2 | 9829 | -- | -- | -- | -- | -- | -- |

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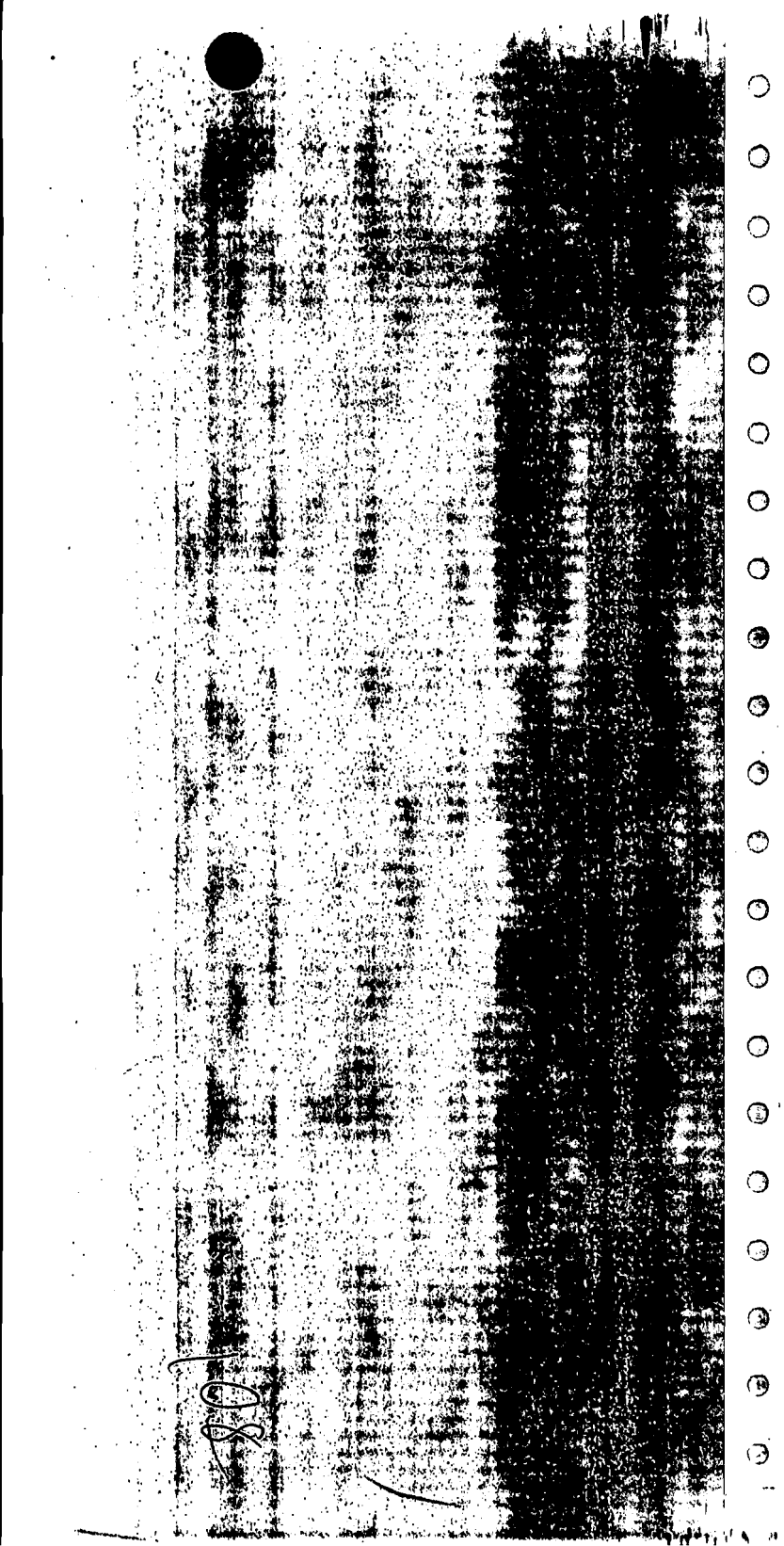
Method: IEC_2001 Sample Name: BLA01 Operator: DAD
Run Time: 01/17/02 15:20:34
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Mn2068 |
|---|---|---|---|---|---|---|---|
| Avge | -.00129 | .00049 | .00200 | -.00006 | -.00021 | -.00022 | .00057 |
| SDev | .00046 | .00020 | .00300 | .00013 | .00171 | .00015 | .00387 |
| %RSD | 35.482 | 40.030 | 149.88 | 227.58 | 831.26 | 67.902 | 675.82 |
| #1 | -.00162 | .00035 | .00412 | -.00015 | -.00142 | -.00033 | .00331 |
| #2 | -.00097 | .00063 | -.00012 | .00004 | .00100 | -.00012 | -.00216 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | -.00034 | -.00058 | -.00002 | -.00009 | .00001 | .02242 | .03459 |
| SDev | .00074 | .00071 | .00001 | .00021 | .00002 | .00020 | .00179 |
| %RSD | 220.51 | 121.27 | 63.885 | 228.50 | 260.60 | .91451 | 5.1859 |
| #1 | .00019 | -.00008 | -.00001 | .00006 | .00002 | .02228 | .03332 |
| #2 | -.00086 | L-.00108 | -.00002 | -.00025 | -.00000 | .02257 | .03586 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|





| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Avge | .05441 | .05211 | -.00024 | .00004 | .00204 | -.00029 | -.00002 |
| SDev | .00741 | .00357 | .00009 | .00015 | .00061 | .00060 | .00906 |
| %RSD | 13.614 | 6.8478 | 37.721 | 427.91 | 30.100 | 209.96 | 43515. |
| #1 | .04918 | .04958 | -.00031 | -.00007 | .00248 | -.00071 | .00639 |
| #2 | .05965 | .05463 | -.00018 | .00014 | .00161 | .00014 | -.00643 |

| | |
|---|---|
| Elem | 1960-2 |
| Avge | .00301 |
| SDev | .00003 |
| %RSD | 1.1381 |
| #1 | .00298 |
| #2 | .00303 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9714 | -- | -- | -- | -- | -- | -- |
| SDev | 74.81176 | -- | -- | -- | -- | -- | -- |
| %RSD | .7701120 | -- | -- | -- | -- | -- | -- |
| #1 | 9662 | -- | -- | -- | -- | -- | -- |
| #2 | 9767 | -- | -- | -- | -- | -- | -- |

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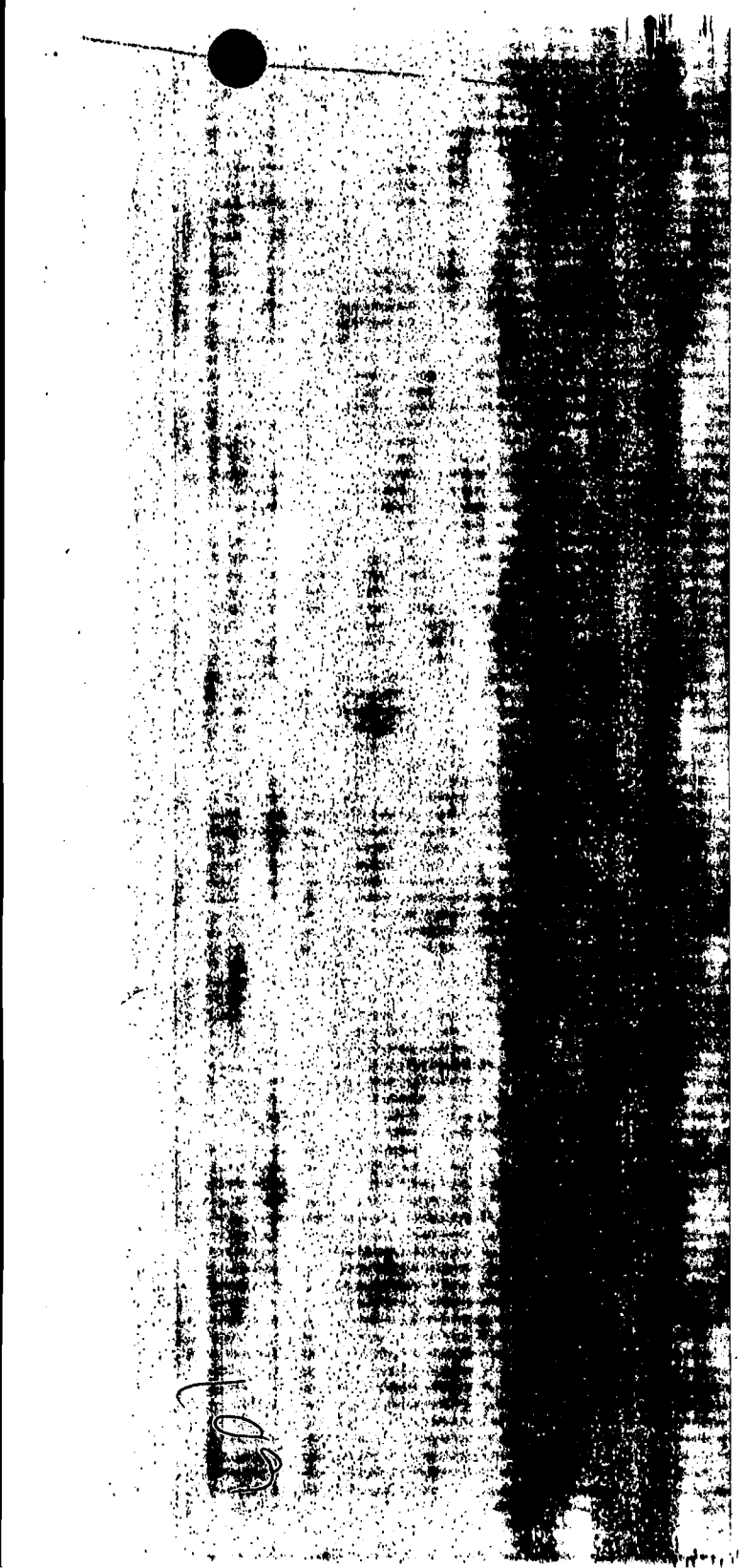
Method: IEC_2001 Sample Name: TDLS Operator: DAD
Run Time: 01/17/02 15:24:49
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .00377 | .00445 | .00411 | .00106 | .00878 | .00083 | .00056 |
| SDev | .00358 | .00034 | .00380 | .00005 | .00256 | .00028 | .00101 |
| %RSD | 94.840 | 7.5423 | 92.521 | 4.8327 | 29.204 | 34.142 | 179.59 |
| #1 | .00630 | .00421 | .00679 | .00109 | .01059 | .00103 | .00128 |
| #2 | .00124 | .00469 | .00142 | .00102 | .00696 | .00063 | -.00015 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .00077 | .00089 | .00093 | .00093 | .00112 | .00333 | -.00064 |
| SDev | .00040 | .00024 | .00002 | .00004 | .00003 | .00248 | .01168 |
| %RSD | 52.276 | 27.206 | 1.6977 | 4.4628 | 2.9622 | 74.405 | 1828.0 |
| #1 | .00106 | .00106 | .00095 | .00096 | .00110 | .00508 | .00762 |
| #2 | .00049 | .00072 | .00092 | .00090 | .00115 | .00158 | -.00890 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | .02288 | .01874 | .00065 | .00126 | .00659 | .00338 | .00553 |
| SDev | .00811 | .00650 | .00018 | .00001 | .00126 | .00013 | .00258 |
| %RSD | 35.458 | 34.703 | 27.494 | .99806 | 19.086 | 3.6988 | 46.565 |
| #1 | .02861 | .02334 | .00077 | .00125 | .00570 | .00347 | .00736 |
| #2 | .01714 | .01414 | .00052 | .00127 | .00748 | .00329 | .00371 |

| | |
|---|---|
| Elem | 1960-2 |
| Avge | .00339 |





| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SDev | .00441 | | | | | | |
| %RSD | 129.92 | | | | | | |
| #1 | .00651 | | | | | | |
| #2 | .00028 | | | | | | |
| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9933 | -- | -- | -- | -- | -- | -- |
| SDev | 81.31728 | -- | -- | -- | -- | -- | -- |
| %RSD | .8186578 | -- | -- | -- | -- | -- | -- |
| #1 | 9876 | -- | -- | -- | -- | -- | -- |
| #2 | 9990 | -- | -- | -- | -- | -- | -- |

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Method: IEC_2001 Sample Name: TCDL01 Operator: DAD
Run Time: 01/17/02 15:29:03
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .01848 | .00674 | .00595 | .00993 | .02046 | .02070 | .12053 |
| SDev | .00183 | .00013 | .00354 | .00005 | .00247 | .00040 | .00015 |
| %RSD | 9.8997 | 1.8637 | 59.466 | .53703 | 12.064 | 1.9509 | .12233 |
| #1 | .01978 | .00665 | .00846 | .00989 | .01871 | .02041 | .12064 |
| #2 | .01719 | .00683 | L.00345 | .00997 | .02220 | .02098 | .12043 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .01978 | .10148 | .00963 | .10056 | .03046 | .01928 | -.00058 |
| SDev | .00059 | .00026 | .00002 | .00014 | .00073 | .02677 | .00313 |
| %RSD | 2.9570 | .26008 | .19350 | .14052 | 2.4115 | 138.83 | 541 17 |
| #1 | .01937 | .10129 | .00962 | .10046 | .02994 | .00035 | -.00279 |
| #2 | .02020 | .10166 | .00964 | .10066 | .03098 | .03821 | .00164 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | .01239 | .00517 | .00974 | .01003 | .00822 | .00600 | .00376 |
| SDev | .01158 | .00393 | .00033 | .00009 | .00301 | .00169 | .01097 |
| %RSD | 93.425 | 75.898 | 3.4130 | .85778 | 36.661 | 28.194 | 292.16 |
| #1 | .00421 | .00240 | .00950 | .01009 | .01035 | .00481 | .01152 |
| #2 | .02058 | .00795 | .00997 | .00996 | .00609 | .00720 | -.00400 |

| Elem | 1960-2 |
|---|---|
| Avge | .00705 |
| SDev | .00017 |
| %RSD | 2.4315 |
| #1 | .00693 |
| #2 | .00717 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9749 | -- | -- | -- | -- | -- | -- |
| SDev | 13.85971 | -- | -- | -- | -- | -- | -- |
| %RSD | .1421713 | -- | -- | -- | -- | -- | -- |
| #1 | 9758 | -- | -- | -- | -- | -- | -- |
| #2 | 9739 | -- | -- | -- | -- | -- | -- |

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Method: IEC_2001 Sample Name: THMCS Operator: DAD
Run Time: 01/17/02 15:33:18
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .48314 | .48588 | .48853 | .48501 | .48508 | -.00006 | .48348 |
| SDev | .00975 | .00708 | .00366 | .00644 | .00488 | .00001 | .00376 |
| %RSD | 2.0176 | 1.4573 | .74965 | 1.3276 | 1.0054 | 14.520 | .77669 |
| #1 | .47625 | .48087 | .48594 | .48046 | .48163 | -.00005 | .48083 |
| #2 | .49003 | .49089 | .49112 | .48956 | .48853 | -.00007 | .48614 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .48657 | -.00017 | .48421 | .48352 | -.00774 | .04114 | -.01845 |
| SDev | .00444 | .00011 | .00511 | .00506 | .00009 | .00500 | .00018 |
| %RSD | .91188 | 67.455 | 1.0542 | 1.0473 | 1.1456 | 12.155 | .98214 |
| #1 | .48344 | -.00009 | .48061 | .47994 | -.00768 | .04468 | -.01832 |
| #2 | .48971 | -.00025 | .48782 | .48710 | -.00780 | .03761 | -.01858 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | -.00041 | -.00409 | .48683 | .48410 | .48071 | .48846 | 48231 |
| SDev | .00194 | .00688 | .00554 | .00689 | .00428 | .00848 | 00241 |
| %RSD | 467.19 | 168.03 | 1.1378 | 1.4230 | .89084 | 1.7356 | 49905 |
| #1 | .00096 | .00077 | .48292 | .47923 | .47768 | .48247 | 48060 |
| #2 | -.00179 | -.00896 | .49075 | .48897 | .48374 | .49446 | 4840[illegible] |

| Elem | 1960-2 |
|---|---|
| Avge | .49164 |
| SDev | .00429 |
| %RSD | .87238 |
| #1 | .48861 |
| #2 | .49467 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9772 | -- | -- | -- | -- | -- | -- |
| SDev | 128.1279 | -- | -- | -- | -- | -- | -- |
| %RSD | 1.311106 | -- | -- | -- | -- | -- | -- |
| #1 | 9863 | -- | -- | -- | -- | -- | -- |
| #2 | 9682 | -- | -- | -- | -- | -- | -- |

Method: IEC_2001 Sample Name: ICS-A Operator: DAD
Run Time: 01/17/02 15:37:33
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | T11908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .00154 | -.00295 | .00303 | .00005 | .00158 | H.00554 | -.00295 |
| SDev | .00173 | .00096 | .00028 | .00004 | .00348 | .00044 | .00625 |
| %RSD | 112.79 | 32.566 | 9.1498 | 72.133 | 220.15 | 8.0340 | 211.74 |
| #1 | .00276 | -.00227 | .00283 | .00008 | -.00088 | H.00586 | -.00738 |
| #2 | .00031 | -.00363 | .00322 | .00003 | .00404 | H.00523 | 00147 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .00010 | -.00076 | -.00003 | -.00039 | -.00161 | 200.64 | 500.41 |
| SDev | .00013 | .00079 | .00000 | .00049 | .00010 | .10 | .41 |
| %RSD | 128.78 | 104.25 | 3.7221 | 126.70 | 6.3308 | .04752 | .08250 |
| #1 | .00020 | -.00020 | -.00003 | -.00004 | -.00168 | 200.71 | 500.70 |
| #2 | .00001 | -.00131 | -.00003 | -.00073 | -.00154 | 200.58 | 500.12 |

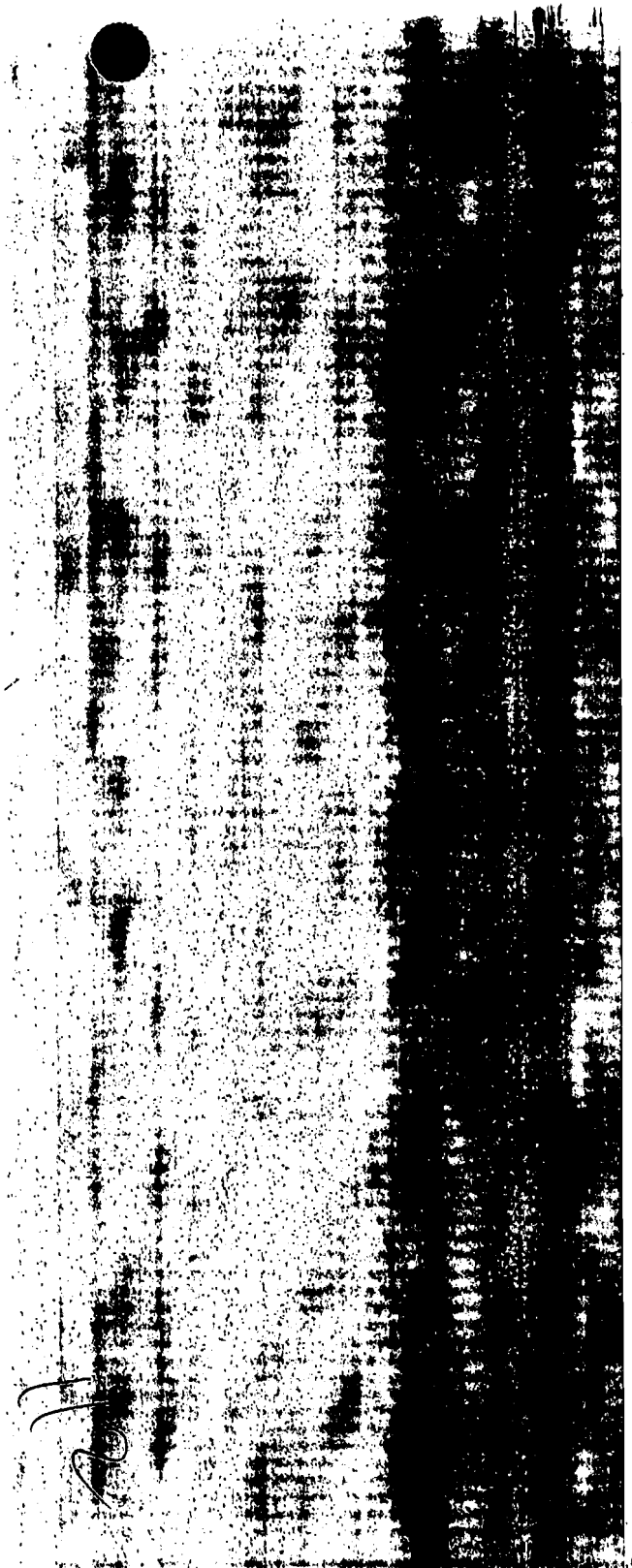
| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | 495.25 | 492.48 | .00673 | -.00328 | .25204 | -.13025 | -.01438 |
| SDev | .18 | .29 | .00004 | .00008 | .00182 | .00053 | .00298 |
| %RSD | .03603 | .05840 | .57394 | 2.3319 | .72327 | .40684 | 20.740 |
| #1 | 495.38 | 492.68 | .00670 | -.00323 | .25333 | -.12988 | 01227 |
| #2 | 495.13 | 492.28 | .00676 | -.00333 | .25075 | -.13063 | -.01649 |

| Elem | 1960-2 |
|---|---|
| Avge | .01172 |
| SDev | .00190 |
| %RSD | 16.252 |
| #1 | .01037 |
| #2 | .01306 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9790 | -- | -- | -- | -- | -- | -- |
| SDev | 60.74075 | -- | -- | -- | -- | -- | -- |
| %RSD | .6204525 | -- | -- | -- | -- | -- | -- |
| #1 | 9747 | -- | -- | -- | -- | -- | - |
| #2 | 9833 | -- | -- | -- | -- | -- | -- |

Method: IEC_2001 Sample Name: TICS Operator: DAD
Run Time: 01/17/02 15:41:48
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | T11908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .09252 | .04140 | .04353 | .86802 | .08742 | .48041 | 55964 |





| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SDev | .00111 | .00132 | .00573 | .00398 | .00226 | .00080 | .00451 |
| %RSD | 1.1991 | 3.1824 | 13.152 | .45843 | 2.5821 | .16651 | .80571 |
| #1 | .09330 | .04047 | .04758 | .87084 | .08583 | .48097 | .55645 |
| #2 | .09174 | .04233 | L.03948 | .86521 | .08902 | .47984 | .56283 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .20769 | .48275 | .46295 | .44134 | .45465 | 199.46 | 496.68 |
| SDev | .00075 | .00018 | .00019 | .00046 | .00096 | .12 | .01 |
| %RSD | .36265 | .03652 | .04027 | .10502 | .21067 | .05864 | .00282 |
| #1 | .20823 | .48288 | .46308 | .44167 | .45532 | 199.54 | 496.67 |
| #2 | .20716 | .48263 | .46282 | .44101 | .45397 | 199.38 | 496.69 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | 492.19 | 488.93 | .88426 | .85992 | .29645 | -.08594 | .01750 |
| SDev | .29 | .46 | .00118 | .00656 | .00867 | .00630 | .02001 |
| %RSD | .05924 | .09425 | .13339 | .76226 | 2.9234 | 7.3329 | 114.30 |
| #1 | 492.39 | 489.26 | .88343 | .86455 | .30258 | - 09039 | .03165 |
| #2 | 491.98 | 488.61 | .88510 | .85528 | .29032 | - 08148 | .00336 |

| Elem | 1960-2 |
|---|---|
| Avge | .05652 |
| SDev | .00140 |
| %RSD | 2.4851 |
| #1 | .05553 |
| #2 | .05752 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9723 | -- | -- | -- | -- | -- | -- |
| SDev | 18.10235 | -- | -- | -- | -- | -- | -- |
| %RSD | .1861788 | -- | -- | -- | -- | -- | -- |
| #1 | 9736 | -- | -- | -- | -- | -- | -- |
| #2 | 9710 | -- | -- | -- | -- | -- | -- |

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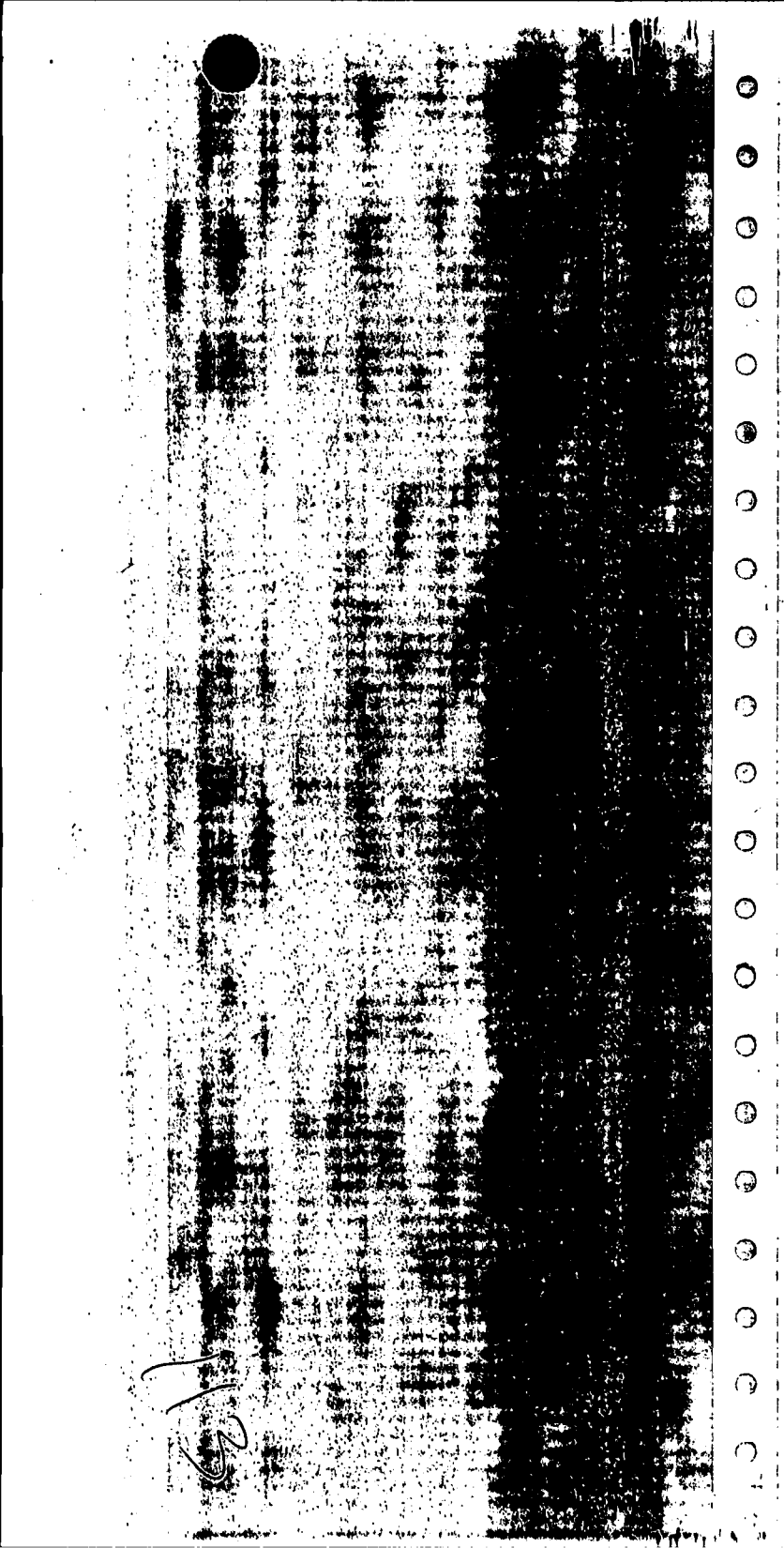
Method: IEC_2001 Sample Name: TCCV Operator: DAD
Run Time: 01/17/02 15:46:03
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .09346 | .09635 | .09587 | .09657 | .09504 | .09867 | .09540 |
| SDev | .00074 | .00048 | .00181 | .00049 | .00009 | .00013 | .00344 |
| %RSD | .78877 | .49768 | 1.8891 | .51254 | .09452 | .13564 | 3.6019 |
| #1 | .09294 | .09601 | .09459 | .09622 | .09497 | .09858 | .09297 |
| #2 | .09398 | .09668 | .09715 | .09692 | .09510 | .09877 | .09783 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .09621 | .09517 | .09366 | .09625 | .09464 | .07904 | .10068 |
| SDev | .00047 | .00055 | .00001 | .00024 | .00031 | .01425 | .02593 |





| | | | | | | | |
|---|---|---|---|---|---|---|---|
| %RSD | .49113 | .58051 | .00823 | .24562 | .32848 | 18.031 | 25.751 |
| #1 | .09588 | .09478 | .09367 | .09641 | .09442 | .08912 | .11901 |
| #2 | .09654 | .09556 | .09366 | .09608 | .09486 | .06896 | .08235 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | .12761 | .12199 | .09673 | .09649 | .09680 | .09612 | .09464 |
| SDev | .03251 | .02697 | .00007 | .00071 | .00131 | .00006 | .00784 |
| %RSD | 25.478 | 22.108 | .07765 | .73019 | 1.3585 | .06482 | 8.2846 |
| #1 | .15060 | .14106 | .09668 | .09600 | .09587 | .09607 | .08910 |
| #2 | .10462 | .10292 | .09678 | .09699 | .09773 | .09616 | .10018 |

| Elem | 1960-2 |
|---|---|
| Avge | .09648 |
| SDev | .00120 |
| %RSD | 1.2430 |
| #1 | .09733 |
| #2 | .09563 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9693 | -- | -- | -- | -- | -- | -- |
| SDev | 32.17336 | -- | -- | -- | -- | -- | -- |
| %RSD | .3319185 | -- | -- | -- | -- | -- | -- |
| #1 | 9716 | -- | -- | -- | -- | -- | -- |
| #2 | 9670 | -- | -- | -- | -- | -- | -- |

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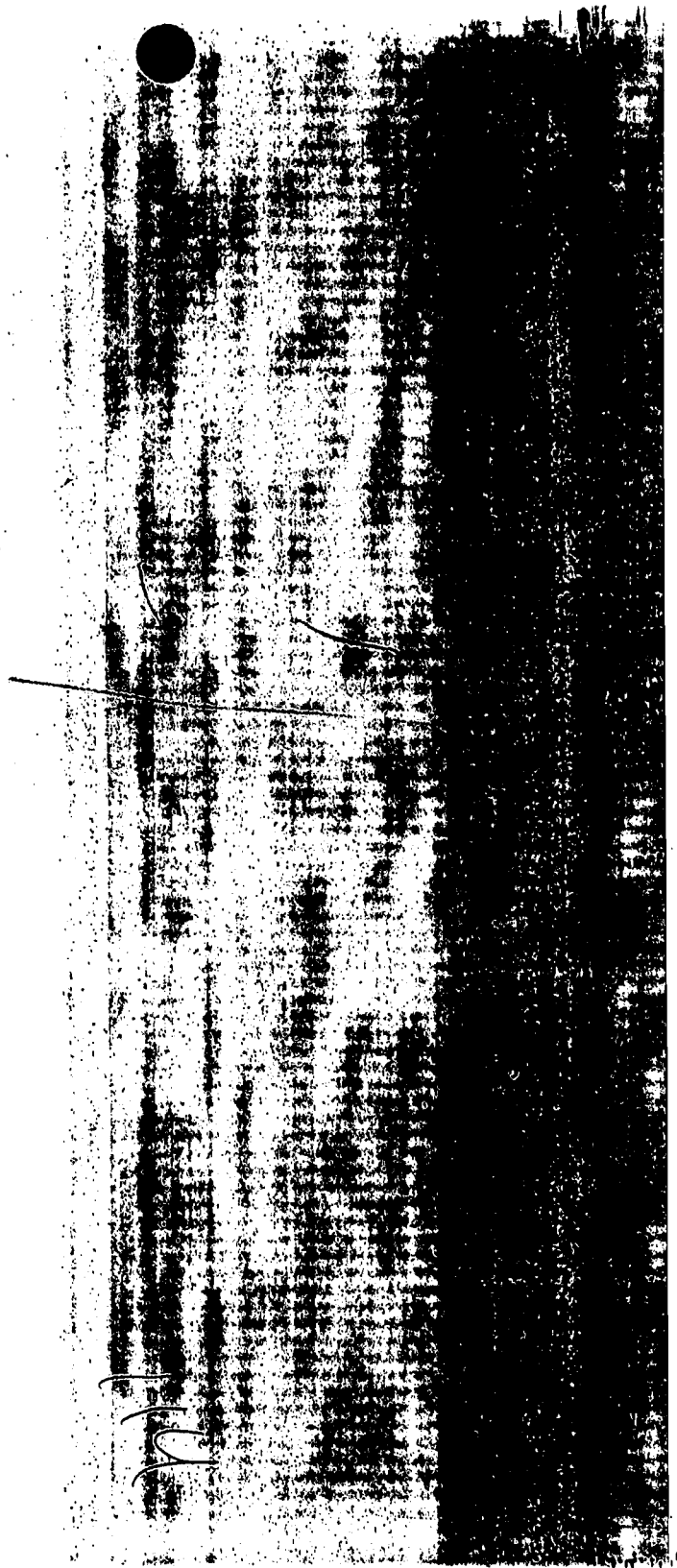
Method: IEC_2001 Sample Name: BLA01 Operator: DAD
Run Time: 01/17/02 15:50:18
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | -.00153 | -.00009 | -.00166 | .00007 | -.00013 | -.00002 | -.00112 |
| SDev | .00130 | .00098 | .00005 | .00015 | .00041 | .00033 | .00170 |
| %RSD | 85.098 | 1133.6 | 3.2556 | 229.84 | 307.50 | 1449.5 | 152.70 |
| #1 | -.00244 | .00061 | -.00162 | -.00004 | .00016 | -.00026 | .00009 |
| #2 | -.00061 | -.00078 | -.00169 | .00018 | -.00043 | .00021 | -.00232 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | -.00009 | -.00000 | .00004 | -.00012 | .00001 | .01761 | .03823 |
| SDev | .00038 | .00012 | .00001 | .00037 | .00000 | .00024 | 00498 |
| %RSD | 428.81 | 3505.1 | 23.127 | 310.20 | 50.198 | 1 3764 | 13.020 |
| #1 | -.00036 | -.00009 | .00005 | -.00038 | .00000 | .01744 | .03471 |
| #2 | .00018 | .00008 | .00003 | .00014 | .00001 | .01778 | .04175 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | .05324 | .04976 | -.00023 | .00021 | .00326 | -.00176 | -.00204 |
| SDev | .00522 | .00473 | .00019 | .00014 | .00094 | 00101 | .00046 |
| %RSD | 9.8087 | 9.5080 | 84.585 | 63.618 | 28.941 | 57.262 | 22.708 |





| | | | | | | | |
|---|---|---|---|---|---|---|---|
| #1 | .04954 | .04641 | -.00036 | .00012 | .00392 | -.00104 | - 00237 |
| #2 | .05693 | .05311 | -.00009 | .00031 | .00259 | -.00247 | -.00171 |

| | |
|---|---|
| Elem | 1960-2 |
| Avge | -.00146 |
| SDev | .00031 |
| %RSD | 21.366 |
| #1 | -.00124 |
| #2 | -.00168 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9774 | -- | -- | -- | -- | -- | -- |
| SDev | 23.82964 | -- | -- | -- | -- | -- | -- |
| %RSD | .2438101 | -- | -- | -- | -- | -- | -- |
| #1 | 9757 | -- | -- | -- | -- | -- | -- |
| #2 | 9791 | -- | -- | -- | -- | -- | -- |

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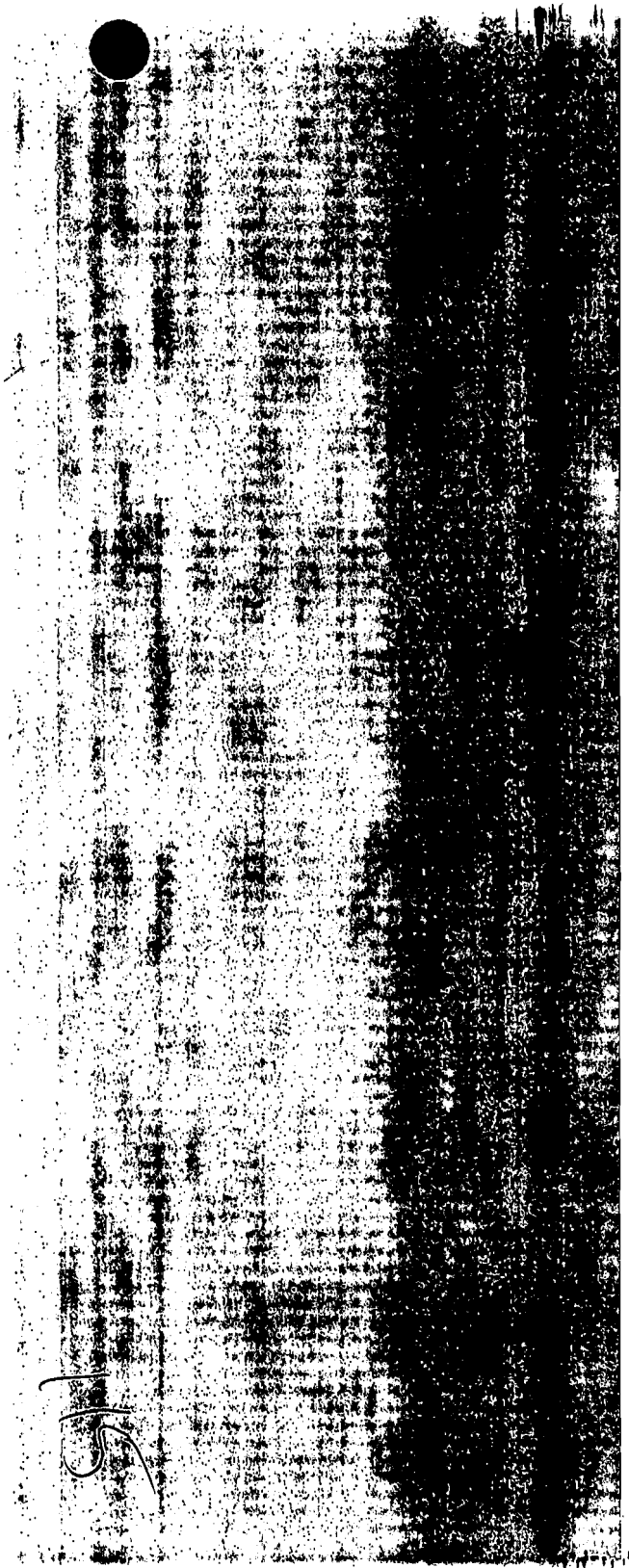
Method: IEC_2001 Sample Name: Q1325143 BLA02 Operator: dad
Run Time: 01/17/02 15:54:34
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | -.00232 | .00025 | -.00241 | .00004 | -.00262 | -.00057 | -.00050 |
| SDev | .00271 | .00001 | .00165 | .00006 | .00170 | .00038 | .00028 |
| %RSD | 116.53 | 2.1407 | 68.703 | 163.77 | 64.729 | 66.101 | 55.594 |
| #1 | -.00424 | .00025 | -.00358 | .00009 | -.00382 | -.00084 | -.00030 |
| #2 | -.00041 | .00025 | -.00124 | -.00001 | -.00142 | -.00030 | -.00069 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | -.00015 | -.00025 | .00001 | -.00002 | .00017 | .00448 | .00710 |
| SDev | .00082 | .00070 | .00001 | .00077 | .00015 | .01064 | .00403 |
| %RSD | 548.78 | 277.99 | 98.663 | 3742.8 | 89.985 | 237.69 | 56.819 |
| #1 | -.00073 | -.00075 | .00002 | -.00056 | .00006 | - 00305 | .00425 |
| #2 | .00043 | .00024 | .00000 | .00052 | .00027 | .01200 | .00995 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | .02296 | .01255 | .00001 | .00006 | -.00127 | .00101 | -.00816 |
| SDev | .00139 | .00208 | .00016 | .00002 | .00021 | .00010 | .00284 |
| %RSD | 6.0568 | 16.570 | 1766.1 | 33.051 | 16.558 | 9.5817 | 34.775 |
| #1 | .02394 | .01108 | .00012 | .00007 | -.00141 | .00108 | - 01016 |
| #2 | .02198 | .01402 | -.00010 | .00004 | -.00112 | .00094 | - .00615 |

| | |
|---|---|
| Elem | 1960-2 |
| Avge | .00046 |
| SDev | .00106 |
| %RSD | 230.65 |





| | |
|---|---|
| #1 | -.00029 |
| #2 | .00121 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9780 | -- | -- | -- | -- | -- | -- |
| SDev | 11.38414 | -- | -- | -- | -- | -- | -- |
| %RSD | .1163969 | -- | -- | -- | -- | -- | -- |
| #1 | 9788 | -- | -- | -- | -- | -- | -- |
| #2 | 9772 | -- | -- | -- | -- | -- | -- |

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Method: IEC_2001 Sample Name: Q1325144 TLCS Operator: dad
Run Time: 01/17/02 15:58:49
Comment:
Mode: CONC Corr. Factor: 1

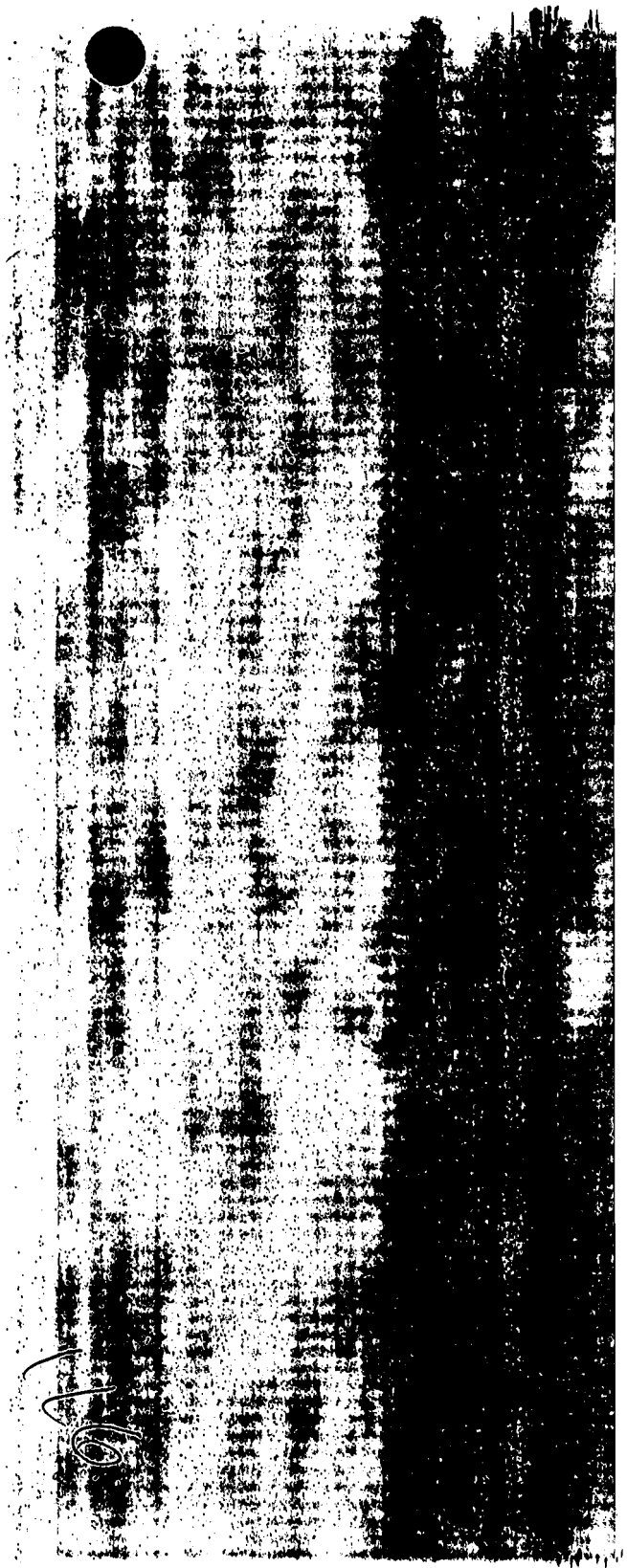
| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .48241 | .48441 | .49574 | .47882 | .50583 | .50879 | .48823 |
| SDev | .00197 | .00149 | .00321 | .00030 | .00313 | .00042 | .00016 |
| %RSD | .40779 | .30750 | .64699 | .06247 | .61951 | .08213 | .03301 |
| #1 | .48380 | .48335 | .49801 | .47903 | .50361 | .50908 | .48834 |
| #2 | .48102 | .48546 | .49348 | .47861 | .50805 | .50849 | .48812 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .48741 | .49859 | .48186 | .49220 | .48666 | .08388 | .03261 |
| SDev | .00107 | .00042 | .00160 | .00094 | .00133 | .00635 | .00169 |
| %RSD | .21939 | .08353 | .33103 | .19089 | .27345 | 7.5746 | 5.1888 |
| #1 | .48816 | .49889 | .48298 | .49286 | .48761 | .07939 | -.03380 |
| #2 | .48665 | .49830 | .48073 | .49153 | .48572 | .08837 | -.03141 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | .02450 | -.00076 | .47957 | .47845 | .48108 | .48607 | .50016 |
| SDev | .00137 | .00096 | .00173 | .00131 | .00158 | .00145 | .00077 |
| %RSD | 5.6067 | 126.61 | .36145 | .27461 | .32836 | .29720 | .15308 |
| #1 | .02353 | -.00144 | .47835 | .47938 | .47996 | .48505 | .49962 |
| #2 | .02547 | -.00008 | .48080 | .47752 | .48220 | .48709 | .50071 |

| Elem | 1960-2 |
|---|---|
| Avge | .49354 |
| SDev | .00519 |
| %RSD | 1.0518 |
| #1 | .49721 |
| #2 | .48987 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9776 | -- | -- | -- | -- | -- | -- |





| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SDev | 15.06124 | -- | -- | -- | -- | -- | -- |
| %RSD | .1540594 | -- | -- | -- | -- | -- | -- |
| #1 | .9766 | -- | -- | -- | -- | -- | -- |
| #2 | .9787 | -- | -- | -- | -- | -- | -- |

Method: IEC_2001 Sample Name: A581216 Operator: dad
Run Time: 01/17/02 16:03:04
Comment:
Mode: CONC Corr. Factor: 1

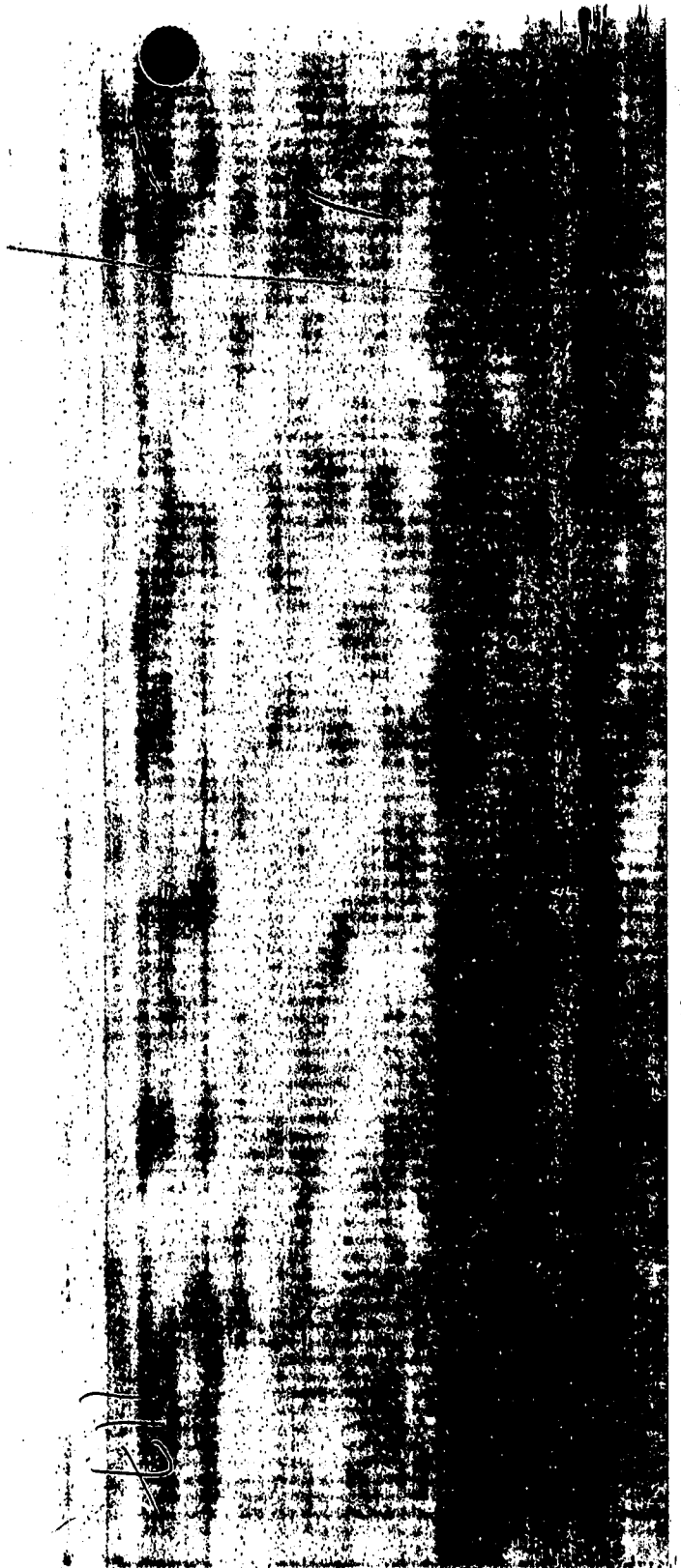
| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | -.00420 | .00045 | -.00411 | .00007 | -.00036 | .00155 | L-.00815 |
| SDev | .00123 | .00023 | .00062 | .00007 | .00289 | .00068 | .00448 |
| %RSD | 29.308 | 51.004 | 15.013 | 106.81 | 796.61 | 44.060 | 55.007 |
| #1 | -.00333 | .00029 | -.00367 | .00012 | .00168 | .00107 | -.00498 |
| #2 | L-.00507 | .00062 | -.00454 | .00002 | -.00241 | .00203 | L-.01131 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .00234 | .00120 | -.00012 | -.00099 | .00163 | .01824 | -.04011 |
| SDev | .00171 | .00091 | .00007 | .00082 | .00021 | .03479 | .01569 |
| %RSD | 73.170 | 75.691 | 56.017 | 83.520 | 13.051 | 190.71 | 39.127 |
| #1 | .00113 | .00056 | -.00007 | -.00040 | .00148 | .04285 | -.02901 |
| #2 | .00355 | .00184 | -.00017 | L-.00157 | .00178 | -.00636 | -.05120 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | 2.4722 | 1.4384 | -.00131 | .00075 | .00939 | -.00401 | -.00007 |
| SDev | .0119 | .0031 | .00091 | .00035 | .00931 | .00430 | .00648 |
| %RSD | .47983 | .21582 | 69.642 | 46.431 | 99.167 | 107.31 | 8824.0 |
| #1 | 2.4638 | 1.4362 | -.00067 | .00051 | .00281 | -.00097 | -.00465 |
| #2 | 2.4806 | 1.4406 | -.00196 | .00100 | .01598 | -.00706 | .00451 |

| Elem | 1960-2 |
|---|---|
| Avge | -.00612 |
| SDev | .00416 |
| %RSD | 67.949 |
| #1 | -.00318 |
| #2 | -.00906 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 10015 | -- | -- | -- | -- | -- | -- |
| SDev | 35.56733 | -- | -- | -- | -- | -- | -- |
| %RSD | .3551282 | -- | -- | -- | -- | -- | -- |
| #1 | 9990 | -- | -- | -- | -- | -- | -- |
| #2 | 10040 | -- | -- | -- | -- | -- | -- |





Method: IEC_2001 Sample Name: A581216 1:5 Operator: dad
Run Time: 01/17/02 16:07:19
Comment:
Mode: CONC Corr. Factor: 1

SD

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .00346 | -.00038 | -.00082 | .00023 | .00447 | -.00054 | .00898 |
| SDev | .00732 | .00025 | .00123 | .00012 | .00942 | .00034 | .01950 |
| %RSD | 211.59 | 67.338 | 149.42 | 52.447 | 210.80 | 62.706 | 217.12 |
| #1 | -.00172 | -.00055 | .00005 | .00014 | -.00219 | -.00079 | -.00481 |
| #2 | .00863 | -.00020 | -.00169 | .00031 | .01113 | -.00030 | .02277 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | -.00026 | -.00097 | -.00005 | .00385 | .00102 | .07932 | .00722 |
| SDev | .00107 | .00101 | .00022 | .00632 | .00069 | .11492 | .05723 |
| %RSD | 404.91 | 104.35 | 398.23 | 164.25 | 68.111 | 144.88 | 792.32 |
| #1 | -.00102 | -.00169 | -.00021 | -.00062 | .00053 | -.00194 | -.03325 |
| #2 | .00049 | -.00025 | .00010 | .00832 | .00151 | .16059 | .04769 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | .54038 | .34065 | .00068 | -.00000 | -.00544 | .00215 | -.00989 |
| SDev | .01274 | .04880 | .00102 | .00033 | .00776 | .00426 | .00854 |
| %RSD | 2.3574 | 14.326 | 149.27 | 14225. | 142.80 | 197.86 | 86.435 |
| #1 | .53137 | .30615 | -.00004 | .00023 | .00005 | -.00086 | -.00384 |
| #2 | .54939 | .37516 | .00140 | -.00024 | -.01093 | .00516 | -.01593 |

| Elem | 1960-2 |
|---|---|
| Avge | .00370 |
| SDev | .00242 |
| %RSD | 65.407 |
| #1 | .00199 |
| #2 | .00541 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 10171 | -- | -- | -- | -- | -- | -- |
| SDev | 30.68871 | -- | -- | -- | -- | -- | -- |
| %RSD | .3017216 | -- | -- | -- | -- | -- | -- |
| #1 | 10193 | -- | -- | -- | -- | -- | -- |
| #2 | 10150 | -- | -- | -- | -- | -- | -- |

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Method: IEC_2001 Sample Name: Q1325145 TSPI02 Operator: dad
Run Time: 01/17/02 16:11:34
Comment:
Mode: CONC Corr. Factor: 1

A581216

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | 1.8695 | .44802 | 1.9280 | .04549 | 2.7918 | .19491 | .46889 |
| SDev | .0134 | .00737 | .0250 | .00059 | .0271 | .00147 | .00324 |
| %RSD | .71879 | 1.6442 | 1.2959 | 1.2903 | .96972 | .75573 | .69013 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| #1 | 1.8600 | .44281 | 1.9103 | .04508 | 2.7727 | .19387 | .46660 |
| #2 | 1.8790 | .45323 | 1.9456 | .04591 | 2.8110 | .19595 | .47118 |
| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
| Avge | .05233 | .47056 | .04439 | .46022 | .42424 | 1.1180 | 2.2438 |
| SDev | .00026 | .00265 | .00036 | .00462 | .00240 | .0236 | .0146 |
| %RSD | .49959 | .56239 | .81529 | 1.0031 | .56608 | 2.1092 | .65208 |
| #1 | .05214 | .46869 | .04413 | .45696 | .42254 | 1.1014 | 2.2335 |
| #2 | .05251 | .47243 | .04464 | .46349 | .42594 | 1.1347 | 2.2542 |
| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
| Avge | 102.18 | 97.372 | .04499 | .04574 | .46623 | .43893 | 1.9432 |
| SDev | .89 | 1.010 | .00062 | .00057 | .00743 | .00734 | .0194 |
| %RSD | .87514 | 1.0368 | 1.3721 | 1.2501 | 1.5927 | 1.6716 | .99693 |
| #1 | 101.55 | 96.658 | .04455 | .04534 | .46098 | .43374 | 1.9295 |
| #2 | 102.81 | 98.086 | .04543 | .04615 | .47148 | .44411 | 1.9569 |
| Elem | 1960-2 | | | | | | |
| Avge | 1.9204 | | | | | | |
| SDev | .0278 | | | | | | |
| %RSD | 1.4469 | | | | | | |
| #1 | 1.9008 | | | | | | |
| #2 | 1.9400 | | | | | | |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 10124 | -- | -- | -- | -- | -- | -- |
| SDev | 105.5005 | -- | -- | -- | -- | -- | -- |
| %RSD | 1.042103 | -- | -- | -- | -- | -- | -- |
| #1 | 10198 | -- | -- | -- | -- | -- | -- |
| #2 | 10049 | -- | -- | -- | -- | -- | -- |

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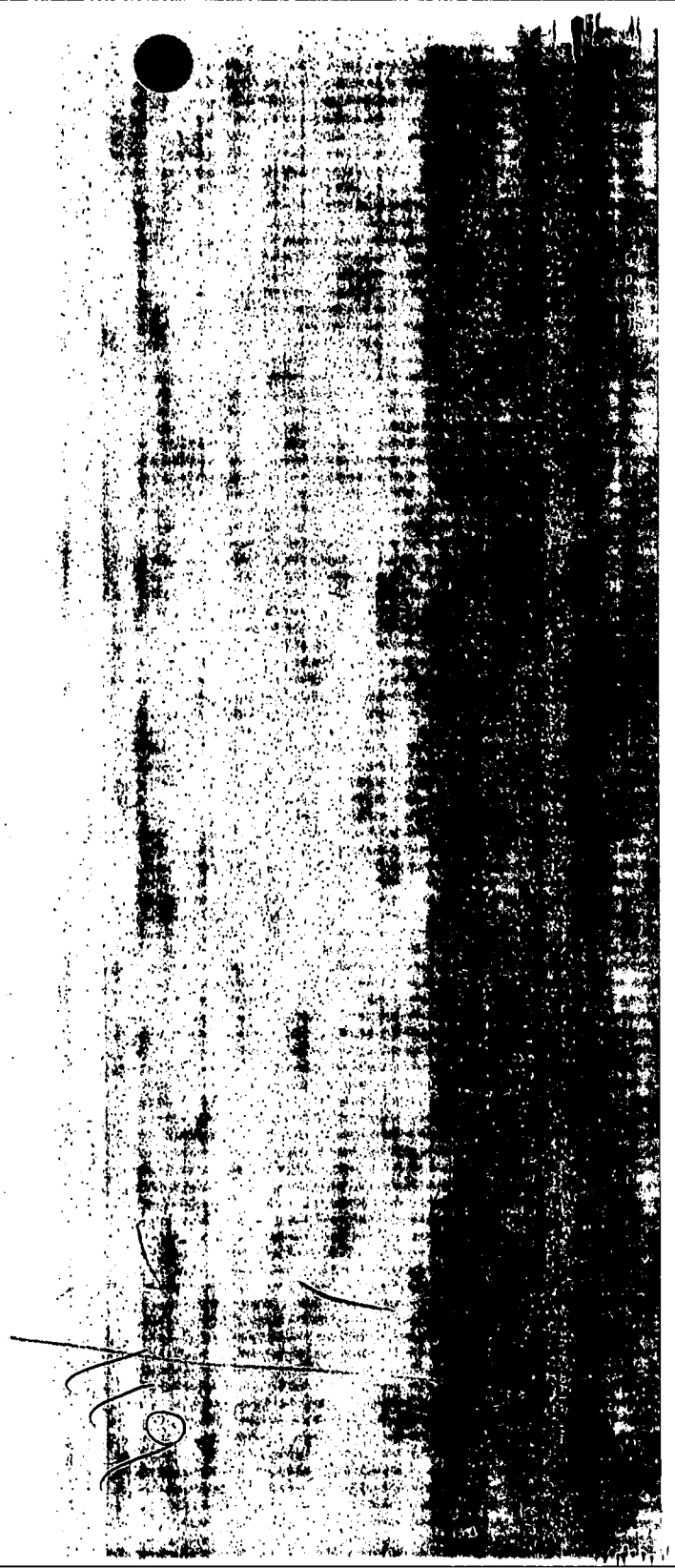
Method: IEC_2001 Sample Name: Q1325146 TDS02 Operator: dad
Run Time: 01/17/02 16:15:49
Comment:
Mode: CONC Corr. Factor: 1

A581216

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
| Avge | 1.9204 | .46605 | 1.9860 | .04698 | 2.8659 | .20007 | .47456 |
| SDev | .0005 | .00156 | .0031 | .00007 | .0006 | .00050 | .00030 |
| %RSD | .02400 | .33558 | .15714 | .15943 | .02145 | .25086 | .06224 |
| #1 | 1.9201 | .46494 | 1.9882 | .04693 | 2.8663 | .20042 | .47477 |
| #2 | 1.9208 | .46716 | 1.9838 | .04703 | 2.8654 | .19971 | .47435 |
| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
| Avge | .05268 | .48096 | .04553 | .47304 | .43417 | 1.1451 | 2.2866 |
| SDev | .00114 | .00166 | .00006 | .00071 | .00091 | .0040 | .0101 |
| %RSD | 2.1611 | .34534 | .14378 | .15038 | .20867 | .35357 | .44293 |



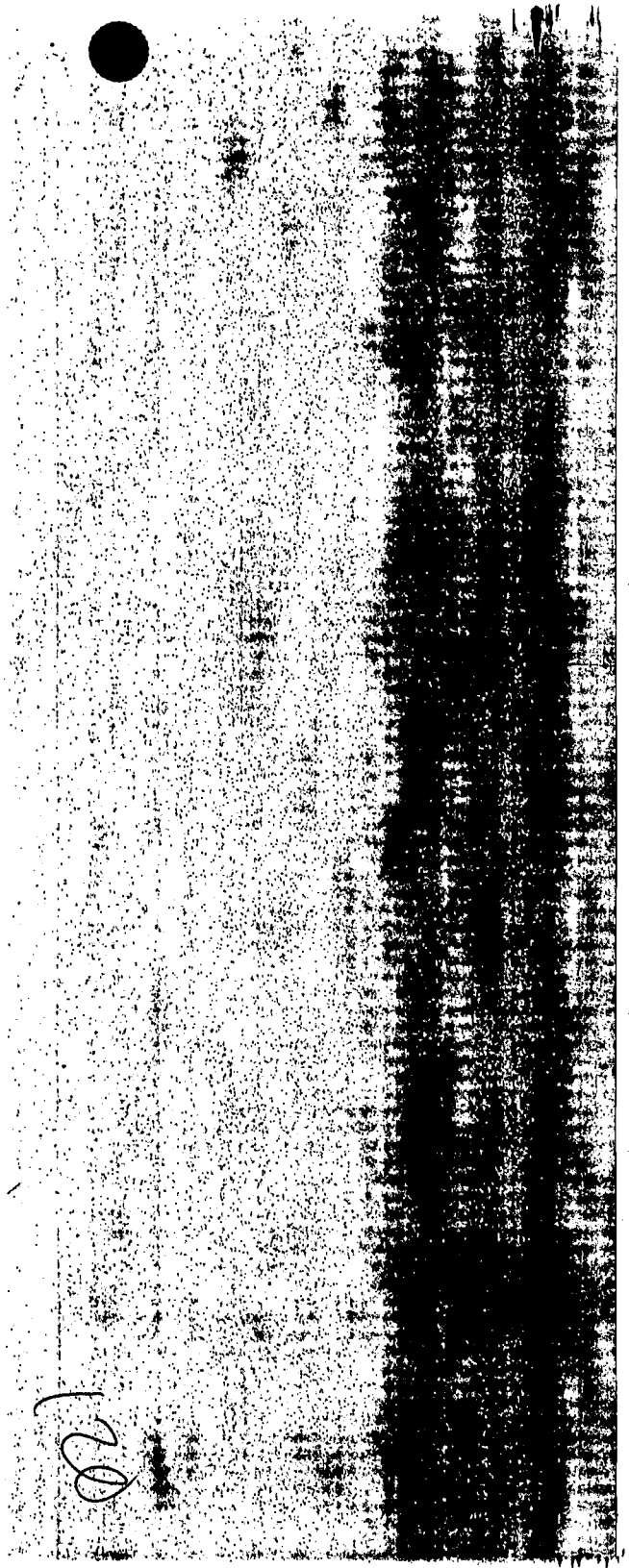


| | | | | | | | |
|---|---|---|---|---|---|---|---|
| #1 | .05349 | .48213 | .04558 | .47253 | .43481 | 1.1422 | 2.2937 |
| #2 | .05188 | .47978 | .04549 | .47354 | .43353 | 1.1480 | 2.2794 |
| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
| Avge | 104.99 | 100.66 | .04609 | .04742 | .48624 | .45597 | 2.0035 |
| SDev | .02 | .11 | .00002 | .00012 | .00284 | .00092 | .0032 |
| %RSD | .02128 | .11246 | .04237 | .25734 | .58518 | .20270 | .15928 |
| #1 | 104.97 | 100.58 | .04610 | .04734 | .48422 | .45532 | 2.0012 |
| #2 | 105.00 | 100.74 | .04607 | .04751 | .48825 | .45662 | 2.0057 |
| Elem | 1960-2 | | | | | | |
| Avge | 1.9772 | | | | | | |
| SDev | .0063 | | | | | | |
| %RSD | .31720 | | | | | | |
| #1 | 1.9817 | | | | | | |
| #2 | 1.9728 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 10063 | -- | -- | -- | -- | -- | -- |
| SDev | 15.69791 | -- | -- | -- | -- | -- | -- |
| %RSD | .1559948 | -- | -- | -- | -- | -- | -- |
| #1 | 10052 | -- | -- | -- | -- | -- | -- |
| #2 | 10074 | -- | -- | -- | -- | -- | -- |

Method: IEC_2001 Sample Name: TCCV Operator: dad
Run Time: 01/17/02 16:20:04
Comment:
Mode: CONC Corr. Factor: 1

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
| Avge | .09592 | .09725 | .09695 | .09762 | .10172 | .09843 | .09789 |
| SDev | .00044 | .00034 | .00102 | .00005 | .00455 | .00023 | .00045 |
| %RSD | .46186 | .34642 | 1.0480 | .05110 | 4.4680 | .22974 | .45699 |
| #1 | .09623 | .09701 | .09767 | .09765 | .10494 | .09859 | .09831 |
| #2 | .09560 | .09749 | .09624 | .09758 | .09851 | .09827 | .09747 |
| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
| Avge | .09329 | .09339 | .09349 | .09651 | .09463 | .01991 | -.03512 |
| SDev | .00042 | .00032 | .00010 | .00085 | .00015 | .00983 | .00328 |
| %RSD | .45553 | .34523 | .11013 | .88514 | .15647 | 49.339 | 9.3517 |
| #1 | .09299 | .09362 | .09342 | .09712 | .09452 | .02686 | -.03280 |
| #2 | .09359 | .09316 | .09356 | .09591 | .09473 | .01297 | -.03744 |
| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
| Avge | .02569 | .02074 | .09784 | .09750 | .09565 | .09805 | .09100 |
| SDev | .00274 | .00755 | .00001 | .00008 | .00200 | .00150 | .00140 |
| %RSD | 10.645 | 36.379 | .01205 | .08274 | 2.0865 | 1.5314 | 1.5424 |
| #1 | .02763 | .02608 | .09784 | .09756 | .09706 | .09698 | .09200 |





| | | | | | | | |
|---|---|---|---|---|---|---|---|
| #2 | .02376 | .01541 | .09785 | .09745 | .09424 | .09911 | .09001 |

| | |
|---|---|
| Elem | 1960-2 |
| Avge | .09993 |
| SDev | .00082 |
| %RSD | .82323 |
| #1 | .10051 |
| #2 | .09934 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9852 | -- | -- | -- | -- | -- | -- |
| SDev | 27.29405 | -- | -- | -- | -- | -- | -- |
| %RSD | .2770547 | -- | -- | -- | -- | -- | -- |
| #1 | 9871 | -- | -- | -- | -- | -- | -- |
| #2 | 9832 | -- | -- | -- | -- | -- | -- |

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Method: IEC_2001 Sample Name: BLA01 Operator: dad
Run Time: 01/17/02 16:24:19
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .00119 | .00108 | -.00094 | .00008 | .00200 | .00035 | -.00030 |
| SDev | .00084 | .00047 | .00133 | .00017 | .00021 | .00030 | .00029 |
| %RSD | 70.342 | 43.614 | 141.54 | 212.06 | 10.673 | 86.662 | 96.906 |
| #1 | .00178 | .00075 | -.00188 | -.00004 | .00185 | .00056 | -.00050 |
| #2 | .00060 | .00141 | .00000 | .00020 | .00215 | .00013 | -.00009 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .00033 | .00033 | -.00008 | .00029 | .00111 | -.00287 | -.02196 |
| SDev | .00047 | .00012 | .00001 | .00068 | .00018 | .00467 | .00544 |
| %RSD | 142.60 | 36.923 | 18.185 | 230.15 | 16.663 | 162.61 | 24.795 |
| #1 | .00066 | .00042 | -.00009 | .00077 | .00124 | .00043 | -.02580 |
| #2 | -.00000 | .00024 | -.00007 | -.00018 | .00098 | -.00618 | -.01811 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | .00985 | .00817 | -.00007 | .00016 | .00258 | .00033 | -.00393 |
| SDev | .00274 | .00307 | .00013 | .00019 | .00189 | .00023 | .00183 |
| %RSD | 27.852 | 37.530 | 171.81 | 120.06 | 73.163 | 70.803 | 46.574 |
| #1 | .00791 | .00600 | -.00017 | .00002 | .00124 | .00050 | -.00523 |
| #2 | .01179 | .01034 | .00002 | .00029 | .00391 | .00017 | -.00264 |

| | |
|---|---|
| Elem | 1960-2 |
| Avge | .00056 |
| SDev | .00108 |
| %RSD | 192.89 |
| #1 | -.00020 |
| #2 | .00132 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9740 | -- | -- | -- | -- | -- | -- |
| SDev | 51.26524 | -- | -- | -- | -- | -- | -- |
| %RSD | .5263561 | -- | -- | -- | -- | -- | -- |
| #1 | 9703 | -- | -- | -- | -- | -- | - |
| #2 | 9776 | -- | -- | -- | -- | -- | - |

Method: IEC_2001 Sample Name: A581214 Operator: dad
Run Time: 01/17/02 16:28:34
Comment:
Mode: CONC. Corr. Factor: 1

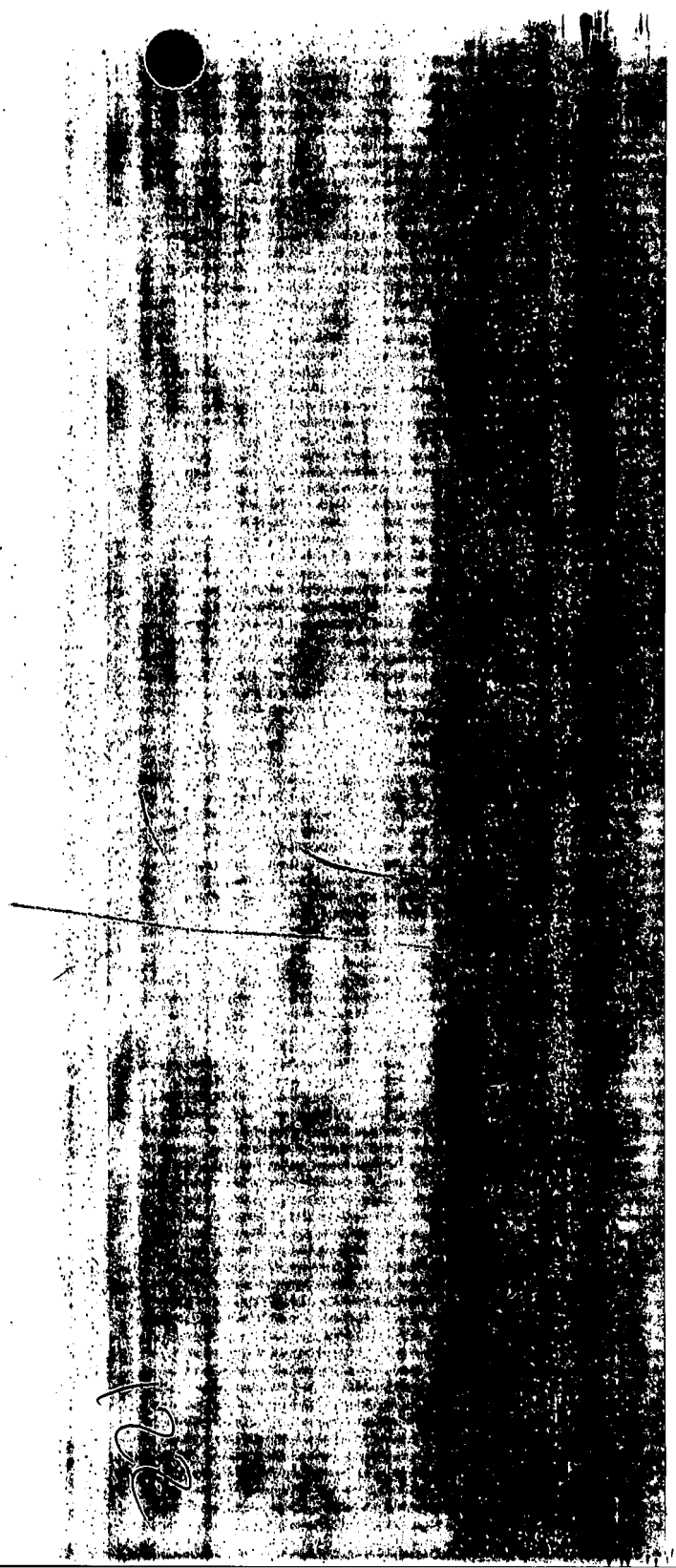
| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | -.00059 | .00137 | -.00236 | -.00002 | -.00049 | .00668 | L-.01164 |
| SDev | .00111 | .00045 | .00134 | .00009 | .00061 | .00197 | .00252 |
| %RSD | 187.39 | 33.040 | 56.814 | 383.00 | 123.59 | 29.502 | 21.612 |
| #1 | -.00138 | .00169 | -.00331 | .00004 | -.00006 | .00529 | L-.01342 |
| #2 | .00019 | .00105 | -.00141 | -.00009 | -.00093 | .00807 | L-.00986 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .00135 | .00435 | -.00070 | .00716 | .40691 | 5.4102 | -.12085 |
| SDev | .00364 | .00224 | .00001 | .00113 | .00318 | .0857 | .00740 |
| %RSD | 269.94 | 51.601 | 1.1344 | 15.743 | .78127 | 1.5843 | 6.1233 |
| #1 | -.00123 | .00276 | -.00070 | .00636 | .40467 | 5.3496 | -.12408 |
| #2 | .00392 | .00593 | -.00069 | .00796 | .40916 | 5.4708 | -.11562 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | 343.41 | 225.86 | -.00230 | .00111 | .02084 | -.00835 | 02206 |
| SDev | 4.97 | 3.98 | .00059 | .00015 | .00125 | .00130 | 00532 |
| %RSD | 1.4482 | 1.7605 | 25.522 | 13.656 | 5.9929 | 15.622 | 24.112 |
| #1 | 339.90 | 223.05 | -.00188 | .00100 | .01996 | -.00742 | .02582 |
| #2 | 346.93 | 228.67 | -.00271 | .00122 | .02173 | -.00927 | .01830 |

| Elem | 1960-2 |
|---|---|
| Avge | -.01456 |
| SDev | .00467 |
| %RSD | 32.075 |
| #1 | -.01786 |
| #2 | -.01126 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9111 | -- | -- | -- | -- | -- | -- |
| SDev | 48.71993 | -- | -- | -- | -- | -- | -- |
| %RSD | .5347405 | -- | -- | -- | -- | -- | -- |





| | | | | | | | |
|---|---|---|---|---|---|---|---|
| #1 | .9076 | -- | -- | -- | -- | -- | -- |
| #2 | 9145 | -- | -- | -- | -- | -- | -- |

Method: IEC_2001 Sample Name: A581215 Operator: dad
Run Time: 01/17/02 16:32:49
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .00182 | .00342 | -.00169 | .00019 | .00164 | .00510 | -.00357 |
| SDev | .00679 | .00067 | .00039 | .00014 | .00846 | .00088 | .01816 |
| %RSD | 372.15 | 19.555 | 23.282 | 73.511 | 515.50 | 17.210 | 509.05 |
| #1 | .00663 | .00295 | -.00197 | .00028 | .00762 | .00448 | .00928 |
| #2 | -.00298 | .00389 | -.00141 | .00009 | -.00434 | .00572 | L-.01641 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .00071 | .00100 | -.00046 | .00083 | .27559 | 24.194 | -.04570 |
| SDev | .00136 | .00158 | .00021 | .00556 | .00188 | .297 | .06136 |
| %RSD | 191.85 | 157.86 | 46.535 | 668.69 | .68325 | 1.2257 | 134.28 |
| #1 | -.00025 | .00012 | -.00031 | .00476 | .27692 | 24.404 | -.00231 |
| #2 | .00167 | .00211 | -.00061 | L-.00310 | .27425 | 23.984 | -.08909 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | 37.513 | 16.881 | -.00029 | .00043 | .01496 | -.00234 | .00736 |
| SDev | .312 | .252 | .00114 | .00036 | .00974 | .00386 | .00980 |
| %RSD | .83129 | 1.4915 | 387.04 | 85.155 | 65.099 | 164.88 | 133.25 |
| #1 | 37.733 | 17.059 | .00051 | .00017 | .00807 | .00039 | .00042 |
| #2 | 37.292 | 16.703 | -.00110 | .00068 | .02185 | -.00507 | .01429 |

| Elem | 1960-2 |
|---|---|
| Avge | -.00621 |
| SDev | .00430 |
| %RSD | 69.369 |
| #1 | -.00316 |
| #2 | -.00925 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 10122 | -- | -- | -- | -- | -- | -- |
| SDev | 36.62799 | -- | -- | -- | -- | -- | -- |
| %RSD | .3618616 | -- | -- | -- | -- | -- | -- |
| #1 | 10096 | -- | -- | -- | -- | -- | -- |
| #2 | 10148 | -- | -- | -- | -- | -- | -- |

Method: IEC_2001 Sample Name: A581217 Operator: dad
Run Time: 01/17/02 16:37:04
Comment:

Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .00079 | -.00109 | -.00332 | .00012 | -.00078 | .00038 | -.00288 |
| SDev | .00052 | .00032 | .00321 | .00006 | .00091 | .00111 | .00064 |
| %RSD | 66.117 | 29.315 | 96.784 | 46.694 | 117.00 | 290.07 | 22.055 |
| #1 | .00042 | -.00131 | L-.00559 | .00008 | -.00142 | .00117 | -.00333 |
| #2 | .00116 | -.00086 | -.00105 | .00016 | -.00013 | -.00040 | -.00243 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .00041 | -.00002 | -.00035 | .00011 | .00242 | .03425 | -.06698 |
| SDev | .00144 | .00101 | .00000 | .00044 | .00003 | .00770 | .00632 |
| %RSD | 348.57 | 5839.3 | 1.2331 | 385.14 | 1.1341 | 22.471 | 9.4371 |
| #1 | .00143 | .00070 | -.00035 | -.00020 | .00244 | .02881 | -.07145 |
| #2 | -.00060 | -.00073 | -.00035 | .00042 | .00240 | .03969 | -.06251 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | 3.4133 | 1.9839 | -.00011 | .00023 | .00060 | -.00193 | .00083 |
| SDev | .0029 | .0047 | .00072 | .00028 | .00373 | .00234 | .00069 |
| %RSD | .08511 | .23925 | 640.79 | 117.57 | 617.49 | 121.16 | 82.858 |
| #1 | 3.4154 | 1.9806 | -.00062 | .00043 | .00324 | -.00359 | .00034 |
| #2 | 3.4112 | 1.9873 | .00039 | .00004 | -.00203 | -.00028 | .00132 |

| Elem | 1960-2 |
|---|---|
| Avge | -.00539 |
| SDev | .00447 |
| %RSD | 82.946 |
| #1 | -.00855 |
| #2 | -.00223 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 10246 | -- | -- | -- | -- | -- | -- |
| SDev | 70.14513 | -- | -- | -- | -- | -- | -- |
| %RSD | .6846099 | -- | -- | -- | -- | -- | -- |
| #1 | 10196 | -- | -- | -- | -- | -- | -- |
| #2 | 10296 | -- | -- | -- | -- | -- | -- |

---

Method: IEC_2001 Sample Name: A581218 Operator: dad
Run Time: 01/17/02 16:41:19
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | -.00039 | .00082 | -.00192 | -.00002 | .00096 | -.00021 | .00086 |
| SDev | .00060 | .00149 | .00127 | .00006 | .00081 | .00002 | .00047 |
| %RSD | 155.92 | 181.10 | 66.427 | 274.21 | 83.837 | 9.1553 | 55.029 |
| #1 | -.00081 | .00188 | -.00282 | -.00006 | .00153 | -.00020 | .00053 |
| #2 | .00004 | -.00023 | -.00102 | .00002 | .00039 | -.00023 | .00120 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | -.00002 | .00007 | -.00028 | .00127 | .06563 | .59093 | -.04505 |
| SDev | .00030 | .00022 | .00002 | .00035 | .00042 | .00441 | .00178 |
| %RSD | 1678.4 | 305.79 | 7.6639 | 27.287 | .63828 | .74625 | 3.9412 |
| #1 | -.00023 | -.00009 | -.00030 | .00102 | .06593 | .58781 | -.04631 |
| #2 | .00020 | .00023 | -.00027 | .00151 | .06534 | .59405 | -.04380 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | 60.541 | 25.441 | -.00018 | .00006 | .00116 | .00066 | -.00136 |
| SDev | .246 | .118 | .00028 | .00023 | .00095 | .00271 | .00278 |
| %RSD | .40587 | .46530 | 155.72 | 393.15 | 81.913 | 413.55 | 204.41 |
| #1 | 60.715 | 25.524 | .00002 | -.00010 | .00049 | .00258 | -.00333 |
| #2 | 60.368 | 25.357 | -.00038 | .00022 | .00183 | -.00126 | .00061 |

| Elem | 1960-2 |
|---|---|
| Avge | -.00219 |
| SDev | .00052 |
| %RSD | 23.700 |
| #1 | -.00256 |
| #2 | -.00183 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 10183 | -- | -- | -- | -- | -- | -- |
| SDev | 12.93992 | -- | -- | -- | -- | -- | -- |
| %RSD | .1270731 | -- | -- | -- | -- | -- | -- |
| #1 | 10174 | -- | -- | -- | -- | -- | -- |
| #2 | 10192 | -- | -- | -- | -- | -- | -- |

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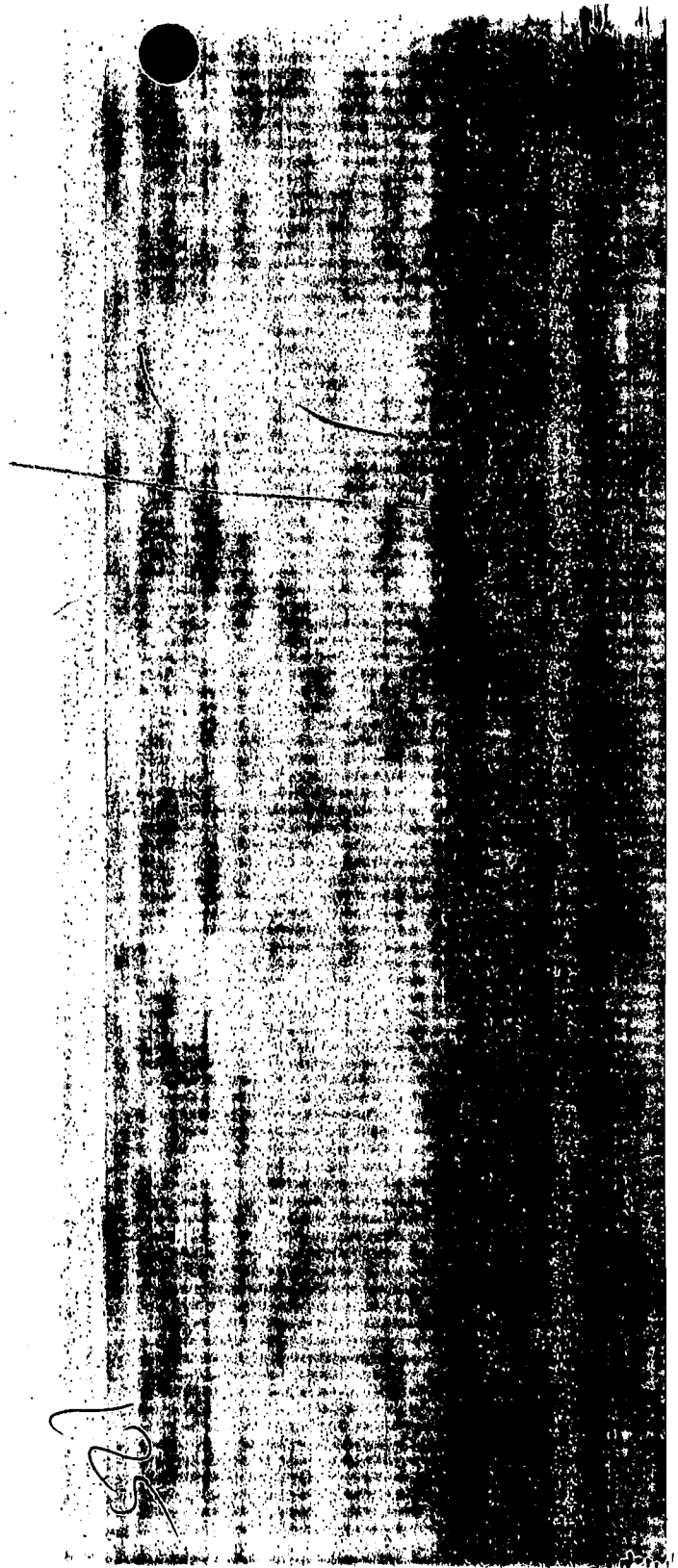
Method: IEC_2001 Sample Name: A579992 Operator: dad
Run Time: 01/17/02 16:45:34
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Th2068 |
|---|---|---|---|---|---|---|---|
| Avge | .00431 | .00355 | -.00160 | .00373 | -.00069 | .00592 | .00252 |
| SDev | .00419 | .00184 | .00582 | .00003 | .00029 | .00033 | .00250 |
| %RSD | 97.225 | 34.915 | 364.21 | .67222 | 41.773 | 5.5815 | 99.149 |
| #1 | .00727 | .00443 | -.00572 | .00371 | -.00048 | .00569 | -.00075 |
| #2 | .00135 | .00267 | .00252 | .00375 | -.00089 | .00615 | .00429 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | -.00102 | .00857 | -.00014 | .00362 | .53680 | 10.027 | 4.0426 |
| SDev | .00059 | .00044 | .00002 | .00076 | .00113 | .016 | .0041 |
| %RSD | 57.430 | 5.0793 | 11.000 | 21.076 | .21054 | .15784 | .10133 |
| #1 | -.00144 | .00826 | -.00013 | .00416 | .53600 | 10.016 | 4.0397 |
| #2 | -.00061 | .00887 | -.00015 | .00308 | .53760 | 10.039 | 4.0455 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|





| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Avge | 160.67 | 32.454 | .00387 | .00366 | .00385 | .00340 | -.00203 |
| SDev | .46 | .071 | .00052 | .00030 | .00313 | .00342 | .01076 |
| %RSD | .28756 | .21784 | 13.570 | 8.1783 | 81.189 | 100.53 | 531.02 |
| #1 | 160.34 | 32.404 | .00424 | .00345 | .00164 | .00582 | -.00964 |
| #2 | 161.00 | 32.504 | .00349 | .00387 | .00606 | .00098 | .00558 |

| | |
|---|---|
| Elem | 1960-2 |
| Avge | -.00139 |
| SDev | .00336 |
| %RSD | 242.32 |
| #1 | -.00376 |
| #2 | .00099 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 10395 | -- | -- | -- | -- | -- | -- |
| SDev | 7.707740 | -- | -- | -- | -- | -- | -- |
| %RSD | .0741510 | -- | -- | -- | -- | -- | -- |
| #1 | 10389 | -- | -- | -- | -- | -- | -- |
| #2 | 10400 | -- | -- | -- | -- | -- | -- |

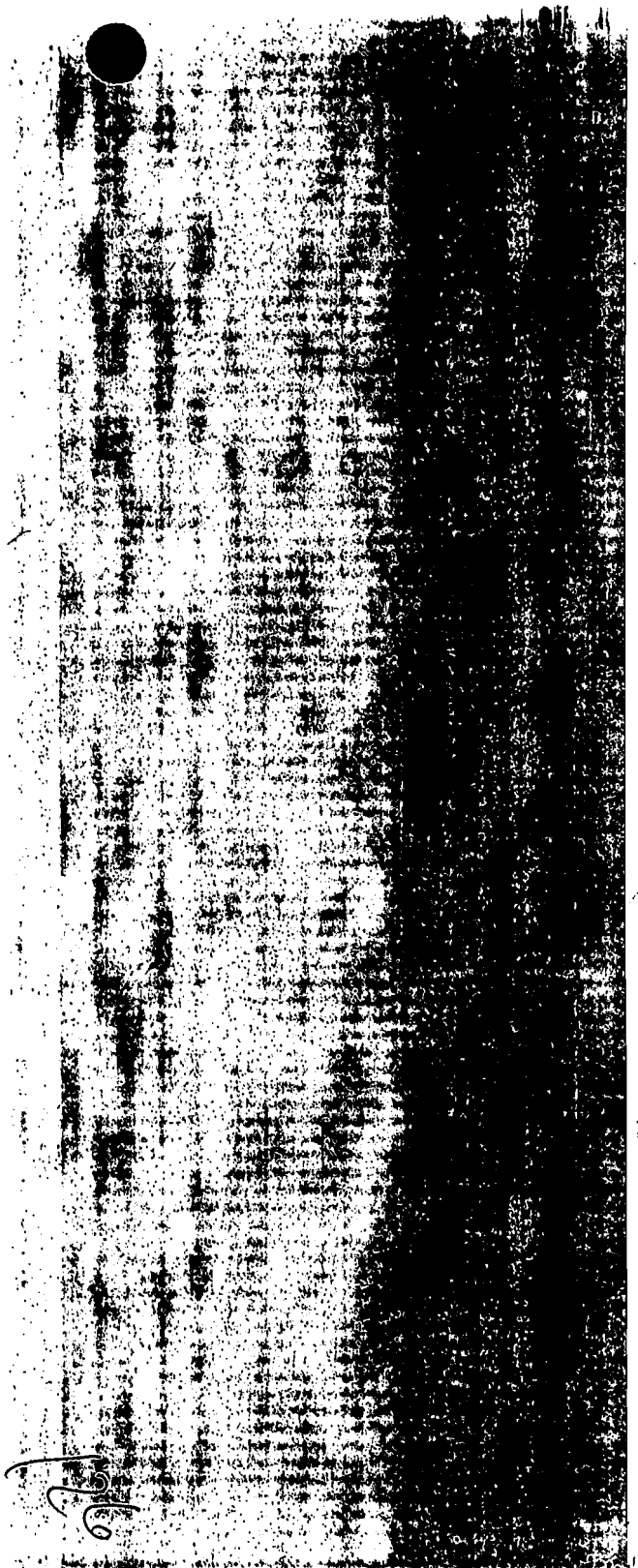
Method: IEC_2001 Sample Name: A580000 Operator: dad
Run-Time: 01/17/02 16:49:49
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .00196 | .00253 | -.00451 | .00085 | -.00097 | .00489 | -.00123 |
| SDev | .00149 | .00079 | .00131 | .00009 | .00265 | .00008 | .00095 |
| %RSD | 75.700 | 31.125 | 29.128 | 26.664 | 274.69 | 1.6737 | 77.750 |
| #1 | .00301 | .00308 | -.00543 | .00041 | -.00284 | .00484 | -.00065 |
| #2 | .00091 | .00197 | -.00358 | .00028 | .00091 | .00495 | -.00190 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | -.00048 | .00728 | -.00015 | .00188 | .05332 | 4.1200 | 3.3789 |
| SDev | .00030 | .00057 | .00001 | .00026 | .00012 | .0041 | .0189 |
| %RSD | 63.640 | 7.8797 | 4.5094 | 13.781 | .22283 | .09959 | .56002 |
| #1 | -.00026 | .00688 | -.00015 | .00170 | .05324 | 4.1171 | 3.3922 |
| #2 | -.00069 | .00769 | -.00014 | .00207 | .05340 | 4.1229 | 3.3655 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | 40.576 | 4.9204 | -.00034 | .00069 | .00808 | -.00024 | -.00019 |
| SDev | .123 | .0131 | .00021 | .00003 | .00145 | .00046 | .00532 |
| %RSD | .30265 | .26537 | 63.329 | 4.5941 | 17.949 | 187.41 | 2786.2 |
| #1 | 40.489 | 4.9112 | -.00019 | .00071 | .00910 | .00008 | -.00395 |
| #2 | 40.663 | 4.9296 | -.00049 | .00067 | .00705 | -.00057 | .00357 |

| | |
|---|---|
| Elem | 1960-2 |
| Avge | -.00666 |





| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SDev | .00069 | | | | | | |
| %RSD | 10.302 | | | | | | |
| #1 | -.00617 | | | | | | |
| #2 | -.00714 | | | | | | |
| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 10351 | -- | -- | -- | -- | -- | -- |
| SDev | 28.28427 | -- | -- | -- | -- | -- | - |
| %RSD | .2732516 | -- | -- | -- | -- | -- | - |
| #1 | 10371 | -- | -- | -- | -- | -- | -- |
| #2 | 10331 | -- | -- | -- | -- | -- | -- |

Method: IEC_2001 Sample Name: TCCV Operator: dad
Run Time: 01/17/02 16:54:05
Comment:
Mode: CONC Corr. Factor: 1

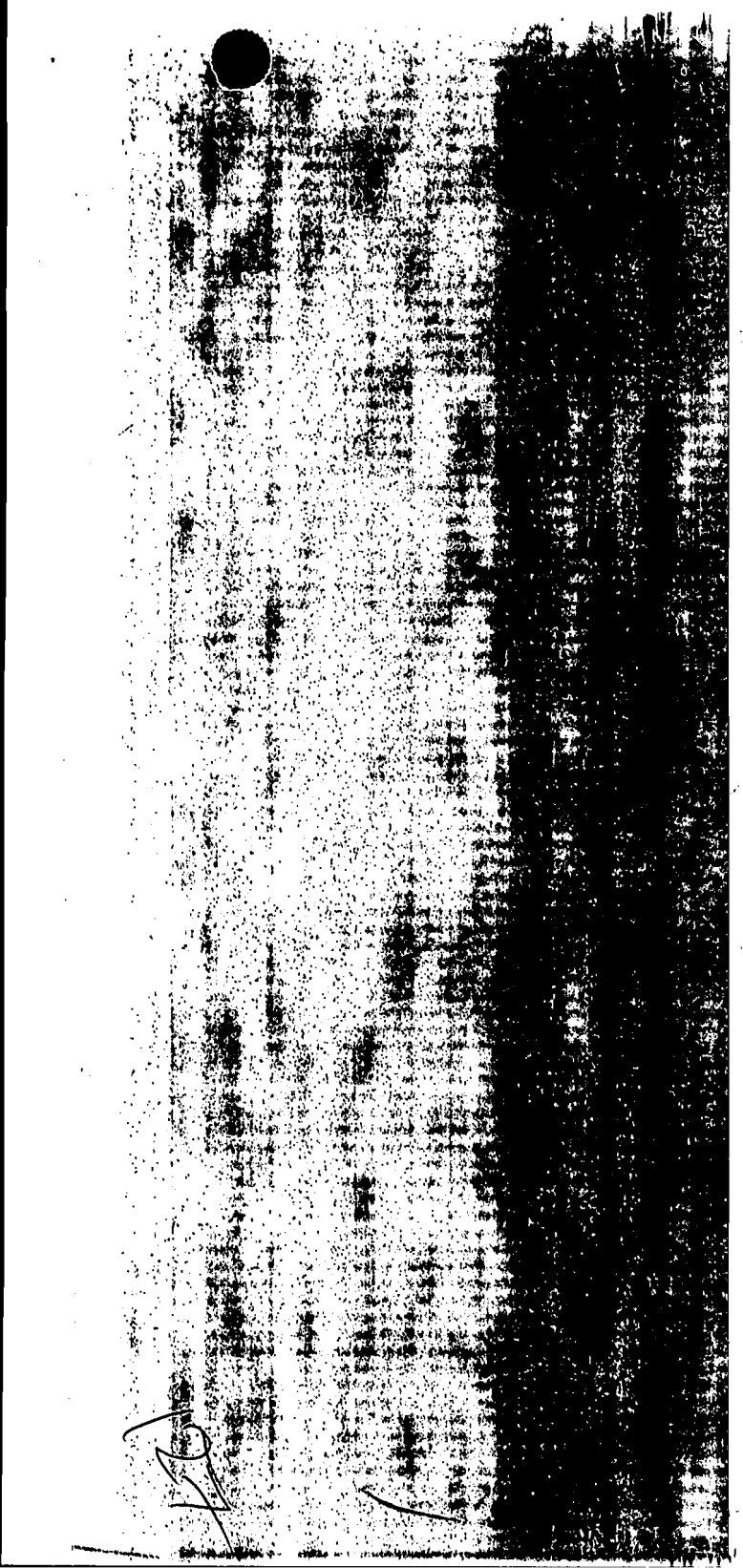
| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .09590 | .10126 | .10055 | .10077 | .09640 | .10117 | .09461 |
| SDev | .00033 | .00177 | .00299 | .00043 | .00262 | .00115 | .00010 |
| %RSD | .34541 | 1.7507 | 2.9767 | .43012 | 2.7222 | 1.1398 | .10804 |
| #1 | .09567 | .10251 | .10266 | .10108 | .09454 | .10199 | .09454 |
| #2 | .09614 | .10001 | .09843 | .10046 | .09826 | .10036 | .09469 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .09503 | .09723 | .09463 | .09917 | .09588 | .02071 | -.04614 |
| SDev | .00121 | .00100 | .00055 | .00111 | .00069 | .00024 | .00613 |
| %RSD | 1.2732 | 1.0303 | .57686 | 1.1161 | .71532 | 1.1615 | 13.279 |
| #1 | .09588 | .09794 | .09502 | .09995 | .09637 | .02054 | -.04180 |
| #2 | .09417 | .09652 | .09425 | .09838 | .09540 | .02088 | -.05047 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | .03430 | .00509 | .10029 | .10101 | .10082 | .10148 | .10113 |
| SDev | .00459 | .00839 | .00012 | .00059 | .00225 | .00154 | 01034 |
| %RSD | 13.370 | 164.76 | .11870 | .58450 | 2.2297 | 1.5131 | 10.224 |
| #1 | .03754 | .01102 | .10037 | .10143 | .10241 | .10257 | 10844 |
| #2 | .03106 | -.00084 | .10021 | .10059 | .09923 | .10040 | .09382 |

| Elem | 1960-2 |
|---|---|
| Avge | .10025 |
| SDev | .00068 |
| %RSD | .67335 |
| #1 | .09978 |
| #2 | .10073 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |





| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9946 | -- | -- | -- | -- | -- | -- |
| SDev | 66.75047 | -- | -- | -- | -- | -- | -- |
| %RSD | .6711085 | -- | -- | -- | -- | -- | -- |
| #1 | 9899 | -- | -- | -- | -- | -- | -- |
| #2 | 9994 | -- | -- | -- | -- | -- | -- |

Method: IEC_2001 Sample Name: BLA01 Operator: dad
Run Time: 01/17/02 16:58:20
Comment:
Mode: CONC Corr. Factor: 1

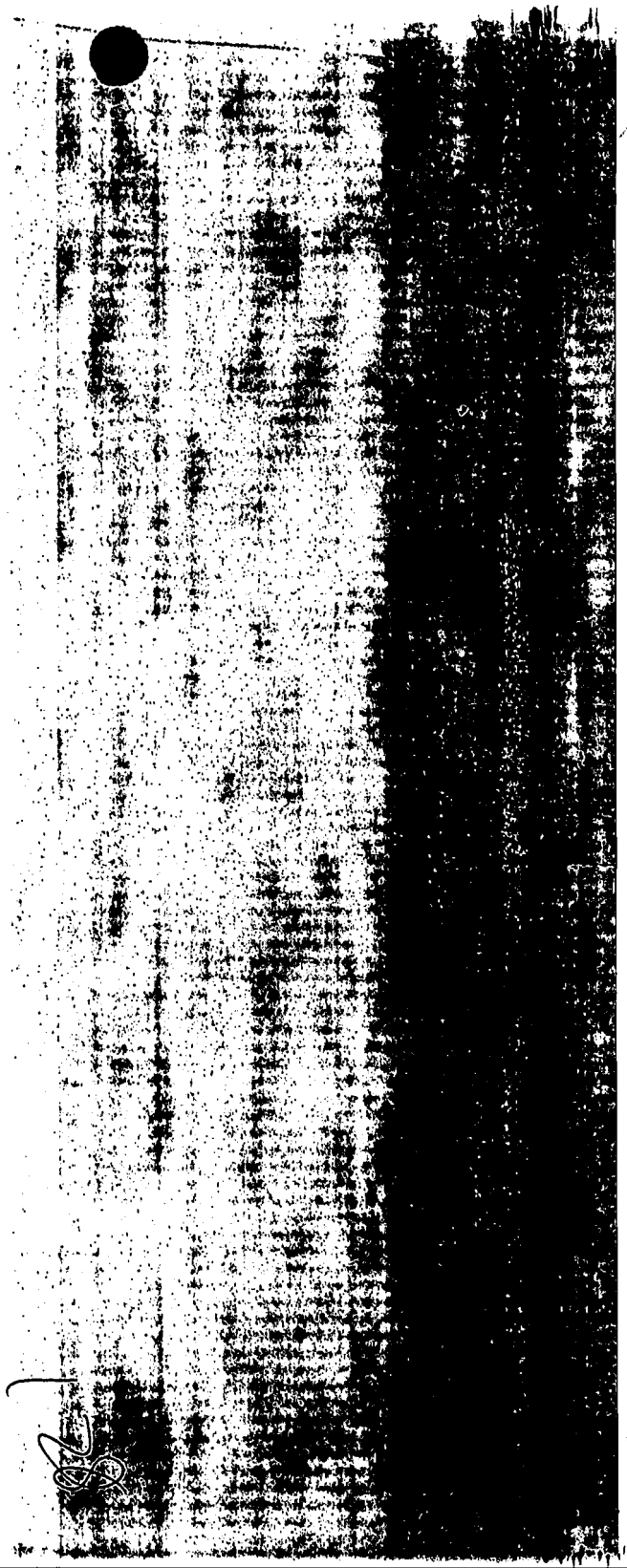
| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | -.00035 | -.00030 | -.00210 | -.00005 | .00142 | -.00015 | .00003 |
| SDev | .00369 | .00032 | .00057 | .00005 | .00293 | .00037 | .00042 |
| %RSD | 1038.8 | 107.25 | 27.093 | 97.642 | 206.70 | 247.76 | 1409.9 |
| #1 | -.00296 | -.00007 | -.00250 | -.00002 | .00349 | -.00041 | .00033 |
| #2 | .00225 | -.00052 | -.00170 | -.00009 | -.00065 | .00011 | -.00027 |

| Elem | Ag3280 | [illegible]_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | -.00091 | -.00082 | -.00018 | .00040 | .00011 | .00504 | -.04788 |
| SDev | .00024 | .00012 | .00002 | .00035 | .00015 | .00184 | .00010 |
| %RSD | 26.249 | 14.149 | 9.2851 | 87.980 | 136.21 | 36.416 | .20348 |
| #1 | -.00108 | -.00074 | -.00019 | .00015 | .00021 | .00374 | -.04795 |
| #2 | -.00074 | -.00091 | -.00016 | .00065 | .00000 | .00634 | -.04782 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | [illegible]960-1 |
|---|---|---|---|---|---|---|---|
| Avge | .01375 | .00354 | -.00052 | .00018 | .00245 | -.00167 | .00159 |
| SDev | .00191 | .00162 | .00038 | .00012 | .00254 | .00174 | .00113 |
| %RSD | 13.865 | 45.867 | 73.669 | 63.474 | 103.39 | 104.42 | 70.844 |
| #1 | .01510 | .00468 | -.00025 | .00010 | .00066 | -.00044 | -.00079 |
| #2 | .01240 | .00239 | -.00078 | .00026 | .00425 | -.00290 | -.00239 |

| Elem | 1960-2 |
|---|---|
| Avge | -.00235 |
| SDev | .00142 |
| %RSD | 60.214 |
| #1 | -.00335 |
| #2 | -.00135 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9959 | -- | -- | -- | -- | -- | -- |
| SDev | 67.88225 | -- | -- | -- | -- | -- | -- |
| %RSD | .6816376 | -- | -- | -- | -- | -- | -- |
| #1 | 10007 | -- | -- | -- | -- | -- | -- |
| #2 | 9911 | -- | -- | -- | -- | -- | -- |





Method: IEC_2001 Sample Name: TDLS Operator: dad
Run Time: 01/17/02 17:02:35
Comment:
Mode: CONC Corr. Factor:.1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .00355 | .00490 | .00494 | .00108 | .00921 | .00050 | 00256 |
| SDev | .00009 | .00113 | .00110 | .00010 | .00080 | .00040 | .00221 |
| %RSD | 2.4520 | 23.103 | 22.349 | 9.5460 | 8.6459 | 80.158 | 86.281 |
| #1 | .00362 | .00570 | .00572 | .00101 | .00865 | .00021 | 00100 |
| #2 | .00349 | .00410 | .00416 | .00115 | .00978 | .00078 | 00413 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | 13082 |
|---|---|---|---|---|---|---|---|
| Avge | .00065 | .00054 | .00079 | .00068 | .00109 | - 00220 | 05064 |
| SDev | .00047 | .00000 | .00001 | .00039 | .00002 | .00810 | .00270 |
| %RSD | 73.229 | .04453 | 1.2843 | 57.411 | 1.3483 | 368.24 | .3408 |
| #1 | .00031 | .00054 | .00080 | .00040 | .00110 | - 00793 | -.05255 |
| #2 | .00099 | .00054 | .00079 | .00095 | .00108 | .00353 | .04873 |

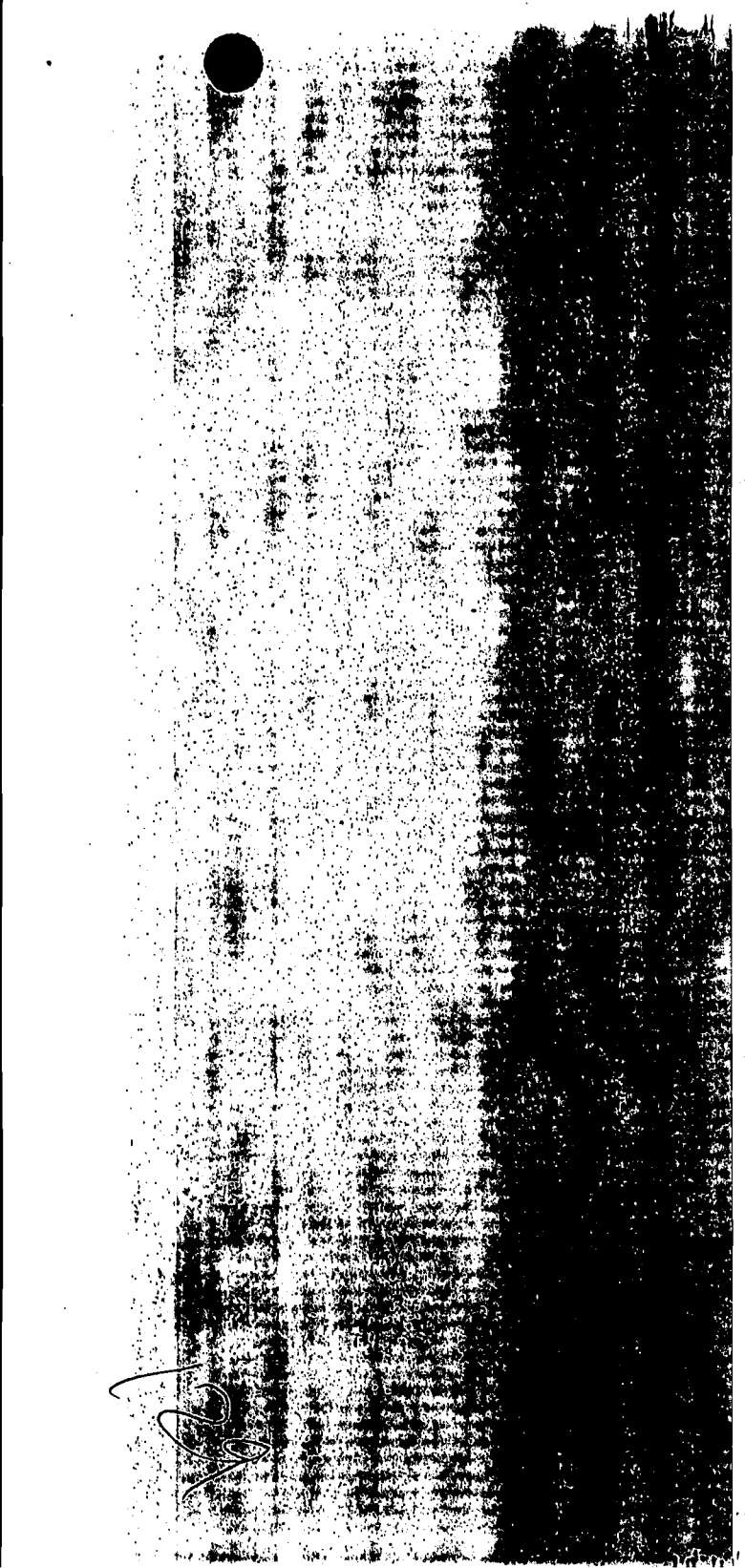
| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | .00342 | -.00530 | .00069 | .00128 | .00561 | .00454 | 00443 |
| SDev | .00002 | .00574 | .00068 | .00018 | .00536 | .00098 | .00200 |
| %RSD | .64292 | 108.46 | 98.925 | 14.446 | 95.595 | 21.559 | 45.217 |
| #1 | .00344 | -.00936 | .00021 | .00141 | .00940 | .00385 | .00585 |
| #2 | .00341 | -.00123 | .00117 | .00115 | .00182 | .00524 | 00301 |

| Elem | 1960-2 |
|---|---|
| Avge | .00520 |
| SDev | .00066 |
| %RSD | 12.616 |
| #1 | .00566 |
| #2 | .00473 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 10129 | -- | -- | -- | -- | -- | -- |
| SDev | 10.81860 | -- | -- | -- | -- | -- | -- |
| %RSD | .1068108 | -- | -- | -- | -- | -- | - |
| #1 | 10121 | -- | -- | -- | -- | -- | -- |
| #2 | 10136 | -- | -- | -- | -- | -- | -- |

Method: IEC_2001 Sample Name: TCDL01 Operator: dad
Run Time: 01/17/02 17:06:51
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | .01876 | .00600 | .00796 | .01035 | .02381 | .02124 | 11944 |





| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SDev | .00132 | .00025 | .00007 | .00018 | .00055 | .00023 | .00005 |
| %RSD | 7.0375 | 4.0964 | .84542 | 1.7099 | 2.3167 | 1.0936 | .03839 |
| #1 | .01969 | .00583 | .00800 | .01047 | .02342 | .02140 | .11941 |
| #2 | .01783 | .00618 | .00791 | .01022 | .02420 | .02107 | .11947 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .01995 | .10357 | .00962 | .10388 | .02958 | .01813 | .00671 |
| SDev | .00026 | .00002 | .00000 | .00020 | .00000 | .00646 | .00015 |
| %RSD | 1.2768 | .02187 | .02967 | .19429 | .01303 | 35.614 | 2.2853 |
| #1 | .01977 | .10355 | .00963 | .10403 | .02957 | .01357 | .00660 |
| #2 | .02013 | .10358 | .00962 | .10374 | .02958 | .02270 | .00682 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | .00752 | .00032 | .01010 | .01047 | .00954 | .00424 | .00546 |
| SDev | .00001 | .00043 | .00049 | .00002 | .00242 | .00084 | .00248 |
| %RSD | .07302 | 133.23 | 4.8546 | .19513 | 25.324 | 19.751 | 45.519 |
| #1 | .00752 | .00062 | .01045 | .01048 | .00783 | .00483 | .00370 |
| #2 | .00753 | .00002 | .00975 | .01045 | .01125 | .00365 | .00722 |

| Elem | 1960-2 |
|---|---|
| Avge | .00920 |
| SDev | .00134 |
| %RSD | 14.575 |
| #1 | .01015 |
| #2 | .00825 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9856 | -- | -- | -- | -- | -- | -- |
| SDev | 2.191755 | -- | -- | -- | -- | -- | -- |
| %RSD | .0222374 | -- | -- | -- | -- | -- | -- |
| #1 | 9858 | -- | -- | -- | -- | -- | -- |
| #2 | 9855 | -- | -- | -- | -- | -- | -- |

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Method: IEC_2001 Sample Name: TICS-A Operator: dad
Run Time: 01/17/02 17:11:06
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | -.00019 | .00038 | .00096 | -.00019 | -.00324 | H.00508 | -.00467 |
| SDev | .00146 | .00092 | .00269 | .00000 | .00507 | .00051 | .00248 |
| %RSD | 772.53 | 240.50 | 279.27 | 1.7520 | 156.43 | 10.130 | 53.151 |
| #1 | -.00122 | .00103 | .00286 | -.00019 | -.00682 | H.00472 | -.00642 |
| #2 | .00084 | -.00027 | -.00094 | -.00019 | .00034 | H.00544 | -.00291 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | Al3082 |
|---|---|---|---|---|---|---|---|
| Avge | .00046 | -.00110 | -.00026 | .00029 | -.00185 | 202.75 | 497.40 |
| SDev | .00022 | .00011 | .00003 | .00004 | .00012 | 1.23 | 2.82 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| %RSD | 47.494 | 10.087 | 11.381 | 14.543 | 6.2362 | .60580 | [illegible] |
| #1 | .00031 | -.00102 | -.00024 | .00026 | -.00193 | 203.62 | [illegible] |
| #2 | .00061 | -.00118 | -.00028 | .00031 | -.00177 | 201.88 | [illegible] |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | 509.40 | 505.42 | .00729 | -.00393 | .28329 | -.14086 | [illegible] |
| SDev | 2.84 | 2.92 | .00013 | .00006 | .00490 | .00107 | [illegible] |
| %RSD | .55662 | .57712 | 1.7674 | 1.5108 | 1.7287 | .75814 | [illegible] |
| #1 | 511.41 | 507.48 | .00738 | .00492 | .28676 | -.14162 | [illegible] |
| #2 | 507.40 | 503.35 | .00720 | .00388 | .27980 | -.14011 | [illegible] |

| Elem | 1960-2 |
|---|---|
| Avge | .01092 |
| SDev | .00047 |
| %RSD | 4.2608 |
| #1 | .01059 |
| #2 | .01125 |

| Intstd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavln | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9967 | -- | -- | -- | -- | -- | -- |
| SDev | 57.62920 | -- | -- | -- | -- | -- | -- |
| %RSD | .5781972 | -- | -- | -- | -- | -- | -- |
| #1 | 9926 | -- | -- | -- | -- | -- | -- |
| #2 | 10008 | -- | -- | -- | -- | -- | -- |

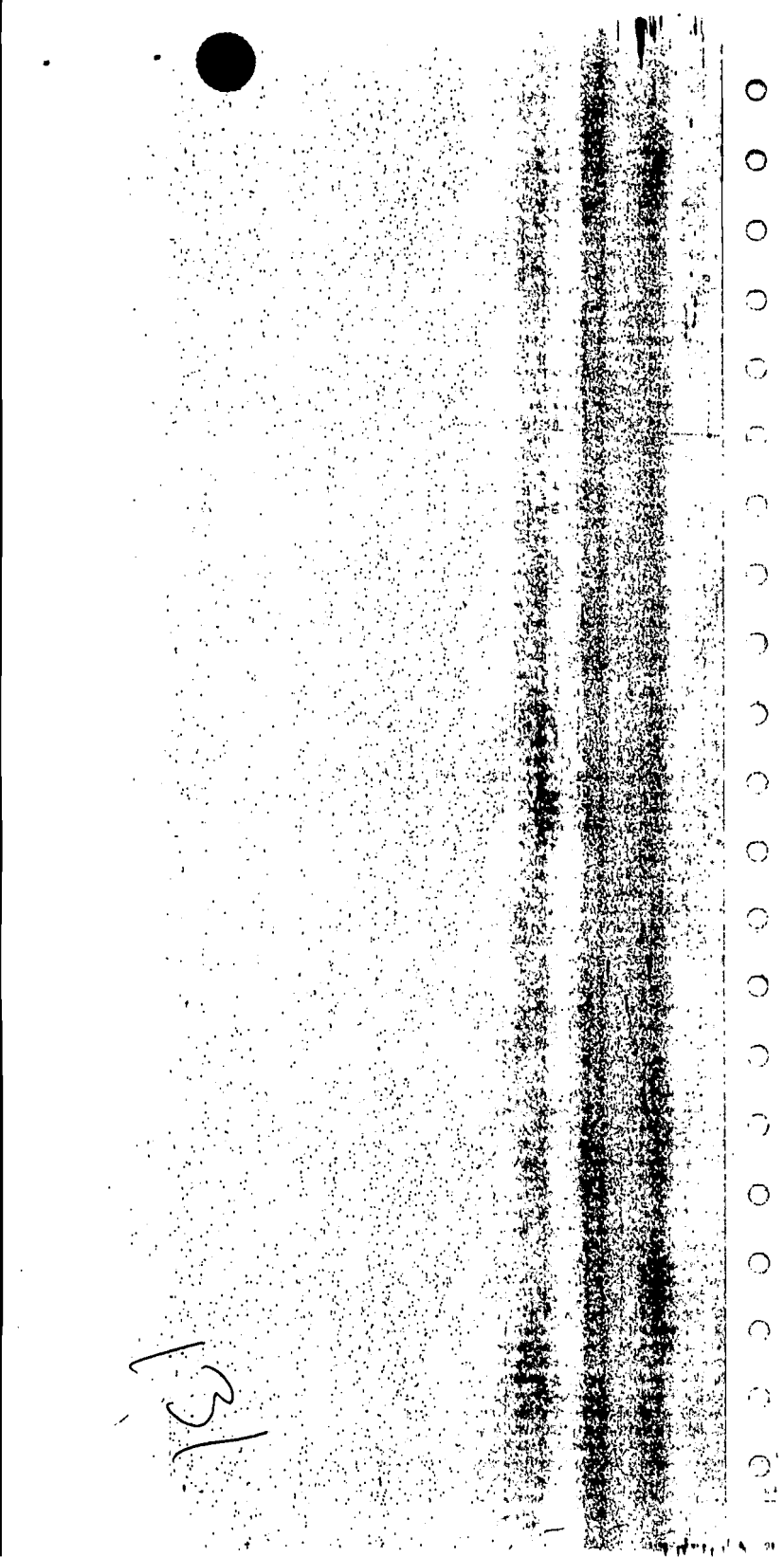
Method: IEC_2001 Sample Name: TICS-AB Operator: dal
Run Time: 01/17/02 17:15:21
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|
| Avge | .09301 | .04341 | .04587 | .89050 | .08830 | [illegible] | [illegible] |
| SDev | .00122 | .00136 | .00576 | .00492 | .00753 | .00388 | [illegible] |
| %RSD | 1.3149 | 3.1361 | 12.551 | .55260 | [illegible] | [illegible] | [illegible] |
| #1 | .09215 | .04437 | .04994 | .89348 | .09009 | .04891 | [illegible] |
| #2 | .09388 | .04245 | .04180 | .88701 | .08651 | .04834 | [illegible] |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|
| Avge | .20525 | .48234 | .46620 | .44623 | .45579 | [illegible] | [illegible] |
| SDev | .00181 | .00375 | .00353 | .00313 | .00347 | 1.46 | [illegible] |
| %RSD | .88140 | .77793 | .75832 | .70071 | .76050 | .72185 | [illegible] |
| #1 | .20653 | .48499 | .46870 | .44844 | .45824 | 203.09 | [illegible] |
| #2 | .20397 | .47969 | .46371 | .44402 | .45334 | 201.02 | [illegible] |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960-1 |
|---|---|---|---|---|---|---|---|
| Avge | 507.56 | 503.02 | .90462 | .88344 | .32721 | -.09828 | [illegible] |
| SDev | 3.29 | 3.66 | .00113 | .00682 | .00925 | .00259 | [illegible] |
| %RSD | .64899 | .72748 | .12454 | .77174 | 2.8256 | 2.6200 | [illegible] |

130





| | | | | | | | |
|---|---|---|---|---|---|---|---|
| #1 | 509.88 | 505.61 | .90542 | 88826 | 33375 | 10010 | 130.6 |
| #2 | 505.23 | 500.43 | .90383 | 87862 | 32067 | 09644 | 30858 |

| | |
|---|---|
| Elem | 1960-2 |
| Avge | .05899 |
| SDev | .00110 |
| %RSD | 1.8723 |
| #1 | .05977 |
| #2 | .05821 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | | |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | |
| Avge | 10046 | -- | -- | -- | -- | -- | |
| SDev | 80.53905 | -- | -- | -- | -- | -- | |
| %RSD | .8016986 | -- | -- | -- | -- | -- | |
| #1 | 9989 | -- | -- | -- | -- | -- | |
| #2 | 10103 | -- | -- | -- | -- | -- | |

Method: IEC_2001 Sample Name: TCCV Operator: dad
Run Time: 01/17/02 17:19:36
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | T11908 | Cr2677 | b20 |
|---|---|---|---|---|---|---|---|
| Avge | .09494 | .10080 | .09413 | .10018 | .09667 | .10082 | 094 |
| SDev | .00269 | .00005 | .00488 | 00100 | 00282 | 00047 | 004 |
| %RSD | 2.8389 | .05260 | 5.1821 | 994 | 2.9210 | 46210 | 1 |
| #1 | .09303 | .10077 | 09068 | 09948 | .09467 | 10047 | 090 |
| #2 | .09684 | .10084 | .09758 | .10089 | .09867 | 10115 | 097 |
| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | |
| Avge | .09493 | .09590 | .09454 | .09830 | .09503 | 07454 | 094 |
| SDev | .00095 | .00051 | .00066 | .00065 | .00069 | 00628 | 005 |
| %RSD | 1.0052 | .52777 | .69826 | .65939 | .72623 | 8 4197 | 5 |
| #1 | .09426 | .09554 | 09407 | .09784 | .09454 | .07011 | 0 |
| #2 | .09561 | .09626 | .09501 | .09876 | .09552 | .07898 | 0 |
| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | 1960 |
| Avge | .12924 | .12222 | .09991 | .10032 | .10141 | 10050 | 098 |
| SDev | .01688 | .01197 | .00089 | .00105 | 00027 | 00006 | 001 |
| %RSD | 13.060 | 9.7933 | .89290 | 1.0446 | .26804 | 05995 | 1 |
| #1 | .14118 | .13068 | .09927 | .09958 | .10122 | .10054 | 098 |
| #2 | .11731 | .11375 | .10054 | .10106 | .10161 | 10046 | 098 |

| | |
|---|---|
| Elem | 1960-2 |
| Avge | .09713 |
| SDev | .00787 |
| %RSD | 8.1069 |

| | |
|---|---|
| #1 | .09156 |
| #2 | .10269 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | -- | -- |
| Avge | 9958 | -- | -- | -- | -- | -- | -- |
| SDev | 76.15554 | -- | -- | -- | -- | -- | -- |
| %RSD | .7647943 | -- | -- | -- | -- | -- | -- |
| #1 | 10012 | -- | -- | -- | -- | -- | -- |
| #2 | 9904 | -- | -- | -- | -- | -- | -- |

---

Method: IEC_2001 Sample Name: BLA01 Operator: dad
Run Time: 01/17/02 17:23:51
Comment:
Mode: CONC Corr. Factor: 1

| Elem | As1890 | Pb2203 | Se1960 | Cd2265 | Tl1908 | Cr2677 | Sb2068 |
|---|---|---|---|---|---|---|---|
| Avge | -.00213 | .00045 | -.00114 | .00001 | -.00070 | -.00054 | .00004 |
| SDev | .00144 | .00035 | .00065 | .00006 | .00169 | .00040 | .00002 |
| %RSD | 67.813 | 76.424 | 57.056 | 451.95 | 240.92 | 73.916 | 41[illegible] |
| #1 | -.00315 | .00070 | -.00159 | .00005 | .00049 | -.00083 | .00041 |
| #2 | -.00111 | .00021 | -.00068 | -.00003 | -.00190 | -.00026 | .00033 |

| Elem | Ag3280 | V_2924 | Be3130 | Co2286 | Mn2576 | Fe2714 | [illegible] |
|---|---|---|---|---|---|---|---|
| Avge | -.00062 | -.00034 | -.00015 | -.00019 | .00014 | .02197 | .00114 |
| SDev | .00127 | .00080 | .00001 | .00004 | .00019 | .00069 | .00022 |
| %RSD | 204.35 | 238.79 | 9.4091 | 20.542 | 136.91 | 3.1241 | [illegible] |
| #1 | -.00152 | -.00090 | -.00016 | -.00021 | .00000 | .02149 | .00145 |
| #2 | .00028 | .00023 | -.00014 | -.00016 | .00027 | .02246 | .00083 |

| Elem | Ca3179 | Mg2790 | 2265-1 | 2265-2 | 2203-1 | 2203-2 | [illegible] |
|---|---|---|---|---|---|---|---|
| Avge | .04300 | .03715 | -.00005 | .00004 | .00147 | -.00005 | .00075 |
| SDev | .01188 | .01364 | .00030 | .00006 | .00161 | .00028 | .00054 |
| %RSD | 27.641 | 36.729 | 612.24 | 142.60 | 109.74 | 544.04 | [illegible] |
| #1 | .05140 | .04679 | .00016 | -.00000 | .00260 | .00025 | .00107 |
| #2 | .03459 | .02750 | -.00026 | .00009 | .00033 | .00015 | .00043 |

| Elem | 1960-2 |
|---|---|
| Avge | .00167 |
| SDev | .00179 |
| %RSD | 107.57 |
| #1 | .00294 |
| #2 | .00040 |

| IntStd | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Mode | Counts | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem | Y | -- | -- | -- | -- | -- | -- |
| Wavlen | 371.030 | -- | -- | -- | -- | | |
| Avge | 10028 | -- | -- | -- | -- | | |

Method Name: MERCURY
Method Description: Mercury
Element: Hg

Hg FIMS 1/15/02 r= 1.0 m= 12.3 y=-0.0002

Date: 01/15/2002
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: HG1-15.SIF

ISO 1703
AS81216-218

Results Data Set Name: HG1-15

Element: Hg Seq. No.: 13 AS Loc.: 1 Date: 01/15/2002
Sample ID: BLA01

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | | | 0.0001 | -0.0001 | 0.0001 | 13:12:59 | No |

Auto-zero performed.

Element: Hg Seq. No.: 14 AS Loc.: 2 Date: 01/15/2002
Sample ID: 1

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | | 0.00021 | 0.0024 | 0.0136 | 0.0025 | 13:14:17 | No |

105%

[Hg] Standard number 1 applied. [0.00020]
Correlation Coefficient: 1.00000 Slope: 11.84395
Intercept : 0.00000

Element: Hg Seq. No.: 15 AS Loc.: 3 Date: 01/15/2002
Sample ID: 2

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | | 0.00049 | 0.0059 | 0.0320 | 0.0060 | 13:15:35 | No |

98%

[Hg] Standard number 2 applied. [0.00050]
Correlation Coefficient: 0.99999 Slope: 11.72912
Intercept : 0.00001

Element: Hg Seq. No.: 16 AS Loc.: 4 Date: 01/15/2002
Sample ID: 3

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | | 0.00099 | 0.0120 | 0.0639 | 0.0120 | 13:16:55 | No |

99%

[Hg] Standard number 3 applied. [0.00100]
Correlation Coefficient: 0.99995 Slope: 11.94756
Intercept : -0.00003

Element: Hg Seq. No.: 17 AS Loc.: 5 Date: 01/15/2002
Sample ID: 4

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | | 0.00202 | 0.0246 | 0.1313 | 0.0247 | 13:18:15 | No |

101%

[Hg] Standard number 4 applied. [0.00200]
Correlation Coefficient: 0.99987 Slope: 12.30969
Intercept : -0.00015

133

Element: Hg  Seq. No.: 18  AS Loc.: 6  Date: 01/15/2002
Sample ID: 5

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | | 0.00297 | 0.0362 | 0.1890 | 0.0363 | 13:19:37 | No |

99%

[Hg] Standard number 5 applied. [0.00300]
Correlation Coefficient: 0.99990  Slope: 12.16173
Intercept : -0.00008

Element: Hg  Seq. No.: 19  AS Loc.: 7  Date: 01/15/2002
Sample ID: 6

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | | 0.00501 | 0.0613 | 0.3187 | 0.0614 | 13:20:59 | No |

100.2%

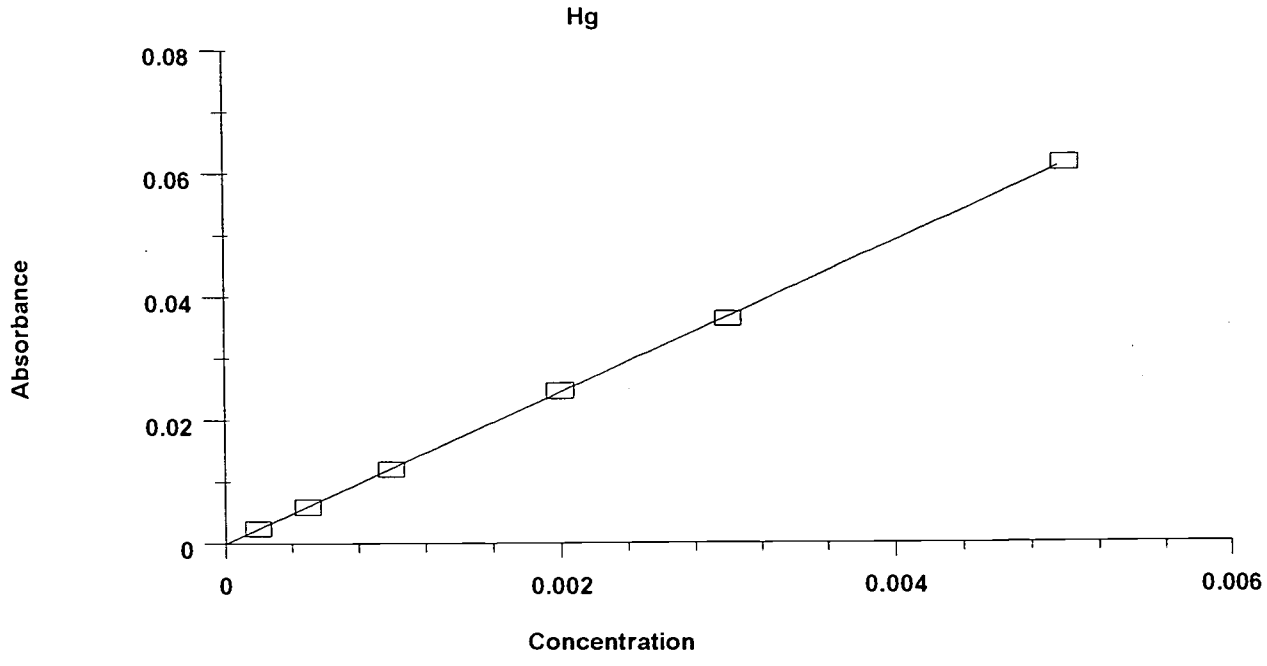
[Hg] Standard number 6 applied. [0.00500]
Correlation Coefficient: 0.99995  Slope: 12.25526
Intercept : -0.00015

Calibration data for Hg

| Standard ID | Mean Signal (Pk Height) | Entered Concentration (mg/L) | Calculated Concentration (mg/L) | Standard Deviation | %RSD |
|---|---|---|---|---|---|
| BLA01 | 0.0001 | ----- | ---- | ---- | ---- |
| 1 | 0.0024 | 0.00020 | 0.00021 | ---- | ---- |
| 2 | 0.0059 | 0.00050 | 0.00049 | ---- | ---- |
| 3 | 0.0120 | 0.00100 | 0.00099 | ---- | ---- |
| 4 | 0.0246 | 0.00200 | 0.00202 | ---- | ---- |
| 5 | 0.0362 | 0.00300 | 0.00297 | ---- | ---- |
| 6 | 0.0613 | 0.00500 | 0.00501 | ---- | ---- |
| BLA01 | 0.0001 | ----- | ---- | ---- | ---- |

Correlation Coefficient: 0.99995  Slope: 12.25526  Intercept: -0.0002

134




==========

Element: Hg  Seq. No.: 20  AS Loc.: 9  Date: 01/15/2002
Sample ID: ICV01  TV=0.0020

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00201 | 0.00201 | 0.0244 | 0.1275 | 0.0245 | 13:22:24 | No |

100.5%

QC value within specified limits.

==========

Element: Hg  Seq. No.: 21  AS Loc.: 1  Date: 01/15/2002
Sample ID: BLA01

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00002 | 0.00002 | 0.0000 | -0.0014 | 0.0001 | 13:23:41 | No |

QC value within specified limits.

==========

Element: Hg  Seq. No.: 22  AS Loc.: 8  Date: 01/15/2002
Sample ID: CCV  TV=0.0030

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00304 | 0.00304 | 0.0371 | 0.1945 | 0.0372 | 13:25:01 | No |

101.3%

QC value within specified limits.

==========

Element: Hg  Seq. No.: 23  AS Loc.: 1  Date: 01/15/2002
Sample ID: BLA01

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00004 | 0.00004 | 0.0003 | 0.0044 | 0.0004 | 13:26:19 | No |

QC value within specified limits.

(35

Element: Hg Seq. No.: 24 AS Loc.: 2 Date: 01/15/2002
Sample ID: CDL TV=0.00020

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00022 | 0.00022 | 0.0025 | 0.0130 | 0.0026 | 13:27:37 | No |

110%
QC value within specified limits.

Element: Hg Seq. No.: 25 AS Loc.: 10 Date: 01/15/2002
Sample ID: LCS Q1325275 TV=0.0020

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00209 | 0.00209 | 0.0254 | 0.1325 | 0.0255 | 13:28:54 | No |

104.5%

Element: Hg Seq. No.: 26 AS Loc.: 11 Date: 01/15/2002
Sample ID: BLA02 Q1325276

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00002 | 0.00002 | 0.0000 | 0.0005 | 0.0001 | 13:30:12 | No |

Element: Hg Seq. No.: 27 AS Loc.: 12 Date: 01/15/2002
Sample ID: A581216 40/40

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00002 | 0.00002 | 0.0001 | -0.0016 | 0.0002 | 13:31:31 | No |

Element: Hg Seq. No.: 28 AS Loc.: 13 Date: 01/15/2002
Sample ID: SPI02 Q1325277 A581216 TV=0.0010

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00101 | 0.00101 | 0.0122 | 0.0622 | 0.0123 | 13:32:51 | No |

101%

Element: Hg Seq. No.: 29 AS Loc.: 14 Date: 01/15/2002
Sample ID: DPS02 Q1325278 TV=0.0010

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00100 | 0.00100 | 0.0121 | 0.0610 | 0.0122 | 13:34:11 | No |

100%
r = 1.0

Element: Hg Seq. No.: 30 AS Loc.: 8 Date: 01/15/2002
Sample ID: CCV TV=0.0030

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00304 | 0.00304 | 0.0371 | 0.1915 | 0.0372 | 13:35:33 | No |

101.3%

Element: Hg Seq. No.: 31 AS Loc.: 1 Date: 01/15/2002
Sample ID: BLA01

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00000 | 0.00000 | -0.0001 | -0.0042 | 0.0000 | 13:36:53 | No |

136

Element: Hg  Seq. No.: 32  AS Loc.: 15  Date: 01/15/2002
Sample ID: A581217 40/40

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00002 | 0.00002 | 0.0000 | -0.0028 | 0.0001 | 13:38:13 | No |

Element: Hg  Seq. No.: 33  AS Loc.: 16  Date: 01/15/2002
Sample ID: A581218 40/40

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00002 | 0.00002 | 0.0001 | -0.0008 | 0.0002 | 13:39:36 | No |

Element: Hg  Seq. No.: 34  AS Loc.: 17  Date: 01/15/2002
Sample ID: A581207 40/40

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00011 | 0.00011 | 0.0011 | 0.0049 | 0.0012 | 13:40:54 | No |

Element: Hg  Seq. No.: 35  AS Loc.: 18  Date: 01/15/2002
Sample ID: A581208 40/40

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00011 | 0.00011 | 0.0012 | 0.0062 | 0.0013 | 13:42:09 | No |

Element: Hg  Seq. No.: 36  AS Loc.: 19  Date: 01/15/2002
Sample ID: A581210 40/40

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00002 | 0.00002 | 0.0001 | 0.0008 | 0.0002 | 13:43:26 | No |

Element: Hg  Seq. No.: 37  AS Loc.: 20  Date: 01/15/2002
Sample ID: A581211 40/40

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00007 | 0.00007 | 0.0006 | 0.0063 | 0.0007 | 13:44:43 | No |

Element: Hg  Seq. No.: 38  AS Loc.: 21  Date: 01/15/2002
Sample ID: A581212 40/40

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00020 | 0.00020 | 0.0023 | 0.0157 | 0.0024 | 13:46:00 | No |

Element: Hg  Seq. No.: 39  AS Loc.: 22  Date: 01/15/2002
Sample ID: A581282 40/40

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00003 | 0.00003 | 0.0002 | 0.0009 | 0.0003 | 13:47:19 | No |

137

Element: Hg Seq. No.: 40 AS Loc.: 2 Date: 01/15/2002
Sample ID: CDL TV=0.00020

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00022 | 0.00022 | 0.0026 | 0.0129 | 0.0027 | 13:48:37 | No |

110%

Element: Hg Seq. No.: 41 AS Loc.: 8 Date: 01/15/2002
Sample ID: CCV TV=0.0030

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00311 | 0.00311 | 0.0380 | 0.1931 | 0.0381 | 13:49:57 | No |

103.7%

Element: Hg Seq. No.: 42 AS Loc.: 1 Date: 01/15/2002
Sample ID: BLA01

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00001 | 0.00001 | -0.0001 | -0.0016 | 0.0000 | 13:51:17 | No |

Element: Hg Seq. No.: 43 AS Loc.: 23 Date: 01/15/2002
Sample ID: LCS Q1325283 TV=0.0020

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00222 | 0.00222 | 0.0271 | 0.1361 | 0.0271 | 13:52:35 | No |

111%

Element: Hg Seq. No.: 44 AS Loc.: 24 Date: 01/15/2002
Sample ID: BLA02 Q1325284

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00001 | 0.00001 | 0.0000 | -0.0012 | 0.0001 | 13:53:53 | No |

Element: Hg Seq. No.: 45 AS Loc.: 25 Date: 01/15/2002
Sample ID: A580708 4/40

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00002 | 0.00002 | 0.0000 | 0.0004 | 0.0001 | 13:55:12 | No |

Element: Hg Seq. No.: 46 AS Loc.: 26 Date: 01/15/2002
Sample ID: SPI02 Q1325285 TV=0.0010

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00105 | 0.00105 | 0.0127 | 0.0632 | 0.0128 | 13:56:32 | No |

105%

Element: Hg Seq. No.: 47 AS Loc.: 27 Date: 01/15/2002
Sample ID: DPS02 Q1325286 TV=0.0010

| Repl # | SampleConc mg/L | StndConc mg/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.00106 | 0.00106 | 0.0128 | 0.0632 | 0.0129 | 13:57:53 | No |

106%

Element: Hg Seq. No.: 48 AS Loc.: 8 Date: 01/15/2002

**HERITAGE ENVIRONMENTAL SERVICES, LLC**

7901 West Morris Street
Indianapolis, IN 46231
Phone: 317/243-0811
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Internet:http://www.heritage-enviro.com

# CASE NARRATIVE
# GENERAL CHEMISTRIES SECTION

SAMPLE# A581214-218

Samples #A581214 and #A581215 were analyzed for Total Alkalinity (EPA 310.1) and Total Organic Carbon (EPA 415.1) using normal procedures. The required hold times were met for the analyses. The method blanks were below the reporting limit. The Laboratory Fortified Blanks and Initial and Continuing Calibration standards were within the control limits. The matrix spikes, matrix spike duplicates, and duplicate met acceptable criteria. The only problem encountered with these samples was that they required a dilution due to matrix interference for the Total Organic Carbon analysis. Sample #A581214 required a1:10 dilution and #A581215 required a 1:5 dilution.

Samples #A581216-218 were analyzed for the following analytes (see Table below) using normal procedures. The required hold times were met for the analyses. The method blanks were below the reporting limit. The Laboratory Fortified Blanks and Initial and Continuing Calibration Verification standards were within the control limits. The matrix spikes, matrix spike duplicates and duplicates met acceptable criteria.

| | |
|---|---|
| Total Alkalinity | EPA 310.1 |
| Nitrate-Nitrite, Nitrogen | EPA 353.2 |
| Total Organic Carbon | EPA 415.1 |

Barbara A. Shrake

BARBARA A. SHRAKE
LABORATORY SUPERVISOR
1/16/02

ACCREDITED IN ACCORDANCE WITH nelac

Recycled Paper

# QC ACCEPTANCE LIMITS

| ANALYSIS | ICV | CCV | LFB | LCS | MS/MSD % | MS/MSD RPD | DUP RPD |
|---|---|---|---|---|---|---|---|
| Alkalinity | | 80-120% | 80-120% | | | | ≤ 20% |
| Nitrate-Nitrite | 90-110% | 90-110% | | | 80-120% | ≤ 20% | ≤ 20% |
| Total Organic Carbon | 90-110% | 90-110% | | | 80-120% | ≤ 20% | ≤ 20% |

ACCREDITED IN ACCORDANCE WITH nelac

Recycled Paper

Run Number
Benchsheet Number 3099
Test G605.2
Analyst BKS3946
Date Analyzed 1-12-02
Instrument / Test #269 / Alkalinity

Reagent Lot #
Exp. Date

BLA Obs. Value

CAL01 Known Conc.
Response
Obs. Conc.
% Recovery

CAL01 Known Conc.
Response
Obs. Conc.
% Recovery

Correlation = Slope = Intercept =

DUP 01 DUP Sample A581216
Rep1 Conc. 1100
Rep2 Conc. 1100
RPD 0.0

SPI SPI Sample
Spike Conc.
Sample Conc.
Total Conc.
% Recovery

CCV Std ID X914
Obs Value 120
True Value 125
% Recovery 96.0

LFB01 Std ID X999
Obs Value 38.0
True Value 39
% Recovery 97.4

Page 1 of 1

Reference No. G605.2, G610.2, G611.2 _____

**ALKALINITY**

Analyst BK53946

Reviewer BAS#1168

Date 1/14/02

Recorder _____

Date _____

Start Date 1-12-02 Start Time 14:00 End Date 1-12-02 End Time 15:45

| QAQC TYPE | SAMPLE | TEST CODE | TV | RESULT | %REC RPD | DL | UNITS | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| LFB01 | X999 | G605.2.0 | 39 | 38.0 | 97.4 | 1.0 | mg/L | |
| | A581214 | ↓ | | 1800 | | ↓ | ↓ | |
| | A581215 | | | 680 | | | | |
| | A581216 | | | 1100 | | | | |
| DUP01 | A581216 | | | 1100 | RPD = 0.0 | | | |
| | A581217 | | | 1000 | | | | |
| | A581218 | | | 440 | | | | |
| CCV | X914 | ↓ | 125 | 120 | 96.0 | ↓ | ↓ | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Start 14:00 End 15:45

| Page 1 of 1 | | Analyst BK53946 | | Date 1-12-02 | | | ALKALINITY | |
|---|---|---|---|---|---|---|---|---|
| TOTAL = G605.2 BICARBONATE = G610.2 CARBONATE = G611.2 | | | | | | | | |
| **Sample** | X999 TV=39 | A581214 | A581215 | A581216 | A581216 | A581217 | A581218 | X914 TV=125 | |
| **Test Code** | ALL | G605.2 | → | → | → | → | → | → | |
| **QAQC** | LFB01 | DK27428 | DK27429 | DK27430 | DUP01 | DK27431 | DK27432 | CCV | |
| **Buret$_{FINAL}$** | 34.6 | 17.9 | 24.7 | 35.4 | 46.1 | 10.9 | 15.3 | 16.5 | |
| **Buret$_{INITIAL}$** | 32.7 | 0.4 | 17.9 | 24.7 | 35.4 | 0.5 | 10.9 | 15.3 | |
| **Vol Titrant** | 1.9 | 17.5 | 6.8 | 10.7 | 10.7 | 10.4 | 4.4 | 1.2 | |
| **pH$_{INITIAL}$** | 7.40 | 7.01 | 7.68 | 8.33 | 8.40 | 8.35 | 7.43 | 10.49 | |
| **pH$_{FINAL}$** | 4.47 | 4.45 | 4.46 | 4.45 | 4.45 | 4.48 | 4.45 | 4.45 | |
| **Vol Sample** | 50mL | → | → | → | → | → | → | → | |
| **Normality** | 0.02 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | |
| **Result** | 38.0/97.4% | 1800 | 680 | 1100 | 1100 | 1000 | 440 | 120/96.0% | |
| | | | | RPD = 0.0 | | | | | |
| **Sample** | | | | | | | | | |
| **Test Code** | | | | | | | | | |
| **QAQC** | | | | | | | | | |
| **Buret$_{FINAL}$** | | | | | | | | | |
| **Buret$_{INITIAL}$** | | | | | | | | | |
| **Vol Titrant** | | | | | | | | | |
| **pH$_{INITIAL}$** | | | | | | | | | |
| **pH$_{FINAL}$** | | | | | | | | | |
| **Vol Sample** | | | | | | | | | |
| **Normality** | | | | | | | | | |
| **Result** | | | | | | | | | |

$$ALKALINITY\ mg/L = \frac{(mL\ H_2SO_4) \times (N\ H_2SO_4) \times 50{,}000}{mL\ Sample}$$

## pH CALIBRATION AND TITRANT STANDARDIZATION

Analyst BKS3946

Date 1-12-02

Analysis Alkalinity

### pH Calibration

| | | |
|---|---|---|
| pH = 4.00 | Lot# 1131-11 | Resp 4.01 |
| pH = 7.00 | Lot# 1206-09 | Resp 7.00 |
| pH = 10.0 | Lot# | Resp |

### pH Verification

| | | |
|---|---|---|
| pH = 4.00 | Lot# 007373-24 | Resp 3.99 |
| pH = 7.00 | Lot# 06701024J9 | Resp 7.00 |

Standard _____ _____ g/L

| | 1.00 N | | | 0.10 N | | | 0.02 N | | |
|---|---|---|---|---|---|---|---|---|---|
| Vol Std, ml | | | | | | | | | |
| $Buret_{FINAL}$ | | | | | | | | | |
| $Buret_{INITIAL}$ | | | | | | | | | |
| Vol Titrant, ml | | | | | | | | | |
| $pH_{INITIAL}$ | | | | | | | | | |
| $pH_{FINAL}$ | | | | | | | | | |
| Normality | | | | | | | | | |
| | Avg. N = | | | Avg. N = | | | Avg. N = | | |

$$Normality\ NaOH = \frac{(KHP\ g/L) \times (mL\ KHP\ STD)}{204.2 \times (mL\ NaOH)}$$

$$Normlity\ H_2SO_4 = \frac{(Na_2CO_3\ g/L) \times (mL\ Na_2CO_3\ STD)}{53.00 \times (mL\ H_2SO_4)}$$

File Number : 02011101 | **Nitrate/Nitrate** | Run Number : _____

Instrument # : 323

Analyst : MAA4317 | Reviewed By : BAS #1108 | Recorded By : _____

Date : 1/14/02 | Date : _____

Start Date : 11-Jan-2002 | Start Time 17:44 | End Date 11-Jan-2002 | End Time 18:16

| QC Standard ID# | Nitrite | Nitrate | Total |
|---|---|---|---|
| ICV01 | 891 | 881 | 881 |
| CDL01 | 876 | 790 | 790 |
| SPI01 | 876 | 790 | 790 |
| DPS01 | 876 | 790 | 790 |
| CCV | 876 | 790 | 790 |

CAL01 See Attached Calibration Report

| | | | | |
|---|---|---|---|---|
| BLA OBS Value | Nitrite | -0.000568 mg/L | Nitrate+Nitrite | 0.001277 mg/L |
| BLA OBS Value | Nitrite | 0.001167 mg/L | Nitrate+Nitrite | 0.003502 mg/L |
| BLA OBS Value | Nitrite | -0.000568 mg/L | Nitrate+Nitrite | 0.001277 mg/L |
| BLA OBS Value | Nitrite | -0.000568 mg/L | Nitrate+Nitrite | 0.001277 mg/L |
| BLA OBS Value | Nitrite | -0.000568 mg/L | Nitrate+Nitrite | 0.001277 mg/L |

| | | Observed Conc | Sample/True Value | Spike Conc | %Recovery | RPD |
|---|---|---|---|---|---|---|
| ICV01 | Nitrite | 0.269 | 0.286 | | 94.1 | |
| ICV01 | Nitrite+Nitrate | 0.821 | 0.788 | | 104.2 | |
| | Nitrate | 0.820 | 0.788 | | 104.1 | |
| CDL01 | Nitrite+Nitrate | 0.049 | 0.05 | | 98.0 | |
| | Nitrite | 0.023 | 0.025 | | 92.0 | |
| | Nitrate | 0.026 | 0.025 | | 104.0 | |
| SPI01 | Nitrate | 0.0995 | | 0.1 | 99.5 | |
| SPI01 | Nitrate | 0.977 | 0 | 1 | 97.7 | |
| SPI01 | Nitrate | 10.6 | 0 | 10 | 106.0 | |
| SPI01 | Nitrite+Nitrate | 0.101 | 0 | 0.1 | 101.0 | |
| DPS01 | Nitrate | 0.0994 | | 0.1 | 99.4 | 0.1 |
| DPS01 | Nitrate | 0.992 | 0 | 1 | 99.2 | 1.5 |
| DPS01 | Nitrate | 10.6 | 0 | 10 | 106.0 | 0 |
| DPS01 | Nitrite+Nitrate | 0.101 | 0 | 0.1 | 101.0 | 0 |
| CCV | Nitrite+Nitrate | 0.198 | 0.2 | | 99.0 | |
| | Nitrite | 0.0994 | 0.1 | | 99.4 | |
| | Nitrate | 0.0986 | 0.1 | | 98.6 | |
| CCV | Nitrite+Nitrate | 0.197 | 0.2 | | 98.5 | |
| | Nitrite | 0.0990 | 0.1 | | 99.0 | |
| | Nitrate | 0.0980 | 0.1 | | 98.0 | |
| CCV | Nitrite+Nitrate | 0.197 | 0.2 | | 98.5 | |
| | Nitrite | 0.0975 | 0.1 | | 97.5 | |
| | Nitrate | 0.0992 | 0.1 | | 99.2 | |
| CCV | Nitrite+Nitrate | 0.196 | 0.2 | | 98.0 | |
| | Nitrite | 0.0975 | 0.1 | | 97.5 | |
| | Nitrate | 0.0989 | 0.1 | | 98.9 | |

| TestID | Sample | Parm | Man. Dil'n | Total Dil'n | Conc. | Result | RQL | DL | Units | Samp Conc | Std. TV | % Rec | RPD | # | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BLA01 | | 11-Jan-02 17:44 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 1 | 1 | 0.0013 | | BDL | 0.01 | mg/L | | | | | | |
| | 507 | Nitrite | 1 | 1 | -0.0006 | | BDL | 0.01 | mg/L | | | | | | |
| | 508 | Nitrate | 1 | 1 | 0.0019 | | BDL | 0.01 | mg/L | | | | | | |
| CDL01 | | 11-Jan-02 17:45 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 1 | 1 | 0.0491 | 0.049 | | 0.01 | mg/L | | 0.05 | 98.0 | | | |
| | 507 | Nitrite | 1 | 1 | 0.0233 | 0.023 | | 0.01 | mg/L | | 0.025 | 92.0 | | | |
| | 508 | Nitrate | 1 | 1 | 0.0258 | 0.026 | | 0.01 | mg/L | | 0.025 | 104.0 | | | |
| ICV01 | NO2 | 11-Jan-02 17:46 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 1 | 1 | 0.2884 | 0.288 | | 0.01 | mg/L | | | | | | |
| | 507 | Nitrite | 1 | 1 | 0.2692 | 0.269 | | 0.01 | mg/L | | 0.286 | 94.1 | | | |
| | 508 | Nitrate | 1 | 1 | 0.0192 | 0.019 | | 0.01 | mg/L | | | | | | |
| ICV01 | NO3 | 11-Jan-02 17:47 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 1 | 1 | 0.8214 | 0.821 | | 0.01 | mg/L | | 0.788 | 104.2 | | | |
| | 507 | Nitrite | 1 | 1 | 0.0010 | 0.001 | | 0.01 | mg/L | | | | | | |
| | 508 | Nitrate | 1 | 1 | 0.8204 | 0.820 | | 0.01 | mg/L | | 0.788 | 104.1 | | | |
| CCV | | 11-Jan-02 17:49 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 1 | 1 | 0.1980 | 0.198 | | 0.01 | mg/L | | 0.2 | 99.0 | | | |
| | 507 | Nitrite | 1 | 1 | 0.0994 | 0.0994 | | 0.01 | mg/L | | 0.1 | 99.4 | | | |
| | 508 | Nitrate | 1 | 1 | 0.0986 | 0.0986 | | 0.01 | mg/L | | 0.1 | 98.6 | | | |
| BLA01 | | 11-Jan-02 17:50 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 1 | 1 | 0.0035 | | BDL | 0.01 | mg/L | | | | | | |
| | 507 | Nitrite | 1 | 1 | 0.0012 | | BDL | 0.01 | mg/L | | | | | | |
| | 508 | Nitrate | 1 | 1 | 0.0023 | | BDL | 0.01 | mg/L | | | | | | |
| | A581179 BR | 11-Jan-02 17:51 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 1 | 1 | 0.0084 | | | 0.01 | mg/L | | | | | | |
| | 507 | Nitrite | 1 | 1 | 0.0051 | | | 0.01 | mg/L | | | | | | |
| G106.3 | 508 | Nitrate | 1 | 1 | 0.0033 | | BDL | 0.01 | mg/L | | | | | | |
| SPI01 | A581179 | 11-Jan-02 17:52 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 1 | 1 | 0.1053 | | | 0.01 | mg/L | | 0.1 | | | | |
| | 507 | Nitrite | 1 | 1 | 0.0058 | | | 0.01 | mg/L | | 0.1 | | | | |
| G | 508 | Nitrate | 1 | 1 | 0.0995 | 0.0995 | | 0.01 | mg/L | | 0.1 | 99.5 | | | |
| DPS01 | A581179 | 11-Jan-02 17:53 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 1 | 1 | 0.1047 | | | 0.01 | mg/L | | 0.1 | | | | |
| | 507 | Nitrite | 1 | 1 | 0.0053 | | | 0.01 | mg/L | | 0.1 | | | | |
| G | 508 | Nitrate | 1 | 1 | 0.0994 | 0.0994 | | 0.01 | mg/L | | 0.1 | 99.4 | 0.1 | | |

| TestID | Sample | Parm | Man. Dil'n | Total Dil'n | Conc. | Result | RQL | DL | Units | Samp Conc | Std. TV | % Rec | RPD | # | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A581174 | 11-Jan-02 17:55 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 10 | 10 | 0.0469 | | | 0.10 | mg/L | | | | | | |
| | 507 | Nitrite | 10 | 10 | 0.0438 | | | 0.10 | mg/L | | | | | | |
| G106.3 | 508 | Nitrate | 10 | 10 | 0.0031 | | BDL | 0.10 | mg/L | | | | | | TC413 |
| SPI01 | A581174 | 11-Jan-02 17:56 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 10 | 10 | 1.0254 | | | 0.10 | mg/L | | 1 | | | | |
| | 507 | Nitrite | 10 | 10 | 0.0482 | | | 0.10 | mg/L | | 1 | | | | |
| G | 508 | Nitrate | 10 | 10 | 0.9772 | 0.977 | | 0.10 | mg/L | 0 | 1 | 97.7 | | | |
| CCV | | 11-Jan-02 17:58 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 1 | 1 | 0.1970 | 0.197 | | 0.01 | mg/L | | 0.2 | 98.5 | | | |
| | 507 | Nitrite | 1 | 1 | 0.0990 | 0.0990 | | 0.01 | mg/L | | 0.1 | 99.0 | | | |
| | 508 | Nitrate | 1 | 1 | 0.0980 | 0.0980 | | 0.01 | mg/L | | 0.1 | 98.0 | | | |
| BLA01 | | 11-Jan-02 17:59 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 1 | 1 | 0 | | BDL | 0.010 | mg/L | | | | | | |
| | 507 | Nitrite | 1 | 1 | 0 | | BDL | 0.010 | mg/L | | | | | | |
| | 508 | Nitrate | 1 | 1 | 0 | | BDL | 0.010 | mg/L | | | | | | |
| DPS01 | A581174 | 11-Jan-02 18:00 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 10 | 10 | 1.0281 | | | 0.10 | mg/L | | 1 | | | | |
| | 507 | Nitrite | 10 | 10 | 0.0362 | | | 0.10 | mg/L | | 1 | | | | |
| G | 508 | Nitrate | 10 | 10 | 0.9919 | 0.992 | | 0.10 | mg/L | 0 | 1 | 99.2 | 1.5 | | |
| | A581246 1g/100 | 11-Jan-02 18:02 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 100 | 100 | 1.1385 | | | 1.0 | mg/kg | | | | | | |
| | 507 | Nitrite | 100 | 100 | 0.1989 | | | 1.0 | mg/kg | | | | | | |
| G106.3 | 508 | Nitrate | 100 | 100 | 0.9396 | | BDL | 1.0 | mg/kg | | | | | | |
| SPI01 | A581246 1g/10 | 11-Jan-02 18:03 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 100 | 100 | 10.8171 | | | 1.0 | mg/kg | | 10 | | | | |
| | 507 | Nitrite | 100 | 100 | 0.2547 | | | 1.0 | mg/kg | | 10 | | | | |
| G | 508 | Nitrate | 100 | 100 | 10.5624 | 10.6 | | 1.0 | mg/kg | 0 | 10 | 106.0 | | | |
| DPS01 | A581246 1g/10 | 11-Jan-02 18:03 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 100 | 100 | 10.8053 | | | 1.0 | mg/kg | | 10 | | | | |
| | 507 | Nitrite | 100 | 100 | 0.2470 | | | 1.0 | mg/kg | | 10 | | | | |
| G | A581216 508 | Nitrate | 100 | 100 | 10.5583 | 10.6 | | 1.0 | mg/kg | 0 | 10 | 106.0 | 0.0 | | |
| | ~~A581116~~ DK27430 | 11-Jan-02 18:05 | | | | | | | | | | | | | |
| G113.3 | 509 | Nitrite+Nitrate | 1 | 1 | 0.0036 | | BDL | 0.010 | mg/L | | | | | | |
| | 507 | Nitrite | 1 | 1 | 0.0019 | | | 0.010 | mg/L | | | | | | |
| | 508 | Nitrate | 1 | 1 | 0.0017 | | | 0.010 | mg/L | | | | | | |

| TestID | Sample | Parm | Man. Dil'n | Total Dil'n | Conc. | Result | RQL | DL | Units | Samp Conc | Std. TV | % Rec | RPD | # | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPI01 | A581216 | 11-Jan-02 18:06 | | | | | | | | | | | | | |
| G | 509 | Nitrite+Nitrate | 1 | 1 | 0.1005 | 0.101 | | 0.010 | mg/L | 0 | 0.1 | 101.0 | | | |
| | 507 | Nitrite | 1 | 1 | 0.0021 | | | 0.010 | mg/L | | 0.1 | | | | |
| | 508 | Nitrate | 1 | 1 | 0.0984 | | | 0.010 | mg/L | | 0.1 | | | | |
| DPS01 | A581216 | 11-Jan-02 18:07 | | | | | | | | | | | | | |
| G | 509 | Nitrite+Nitrate | 1 | 1 | 0.1008 | 0.101 | | 0.010 | mg/L | 0 | 0.1 | 101.0 | 0.0 | | |
| | 507 | Nitrite | 1 | 1 | 0.0017 | | | 0.010 | mg/L | | 0.1 | | | | |
| | 508 | Nitrate | 1 | 1 | 0.0991 | | | 0.010 | mg/L | | 0.1 | | | | |
| CCV | | 11-Jan-02 18:09 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 1 | 1 | 0.1967 | 0.197 | | 0.010 | mg/L | | 0.2 | 98.5 | | | |
| | 507 | Nitrite | 1 | 1 | 0.0975 | 0.0975 | | 0.010 | mg/L | | 0.1 | 97.5 | | | |
| | 508 | Nitrate | 1 | 1 | 0.0992 | 0.0992 | | 0.010 | mg/L | | 0.1 | 99.2 | | | |
| BLA01 | | 11-Jan-02 18:10 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 1 | 1 | 0.0013 | | BDL | 0.010 | mg/L | | | | | | |
| | 507 | Nitrite | 1 | 1 | -0.0006 | | BDL | 0.010 | mg/L | | | | | | |
| | 508 | Nitrate | 1 | 1 | 0.0019 | | BDL | 0.010 | mg/L | | | | | | |
| | A581217 DK27431 | 11-Jan-02 18:11 | | | | | | | | | | | | | |
| G113.3 | 509 | Nitrite+Nitrate | 1 | 1 | 0.0082 | | BDL | 0.010 | mg/L | | | | | | |
| | 507 | Nitrite | 1 | 1 | 0.0097 | | | 0.010 | mg/L | | | | | | |
| | 508 | Nitrate | 1 | 1 | -0.0015 | | | 0.010 | mg/L | | | | | | |
| | A581218 DK27432 | 11-Jan-02 18:12 | | | | | | | | | | | | | |
| G113.3 | 509 | Nitrite+Nitrate | 1 | 1 | 0.9790 | 0.98 | | 0.010 | mg/L | | | | | | |
| | 507 | Nitrite | 1 | 1 | 0.0033 | | | 0.010 | mg/L | | | | | | |
| | 508 | Nitrate | 1 | 1 | 0.9757 | | | 0.010 | mg/L | | | | | | |
| CCV | | 11-Jan-02 18:15 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 1 | 1 | 0.1964 | 0.196 | | 0.010 | mg/L | | 0.2 | 98.0 | | | |
| | 507 | Nitrite | 1 | 1 | 0.0975 | 0.0975 | | 0.010 | mg/L | | 0.1 | 97.5 | | | |
| | 508 | Nitrate | 1 | 1 | 0.0989 | 0.0989 | | 0.010 | mg/L | | 0.1 | 98.9 | | | |
| BLA01 | | 11-Jan-02 18:16 | | | | | | | | | | | | | |
| | 509 | Nitrite+Nitrate | 1 | 1 | 0.0013 | | BDL | 0.010 | mg/L | | | | | | |
| | 507 | Nitrite | 1 | 1 | -0.0006 | | BDL | 0.010 | mg/L | | | | | | |
| | 508 | Nitrate | 1 | 1 | 0.0019 | | BDL | 0.010 | mg/L | | | | | | |

# Heritage Environmental Services - Nitrite/Nitrate

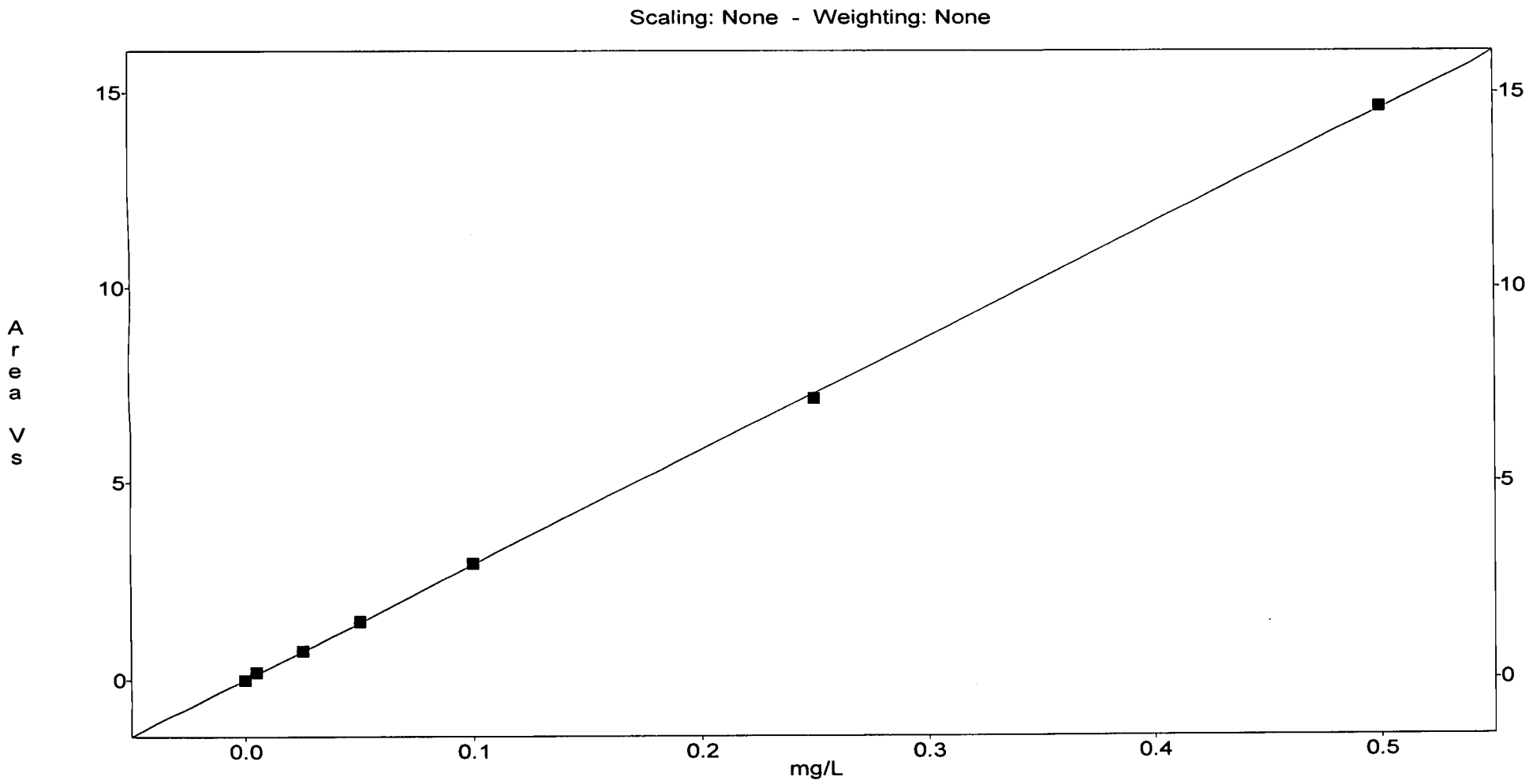
| Data File | Date | Time | Cup # | Sample ID | Sample Type | Man. Dil F | Auto Dil F | Weight | Unit | Analyte | Result/ Area | Unit | Analyte | Result/ Area | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 02011101.FDT | 11-Jan-02 | 17:30:27 | 1 | CAL01 1 1.00/0.50 | CalStd | 1 | 1 | 1 | g | Nitrite | 14639191 | uv-s | Nitrate+Nitrite | 26812238 | uv-s |
| 02011101.FDT | 11-Jan-02 | 17:32:50 | 1 | CAL01 2 0.50/0.25 | CalStd | 1 | 2 | 1 | g | Nitrite | 7159748 | uv-s | Nitrate+Nitrite | 13090476 | uv-s |
| 02011101.FDT | 11-Jan-02 | 17:33:48 | 5 | CAL01 3 0.20/0.10 | CalStd | 1 | 1 | 1 | g | Nitrite | 2949763 | uv-s | Nitrate+Nitrite | 5286000 | uv-s |
| 02011101.FDT | 11-Jan-02 | 17:36:16 | 5 | CAL01 4 0.10/0.05 | CalStd | 1 | 2 | 1 | g | Nitrite | 1497795 | uv-s | Nitrate+Nitrite | 2642107 | uv-s |
| 02011101.FDT | 11-Jan-02 | 17:38:43 | 5 | CAL01 5 0.05/0.025 | CalStd | 1 | 4 | 1 | g | Nitrite | 751248 | uv-s | Nitrate+Nitrite | 1318819 | uv-s |
| 02011101.FDT | 11-Jan-02 | 17:41:34 | 5 | CAL01 6 0.01/0.005 | CalStd | 1 | 20 | 1 | g | Nitrite | 204766 | uv-s | Nitrate+Nitrite | 323651 | uv-s |
| 02011101.FDT | 11-Jan-02 | 17:42:32 | 2 | CAL01 7 0.000/0.00 | CalStd | 1 | 1 | 1 | g | Nitrite | 0 | uv-s | Nitrate+Nitrite | 0 | uv-s |
| 02011101.FDT | 11-Jan-02 | 17:44:44 | 2 | BLA01 | Blank | 1 | 1 | 1 | g | Nitrite | -0.000568 | mg/L | Nitrate+Nitrite | 0.001277 | mg/L |
| 02011101.FDT | 11-Jan-02 | 17:45:44 | 6 | CDL01 | RelChkStd | 1 | 1 | 1 | g | Nitrite | 0.02332 | mg/L | Nitrate+Nitrite | 0.04905 | mg/L |
| 02011101.FDT | 11-Jan-02 | 17:46:41 | 3 | ICV01 NO2 | RelChkStd | 1 | 1 | 1 | g | Nitrite | 0.2692 | mg/L | Nitrate+Nitrite | 0.288376 | mg/L |
| 02011101.FDT | 11-Jan-02 | 17:47:39 | 4 | ICV01 NO3 | RelChkStd | 1 | 1 | 1 | g | Nitrite | 0.000988 | mg/L | Nitrate+Nitrite | 0.821398 | mg/L |
| 02011101.FDT | 11-Jan-02 | 17:48:37 | 1 | RINSE DO NOT RECOR | Unknown | 1 | 1 | 1 | g | Nitrite | 0.002122 | mg/L | Nitrate+Nitrite | 0.004399 | mg/L |
| 02011101.FDT | 11-Jan-02 | 17:49:35 | 2 | CCV | Unknown | 1 | 1 | 1 | g | Nitrite | 0.099401 | mg/L | Nitrate+Nitrite | 0.198019 | mg/L |
| 02011101.FDT | 11-Jan-02 | 17:50:34 | 3 | BLA01 | Unknown | 1 | 1 | 1 | g | Nitrite | 0.001167 | mg/L | Nitrate+Nitrite | 0.003502 | mg/L |
| 02011101.FDT | 11-Jan-02 | 17:51:32 | 4 | A581179 BR | Unknown | 1 | 1 | 1 | g | Nitrite | 0.005055 | mg/L | Nitrate+Nitrite | 0.008359 | mg/L |
| 02011101.FDT | 11-Jan-02 | 17:52:30 | 5 | SPI01 A581179 | Unknown | 1 | 1 | 1 | g | Nitrite | 0.005846 | mg/L | Nitrate+Nitrite | 0.105311 | mg/L |
| 02011101.FDT | 11-Jan-02 | 17:53:29 | 6 | DPS01 A581179 | Unknown | 1 | 1 | 1 | g | Nitrite | 0.005331 | mg/L | Nitrate+Nitrite | 0.10471 | mg/L |
| 02011101.FDT | 11-Jan-02 | 17:54:26 | 7 | RINSE DO NOT RECOR | Unknown | 1 | 1 | 1 | g | Nitrite | 0.002205 | mg/L | Nitrate+Nitrite | 0.003436 | mg/L |
| 02011101.FDT | 11-Jan-02 | 17:55:24 | 8 | A581174 | Unknown | 10 | 1 | 1 | g | Nitrite | 0.004381 | mg/L | Nitrate+Nitrite | 0.004686 | mg/L |
| 02011101.FDT | 11-Jan-02 | 17:56:21 | 9 | SPI01 A581174 | Unknown | 10 | 1 | 1 | g | Nitrite | 0.004824 | mg/L | Nitrate+Nitrite | 0.102539 | mg/L |
| 02011101.FDT | 11-Jan-02 | 17:57:18 | 10 | RINSE DO NOT RECOR | Unknown | 1 | 1 | 1 | g | Nitrite | 0.002574 | mg/L | Nitrate+Nitrite | 0.00481 | mg/L |
| 02011101.FDT | 11-Jan-02 | 17:58:17 | 5 | CCV | RelChkStd | 1 | 1 | 1 | g | Nitrite | 0.098956 | mg/L | Nitrate+Nitrite | 0.197044 | mg/L |
| 02011101.FDT | 11-Jan-02 | 17:59:14 | 2 | BLA01 | Blank | 1 | 1 | 1 | g | Nitrite | -0.000568 | mg/L | Nitrate+Nitrite | 0.001277 | mg/L |
| 02011101.FDT | 11-Jan-02 | 18:00:12 | 11 | DPS01 A581174 | Unknown | 10 | 1 | 1 | g | Nitrite | 0.003622 | mg/L | Nitrate+Nitrite | 0.102812 | mg/L |
| 02011101.FDT | 11-Jan-02 | 18:01:09 | 12 | RINSE DO NOT RECOR | Unknown | 1 | 1 | 1 | g | Nitrite | 0.007943 | mg/L | Nitrate+Nitrite | 0.003406 | mg/L |
| 02011101.FDT | 11-Jan-02 | 18:02:06 | 13 | A581246 1g/100 | Unknown | 1 | 1 | 1 | g | Nitrite | 0.001989 | mg/L | Nitrate+Nitrite | 0.011385 | mg/L |
| 02011101.FDT | 11-Jan-02 | 18:03:03 | 14 | SPI01 A581246 1g/100 | Unknown | 1 | 1 | 1 | g | Nitrite | 0.002547 | mg/L | Nitrate+Nitrite | 0.108171 | mg/L |
| 02011101.FDT | 11-Jan-02 | 18:03:59 | 15 | DPS01 A581246 1g/100 | Unknown | 1 | 1 | 1 | g | Nitrite | 0.00247 | mg/L | Nitrate+Nitrite | 0.108053 | mg/L |
| 02011101.FDT | 11-Jan-02 | 18:04:58 | 16 | RINSE DO NOT RECOR | Unknown | 1 | 1 | 1 | g | Nitrite | 0.001115 | mg/L | Nitrate+Nitrite | 0.007026 | mg/L |
| 02011101.FDT | 11-Jan-02 | 18:05:56 | 17 | A581116 DK27430 | Unknown | 1 | 1 | 1 | g | Nitrite | 0.001906 | mg/L | Nitrate+Nitrite | 0.003607 | mg/L |
| 02011101.FDT | 11-Jan-02 | 18:06:54 | 18 | SPI01 A581116 | Unknown | 1 | 1 | 1 | g | Nitrite | 0.002137 | mg/L | Nitrate+Nitrite | 0.100525 | mg/L |
| 02011101.FDT | 11-Jan-02 | 18:07:53 | 19 | DPS01 A581116 | Unknown | 1 | 1 | 1 | g | Nitrite | 0.001663 | mg/L | Nitrate+Nitrite | 0.100753 | mg/L |
| 02011101.FDT | 11-Jan-02 | 18:08:51 | 20 | RINSE DO NOT RECOR | Unknown | 1 | 1 | 1 | g | Nitrite | 0.000006 | mg/L | Nitrate+Nitrite | 0.002738 | mg/L |
| 02011101.FDT | 11-Jan-02 | 18:09:50 | 5 | CCV | RelChkStd | 1 | 1 | 1 | g | Nitrite | 0.09751 | mg/L | Nitrate+Nitrite | 0.196728 | mg/L |
| 02011101.FDT | 11-Jan-02 | 18:10:47 | 2 | BLA01 | Blank | 1 | 1 | 1 | g | Nitrite | -0.000568 | mg/L | Nitrate+Nitrite | 0.001277 | mg/L |
| 02011101.FDT | 11-Jan-02 | 18:11:45 | 21 | A581117 DK27431 | Unknown | 1 | 1 | 1 | g | Nitrite | 0.009708 | mg/L | Nitrate+Nitrite | 0.008175 | mg/L |
| 02011101.FDT | 11-Jan-02 | 18:12:44 | 22 | A581118 DK27432 | Unknown | 1 | 1 | 1 | g | Nitrite | 0.003307 | mg/L | Nitrate+Nitrite | 0.978979 | mg/L |
| 02011101.FDT | 11-Jan-02 | 18:13:41 | 23 | RINSE DO NOT RECOR | Unknown | 1 | 1 | 1 | g | Nitrite | 0.001857 | mg/L | Nitrate+Nitrite | 0.004668 | mg/L |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 02011101.FDT | 11-Jan-02 | 18:15:56 | 5 | CCV | RelChkStd | 1 | 1 | 1 | g | Nitrite | 0.09748 | mg/L | Nitrate+Nitrite | 0.196388 | mg/L |
| 02011101.FDT | 11-Jan-02 | 18:16:53 | 2 | BLA01 | Blank | 1 | 1 | 1 | g | Nitrite | -0.000568 | mg/L | Nitrate+Nitrite | 0.001277 | mg/L |

# Nitrite

| Lvl | Area | mg/L | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 | Replic STD | Replic % RSD | Residual 1st Poly |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14639191 | 0.500 | 14639191 | | | | | 0.0 | 0.0 | -0.4 |
| 2 | 7159748 | 0.250 | 7159748 | | | | | 0.0 | 0.0 | 1.9 |
| 3 | 2949763 | 0.100 | 2949763 | | | | | 0.0 | 0.0 | -0.7 |
| 4 | 1497795 | 0.050 | 1497795 | | | | | 0.0 | 0.0 | -1.7 |
| 5 | 751248 | 0.025 | 751248 | | | | | 0.0 | 0.0 | -0.9 |
| 6 | 204766 | 0.005 | 204766 | | | | | 0.0 | 0.0 | -29.2 |
| 7 | 0 | 0.000 | 0 | | | | | 0.0 | 0.0 | |

1st Order Poly
Conc = 3.433e-008 Area - 5.682e-004
r = 0.9999

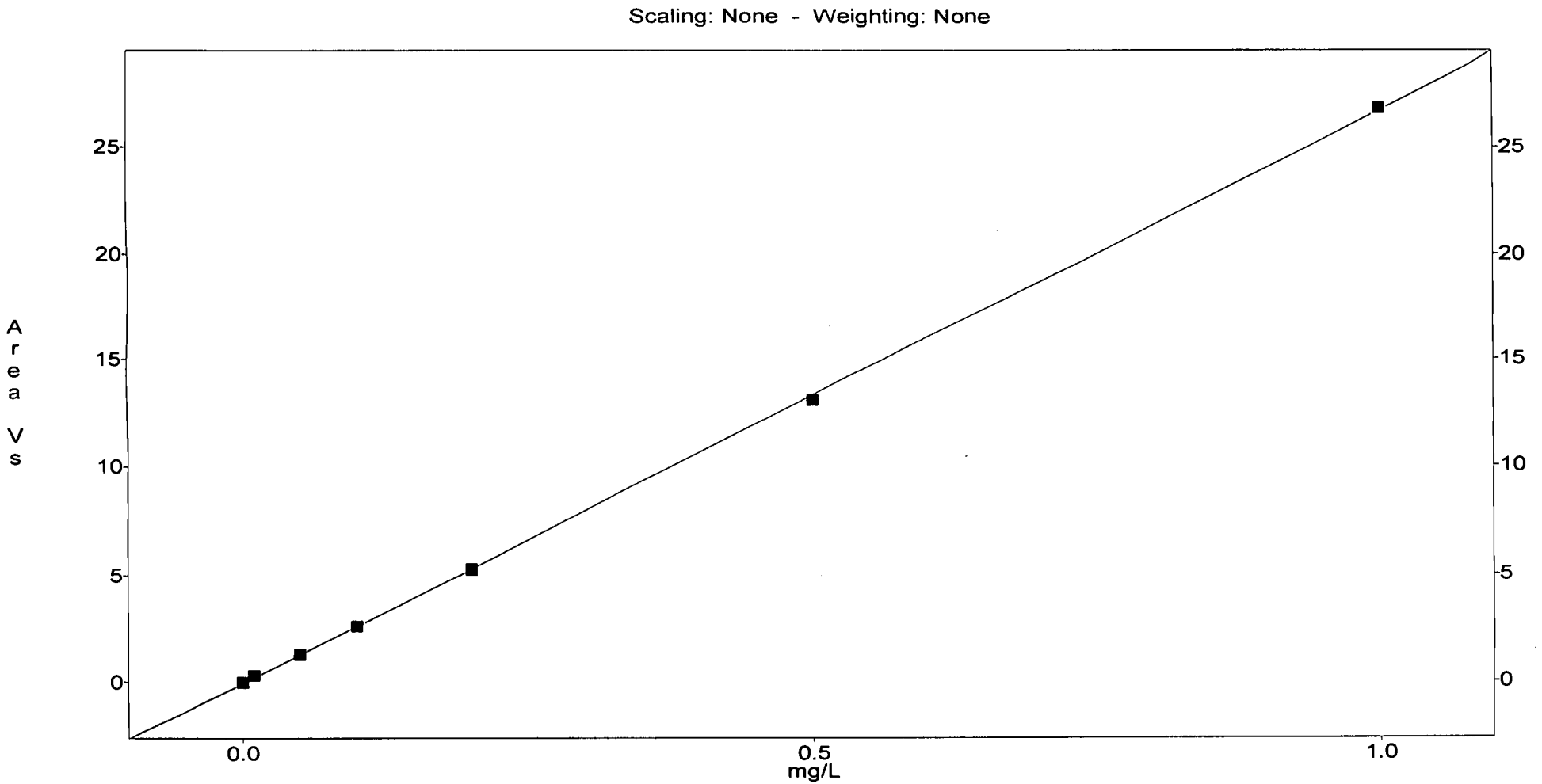



Printed: Friday, January 11, 2002 - 06:19 PM

# Nitrate/Nitrite

| Lvl | Area | mg/L | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 | Replic STD | Replic % RSD | Residual 1st Poly |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 26812238 | 1.00 | 26812238 | | | | | 0.0 | 0.0 | -0.4 |
| 2 | 13090476 | 0.50 | 13090476 | | | | | 0.0 | 0.0 | 1.8 |
| 3 | 5286000 | 0.20 | 5286000 | | | | | 0.0 | 0.0 | 0.5 |
| 4 | 2642107 | 0.10 | 2642107 | | | | | 0.0 | 0.0 | -0.1 |
| 5 | 1318819 | 0.05 | 1318819 | | | | | 0.0 | 0.0 | -1.2 |
| 6 | 323651 | 0.01 | 323651 | | | | | 0.0 | 0.0 | -33.9 |
| 7 | 0 | 0.00 | 0 | | | | | 0.0 | 0.0 | |

1st Order Poly
Conc = 3.742e-008 Area + 1.277e-003
r = 0.9999



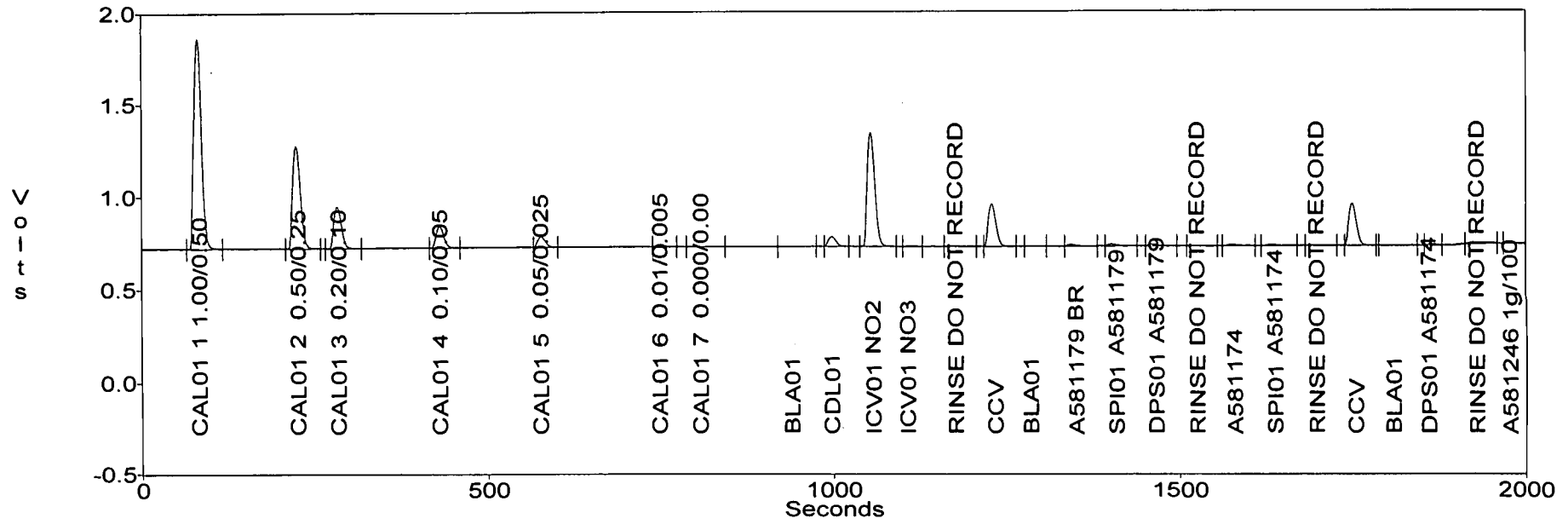

Printed: Friday, January 11, 2002 - 06:19 PM

13

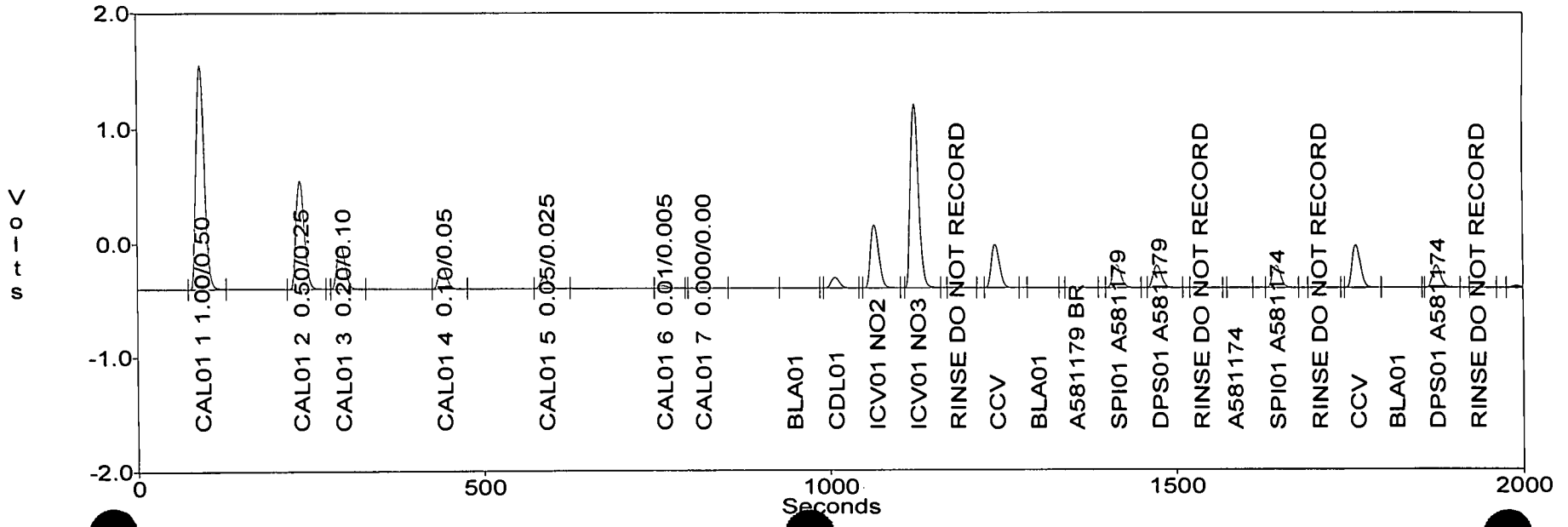
OPERATOR: maa1437
ACQ. TIME: Jan 11, 2002 17:30:26

DATA FILENAME: C:\OMNION\DATA\NITRATE\02011101.FDT
METHOD FILENAME: C:\OMNION\METHODS\NO3NO2_O.MET
TRAY FILENAME: C:\OMNION\TRAYS\NITRATE\02011101.TRA

Channel 3 - Nitrite




Channel 4 - Nitrate+Nitrite

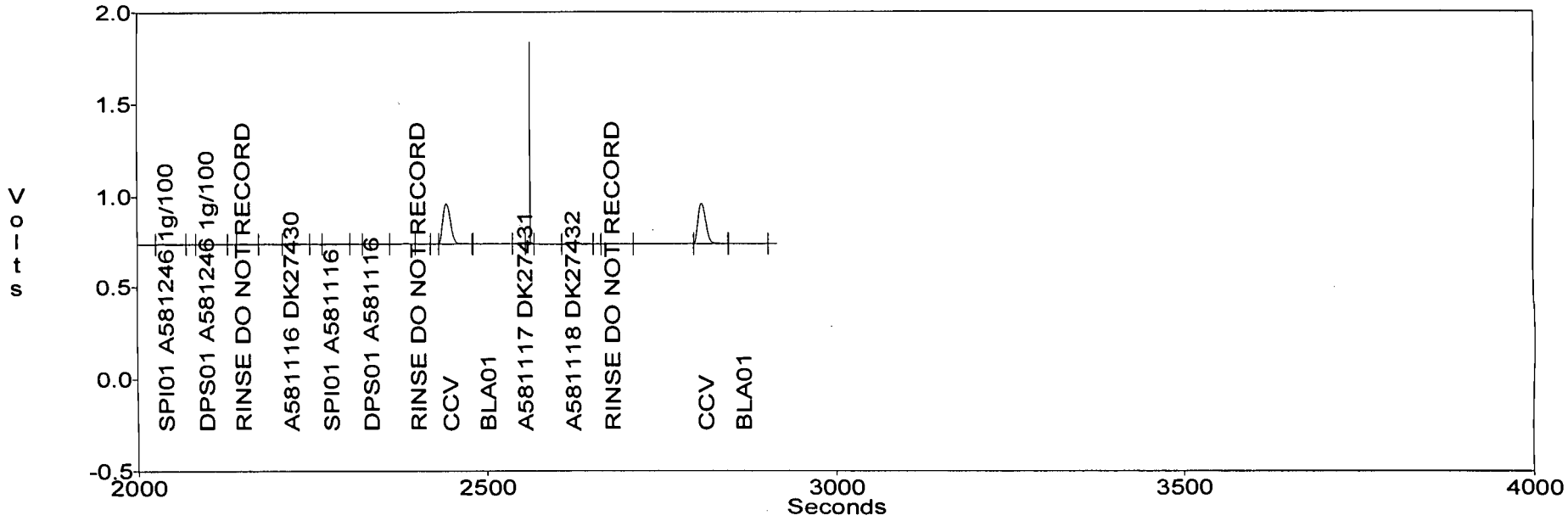


14

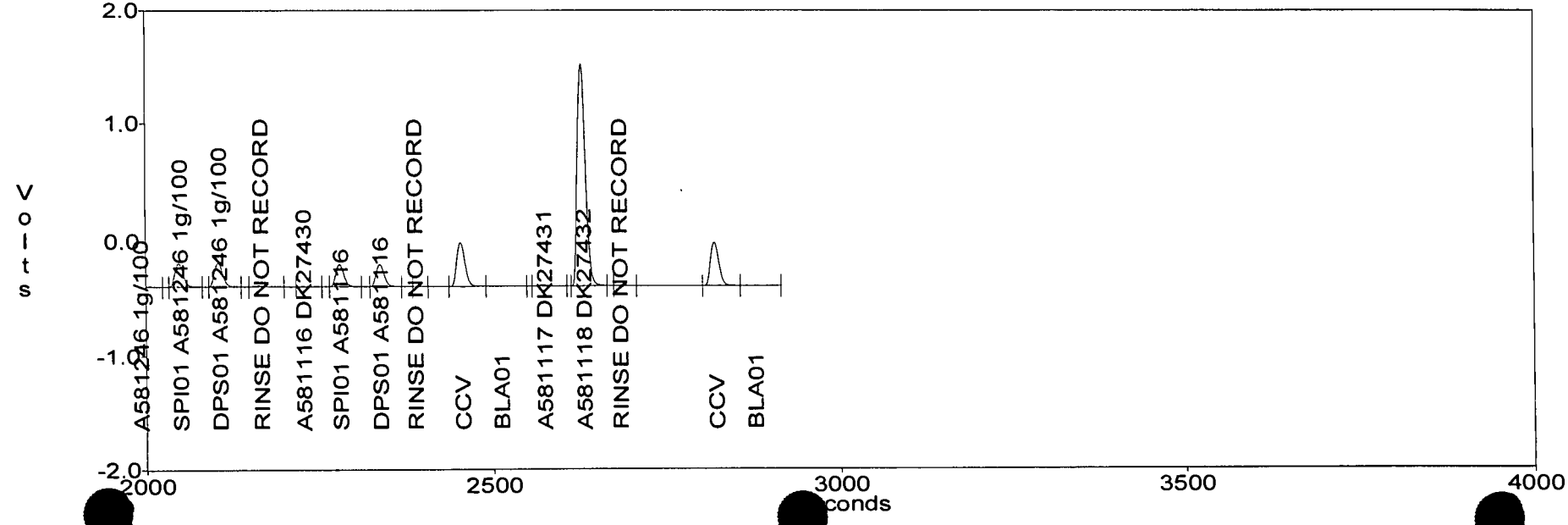
OPERATOR: maa1437
ACQ. TIME: Jan 11, 2002 17:30:26

DATA FILENAME: C:\OMNION\DATA\NITRATE\02011101.FDT
METHOD FILENAME: C:\OMNION\METHODS\NO3NO2_O.MET
TRAY FILENAME: C:\OMNION\TRAYS\NITRATE\02011101.TRA

Channel 3 - Nitrite




Channel 4 - Nitrate+Nitrite



Analysis Run Number _____

Run Number 4767-4768

Test 0401.0, 0401.1

Analyst BPB999

Date Analyzed 1/14/02

Instrument / Test #279 / TOC

**BLA01** mg/l BDL, BDL, BDL

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **SPI01 / DPS01** | Sample No. | A581197 | | A581218 | | | | |
| | Spike Conc | 25.0 | | 25.0 | | | | |
| | Sample Conc | 2.18 | | 1.44 | | | | |
| | Total Conc | 27.6 | 28.1 | 26.9 | 25.9 | | | |
| | %Recovery | 101.7% | 103.8% | 101.8% | 97.8% | | | |
| | RPD | ~~2.8~~ 1.9 | | 4.0 | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **CCV** X965-4 | True Value | 50.0 | 50.0 | | | | | |
| | Obs Conc | 49.9 | 51.6 | | | | | |
| | %Recovery | 99.8% | 103.2% | | | | | |

| | | | |
|---|---|---|---|
| **ICV01** | STD ID | X959 | |
| | True Value | 83.8 | |
| | Obs Conc | 90.9 | |
| | %Recovery | 108.5% | |

Page 1 of 2

Reference No. O401.0, O401.1, G410.1, G401.2

# TOTAL ORGANIC CARBON

Analyst BPB999
Start Date 1/14/02 Start Time 10:30
End Date 1/14/02 End Time 23:00

Reviewer BAS #1108
Date 1/15/02

Recorder
Date

| HEADER | QAQC | SAMPLE | TEST CODE | TV | SPIKE | RESULT | %REC | RPD | DL | UNITS | DILUTION | CLIENT ID | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | BLAΦ1 | Blank | | | | BDL | | | 0.5 | mg/L | | | |
| 2 | CPLΦ1 | X965-2 | | 5.0 | | 3.86 | 77.2% | | 0.5 | | | | |
| 3 | ICVΦ1 | X959 | | 83.8 | | 90.9 | 108.5% | | 0.5 | | | | |
| 4 | | A581042 | 0401.1 ~~0401.0~~ BPB 1/15/02 | | | 3.3 | | | 1.0 | | | 0001-0010 | |
| 5 | | A581067 | 0401.1 | | | BDL | | | 0.5 | | | WSP1 | |
| 6 | | A581068 | 0401.1 | | | 2.2 | | | 0.5 | | | WSP7 | |
| 7 | | A581069 | 0401.1 | | | 1.1 | | | 0.5 | | | Sure Raw | |
| 8 | | A581070 | 0401.1 | | | 2.0 | | | 0.5 | | | Sure DI | |
| 9 | | A581071 | 0401.1 | | | 0.8 | | | 0.5 | | | WSP1 | |
| 10 | | A581072 | 0401.1 | | | 1.5 | | | 0.5 | | | WSP7 | |
| 11 | | A581197 | 0401.1 | | | 2.4 | | | 0.5 | | | WSP1 | |
| 12 | SPEΦ1 | A581197 | 0401.1 | 2.18 | X965-3= 25.0 | 27.6 | 101.7% ~~101.7%~~ | | 0.5 | | | WSP1 | |
| 13 | DPSΦ1 | A581197 | 0401.1 | 2.18 | X965-3= 25.0 | 28.1 | 103.7% ~~99.8%~~ ~~103.8%~~ | 1.9 ~~2.0~~ Bas 1/15/02 | 0.5 | | | WSP1 | |
| 14 | CCV | X965-4 | | 50.0 | | 49.9 | 99.8% | | 0.5 | | | | |
| 15 | BLAΦ1 | Blank | | | | BDL | | | 0.5 | | | | |
| 16 | | A581198 | 0401.1 | | | BDL | | | 0.5 | | | WSP7 | |
| 17 | | A581199 | 0401.1 | | | BDL | | | 0.5 | | | WSP1 | |
| 18 | | A581200 | 0401.1 | | | 1.0 | | | 0.5 | | | WSP7 | |
| 19 | | A581214 | 0401.1 | | | 87 | | | 1.0 | | 1:10 | DK27428 | [redacted] |
| 20 | | A581215 | 0401.1 | | | 8.4 | | | 1.0 | ↓ | 1:5 | DK27429 | [redacted] |

Reference No. O401.0, O401.1, G410.1, G401.2

# TOTAL ORGANIC CARBON

Analyst BPB999
Start Date 1/14/02 Start Time 10:30
End Date 1/14/02 End Time 23:00

Reviewer BAS#1108
Date 1/15/02

Recorder
Date

| HEADER | QAQC | SAMPLE | TEST CODE | TV | SPIKE | RESULT | %REC | RPD | DL | UNITS | DILUTION | CLIENT ID | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22 | | A581216 | 0401.1 | | | BDL | | | 1.0 | mg/L | | DK27430 | |
| 23 | | A581217 | 0401.1 | | | BDL | | | 1.0 | | | DK27431 | |
| 24 | | A581218 | 0401.1 | | | 1.6 | | | 1.0 | | | DK27432 | |
| 25 | SPIΦ1 | A581218 | 0401.1 | 1.44 | X965-3= 25.0 | 26.9 | 101.8% | | 1.0 | | | DK27432 | |
| 26 | DPSΦ1 | A581218 | 0401.1 | 1.44 | X965-3= 25.0 | 25.9 | 97.8% | 4.0 | 1.0 | | | DK27432 | |
| 27 | CCV | X965-4 | | 50.0 | | 51.6 | 103.2% | | 0.5 | | | | |
| 29 | BLAΦ1 | Blank | | | | BDL | | | 0.5 | | | | |

```
SAMPLE#    1    TC   VIAL:   1
 [x 5,     50µl, C#   1, #WASH 4, SP   0min]
     #   AREA  mg/l       C#   µl  RG
     1    836   0.034
     2    730   -0.10
     3    735   -0.09
     4    800   -0.01
   - - - - - - - - - - - - - - -
    MN    775   -0.04
    SD     51   0.066
    CV   6.64 %
    COR CONC DIL   -0.04 [x 1.0]
    COR CONC INJ   -0.04 [x 1.0]

          DATE   01(JAN)-14-2002   10:29
```

BLANK

```
SAMPLE#    1    IC   VIAL:   1
 [x 5,     50µl, C#   4, #WASH 4, SP   0min]
     #   AREA  mg/l       C#   µl  RG
     1    121   -0.14
     2    130   -0.13
     3    135   -0.13
     4    146   -0.11
   - - - - - - - - - - - - - - -
    MN    133   -0.13
    SD     10   0.011
    CV   7.83 %
    COR CONC DIL   -0.13 [x 1.0]
    COR CONC INJ   -0.13 [x 1.0]

SAMPLE#    1    TOC(TC-IC)      0.090 mg/l

          DATE   01(JAN)-14-2002   10:36


SAMPLE#    2    TC   VIAL:   2
 [x 5,     50µl, C#   1, #WASH 4, SP   0min]
     #   AREA  mg/l       C#   µl  RG
     1   4045   4.198
     2   3966   4.095
     3   3831   3.920
     4   3852   3.947
   - - - - - - - - - - - - - - -
    MN   3923   4.040
    SD    100   0.130
    CV   2.55 %
```

COR CONC DIL 4.040 [x 1.0]
COR CONC INJ 4.040 [x 1.0]

DATE 01(JAN)-14-2002 10:48

SAMPLE# 2 IC VIAL: 2
[x 5, 50µl, C# 4, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1 | 393 | 0.151 | | | |
| 2 | 390 | 0.147 | | | |
| 3 | 427 | 0.188 | | | |
| 4 | 465 | 0.229 | | | |
| MN | 418 | 0.179 | | | |
| SD | 35 | 0.038 | | | |
| CV | 8.38 % | | | | |

COR CONC DIL 0.179 [x 1.0]
COR CONC INJ 0.179 [x 1.0]

SAMPLE# 2 TOC(TC-IC) 3.861 mg/l X965.2
CDL01
TV=5.0

DATE 01(JAN)-14-2002 10:56

SAMPLE# 3 TC VIAL: 3
[x 5, 50µl, C# 1, #WASH 4, SP 0min]

| # | AREA | mg/l | | C# | µl | RG |
|---|---|---|---|---|---|---|
| 1-45355 | | 57.79 | H | | | |
| 2 | 10875 | 71.99 | | 2 | | |
| 3 | 10918 | 72.27 | | | | |
| 4 | 10758 | 71.20 | | | | |
| 5 | 10888 | 72.07 | | | | |
| MN | 10859 | 71.88 | | | | |
| SD | 70 | 0.471 | | | | |
| CV | 0.64 % | | | | | |

COR CONC DIL 71.88 [x 1.0]
COR CONC INJ 71.88 [x 1.0]

DATE 01(JAN)-14-2002 11:11

Do Not Record

SAMPLE# 3 IC VIAL: 3
[x 5, 50µl, C# 4, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1 | 1099 | 0.920 | | | |
| 2 | 983 | 0.794 | | | |
| 3 | 897 | 0.700 | | | |
| 4 | 910 | 0.714 | | | |
| MN | 972 | 0.782 | | | |
| SD | 92 | 0.101 | | | |
| CV | 9.52 % | | | | |

SAMPLE# 3 TC VIAL: 3
[x 5, 50µl, C# 1, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1- | 53390 | 68.22 | H | | |
| 2- | 13927 | 92.48 | 2 | | |
| 3 | 13949 | 94.02 | 3 | | |
| 4 | 14000 | 94.37 | | | |
| 5 | 13771 | 92.81 | | | |
| 6 | 13504 | 91.00 | | | |
| MN | 13806 | 93.05 | | | |
| SD | 223 | 1.520 | | | |

CV 1.62 %
COR CONC DIL 93.05 [x 1.0]
COR CONC INJ 93.05 [x 1.0]

DATE 01(JAN)-14-2002 12:46

SAMPLE# 3 IC VIAL: 3
[x 5, 50µl, C# 4, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1- | 1621 | 1.489 | | | |
| 2 | 2256 | 2.181 | | | |
| 3 | 2257 | 2.183 | | | |
| 4 | 2129 | 2.043 | | | |
| 5 | 2106 | 2.018 | | | |
| MN | 2187 | 2.106 | | | |
| SD | 80 | 0.088 | | | |

```
   COR CONC DIL   2.106 [x 1.0]
   COR CONC INJ   2.106 [x 1.0]

SAMPLE#    3    TOC(TC-IC)     90.94 mg/l
         DATE   01(JAN)-14-2002   12:57
```

X959
ICV@1
TV=83.8

```
SAMPLE#    4    TC  VIAL:   4
 [x 5,    50µl, C#   1, #WASH 4, SP   0min]
    #   AREA  mg/l      C#   µl  RG
    1-15419   18.95
    2   2437   15.33     2
    3   2322   14.56
    4   2231   13.95
    5   2187   13.65
   - - - - - - - - - - - - - - -
   MN   2294   14.37
   SD    110   0.742
   CV   4.81 %
   COR CONC DIL   14.37 [x 1.0]
   COR CONC INJ   14.37 [x 1.0]

         DATE   01(JAN)-14-2002   13:10


SAMPLE#    4    IC  VIAL:   4
 [x 5,    50µl, C#   4, #WASH 4, SP   0min]
    #   AREA  mg/l      C#   µl  RG
    1-12634   13.49
    2-10896   11.60
    3 10601   11.27
    4 10350   11.00
    5 10268   10.91
    6 10310   10.96
   - - - - - - - - - - - - - - -
   MN 10382   11.04
   SD   149   0.163
   CV  1.44 %
   COR CONC DIL   11.04 [x 1.0]
   COR CONC INJ   11.04 [x 1.0]

SAMPLE#    4    TOC(TC-IC)     3.330 mg/l
         DATE   01(JAN)-14-2002   13:23
```

A581042

```
SAMPLE#    5    TC  VIAL:   5
 [x 5,    50µl, C#   1, #WASH 4, SP   0min]
    #   AREA  mg/l      C#   µl  RG
    1-23528   29.47
    2   3799   24.48     2
    3   3428   21.98
    4   3479   22.33
    5   3573   22.96
   - - - - - - - - - - - - - - -
   MN   3569   22.94
```

```
CV   4.60 %
COR CONC DIL   22.94 [x 1.0]
COR CONC INJ   22.94 [x 1.0]

      DATE   01(JAN)-14-2002   13:36


SAMPLE#    5    IC   VIAL:   5
 [x 5,    50µl, C#   4, #WASH 4, SP   0min]
    #   AREA mg/l      C#   µl RG
    1-30385   32.84
    2   5110   27.35     5
    3   4895   26.17
    4   4786   25.58
    5   4687   25.04
  - - - - - - - - - - - - - -
   MN   4869   26.04
   SD    181   0.990
   CV   3.72 %
   COR CONC DIL   26.04 [x 1.0]
   COR CONC INJ   26.04 [x 1.0]

SAMPLE#    5    TOC(TC-IC)    -3.10 mg/l    A581067

      DATE   01(JAN)-14-2002   13:46


SAMPLE#    6    TC   VIAL:   6
 [x 5,    50µl, C#   1, #WASH 4, SP   0min]
    #   AREA mg/l      C#   µl RG
    1-  2070   1.635
    2   4106   4.277
    3   4452   4.726
    4   4492   4.778
    5   4305   4.535
  - - - - - - - - - - - - - -
   MN   4338   4.579
   SD    174   0.226
   CV   4.02 %
   COR CONC DIL   4.579 [x 1.0]
   COR CONC INJ   4.579 [x 1.0]

      DATE   01(JAN)-14-2002   14:00


SAMPLE#    6    IC   VIAL:   6
 [x 5,    50µl, C#   4, #WASH 4, SP   0min]
    #   AREA mg/l      C#   µl RG
    1-   982   0.793
    2   2505   2.453
    3   2538   2.489
    4   2414   2.354
    5   2204   2.125
  - - - - - - - - - - - - - -
   MN   2415   2.355
   SD    150   0.163
```

```
   COR CONC DIL   2.355 [x 1.0]
   COR CONC INJ   2.355 [x 1.0]

SAMPLE#    6    TOC(TC-IC)      2.224 mg/l      A581068

         DATE   01(JAN)-14-2002   14:11


SAMPLE#    7    TC   VIAL:   7
 [x 5,    50µl, C#   1, #WASH 4, SP   0min]
    #   AREA mg/l      C#   µl RG
    1-13558   16.54
    2   2136   13.31     2
    3   1925   11.89
    4   1966   12.17
    5   1998   12.38
   - - - - - - - - - - - - - - -
   MN   2006   12.44
   SD     91   0.614
   CV   4.56 %
   COR CONC DIL   12.44 [x 1.0]
   COR CONC INJ   12.44 [x 1.0]

         DATE   01(JAN)-14-2002   14:24


SAMPLE#    7    IC   VIAL:   7
 [x 5,    50µl, C#   4, #WASH 4, SP   0min]
    #   AREA mg/l      C#   µl RG
    1-12850   13.73
    2-11141   11.86
    3 10798   11.49
    4 10731   11.42
    5 10638   11.31
    6 10639   11.32
   - - - - - - - - - - - - - - -
   MN 10701   11.38
   SD    77   0.084
   CV  0.72 %
   COR CONC DIL   11.38 [x 1.0]
   COR CONC INJ   11.38 [x 1.0]

SAMPLE#    7    TOC(TC-IC)      1.060 mg/l      A581069

         DATE   01(JAN)-14-2002   14:37


SAMPLE#    8    TC   VIAL:   8
 [x 5,    50µl, C#   1, #WASH 4, SP   0min]
    #   AREA mg/l      C#   µl RG
    1-  2534   2.237
    2   3123   3.001
    3   3396   3.356
    4   3268   3.189
    5   3154   3.042
   - - - - - - - - - - - - - - -
   MN   3235   3.147
```

```
CV   3.83 %
COR CONC DIL   3.147 [x 1.0]
COR CONC INJ   3.147 [x 1.0]

      DATE   01(JAN)-14-2002   14:49


SAMPLE#    8    IC  VIAL:  8
 [x 5,    50µl, C#  4, #WASH 4, SP  0min]
    #  AREA mg/l      C#  µl RG
    1-  513  0.281
    2  1335  1.177
    3  1349  1.193
    4  1283  1.121
    5  1190  1.019
   - - - - - - - - - - - - - - -
   MN  1289  1.128
   SD    72  0.078
   CV  5.58 %
   COR CONC DIL  1.128 [x 1.0]
   COR CONC INJ  1.128 [x 1.0]

SAMPLE#    8    TOC(TC-IC)    2.019 mg/l      A581070

      DATE   01(JAN)-14-2002   14:59


SAMPLE#    9    TC  VIAL:  9
 [x 5,    50µl, C#  1, #WASH 4, SP  0min]
    #  AREA mg/l      C#  µl RG
    1-14952  18.34
    2  2211  13.81     2
    3  2024  12.56
    4  2025  12.56
    5  1957  12.11
   - - - - - - - - - - - - - - -
   MN  2054  12.76
   SD   109  0.733
   CV  5.31 %
   COR CONC DIL  12.76 [x 1.0]
   COR CONC INJ  12.76 [x 1.0]

      DATE   01(JAN)-14-2002   15:12


SAMPLE#    9    IC  VIAL:  9
 [x 5,    50µl, C#  4, #WASH 4, SP  0min]
    #  AREA mg/l      C#  µl RG
    1-14991  16.06
    2  2433  12.73     5
    3  2291  11.96
    4  2244  11.70
    5  2184  11.37
   - - - - - - - - - - - - - - -
   MN  2288  11.94
```

COR CONC DIL 11.94 [x 1.0]
COR CONC INJ 11.94 [x 1.0]

SAMPLE# 9 TOC(TC-IC) 0.820 mg/l A581071

DATE 01(JAN)-14-2002 15:23

SAMPLE# 10 TC VIAL: 10
[x 5, 50µl, C# 1, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1- | 1816 | 1.306 | | | |
| 2 | 2612 | 2.338 | | | |
| 3 | 2921 | 2.739 | | | |
| 4 | 2847 | 2.643 | | | |
| 5 | 2726 | 2.486 | | | |
| MN | 2776 | 2.552 | | | |
| SD | 135 | 0.176 | | | |
| CV | 4.89 % | | | | |

COR CONC DIL 2.552 [x 1.0]
COR CONC INJ 2.552 [x 1.0]

DATE 01(JAN)-14-2002 15:36

SAMPLE# 10 IC VIAL: 10
[x 5, 50µl, C# 4, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1- | 512 | 0.280 | | | |
| 2 | 1255 | 1.090 | | | |
| 3 | 1300 | 1.139 | | | |
| 4 | 1238 | 1.072 | | | |
| 5 | 1144 | 0.969 | | | |
| MN | 1234 | 1.068 | | | |
| SD | 65 | 0.071 | | | |
| CV | 5.31 % | | | | |

COR CONC DIL 1.068 [x 1.0]
COR CONC INJ 1.068 [x 1.0]

SAMPLE# 10 TOC(TC-IC) 1.484 mg/l A581072

DATE 01(JAN)-14-2002 15:46

SAMPLE# 11 TC VIAL: 11
[x 5, 50µl, C# 1, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1- | 13807 | 16.86 | | | |
| 2 | 2160 | 13.47 | 2 | | |
| 3 | 2029 | 12.59 | | | |
| 4 | 2076 | 12.91 | | | |
| 5 | 1975 | 12.23 | | | |
| MN | 2060 | 12.80 | | | |
| SD | 78 | 0.526 | | | |

```
COR CONC DIL   12.80 [x 1.0]
COR CONC INJ   12.80 [x 1.0]

      DATE   01(JAN)-14-2002   15:59


SAMPLE#   11    IC   VIAL: 11
 [x 5,    50µl, C#   4, #WASH 4, SP   0min]
    #   AREA mg/l      C#   µl RG
    1-11950   12.74
    2-10171   10.81
    3   9885   10.49
    4   9813   10.41
    5   9674   10.26
    6   9742   10.34
  - - - - - - - - - - - - -
  MN   9778   10.38
  SD     90   0.099
  CV   0.92 %
  COR CONC DIL   10.38 [x 1.0]
  COR CONC INJ   10.38 [x 1.0]

SAMPLE#   11    TOC(TC-IC)     2.420 mg/l      A581197

      DATE   01(JAN)-14-2002   16:12


SAMPLE#   12    TC   VIAL: 12
 [x 5,    50µl, C#   1, #WASH 4, SP   0min]
    #   AREA mg/l      C#   µl RG
    1-24537   30.78
    2   5382   35.10      2
    3   5260   34.29
    4   5338   34.81
    5   5334   34.78
  - - - - - - - - - - - - -
  MN   5328   34.75
  SD     50   0.339
  CV   0.94 %
  COR CONC DIL   34.75 [x 1.0]
  COR CONC INJ   34.75 [x 1.0]

      DATE   01(JAN)-14-2002   16:24


SAMPLE#   12    IC   VIAL: 12
 [x 5,    50µl, C#   4, #WASH 4, SP   0min]
    #   AREA mg/l      C#   µl RG
    1-  7577   7.982
    2   7015   7.369
    3   6823   7.160
    4   6751   7.081
    5   6690   7.015
  - - - - - - - - - - - - -
  MN   6819   7.156
```

```
   COR CONC DIL   7.156 [x 1.0]
   COR CONC INJ   7.156 [x 1.0]

SAMPLE#  12    TOC(TC-IC)     27.59 mg/l

         DATE   01(JAN)-14-2002   16:35
```

A581197 SPI Φ1
SAM=2.18
X965-3=25.0

```
SAMPLE#  13    TC   VIAL: 13
 [x 5,    50µl, C#  1, #WASH 4, SP   0min]
    #   AREA  mg/l      C#   µl RG
    1-24427   30.64
    2   5259   34.28     2
    3   5180   33.75
    4   5255   34.25
    5   5295   34.52
   - - - - - - - - - - - - - - -
   MN   5247   34.20
   SD     48   0.324
   CV   0.92 %
   COR CONC DIL   34.20 [x 1.0]
   COR CONC INJ   34.20 [x 1.0]

         DATE   01(JAN)-14-2002   16:48


SAMPLE#  13    IC   VIAL: 13
 [x 5,    50µl, C#  4, #WASH 4, SP   0min]
    #   AREA  mg/l      C#   µl RG
    1-  6470   6.775
    2   5983   6.244
    3   5918   6.173
    4   5799   6.044
    5   5758   5.999
   - - - - - - - - - - - - - - -
   MN   5864   6.115
   SD    104   0.113
   CV   1.77 %
   COR CONC DIL   6.115 [x 1.0]
   COR CONC INJ   6.115 [x 1.0]

SAMPLE#  13    TOC(TC-IC)     28.08 mg/l

         DATE   01(JAN)-14-2002   16:59
```

A581197 DPSΦ1
SAM=2.18
X965-3=25.0

```
SAMPLE#  14    TC   VIAL: 14
 [x 5,    50µl, C#  1, #WASH 4, SP   0min]
    #   AREA  mg/l      C#   µl RG
    1-31244   39.48
    2   7670   50.47     2
    3   7737   50.92
    4   7697   50.65
    5   7690   50.60
   - - - - - - - - - - - - - - -
   MN   7698   50.66
   SD     28   0.188
```

```
COR CONC DIL   50.66 [x 1.0]
COR CONC INJ   50.66 [x 1.0]

     DATE  01(JAN)-14-2002  17:13


SAMPLE#  14   IC  VIAL: 14
 [x 5,   50µl, C#  4, #WASH 4, SP  0min]
   #  AREA mg/l     C#  µl RG
   1-  421  0.181
   2   912  0.716
   3   953  0.761
   4   911  0.715
   5   881  0.683
  - - - - - - - - - - - - - -
  MN   914  0.719
  SD    29  0.032
  CV  3.23 %
  COR CONC DIL  0.719 [x 1.0]
  COR CONC INJ  0.719 [x 1.0]

SAMPLE#  14   TOC(TC-IC)   49.94 mg/l

     DATE  01(JAN)-14-2002  17:24


SAMPLE#  15   TC  VIAL: 15
 [x 5,   50µl, C#  1, #WASH 4, SP  0min]
   #  AREA mg/l     C#  µl RG
   1  1388  0.750
   2  1088  0.361
   3  1093  0.367
   4  1126  0.410
  - - - - - - - - - - - - - -
  MN  1173  0.472
  SD   143  0.186
  CV  12.2 %
  COR CONC DIL  0.472 [x 1.0]
  COR CONC INJ  0.472 [x 1.0]

     DATE  01(JAN)-14-2002  17:34


SAMPLE#  15   IC  VIAL: 15
 [x 5,   50µl, C#  4, #WASH 4, SP  0min]
   #  AREA mg/l     C#  µl RG
   1   242  -0.01
   2   364  0.119
   3   397  0.155
   4   410  0.169
  - - - - - - - - - - - - - -
  MN   353  0.107
  SD    76  0.083
  CV  21.6 %
```

X965-4
CCV TV=50.0

COR CONC INJ 0.107 [x 1.0]

SAMPLE# 15 TOC(TC-IC) 0.365 mg/l Rinse Do Not Record

DATE 01(JAN)-14-2002 17:42

SAMPLE# 16 TC VIAL: 16
[x 5, 50µl, C# 1, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1 | 866 | 0.073 | | | |
| 2 | 803 | -0.00 | | | |
| 3 | 785 | -0.03 | | | |
| 4 | 888 | 0.102 | | | |
| MN | 835 | 0.033 | | | |
| SD | 49 | 0.064 | | | |
| CV | 5.90 % | | | | |

COR CONC DIL ~~0.033 [x 1.0]~~
COR CONC INJ 0.033 [x 1.0] BLA01

DATE 01(JAN)-14-2002 17:51

SAMPLE# 16 IC VIAL: 16
[x 5, 50µl, C# 4, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1 | 120 | -0.14 | | | |
| 2 | 206 | -0.05 | | | |
| 3 | 282 | 0.030 | | | |
| 4 | 308 | 0.058 | | | |
| MN | 229 | -0.02 | | | |
| SD | 84 | 0.092 | | | |
| CV | 36.9 % | | | | |

COR CONC DIL -0.02 [x 1.0]
COR CONC INJ -0.02 [x 1.0]

SAMPLE# 16 TOC(TC-IC) 0.053 mg/l

DATE 01(JAN)-14-2002 17:59

SAMPLE# 17 TC VIAL: 17
[x 5, 50µl, C# 1, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1 | 989 | 0.233 | | | |
| 2 | 1049 | 0.310 | | | |
| 3 | 1087 | 0.360 | | | |
| 4 | 1034 | 0.291 | | | |
| MN | 1039 | 0.298 | | | |
| SD | 40 | 0.052 | | | |
| CV | 3.89 % | | | | |

A581198

COR CONC INJ 0.298 [x 1.0]

DATE 01(JAN)-14-2002 18:09

SAMPLE# 17 IC VIAL: 17
[x 5, 50µl, C# 4, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1 | 0 | -0.27 | | | |
| 2 | 158 | -0.10 | | | |
| 3 | 173 | -0.08 | | | |
| 4 | 230 | -0.02 | | | |
| MN | 140 | -0.12 | | | |
| SD | 98 | 0.107 | | | |
| CV | 70.2 % | | | | |

COR CONC DIL -0.12 [x 1.0]
COR CONC INJ -0.12 [x 1.0]

SAMPLE# 17 TOC(TC-IC) 0.418 mg/l

DATE 01(JAN)-14-2002 18:18

SAMPLE# 18 TC VIAL: 18
[x 5, 50µl, C# 1, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1-10024 | | 11.95 | | | |
| 2 | 7031 | 8.072 | | | |
| 3 | 6942 | 7.956 | | | |
| 4 | 6810 | 7.785 | | | |
| 5 | 6780 | 7.746 | | | |
| MN | 6890 | 7.890 | | | |
| SD | 117 | 0.151 | | | |
| CV | 1.69 % | | | | |

COR CONC DIL 7.890 [x 1.0]
COR CONC INJ 7.890 [x 1.0]

DATE 01(JAN)-14-2002 18:33

SAMPLE# 18 IC VIAL: 18
[x 5, 50µl, C# 4, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1- | 9394 | 9.963 | | | |
| 2- | 7876 | 8.308 | | | |
| 3 | 7599 | 8.006 | | | |
| 4 | 7475 | 7.871 | | | |
| 5 | 7423 | 7.814 | | | |
| 6 | 7409 | 7.799 | | | |

```
   CV   1.15 %
   COR CONC DIL   7.872 [x 1.0]
   COR CONC INJ   7.872 [x 1.0]

SAMPLE#   18    TOC(TC-IC)      0.018 mg/l        A581199

         DATE   01(JAN)-14-2002   18:45



SAMPLE#   19    TC   VIAL: 19
 [x 5,    50µl, C#   1, #WASH 4, SP   0min]
    #   AREA  mg/l      C#   µl RG
    1-  1631   1.066
    2   2045   1.603
    3   2167   1.761
    4   2111   1.688
    5   1890   1.402
   - - - - - - - - - - - - - - -
   MN   2053   1.613
   SD    119   0.155
   CV   5.83 %
   COR CONC DIL   1.613 [x 1.0]
   COR CONC INJ   1.613 [x 1.0]

         DATE   01(JAN)-14-2002   18:57



SAMPLE#   19    IC   VIAL: 19
 [x 5,    50µl, C#   4, #WASH 4, SP   0min]
    #   AREA  mg/l      C#   µl RG
    1-   354   0.108
    2    831   0.628
    3    825   0.622
    4    788   0.581
    5    745   0.534
   - - - - - - - - - - - - - - -
   MN    797   0.591
   SD     39   0.043
   CV   4.97 %
   COR CONC DIL   0.591 [x 1.0]
   COR CONC INJ   0.591 [x 1.0]

SAMPLE#   19    TOC(TC-IC)      1.022 mg/l        A581200

         DATE   01(JAN)-14-2002   19:07



SAMPLE#   20    TC   VIAL: 20
 [x 5,    50µl, C#   1, #WASH 4, SP   0min]
    #   AREA  mg/l      C#   µl RG
    1-11455   13.81
    2   9614   11.42
    3   9471   11.23
    4   9581   11.38
    5   9795   11.65
   - - - - - - - - - - - - - - -
   MN   9615   11.42
```

```
CV    1.03 %
COR CONC DIL   11.42 [x 1.0]
COR CONC INJ   11.42 [x 1.0]

      DATE  01(JAN)-14-2002  19:23


SAMPLE#  20   IC  VIAL: 20
 [x 5,   50µl, C#  4, #WASH 4, SP  0min]
    #  AREA mg/l     C#  µl RG
    1- 3150  3.156
    2  2766  2.737
    3  2747  2.717
    4  2712  2.679
    5  2707  2.673
  - - - - - - - - - - - - - -
   MN  2733  2.701
   SD    28  0.030
   CV  1.03 %
   COR CONC DIL  2.701 [x 1.0]
   COR CONC INJ  2.701 [x 1.0]

SAMPLE#  20   TOC(TC-IC)    8.719 mg/l      A581214 1:10

      DATE  01(JAN)-14-2002  19:33


SAMPLE#  21   TC  VIAL: 21
 [x 5,   50µl, C#  1, #WASH 4, SP  0min]
    #  AREA mg/l     C#  µl RG
    1- 3815  3.899
    2  3420  3.387
    3  3386  3.343
    4  3358  3.306
    5  3273  3.196
  - - - - - - - - - - - - - -
   MN  3359  3.308
   SD    62  0.081
   CV  1.87 %
   COR CONC DIL  3.308 [x 1.0]
   COR CONC INJ  3.308 [x 1.0]

      DATE  01(JAN)-14-2002  19:46


SAMPLE#  21   IC  VIAL: 21
 [x 5,   50µl, C#  4, #WASH 4, SP  0min]
    #  AREA mg/l     C#  µl RG
    1  1820  1.706
    2  1741  1.620
    3  1729  1.607
    4  1706  1.582
  - - - - - - - - - - - - - -
   MN  1749  1.629
   SD    49  0.054
   CV  2.83 %
```

COR CONC INJ 1.629 [x 1.0]

SAMPLE# 21 TOC(TC-IC) 1.679 mg/l A581215

DATE 01(JAN)-14-2002 19:55 1:5

SAMPLE# 22 TC VIAL: 22
[x 5, 50µl, C# 1, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1 | 24171 | 30.31 | | | |
| 2 | 3035 | 19.35 | 2 | | |
| 3 | 2650 | 16.76 | | | |
| 4 | 2657 | 16.81 | | | |
| 5 | 2591 | 16.36 | | | |
| 6 | 2539 | 16.02 | | | |
| MN | 2609 | 16.49 | | | |
| SD | 55 | 0.372 | | | |
| CV | 2.12 % | | | | |

COR CONC DIL 16.49 [x 1.0]
COR CONC INJ 16.49 [x 1.0]

DATE 01(JAN)-14-2002 20:11

SAMPLE# 22 IC VIAL: 22
[x 5, 50µl, C# 4, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1 | 24501 | 26.43 | | | |
| 2 | 3857 | 20.51 | 5 | | |
| 3 | 3703 | 19.67 | | | |
| 4 | 3637 | 19.31 | | | |
| 5 | 3559 | 18.88 | | | |
| MN | 3689 | 19.59 | | | |
| SD | 126 | 0.690 | | | |
| CV | 3.42 % | | | | |

COR CONC DIL 19.59 [x 1.0]
COR CONC INJ 19.59 [x 1.0]

SAMPLE# 22 TOC(TC-IC) -3.09 mg/l A581216

DATE 01(JAN)-14-2002 20:21

SAMPLE# 23 TC VIAL: 23
[x 5, 50µl, C# 1, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1 | 22971 | 28.75 | | | |
| 2 | 3326 | 21.30 | 2 | | |
| 3 | 3004 | 19.14 | | | |
| 4 | 3049 | 19.44 | | | |
| 5 | 2989 | 19.04 | | | |
| MN | 3092 | 19.73 | | | |
| SD | 158 | 1.061 | | | |

```
   COR CONC DIL   19.73 [x 1.0]
   COR CONC INJ   19.73 [x 1.0]

        DATE   01(JAN)-14-2002   20:35


SAMPLE#   23    IC   VIAL: 23
 [x 5,    50µl, C#   4, #WASH 4, SP   0min]
    #   AREA mg/l      C#   µl RG
    1-23142   24.94
    2   4078   21.71     5
    3   3853   20.49
    4   3725   19.79
    5   3623   19.23
   - - - - - - - - - - - - - - -
   MN   3819   20.30
   SD    196   1.071
   CV   5.13 %
   COR CONC DIL   20.30 [x 1.0]
   COR CONC INJ   20.30 [x 1.0]

SAMPLE#   23    TOC(TC-IC)      -0.56 mg/l      A 581217

        DATE   01(JAN)-14-2002   20:46


SAMPLE#   24    TC   VIAL: 24
 [x 5,    50µl, C#   1, #WASH 4, SP   0min]
    #   AREA mg/l      C#   µl RG
    1-10967   13.17
    2   9705   11.54
    3   9728   11.57
    4   9804   11.67
    5   9209   10.89
    6-  8960   10.57
   - - - - - - - - - - - - - - -
   MN   9611   11.42
   SD    271   0.352
   CV   2.82 %
   COR CONC DIL   11.42 [x 1.0]
   COR CONC INJ   11.42 [x 1.0]

        DATE   01(JAN)-14-2002   21:04


SAMPLE#   24    IC   VIAL: 24
 [x 5,    50µl, C#   4, #WASH 4, SP   0min]
    #   AREA mg/l      C#   µl RG
    1   9426   9.997
    2   9361   9.927
    3   9207   9.759
    4   9051   9.589
   - - - - - - - - - - - - - - -
   MN   9261   9.818
   SD    167   0.182
   CV   1.80 %
```

COR CONC INJ 1.602 [x 1.0]

SAMPLE# 24 TOC(TC-IC) 1.602 mg/l A581218

DATE 01(JAN)-14-2002 21:14

SAMPLE# 25 TC VIAL: 25
[x 5, 50µl, C# 1, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1 | 21516 | 26.86 | | | |
| 2 | 4815 | 31.30 | 2 | | |
| 3 | 4770 | 31.00 | | | |
| 4 | 4854 | 31.56 | | | |
| 5 | 4850 | 31.53 | | | |
| MN | 4822 | 31.35 | | | |
| SD | 38 | 0.261 | | | |
| CV | 0.80 % | | | | |

COR CONC DIL 31.35 [x 1.0]
COR CONC INJ 31.35 [x 1.0]

DATE 01(JAN)-14-2002 21:27

SAMPLE# 25 IC VIAL: 25
[x 5, 50µl, C# 4, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1 | 4165 | 4.262 | | | |
| 2 | 4432 | 4.554 | | | |
| 3 | 4418 | 4.538 | | | |
| 4 | 4349 | 4.463 | | | |
| MN | 4341 | 4.454 | | | |
| SD | 122 | 0.133 | | | |
| CV | 2.82 % | | | | |

COR CONC DIL 4.454 [x 1.0]
COR CONC INJ 4.454 [x 1.0]

SAMPLE# 25 TOC(TC-IC) 26.89 mg/l A581218 SPIΦ1
SAM= 1.44
X965-3=25.0

DATE 01(JAN)-14-2002 21:36

SAMPLE# 26 TC VIAL: 26
[x 5, 50µl, C# 1, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1 | 21956 | 27.43 | | | |
| 2 | 4612 | 29.93 | 2 | | |
| 3 | 4557 | 29.57 | | | |
| 4 | 4583 | 29.74 | | | |
| 5 | 4550 | 29.52 | | | |
| MN | 4575 | 29.69 | | | |
| SD | 28 | 0.189 | | | |

```
COR CONC DIL   29.69 [x 1.0]
COR CONC INJ   29.69 [x 1.0]

      DATE   01(JAN)-14-2002   21:49


SAMPLE#   26    IC  VIAL: 26
 [x 5,    50µl, C#   4, #WASH 4, SP   0min]
    #   AREA mg/l      C#   µl RG
    1   3843   3.911
    2   3747   3.807
    3   3696   3.751
    4   3650   3.701
  - - - - - - - - - - - - - -
   MN   3734   3.793
   SD     82   0.090
   CV   2.21 %
   COR CONC DIL   3.793 [x 1.0]
   COR CONC INJ   3.793 [x 1.0]

SAMPLE#   26    TOC(TC-IC)      25.89 mg/l

      DATE   01(JAN)-14-2002   21:57


SAMPLE#   27    TC  VIAL: 27
 [x 5,    50µl, C#   1, #WASH 4, SP   0min]
    #   AREA mg/l      C#   µl RG
    1-33457   42.35
    2   7874   51.84      2
    3   7902   52.02
    4   7963   52.43
    5   7892   51.96
  - - - - - - - - - - - - - -
   MN   7907   52.06
   SD     38   0.259
   CV   0.48 %
   COR CONC DIL   52.06 [x 1.0]
   COR CONC INJ   52.06 [x 1.0]

      DATE   01(JAN)-14-2002   22:12


SAMPLE#   27    IC  VIAL: 27
 [x 5,    50µl, C#   4, #WASH 4, SP   0min]
    #   AREA mg/l      C#   µl RG
    1    347   0.100
    2    671   0.454
    3    749   0.539
    4    742   0.531
  - - - - - - - - - - - - - -
   MN    627   0.406
   SD    190   0.207
```

A581218 DRØ1
SAM= 1.44
X965-3=25.0

COR CONC INJ 0.406 [x 1.0]

SAMPLE# 27 TOC(TC-IC) 51.65 mg/l X965-4

DATE 01(JAN)-14-2002 22:20 CCV TV= 50.0

SAMPLE# 28 TC VIAL: 28
[x 5, 50µl, C# 1, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1 | 1221 | 0.534 | | | |
| 2 | 1297 | 0.632 | | | |
| 3 | 1245 | 0.565 | | | |
| 4 | 1188 | 0.491 | | | |
| MN | 1237 | 0.555 | | | |
| SD | 45 | 0.059 | | | |
| CV | 3.70 % | | | | |

COR CONC DIL 0.555 [x 1.0]
COR CONC INJ 0.555 [x 1.0]

DATE 01(JAN)-14-2002 22:30

SAMPLE# 28 IC VIAL: 28
[x 5, 50µl, C# 4, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1 | 190 | -0.07 | | | |
| 2 | 356 | 0.110 | | | |
| 3 | 358 | 0.112 | | | |
| 4 | 329 | 0.081 | | | |
| MN | 308 | 0.058 | | | |
| SD | 79 | 0.087 | | | |
| CV | 25.9 % | | | | |

COR CONC DIL 0.058 [x 1.0]
COR CONC INJ 0.058 [x 1.0]

SAMPLE# 28 TOC(TC-IC) 0.497 mg/l Rinse Do Not Record

DATE 01(JAN)-14-2002 22:38

SAMPLE# 29 TC VIAL: 29
[x 5, 50µl, C# 1, #WASH 4, SP 0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1 | 822 | 0.016 | | | |
| 2 | 851 | 0.054 | | | |
| 3 | 965 | 0.201 | | | |
| 4 | 916 | 0.138 | | | |
| MN | 888 | 0.102 | | | |
| SD | 64 | 0.083 | | | |

BLANK

COR CONC INJ  0.102 [x 1.0]

DATE  01(JAN)-14-2002  22:47

SAMPLE#  29  IC  VIAL: 29
[x 5,  50µl, C#  4, #WASH 4, SP  0min]

| # | AREA | mg/l | C# | µl | RG |
|---|---|---|---|---|---|
| 1 | 122 | -0.14 | | | |
| 2 | 211 | -0.04 | | | |
| 3 | 235 | -0.02 | | | |
| 4 | 245 | -0.01 | | | |
| MN | 203 | -0.05 | | | |
| SD | 56 | 0.061 | | | |
| CV | 27.5 % | | | | |

COR CONC DIL  -0.05 [x 1.0]
COR CONC INJ  -0.05 [x 1.0]

SAMPLE#  29  TOC(TC-IC)  0.152 mg/l

DATE  01(JAN)-14-2002  22:55

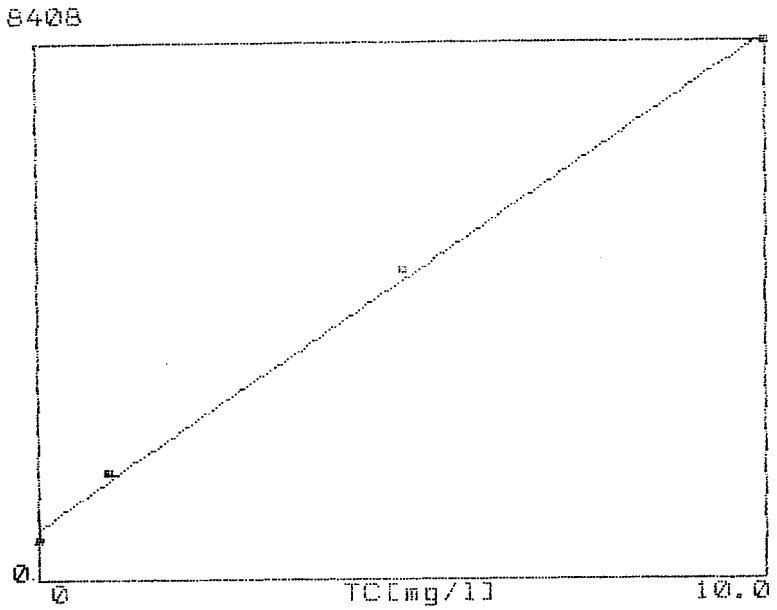
CALIBRATION CURVE FILE LIST

| F# | TYP | MAX-C | P | STD SIZE | RG | C | CELL |
|---|---|---|---|---|---|---|---|
| 1 | TC | 10.0mg/l | 4 | 50/ 250µl | 5 | N | |
| 2 | TC | 50.0mg/l | 4 | 10/ 250µl | 5 | N | |
| 3 | TC | 250.0mg/l | 4 | 10/ 250µl | 5 | N | |
| 4 | IC | 10.0mg/l | 4 | 50/ 250µl | 5 | N | |
| 5 | IC | 50.0mg/l | 4 | 10/ 250µl | 5 | N | |
| 6 | IC | 250.0mg/l | 4 | 10/ 250µl | 5 | N | |
| 7 | TC | 10000mg/l | 4 | 500.0µl | 5 | | W-S |

| F# | SP | W | AREA | SD | CV | DATE |
|---|---|---|---|---|---|---|
| 1 | 0 | 4 | 8408 | 37 | 0.44 | 12(DEC)-11-2001 |
| 2 | 0 | 4 | 7594 | 99 | 1.31 | 12(DEC)-11-2001 |
| 3 | 0 | 4 | 36917 | 355 | 0.96 | 12(DEC)-11-2001 |
| 4 | 0 | 4 | 9401 | 143 | 1.53 | 12(DEC)-07-2001 |
| 5 | 0 | 4 | 9246 | 93 | 1.00 | 12(DEC)-07-2001 |
| 6 | 0 | 4 | 45576 | 314 | 0.69 | 12(DEC)-07-2001 |
| 7 | | | 42387 | | | 07(JUL)-18-2001 |

TOC-5000 DATA REPORT
DATE  01(JAN)-14-2002 22:56

| SPL# | TC,mg/l | RMK | IC,mg/l | RMK | TOCmg/l |
|---|---|---|---|---|---|
| 3 | 93.05 | 3*H** | 2.106 | 4***** | 90.94 |
| 4 | 14.37 | 2***** | 11.04 | 4***** | 3.330 |
| 5 | 22.94 | 2***** | 26.04 | 5***** | -3.10 |
| 6 | 4.579 | 1***** | 2.355 | 4***** | 2.224 |
| 7 | 12.44 | 2***** | 11.38 | 4***** | 1.060 |
| 8 | 3.147 | 1***** | 1.128 | 4***** | 2.019 |



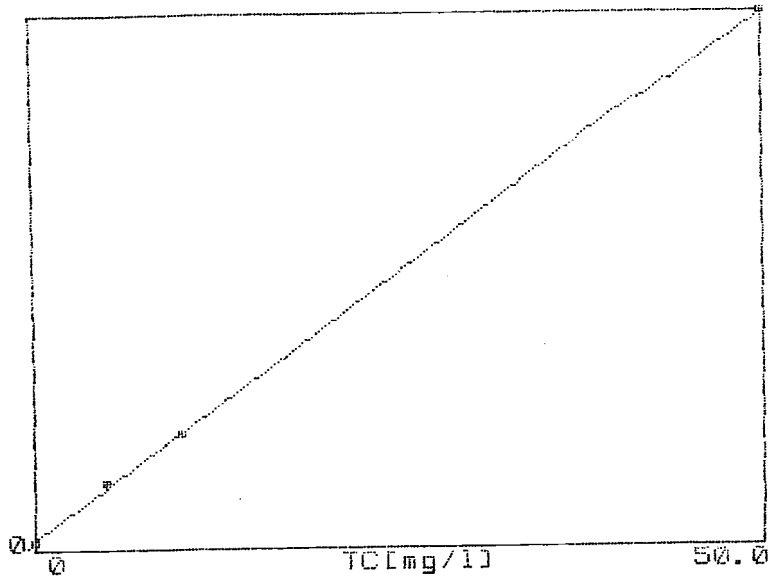

CAL CURVE F# 1
TC 4-POINT
PROTECTED
LEAST SQUARES r=0.999

[CONDITIONS]

| | |
|---|---|
| TC CATALYST | : NORMAL SENS |
| INJ VOL/SYRINGE SIZE | : 50/250µl |
| RANGE | : x5 |
| SPARGE TIME | : 0min |
| NO OF WASHES | : 4 |
| DATE | : 12(DEC)-11-2001 |

[DATA]

| STD CONC | AREA | #INJ | SD | CV |
|---|---|---|---|---|
| 10.0mg/l | 8408 | 4 | 37 | 0.44% |
| 5.0mg/l | 4838 | 4 | 66 | 1.37% |
| 1.0mg/l | 1683 | 4 | 46 | 2.76% |
| 0.0mg/l | 639 | 4 | 91 | 14.3% |



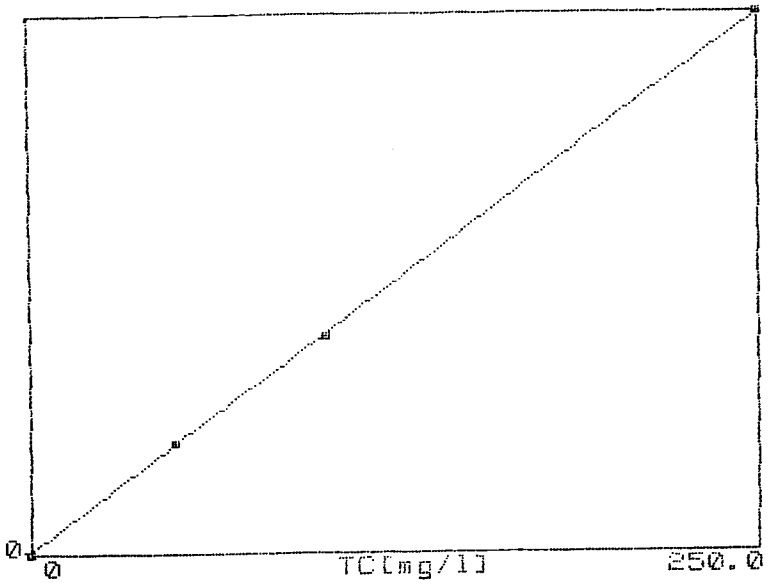

CAL CURVE F# 2
TC 4-POINT
PROTECTED
LEAST SQUARES r=1.000

[CONDITIONS]

| | |
|---|---|
| TC CATALYST | : NORMAL SENS |
| INJ VOL/SYRINGE SIZE | : 10/250µl |
| RANGE | : x5 |
| SPARGE TIME | : 0min |
| NO OF WASHES | : 4 |
| DATE | : 12(DEC)-11-2001 |

[DATA]

| STD CONC | AREA | #INJ | SD | CV |
|---|---|---|---|---|
| 50.0mg/l | 7594 | 4 | 99 | 1.31% |
| 10.0mg/l | 1647 | 4 | 27 | 1.64% |
| 5.0mg/l | 936 | 4 | 24 | 2.65% |
| 0.0mg/l | 114 | 4 | 134 | 117% |



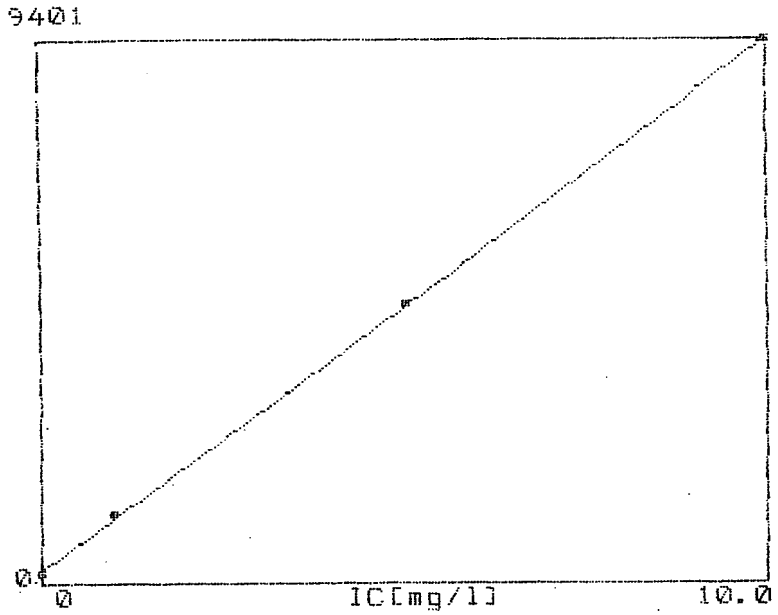

CAL CURVE F# 3
TC 4-POINT
PROTECTED
LEAST SQUARES r=1.000

[CONDITIONS]

| | |
|---|---|
| TC CATALYST | : NORMAL SENS |
| INJ VOL/SYRINGE SIZE | : 10/250µl |
| RANGE | : x5 |
| SPARGE TIME | : 0min |
| NO OF WASHES | : 4 |
| DATE | : 12(DEC)-11-2001 |

[DATA]

| STD CONC | AREA | #INJ | SD | CV |
|---|---|---|---|---|
| 250.0mg/l | 36917 | 4 | 355 | 0.96% |
| 100.0mg/l | 14812 | 4 | 129 | 0.87% |
| 50.0mg/l | 7520 | 4 | 93 | 1.24% |
| 0.0mg/l | 67 | 4 | 78 | 117% |



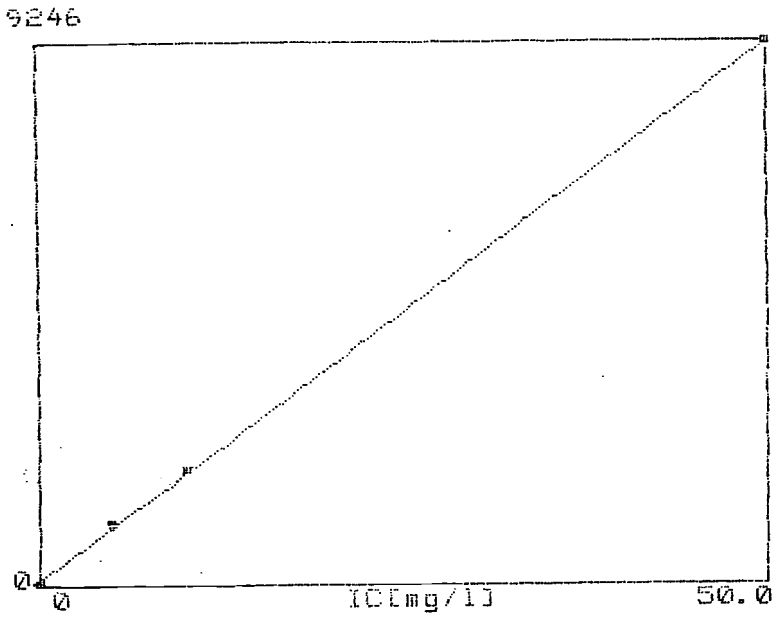

CAL CURVE F# 4
IC 4-POINT
PROTECTED
LEAST SQUARES r=1.000

[CONDITIONS]

| | |
|---|---|
| INJ VOL/SYRINGE SIZE | : 50/250µl |
| RANGE | : x5 |
| SPARGE TIME | : 0min |
| NO OF WASHES | : 4 |
| DATE | : 12(DEC)-07-2001 |

[DATA]

| STD CONC | AREA | #INJ | SD | CV |
|---|---|---|---|---|
| 10.0mg/l | 9401 | 4 | 143 | 1.53% |
| 5.0mg/l | 4882 | 4 | 78 | 1.60% |
| 1.0mg/l | 1218 | 4 | 103 | 8.51% |
| 0.0mg/l | 193 | 4 | 120 | 62.4% |



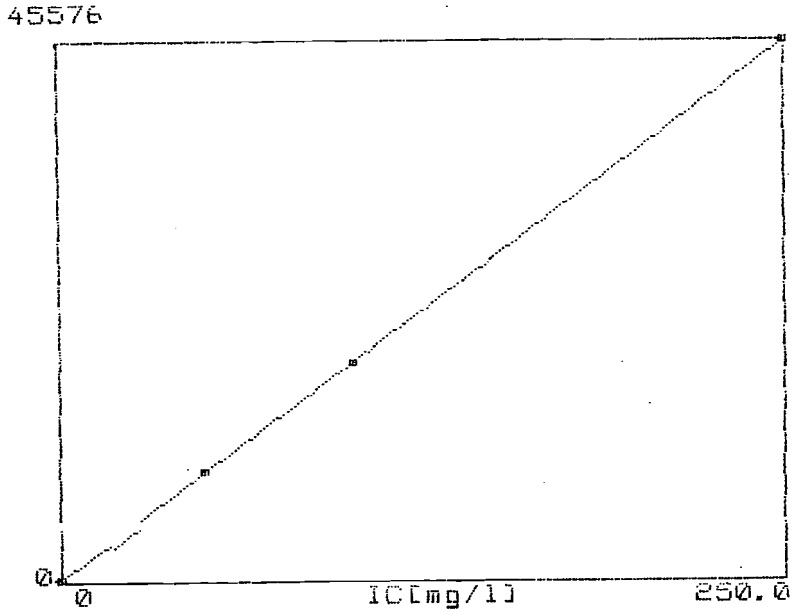

CAL CURVE F# 5
IC 4-POINT
PROTECTED
LEAST SQUARES r=1.000

[CONDITIONS]

| | | |
|---|---|---|
| INJ VOL/SYRINGE SIZE | : | 10/250µl |
| RANGE | : | x5 |
| SPARGE TIME | : | 0min |
| NO OF WASHES | : | 4 |
| DATE | : | 12(DEC)-07-2001 |

[DATA]

| STD CONC | AREA | #INJ | SD | CV |
|---|---|---|---|---|
| 50.0mg/l | 9246 | 4 | 93 | 1.00% |
| 10.0mg/l | 1971 | 4 | 74 | 3.79% |
| 5.0mg/l | 1049 | 4 | 102 | 9.78% |
| 0.0mg/l | 37 | 4 | 26 | 71.4% |




CAL CURVE F# 6
IC 4-POINT
PROTECTED
LEAST SQUARES r=1.000

[CONDITIONS]

| | |
|---|---|
| INJ VOL/SYRINGE SIZE | 10/250µl |
| RANGE | x5 |
| SPARGE TIME | 0min |
| NO OF WASHES | 4 |
| DATE | 12(DEC)-07-2001 |

[DATA]

| STD CONC | AREA | #INJ | SD | CV | |
|---|---|---|---|---|---|
| 250.0mg/l | 45576 | 4 | 314 | 0.69% | H |
| 100.0mg/l | 18504 | 4 | 152 | 0.82% | |
| 50.0mg/l | 9370 | 4 | 102 | 1.09% | |
| 0.0mg/l | 122 | 4 | 84 | 69.0% | |

**HERITAGE ENVIRONMENTAL SERVICES, LLC**

7901 West Morris Street
Indianapolis, IN 46231
Phone: 317/243-0811
Fax: 317/486-5095
Intemet:http://www.heritage-enviro.com

**CASE NARRATIVE**
**GOG GROUP**
**TOTAL PETROLEUM HYDROCARBON SCAN**
**METHOD SW846-8015B(MODIFIED), HLI2**

| | |
|---|---|
| **A581214** | **DK27428** |
| **A581215** | **DK27429** |
| **A581216** | **DK27430** |
| **A581217** | **DK27431** |
| **A581218** | **DK27432** |

These samples were analyzed according to normal procedures and all data quality acceptance criteria were satisfied. Samples A581214 (DK27428) and A581215 (DK27429) both had crude oil patterns present that matched the client submitted crude oil standards of the same description as their own. Samples A581216 (DK27430), A581217 (DK27431), and A581218 (DK27432) were all below detectable limits. A set of quick reference chromatograms can be found on pages 3-9 of the report package.

GC Analyst
Scott A. Bryan

ACCREDITED IN ACCORDANCE WITH nelac

Recycled Paper

Sequence Name: C:\HPCHEM\3\SEQUENCE\135.S
Comment:
Operator: SAB 5997
Data Path: C:\HPCHEM\3\DATA\135\
Pre-Seq Cmd:
Post-Seq Cmd:

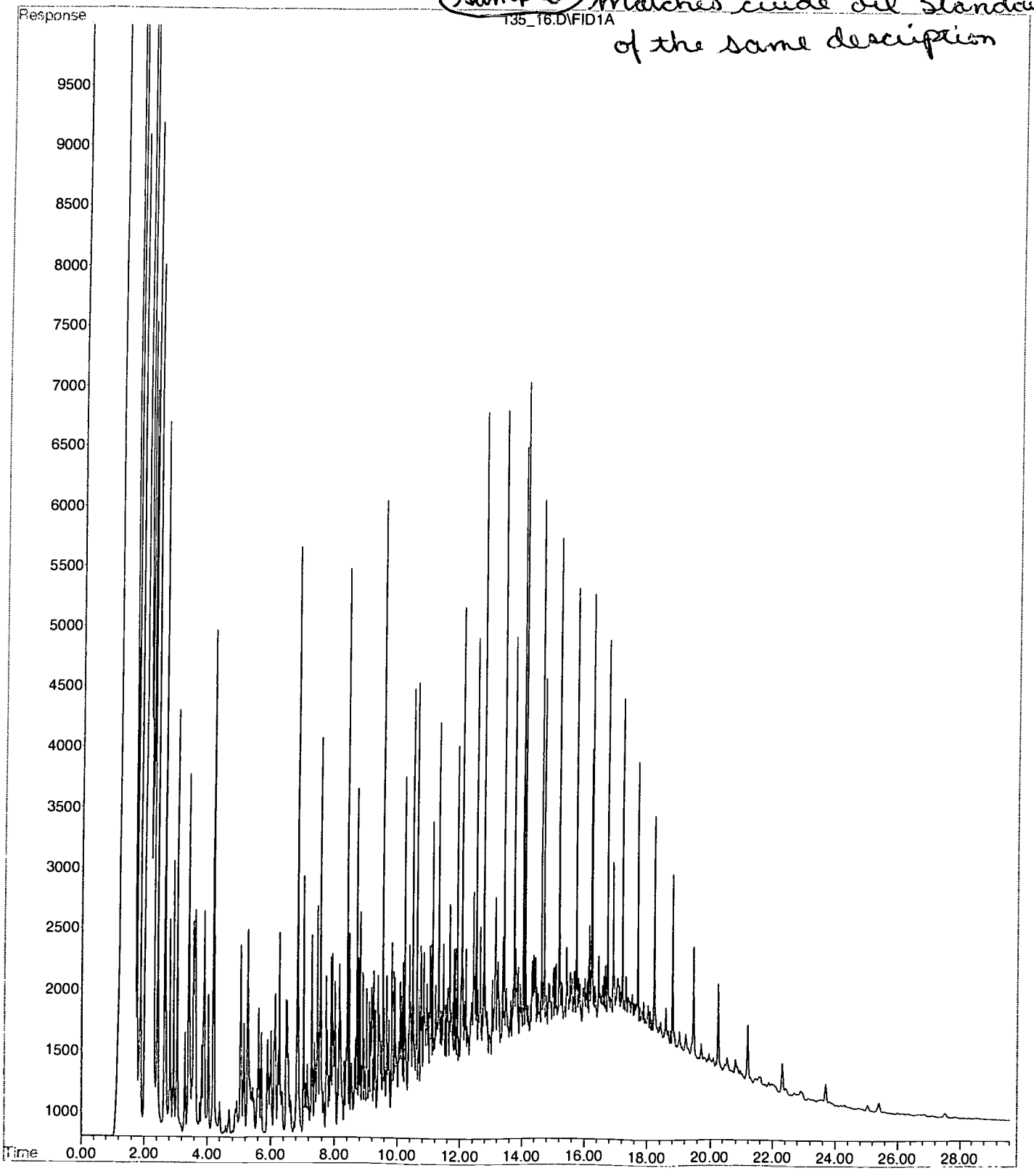
Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

| Line | Type | Vial | DataFile | Method | Sample Name |
|---|---|---|---|---|---|
| 1 | Comment | - Sequence Builder Template | | | |
| 2 | Comment | - add keywords as required. | | | |
| 3 | Stagger | - 99 | | | |
| 4 | Sample | 1 | 135_01 | TPH | CS2 |
| 5 | Sample | 2 | 135_02 | TPH | PCS |
| 6 | Sample | 3 | 135_03 | TPH | FID A 712 L4 |
| 7 | Sample | 4 | 135_04 | TPH | FID A 713 L4 |
| 8 | Sample | 5 | 135_05 | TPH | FID A 651 L3 |
| 9 | Sample | 6 | 135_06 | TPH | BLA899 TPH W-1301 |
| 10 | Sample | 7 | 135_07 | TPH | LCS116 TPH W-1301 |
| 11 | Sample | 8 | 135_08 | TPH | DLCS117 TPH W-1301 |
| 12 | Sample | 9 | 135_09 | TPH | ~~A580913 1:1000 W-1301~~ |
| 13 | Sample | 10 | 135_10 | TPH | ~~A580914 1:1000 W-1301~~ |
| 14 | Sample | 11 | 135_11 | TPH | ~~A580915 1:1000 W-1301~~ |
| 15 | Sample | 12 | 135_12 | TPH | FID A 712 L4 |
| 16 | Sample | 13 | 135_13 | TPH | FID A 713 L4 |
| 17 | Sample | 14 | 135_14 | TPH | FID A 651 L3 |
| 18 | Sample | 15 | 135_15 | TPH | BLA917 W-1301 |
| 19 | Sample | 16 | 135_16 | TPH | A581214 1:20 W-1301 |
| 20 | Sample | 17 | 135_17 | TPH | A581215 1:5 W-1301 |
| 21 | Sample | 18 | 135_18 | TPH | A581216 W-1301 |
| 22 | Sample | 19 | 135_19 | TPH | A581217 W-1301 |
| 23 | Sample | 20 | 135_20 | TPH | A581217 MS W-1301 |
| 24 | Sample | 21 | 135_21 | TPH | A581218 W-1301 |
| 25 | Sample | 22 | 135_22 | TPH | DK27428 @500PPM |
| 26 | Sample | 23 | 135_23 | TPH | DK27429 @500PPM |
| 27 | Sample | 24 | 135_24 | TPH | FID A712 L4 |
| 28 | Sample | 25 | 135_25 | TPH | FID A713 L4 |
| 29 | Sample | 26 | 135_26 | TPH | CS2 |
| 30 | Sample | 27 | 135_27 | TPH | FID A712 L4 |
| 31 | Sample | 28 | 135_28 | TPH | FID A713 L4 |
| 32 | Sample | 29 | 135_29 | TPH | ~~BLA733B TPH~~ |
| 33 | Sample | 30 | 135_30 | TPH | ~~A581188 TPH733~~ |
| 34 | Sample | 31 | 135_31 | TPH | ~~A581192 1:100 TPH733~~ |
| 35 | Sample | 32 | 135_32 | TPH | ~~FID A712 L4~~ |
| 36 | Sample | 33 | 135_33 | TPH | ~~FID A713 L4~~ |
| 37 | Sample | 99 | 135_99 | TPH | CS2 |

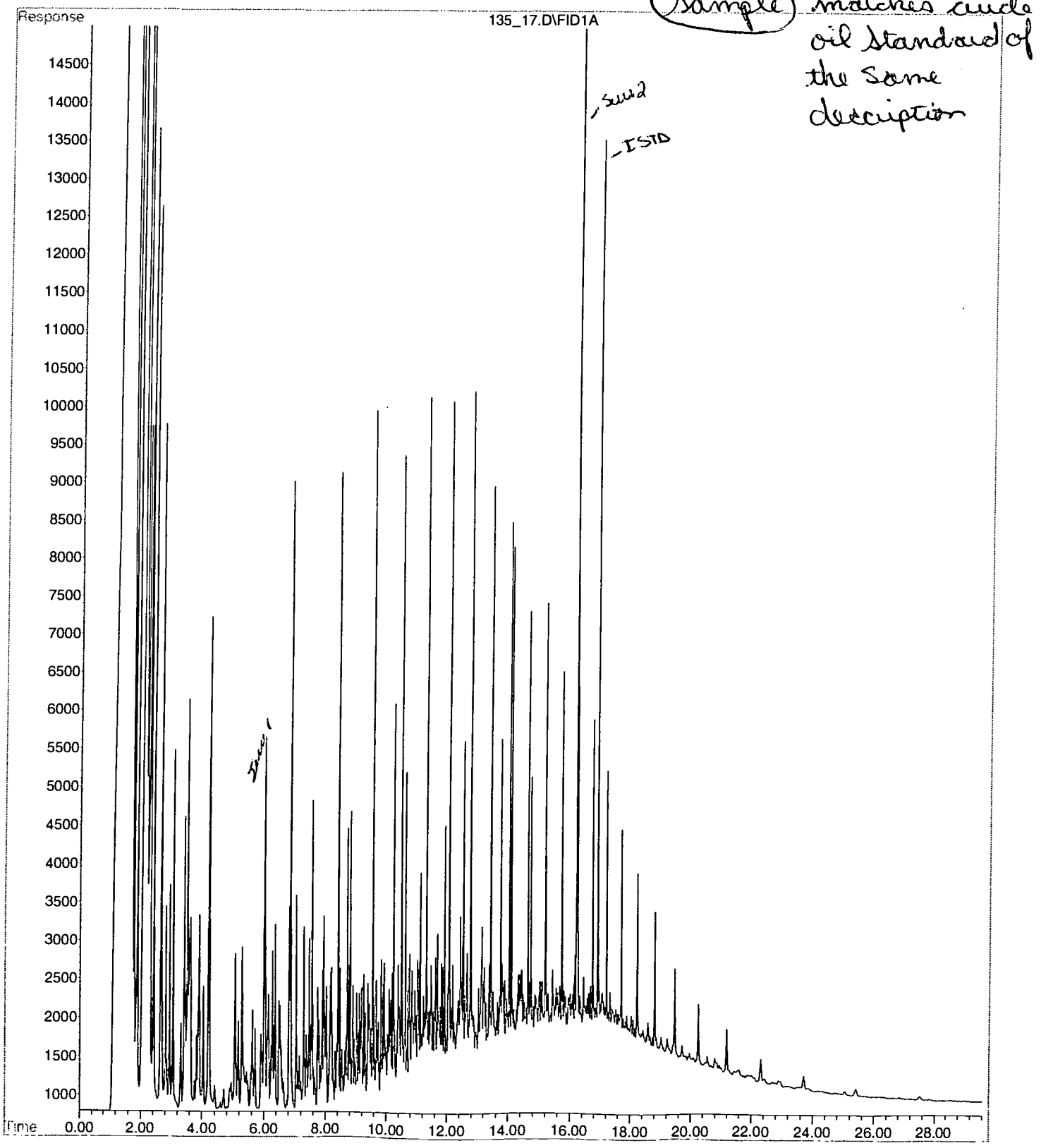
File : C:\HPCHEM\3\DATA\135\135_16.D
Operator : SAB 5997
Acquired : 17 Jan 2002 2:37 using AcqMethod TPH.M
Instrument : GC/FID In
Sample Name: A581214 1:20 W-1301
Misc Info : DK27428
Vial Number: 16

Sample matches crude oil standard of the same description



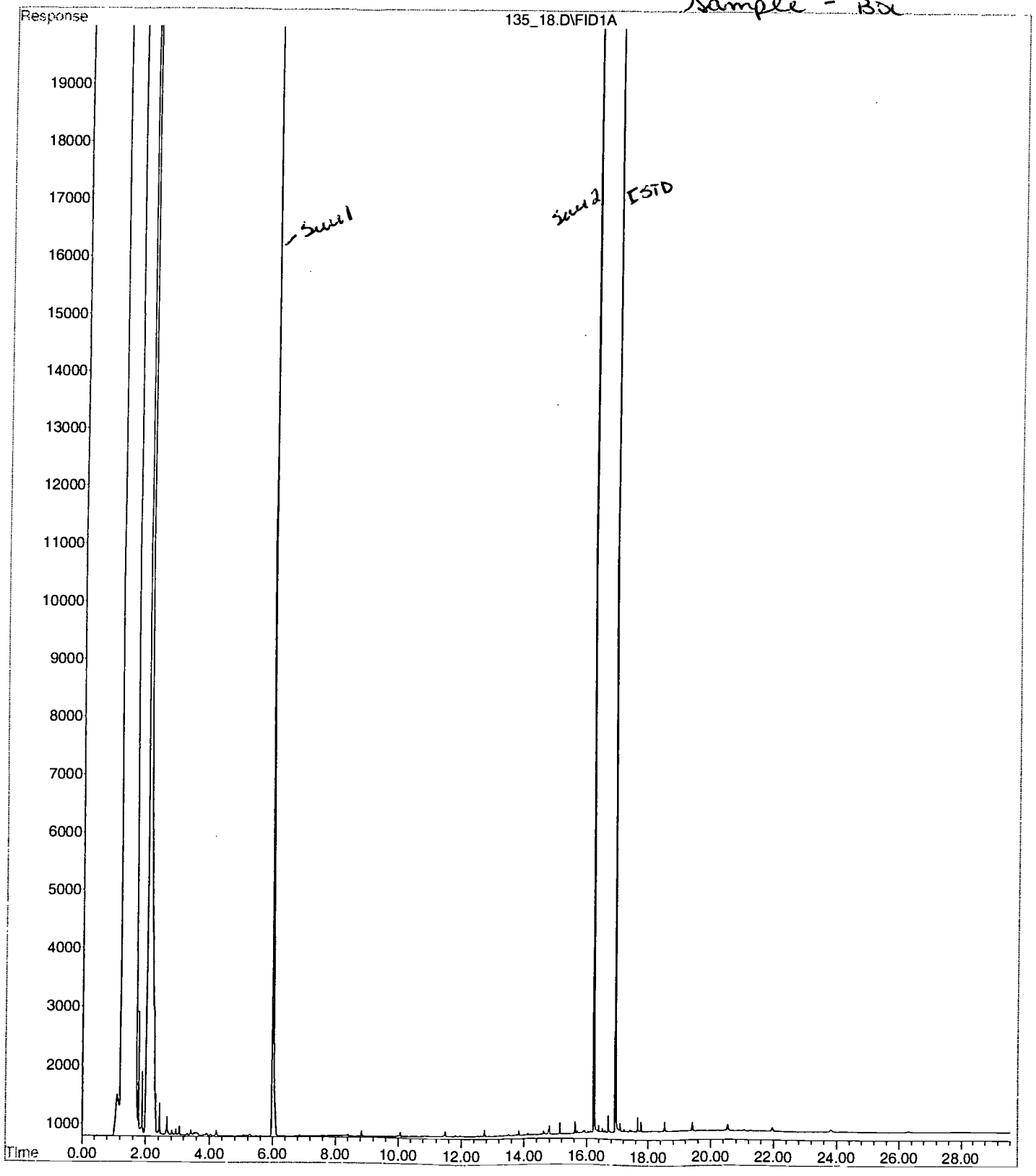
File : C:\HPCHEM\3\DATA\135\135_17.D
Operator : SAB 5997
Acquired : 17 Jan 2002 3:18 using AcqMethod TPH.M
Instrument : GC/FID In
Sample Name: A581215 1:5 W-1301
Misc Info : DK27429
Vial Number: 17

Sample matches crude oil standard of the same description



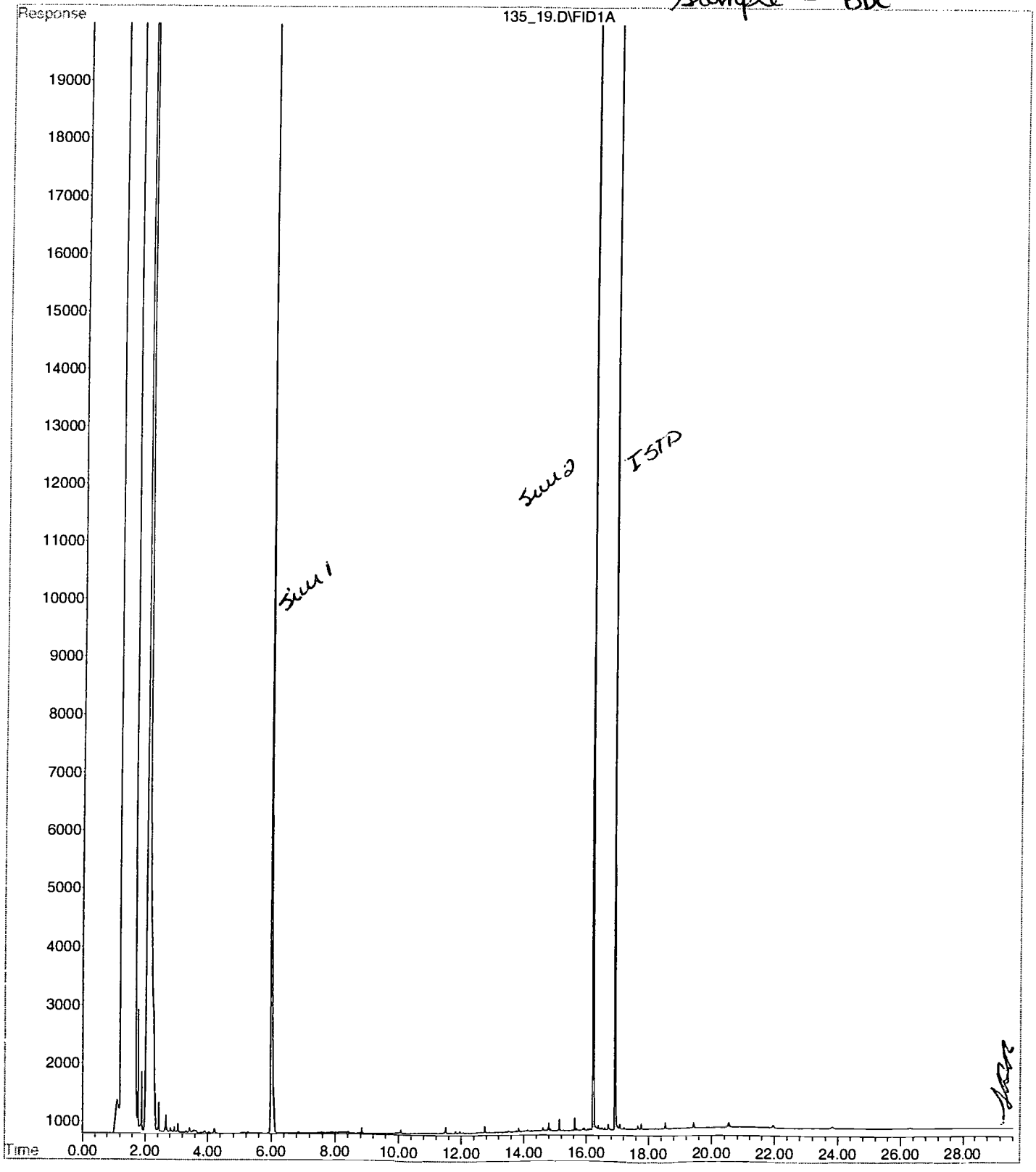
File : C:\HPCHEM\3\DATA\135\135_18.D
Operator : SAB 5997
Acquired : 17 Jan 2002 3:59 using AcqMethod TPH.M
Instrument : GC/FID In
Sample Name: A581216 W-1301
Misc Info : DK27430
Vial Number: 18

Sample - BX



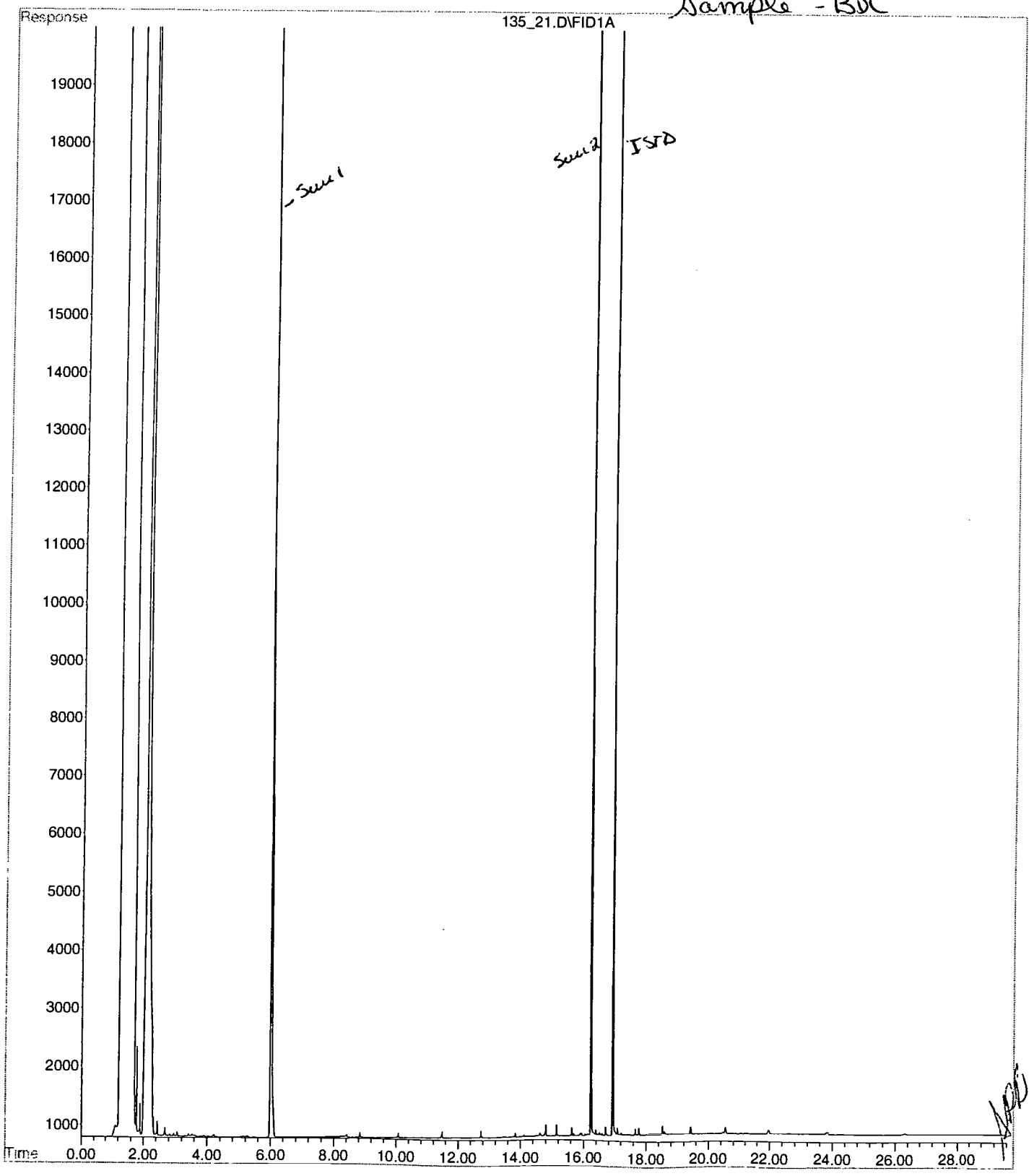
File : C:\HPCHEM\3\DATA\135\135_19.D
Operator : SAB 5997
Acquired : 17 Jan 2002 4:39 using AcqMethod TPH.M
Instrument : GC/FID In
Sample Name: A581217 W-1301
Misc Info : DK27431
Vial Number: 19

Sample - BDL

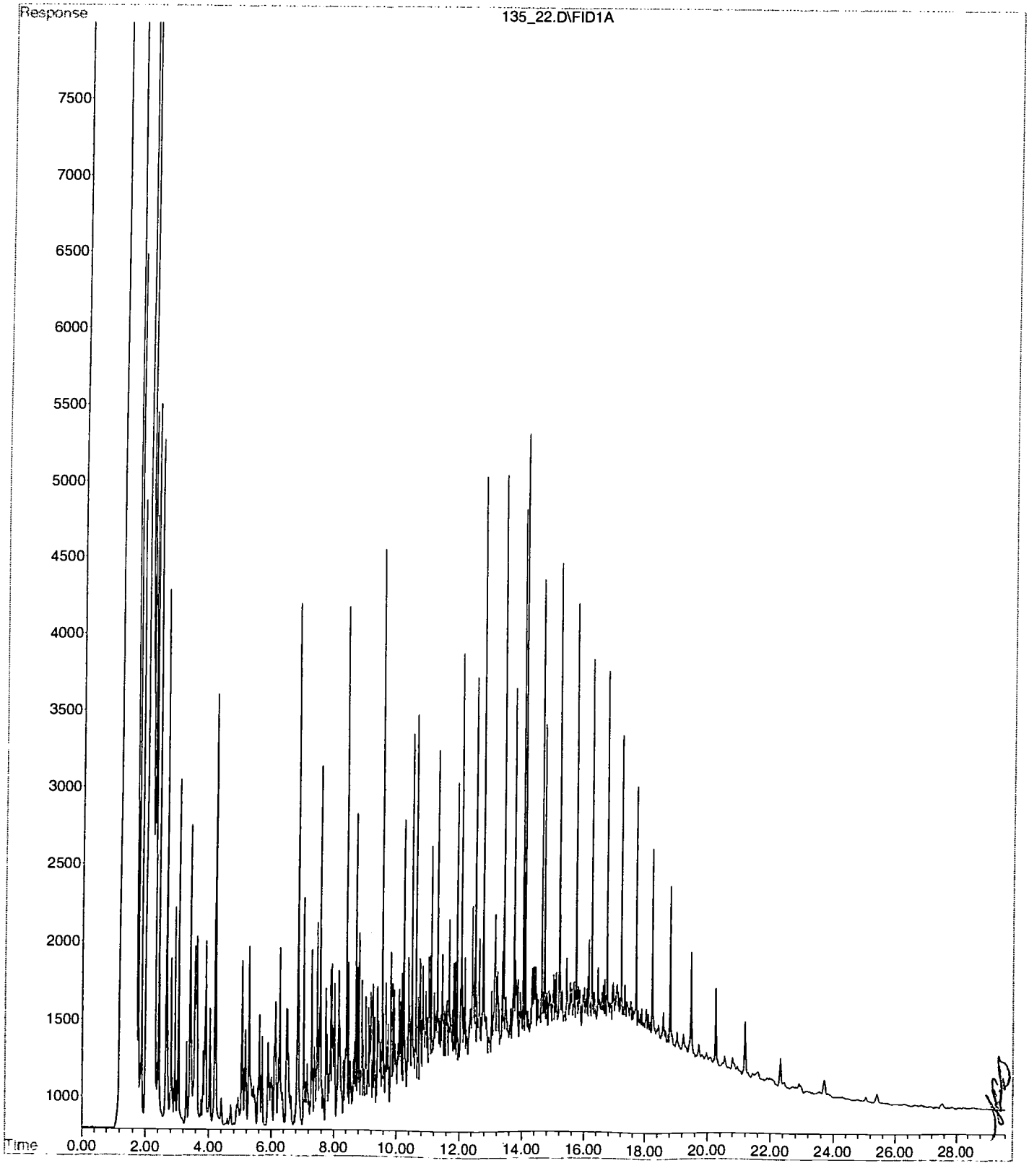


File : C:\HPCHEM\3\DATA\135\135_21.D
Operator : SAB 5997
Acquired : 17 Jan 2002 5:58 using AcqMethod TPH.M
Instrument : GC/FID In
Sample Name: A581218 W-1301
Misc Info : DK27432
Vial Number: 21

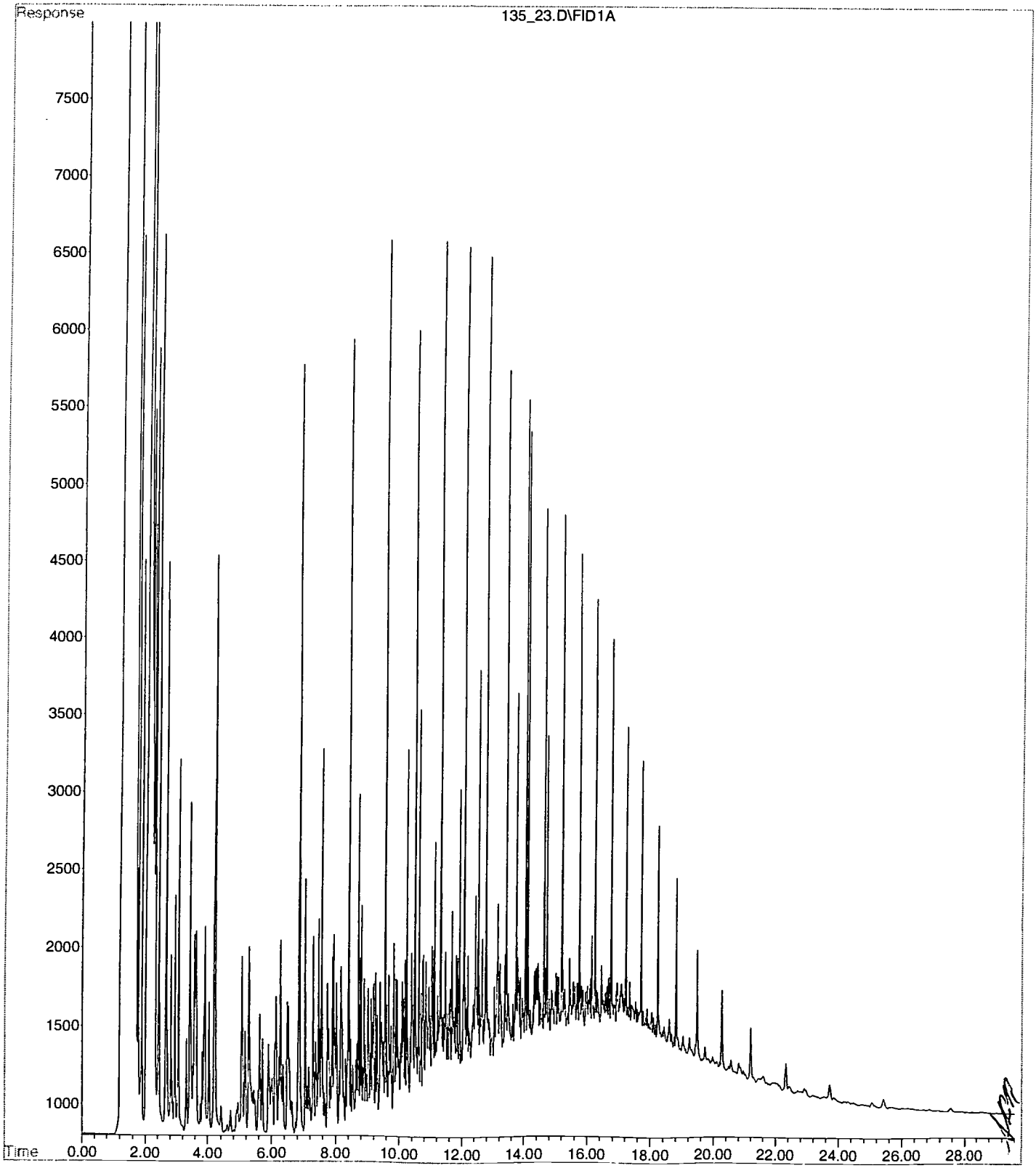
Sample - BDL



File : C:\HPCHEM\3\DATA\135\135_22.D
Operator : SAB 5997
Acquired : 17 Jan 2002 6:38 using AcqMethod TPH.M
Instrument : GC/FID In
Sample Name: DK27428 @500PPM
Misc Info : CLIENT CRUDE OIL STANDARD
Vial Number: 22



File : C:\HPCHEM\3\DATA\135\135_23.D
Operator : SAB 5997
Acquired : 17 Jan 2002 7:17 using AcqMethod TPH.M
Instrument : GC/FID In
Sample Name: DK27429 @500PPM
Misc Info : CLIENT CRUDE OIL STANDARD
Vial Number: 23



METHOD: 200 MATRIX: 5 LIMS # R426545

# HYDROCARBON SCAN

SW846-8015A (MOD) BY GC/FID

RUN # 135 Test O409.1 Instr. 64 Page 1 of 7

DATE 1.16.02 Column # DB-TPH Ch 1 Analyst SAB 5997

| Run # | Sample # | T.V. | Par # | ANALYTE | Extract Conc. | RESULT | %REC | D.L. | RPD |
|---|---|---|---|---|---|---|---|---|---|
| 3 | CCV | 50 | 383 | Gasoline | | 51.1 | 102.2 | | |
| Time: | UNITS= mg/L | | 304 | Diesel Fuel | | | | | |
| 17:53 | IW/VOL= | | 931 | Other | | | | | |
| Dil | FV= | | | | | | | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 98.4 | | |
| | | | 3269 | 1-Chlorooctadecane | | | 99.8 | | |
| Comments: | | | | | | | | | |
| 4 | CCV | | 383 | Gasoline | | | | | |
| Time: | UNITS= mg/L | 100 | 304 | Diesel Fuel | | 108 | 108.0 | | |
| 18:33 | IW/VOL= | | 931 | Other | | | | | |
| Dil | FV= | | | | | | | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 85.4 | | |
| | | | 3269 | 1-Chlorooctadecane | | | 105.1 | | |
| Comments: | | | | | | | | | |
| 5 | CCV | | 383 | Gasoline | | | | | |
| Time: | UNITS= mg/L | | 304 | Diesel Fuel | | | | | |
| 19:13 | IW/VOL= | | 931 | Other | | | | | |
| Dil | FV= | 50 | 1121 | Kerosene | | 48.4 | 96.8 | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 0 | | |
| | | | 3269 | 1-Chlorooctadecane | | | 0 | | |
| Comments: | - No surrogate is added to this level | | | | | | | | |
| 6 | BLA 899 | | 383 | Gasoline | | BDL | | 0.5 | |
| Time: | UNITS= mg/L | | 304 | Diesel Fuel | | ↓ | | 1.3 | |
| 19:53 | IW/VOL= 48 | | 931 | Other | | ↓ | | 2.5 | |
| Dil | FV= 2 | | 1121 | Kerosene | | BDL | | 0.5 | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 123.0 | | |
| BLA02 | Q1324999 | | 3269 | 1-Chlorooctadecane | | | 147.5 | | |
| Comments: | | | | | | | | | |

Reviewer EW/1023 1-21-02

RLB 1-21-02

METHOD: 200 MATRIX: 5 LIMS #

**HYDROCARBON SCAN**
SW846-8015A (MOD) BY GC/FID

RUN # 135 Test O409.1 Instr. 64 Page 2 of 7
DATE 1.16.02 Column # DB-TPH Ch 1 Analyst SAB 5997

| Run # | Sample # | T.V. | Par # | ANALYTE | Extract Conc. | RESULT | %REC | D.L. | RPD |
|---|---|---|---|---|---|---|---|---|---|
| 7 | LCS 116 | | 383 | Gasoline | | | | 0.5 | |
| Time: | UNITS= mg/L | 5.0 | 304 | Diesel Fuel | 93.7 | 4.69 | 93.8 | 1.3 | |
| 20:33 | IW/VOL= 40 | | 931 | Other | | | | 2.5 | |
| Dil | FV= 2 | | | | | | | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 123.1 | | |
| LCS | Q1325000 | | 3269 | 1-Chlorooctadecane | | | 145.8 | | |
| Comments: | | | | | | | | | |
| 8 | LCS 117 | | 383 | Gasoline | | | | 0.5 | |
| Time: | UNITS= mg/L | 5.0 | 304 | Diesel Fuel | 94.3 | 4.72 | 94.4 | 1.3 | 0.6 |
| 21:14 | IW/VOL= 40 | | 931 | Other | | | | 2.5 | |
| Dil | FV= 2 | | | | | | | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 122.5 | | |
| LCS | Q1325001 | | 3269 | 1-Chlorooctadecane | | | 145.9 | | |

Reviewer EW/ms 1-21-02

METHOD: 200 MATRIX: S LIMS #

**HYDROCARBON SCAN**
SW846-8015A (MOD) BY GC/FID

RUN # 135 Test O409.1 Instr. 64 Page 3 of 7
DATE 1.16.03 Column # DB-TPH Ch 1 Analyst SAB 5997

| Run # | Sample #/ | T.V. | Par # | ANALYTE | Extract Conc. | RESULT | %REC | D.L. | RPD |
|---|---|---|---|---|---|---|---|---|---|
| [illegible] | [illegible] | | 383 | Gasoline | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 12 | CCV | 50 | 383 | Gasoline | | 49.3 | 98.6 | | |
| Time: | UNITS= mg/L | | 304 | Diesel Fuel | | | | | |
| 23:56 | IW/VOL= | | 931 | Other | | | | | |
| Dil | FV= | | | | | | | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 97.5 | | |
| | | | 3269 | 1-Chlorooctadecane | | | 100.3 | | |
| Comments: | | | | | | | | | |

Start 1.17.03

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 13 | CCV | | 383 | Gasoline | | | | | |
| Time: | UNITS= mg/L | 100 | 304 | Diesel Fuel | * | 108 | 108.0 | | |
| 00:36 | IW/VOL= | | 931 | Other | | | | | |
| Dil | FV= | | | | | | | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 84.7 | | |
| | | | 3269 | 1-Chlorooctadecane | | | 105.0 | | |
| Comments: | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 14 | CCV | | 383 | Gasoline | | | | | |
| Time: | UNITS= mg/L | | 304 | Diesel Fuel | | | | | |
| 01:16 | IW/VOL= | | 931 | Other | | | | | |
| Dil | FV= | 50 | 1121 | Kerosene | | 46.6 | 93.2 | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 0 | | |
| | | | 3269 | 1-Chlorooctadecane | | | 0 | | |
| Comments: | NO surrogate was added | | | | | | | | |

Reviewer

METHOD: 200 MATRIX: 1 LIMS # R42654

Cont. →

## HYDROCARBON SCAN
SW846-8015A (MOD) BY GC/FID

RUN # 135 Test O409.1 Instr. 64 Page 4 of 7
DATE 1.17.02 Column # DB-TPH Ch 1 Analyst SAB 5997

| Run # | Sample # | T.V. | Par # | ANALYTE | Extract Conc. | RESULT | %REC | D.L. | RPD |
|---|---|---|---|---|---|---|---|---|---|
| 15 | BLK917 | | 383 | Gasoline | | BDL | | 0.5 | |
| Time: | UNITS= mg/L | | 304 | Diesel Fuel | | ↓ | | 1.3 | |
| 01:57 | IW/VOL= 40 | | 931 | Other | | | | 2.5 | |
| Dil | FV= 2 | | | | | | | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 117.9 | | |
| BLK2 | Q1326122 | | 3269 | 1-Chlorooctadecane | | | 140.9 | | |
| Comments: | | | | | | | | | |
| 16 | A5812147 1:30 | | 383 | Gasoline | | BDL | | 10 | |
| Time: | UNITS= mg/L | | 304 | Diesel Fuel | 99.4 | 99 | | 25 | |
| 02:37 | IW/VOL= 40 | | 931 | Other | | BDL | | 50 | |
| Dil | FV= 2 | | | | | | | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 151.2 | | |
| | | | 3269 | 1-Chlorooctadecane | | | 110.2 | | |
| Comments: | First surrogate out of range due to crude oil interference. Crude oil present is estimated off of diesel fuel result. | | | | | | | | |
| 17 | A5812157 1:5 | | 383 | Gasoline | | BDL | | 2.5 | |
| Time: | UNITS= mg/L | | 304 | Diesel Fuel | 129.3 | 32 | | 6.3 | |
| 03:18 | IW/VOL= 40 | | 931 | Other | | BDL | | 12.5 | |
| Dil | FV= 2 | | | | | | | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 193.2 | | |
| | | | 3269 | 1-Chlorooctadecane | | | 165.2 | | |
| Comments: | Surrogates high due to crude oil interference. Crude oil present is estimated off of diesel fuel result | | | | | | | | |
| 18 | A5812167 | | 383 | Gasoline | | BDL | | 0.5 | |
| Time: | UNITS= mg/L | | 304 | Diesel Fuel | | ↓ | | 1.3 | |
| 03:59 | IW/VOL= 40 | | 931 | Other | | | | 2.5 | |
| Dil | FV= 2 | | | | | | | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 117.8 | | |
| | | | 3269 | 1-Chlorooctadecane | | | 139.7 | | |
| Comments: | | | | | | | | | |

RLB 1-24-02

Reviewer [signature] 1-24-02

METHOD: 200 MATRIX: 1 LIMS #

HYDROCARBON SCAN
SW846-8015A (MOD) BY GC/FID

RUN # 135 Test O409.1 Instr. 64 Page 5 of 7
DATE 1.17.02 Column # DB-TPH Ch 1 Analyst SAB 5997

| Run # | Sample # | T.V. | Par # | ANALYTE | Extract Conc. | RESULT | %REC | D.L. | RPD |
|---|---|---|---|---|---|---|---|---|---|
| 19 | AS81217 | | 383 | Gasoline | | BDL | | 0.5 | |
| Time: | UNITS= mg/L | | 304 | Diesel Fuel | | ↓ | | 1.3 | |
| 04:39 | IW/VOL= 48 | | 931 | Other | | | | 2.5 | |
| Dil | FV= 2 | | | | | | | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 116.2 | | |
| | | | 3269 | 1-Chlorooctadecane | | | 139.6 | | |
| Comments: | | | | | | | | | |
| 20 | AS81217 MS | X5 | 383 | Gasoline | | ~~BDL~~ MB | | 0.5 | |
| Time: | UNITS= mg/L | X5 | 304 | Diesel Fuel | 110.3 | 5.52 | 110.4 | 1.3 | |
| 05:18 | IW/VOL= 48 | | 931 | Other | | ~~BDL~~ MB | | 2.5 | |
| Dil | FV= 2 | | | | | | | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 116.6 | | |
| SP102 | Q132621 | | 3269 | 1-Chlorooctadecane | | | 139.7 | | |
| Comments: | | | | | | | | | |
| 21 | AS81218 | | 383 | Gasoline | | BDL | | 0.5 | |
| Time: | UNITS= mg/L | | 304 | Diesel Fuel | | ↓ | | 1.3 | |
| 05:58 | IW/VOL= 48 | | 931 | Other | | | | 2.5 | |
| Dil | FV= 2 | | | | | | | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 115.4 | | |
| | | | 3269 | 1-Chlorooctadecane | | | 139.6 | | |
| Comments: | | | | | | | | | |
| 24 | CCV | 50 | 383 | Gasoline | | 51 | 102.0 | | |
| Time: | UNITS= mg/L | | 304 | Diesel Fuel | | | | | |
| 07:57 | IW/VOL= | | 931 | Other | | | | | |
| Dil | FV= | | | | | | | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 97.6 | | |
| | | | 3269 | 1-Chlorooctadecane | | | 101.9 | | |
| Comments: | | | | | | | | | |

Reviewer GWB

METHOD: 200 MATRIX: LIMS #

## HYDROCARBON SCAN
SW846-8015A (MOD) BY GC/FID

RUN # 135 Test O409.1 Instr. 64 Page 6 of 7
DATE 1.17.02 Column # DB-TPH Ch 1 Analyst SAB 5997

| Run # | Sample # | T.V. | Par # | ANALYTE | Extract Conc. | RESULT | %REC | D.L. | RPD |
|---|---|---|---|---|---|---|---|---|---|
| 25 | CCV | | 383 | Gasoline | | | | | |
| Time: | UNITS= mg/L | 100 | 304 | Diesel Fuel | | 109 | 109.0 | | |
| 08:36 | IW/VOL= | | 931 | Other | | | | | |
| Dil | FV= | | | | | | | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 89.4 | | |
| | | | 3269 | 1-Chlorooctadecane | | | 108.7 | | |
| Comments: | | | | | | | | | |
| 27 | CCV | 50 | 383 | Gasoline | | 48.1 | 96.2 | | |
| Time: | UNITS= mg/L | | 304 | Diesel Fuel | | | | | |
| 09:05 | IW/VOL= | | 931 | Other | | | | | |
| Dil | FV= | | | | | | | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 92.3 | | |
| | | | 3269 | 1-Chlorooctadecane | | | 93.8 | | |
| Comments: | | | | | | | | | |
| 28 | CCV | | 383 | Gasoline | | | | | |
| Time: | UNITS= mg/L | 100 | 304 | Diesel Fuel | | 103 | 103.0 | | |
| 09:44 | IW/VOL= | | 931 | Other | | | | | |
| Dil | FV= | | | | | | | | |
| | Surrogates: | | 2361 | 1-Chloro-2-Fluorobenzene | | | 80.1 | | |
| | | | 3269 | 1-Chlorooctadecane | | | 98.1 | | |
| Comments: | | | | | | | | | |

Start 1.22.02

Reviewer AW/B

BLA 899 LCS 116 LCS 117 BLA 917

Heritage Environmental Services, LLC.
Commercial Laboratory Operations

**TPH/GRO/DRO Water Extractions**
SW846-8015B, 8015B(Modified) 3510C HLI2
GC-FID

TEST PREPPED FOR TPH - micro

LIMS R426202

| SAMPLE | CLIENT ID | QA/QC TYPE | TEST CODE | DATE | INITIALS / ID | INITIAL WT./VOL. | FINAL VOL. | REVIEWER INITIALS/ID | SURR. ISTD | RUN | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BLA 899 | Q1324999 | BLA02 | P409.0 | 1-11-02 | DDC/2002 | 40 mL | 2 mL | MB/5997 | FIDA666 FIDA699 | | |
| LCS 116 | Q1325000 | LCS | | | | mL | mL | / | | | +40µl FIDA701 |
| DLCS 117 | Q1325001 | DLCS | | | | mL | mL | / | | | |
| A581217 | Q1326121 DK27431 | SPI02 | P409.0 | 1-16-02 | MB5997 | 40 mL | 2 mL | jf /6238 | FIDA666 FIDA699 | | 40µl FIDA701 |
| | | DPS02 | | | | mL | mL | / | | | |
| BLA 917 | Q1326122 | BLA02 | P409.0 | 1-16-02 | MB5997 | 40 mL | 2 mL | jf /6238 | FIDA666 FIDA699 | | |
| | | RLA02 | | | | mL | mL | / | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A581214 | DK27428 | IDEM Crude oil Finger-prints | P409.0 | 1-16-02 | MB5997 | 40 mL | 2 mL | jf /6238 | FIDA666 FIDA699 | | |
| 215 | DK27429 | | | | | mL | mL | / | | | |
| 216 | DK27430 | | | | | mL | mL | / | | | |
| 217 | DK27431 | | | | | mL | mL | / | | | |
| 218 | DK27432 | | | | | mL | mL | / | | | |
| | | | | | | mL | mL | / | | | |
| | | | | | | mL | mL | / | | | |

Samples A580913+914 were transferred to 40 mL vials and then prepped. Insufficient sample for MS/MSD.

MECL2 lot#_____ PENTANE lot#_____

CS2 lot # _____ ACETONE lot#_____

Response Factor Report GC/FID In

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 11:57:33 2002

Calibration Files
high =132_41.D int2 =132_40.D med =132_39.D
int1 =132_38.D low =132_37.D

| Compound | high | int2 | med | int1 | low | Avg | | %RSD | |
|---|---|---|---|---|---|---|---|---|---|
| 1) L1,Agasoline(1) | 1.357 | 1.421 | 1.332 | 1.424 | 1.274 | 1.362 | E3 | 4.64 | |
| 2) L1,Agasoline(2) | 4.678 | 4.722 | 4.842 | 5.995 | 3.264 | 4.700 | E2 | 20.63 | |
| 3) L1,Agasoline(3) | 6.612 | 6.974 | 7.161 | 6.439 | 6.438 | 6.725 | E2 | 4.87 | |
| 4) L1,Agasoline(4) | 3.199 | 3.411 | 3.120 | 3.188 | 3.495 | 3.283 | E3 | 4.91 | |
| 5) L1,Agasoline(5) | 3.005 | 2.980 | 2.994 | 2.977 | 3.065 | 3.004 | E3 | 1.19 | $\bar{X}$=4.7 |
| 6) L1,Agasoline(6) | 1.175 | 1.192 | 1.190 | 1.185 | 1.021 | 1.153 | E3 | 6.40 | |
| 7) L1,Agasoline(7) | 1.058 | 1.070 | 1.078 | 1.072 | 1.083 | 1.072 | E3 | 0.88 | |
| 8) L1,Agasoline(8) | 5.272 | 5.306 | 5.315 | 5.329 | 5.213 | 5.287 | E2 | 0.88 | |
| 9) L1,Agasoline(9) | 1.693 | 1.711 | 1.728 | 1.698 | 1.713 | 1.709 | E3 | 0.82 | |
| 10) L1,Agasoline(10) | 3.964 | 4.013 | 4.090 | 3.875 | 4.028 | 3.994 | E2 | 2.01 | |
| 21) L3,Pmineral spirits (1) | 1.371 | 1.474 | 1.327 | 1.344 | 1.120 | 1.327 | E3 | 9.71# | |
| 22) L3,Pmineral spirits (2) | 0.931 | 1.003 | 0.909 | 0.907 | 0.939 | 0.938 | E3 | 4.17# | |
| 23) L3,Pmineral spirits (3) | 8.878 | 9.611 | 8.686 | 8.854 | 9.352 | 9.076 | E2 | 4.28# | |
| 24) L3,Pmineral spirits (4) | 1.430 | 1.547 | 1.397 | 1.420 | 1.495 | 1.458 | E3 | 4.26# | |
| 25) L3,Pmineral spirits (5) | 3.233 | 3.486 | 3.118 | 3.274 | 4.015 | 3.425 | E3 | 10.39# | |
| 26) L3,Pmineral spirits (6) | 1.566 | 1.687 | 1.513 | 1.560 | 1.628 | 1.591 | E3 | 4.24# | |
| 27) L3,Pmineral spirits (7) | 1.047 | 1.118 | 1.012 | 1.025 | 1.093 | 1.059 | E3 | 4.25# | $\bar{X}$=5.6 |
| 28) L3,Pmineral spirits (8) | 3.322 | 3.570 | 3.162 | 3.330 | 3.486 | 3.374 | E3 | 4.69# | |
| 29) L3,Pmineral spirits (9) | 1.075 | 1.157 | 1.042 | 1.029 | 1.130 | 1.087 | E3 | 5.09# | |
| 30) L3,Pmineral spirits (10) | 1.010 | 1.087 | 0.981 | 0.974 | 1.079 | 1.026 | E3 | 5.22# | |
| 41) L5,Kkerosene (1) | 5.612 | 6.009 | 4.657 | 5.577 | 7.182 | 5.807 | E2 | 15.75 | |
| 42) L5,Kkerosene (2) | 1.317 | 1.536 | 1.216 | 1.359 | 1.331 | 1.352 | E3 | 8.59 | |
| 43) L5,Kkerosene (3) | 4.565 | 4.850 | 4.012 | 4.476 | 3.567 | 4.294 | E2 | 11.78 | |
| 44) L5,Kkerosene (4) | 1.992 | 2.142 | 1.832 | 2.044 | 1.943 | 1.991 | E3 | 5.79 | |
| 45) L5,Kkerosene (5) | 2.282 | 2.445 | 2.068 | 2.347 | 2.253 | 2.279 | E3 | 6.11 | |
| 46) L5,Kkerosene (6) | 1.804 | 1.931 | 1.761 | 2.171 | 2.193 | 1.972 | E3 | 10.23 | $\bar{X}$=10.6 |
| 47) L5,Kkerosene (7) | 1.494 | 1.586 | 1.294 | 1.512 | 1.613 | 1.500 | E3 | 8.37 | |
| 48) L5,Kkerosene (8) | 6.970 | 7.425 | 5.430 | 6.834 | 6.035 | 6.539 | E2 | 12.19 | |
| 49) L5,Kkerosene (9) | 1.000 | 1.066 | 0.811 | 0.991 | 0.923 | 0.958 | E3 | 10.09 | |
| 50) L5,Kkerosene (10) | 4.598 | 4.861 | 3.105 | 4.416 | 3.818 | 4.160 | E2 | 16.91 | |
| 51) L6,Ddiesel (1) | 7.348 | 7.586 | 7.853 | 7.470 | 6.870 | 7.425 | E2 | 4.88 | |
| 52) L6,Ddiesel (2) | 1.247 | 1.377 | 1.346 | 1.288 | 1.175 | 1.287 | E3 | 6.23 | |
| 53) L6,Ddiesel (3) | 1.314 | 1.579 | 1.397 | 1.342 | 1.208 | 1.368 | E3 | 10.00 | |
| 54) L6,Ddiesel (4) | 1.560 | 1.620 | 1.656 | 1.595 | 1.398 | 1.566 | E3 | 6.39 | |
| 55) L6,Ddiesel (5) | 1.404 | 1.451 | 1.494 | 1.430 | 1.263 | 1.408 | E3 | 6.24 | |
| 56) L6,Ddiesel (6) | 1.186 | 1.244 | 1.260 | 1.204 | 1.034 | 1.186 | E3 | 7.56 | $\bar{X}$=10.6 |
| 57) L6,Ddiesel (7) | 1.008 | 1.044 | 1.056 | 1.018 | 0.801 | 0.985 | E3 | 10.63 | |
| 58) L6,Ddiesel (8) | 7.239 | 8.983 | 7.656 | 7.285 | 5.432 | 7.319 | E2 | 17.35 | |
| 59) L6,Ddiesel (9) | 6.535 | 6.834 | 7.155 | 7.033 | 4.273 | 6.366 | E2 | 18.75 | |
| 60) L6,Ddiesel (10) | 3.817 | 3.982 | 3.840 | 3.668 | 2.412 | 3.544 | E2 | 18.13 | |
| 61) S 1-chloro-2-fluorobenz | 3.924 | 3.432 | 3.417 | 3.371 | 3.255 | 3.480 | E4 | 7.41 | |
| 62) S 1-chlorooctadecane | 4.384 | 4.392 | 4.510 | 4.327 | 4.558 | 4.434 | E4 | 2.16 | |
| 63) S p-terphenyl | 5.310 | 5.303 | 5.725 | 5.160 | 5.281 | 5.356 | E4 | 4.02 | |
| 64) L7,Omotor oil (1) | 6.267 | 6.019 | 5.262 | 5.907 | 6.446 | 5.980 | E1 | 7.58 | |
| 65) L7,Omotor oil (2) | 0.994 | 0.936 | 0.918 | 1.036 | 0.854 | 0.947 | E2 | 7.42 | |
| 66) L7,Omotor oil (3) | 1.221 | 1.173 | 1.047 | 1.189 | 1.056 | 1.137 | E2 | 7.07 | |
| 67) L7,Omotor oil (4) | 2.804 | 2.689 | 2.675 | 2.778 | 2.789 | 2.747 | E2 | 2.19 | |
| 68) L7,Omotor oil (5) | 5.007 | 4.946 | 4.988 | 5.127 | 5.004 | 5.014 | E2 | 1.35 | $\bar{X}$=7.3 |
| 69) L7,Omotor oil (6) | 5.601 | 5.285 | 5.256 | 5.468 | 5.480 | 5.418 | E2 | 2.67 | |
| 70) L7,Omotor oil (7) | 0.666 | 1.018 | 0.903 | 0.679 | 0.879 | 0.829 | E3 | 18.34 | |
| 71) L7,Omotor oil (8) | 1.187 | 1.137 | 1.136 | 0.871 | 1.098 | 1.086 | E3 | 11.41 | |
| 72) L7,Omotor oil (9) | 7.337 | 6.237 | 6.985 | 6.116 | 6.729 | 6.681 | E2 | 7.64 | |
| 73) L7,Omotor oil (10) | 6.103 | 5.764 | 5.235 | 6.188 | 5.382 | 5.734 | E2 | 7.38 | |

Signal #2 Calibration Files
high =132_41.D int2 =132_40.D med =132_39.D
int1 =132_38.D low =132_37.D

| Compound | high | int2 | med | int1 | low | Avg | %RSD |
|---|---|---|---|---|---|---|---|

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1) | L1,Agasoline(1) | 2.078 | 2.122 | 2.119 | 1.692 | 1.603 | 1.923 | E3 | 13.21 |
| 2) | L1,Agasoline(2) | 5.583 | 4.807 | 4.637 | 5.745 | 3.460 | 4.846 | E2 | 18.79 |
| 3) | L1,Agasoline(3) | 7.470 | 7.482 | 7.429 | 7.131 | 7.317 | 7.366 | E2 | 1.99 |
| 4) | L1,Agasoline(4) | 4.153 | 4.186 | 4.168 | 4.069 | 4.155 | 4.146 | E3 | 1.10 |
| 5) | L1,Agasoline(5) | 3.297 | 3.350 | 3.358 | 3.317 | 3.342 | 3.333 | E3 | 0.76 |
| 6) | L1,Agasoline(6) | 1.295 | 1.318 | 1.324 | 1.309 | 1.331 | 1.315 | E3 | 1.05 |
| 7) | L1,Agasoline(7) | 1.702 | 1.702 | 1.692 | 1.691 | 1.720 | 1.701 | E3 | 0.69 |
| 8) | L1,Agasoline(8) | 5.940 | 5.918 | 5.965 | 5.901 | 6.126 | 5.970 | E2 | 1.51 |
| 9) | L1,Agasoline(9) | 1.830 | 1.851 | 1.871 | 1.838 | 1.860 | 1.850 | E3 | 0.89 |
| 10) | L1,Agasoline(10) | 4.373 | 4.366 | 4.380 | 4.307 | 4.266 | 4.339 | E2 | 1.15 |
| 21) | L3,Pmineral spirits (1) | 0.987 | 1.061 | 1.095 | 1.122 | 1.067 | 1.067 | E3 | 4.74# |
| 22) | L3,Pmineral spirits (2) | 8.454 | 9.086 | 8.071 | 8.198 | 8.327 | 8.427 | E2 | 4.69# |
| 23) | L3,Pmineral spirits (3) | 8.000 | 8.623 | 7.638 | 7.774 | 7.818 | 7.971 | E2 | 4.86# |
| 24) | L3,Pmineral spirits (4) | 1.238 | 1.332 | 1.190 | 1.218 | 1.261 | 1.248 | E3 | 4.32# |
| 25) | L3,Pmineral spirits (5) | 3.481 | 3.736 | 3.338 | 3.475 | 3.584 | 3.523 | E3 | 4.20# |
| 26) | L3,Pmineral spirits (6) | 1.972 | 2.125 | 1.874 | 1.947 | 1.976 | 1.979 | E3 | 4.61# |
| 27) | L3,Pmineral spirits (7) | 1.404 | 1.512 | 1.337 | 1.357 | 1.344 | 1.391 | E3 | 5.21# |
| 28) | L3,Pmineral spirits (8) | 4.300 | 4.605 | 3.883 | 4.188 | 4.196 | 4.234 | E3 | 6.12# |
| 29) | L3,Pmineral spirits (9) | 8.372 | 8.989 | 7.930 | 8.015 | 8.311 | 8.324 | E2 | 5.01# |
| 30) | L3,Pmineral spirits (10) | 1.013 | 1.084 | 0.944 | 0.907 | 0.847 | 0.959 | E3 | 9.59# |
| 41) | L5,Kkerosene (1) | 5.726 | 6.082 | 5.201 | 4.928 | 4.988 | 5.385 | E2 | 9.30 |
| 42) | L5,Kkerosene (2) | 1.376 | 1.466 | 1.375 | 1.391 | 1.229 | 1.367 | E3 | 6.28 |
| 43) | L5,Kkerosene (3) | 2.311 | 2.441 | 2.027 | 2.190 | 2.169 | 2.228 | E3 | 7.01 |
| 44) | L5,Kkerosene (4) | 2.369 | 2.503 | 2.204 | 2.251 | 2.216 | 2.309 | E3 | 5.50 |
| 45) | L5,Kkerosene (5) | 9.586 | 9.817 | 7.185 | 7.526 | 6.961 | 8.215 | E2 | 16.73 |
| 46) | L5,Kkerosene (6) | 1.265 | 1.303 | 1.022 | 1.084 | 1.019 | 1.138 | E3 | 11.95 |
| 47) | L5,Kkerosene (7) | 2.455 | 2.566 | 2.062 | 2.232 | 2.160 | 2.295 | E3 | 9.14 |
| 48) | L5,Kkerosene (8) | 1.539 | 1.589 | 1.490 | 1.320 | 1.109 | 1.409 | E3 | 13.92 |
| 49) | L5,Kkerosene (9) | 1.131 | 1.183 | 0.915 | 1.061 | 1.796 | 1.217 | E3 | 27.85 |
| 50) | L5,Kkerosene (10) | 4.680 | 4.280 | 3.290 | 3.223 | 2.279 | 3.550 | E2 | 26.72 |
| 51) | L6,Ddiesel (1) | 8.516 | 8.933 | 9.264 | 8.806 | 7.951 | 8.694 | E2 | 5.69 |
| 52) | L6,Ddiesel (2) | 1.276 | 1.435 | 1.394 | 1.335 | 1.164 | 1.321 | E3 | 8.06 |
| 53) | L6,Ddiesel (3) | 1.377 | 1.914 | 1.491 | 1.428 | 1.218 | 1.486 | E3 | 17.49 |
| 54) | L6,Ddiesel (4) | 1.464 | 2.242 | 1.589 | 1.516 | 1.156 | 1.593 | E3 | 24.98 |
| 55) | L6,Ddiesel (5) | 1.624 | 2.276 | 1.812 | 1.751 | 1.320 | 1.757 | E3 | 19.74 |
| 56) | L6,Ddiesel (6) | 1.139 | 1.217 | 1.229 | 1.159 | 0.869 | 1.122 | E3 | 13.08 |
| 57) | L6,Ddiesel (7) | 8.429 | 8.843 | 9.145 | 8.606 | 6.981 | 8.401 | E2 | 9.97 |
| 58) | L6,Ddiesel (8) | 6.618 | 7.194 | 7.380 | 6.956 | 5.247 | 6.679 | E2 | 12.72 |
| 59) | L6,Ddiesel (9) | 4.865 | 5.302 | 5.340 | 5.067 | 3.647 | 4.845 | E2 | 14.37 |
| 60) | L6,Ddiesel (10) | 2.940 | 3.810 | 3.334 | 3.531 | 1.930 | 3.109 | E2 | 23.52 |
| 61) | S 1-chloro-2-fluorobenz | 4.316 | 3.755 | 3.624 | 3.566 | 3.712 | 3.795 | E4 | 7.93 |
| 62) | S 1-chlorooctadecane | 2.993 | 3.118 | 3.242 | 3.148 | 3.259 | 3.152 | E4 | 3.40 |
| 63) | S p-terphenyl | 2.965 | 3.108 | 3.368 | 3.078 | 3.137 | 3.131 | E4 | 4.72 |
| 64) | L7,Omotor oil (1) | 3.721 | 4.190 | 2.952 | 2.987 | 2.720 | 3.314 | E1 | 18.62 |
| 65) | L7,Omotor oil (2) | 5.580 | 6.127 | 5.206 | 5.818 | 4.334 | 5.413 | E1 | 12.76 |
| 66) | L7,Omotor oil (3) | 8.182 | 9.692 | 8.419 | 9.487 | 7.877 | 8.731 | E1 | 9.28 |
| 67) | L7,Omotor oil (4) | 9.824 | 9.200 | 7.932 | 9.020 | 7.772 | 8.749 | E1 | 9.99 |
| 68) | L7,Omotor oil (5) | 1.190 | 1.045 | 1.050 | 1.300 | 1.322 | 1.181 | E2 | 11.18 |
| 69) | L7,Omotor oil (6) | 0.644 | 1.272 | 0.816 | 0.934 | 1.104 | 0.954 | E2 | 25.62 |
| 70) | L7,Omotor oil (7) | 6.994 | 8.112 | 6.928 | 8.283 | 8.595 | 7.783 | E1 | 9.89 |
| 71) | L7,Omotor oil (8) | 1.192 | 1.588 | 0.916 | 1.071 | 0.812 | 1.116 | E2 | 27.00 |
| 72) | L7,Omotor oil (9) | 0.903 | 1.148 | 0.377 | 0.444 | 0.251 | 0.624 | E2 | 61.25 |
| 73) | L7,Omotor oil (10) | 7.071 | 9.578 | 1.890 | 1.981 | 2.037 | 4.511 | E1 | 79.63 |

$\bar{X} = 4.1$

$\bar{X} = 5.3$

$\bar{X} = 13.4$

$\bar{X} = 15.0$

Correct use

(#) = Out of Range

TPH.M Mon Jan 21 11:58:32 2002 GRO

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\3\DATA\135\135_03.D\FID1A.CH
Acq On : 16 Jan 2002 17:53
Sample : FID A 712 L4
Misc : MIX [S,A]
IntFile : AUTOINT1.E

Vial: 3
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\135\135_03.D\FID2B.CH
Acq On : 16 Jan 2002 18:33
Sample : FID A 712 L4
Misc : MIX [S,A]
IntFile : EVENTS2.E

Vial: 3
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:19:39 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

| | Compound | AvgRF | CCRF | | %Dev | Area% | Dev(Min) | |
|---|---|---|---|---|---|---|---|---|
| 1 | L1,Agasoline(1) | 1.362 | 1.436 | E3 | -5.4 | 108 | 0.00 | |
| 2 | L1,Agasoline(2) | 470.040 | 487.960 | | -3.8 | 101 | 0.00 | |
| 3 | L1,Agasoline(3) | 672.475 | 716.638 | | -6.6 | 100 | 0.00 | |
| 4 | L1,Agasoline(4) | 3.283 | 3.474 | E3 | -5.8 | 111 | 0.00 | |
| 5 | L1,Agasoline(5) | 3.004 | 2.980 | E3 | 0.8 | 100 | 0.00 | $\bar{X}$= 2.8 |
| 6 | L1,Agasoline(6) | 1.153 | 1.188 | E3 | -3.0 | 100 | 0.00 | |
| 7 | L1,Agasoline(7) | 1.072 | 1.073 | E3 | -0.1 | 99 | 0.00 | |
| 8 | L1,Agasoline(8) | 528.717 | 529.541 | | -0.2 | 100 | 0.00 | |
| 9 | L1,Agasoline(9) | 1.709 | 1.715 | E3 | -0.4 | 99 | 0.00 | |
| 10 | L1,Agasoline(10) | 399.413 | 393.248 | | 1.5 | 96 | 0.00 | |
| 61 | S 1-chloro-2-fluorobenzene | 34.798 | 34.253 | E3 | 1.6 | 100 | 0.00 | |
| 62 | S 1-chlorooctadecane | 44.344 | 44.265 | E3 | 0.2 | 98 | 0.00 | |
| 63 | S p-terphenyl | 53.559 | 55.434 | E3 | -3.5 | 97 | 0.00 | |

Signal #2

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | L1,Agasoline(1) | 1.923 | 2.083 | E3 | -8.3 | 98 | 0.00 | |
| 2 | L1,Agasoline(2) | 484.649 | 459.920 | | 5.1 | 99 | 0.00 | |
| 3 | L1,Agasoline(3) | 736.575 | 719.100 | | 2.4 | 97 | 0.00 | |
| 4 | L1,Agasoline(4) | 4.146 | 4.084 | E3 | 1.5 | 98 | 0.00 | |
| 5 | L1,Agasoline(5) | 3.333 | 3.310 | E3 | 0.7 | 99 | 0.00 | $\bar{X}$=2.4 |
| 6 | L1,Agasoline(6) | 1.315 | 1.307 | E3 | 0.6 | 99 | 0.00 | |
| 7 | L1,Agasoline(7) | 1.701 | 1.666 | E3 | 2.1 | 98 | 0.00 | |
| 8 | L1,Agasoline(8) | 596.979 | 587.862 | | 1.5 | 99 | 0.00 | |
| 9 | L1,Agasoline(9) | 1.850 | 1.836 | E3 | 0.8 | 98 | 0.00 | |
| 10 | L1,Agasoline(10) | 433.857 | 430.448 | | 0.8 | 98 | 0.00 | |
| 61 | S 1-chloro-2-fluorobenzene | 37.947 | 35.874 | E3 | 5.5 | 99 | 0.00 | |
| 62 | S 1-chlorooctadecane | 31.519 | 29.948 | E3 | 5.0 | 92 | 0.00 | |
| 63 | S p-terphenyl | 31.312 | 29.586 | E3 | 5.5 | 88 | 0.00 | |

(#) = Out of Range SPCC's out = 0 CCC's out = 0
135_03.D TPH.M Mon Jan 21 12:20:10 2002 GRO

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\3\DATA\135\135_04.D\FID1A.CH
Acq On : 16 Jan 2002 18:33
Sample : FID A 713 L4
Misc : MIX [S,D]
IntFile : AUTOINT1.E

Vial: 4
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\135\135_04.D\FID2B.CH
Acq On : 16 Jan 2002 19:13
Sample : FID A 713 L4
Misc : MIX [S,D]
IntFile : EVENTS2.E

Vial: 4
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

| | Compound | AvgRF | CCRF | | %Dev | Area% | Dev(Min) | |
|---|---|---|---|---|---|---|---|---|
| 51 | L6,Ddiesel (1) | 742.524 | 788.608 | | -6.2 | 100 | 0.00 | |
| 52 | L6,Ddiesel (2) | 1.287 | 1.422 | E3 | -10.5 | 106 | 0.00 | |
| 53 | L6,Ddiesel (3) | 1.368 | 1.411 | E3 | -3.1 | 101 | 0.00 | |
| 54 | L6,Ddiesel (4) | 1.566 | 1.679 | E3 | -7.2 | 101 | 0.00 | |
| 55 | L6,Ddiesel (5) | 1.408 | 1.518 | E3 | -7.8 | 102 | 0.00 | |
| 56 | L6,Ddiesel (6) | 1.186 | 1.278 | E3 | -7.8 | 101 | 0.00 | $\bar{X}$=8.0 |
| 57 | L6,Ddiesel (7) | 0.985 | 1.080 | E3 | -9.6 | 102 | 0.00 | |
| 58 | L6,Ddiesel (8) | 731.905 | 785.871 | | -7.4 | 103 | 0.00 | |
| 59 | L6,Ddiesel (9) | 636.598 | 699.729 | | -9.9 | 98 | 0.00 | |
| 60 | L6,Ddiesel (10) | 354.391 | 393.178 | | -10.9 | 102 | 0.00 | |
| [redacted] | S 1-chloro-2-fluorobenzene | 34.798 | 29.702 | E3 | 14.6 | 87 | 0.00 | |
| [redacted] | S 1-chlorooctadecane | 44.344 | 46.611 | E3 | -5.1 | 103 | 0.00 | |
| 63 | S p-terphenyl | 53.559 | 57.439 | E3 | -7.2 | 100 | 0.00 | |

Signal #2

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 51 | L6,Ddiesel (1) | 869.403 | 910.383 | | -4.7 | 98 | 0.00 | |
| 52 | L6,Ddiesel (2) | 1.321 | 1.371 | E3 | -3.8 | 98 | 0.00 | |
| 53 | L6,Ddiesel (3) | 1.486 | 1.469 | E3 | 1.1 | 99 | 0.00 | |
| 54 | L6,Ddiesel (4) | 1.593 | 1.572 | E3 | 1.3 | 99 | 0.00 | |
| 55 | L6,Ddiesel (5) | 1.757 | 1.821 | E3 | -3.6 | 100 | 0.00 | |
| 56 | L6,Ddiesel (6) | 1.122 | 1.215 | E3 | -8.3 | 99 | 0.00 | $\bar{X}$=5.6 |
| 57 | L6,Ddiesel (7) | 840.103 | 904.683 | | -7.7 | 99 | 0.00 | |
| 58 | L6,Ddiesel (8) | 667.878 | 729.635 | | -9.2 | 99 | 0.00 | |
| 59 | L6,Ddiesel (9) | 484.454 | 536.627 | | -10.8 | 100 | 0.00 | |
| 60 | L6,Ddiesel (10) | 310.894 | 328.585 | | -5.7 | 99 | 0.00 | |
| 61 | S 1-chloro-2-fluorobenzene | 37.947 | 32.107 | E3 | 15.4# | 89 | 0.00 | |
| 62 | S 1-chlorooctadecane | 31.519 | 30.958 | E3 | 1.8 | 95 | 0.00 | |
| 63 | S p-terphenyl | 31.312 | 30.876 | E3 | 1.4 | 92 | 0.00 | |

(#) = Out of Range SPCC's out = 0 CCC's out = 0
135_04.D TPH.M Mon Jan 21 12:23:06 2002 GRO

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\3\DATA\135\135_05.D\FID1A.CH
Acq On : 16 Jan 2002 19:13
Sample : FID A 651 L3
Misc : MIX [K]
IntFile : AUTOINT1.E

Vial: 5
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\135\135_05.D\FID2B.CH
Acq On : 16 Jan 2002 19:53
Sample : FID A 651 L3
Misc : MIX [S,K]
IntFile : EVENTS2.E

Vial: 5
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

| | Compound | AvgRF | CCRF | | %Dev | Area% | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41 | L5,Kkerosene (1) | 580.733 | 462.023 | | 20.4# | 99 | 0.00 |
| 42 | L5,Kkerosene (2) | 1.352 | 1.352 | E3 | 0.0 | 111 | 0.00 |
| 43 | L5,Kkerosene (3) | 429.409 | 425.159 | | 1.0 | 106 | 0.00 |
| 44 | L5,Kkerosene (4) | 1.991 | 1.884 | E3 | 5.4 | 103 | 0.00 |
| 45 | L5,Kkerosene (5) | 2.279 | 2.139 | E3 | 6.1 | 103 | 0.00 |
| 46 | L5,Kkerosene (6) | 1.972 | 1.991 | E3 | -1.0 | 113 | 0.00 |
| 47 | L5,Kkerosene (7) | 1.500 | 1.582 | E3 | -5.5 | 122 | 0.00 |
| 48 | L5,Kkerosene (8) | 653.877 | 640.301 | | 2.1 | 118 | 0.00 |
| 49 | L5,Kkerosene (9) | 0.958 | 0.924 | E3 | 3.5 | 114 | 0.00 |
| 50 | L5,Kkerosene (10) | 415.985 | 416.282 | | -0.1 | 134 | 0.00 |

$\bar{X} = 4.5$

Signal #2

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 41 | L5,Kkerosene (1) | 538.493 | 537.295 | | 0.2 | 103 | 0.00 |
| 42 | L5,Kkerosene (2) | 1.367 | 1.384 | E3 | -1.2 | 101 | 0.00 |
| 43 | L5,Kkerosene (3) | 2.228 | 2.182 | E3 | 2.1 | 108 | 0.00 |
| 44 | L5,Kkerosene (4) | 2.309 | 2.388 | E3 | -3.4 | 108 | 0.00 |
| 45 | L5,Kkerosene (5) | 821.495 | 833.418 | | -1.5 | 116 | 0.00 |
| 46 | L5,Kkerosene (6) | 1.138 | 1.145 | E3 | -0.6 | 112 | 0.00 |
| 47 | L5,Kkerosene (7) | 2.295 | 2.273 | E3 | 1.0 | 110 | 0.00 |
| 48 | L5,Kkerosene (8) | 1.409 | 1.716 | E3 | -21.8# | 115 | 0.00 |
| 49 | L5,Kkerosene (9) | 1.217 | 1.119 | E3 | 8.1 | 122 | 0.00 |
| 50 | L5,Kkerosene (10) | 355.032 | 352.676 | | 0.7 | 107 | 0.00 |

$\bar{X} = 4.1$

(#) = Out of Range SPCC's out = 0 CCC's out = 0
135_04.D TPH.M Mon Jan 21 12:25:26 2002 GRO

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\3\DATA\135\135_12.D\FID1A.CH  Vial: 12
Acq On : 16 Jan 2002 23:56  Operator: SAB 5997
Sample : FID A 712 L4  Inst : GC/FID In
Misc : MIX [S,A]  Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_12.D\FID2B.CH  Vial: 12
Acq On : 17 Jan 2002 00:36  Operator: SAB 5997
Sample : FID A 712 L4  Inst : GC/FID In
Misc : MIX [S,A]  Multiplr: 1.00
IntFile : EVENTS2.E

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

| | Compound | AvgRF | CCRF | | %Dev | Area% | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1 | L1,Agasoline(1) | 1.362 | 1.348 | E3 | 1.0 | 101 | 0.00 |
| 2 | L1,Agasoline(2) | 470.040 | 444.800 | | 5.4 | 92 | 0.00 |
| 3 | L1,Agasoline(3) | 672.475 | 656.716 | | 2.3 | 92 | 0.00 |
| 4 | L1,Agasoline(4) | 3.283 | 3.376 | E3 | -2.8 | 108 | 0.00 |
| 5 | L1,Agasoline(5) | 3.004 | 2.955 | E3 | 1.6 | 99 | 0.00 |
| 6 | L1,Agasoline(6) | 1.153 | 1.181 | E3 | -2.4 | 99 | 0.00 |
| 7 | L1,Agasoline(7) | 1.072 | 1.049 | E3 | 2.1 | 97 | 0.00 |
| 8 | L1,Agasoline(8) | 528.717 | 522.146 | | 1.2 | 98 | 0.00 |
| 9 | L1,Agasoline(9) | 1.709 | 1.685 | E3 | 1.4 | 98 | 0.00 |
| 10 | L1,Agasoline(10) | 399.413 | 386.835 | | 3.1 | 95 | 0.00 |
| 61 | S 1-chloro-2-fluorobenzene | 34.798 | 33.925 | E3 | 2.5 | 99 | 0.00 |
| | S 1-chlorooctadecane | 44.344 | 44.475 | E3 | -0.3 | 99 | 0.00 |
| | S p-terphenyl | 53.559 | 56.064 | E3 | -4.7 | 98 | 0.00 |

$\bar{X}$=2.3

Signal #2

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | L1,Agasoline(1) | 1.923 | 2.145 | E3 | -11.5 | 101 | 0.00 |
| 2 | L1,Agasoline(2) | 484.649 | 479.640 | | 1.0 | 103 | 0.00 |
| 3 | L1,Agasoline(3) | 736.575 | 757.538 | | -2.8 | 102 | 0.00 |
| 4 | L1,Agasoline(4) | 4.146 | 4.202 | E3 | -1.4 | 101 | 0.00 |
| 5 | L1,Agasoline(5) | 3.333 | 3.346 | E3 | -0.4 | 100 | 0.00 |
| 6 | L1,Agasoline(6) | 1.315 | 1.319 | E3 | -0.3 | 100 | 0.00 |
| 7 | L1,Agasoline(7) | 1.701 | 1.722 | E3 | -1.2 | 102 | 0.00 |
| 8 | L1,Agasoline(8) | 596.979 | 600.728 | | -0.6 | 101 | 0.00 |
| 9 | L1,Agasoline(9) | 1.850 | 1.875 | E3 | -1.4 | 100 | 0.00 |
| 10 | L1,Agasoline(10) | 433.857 | 439.846 | | -1.4 | 100 | 0.00 |
| 61 | S 1-chloro-2-fluorobenzene | 37.947 | 36.549 | E3 | 3.7 | 101 | 0.00 |
| 62 | S 1-chlorooctadecane | 31.519 | 32.207 | E3 | -2.2 | 99 | 0.00 |
| 63 | S p-terphenyl | 31.312 | 33.139 | E3 | -5.8 | 98 | 0.00 |

$\bar{X}$=2.2

(#) = Out of Range  SPCC's out = 0  CCC's out = 0
135_04.D TPH.M  Mon Jan 21 12:47:48 2002 GRO

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\3\DATA\135\135_13.D\FID1A.CH  Vial: 13
Acq On : 17 Jan 2002 00:36  Operator: SAB 5997
Sample : FID A 713 L4  Inst : GC/FID In
Misc : MIX [S,D]  Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_13.D\FID2B.CH  Vial: 13
Acq On : 17 Jan 2002 1:16  Operator: SAB 5997
Sample : FID A 713 L4  Inst : GC/FID In
Misc : MIX [S,D]  Multiplr: 1.00
IntFile : EVENTS2.E

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

| | Compound | AvgRF | CCRF | | %Dev | Area% | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 51 | L6,Ddiesel (1) | 742.524 | 780.266 | | -5.1 | 99 | 0.00 |
| 52 | L6,Ddiesel (2) | 1.287 | 1.341 | E3 | -4.2 | 100 | 0.00 |
| 53 | L6,Ddiesel (3) | 1.368 | 1.405 | E3 | -2.7 | 101 | 0.00 |
| 54 | L6,Ddiesel (4) | 1.566 | 1.673 | E3 | -6.8 | 101 | 0.00 |
| 55 | L6,Ddiesel (5) | 1.408 | 1.508 | E3 | -7.1 | 101 | 0.00 |
| 56 | L6,Ddiesel (6) | 1.186 | 1.269 | E3 | -7.0 | 101 | 0.00 |
| 57 | L6,Ddiesel (7) | 0.985 | 1.080 | E3 | -9.6 | 102 | 0.00 |
| 58 | L6,Ddiesel (8) | 731.905 | 788.085 | | -7.7 | 103 | 0.00 |
| 59 | L6,Ddiesel (9) | 636.598 | 725.398 | | -13.9 | 101 | 0.00 |
| 60 | L6,Ddiesel (10) | 354.391 | 397.292 | | -12.1 | 103 | 0.00 |
| | S 1-chloro-2-fluorobenzene | 34.798 | 29.466 | E3 | 15.3# | 86 | 0.00 |
| | S 1-chlorooctadecane | 44.344 | 46.560 | E3 | -5.0 | 103 | 0.00 |
| 63 | S p-terphenyl | 53.559 | 57.614 | E3 | -7.6 | 101 | 0.00 |

$\bar{X} = 7.6$

Signal #2

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 51 | L6,Ddiesel (1) | 869.403 | 889.246 | | -2.3 | 96 | 0.00 |
| 52 | L6,Ddiesel (2) | 1.321 | 1.351 | E3 | -2.3 | 97 | 0.00 |
| 53 | L6,Ddiesel (3) | 1.486 | 1.453 | E3 | 2.2 | 97 | 0.00 |
| 54 | L6,Ddiesel (4) | 1.593 | 1.553 | E3 | 2.5 | 98 | 0.00 |
| 55 | L6,Ddiesel (5) | 1.757 | 1.775 | E3 | -1.0 | 98 | 0.00 |
| 56 | L6,Ddiesel (6) | 1.122 | 1.212 | E3 | -8.0 | 99 | 0.00 |
| 57 | L6,Ddiesel (7) | 840.103 | 900.224 | | -7.2 | 98 | 0.00 |
| 58 | L6,Ddiesel (8) | 667.878 | 725.721 | | -8.7 | 98 | 0.00 |
| 59 | L6,Ddiesel (9) | 484.454 | 545.368 | | -12.6 | 102 | 0.00 |
| 60 | L6,Ddiesel (10) | 310.894 | 302.000 | | 2.9 | 91 | 0.00 |
| 61 | S 1-chloro-2-fluorobenzene | 37.947 | 31.883 | E3 | 16.0# | 88 | 0.00 |
| 62 | S 1-chlorooctadecane | 31.519 | 31.484 | E3 | 0.1 | 97 | 0.00 |
| 63 | S p-terphenyl | 31.312 | 32.672 | E3 | -4.3 | 97 | 0.00 |

$\bar{X} = 5.0$

(#) = Out of Range  SPCC's out = 0  CCC's out = 0
135_04.D TPH.M  Mon Jan 21 12:49:31 2002  GRO

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\3\DATA\135\135_14.D\FID1A.CH  Vial: 14
Acq On : 17 Jan 2002 1:16  Operator: SAB 5997
Sample : FID A 651 L3  Inst : GC/FID In
Misc : MIX [S,K]  Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_14.D\FID2B.CH  Vial: 14
Acq On : 17 Jan 2002 1:57  Operator: SAB 5997
Sample : FID A 651 L3  Inst : GC/FID In
Misc : MIX [S,K]  Multiplr: 1.00
IntFile : EVENTS2.E

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

| | Compound | AvgRF | CCRF | | %Dev | Area% | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41 | L5,Kkerosene (1) | 580.733 | 459.239 | | 20.9# | 99 | 0.00 |
| 42 | L5,Kkerosene (2) | 1.352 | 1.231 | E3 | 8.9 | 101 | 0.00 |
| 43 | L5,Kkerosene (3) | 429.409 | 416.430 | | 3.0 | 104 | 0.00 |
| 44 | L5,Kkerosene (4) | 1.991 | 1.851 | E3 | 7.0 | 101 | 0.00 |
| 45 | L5,Kkerosene (5) | 2.279 | 2.110 | E3 | 7.4 | 102 | 0.00 |
| 46 | L5,Kkerosene (6) | 1.972 | 2.090 | E3 | -6.0 | 119 | 0.00 |
| 47 | L5,Kkerosene (7) | 1.500 | 1.365 | E3 | 9.0 | 106 | 0.00 |
| 48 | L5,Kkerosene (8) | 653.877 | 618.180 | | 5.5 | 114 | 0.00 |
| 49 | L5,Kkerosene (9) | 0.958 | 0.898 | E3 | 6.3 | 111 | 0.00 |
| 50 | L5,Kkerosene (10) | 415.985 | 393.922 | | 5.3 | 127 | 0.00 |

$\bar{X} = 7.9$

Signal #2

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 41 | L5,Kkerosene (1) | 538.493 | 524.634 | | 2.6 | 101 | 0.00 |
| 42 | L5,Kkerosene (2) | 1.367 | 1.294 | E3 | 5.3 | 94 | 0.00 |
| 43 | L5,Kkerosene (3) | 2.228 | 2.133 | E3 | 4.3 | 105 | 0.00 |
| 44 | L5,Kkerosene (4) | 2.309 | 2.193 | E3 | 5.0 | 100 | 0.00 |
| 45 | L5,Kkerosene (5) | 821.495 | 826.942 | | -0.7 | 115 | 0.00 |
| 46 | L5,Kkerosene (6) | 1.138 | 1.119 | E3 | 1.7 | 109 | 0.00 |
| 47 | L5,Kkerosene (7) | 2.295 | 2.224 | E3 | 3.1 | 108 | 0.00 |
| 48 | L5,Kkerosene (8) | 1.409 | 1.365 | E3 | 3.1 | 92 | 0.00 |
| 49 | L5,Kkerosene (9) | 1.217 | 1.000 | E3 | 17.8# | 109 | 0.00 |
| 50 | L5,Kkerosene (10) | 355.032 | 347.218 | | 2.2 | 106 | 0.00 |

$\bar{X} = 4.6$

(#) = Out of Range  SPCC's out = 0  CCC's out = 0
135_04.D TPH.M  Mon Jan 21 12:51:42 2002  GRO

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\3\DATA\135\135_24.D\FID1A.CH  Vial: 24
Acq On : 17 Jan 2002 7:57  Operator: SAB 5997
Sample : FID A712 L4  Inst : GC/FID In
Misc : MIX [S,A]  Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_24.D\FID2B.CH  Vial: 24
Acq On : 17 Jan 2002 8:36  Operator: SAB 5997
Sample : FID A712 L4  Inst : GC/FID In
Misc : MIX [S,A]  Multiplr: 1.00
IntFile : EVENTS2.E

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

| | Compound | AvgRF | CCRF | | %Dev | Area% | Dev(Min) | |
|---|---|---|---|---|---|---|---|---|
| 1 | L1,Agasoline(1) | 1.362 | 1.360 | E3 | 0.1 | 102 | 0.01 | |
| 2 | L1,Agasoline(2) | 470.040 | 507.524 | | -8.0 | 105 | 0.01 | |
| 3 | L1,Agasoline(3) | 672.475 | 664.104 | | 1.2 | 93 | 0.02 | |
| 4 | L1,Agasoline(4) | 3.283 | 3.807 | E3 | -16.0# | 122 | 0.02 | |
| 5 | L1,Agasoline(5) | 3.004 | 2.967 | E3 | 1.2 | 99 | 0.01 | |
| 6 | L1,Agasoline(6) | 1.153 | 1.177 | E3 | -2.1 | 99 | 0.01 | $\bar{X}=3.3$ |
| 7 | L1,Agasoline(7) | 1.072 | 1.062 | E3 | 0.9 | 98 | 0.01 | |
| 8 | L1,Agasoline(8) | 528.717 | 525.987 | | 0.5 | 99 | 0.01 | |
| 9 | L1,Agasoline(9) | 1.709 | 1.703 | E3 | 0.4 | 99 | 0.01 | |
| 10 | L1,Agasoline(10) | 399.413 | 389.448 | | 2.5 | 95 | 0.01 | |
| 61 | S 1-chloro-2-fluorobenzene | 34.798 | 33.960 | E3 | 2.4 | 99 | 0.01 | |
| 62 | S 1-chlorooctadecane | 44.344 | 45.204 | E3 | -1.9 | 100 | 0.01 | |
| 63 | S p-terphenyl | 53.559 | 56.605 | E3 | -5.7 | 99 | 0.01 | |

Signal #2

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | L1,Agasoline(1) | 1.923 | 2.141 | E3 | -11.3 | 101 | 0.00 | |
| 2 | L1,Agasoline(2) | 484.649 | 576.770 | | -19.0# | 124 | 0.00 | |
| 3 | L1,Agasoline(3) | 736.575 | 753.381 | | -2.3 | 101 | 0.00 | |
| 4 | L1,Agasoline(4) | 4.146 | 4.192 | E3 | -1.1 | 101 | 0.00 | |
| 5 | L1,Agasoline(5) | 3.333 | 3.370 | E3 | -1.1 | 100 | 0.00 | |
| 6 | L1,Agasoline(6) | 1.315 | 1.326 | E3 | -0.8 | 100 | 0.00 | $\bar{X}=3.8$ |
| 7 | L1,Agasoline(7) | 1.701 | 1.697 | E3 | 0.2 | 100 | 0.00 | |
| 8 | L1,Agasoline(8) | 596.979 | 598.339 | | -0.2 | 100 | 0.00 | |
| 9 | L1,Agasoline(9) | 1.850 | 1.867 | E3 | -0.9 | 100 | 0.00 | |
| 10 | L1,Agasoline(10) | 433.857 | 439.251 | | -1.2 | 100 | 0.00 | |
| 61 | S 1-chloro-2-fluorobenzene | 37.947 | 36.509 | E3 | 3.8 | 101 | 0.00 | |
| 62 | S 1-chlorooctadecane | 31.519 | 32.221 | E3 | -2.2 | 99 | 0.00 | |
| 63 | S p-terphenyl | 31.312 | 32.941 | E3 | -5.2 | 98 | 0.00 | |

(#) = Out of Range  SPCC's out = 0 CCC's out = 0
135_04.D TPH.M  Mon Jan 21 15:08:00 2002 GRO

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\3\DATA\135\135_25.D\FID1A.CH  Vial: 25
Acq On : 17 Jan 2002 8:36  Operator: SAB 5997
Sample : FID A713 L4  Inst : GC/FID In
Misc : MIX [S,D]  Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_25.D\FID2B.CH  Vial: 25
Acq On : 17 Jan 2002 9:16  Operator: SAB 5997
Sample : FID A713 L4  Inst : GC/FID In
Misc : MIX [S,D]  Multiplr: 1.00
IntFile : EVENTS2.E

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

| | Compound | AvgRF | CCRF | | %Dev | Area% | Dev(Min) | |
|---|---|---|---|---|---|---|---|---|
| 51 | L6,Ddiesel (1) | 742.524 | 806.055 | | -8.6 | 103 | 0.00 | |
| 52 | L6,Ddiesel (2) | 1.287 | 1.393 | E3 | -8.2 | 104 | 0.00 | |
| 53 | L6,Ddiesel (3) | 1.368 | 1.442 | E3 | -5.4 | 103 | 0.00 | |
| 54 | L6,Ddiesel (4) | 1.566 | 1.718 | E3 | -9.7 | 104 | 0.01 | |
| 55 | L6,Ddiesel (5) | 1.408 | 1.547 | E3 | -9.9 | 104 | 0.01 | |
| 56 | L6,Ddiesel (6) | 1.186 | 1.314 | E3 | -10.8 | 104 | 0.01 | $\bar{X}$=8.8 |
| 57 | L6,Ddiesel (7) | 0.985 | 1.115 | E3 | -13.2 | 106 | 0.01 | |
| 58 | L6,Ddiesel (8) | 731.905 | 793.680 | | -8.4 | 104 | 0.01 | |
| 59 | L6,Ddiesel (9) | 636.598 | 697.440 | | -9.6 | 97 | 0.00 | |
| 60 | L6,Ddiesel (10) | 354.391 | 368.320 | | -3.9 | 96 | 0.00 | |
| [redacted] | S 1-chloro-2-fluorobenzene | 34.798 | 31.122 | E3 | 10.6 | 91 | 0.01 | |
| [redacted] | S 1-chlorooctadecane | 44.344 | 48.199 | E3 | -8.7 | 107 | 0.01 | |
| 63 | S p-terphenyl | 53.559 | 59.756 | E3 | -11.6 | 104 | 0.01 | |

Signal #2

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 51 | L6,Ddiesel (1) | 869.403 | 950.371 | | -9.3 | 103 | 0.00 | |
| 52 | L6,Ddiesel (2) | 1.321 | 1.427 | E3 | -8.0 | 102 | 0.00 | |
| 53 | L6,Ddiesel (3) | 1.486 | 1.527 | E3 | -2.8 | 102 | 0.00 | |
| 54 | L6,Ddiesel (4) | 1.593 | 1.631 | E3 | -2.4 | 103 | 0.00 | |
| 55 | L6,Ddiesel (5) | 1.757 | 1.869 | E3 | -6.4 | 103 | 0.00 | |
| 56 | L6,Ddiesel (6) | 1.122 | 1.267 | E3 | -12.9 | 103 | 0.00 | $\bar{X}$=8.6 |
| 57 | L6,Ddiesel (7) | 840.103 | 940.087 | | -11.9 | 103 | 0.00 | |
| 58 | L6,Ddiesel (8) | 667.878 | 749.285 | | -12.2 | 102 | 0.00 | |
| 59 | L6,Ddiesel (9) | 484.454 | 557.123 | | -15.0# | 104 | 0.00 | |
| 60 | L6,Ddiesel (10) | 310.894 | 295.760 | | 4.9 | 89 | 0.00 | |
| 61 | S 1-chloro-2-fluorobenzene | 37.947 | 33.457 | E3 | 11.8 | 92 | 0.00 | |
| 62 | S 1-chlorooctadecane | 31.519 | 33.319 | E3 | -5.7 | 103 | 0.00 | |
| 63 | S p-terphenyl | 31.312 | 34.356 | E3 | -9.7 | 102 | 0.00 | |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0
135_04.D TPH.M  Mon Jan 21 15:11:51 2002  GRO

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\3\DATA\135\135_27.D\FID1A.CH  Vial: 27
Acq On : 22 Jan 2002 9:05  Operator: SAB 5997
Sample : FID A712 L4  Inst : GC/FID In
Misc : MIX [S,A]  Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_27.D\FID2B.CH  Vial: 27
Acq On : 22 Jan 2002 9:44  Operator: SAB 5997
Sample : FID A712 L4  Inst : GC/FID In
Misc : MIX [S,A]  Multiplr: 1.00
IntFile : EVENTS2.E

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

| | Compound | AvgRF | CCRF | | %Dev | Area% | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1 | L1,Agasoline(1) | 1.362 | 1.367 | E3 | -0.4 | 103 | 0.00 |
| 2 | L1,Agasoline(2) | 470.040 | 468.480 | | 0.3 | 97 | 0.00 |
| 3 | L1,Agasoline(3) | 672.475 | 680.810 | | -1.2 | 95 | 0.00 |
| 4 | L1,Agasoline(4) | 3.283 | 3.242 | E3 | 1.2 | 104 | 0.00 |
| 5 | L1,Agasoline(5) | 3.004 | 2.807 | E3 | 6.6 | 94 | 0.00 |
| 6 | L1,Agasoline(6) | 1.153 | 1.113 | E3 | 3.5 | 93 | 0.00 |
| 7 | L1,Agasoline(7) | 1.072 | 1.004 | E3 | 6.3 | 93 | 0.00 |
| 8 | L1,Agasoline(8) | 528.717 | 496.199 | | 6.2 | 93 | 0.00 |
| 9 | L1,Agasoline(9) | 1.709 | 1.609 | E3 | 5.9 | 93 | 0.00 |
| 10 | L1,Agasoline(10) | 399.413 | 364.298 | | 8.8 | 89 | 0.00 |
| 61 | S 1-chloro-2-fluorobenzene | 34.798 | 32.108 | E3 | 7.7 | 94 | -0.01 |
| | S 1-chlorooctadecane | 44.344 | 41.592 | E3 | 6.2 | 92 | 0.00 |
| | S p-terphenyl | 53.559 | 52.030 | E3 | 2.9 | 91 | 0.00 |

$\bar{X} = 4.0$

Signal #2

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | L1,Agasoline(1) | 1.923 | 2.110 | E3 | -9.7 | 100 | 0.01 |
| 2 | L1,Agasoline(2) | 484.649 | 461.680 | | 4.7 | 100 | 0.01 |
| 3 | L1,Agasoline(3) | 736.575 | 721.883 | | 2.0 | 97 | 0.01 |
| 4 | L1,Agasoline(4) | 4.146 | 4.050 | E3 | 2.3 | 97 | 0.01 |
| 5 | L1,Agasoline(5) | 3.333 | 3.263 | E3 | 2.1 | 97 | 0.00 |
| 6 | L1,Agasoline(6) | 1.315 | 1.284 | E3 | 2.4 | 97 | 0.00 |
| 7 | L1,Agasoline(7) | 1.701 | 1.641 | E3 | 3.5 | 97 | 0.00 |
| 8 | L1,Agasoline(8) | 596.979 | 582.986 | | 2.3 | 98 | 0.00 |
| 9 | L1,Agasoline(9) | 1.850 | 1.823 | E3 | 1.5 | 97 | 0.00 |
| 10 | L1,Agasoline(10) | 433.857 | 423.385 | | 2.4 | 97 | 0.00 |
| 61 | S 1-chloro-2-fluorobenzene | 37.947 | 35.306 | E3 | 7.0 | 97 | 0.00 |
| 62 | S 1-chlorooctadecane | 31.519 | 29.423 | E3 | 6.6 | 91 | 0.00 |
| 63 | S p-terphenyl | 31.312 | 29.371 | E3 | 6.2 | 87 | 0.00 |

$\bar{X} = 3.3$

(#) = Out of Range  SPCC's out = 0  CCC's out = 0
135_04.D TPH.M  Tue Jan 22 11:01:40 2002  GRO

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\3\DATA\135\135_28.D\FID1A.CH  Vial: 28
Acq On : 22 Jan 2002 9:44  Operator: SAB 5997
Sample : FID A713 L4  Inst : GC/FID In
Misc : MIX [S,D]  Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_28.D\FID2B.CH  Vial: 28
Acq On : 22 Jan 2002 10:24  Operator: SAB 5997
Sample : FID A713 L4  Inst : GC/FID In
Misc : MIX [S,D]  Multiplr: 1.00
IntFile : EVENTS2.E

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

| | Compound | AvgRF | CCRF | | %Dev | Area% | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 51 | L6,Ddiesel (1) | 742.524 | 737.091 | | 0.7 | 94 | 0.00 |
| 52 | L6,Ddiesel (2) | 1.287 | 1.332 | E3 | -3.5 | 99 | 0.00 |
| 53 | L6,Ddiesel (3) | 1.368 | 1.536 | E3 | -12.3 | 110 | 0.00 |
| 54 | L6,Ddiesel (4) | 1.566 | 1.572 | E3 | -0.4 | 95 | 0.00 |
| 55 | L6,Ddiesel (5) | 1.408 | 1.414 | E3 | -0.4 | 95 | 0.00 |
| 56 | L6,Ddiesel (6) | 1.186 | 1.193 | E3 | -0.6 | 95 | 0.00 |
| 57 | L6,Ddiesel (7) | 0.985 | 1.012 | E3 | -2.7 | 96 | 0.00 |
| 58 | L6,Ddiesel (8) | 731.905 | 732.951 | | -0.1 | 96 | 0.00 |
| 59 | L6,Ddiesel (9) | 636.598 | 681.849 | | -7.1 | 95 | 0.00 |
| 60 | L6,Ddiesel (10) | 354.391 | 373.758 | | -5.5 | 97 | 0.00 |
| S | 1-chloro-2-fluorobenzene | 34.798 | 27.874 | E3 | 19.9# | 82 | 0.00 |
| S | 1-chlorooctadecane | 44.344 | 43.512 | E3 | 1.9 | 96 | 0.00 |
| 63 S | p-terphenyl | 53.559 | 53.347 | E3 | 0.4 | 93 | 0.00 |

$\bar{X}$=3.3

Signal #2

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 51 | L6,Ddiesel (1) | 869.403 | 884.285 | | -1.7 | 95 | 0.00 |
| 52 | L6,Ddiesel (2) | 1.321 | 1.329 | E3 | -0.6 | 95 | 0.00 |
| 53 | L6,Ddiesel (3) | 1.486 | 1.424 | E3 | 4.2 | 95 | 0.00 |
| 54 | L6,Ddiesel (4) | 1.593 | 1.522 | E3 | 4.5 | 96 | 0.00 |
| 55 | L6,Ddiesel (5) | 1.757 | 1.822 | E3 | -3.7 | 101 | 0.00 |
| 56 | L6,Ddiesel (6) | 1.122 | 1.177 | E3 | -4.9 | 96 | 0.00 |
| 57 | L6,Ddiesel (7) | 840.103 | 868.206 | | -3.3 | 95 | 0.00 |
| 58 | L6,Ddiesel (8) | 667.878 | 698.419 | | -4.6 | 95 | 0.00 |
| 59 | L6,Ddiesel (9) | 484.454 | 498.938 | | -3.0 | 93 | 0.00 |
| 60 | L6,Ddiesel (10) | 310.894 | 356.891 | | -14.8 | 107 | 0.00 |
| 61 S | 1-chloro-2-fluorobenzene | 37.947 | 31.381 | E3 | 17.3# | 87 | 0.00 |
| 62 S | 1-chlorooctadecane | 31.519 | 29.827 | E3 | 5.4 | 92 | 0.00 |
| 63 S | p-terphenyl | 31.312 | 29.783 | E3 | 4.9 | 88 | 0.00 |

$\bar{X}$=4.5

(#) = Out of Range  SPCC's out = 0  CCC's out = 0
135_04.D TPH.M  Tue Jan 22 11:03:37 2002 GRO

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_02.D\FID1A.CH Vial: 2
Acq On : 16 Jan 2002 17:13 Operator: SAB 5997
Sample : PCS Inst : GC/FID In
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_02.D\FID2B.CH Vial: 2
Acq On : 16 Jan 2002 17:53 Operator: SAB 5997
Sample : PCS Inst : GC/FID In
Misc : Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:13 2002 Quant Results File: PCSTPH.RES

Quant Method : C:\HPCHEM\3\METHODS\PCSTPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:13:09 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| | Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | Conc#1 | Conc#2 |
|---|---|---|---|---|---|---|---|
| | Target Compounds | | | | | | |
| 1) | C-6 | 1.77 | 1.79 | 293636 | 353415 | 4.493 | 6.000 # |
| 2) | C-7 | 2.42 | 2.45 | 456825 | 491288 | 2.503 | 6.000 # |
| 3) | toluene | 3.50 | 3.42 | 47933 | 43739 | 0.239 | 1.000 # |
| 4) | C-8 | 4.19 | 4.26 | 664120 | 702658 | 6.402 | 8.000 |
| 5) | ethylbenzene | 6.02 | 5.97 | 44252 | 45757 | 0.168 | 1.000 # |
| 6) | m-xylene | 6.35 | 6.16 | 87171 | 91093 | 0.334 | 1.000 # |
| 7) | o-xylene | 6.80 | 6.64 | 40760 | 46236 | 0.386 | 1.000 # |
| 8) | C-9 | 6.85 | 6.87 | 698484 | 734188 | 6.589 | 8.000 |
| 9) | C-10 | 8.41 | 8.40 | 1058602 | 1116986 | 7.311 | 12.000 # |
| 10) | C-11 | 9.55 | 9.51 | 1084086 | 1136031 | 8.617 | 12.000 # |
| 11) | C-12 | 10.49 | 10.44 | 1100400 | 1141658 | 7.210 | 12.000 # |
| 12) | C-14 | 12.07 | 12.00 | 1137316 | 1158650 | 7.301 | 12.000 # |
| 13) | C-16 | 13.43 | 13.35 | 976634 | 983689 | 6.305 | 10.000 # |
| 14) | C-18 | 14.64 | 14.56 | 499905 | 488645 | 3.067 | 5.000 # |
| 15) | C-20 | 15.73 | 15.65 | 198894 | 156484 | 1.058 | 2.000 # |
| 16) | C-24 | 17.69 | 17.59 | 193714 | 52690 | 1.856 | 2.000 |
| 17) | C-28 | 20.22 | 20.09 | 88095 | 8938 | 1.027 | 1.000 |
| 18) | C-32 | 25.37 | 25.17 | 39067 | 7573 | 1.020 | 1.000 |
| 19) | C-36 | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\135\135_02.D\FID1A.CH
Acq On : 16 Jan 2002 17:13
Sample : PCS
Misc :
IntFile : AUTOINT1.E

Vial: 2
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

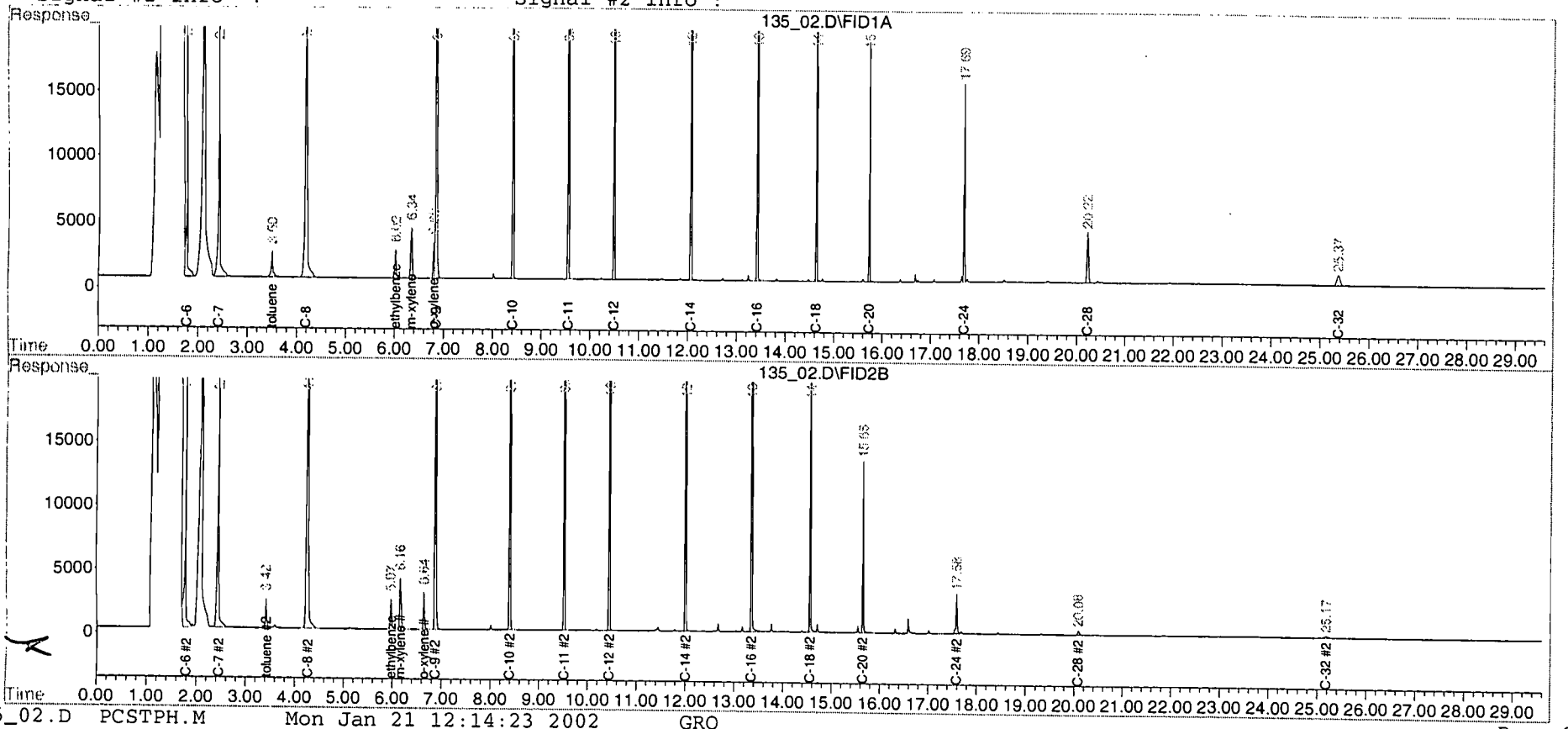
Data File : C:\HPCHEM\3\DATA\135\135_02.D\FID2B.CH
Acq On : 16 Jan 2002 17:53
Sample : PCS
Misc :
IntFile : EVENTS2.E

Vial: 2
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 12:13 2002 Quant Results File: PCSTPH.RES

Quant Method : C:\HPCHEM\3\METHODS\PCSTPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:13:09 2002
Response via : Single Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





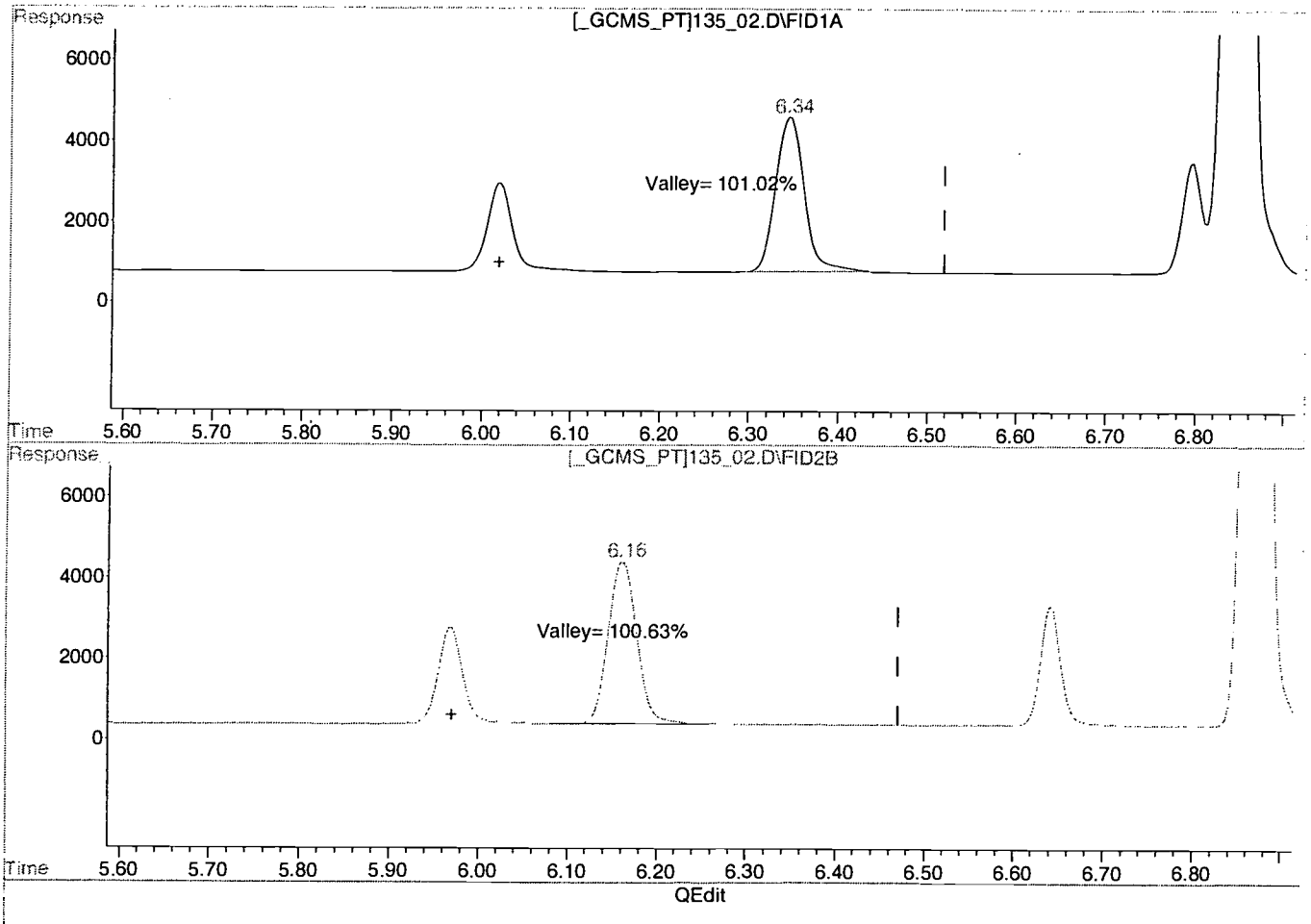

30

Quantitation Report (Qedit)

Data File : C:\HPCHEM\3\DATA\135\135_02.D\FID1A.CH  Vial: 2
Acq On : 16 Jan 2002 17:13  Operator: SAB 5997
Sample : PCS  Inst : GC/FID In
Misc :  Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_02.D\FID2B.CH  Vial: 2
Acq On : 16 Jan 2002 17:53  Operator: SAB 5997
Sample : PCS  Inst : GC/FID In
Misc :  Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:13 2002 Quant Results File: PCSTPH.RES

Method : C:\HPCHEM\3\METHODS\PCSTPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:13:09 2002
Response via : Multiple Level Calibration




(5) ethylbenzene

6.02min 0.168

response 44252

(5) ethylbenzene #2

5.97min 1.000

response 45757

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data File : C:\HPCHEM\3\DATA\135\135_02.D\FID1A.CH
Acq On : 16 Jan 2002 17:13
Sample : PCS
Misc :
IntFile : AUTOINT1.E

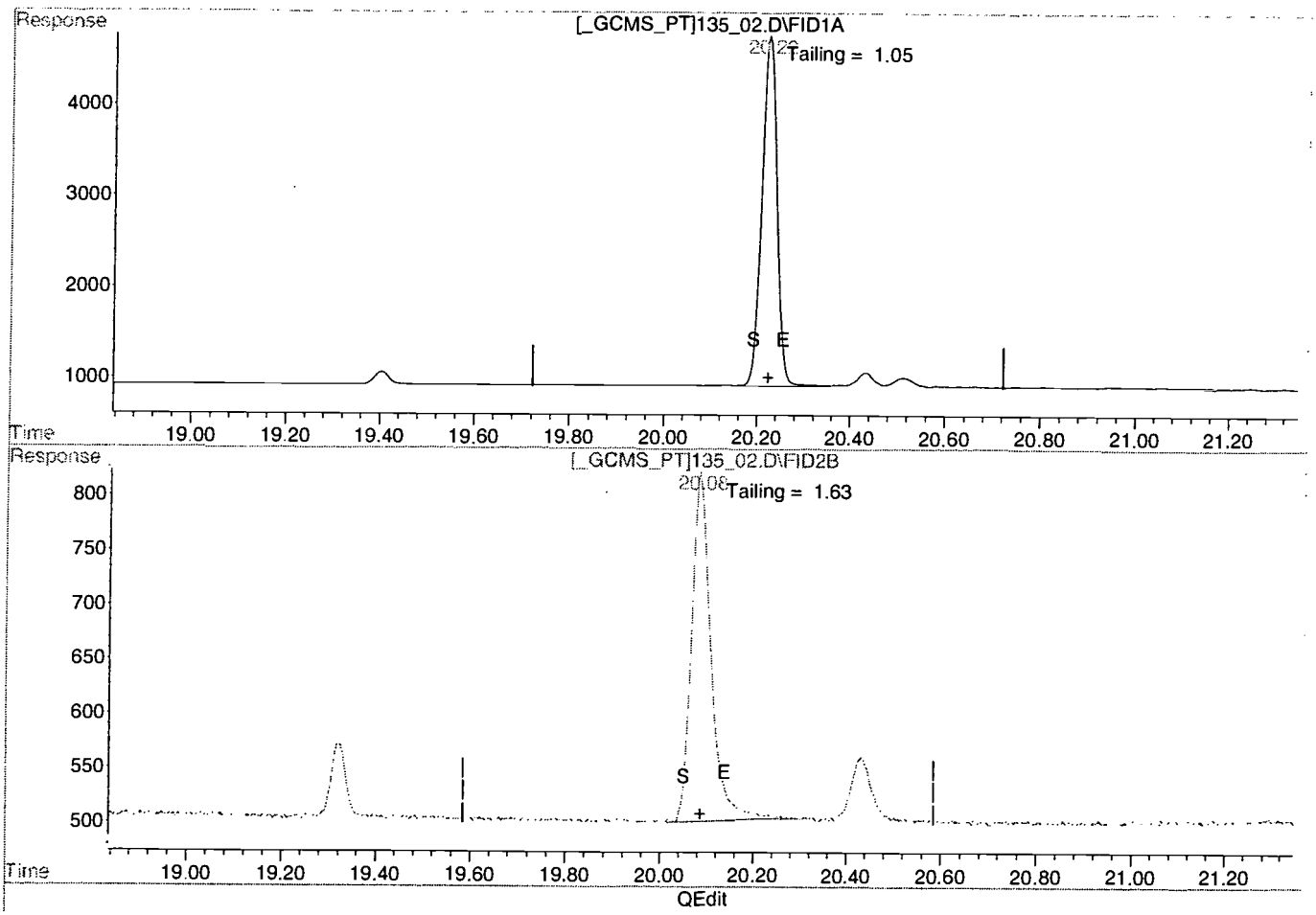
Vial: 2
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\135\135_02.D\FID2B.CH
Acq On : 16 Jan 2002 17:53
Sample : PCS
Misc :
IntFile : EVENTS2.E

Vial: 2
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 12:13 2002 Quant Results File: PCSTPH.RES

Method : C:\HPCHEM\3\METHODS\PCSTPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:13:09 2002
Response via : Multiple Level Calibration




(17) C-28

20.22min 1.027

response 88095

(17) C-28 #2

20.09min 1.000

response 8938

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_03.D\FID1A.CH Vial: 3
Acq On : 16 Jan 2002 17:53 Operator: SAB 5997
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_03.D\FID2B.CH Vial: 3
Acq On : 16 Jan 2002 18:33 Operator: SAB 5997
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:19 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 11:57:33 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.00 | 5.98 | 342529 | 358738 | 9.843 | 9.454 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 98.43% | 94.54% |
| 62) S 1-chlorooctadeca | 16.22f | 16.12 | 885302 | 598950 | 19.964m | 19.003 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 99.82% | 95.02% |
| 63) S p-terphenyl | 16.92f | 16.78 | 554337 | 295863 | 10.350m | 9.449 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 103.50% | 94.49% |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 2.33 | 2.32 | 71814 | 104144 | 52.737 | 54.164 |
| 2) L1,A gasoline(2) | 2.42 | 2.44 | 24398 | 22996 | 51.906m | 47.449m |
| 3) L1,A gasoline(3) | 3.10 | 3.12 | 35832 | 35955 | 53.284 | 48.814 |
| 4) L1,A gasoline(4) | 3.51 | 3.42 | 173712 | 204222 | 52.916m | 49.254 |
| 5) L1,A gasoline(5) | 6.35 | 6.15 | 149021 | 165507 | 49.601 | 49.658 |
| 6) L1,A gasoline(6) | 6.81 | 6.64 | 59396 | 65336 | 51.519 | 49.672 |
| 7) L1,A gasoline(7) | 7.94 | 7.83 | 53641 | 83310 | 50.023 | 48.971 |
| 8) L1,A gasoline(8) | 8.15 | 7.93 | 26477 | 29393 | 50.078 | 49.236 |
| 9) L1,A gasoline(9) | 8.47 | 8.27 | 85730 | 91793 | 50.177 | 49.621 |
| 10) L1,A gasoline(10) | 8.81 | 8.64 | 19662 | 21522 | 49.228 | 49.607 |
| Sum gasoline(1) | | | 699683 | 824178 | 511.470 | 496.446 |
| Average gasoline(1) | | | | | 51.147 | 49.645 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_03.D\FID1A.CH Vial: 3
Acq On : 16 Jan 2002 17:53 Operator: SAB 5997
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_03.D\FID2B.CH Vial: 3
Acq On : 16 Jan 2002 18:33 Operator: SAB 5997
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:19 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 11:57:33 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. |
| Average mineral spirits ( | | | | | 0.000 | 0.000 |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 49) L5,K kerosene (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum kerosene (1) | | | 0 | 0 | N.D. | N.D. |
| Average kerosene (1) | | | | | 0.000 | 0.000 |
| 51) L6,D diesel (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 52) L6,D diesel (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 53) L6,D diesel (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 54) L6,D diesel (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 55) L6,D diesel (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 56) L6,D diesel (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 57) L6,D diesel (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 58) L6,D diesel (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 59) L6,D diesel (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum diesel (1) | | | 0 | 0 | N.D. | N.D. |
| Average diesel (1) | | | | | 0.000 | 0.000 |
| 64) L7,O motor oil (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 67) L7,O motor oil (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_03.D\FID1A.CH Vial: 3
Acq On : 16 Jan 2002 17:53 Operator: SAB 5997
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_03.D\FID2B.CH Vial: 3
Acq On : 16 Jan 2002 18:33 Operator: SAB 5997
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:19 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 11:57:33 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 69) L7,O motor oil (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 72) L7,O motor oil (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum motor oil (1) | | | 0 | 0 | N.D. | N.D. |
| Average motor oil (1) | | | | | 0.000 | 0.000 |

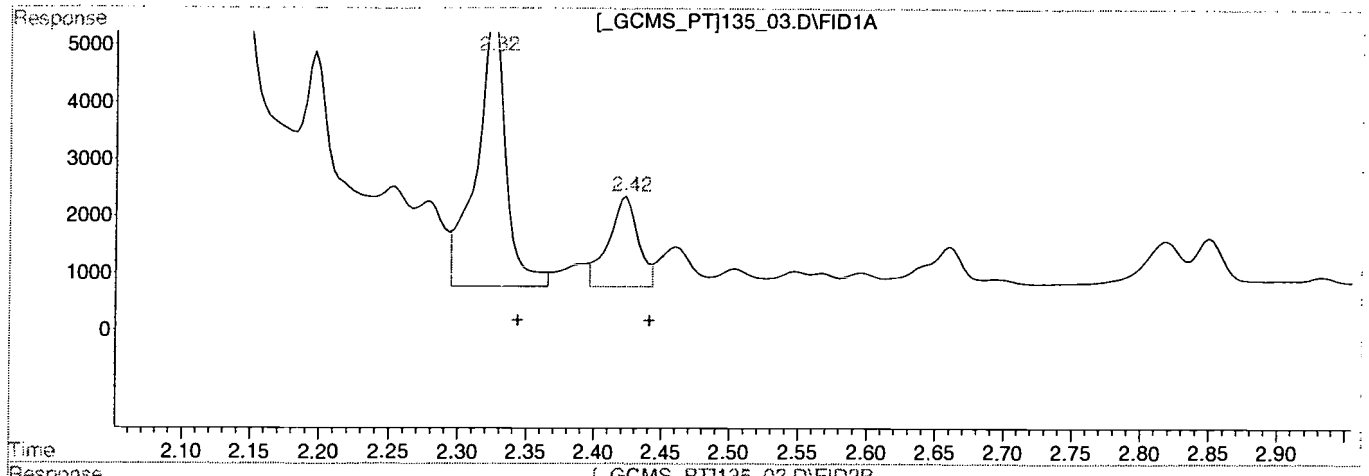
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

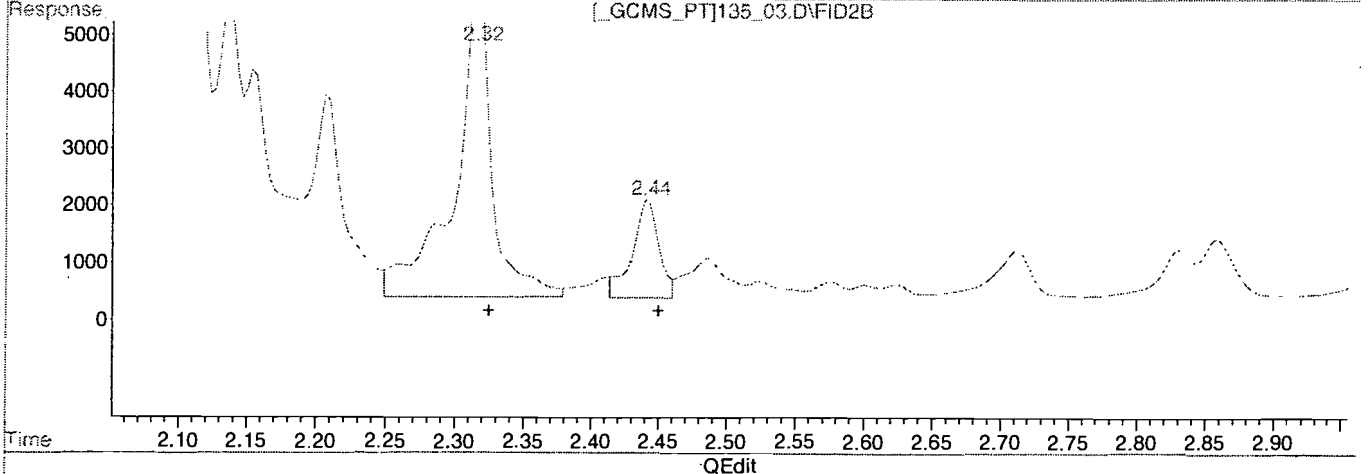
Quantitation Report (Qedit)

Data File : C:\HPCHEM\3\DATA\135\135_03.D\FID1A.CH  Vial: 3
Acq On : 16 Jan 2002 17:53  Operator: SAB 5997
Sample : FID A 712 L4  Inst : GC/FID In
Misc : MIX [S,A]  Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_03.D\FID2B.CH  Vial: 3
Acq On : 16 Jan 2002 18:33  Operator: SAB 5997
Sample : FID A 712 L4  Inst : GC/FID In
Misc : MIX [S,A]  Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:15 2002 Quant Results File: TPH.RES

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 11:57:33 2002
Response via : Multiple Level Calibration




QEdit

(1) gasoline(1) #2 (L1,A)

| R.T. | Response | Conc |
|---|---|---|
| 2.33 | 71814 | 52.74 |
| 2.42 | 24398 | 51.91 |
| 3.10 | 35832 | 53.28 |
| 3.51 | 193137 | 58.83 |
| 6.35 | 149021 | 49.60 |
| 6.81 | 59396 | 51.52 |
| 7.94 | 53641 | 50.02 |
| 8.15 | 26477 | 50.08 |
| 8.47 | 85730 | 50.18 |
| 8.81 | 19662 | 49.23 |

(1) gasoline(1) #2 (L1,A)

| R.T. | Response | Conc |
|---|---|---|
| 2.32 | 104144 | 54.16 |
| 2.44 | 22996 | 47.45 |
| 3.12 | 35955 | 48.81 |
| 3.42 | 204222 | 49.25 |
| 6.15 | 165507 | 49.66 |
| 6.64 | 65336 | 49.67 |
| 7.83 | 83310 | 48.97 |
| 7.93 | 29393 | 49.24 |
| 8.27 | 91793 | 49.62 |
| 8.64 | 21522 | 49.61 |

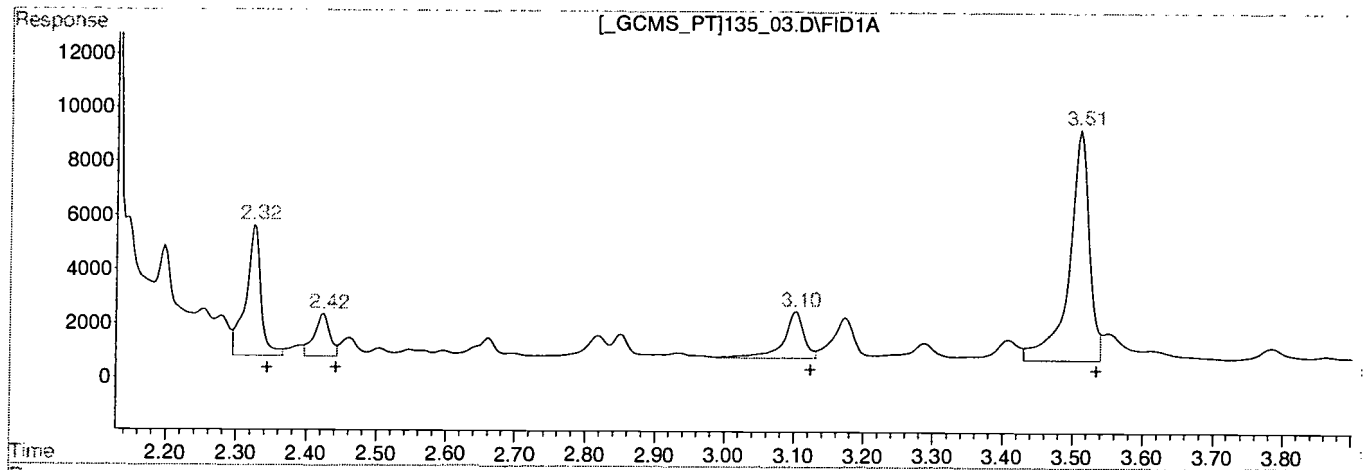
(+) = Expected Retention Time

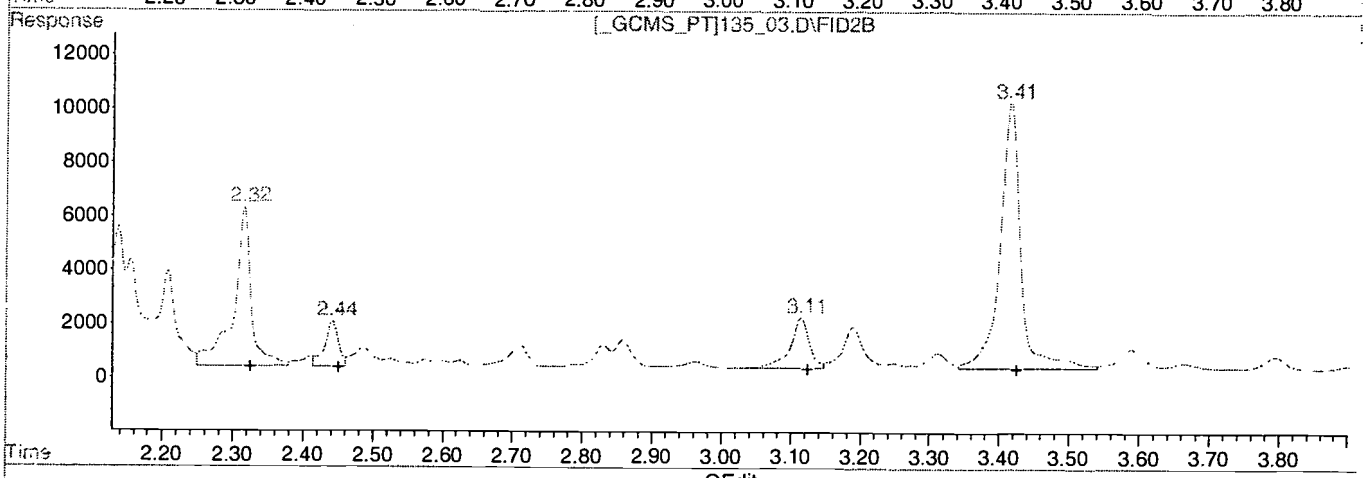
Quantitation Report (Qedit)

Data File : C:\HPCHEM\3\DATA\135\135_03.D\FID1A.CH  Vial: 3
Acq On : 16 Jan 2002 17:53  Operator: SAB 5997
Sample : FID A 712 L4  Inst : GC/FID In
Misc : MIX [S,A]  Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_03.D\FID2B.CH  Vial: 3
Acq On : 16 Jan 2002 18:33  Operator: SAB 5997
Sample : FID A 712 L4  Inst : GC/FID In
Misc : MIX [S,A]  Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:15 2002 Quant Results File: TPH.RES

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 11:57:33 2002
Response via : Multiple Level Calibration




(1) gasoline(1) #2 (L1,A)

| R.T. | Response | Conc |
|---|---|---|
| 2.33 | 71814 | 52.74 |
| 2.42 | 24398 | 51.91 |
| 3.10 | 35832 | 53.28 |
| 3.51 | 173712 | 52.92 |
| 6.35 | 149021 | 49.60 |
| 6.81 | 59396 | 51.52 |
| 7.94 | 53641 | 50.02 |
| 8.15 | 26477 | 50.08 |
| 8.47 | 85730 | 50.18 |
| 8.81 | 19662 | 49.23 |

(1) gasoline(1) #2 (L1,A)

| R.T. | Response | Conc |
|---|---|---|
| 2.32 | 104144 | 54.16 |
| 2.44 | 22996 | 47.45 |
| 3.12 | 35955 | 48.81 |
| 3.42 | 204222 | 49.25 |
| 6.15 | 165507 | 49.66 |
| 6.64 | 65336 | 49.67 |
| 7.83 | 83310 | 48.97 |
| 7.93 | 29393 | 49.24 |
| 8.27 | 91793 | 49.62 |
| 8.64 | 21522 | 49.61 |

(+) = Expected Retention Time

Quantitat[redacted] Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_03.D\FID1A.CH
Acq On : 16 Jan 2002 17:53
Sample : FID A 712 L4
Misc : MIX [S,A]
IntFile : AUTOINT1.E

Vial: 3
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\135\135_03.D\FID2B.CH
Acq On : 16 Jan 2002 18:33
Sample : FID A 712 L4
Misc : MIX [S,A]
IntFile : EVENTS2.E

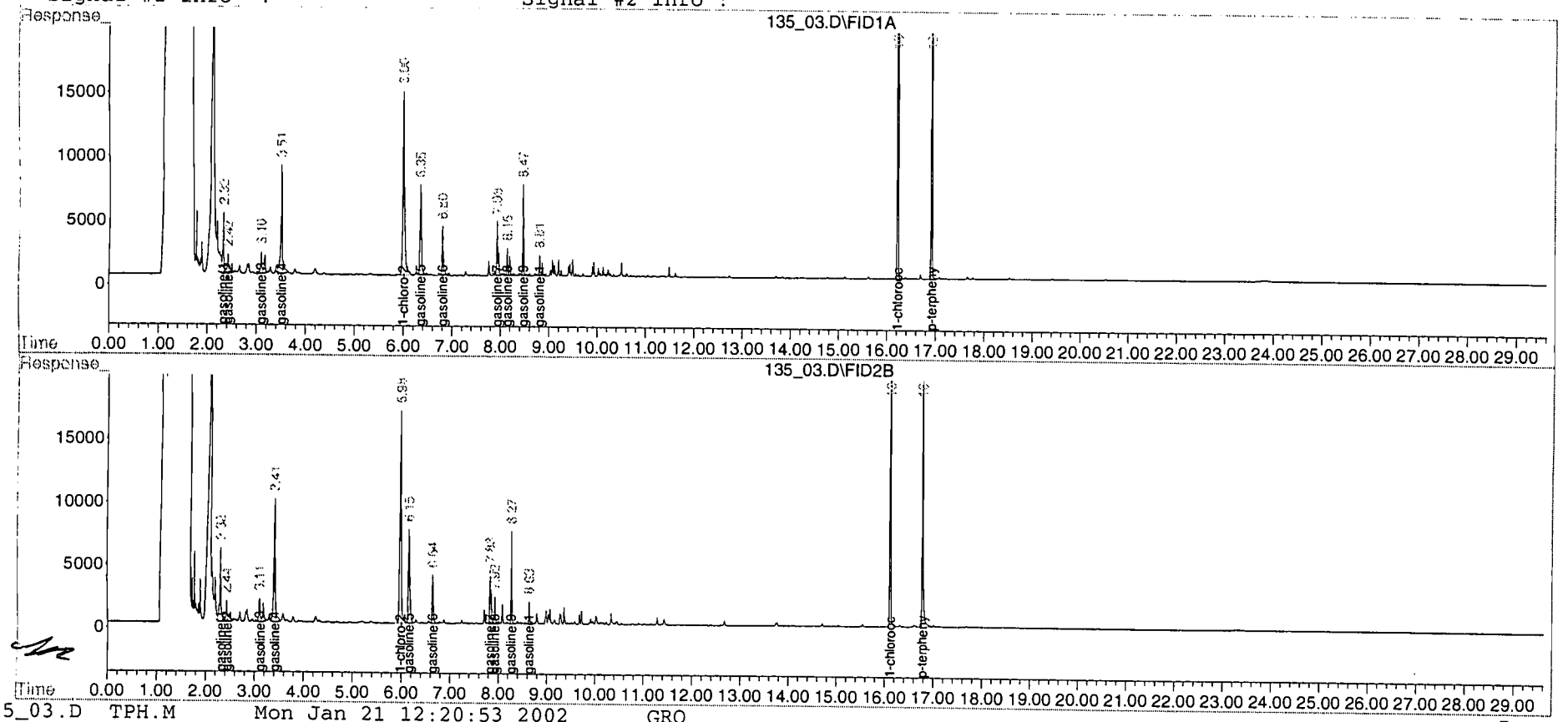
Vial: 3
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 12:19 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 11:57:33 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :

Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_04.D\FID1A.CH Vial: 4
Acq On : 16 Jan 2002 18:33 Operator: SAB 5997
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_04.D\FID2B.CH Vial: 4
Acq On : 16 Jan 2002 19:13 Operator: SAB 5997
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:22 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.01 | 5.98 | 297021 | 321073 | 8.536 | 8.461 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 85.36% | 84.61% |
| 62) S 1-chlorooctadeca | 16.23 | 16.12 | 932223 | 619163 | 21.022 | 19.644 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 105.11% | 98.22% |
| 63) S p-terphenyl | 16.93 | 16.78 | 574394 | 308758 | 10.725 | 9.861 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 107.25% | 98.61% |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 2.44 | 0 | 1418 | N.D. | 2.926 # |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 3.52 | 3.42 | 1621 | 4948 | 0.494 | 1.193 # |
| 5) L1,A gasoline(5) | 6.36 | 6.15 | 8940 | 12149 | 2.975 | 3.645 |
| 6) L1,A gasoline(6) | 6.81 | 6.64 | 3364 | 4528 | 2.918 | 3.443 |
| 7) L1,A gasoline(7) | 7.94 | 7.83 | 12775 | 14718 | 11.914 | 8.651 # |
| 8) L1,A gasoline(8) | 8.16 | 7.92 | 11735 | 9681 | 22.196 | 16.217 # |
| 9) L1,A gasoline(9) | 8.48 | 8.27 | 14647 | 16133 | 8.573 | 8.721 |
| 10) L1,A gasoline(10) | 8.82 | 8.64 | 11870 | 13819 | 29.717 | 31.851 |
| Sum gasoline(1) | | | 64952 | 77393 | 78.787 | 76.648 |
| Average gasoline(1) | | | | | 11.255 | 9.581 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 6.30 | 0 | 3899 | N.D. | NoCal |
| 15) L2,J JP-4 (5) | 0.00 | 6.64 | 0 | 4528 | N.D. | NoCal |
| 16) L2,J JP-4 (6) | 8.68 | 8.00 | 5059 | 7672 | NoCal | NoCal |
| 17) L2,J JP-4 (7) | 9.75 | 9.21 | 15308 | 9520 | NoCal | NoCal |
| 18) L2,J JP-4 (8) | 10.70 | 0.00 | 14551 | 0 | NoCal | N.D. |
| 19) L2,J JP-4 (9) | 11.55 | 0.00 | 28675 | 0 | NoCal | N.D. |
| 20) L2,J JP-4 (10) | 12.26 | 11.78 | 23748 | 44690 | NoCal | NoCal |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 6.86 | 6.87 | 11835 | 11547 | 8.917 | 10.827 |
| 22) L3,P mineral spirits | 7.47 | 7.45 | 5341 | 6337 | 5.694 | 7.520 # |
| 23) L3,P mineral spirits | 7.90 | 7.56 | 6165 | 6473 | 6.792 | 8.121 |
| 24) L3,P mineral spirits | 8.03 | 8.00 | 7847 | 7672 | 5.382 | 6.149 |
| [illegible] L3,P mineral spirits | 8.42 | 8.39 | 34618 | 37478 | 10.107 | 10.639 |
| [illegible] L3,P mineral spirits | 8.72 | 8.67 | 15652 | 17029 | 9.840 | 8.605 |
| 27) L3,P mineral spirits | 9.26 | 9.14 | 13369 | 19335 | 12.624 | 13.901 |
| 28) L3,P mineral spirits | 9.56 | 9.51 | 78861 | 91038 | 23.374 | 21.500 |
| 29) L3,P mineral spirits | 9.84 | 10.03 | 29089 | 46101 | 26.768 | 55.386 # |
| 30) L3,P mineral spirits | 10.50 | 10.44 | 142157 | 137059 | 138.525 | 142.940 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_04.D\FID1A.CH Vial: 4
Acq On : 16 Jan 2002 18:33 Operator: SAB 5997
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_04.D\FID2B.CH Vial: 4
Acq On : 16 Jan 2002 19:13 Operator: SAB 5997
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:22 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 344932 | 380069 | 248.023 | 285.588 |
| Average mineral spirits ( | | | | | 24.802 | 28.559 |
| 31) L4,X SC-150 (1) | 0.00 | 9.14 | 0 | 19335 | N.D. | NoCal |
| 32) L4,X SC-150 (2) | 9.31 | 9.14 | 11318 | 19335 | NoCal | NoCal |
| 33) L4,X SC-150 (3) | 9.31 | 9.21 | 11318 | 9520 | NoCal | NoCal |
| 34) L4,X SC-150 (4) | 9.50 | 0.00 | 13550 | 0 | NoCal | N.D. |
| 35) L4,X SC-150 (5) | 9.61 | 9.56 | 11691 | 6899 | NoCal | NoCal |
| 36) L4,X SC-150 (6) | 9.94 | 9.86 | 15776 | 15244 | NoCal | NoCal |
| 37) L4,X SC-150 (7) | 0.00 | 9.90 | 0 | 13812 | N.D. | NoCal |
| 38) L4,X SC-150 (8) | 10.18 | 10.08 | 22853 | 18647 | NoCal | NoCal |
| 39) L4,X SC-150 (9) | 10.28 | 10.34 | 21369 | 45204 | NoCal | NoCal |
| 40) L4,X SC-150 (10) | 0.00 | 10.89 | 0 | 43168 | N.D. | NoCal |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 6.86 | 6.87 | 11835 | 11547 | 20.379 | 21.443 |
| 42) L5,K kerosene (2) | 8.42 | 8.39 | 34618 | 37478 | 25.609 | 27.406 |
| 43) L5,K kerosene (3) | 8.48 | 9.51 | 14647 | 91038 | 34.109 | 40.867 |
| 44) L5,K kerosene (4) | 9.56 | 10.44 | 78861 | 137059 | 39.617 | 59.371 # |
| 45) L5,K kerosene (5) | 10.50 | 10.56 | 142157 | 48842 | 62.377 | 59.455 |
| 46) L5,K kerosene (6) | 11.32 | 11.04 | 141110 | 84252 | 71.554 | 74.011 |
| 47) L5,K kerosene (7) | 12.08 | 11.25 | 167948 | 146939 | 111.984 | 64.031 # |
| 48) L5,K kerosene (8) | 12.54 | 12.00 | 86389 | 157213 | 132.118 | 111.554 |
| 49) L5,K kerosene (9) | 12.78 | 12.70 | 151785 | 182106 | 158.432 | 149.594 |
| 50) L5,K kerosene (10) | 13.44 | 13.35 | 127800 | 121460 | 307.224 | 342.109 |
| Sum kerosene (1) | | | 957149 | 1017934 | 963.402 | 949.841 |
| Average kerosene (1) | | | | | 96.340 | 94.984 |
| 51) L6,D diesel (1) | 9.56 | 9.51 | 78861 | 91038 | 106.206 | 104.714 |
| 52) L6,D diesel (2) | 10.50 | 10.44 | 142157 | 137059 | 110.493 | 103.762 |
| 53) L6,D diesel (3) | 11.32 | 11.25 | 141110 | 146939 | 103.167 | 98.913 |
| 54) L6,D diesel (4) | 12.08 | 12.00 | 167948 | 157213 | 107.240 | 98.663 |
| 55) L6,D diesel (5) | 12.78 | 12.70 | 151785 | 182106 | 107.780 | 103.668 |
| 56) L6,D diesel (6) | 13.44 | 13.35 | 127800 | 121460 | 107.783 | 108.205 |
| 57) L6,D diesel (7) | 14.06 | 13.97 | 107983 | 90468 | 109.614 | 107.687 |
| 58) L6,D diesel (8) | 14.65 | 14.55 | 78587 | 72964 | 107.373 | 109.247 |
| 59) L6,D diesel (9) | 15.21 | 15.11 | 69973 | 53663 | 109.917 | 110.770 |
| 60) L6,D diesel (10) | 15.75 | 15.65 | 39318 | 32859 | 110.945 | 105.690 |
| Sum diesel (1) | | | 1105522 | 1085769 | 1080.519 | 1051.318 |
| Average diesel (1) | | | | | 108.052 | 105.132 |
| 64) L7,O motor oil (1) | 14.69 | 14.55 | 12796 | 72964 | 213.984 | 2201.579 # |
| 65) L7,O motor oil (2) | 15.27 | 15.11 | 12903 | 53663 | 136.191 | 991.357 # |
| 66) L7,O motor oil (3) | 0.00 | 15.65 | 0 | 32859 | N.D. | 376.332 # |
| 67) L7,O motor oil (4) | 0.00 | 15.85 | 0 | 10194 | N.D. | 116.514 # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_04.D\FID1A.CH Vial: 4
Acq On : 16 Jan 2002 18:33 Operator: SAB 5997
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_04.D\FID2B.CH Vial: 4
Acq On : 16 Jan 2002 19:13 Operator: SAB 5997
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:22 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| | Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|---|
| 68) | L7,O motor oil (5) | 17.44 | 0.00 | 691 | 0 | 1.378 | N.D. | # |
| 69) | L7,O motor oil (6) | 17.95 | 0.00 | 74 | 0 | 0.137 | N.D. | # |
| 70) | L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 71) | L7,O motor oil (8) | 19.09 | 0.00 | 326 | 0 | 0.300 | N.D. | # |
| 72) | L7,O motor oil (9) | 19.77 | 0.00 | 218 | 0 | 0.326 | N.D. | # |
| 73) | L7,O motor oil (10) | 20.62 | 0.00 | 807 | 0 | 1.408 | N.D. | # |
| | Sum motor oil (1) | | | 27816 | 169679 | 353.725 | 3685.783 | |
| | Average motor oil (1) | | | | | 50.532 | 921.446 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\135\135_04.D\FID1A.CH
Acq On : 16 Jan 2002 18:33
Sample : FID A 713 L4
Misc : MIX [S,D]
IntFile : AUTOINT1.E

Vial: 4
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\135\135_04.D\FID2B.CH
Acq On : 16 Jan 2002 19:13
Sample : FID A 713 L4
Misc : MIX [S,D]
IntFile : EVENTS2.E

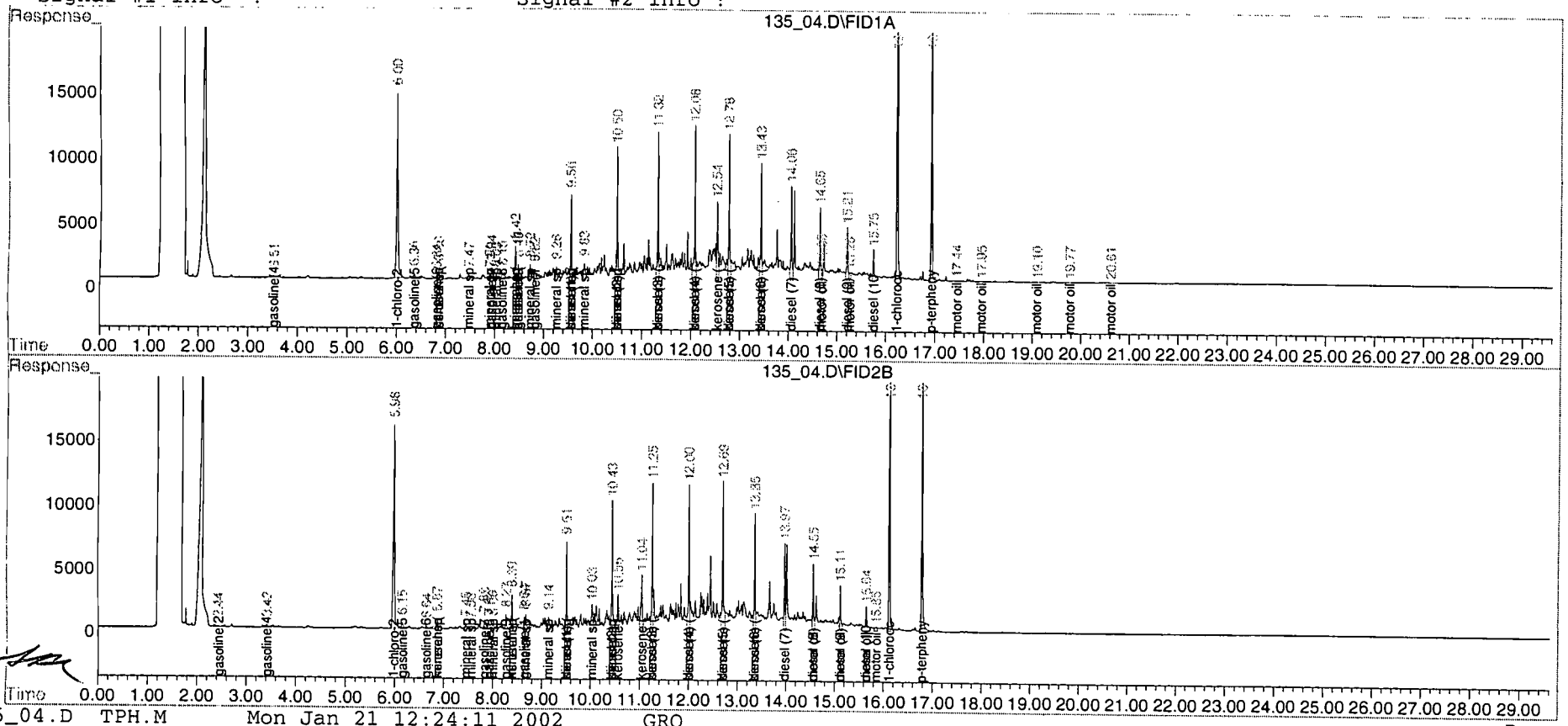
Vial: 4
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 12:22 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :

Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_05.D\FID1A.CH Vial: 5
Acq On : 16 Jan 2002 19:13 Operator: SAB 5997
Sample : FID A 651 L3 Inst : GC/FID In
Misc : MIX [K] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_05.D\FID2B.CH Vial: 5
Acq On : 16 Jan 2002 19:53 Operator: SAB 5997
Sample : FID A 651 L3 Inst : GC/FID In
Misc : MIX [S,K] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:24 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 0.00 | 5.98 | 0 | 2579 | N.D. | 0.068 # |
| Spiked Amount | 10.000 | Range 50 - 150 | Recovery | = | 0.00%# | 0.68%# |
| 62) S 1-chlorooctadeca | 16.23 | 0.00 | 271 | 0 | 0.006 | N.D. # |
| Spiked Amount | 20.000 | Range 50 - 150 | Recovery | = | 0.03%# | 0.00%# |
| 63) S p-terphenyl | 16.95 | 0.00 | 411 | 0 | 0.008 | N.D. # |
| Spiked Amount | 10.000 | Range 50 - 150 | Recovery | = | 0.08%# | 0.00%# |
| Target Compounds | | | | | | |
| L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 0.00 | 3.44 | 0 | 4232 | N.D. | 1.021 # |
| 5) L1,A gasoline(5) | 6.36 | 6.16 | 8583 | 16198 | 2.857 | 4.860 # |
| 6) L1,A gasoline(6) | 6.82 | 6.65 | 3912 | 5398 | 3.393 | 4.104 |
| 7) L1,A gasoline(7) | 7.94 | 7.83 | 17470 | 15009 | 16.291 | 8.823 # |
| 8) L1,A gasoline(8) | 8.16 | 7.92 | 21554 | 20014 | 40.767 | 33.526 |
| 9) L1,A gasoline(9) | 8.48 | 8.27 | 21258 | 22157 | 12.442 | 11.977 |
| 10) L1,A gasoline(10) | 8.82 | 8.64 | 17232 | 19655 | 43.143 | 45.303 |
| Sum gasoline(1) | | | 90009 | 102662 | 118.893 | 109.613 |
| Average gasoline(1) | | | | | 19.816 | 15.659 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 6.30 | 0 | 7750 | N.D. | NoCal |
| 15) L2,J JP-4 (5) | 0.00 | 6.65 | 0 | 5398 | N.D. | NoCal |
| 16) L2,J JP-4 (6) | 8.68 | 8.01 | 10004 | 18208 | NoCal | NoCal |
| 17) L2,J JP-4 (7) | 9.75 | 9.21 | 19455 | 13976 | NoCal | NoCal |
| 18) L2,J JP-4 (8) | 10.70 | 0.00 | 12466 | 0 | NoCal | N.D. |
| 19) L2,J JP-4 (9) | 11.55 | 0.00 | 18774 | 0 | NoCal | N.D. |
| 20) L2,J JP-4 (10) | 12.26 | 11.79 | 15697 | 21469 | NoCal | NoCal |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 6.86 | 6.87 | 23101 | 26865 | 17.406 | 25.189 # |
| 22) L3,P mineral spirits | 7.47 | 7.45 | 14712 | 17948 | 15.684 | 21.297 # |
| 23) L3,P mineral spirits | 7.90 | 7.56 | 16659 | 14328 | 18.355 | 17.976 |
| 24) L3,P mineral spirits | 8.03 | 8.01 | 15401 | 18208 | 10.564 | 14.593 # |
| 25) L3,P mineral spirits | 8.42 | 8.39 | 67577 | 69176 | 19.730 | 19.637 |
| 26) L3,P mineral spirits | 8.72 | 8.67 | 24360 | 27667 | 15.314 | 13.980 |
| 27) L3,P mineral spirits | 9.26 | 9.14 | 21699 | 28407 | 20.489 | 20.424 |
| 28) L3,P mineral spirits | 9.56 | 9.51 | 94219 | 109103 | 27.925 | 25.766 |
| 29) L3,P mineral spirits | 9.84 | 10.03 | 31911 | 40277 | 29.366 | 48.388 # |
| 30) L3,P mineral spirits | 10.50 | 10.44 | 106927 | 119403 | 104.195 | 124.526 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_05.D\FID1A.CH Vial: 5
Acq On : 16 Jan 2002 19:13 Operator: SAB 5997
Sample : FID A 651 L3 Inst : GC/FID In
Misc : MIX [K] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_05.D\FID2B.CH Vial: 5
Acq On : 16 Jan 2002 19:53 Operator: SAB 5997
Sample : FID A 651 L3 Inst : GC/FID In
Misc : MIX [S,K] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:24 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 416567 | 471380 | 279.029 | 331.778 | |
| Average mineral spirits ( | | | | | 27.903 | 33.178 | |
| 31) L4,X SC-150 (1) | 0.00 | 9.14 | 0 | 28407 | N.D. | NoCal | |
| 32) L4,X SC-150 (2) | 9.31 | 9.14 | 15162 | 28407 | NoCal | NoCal | |
| 33) L4,X SC-150 (3) | 9.31 | 9.21 | 15162 | 13976 | NoCal | NoCal | |
| 34) L4,X SC-150 (4) | 9.50 | 0.00 | 16238 | 0 | NoCal | N.D. | |
| 35) L4,X SC-150 (5) | 9.62 | 0.00 | 13638 | 0 | NoCal | N.D. | |
| 36) L4,X SC-150 (6) | 9.94 | 9.87 | 16747 | 14894 | NoCal | NoCal | |
| 37) L4,X SC-150 (7) | 0.00 | 9.90 | 0 | 9598 | N.D. | NoCal | |
| 38) L4,X SC-150 (8) | 10.19 | 10.08 | 23123 | 16967 | NoCal | NoCal | |
| 39) L4,X SC-150 (9) | 10.28 | 10.33 | 22556 | 35143 | NoCal | NoCal | |
| 40) L4,X SC-150 (10) | 0.00 | 10.89 | 0 | 28798 | N.D. | NoCal | |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average SC-150 (1) | | | | | 0.000 | 0.000 | |
| 41) L5,K kerosene (1) | 6.86 | 6.87 | 23101 | 26865 | 39.779 | 49.889 | # |
| 42) L5,K kerosene (2) | 8.42 | 8.39 | 67577 | 69176 | 49.990 | 50.586 | |
| 43) L5,K kerosene (3) | 8.48 | 9.51 | 21258 | 109103 | 49.505 | 48.977 | |
| 44) L5,K kerosene (4) | 9.56 | 10.44 | 94219 | 119403 | 47.332 | 51.723 | |
| 45) L5,K kerosene (5) | 10.50 | 10.56 | 106927 | 41671 | 46.919 | 50.726 | |
| 46) L5,K kerosene (6) | 11.33 | 11.04 | 99528 | 57271 | 50.469 | 50.309 | |
| 47) L5,K kerosene (7) | 12.08 | 11.25 | 79081 | 113636 | 52.730 | 49.518 | |
| 48) L5,K kerosene (8) | 12.54 | 12.00 | 32015 | 85823 | 48.962 | 60.897 | |
| 49) L5,K kerosene (9) | 12.78 | 12.70 | 46183 | 55945 | 48.205 | 45.957 | |
| 50) L5,K kerosene (10) | 13.44 | 13.35 | 20814 | 17634 | 50.036 | 49.668 | |
| Sum kerosene (1) | | | 590703 | 696526 | 483.926 | 508.250 | |
| Average kerosene (1) | | | | | 48.393 | 50.825 | |
| 51) L6,D diesel (1) | 9.56 | 9.51 | 94219 | 109103 | 126.890 | 125.491 | |
| 52) L6,D diesel (2) | 10.50 | 10.44 | 106927 | 119403 | 83.111 | 90.395 | |
| 53) L6,D diesel (3) | 11.33 | 11.25 | 99528 | 113636 | 72.766 | 76.494 | |
| 54) L6,D diesel (4) | 12.08 | 12.00 | 79081 | 85823 | 50.496 | 53.860 | |
| 55) L6,D diesel (5) | 12.78 | 12.70 | 46183 | 55945 | 32.794 | 31.848 | |
| 56) L6,D diesel (6) | 13.44 | 13.35 | 20814 | 17634 | 17.554 | 15.709 | |
| 57) L6,D diesel (7) | 14.06 | 13.98 | 8704 | 4689 | 8.835 | 5.582 | # |
| 58) L6,D diesel (8) | 14.65 | 14.57 | 2637 | 1402 | 3.603 | 2.099 | # |
| 59) L6,D diesel (9) | 15.21 | 0.00 | 828 | 0 | 1.301 | N.D. | # |
| 60) L6,D diesel (10) | 15.75 | 0.00 | 394 | 0 | 1.111 | N.D. | # |
| Sum diesel (1) | | | 459314 | 507634 | 398.459 | 401.479 | |
| Average diesel (1) | | | | | 39.846 | 50.185 | |
| 64) L7,O motor oil (1) | 0.00 | 14.57 | 0 | 1402 | N.D. | 42.292 | # |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 67) L7,O motor oil (4) | 16.51 | 0.00 | 98 | 0 | 0.357 | N.D. | # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_05.D\FID1A.CH Vial: 5
Acq On : 16 Jan 2002 19:13 Operator: SAB 5997
Sample : FID A 651 L3 Inst : GC/FID In
Misc : MIX [K] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_05.D\FID2B.CH Vial: 5
Acq On : 16 Jan 2002 19:53 Operator: SAB 5997
Sample : FID A 651 L3 Inst : GC/FID In
Misc : MIX [S,K] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:24 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 17.45 | 0.00 | 612 | 0 | 1.220 | N.D. | # |
| 69) L7,O motor oil (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 70) L7,O motor oil (7) | 18.46 | 0.00 | 1327 | 0 | 1.601 | N.D. | # |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 72) L7,O motor oil (9) | 19.77 | 0.00 | 215 | 0 | 0.321 | N.D. | # |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum motor oil (1) | | | 2252 | 1402 | 3.500 | 42.292 | |
| Average motor oil (1) | | | | | 0.875 | 42.292 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\135\135_05.D\FID1A.CH
Acq On : 16 Jan 2002 19:13
Sample : FID A 651 L3
Misc : MIX [K]
IntFile : AUTOINT1.E

Vial: 5
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

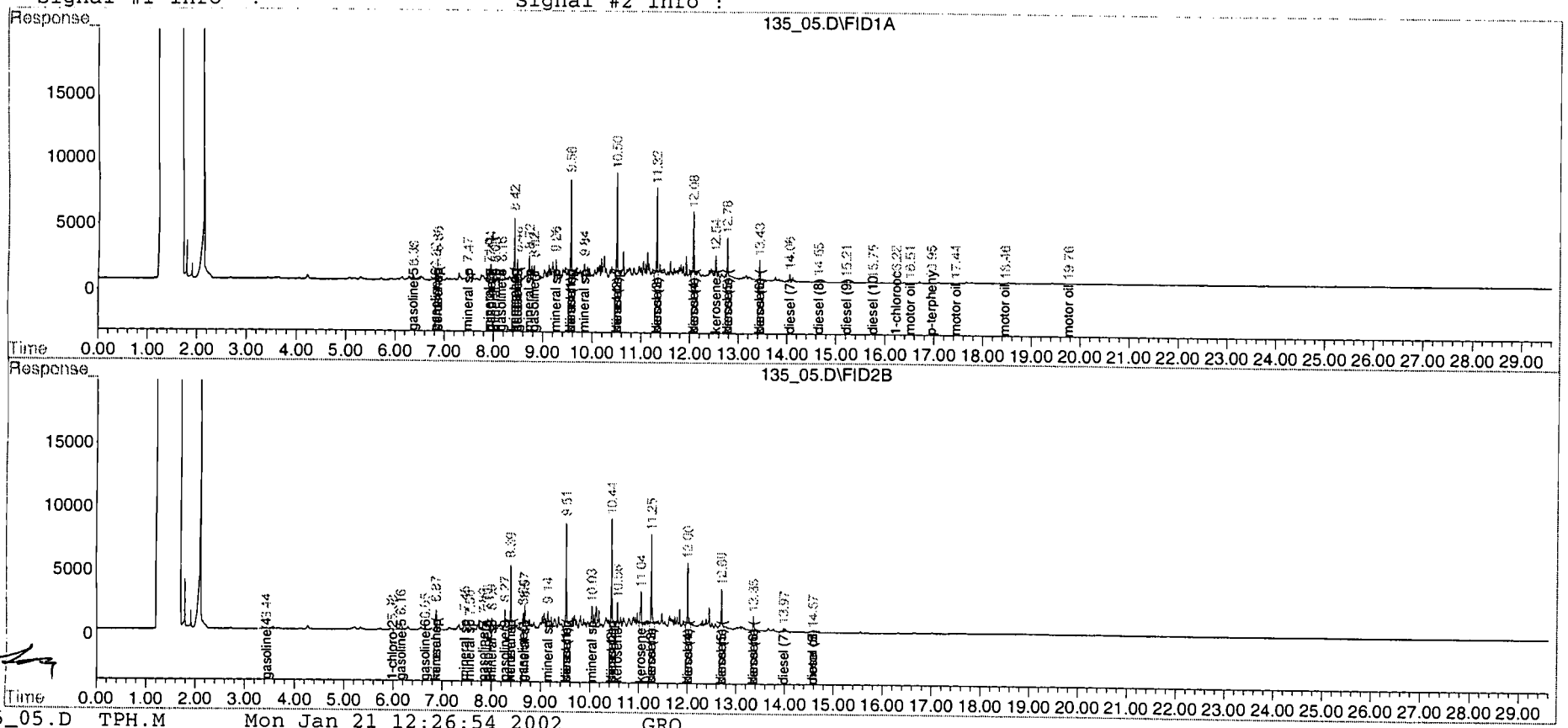
Data File : C:\HPCHEM\3\DATA\135\135_05.D\FID2B.CH
Acq On : 16 Jan 2002 19:53
Sample : FID A 651 L3
Misc : MIX [S,K]
IntFile : EVENTS2.E

Vial: 5
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 12:24 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_06.D\FID1A.CH Vial: 6
Acq On : 16 Jan 2002 19:53 Operator: SAB 5997
Sample : BLA899 TPH W-1301 Inst : GC/FID In
Misc : BLA02 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_06.D\FID2B.CH Vial: 6
Acq On : 16 Jan 2002 20:33 Operator: SAB 5997
Sample : BLA899 TPH W-1301 Inst : GC/FID In
Misc : BLA02 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:27 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.01 | 5.98 | 428070 | 447498 | 12.301 | 11.793 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 123.01% | 117.93% |
| 62) S 1-chlorooctadeca | 16.23 | 16.12 | 1307813 | 880586 | 29.492 | 27.939 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 147.46% | 139.69% |
| 63) S p-terphenyl | 16.93 | 16.78 | 584343 | 312695 | 10.910 | 9.987 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 109.10% | 99.87% |
| Target Compounds | | | | | | |
| L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 5) L1,A gasoline(5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 6) L1,A gasoline(6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 7) L1,A gasoline(7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 8) L1,A gasoline(8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 9) L1,A gasoline(9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 10) L1,A gasoline(10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum gasoline(1) | | | 0 | 0 | N.D. | N.D. |
| Average gasoline(1) | | | | | 0.000 | 0.000 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_06.D\FID1A.CH Vial: 6
Acq On : 16 Jan 2002 19:53 Operator: SAB 5997
Sample : BLA899 TPH W-1301 Inst : GC/FID In
Misc : BLA02 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_06.D\FID2B.CH Vial: 6
Acq On : 16 Jan 2002 20:33 Operator: SAB 5997
Sample : BLA899 TPH W-1301 Inst : GC/FID In
Misc : BLA02 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:27 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. | |
| Average mineral spirits ( | | | | | 0.000 | 0.000 | |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average SC-150 (1) | | | | | 0.000 | 0.000 | |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 47) L5,K kerosene (7) | 12.08 | 0.00 | 642 | 0 | 0.428 | N.D. | # |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 49) L5,K kerosene (9) | 0.00 | 12.68 | 0 | 4235 | N.D. | 3.479 | # |
| 50) L5,K kerosene (10) | 13.44 | 0.00 | 158 | 0 | 0.379 | N.D. | # |
| Sum kerosene (1) | | | 800 | 4235 | 0.807 | 3.479 | |
| Average kerosene (1) | | | | | 0.404 | 3.479 | |
| 51) L6,D diesel (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 52) L6,D diesel (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 53) L6,D diesel (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 54) L6,D diesel (4) | 12.08 | 0.00 | 642 | 0 | 0.410 | N.D. | # |
| 55) L6,D diesel (5) | 0.00 | 12.68 | 0 | 4235 | N.D. | 2.411 | # |
| 56) L6,D diesel (6) | 13.44 | 0.00 | 158 | 0 | 0.133 | N.D. | # |
| 57) L6,D diesel (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 58) L6,D diesel (8) | 14.65 | 14.56 | 489 | 471 | 0.668 | 0.706 | |
| 59) L6,D diesel (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 60) L6,D diesel (10) | 15.75 | 0.00 | 244 | 0 | 0.689 | N.D. | # |
| Sum diesel (1) | | | 1533 | 4707 | 1.900 | 3.117 | |
| Average diesel (1) | | | | | 0.475 | 1.558 | |
| 64) L7,O motor oil (1) | 0.00 | 14.56 | 0 | 471 | N.D. | 14.222 | # |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 67) L7,O motor oil (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_06.D\FID1A.CH Vial: 6
Acq On : 16 Jan 2002 19:53 Operator: SAB 5997
Sample : BLA899 TPH W-1301 Inst : GC/FID In
Misc : BLA02 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_06.D\FID2B.CH Vial: 6
Acq On : 16 Jan 2002 20:33 Operator: SAB 5997
Sample : BLA899 TPH W-1301 Inst : GC/FID In
Misc : BLA02 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:27 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 17.46 | 0.00 | 391 | 0 | 0.780 | N.D. | # |
| 69) L7,O motor oil (6) | 17.92 | 0.00 | 188 | 0 | 0.347 | N.D. | # |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 71) L7,O motor oil (8) | 19.10 | 0.00 | 143 | 0 | 0.132 | N.D. | # |
| 72) L7,O motor oil (9) | 19.77 | 0.00 | 411 | 0 | 0.615 | N.D. | # |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum motor oil (1) | | | 1134 | 471 | 1.875 | 14.222 | |
| Average motor oil (1) | | | | | 0.469 | 14.222 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitati eport (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_06.D\FID1A.CH
Acq On : 16 Jan 2002 19:53
Sample : BLA899 TPH W-1301
Misc : BLA02
IntFile : AUTOINT1.E

Vial: 6
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

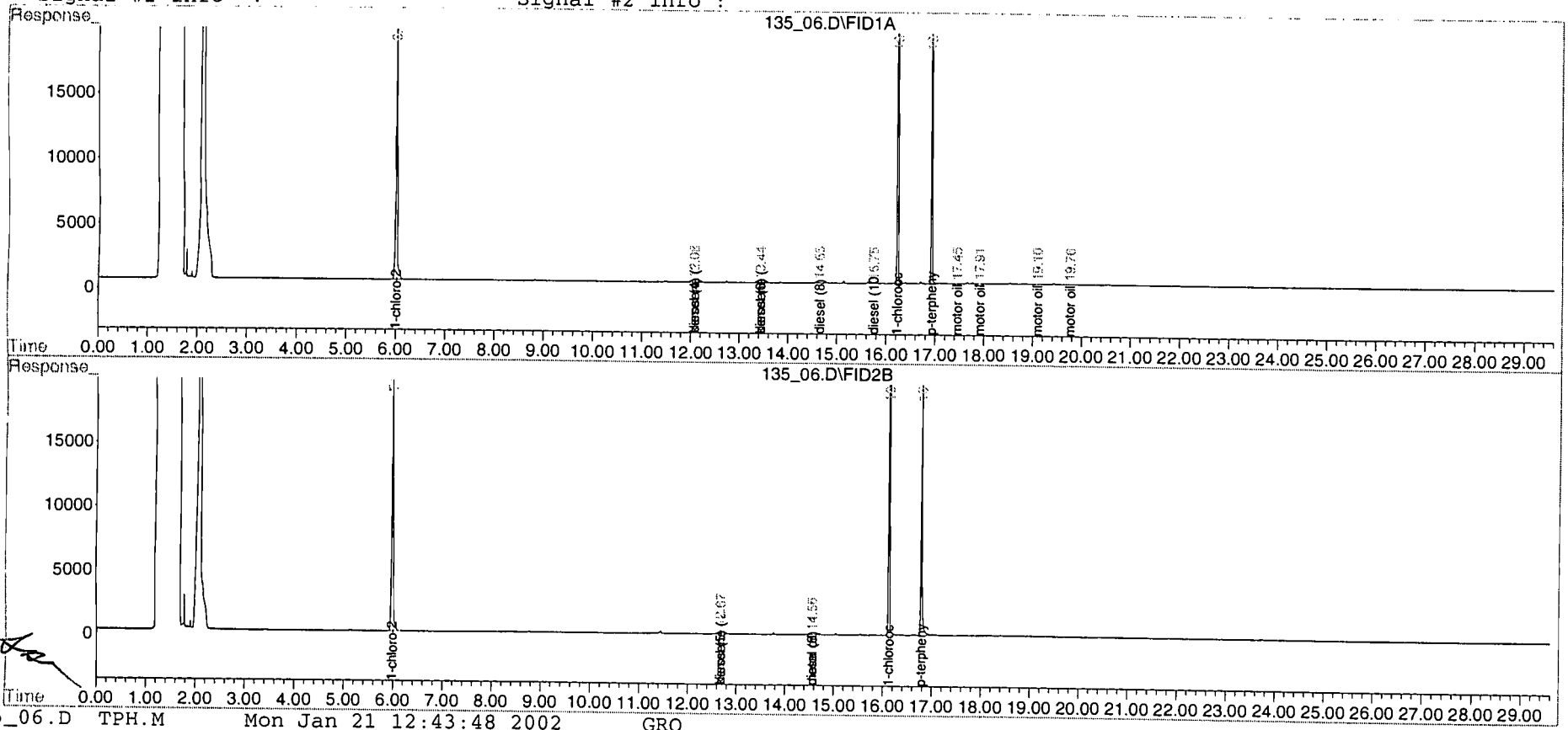
Data File : C:\HPCHEM\3\DATA\135\135_06.D\FID2B.CH
Acq On : 16 Jan 2002 20:33
Sample : BLA899 TPH W-1301
Misc : BLA02
IntFile : EVENTS2.E

Vial: 6
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 12:27 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



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Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_07.D\FID1A.CH Vial: 7
Acq On : 16 Jan 2002 20:33 Operator: SAB 5997
Sample : LCS116 TPH W-1301 Inst : GC/FID In
Misc : LCS Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_07.D\FID2B.CH Vial: 7
Acq On : 16 Jan 2002 21:14 Operator: SAB 5997
Sample : LCS116 TPH W-1301 Inst : GC/FID In
Misc : LCS Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:27 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | | |
| 61) S 1-chloro-2-fluor | 6.01 | 5.98 | 428469 | 449994 | 12.313 | 11.858 | |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 123.13% | 118.58% | |
| 62) S 1-chlorooctadeca | 16.23 | 16.12 | 1293260 | 847147 | 29.164 | 26.878 | |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 145.82% | 134.39% | |
| 63) S p-terphenyl | 16.93 | 16.78 | 615294 | 322346 | 11.488 | 10.295 | |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 114.88% | 102.95% | |
| Target Compounds | | | | | | | |
| 1) L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 2) L1,A gasoline(2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 4) L1,A gasoline(4) | 3.52 | 3.42 | 1755 | 4891 | 0.534 | 1.180 | # |
| 5) L1,A gasoline(5) | 6.36 | 6.16 | 8429 | 10884 | 2.805 | 3.266 | |
| 6) L1,A gasoline(6) | 6.81 | 6.64 | 3836 | 3857 | 3.327 | 2.932 | |
| 7) L1,A gasoline(7) | 7.94 | 7.83 | 11291 | 12317 | 10.530 | 7.240 | # |
| 8) L1,A gasoline(8) | 8.16 | 7.92 | 8582 | 8259 | 16.232 | 13.835 | |
| 9) L1,A gasoline(9) | 8.48 | 8.27 | 12973 | 13683 | 7.593 | 7.397 | |
| 10) L1,A gasoline(10) | 8.82 | 8.64 | 11012 | 11823 | 27.571 | 27.250 | |
| Sum gasoline(1) | | | 57877 | 65714 | 68.592 | 63.100 | |
| Average gasoline(1) | | | | | 9.799 | 9.014 | |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 14) L2,J JP-4 (4) | 0.00 | 6.30 | 0 | 3373 | N.D. | NoCal | |
| 15) L2,J JP-4 (5) | 0.00 | 6.64 | 0 | 3857 | N.D. | NoCal | |
| 16) L2,J JP-4 (6) | 8.68 | 8.00 | 4544 | 6501 | NoCal | NoCal | |
| 17) L2,J JP-4 (7) | 9.75 | 9.21 | 13276 | 8126 | NoCal | NoCal | |
| 18) L2,J JP-4 (8) | 10.70 | 0.00 | 12841 | 0 | NoCal | N.D. | |
| 19) L2,J JP-4 (9) | 11.55 | 0.00 | 25141 | 0 | NoCal | N.D. | |
| 20) L2,J JP-4 (10) | 12.26 | 11.78 | 20015 | 39150 | NoCal | NoCal | |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average JP-4 (1) | | | | | 0.000 | 0.000 | |
| 21) L3,P mineral spirits | 6.86 | 6.87 | 13702 | 10017 | 10.324 | 9.392 | |
| 22) L3,P mineral spirits | 7.47 | 7.45 | 4941 | 4597 | 5.267 | 5.455 | |
| 23) L3,P mineral spirits | 7.90 | 7.56 | 5475 | 3388 | 6.032 | 4.251 | # |
| 24) L3,P mineral spirits | 8.03 | 8.00 | 7299 | 6501 | 5.006 | 5.210 | |
| 25) L3,P mineral spirits | 8.42 | 8.39 | 30714 | 32675 | 8.967 | 9.276 | |
| 26) L3,P mineral spirits | 8.72 | 8.67 | 13865 | 14464 | 8.716 | 7.309 | |
| 27) L3,P mineral spirits | 9.26 | 9.14 | 11572 | 16619 | 10.927 | 11.949 | |
| 28) L3,P mineral spirits | 9.56 | 9.51 | 69389 | 79694 | 20.566 | 18.821 | |
| 29) L3,P mineral spirits | 9.84 | 10.03 | 25645 | 40301 | 23.599 | 48.418 | # |
| 30) L3,P mineral spirits | 10.50 | 10.44 | 119259 | 120347 | 116.212 | 125.511 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_07.D\FID1A.CH Vial: 7
Acq On : 16 Jan 2002 20:33 Operator: SAB 5997
Sample : LCS116 TPH W-1301 Inst : GC/FID In
Misc : LCS Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_07.D\FID2B.CH Vial: 7
Acq On : 16 Jan 2002 21:14 Operator: SAB 5997
Sample : LCS116 TPH W-1301 Inst : GC/FID In
Misc : LCS Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:27 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 301860 | 328605 | 215.618 | 245.592 | |
| Average mineral spirits ( | | | | | 21.562 | 24.559 | |
| 31) L4,X SC-150 (1) | 0.00 | 9.14 | 0 | 16619 | N.D. | NoCal | |
| 32) L4,X SC-150 (2) | 9.31 | 9.14 | 9834 | 16619 | NoCal | NoCal | |
| 33) L4,X SC-150 (3) | 9.31 | 9.21 | 9834 | 8126 | NoCal | NoCal | |
| 34) L4,X SC-150 (4) | 9.50 | 0.00 | 12058 | 0 | NoCal | N.D. | |
| 35) L4,X SC-150 (5) | 9.61 | 9.56 | 10157 | 5985 | NoCal | NoCal | |
| 36) L4,X SC-150 (6) | 9.94 | 9.86 | 13917 | 13071 | NoCal | NoCal | |
| 37) L4,X SC-150 (7) | 0.00 | 9.90 | 0 | 11937 | N.D. | NoCal | |
| 38) L4,X SC-150 (8) | 10.19 | 10.08 | 20098 | 16235 | NoCal | NoCal | |
| 39) L4,X SC-150 (9) | 10.28 | 10.34 | 18762 | 39441 | NoCal | NoCal | |
| 40) L4,X SC-150 (10) | 0.00 | 10.89 | 0 | 37996 | N.D. | NoCal | |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average SC-150 (1) | | | | | 0.000 | 0.000 | |
| 41) L5,K kerosene (1) | 6.86 | 6.87 | 13702 | 10017 | 23.595 | 18.602 | |
| 42) L5,K kerosene (2) | 8.42 | 8.39 | 30714 | 32675 | 22.721 | 23.894 | |
| 43) L5,K kerosene (3) | 8.48 | 9.51 | 12973 | 79694 | 30.211 | 35.775 | |
| 44) L5,K kerosene (4) | 9.56 | 10.44 | 69389 | 120347 | 34.858 | 52.132 | # |
| 45) L5,K kerosene (5) | 10.50 | 10.56 | 119259 | 42555 | 52.330 | 51.802 | |
| 46) L5,K kerosene (6) | 11.33 | 11.04 | 124220 | 73804 | 62.990 | 64.832 | |
| 47) L5,K kerosene (7) | 12.08 | 11.25 | 131751 | 129250 | 87.849 | 56.322 | # |
| 48) L5,K kerosene (8) | 12.54 | 12.00 | 76442 | 138703 | 116.906 | 98.420 | |
| 49) L5,K kerosene (9) | 12.78 | 12.70 | 133367 | 158636 | 139.207 | 130.313 | |
| 50) L5,K kerosene (10) | 13.44 | 13.35 | 112337 | 105599 | 270.052 | 297.436 | |
| Sum kerosene (1) | | | 824155 | 891280 | 840.718 | 829.529 | |
| Average kerosene (1) | | | | | 84.072 | 82.953 | |
| 51) L6,D diesel (1) | 9.56 | 9.51 | 69389 | 79694 | 93.450 | 91.665 | |
| 52) L6,D diesel (2) | 10.50 | 10.44 | 119259 | 120347 | 92.695 | 91.110 | |
| 53) L6,D diesel (3) | 11.33 | 11.25 | 124220 | 129250 | 90.819 | 87.005 | |
| 54) L6,D diesel (4) | 12.08 | 12.00 | 131751 | 138703 | 84.128 | 87.047 | |
| 55) L6,D diesel (5) | 12.78 | 12.70 | 133367 | 158636 | 94.702 | 90.307 | |
| 56) L6,D diesel (6) | 13.44 | 13.35 | 112337 | 105599 | 94.742 | 94.076 | |
| 57) L6,D diesel (7) | 14.06 | 13.97 | 95416 | 79378 | 96.858 | 94.487 | |
| 58) L6,D diesel (8) | 14.65 | 14.55 | 68785 | 63761 | 93.981 | 95.467 | |
| 59) L6,D diesel (9) | 15.21 | 15.11 | 64043 | 47048 | 100.602 | 97.116 | |
| 60) L6,D diesel (10) | 15.75 | 15.65 | 33815 | 32438 | 95.416 | 104.339 | |
| Sum diesel (1) | | | 952383 | 954855 | 937.393 | 932.619 | |
| Average diesel (1) | | | | | 93.739 | 93.262 | |
| 64) L7,O motor oil (1) | 14.69 | 14.55 | 10898 | 63761 | 182.244 | 1923.892 | # |
| 65) L7,O motor oil (2) | 15.27 | 15.11 | 10712 | 47048 | 113.064 | 869.164 | # |
| 66) L7,O motor oil (3) | 0.00 | 15.65 | 0 | 32438 | N.D. | 371.521 | # |
| 67) L7,O motor oil (4) | 0.00 | 15.85 | 0 | 5457 | N.D. | 62.372 | # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_07.D\FID1A.CH Vial: 7
Acq On : 16 Jan 2002 20:33 Operator: SAB 5997
Sample : LCS116 TPH W-1301 Inst : GC/FID In
Misc : LCS Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_07.D\FID2B.CH Vial: 7
Acq On : 16 Jan 2002 21:14 Operator: SAB 5997
Sample : LCS116 TPH W-1301 Inst : GC/FID In
Misc : LCS Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:27 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,0 motor oil (5) | 17.46 | 0.00 | 174 | 0 | 0.346 | N.D. | # |
| 69) L7,0 motor oil (6) | 17.94 | 0.00 | 248 | 0 | 0.457 | N.D. | # |
| 70) L7,0 motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 71) L7,0 motor oil (8) | 19.10 | 0.00 | 204 | 0 | 0.187 | N.D. | # |
| 72) L7,0 motor oil (9) | 19.81 | 0.00 | 141 | 0 | 0.212 | N.D. | # |
| 73) L7,0 motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum motor oil (1) | | | 22376 | 148705 | 296.510 | 3226.949 | |
| Average motor oil (1) | | | | | 49.418 | 806.737 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitati eport (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_07.D\FID1A.CH
Acq On : 16 Jan 2002 20:33
Sample : LCS116 TPH W-1301
Misc : LCS
IntFile : AUTOINT1.E

Vial: 7
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

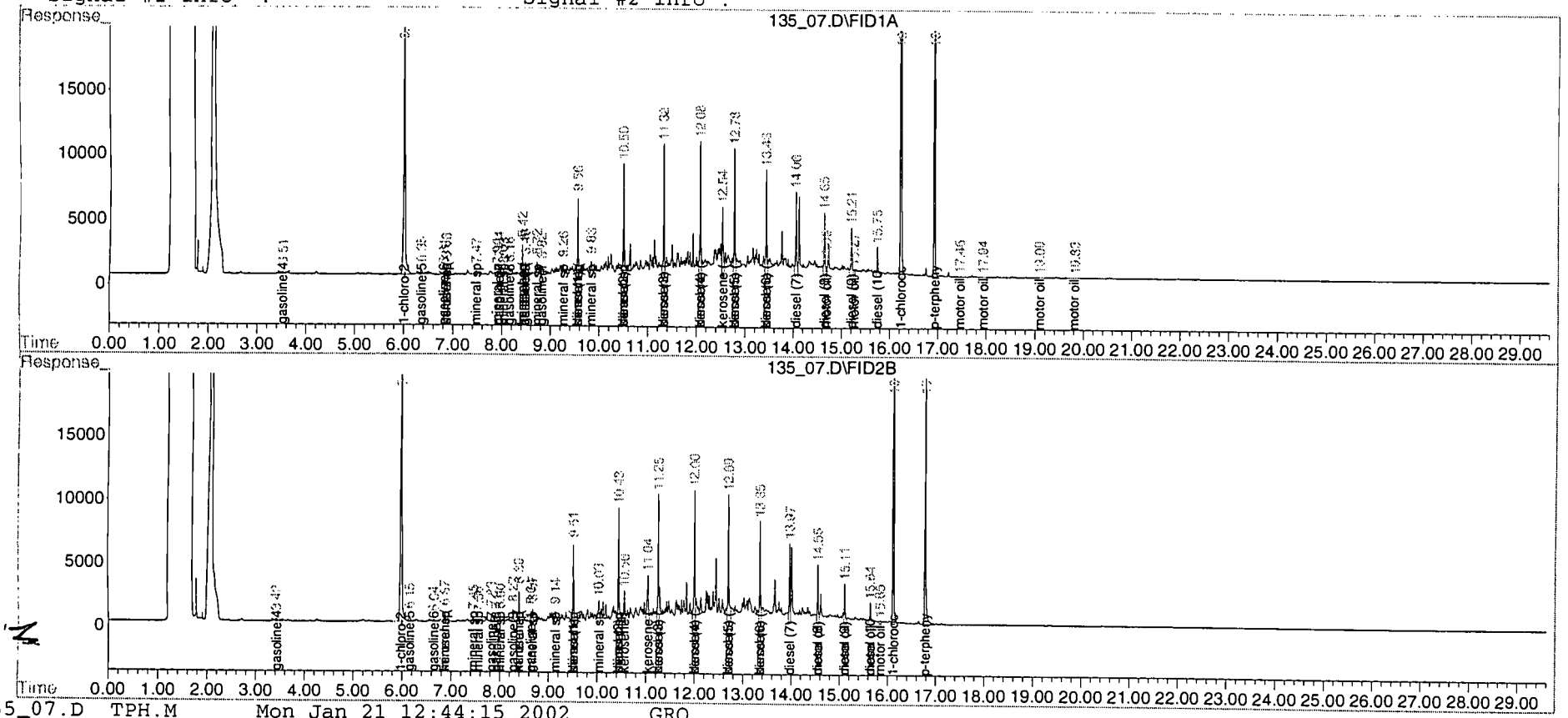
Data File : C:\HPCHEM\3\DATA\135\135_07.D\FID2B.CH
Acq On : 16 Jan 2002 21:14
Sample : LCS116 TPH W-1301
Misc : LCS
IntFile : EVENTS2.E

Vial: 7
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 12:27 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_08.D\FID1A.CH Vial: 8
Acq On : 16 Jan 2002 21:14 Operator: SAB 5997
Sample : DLCS117 TPH W-1301 Inst : GC/FID In
Misc : DLCS Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_08.D\FID2B.CH Vial: 8
Acq On : 16 Jan 2002 21:54 Operator: SAB 5997
Sample : DLCS117 TPH W-1301 Inst : GC/FID In
Misc : DLCS Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:27 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | | |
| 61) S 1-chloro-2-fluor | 6.01 | 5.98 | 426135 | 449517 | 12.246 | 11.846 | |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 122.46% | 118.46% | |
| 62) S 1-chlorooctadeca | 16.23 | 16.12 | 1294251 | 843178 | 29.187 | 26.752 | |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 145.94% | 133.76% | |
| 63) S p-terphenyl | 16.93 | 16.78 | 621073 | 319313 | 11.596 | 10.198 | |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 115.96% | 101.98% | |
| Target Compounds | | | | | | | |
| 1) L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 2) L1,A gasoline(2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 4) L1,A gasoline(4) | 3.52 | 3.43 | 1759 | 4858 | 0.536 | 1.172 | # |
| 5) L1,A gasoline(5) | 6.36 | 6.16 | 8124 | 10967 | 2.704 | 3.290 | |
| 6) L1,A gasoline(6) | 6.81 | 6.64 | 3080 | 3901 | 2.671 | 2.966 | |
| 7) L1,A gasoline(7) | 7.94 | 7.83 | 11214 | 12489 | 10.457 | 7.341 | # |
| 8) L1,A gasoline(8) | 8.16 | 7.92 | 10581 | 8461 | 20.013 | 14.174 | # |
| 9) L1,A gasoline(9) | 8.48 | 8.27 | 12843 | 13881 | 7.517 | 7.504 | |
| 10) L1,A gasoline(10) | 8.82 | 8.64 | 10928 | 11879 | 27.361 | 27.379 | |
| Sum gasoline(1) | | | 58529 | 66436 | 71.259 | 63.826 | |
| Average gasoline(1) | | | | | 10.180 | 9.118 | |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 14) L2,J JP-4 (4) | 0.00 | 6.30 | 0 | 3342 | N.D. | NoCal | |
| 15) L2,J JP-4 (5) | 0.00 | 6.64 | 0 | 3901 | N.D. | NoCal | |
| 16) L2,J JP-4 (6) | 8.68 | 8.00 | 4535 | 6700 | NoCal | NoCal | |
| 17) L2,J JP-4 (7) | 9.75 | 9.21 | 13567 | 8199 | NoCal | NoCal | |
| 18) L2,J JP-4 (8) | 10.70 | 0.00 | 12749 | 0 | NoCal | N.D. | |
| 19) L2,J JP-4 (9) | 11.55 | 0.00 | 25521 | 0 | NoCal | N.D. | |
| 20) L2,J JP-4 (10) | 12.27 | 11.78 | 19956 | 38326 | NoCal | NoCal | |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average JP-4 (1) | | | | | 0.000 | 0.000 | |
| 21) L3,P mineral spirits | 6.86 | 6.87 | 10385 | 9961 | 7.824 | 9.340 | |
| 22) L3,P mineral spirits | 7.47 | 7.45 | 6133 | 5481 | 6.538 | 6.504 | |
| 23) L3,P mineral spirits | 7.90 | 7.56 | 5484 | 4887 | 6.042 | 6.131 | |
| 24) L3,P mineral spirits | 8.03 | 8.00 | 6982 | 6700 | 4.789 | 5.369 | |
| 25) L3,P mineral spirits | 8.42 | 8.39 | 30483 | 32721 | 8.900 | 9.289 | |
| 26) L3,P mineral spirits | 8.72 | 8.67 | 13835 | 14571 | 8.698 | 7.363 | |
| 27) L3,P mineral spirits | 9.26 | 9.14 | 11818 | 16638 | 11.159 | 11.962 | |
| 28) L3,P mineral spirits | 9.56 | 9.51 | 68885 | 78936 | 20.417 | 18.642 | |
| 29) L3,P mineral spirits | 9.84 | 10.03 | 25689 | 39837 | 23.640 | 47.861 | # |
| 30) L3,P mineral spirits | 10.50 | 10.44 | 118050 | 118722 | 115.033 | 123.816 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_08.D\FID1A.CH Vial: 8
Acq On : 16 Jan 2002 21:14 Operator: SAB 5997
Sample : DLCS117 TPH W-1301 Inst : GC/FID In
Misc : DLCS Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_08.D\FID2B.CH Vial: 8
Acq On : 16 Jan 2002 21:54 Operator: SAB 5997
Sample : DLCS117 TPH W-1301 Inst : GC/FID In
Misc : DLCS Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:27 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 297744 | 328455 | 213.041 | 246.278 |
| Average mineral spirits ( | | | | | 21.304 | 24.628 |
| 31) L4,X SC-150 (1) | 0.00 | 9.14 | 0 | 16638 | N.D. | NoCal |
| 32) L4,X SC-150 (2) | 9.31 | 9.14 | 9865 | 16638 | NoCal | NoCal |
| 33) L4,X SC-150 (3) | 9.31 | 9.21 | 9865 | 8199 | NoCal | NoCal |
| 34) L4,X SC-150 (4) | 9.50 | 0.00 | 11956 | 0 | NoCal | N.D. |
| 35) L4,X SC-150 (5) | 9.62 | 9.56 | 10481 | 5956 | NoCal | NoCal |
| 36) L4,X SC-150 (6) | 9.94 | 9.86 | 13817 | 13204 | NoCal | NoCal |
| 37) L4,X SC-150 (7) | 9.94 | 9.90 | 13817 | 11827 | NoCal | NoCal |
| 38) L4,X SC-150 (8) | 10.19 | 10.08 | 20150 | 16012 | NoCal | NoCal |
| 39) L4,X SC-150 (9) | 10.28 | 10.33 | 18891 | 38809 | NoCal | NoCal |
| 40) L4,X SC-150 (10) | 0.00 | 10.89 | 0 | 37309 | N.D. | NoCal |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 6.86 | 6.87 | 10385 | 9961 | 17.882 | 18.499 |
| 42) L5,K kerosene (2) | 8.42 | 8.39 | 30483 | 32721 | 22.550 | 23.928 |
| 43) L5,K kerosene (3) | 8.48 | 9.51 | 12843 | 78936 | 29.909 | 35.435 |
| 44) L5,K kerosene (4) | 9.56 | 10.44 | 68885 | 118722 | 34.605 | 51.428 # |
| 45) L5,K kerosene (5) | 10.50 | 10.56 | 118050 | 41817 | 51.799 | 50.903 |
| 46) L5,K kerosene (6) | 11.33 | 11.04 | 132945 | 72916 | 67.414 | 64.052 |
| 47) L5,K kerosene (7) | 12.08 | 11.25 | 131306 | 127544 | 87.552 | 55.579 # |
| 48) L5,K kerosene (8) | 12.54 | 12.00 | 76161 | 136737 | 116.476 | 97.024 |
| 49) L5,K kerosene (9) | 12.78 | 12.69 | 133382 | 155888 | 139.223 | 128.056 |
| 50) L5,K kerosene (10) | 13.44 | 13.35 | 112582 | 105319 | 270.639 | 296.647 |
| Sum kerosene (1) | | | 827021 | 880561 | 838.049 | 821.551 |
| Average kerosene (1) | | | | | 83.805 | 82.155 |
| 51) L6,D diesel (1) | 9.56 | 9.51 | 68885 | 78936 | 92.772 | 90.794 |
| 52) L6,D diesel (2) | 10.50 | 10.44 | 118050 | 118722 | 91.755 | 89.880 |
| 53) L6,D diesel (3) | 11.33 | 11.25 | 132945 | 127544 | 97.198 | 85.857 |
| 54) L6,D diesel (4) | 12.08 | 12.00 | 131306 | 136737 | 83.843 | 85.813 |
| 55) L6,D diesel (5) | 12.78 | 12.69 | 133382 | 155888 | 94.713 | 88.743 |
| 56) L6,D diesel (6) | 13.44 | 13.35 | 112582 | 105319 | 94.948 | 93.826 |
| 57) L6,D diesel (7) | 14.06 | 13.97 | 95467 | 78436 | 96.909 | 93.365 |
| 58) L6,D diesel (8) | 14.65 | 14.55 | 68640 | 63081 | 93.783 | 94.450 |
| 59) L6,D diesel (9) | 15.21 | 15.11 | 62227 | 46004 | 97.749 | 94.961 |
| 60) L6,D diesel (10) | 15.75 | 15.64 | 35337 | 27466 | 99.713 | 88.345 |
| Sum diesel (1) | | | 958821 | 938133 | 943.382 | 906.032 |
| Average diesel (1) | | | | | 94.338 | 90.603 |
| 64) L7,O motor oil (1) | 14.69 | 14.55 | 10669 | 63081 | 178.417 | 1903.384 # |
| 65) L7,O motor oil (2) | 15.27 | 15.11 | 11061 | 46004 | 116.753 | 849.873 # |
| 66) L7,O motor oil (3) | 0.00 | 15.64 | 0 | 27466 | N.D. | 314.569 # |
| 67) L7,O motor oil (4) | 16.50 | 15.85 | 2354 | 5007 | 8.569 | 57.223 # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_08.D\FID1A.CH Vial: 8
Acq On : 16 Jan 2002 21:14 Operator: SAB 5997
Sample : DLCS117 TPH W-1301 Inst : GC/FID In
Misc : DLCS Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_08.D\FID2B.CH Vial: 8
Acq On : 16 Jan 2002 21:54 Operator: SAB 5997
Sample : DLCS117 TPH W-1301 Inst : GC/FID In
Misc : DLCS Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:27 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 17.45 | 0.00 | 1370 | 0 | 2.731 | N.D. | # |
| 69) L7,O motor oil (6) | 17.96 | 0.00 | 330 | 0 | 0.608 | N.D. | # |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 72) L7,O motor oil (9) | 19.79 | 0.00 | 20 | 0 | 0.030 | N.D. | # |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum motor oil (1) | | | 25804 | 141557 | 307.108 | 3125.048 | |
| Average motor oil (1) | | | | | 51.185 | 781.262 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitati Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_08.D\FID1A.CH
Acq On : 16 Jan 2002 21:14
Sample : DLCS117 TPH W-1301
Misc : DLCS
IntFile : AUTOINT1.E

Vial: 8
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

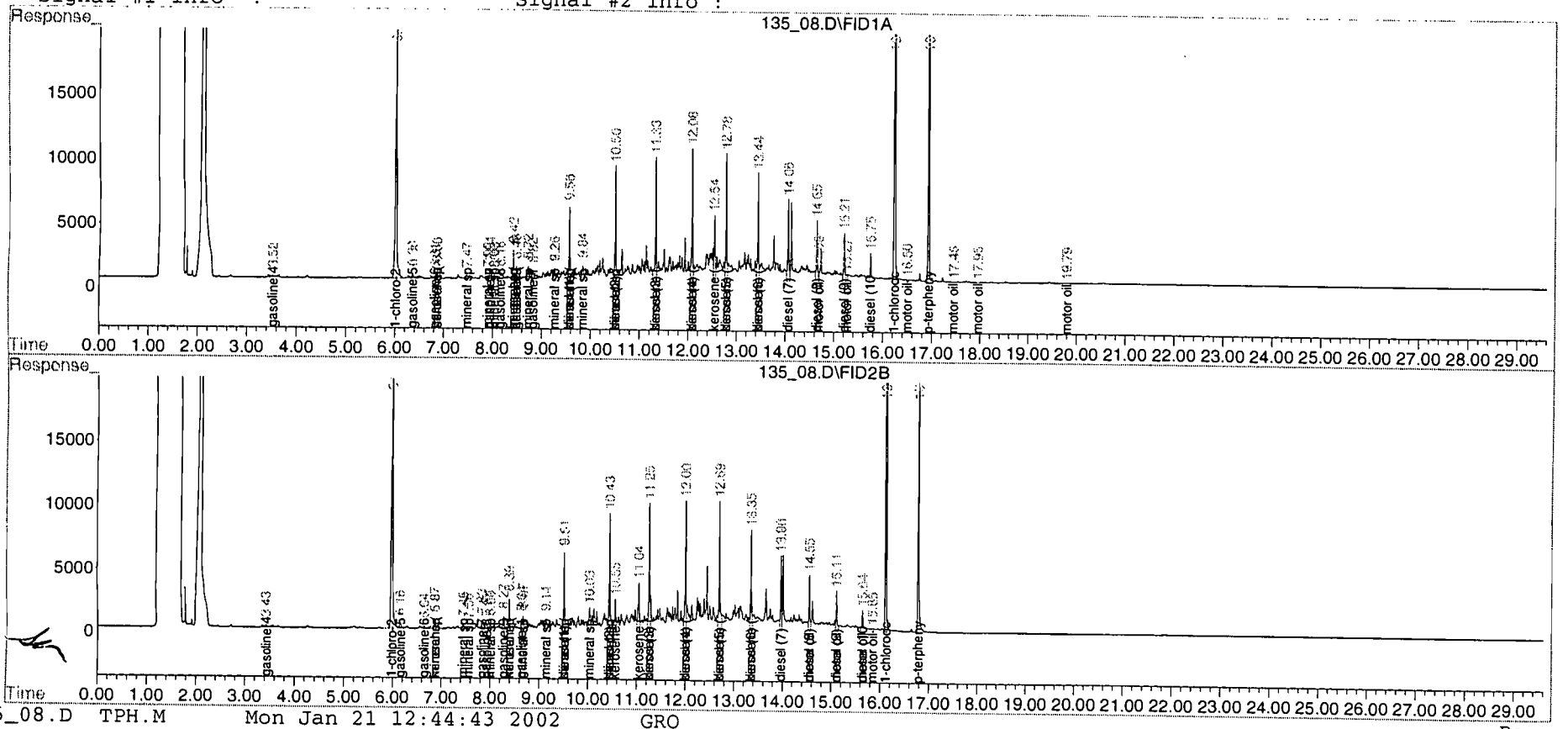
Data File : C:\HPCHEM\3\DATA\135\135_08.D\FID2B.CH
Acq On : 16 Jan 2002 21:54
Sample : DLCS117 TPH W-1301
Misc : DLCS
IntFile : EVENTS2.E

Vial: 8
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 12:27 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :






58

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_12.D\FID1A.CH Vial: 12
Acq On : 16 Jan 2002 23:56 Operator: SAB 5997
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_12.D\FID2B.CH Vial: 12
Acq On : 17 Jan 2002 00:36 Operator: SAB 5997
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:46 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.01 | 5.98 | 339246 | 365486 | 9.749 | 9.631 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 97.49% | 96.31% |
| 62) S 1-chlorooctadeca | 16.23 | 16.11 | 889503 | 644138 | 20.059 | 20.437 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 100.30% | 102.19% |
| 63) S p-terphenyl | 16.93 | 16.78 | 560636 | 331393 | 10.468 | 10.584 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 104.68% | 105.84% |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 2.33 | 2.32 | 67421 | 107251 | 49.511 | 55.779 |
| 2) L1,A gasoline(2) | 2.43 | 2.45 | 22240 | 23982 | 47.315m | 49.483m |
| 3) L1,A gasoline(3) | 3.11 | 3.12 | 32836 | 37877 | 48.828 | 51.423 |
| 4) L1,A gasoline(4) | 3.52 | 3.42 | 168791 | 210124 | 51.417 | 50.678 |
| 5) L1,A gasoline(5) | 6.36 | 6.16 | 147752 | 167275 | 49.179 | 50.189 |
| 6) L1,A gasoline(6) | 6.81 | 6.64 | 59034 | 65941 | 51.206 | 50.133 |
| 7) L1,A gasoline(7) | 7.94 | 7.83 | 52459 | 86124 | 48.921 | 50.625 |
| 8) L1,A gasoline(8) | 8.15 | 7.93 | 26107 | 30036 | 49.379 | 50.314 |
| 9) L1,A gasoline(9) | 8.48 | 8.27 | 84254 | 93772 | 49.313 | 50.691 |
| 10) L1,A gasoline(10) | 8.82 | 8.64 | 19342 | 21992 | 48.425 | 50.690 |
| Sum gasoline(1) | | | 680236 | 844375 | 493.494 | 510.004 |
| Average gasoline(1) | | | | | 49.349 | 51.000 |
| 11) L2,J JP-4 (1) | 0.00 | 2.49 | 0 | 18286 | N.D. | NoCal |
| 12) L2,J JP-4 (2) | 0.00 | 3.60 | 0 | 18956 | N.D. | NoCal |
| 13) L2,J JP-4 (3) | 3.79 | 3.91 | 10836 | 1569 | NoCal | NoCal |
| 14) L2,J JP-4 (4) | 0.00 | 6.30 | 0 | 7358 | N.D. | NoCal |
| 15) L2,J JP-4 (5) | 0.00 | 6.64 | 0 | 65941 | N.D. | NoCal |
| 16) L2,J JP-4 (6) | 0.00 | 8.01 | 0 | 3990 | N.D. | NoCal |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 18) L2,J JP-4 (8) | 10.70 | 0.00 | 2205 | 0 | NoCal | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 6.86 | 6.87 | 6711 | 6188 | 5.056 | 5.802 |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 7.90 | 0.00 | 5640 | 0 | 6.215 | N.D. # |
| 24) L3,P mineral spirits | 8.03 | 8.01 | 2301 | 3990 | 1.578 | 3.198 # |
| L3,P mineral spirits | 8.42 | 8.39 | 2321 | 3942 | 0.678 | 1.119 # |
| L3,P mineral spirits | 8.72 | 8.69 | 2314 | 3149 | 1.454 | 1.591 |
| 27) L3,P mineral spirits | 9.26 | 9.16 | 5293 | 7690 | 4.998 | 5.529 |
| 28) L3,P mineral spirits | 9.56 | 9.51 | 2610 | 2773 | 0.774 | 0.655 |
| 29) L3,P mineral spirits | 0.00 | 10.02 | 0 | 15041 | N.D. | 18.070 # |
| 30) L3,P mineral spirits | 10.47 | 10.45 | 1615 | 7960 | 1.574 | 8.302 # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_12.D\FID1A.CH Vial: 12
Acq On : 16 Jan 2002 23:56 Operator: SAB 5997
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_12.D\FID2B.CH Vial: 12
Acq On : 17 Jan 2002 00:36 Operator: SAB 5997
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:46 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 28805 | 50733 | 22.327 | 44.266 | |
| Average mineral spirits ( | | | | | 2.791 | 5.533 | |
| 31) L4,X SC-150 (1) | 9.21 | 0.00 | 16061 | 0 | NoCal | N.D. | |
| 32) L4,X SC-150 (2) | 0.00 | 9.16 | 0 | 7690 | N.D. | NoCal | |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 34) L4,X SC-150 (4) | 9.50 | 0.00 | 14605 | 0 | NoCal | N.D. | |
| 35) L4,X SC-150 (5) | 9.62 | 0.00 | 1744 | 0 | NoCal | N.D. | |
| 36) L4,X SC-150 (6) | 9.91 | 0.00 | 8006 | 0 | NoCal | N.D. | |
| 37) L4,X SC-150 (7) | 9.94 | 9.91 | 12964 | 7605 | NoCal | NoCal | |
| 38) L4,X SC-150 (8) | 10.19 | 10.07 | 2398 | 2611 | NoCal | NoCal | |
| 39) L4,X SC-150 (9) | 10.28 | 10.34 | 3804 | 14936 | NoCal | NoCal | |
| 40) L4,X SC-150 (10) | 10.62 | 10.91 | 4163 | 2908 | NoCal | NoCal | |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average SC-150 (1) | | | | | 0.000 | 0.000 | |
| 41) L5,K kerosene (1) | 6.86 | 6.87 | 6711 | 6188 | 11.555 | 11.491 | |
| 42) L5,K kerosene (2) | 8.42 | 8.39 | 2321 | 3942 | 1.717 | 2.882 | # |
| 43) L5,K kerosene (3) | 8.48 | 9.51 | 84254 | 2773 | 196.210 | 1.245 | # |
| 44) L5,K kerosene (4) | 9.56 | 10.45 | 2610 | 7960 | 1.311 | 3.448 | # |
| 45) L5,K kerosene (5) | 10.52 | 10.55 | 14083 | 1612 | 6.180 | 1.962 | # |
| 46) L5,K kerosene (6) | 11.33 | 0.00 | 2194 | 0 | 1.112 | N.D. | # |
| 47) L5,K kerosene (7) | 12.08 | 0.00 | 858 | 0 | 0.572 | N.D. | # |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 49) L5,K kerosene (9) | 12.78 | 12.67 | 189 | 4060 | 0.197 | 3.335 | # |
| 50) L5,K kerosene (10) | 13.43 | 0.00 | 332 | 0 | 0.799 | N.D. | # |
| Sum kerosene (1) | | | 113552 | 26534 | 219.653 | 24.363 | |
| Average kerosene (1) | | | | | 24.406 | 4.061 | |
| 51) L6,D diesel (1) | 9.56 | 9.51 | 2610 | 2773 | 3.516 | 3.190 | |
| 52) L6,D diesel (2) | 10.52 | 10.45 | 14083 | 7960 | 10.946 | 6.026 | # |
| 53) L6,D diesel (3) | 11.33 | 0.00 | 2194 | 0 | 1.604 | N.D. | # |
| 54) L6,D diesel (4) | 12.08 | 0.00 | 858 | 0 | 0.548 | N.D. | # |
| 55) L6,D diesel (5) | 12.78 | 12.67 | 189 | 4060 | 0.134 | 2.311 | # |
| 56) L6,D diesel (6) | 13.43 | 0.00 | 332 | 0 | 0.280 | N.D. | # |
| 57) L6,D diesel (7) | 14.06 | 0.00 | 218 | 0 | 0.221 | N.D. | # |
| 58) L6,D diesel (8) | 14.65 | 14.56 | 407 | 417 | 0.556 | 0.625 | |
| 59) L6,D diesel (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum diesel (1) | | | 20890 | 15211 | 17.804 | 12.152 | |
| Average diesel (1) | | | | | 2.226 | 3.038 | |
| 64) L7,O motor oil (1) | 0.00 | 14.56 | 0 | 417 | N.D. | 12.587 | # |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 67) L7,O motor oil (4) | 16.47 | 0.00 | 421 | 0 | 1.532 | N.D. | # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_12.D\FID1A.CH Vial: 12
Acq On : 16 Jan 2002 23:56 Operator: SAB 5997
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_12.D\FID2B.CH Vial: 12
Acq On : 17 Jan 2002 00:36 Operator: SAB 5997
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:46 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 69) L7,O motor oil (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 72) L7,O motor oil (9) | 19.77 | 0.00 | 1269 | 0 | 1.899 | N.D. | # |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum motor oil (1) | | | 1690 | 417 | 3.431 | 12.587 | |
| Average motor oil (1) | | | | | 1.716 | 12.587 | |

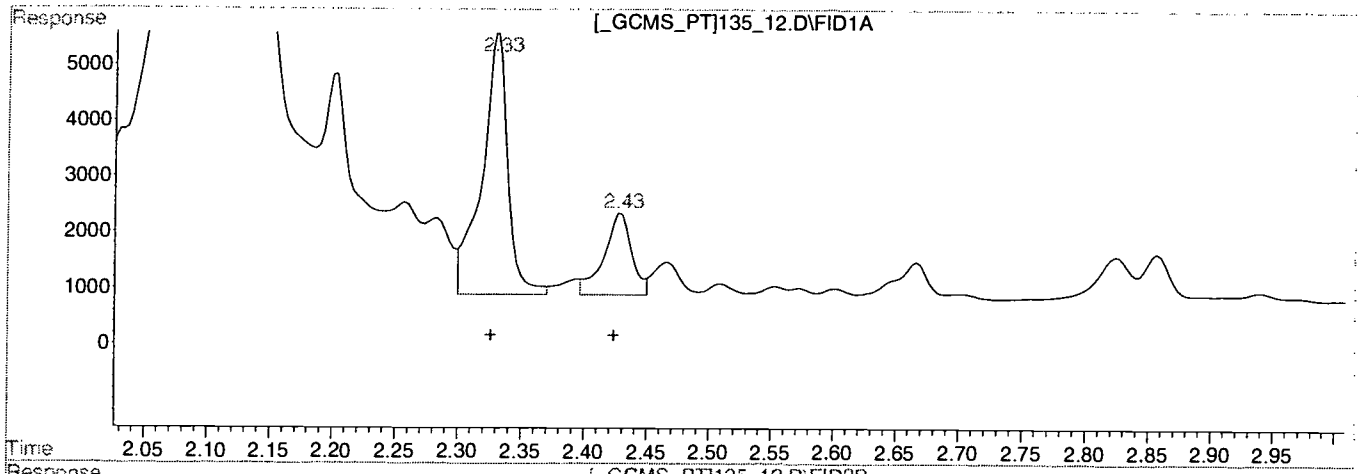
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

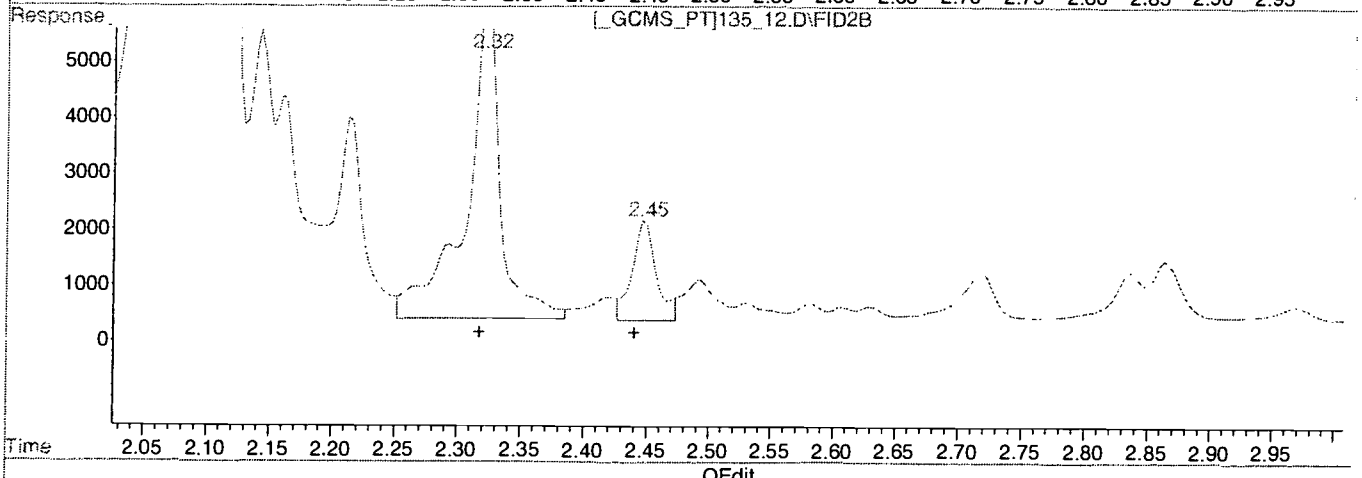
Quantitation Report (Qedit)

Data File : C:\HPCHEM\3\DATA\135\135_12.D\FID1A.CH  Vial: 12
Acq On : 16 Jan 2002 23:56  Operator: SAB 5997
Sample : FID A 712 L4  Inst : GC/FID In
Misc : MIX [S,A]  Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_12.D\FID2B.CH  Vial: 12
Acq On : 17 Jan 2002 00:36  Operator: SAB 5997
Sample : FID A 712 L4  Inst : GC/FID In
Misc : MIX [S,A]  Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:28 2002 Quant Results File: TPH.RES

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration




(1) gasoline(1) #2 (L1,A)

| R.T. | Response | Conc |
|---|---|---|
| 2.33 | 67421 | 49.51 |
| 2.43 | 22240 | 47.32 |
| 3.11 | 32836 | 48.83 |
| 3.52 | 168791 | 51.42 |
| 6.36 | 147752 | 49.18 |
| 6.81 | 59034 | 51.21 |
| 7.94 | 52459 | 48.92 |
| 8.15 | 26107 | 49.38 |
| 8.48 | 84254 | 49.31 |
| 8.82 | 19342 | 48.43 |

(1) gasoline(1) #2 (L1,A)

| R.T. | Response | Conc |
|---|---|---|
| 2.32 | 107251 | 55.78 |
| 2.45 | 23982 | 49.48 |
| 3.12 | 37877 | 51.42 |
| 3.42 | 210124 | 50.68 |
| 6.16 | 167275 | 50.19 |
| 6.64 | 65941 | 50.13 |
| 7.83 | 86124 | 50.63 |
| 7.93 | 30036 | 50.31 |
| 8.27 | 93772 | 50.69 |
| 8.64 | 21992 | 50.69 |

(+) = Expected Retention Time

Data File : C:\HPCHEM\3\DATA\135\135_12.D\FID1A.CH
Acq On : 16 Jan 2002 23:56
Sample : FID A 712 L4
Misc : MIX [S,A]
IntFile : AUTOINT1.E

Vial: 12
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

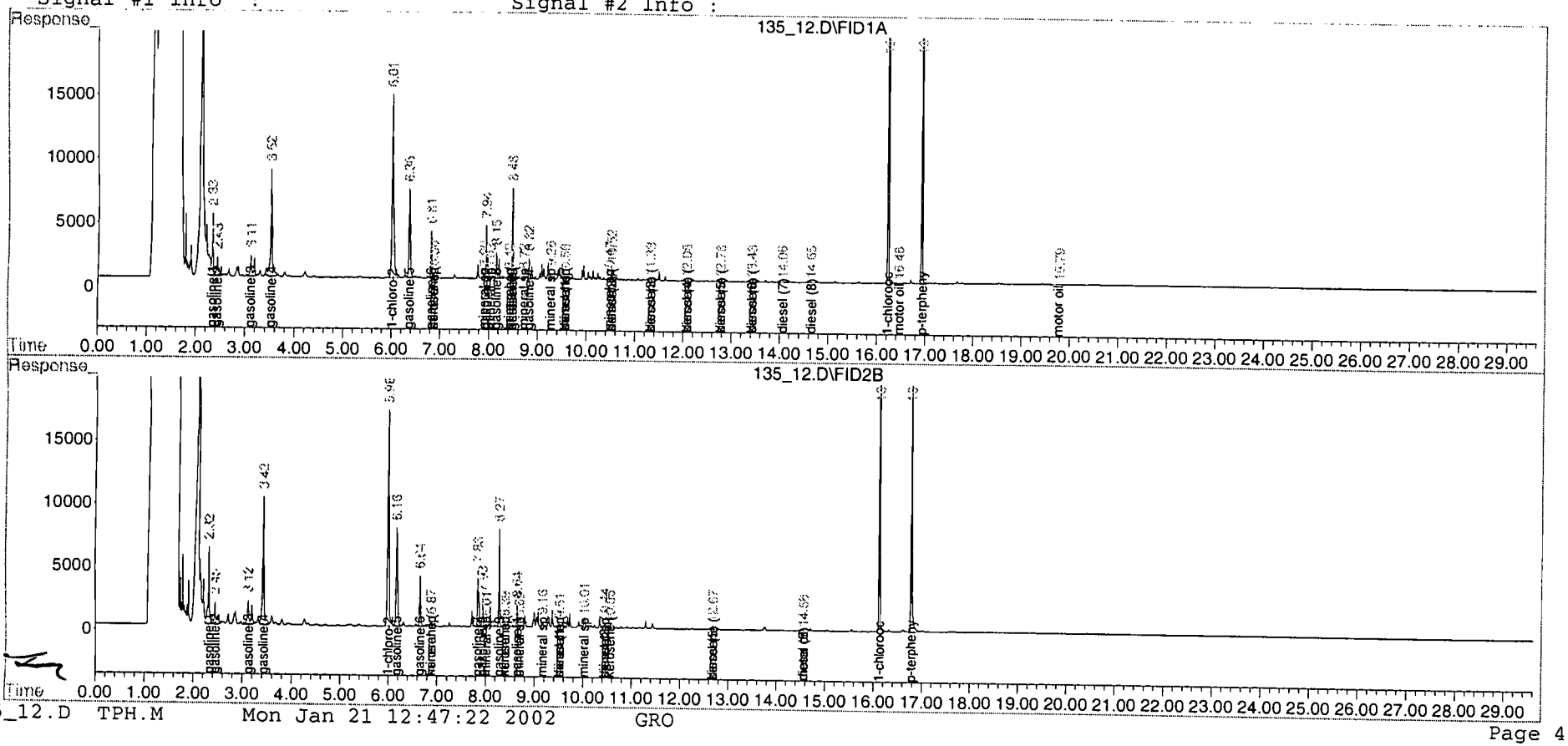
Data File : C:\HPCHEM\3\DATA\135\135_12.D\FID2B.CH
Acq On : 17 Jan 2002 00:36
Sample : FID A 712 L4
Misc : MIX [S,A]
IntFile : EVENTS2.E

Vial: 12
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 12:46 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :






03

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_13.D\FID1A.CH Vial: 13
Acq On : 17 Jan 2002 00:36 Operator: SAB 5997
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_13.D\FID2B.CH Vial: 13
Acq On : 17 Jan 2002 1:16 Operator: SAB 5997
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.01 | 5.98 | 294665 | 318827 | 8.468 | 8.402 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 84.68% | 84.02% |
| 62) S 1-chlorooctadeca | 16.23 | 16.11 | 931196 | 629671 | 20.999 | 19.978 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 104.99% | 99.89% |
| 63) S p-terphenyl | 16.93 | 16.78 | 576143 | 326725 | 10.757 | 10.435 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 107.57% | 104.35% |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 2.45 | 0 | 1447 | N.D. | 2.987 # |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 3.52 | 3.42 | 1543 | 5811 | 0.470 | 1.402 # |
| 5) L1,A gasoline(5) | 6.36 | 6.15 | 8884 | 11881 | 2.957 | 3.565 |
| 6) L1,A gasoline(6) | 6.82 | 6.64 | 3468 | 4507 | 3.008 | 3.426 |
| 7) L1,A gasoline(7) | 7.94 | 7.83 | 12753 | 11387 | 11.893 | 6.693 # |
| 8) L1,A gasoline(8) | 8.16 | 7.92 | 11960 | 7484 | 22.621 | 12.537 # |
| 9) L1,A gasoline(9) | 8.48 | 8.27 | 14647 | 14708 | 8.573 | 7.951 |
| 10) L1,A gasoline(10) | 8.82 | 8.64 | 11883 | 12848 | 29.751 | 29.614 |
| Sum gasoline(1) | | | 65137 | 70073 | 79.272 | 68.173 |
| Average gasoline(1) | | | | | 11.325 | 8.522 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 6.30 | 0 | 3809 | N.D. | NoCal |
| 15) L2,J JP-4 (5) | 0.00 | 6.64 | 0 | 4507 | N.D. | NoCal |
| 16) L2,J JP-4 (6) | 8.68 | 8.00 | 5227 | 7937 | NoCal | NoCal |
| 17) L2,J JP-4 (7) | 9.75 | 9.21 | 15345 | 8732 | NoCal | NoCal |
| 18) L2,J JP-4 (8) | 10.71 | 0.00 | 14495 | 0 | NoCal | N.D. |
| 19) L2,J JP-4 (9) | 11.55 | 0.00 | 28844 | 0 | NoCal | N.D. |
| 20) L2,J JP-4 (10) | 12.27 | 11.78 | 22461 | 43906 | NoCal | NoCal |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 6.86 | 6.87 | 11730 | 10836 | 8.838 | 10.161 |
| 22) L3,P mineral spirits | 7.47 | 7.45 | 6935 | 5949 | 7.393 | 7.060 |
| 23) L3,P mineral spirits | 7.90 | 7.56 | 6261 | 5155 | 6.898 | 6.468 |
| 24) L3,P mineral spirits | 8.03 | 8.00 | 7771 | 7937 | 5.330 | 6.361 |
| 25) L3,P mineral spirits | 8.42 | 8.39 | 34568 | 35778 | 10.093 | 10.156 |
| 26) L3,P mineral spirits | 8.72 | 8.67 | 15640 | 15950 | 9.832 | 8.060 |
| 27) L3,P mineral spirits | 9.26 | 9.14 | 13348 | 18172 | 12.604 | 13.065 |
| 28) L3,P mineral spirits | 9.56 | 9.51 | 78027 | 88925 | 23.126 | 21.000 |
| 29) L3,P mineral spirits | 9.84 | 10.03 | 28861 | 44539 | 26.559 | 53.510 # |
| 30) L3,P mineral spirits | 10.50 | 10.44 | 134077 | 135119 | 130.651 | 140.917 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_13.D\FID1A.CH Vial: 13
Acq On : 17 Jan 2002 00:36 Operator: SAB 5997
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_13.D\FID2B.CH Vial: 13
Acq On : 17 Jan 2002 1:16 Operator: SAB 5997
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 337216 | 368361 | 241.324 | 276.758 | |
| Average mineral spirits ( | | | | | 24.132 | 27.676 | |
| 31) L4,X SC-150 (1) | 9.20 | 9.14 | 18416 | 18172 | NoCal | NoCal | |
| 32) L4,X SC-150 (2) | 9.31 | 9.14 | 11463 | 18172 | NoCal | NoCal | |
| 33) L4,X SC-150 (3) | 9.31 | 9.21 | 11463 | 8732 | NoCal | NoCal | |
| 34) L4,X SC-150 (4) | 9.50 | 0.00 | 13668 | 0 | NoCal | N.D. | |
| 35) L4,X SC-150 (5) | 9.62 | 9.56 | 11689 | 6580 | NoCal | NoCal | |
| 36) L4,X SC-150 (6) | 9.94 | 9.86 | 15610 | 14656 | NoCal | NoCal | |
| 37) L4,X SC-150 (7) | 9.94 | 9.90 | 15610 | 13080 | NoCal | NoCal | |
| 38) L4,X SC-150 (8) | 10.19 | 10.08 | 22839 | 17952 | NoCal | NoCal | |
| 39) L4,X SC-150 (9) | 10.28 | 10.33 | 21109 | 43878 | NoCal | NoCal | |
| 40) L4,X SC-150 (10) | 0.00 | 10.89 | 0 | 42278 | N.D. | NoCal | |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average SC-150 (1) | | | | | 0.000 | 0.000 | |
| 41) L5,K kerosene (1) | 6.86 | 6.87 | 11730 | 10836 | 20.199 | 20.124 | |
| 42) L5,K kerosene (2) | 8.42 | 8.39 | 34568 | 35778 | 25.572 | 26.163 | |
| 43) L5,K kerosene (3) | 8.48 | 9.51 | 14647 | 88925 | 34.109 | 39.919 | |
| 44) L5,K kerosene (4) | 9.56 | 10.44 | 78027 | 135119 | 39.198 | 58.531 | # |
| 45) L5,K kerosene (5) | 10.50 | 10.56 | 134077 | 47562 | 58.831 | 57.897 | |
| 46) L5,K kerosene (6) | 11.33 | 11.04 | 140528 | 82637 | 71.259 | 72.591 | |
| 47) L5,K kerosene (7) | 12.08 | 11.25 | 167292 | 145255 | 111.547 | 63.297 | # |
| 48) L5,K kerosene (8) | 12.54 | 12.00 | 86620 | 155318 | 132.472 | 110.209 | |
| 49) L5,K kerosene (9) | 12.78 | 12.69 | 150783 | 177527 | 157.386 | 145.832 | |
| 50) L5,K kerosene (10) | 13.44 | 13.35 | 126916 | 121222 | 305.096 | 341.439 | |
| Sum kerosene (1) | | | 945187 | 1000179 | 955.669 | 936.002 | |
| Average kerosene (1) | | | | | 95.567 | 93.600 | |
| 51) L6,D diesel (1) | 9.56 | 9.51 | 78027 | 88925 | 105.083 | 102.282 | |
| 52) L6,D diesel (2) | 10.50 | 10.44 | 134077 | 135119 | 104.213 | 102.293 | |
| 53) L6,D diesel (3) | 11.33 | 11.25 | 140528 | 145255 | 102.742 | 97.779 | |
| 54) L6,D diesel (4) | 12.08 | 12.00 | 167292 | 155318 | 106.822 | 97.474 | |
| 55) L6,D diesel (5) | 12.78 | 12.69 | 150783 | 177527 | 107.069 | 101.061 | |
| 56) L6,D diesel (6) | 13.44 | 13.35 | 126916 | 121222 | 107.036 | 107.993 | |
| 57) L6,D diesel (7) | 14.06 | 13.97 | 107982 | 90022 | 109.613 | 107.156 | |
| 58) L6,D diesel (8) | 14.65 | 14.55 | 78809 | 72572 | 107.676 | 108.661 | |
| 59) L6,D diesel (9) | 15.21 | 15.11 | 72540 | 54537 | 113.949 | 112.574 | |
| 60) L6,D diesel (10) | 15.75 | 15.64 | 39729 | 30200 | 112.106 | 97.139 | m |
| Sum diesel (1) | | | 1096681 | 1070697 | 1076.308 | 1034.413 | |
| Average diesel (1) | | | | | 107.631 | 103.441 | |
| 64) L7,O motor oil (1) | 14.69 | 14.55 | 12223 | 72572 | 204.389 | 2189.767 | # |
| 65) L7,O motor oil (2) | 0.00 | 15.11 | 0 | 54537 | N.D. | 1007.504 | # |
| 66) L7,O motor oil (3) | 0.00 | 15.64 | 0 | 37928 | N.D. | 434.396 | # |
| 67) L7,O motor oil (4) | 0.00 | 15.85 | 0 | 9848 | N.D. | 112.561 | # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_13.D\FID1A.CH Vial: 13
Acq On : 17 Jan 2002 00:36 Operator: SAB 5997
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_13.D\FID2B.CH Vial: 13
Acq On : 17 Jan 2002 1:16 Operator: SAB 5997
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 17.45 | 0.00 | 950 | 0 | 1.895 | N.D. | # |
| 69) L7,O motor oil (6) | 17.94 | 0.00 | 121 | 0 | 0.223 | N.D. | # |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 72) L7,O motor oil (9) | 19.80 | 0.00 | 36 | 0 | 0.055 | N.D. | # |
| 73) L7,O motor oil (10) | 20.62 | 0.00 | 292 | 0 | 0.510 | N.D. | # |
| Sum motor oil (1) | | | 13623 | 174885 | 207.072 | 3744.228 | |
| Average motor oil (1) | | | | | 41.414 | 936.057 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Qedit)

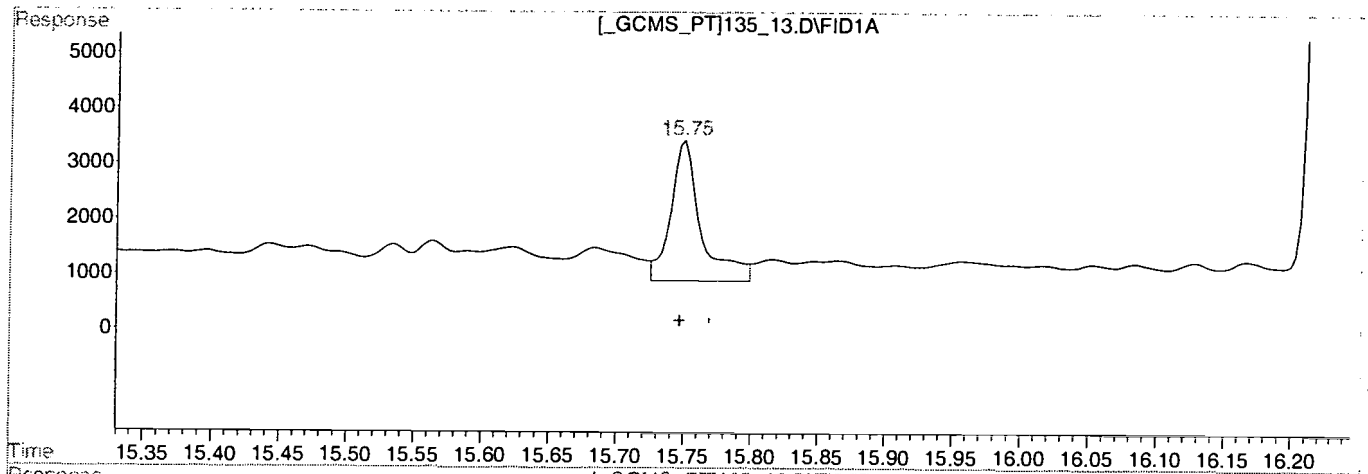
Data File : C:\HPCHEM\3\DATA\135\135_13.D\FID1A.CH
Acq On : 17 Jan 2002 00:36
Sample : FID A 713 L4
Misc : MIX [S,D]
IntFile : AUTOINT1.E

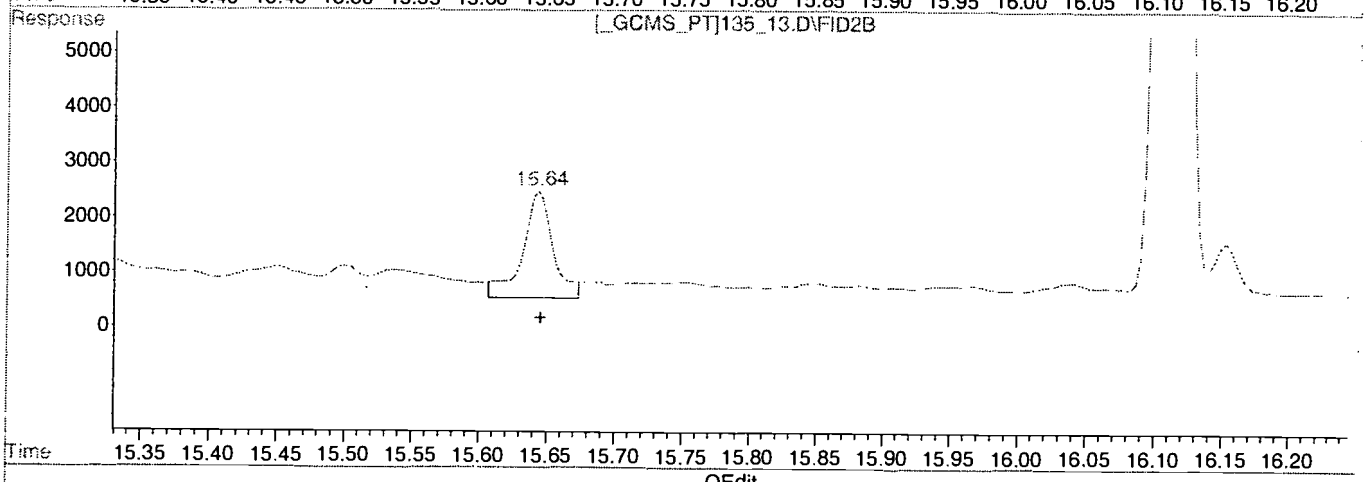
Vial: 13
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\135\135_13.D\FID2B.CH
Acq On : 17 Jan 2002 1:16
Sample : FID A 713 L4
Misc : MIX [S,D]
IntFile : EVENTS2.E
Quant Time: Jan 21 12:28 2002 Quant Results File: TPH.RES

Vial: 13
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration




(51) diesel (1) #2 (L6,D)

| R.T. | Response | Conc |
|---|---|---|
| 9.56 | 78027 | 105.08 |
| 10.50 | 134077 | 104.21 |
| 11.33 | 140528 | 102.74 |
| 12.08 | 167292 | 106.82 |
| 12.78 | 150783 | 107.07 |
| 13.44 | 126916 | 107.04 |
| 14.06 | 107982 | 109.61 |
| 14.65 | 78809 | 107.68 |
| 15.21 | 72540 | 113.95 |
| 15.75 | 39729 | 112.11 |

(51) diesel (1) #2 (L6,D)

| R.T. | Response | Conc |
|---|---|---|
| 9.51 | 88925 | 102.28 |
| 10.44 | 135119 | 102.29 |
| 11.25 | 145255 | 97.78 |
| 12.00 | 155318 | 97.47 |
| 12.69 | 177527 | 101.06 |
| 13.35 | 121222 | 107.99 |
| 13.97 | 90022 | 107.16 |
| 14.55 | 72572 | 108.66 |
| 15.11 | 54537 | 112.57 |
| 15.64 | 30200 | 97.14 |

(+) = Expected Retention Time

Data File : C:\HPCHEM\3\DATA\135\135_13.D\FID1A.CH
Acq On : 17 Jan 2002 00:36
Sample : FID A 713 L4
Misc : MIX [S,D]
IntFile : AUTOINT1.E

Vial: 13
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\135\135_13.D\FID2B.CH
Acq On : 17 Jan 2002 1:16
Sample : FID A 713 L4
Misc : MIX [S,D]
IntFile : EVENTS2.E

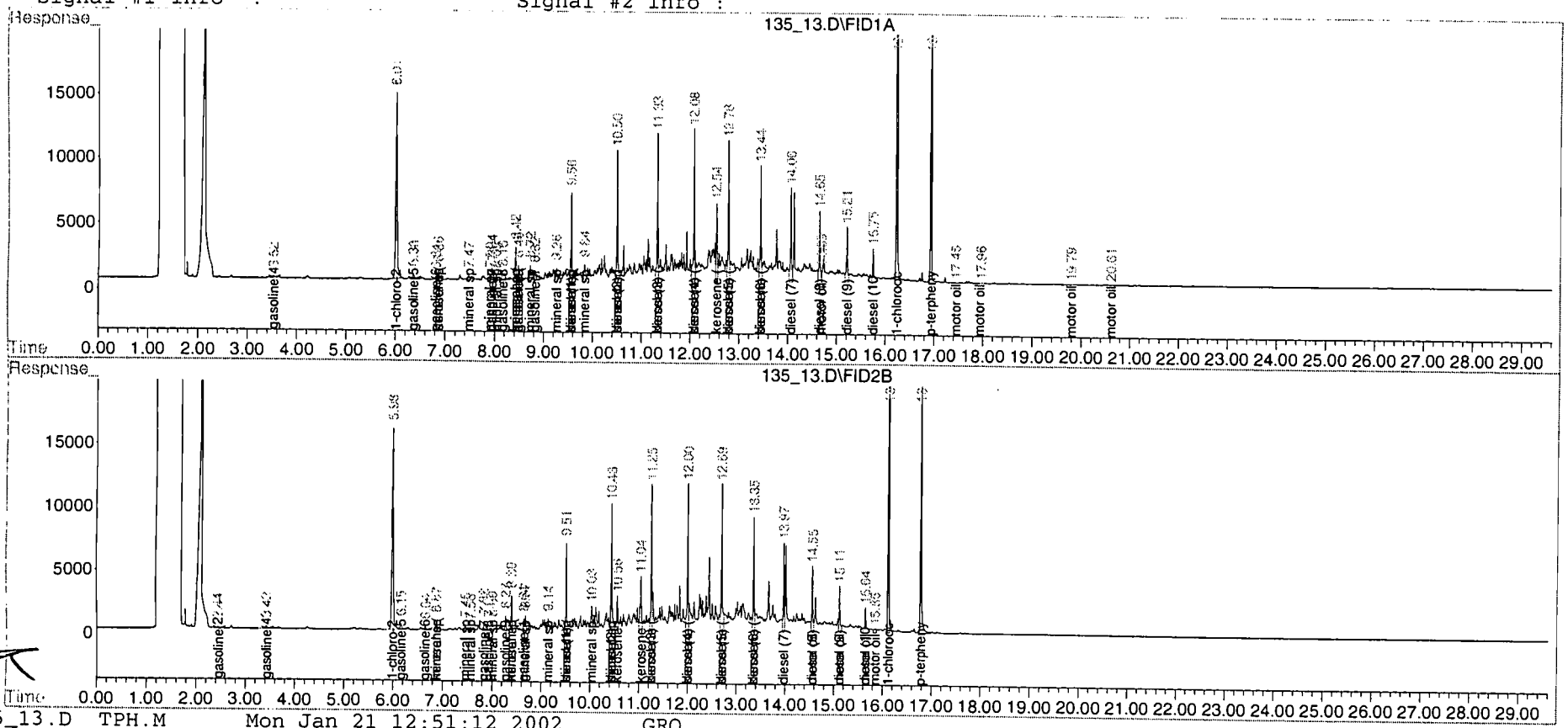
Vial: 13
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 12:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :

Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_14.D\FID1A.CH Vial: 14
Acq On : 17 Jan 2002 1:16 Operator: SAB 5997
Sample : FID A 651 L3 Inst : GC/FID In
Misc : MIX [S,K] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_14.D\FID2B.CH Vial: 14
Acq On : 17 Jan 2002 1:57 Operator: SAB 5997
Sample : FID A 651 L3 Inst : GC/FID In
Misc : MIX [S,K] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:28 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 0.00 | 5.97 | 0 | 2275 | N.D. | 0.060 # |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 0.60%# |
| 62) S 1-chlorooctadeca | 16.23 | 0.00 | 147 | 0 | 0.003 | N.D. # |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 0.02%# | 0.00%# |
| 63) S p-terphenyl | 16.94 | 0.00 | 306 | 0 | 0.006 | N.D. # |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 0.06%# | 0.00%# |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 0.00 | 3.44 | 0 | 4121 | N.D. | 0.994 # |
| 5) L1,A gasoline(5) | 6.36 | 6.16 | 8665 | 14045 | 2.884 | 4.214 # |
| 6) L1,A gasoline(6) | 6.82 | 6.65 | 3770 | 5313 | 3.270 | 4.039 |
| 7) L1,A gasoline(7) | 7.95 | 7.83 | 17252 | 15029 | 16.089 | 8.834 # |
| 8) L1,A gasoline(8) | 8.16 | 7.92 | 16837 | 16653 | 31.845 | 27.896 |
| 9) L1,A gasoline(9) | 8.48 | 8.27 | 20822 | 21586 | 12.187 | 11.669 |
| 10) L1,A gasoline(10) | 8.82 | 8.64 | 16808 | 19348 | 42.083 | 44.595 |
| Sum gasoline(1) | | | 84154 | 96096 | 108.357 | 102.241 |
| Average gasoline(1) | | | | | 18.060 | 14.606 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 6.30 | 0 | 7175 | N.D. | NoCal |
| 15) L2,J JP-4 (5) | 0.00 | 6.65 | 0 | 5313 | N.D. | NoCal |
| 16) L2,J JP-4 (6) | 8.68 | 8.00 | 9611 | 14315 | NoCal | NoCal |
| 17) L2,J JP-4 (7) | 9.75 | 9.21 | 18664 | 13640 | NoCal | NoCal |
| 18) L2,J JP-4 (8) | 10.71 | 0.00 | 12191 | 0 | NoCal | N.D. |
| 19) L2,J JP-4 (9) | 11.55 | 0.00 | 17881 | 0 | NoCal | N.D. |
| 20) L2,J JP-4 (10) | 12.27 | 11.79 | 14662 | 20296 | NoCal | NoCal |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 6.87 | 6.87 | 22962 | 26232 | 17.301 | 24.596 # |
| 22) L3,P mineral spirits | 7.48 | 7.45 | 14635 | 13411 | 15.602 | 15.913 |
| 23) L3,P mineral spirits | 7.90 | 7.56 | 16212 | 11500 | 17.863 | 14.428 |
| 24) L3,P mineral spirits | 8.03 | 8.00 | 15096 | 14315 | 10.355 | 11.473 |
| 25) L3,P mineral spirits | 8.42 | 8.39 | 61575 | 64708 | 17.978 | 18.369 |
| 26) L3,P mineral spirits | 8.73 | 8.67 | 23875 | 26881 | 15.009 | 13.583 |
| 27) L3,P mineral spirits | 9.26 | 9.14 | 21108 | 27732 | 19.931 | 19.939 |
| 28) L3,P mineral spirits | 9.56 | 9.51 | 92543 | 106644 | 27.429 | 25.185 |
| 29) L3,P mineral spirits | 9.84 | 10.03 | 30840 | 33431 | 28.380 | 40.164 # |
| 30) L3,P mineral spirits | 10.50 | 10.44 | 105489 | 109635 | 102.793 | 114.340 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_14.D\FID1A.CH Vial: 14
Acq On : 17 Jan 2002 1:16 Operator: SAB 5997
Sample : FID A 651 L3 Inst : GC/FID In
Misc : MIX [S,K] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_14.D\FID2B.CH Vial: 14
Acq On : 17 Jan 2002 1:57 Operator: SAB 5997
Sample : FID A 651 L3 Inst : GC/FID In
Misc : MIX [S,K] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:28 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 404335 | 434488 | 272.641 | 297.990 |
| Average mineral spirits ( | | | | | 27.264 | 29.799 |
| 31) L4,X SC-150 (1) | 9.20 | 9.14 | 26950 | 27732 | NoCal | NoCal |
| 32) L4,X SC-150 (2) | 9.32 | 9.14 | 14593 | 27732 | NoCal | NoCal |
| 33) L4,X SC-150 (3) | 9.32 | 9.21 | 14593 | 13640 | NoCal | NoCal |
| 34) L4,X SC-150 (4) | 9.51 | 0.00 | 16097 | 0 | NoCal | N.D. |
| 35) L4,X SC-150 (5) | 9.62 | 9.58f | 13047 | 18008 | NoCal | NoCal |
| 36) L4,X SC-150 (6) | 9.94 | 9.86 | 16228 | 14368 | NoCal | NoCal |
| 37) L4,X SC-150 (7) | 9.94 | 9.90 | 16228 | 9658 | NoCal | NoCal |
| 38) L4,X SC-150 (8) | 10.19 | 10.08 | 22624 | 16590 | NoCal | NoCal |
| 39) L4,X SC-150 (9) | 10.28 | 10.32 | 21835 | 33877 | NoCal | NoCal |
| 40) L4,X SC-150 (10) | 0.00 | 10.89 | 0 | 27867 | N.D. | NoCal |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 6.87 | 6.87 | 22962 | 26232 | 39.540 | 48.713 |
| 42) L5,K kerosene (2) | 8.42 | 8.39 | 61575 | 64708 | 45.550 | 47.319 |
| 43) L5,K kerosene (3) | 8.48 | 9.51 | 20822 | 106644 | 48.489 | 47.873 |
| 44) L5,K kerosene (4) | 9.56 | 10.44 | 92543 | 109635 | 46.490 | 47.492 |
| 45) L5,K kerosene (5) | 10.50 | 10.56 | 105489 | 41347 | 46.287 | 50.332 |
| 46) L5,K kerosene (6) | 11.33 | 11.04 | 104505 | 55940 | 52.992 | 49.140 |
| 47) L5,K kerosene (7) | 12.08 | 11.25 | 68260 | 111223 | 45.514 | 48.467 |
| 48) L5,K kerosene (8) | 12.54 | 12.00 | 30909 | 68243 | 47.270 | 48.423 |
| 49) L5,K kerosene (9) | 12.78 | 12.69 | 44910 | 50002 | 46.877 | 41.075 |
| 50) L5,K kerosene (10) | 13.44 | 13.35 | 19696 | 17361 | 47.348 | 48.900 |
| Sum kerosene (1) | | | 571670 | 651335 | 466.358 | 477.733 |
| Average kerosene (1) | | | | | 46.636 | 47.773 |
| 51) L6,D diesel (1) | 9.56 | 9.51 | 92543 | 106644 | 124.633 | 122.664 |
| 52) L6,D diesel (2) | 10.50 | 10.44 | 105489 | 109635 | 81.992 | 83.001 |
| 53) L6,D diesel (3) | 11.33 | 11.25 | 104505 | 111223 | 76.405 | 74.870 |
| 54) L6,D diesel (4) | 12.08 | 12.00 | 68260 | 68243 | 43.586 | 42.827 |
| 55) L6,D diesel (5) | 12.78 | 12.69 | 44910 | 50002 | 31.890 | 28.465 |
| 56) L6,D diesel (6) | 13.44 | 13.35 | 19696 | 17361 | 16.611 | 15.466 |
| 57) L6,D diesel (7) | 14.06 | 13.97 | 7307 | 4355 | 7.417 | 5.184 # |
| 58) L6,D diesel (8) | 14.65 | 14.57 | 1967 | 1472 | 2.687 | 2.203 |
| 59) L6,D diesel (9) | 15.22 | 0.00 | 857 | 0 | 1.347 | N.D. # |
| 60) L6,D diesel (10) | 15.75 | 0.00 | 251 | 0 | 0.709 | N.D. # |
| Sum diesel (1) | | | 445786 | 468934 | 387.279 | 374.680 |
| Average diesel (1) | | | | | 38.728 | 46.835 |
| 64) L7,O motor oil (1) | 0.00 | 14.57 | 0 | 1472 | N.D. | 44.401 # |
| 65) L7,O motor oil (2) | 0.00 | 15.14 | 0 | 531 | N.D. | 9.811 # |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 67) L7,O motor oil (4) | 16.48 | 0.00 | 63 | 0 | 0.228 | N.D. # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_14.D\FID1A.CH Vial: 14
Acq On : 17 Jan 2002 1:16 Operator: SAB 5997
Sample : FID A 651 L3 Inst : GC/FID In
Misc : MIX [S,K] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_14.D\FID2B.CH Vial: 14
Acq On : 17 Jan 2002 1:57 Operator: SAB 5997
Sample : FID A 651 L3 Inst : GC/FID In
Misc : MIX [S,K] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 12:28 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 69) L7,O motor oil (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 71) L7,O motor oil (8) | 19.06 | 0.00 | 1959 | 0 | 1.804 | N.D. | # |
| 72) L7,O motor oil (9) | 19.77 | 0.00 | 375 | 0 | 0.561 | N.D. | # |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum motor oil (1) | | | 2396 | 2003 | 2.593 | 54.212 | |
| Average motor oil (1) | | | | | 0.864 | 27.106 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\135\135_14.D\FID1A.CH
Acq On : 17 Jan 2002 1:16
Sample : FID A 651 L3
Misc : MIX [S,K]
IntFile : AUTOINT1.E

Vial: 14
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\135\135_14.D\FID2B.CH
Acq On : 17 Jan 2002 1:57
Sample : FID A 651 L3
Misc : MIX [S,K]
IntFile : EVENTS2.E

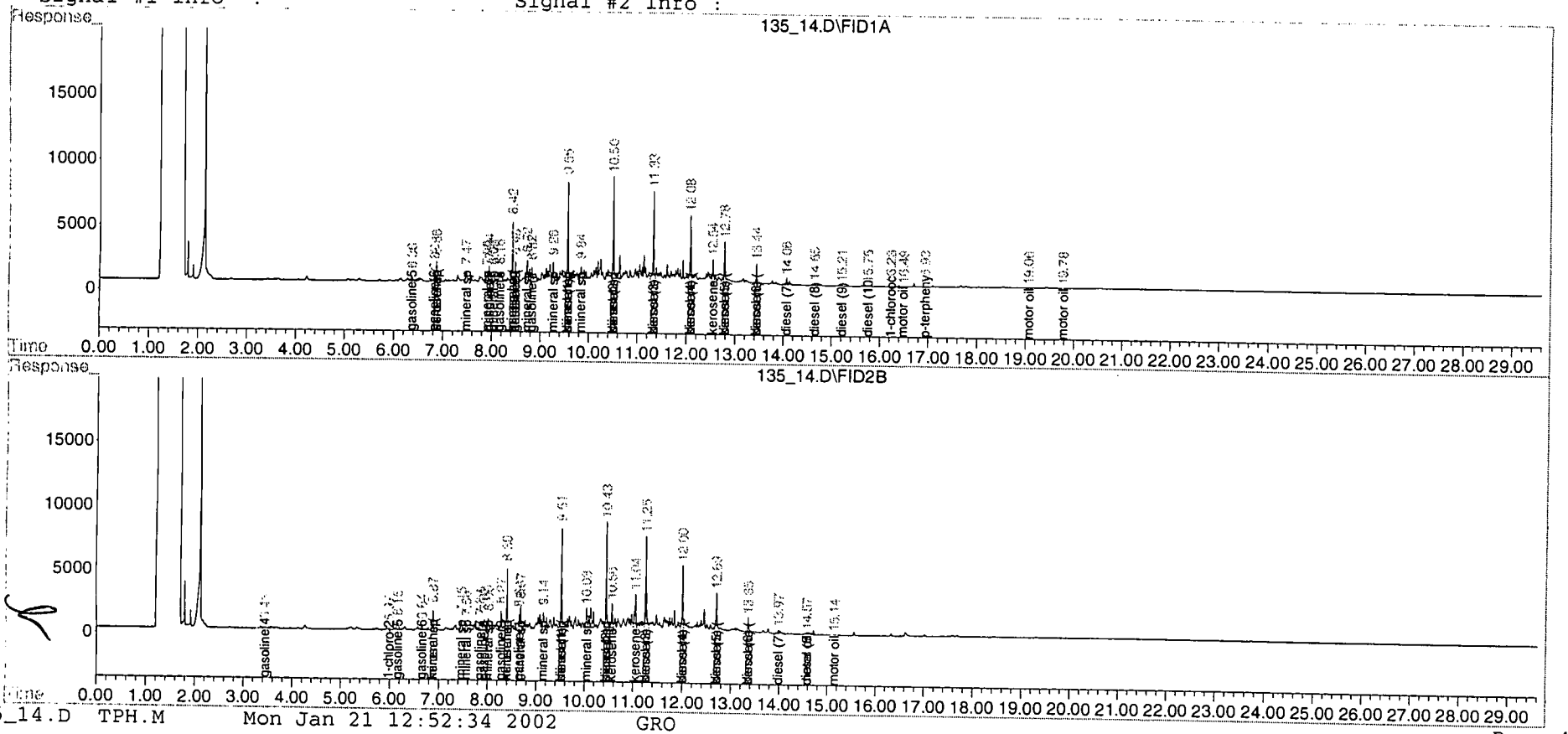
Vial: 14
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 12:28 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :

Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_15.D\FID1A.CH Vial: 15
Acq On : 17 Jan 2002 1:57 Operator: SAB 5997
Sample : BLA917 W-1301 Inst : GC/FID In
Misc : BLA02 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_15.D\FID2B.CH Vial: 15
Acq On : 17 Jan 2002 2:37 Operator: SAB 5997
Sample : BLA917 W-1301 Inst : GC/FID In
Misc : BLA02 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.02 | 5.99 | 410279 | 438100 | 11.790 | 11.545 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 117.90% | 115.45% |
| 62) S 1-chlorooctadeca | 16.24 | 16.12 | 1249181 | 883210 | 28.170 | 28.022 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 140.85% | 140.11% |
| 63) S p-terphenyl | 16.93 | 16.78 | 686454 | 394951 | 12.817 | 12.614 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 128.17% | 126.14% |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 2.32 | 2.32 | 16782 | 11591 | 12.324 | 6.028 # |
| 2) L1,A gasoline(2) | 2.44 | 2.45 | 15484 | 17062 | 32.941 | 35.205 |
| 3) L1,A gasoline(3) | 0.00 | 3.10 | 0 | 5930 | N.D. | 8.051 # |
| 4) L1,A gasoline(4) | 0.00 | 3.44 | 0 | 6096 | N.D. | 1.470 # |
| 5) L1,A gasoline(5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 6) L1,A gasoline(6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 7) L1,A gasoline(7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 8) L1,A gasoline(8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 9) L1,A gasoline(9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 10) L1,A gasoline(10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum gasoline(1) | | | 32265 | 40679 | 45.265 | 50.754 |
| Average gasoline(1) | | | | | 22.632 | 12.689 |
| 11) L2,J JP-4 (1) | 2.68 | 2.45 | 8878 | 17062 | NoCal | NoCal |
| 12) L2,J JP-4 (2) | 0.00 | 3.60 | 0 | 2851 | N.D. | NoCal |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_15.D\FID1A.CH Vial: 15
Acq On : 17 Jan 2002 1:57 Operator: SAB 5997
Sample : BLA917 W-1301 Inst : GC/FID In
Misc : BLA02 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_15.D\FID2B.CH Vial: 15
Acq On : 17 Jan 2002 2:37 Operator: SAB 5997
Sample : BLA917 W-1301 Inst : GC/FID In
Misc : BLA02 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. | |
| Average mineral spirits ( | | | | | 0.000 | 0.000 | |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average SC-150 (1) | | | | | 0.000 | 0.000 | |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 47) L5,K kerosene (7) | 12.08 | 0.00 | 256 | 0 | 0.171 | N.D. | # |
| 48) L5,K kerosene (8) | 12.54 | 0.00 | 284 | 0 | 0.434 | N.D. | # |
| 49) L5,K kerosene (9) | 12.78 | 12.67 | 299 | 3901 | 0.312 | 3.205 | # |
| 50) L5,K kerosene (10) | 13.44 | 0.00 | 233 | 0 | 0.561 | N.D. | # |
| Sum kerosene (1) | | | 1073 | 3901 | 1.479 | 3.205 | |
| Average kerosene (1) | | | | | 0.370 | 3.205 | |
| 51) L6,D diesel (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 52) L6,D diesel (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 53) L6,D diesel (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 54) L6,D diesel (4) | 12.08 | 0.00 | 256 | 0 | 0.164 | N.D. | # |
| 55) L6,D diesel (5) | 12.78 | 12.67 | 299 | 3901 | 0.213 | 2.221 | # |
| 56) L6,D diesel (6) | 13.44 | 0.00 | 233 | 0 | 0.197 | N.D. | # |
| 57) L6,D diesel (7) | 14.06 | 0.00 | 543 | 0 | 0.551 | N.D. | # |
| 58) L6,D diesel (8) | 14.65 | 14.56 | 962 | 354 | 1.315 | 0.530 | # |
| 59) L6,D diesel (9) | 15.20 | 0.00 | 994 | 0 | 1.561 | N.D. | # |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum diesel (1) | | | 3288 | 4255 | 4.001 | 2.751 | |
| Average diesel (1) | | | | | 0.667 | 1.375 | |
| 64) L7,O motor oil (1) | 0.00 | 14.56 | 0 | 354 | N.D. | 10.677 | # |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 67) L7,O motor oil (4) | 16.51 | 0.00 | 1262 | 0 | 4.595 | N.D. | # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_15.D\FID1A.CH Vial: 15
Acq On : 17 Jan 2002 1:57 Operator: SAB 5997
Sample : BLA917 W-1301 Inst : GC/FID In
Misc : BLA02 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_15.D\FID2B.CH Vial: 15
Acq On : 17 Jan 2002 2:37 Operator: SAB 5997
Sample : BLA917 W-1301 Inst : GC/FID In
Misc : BLA02 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 69) L7,O motor oil (6) | 17.93 | 0.00 | 141 | 0 | 0.260 | N.D. | # |
| 70) L7,O motor oil (7) | 18.47 | 0.00 | 156 | 0 | 0.188 | N.D. | # |
| 71) L7,O motor oil (8) | 19.07 | 0.00 | 79 | 0 | 0.073 | N.D. | # |
| 72) L7,O motor oil (9) | 19.77 | 0.00 | 105 | 0 | 0.157 | N.D. | # |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum motor oil (1) | | | 1743 | 354 | 5.273 | 10.677 | |
| Average motor oil (1) | | | | | 1.055 | 10.677 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitati Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_15.D\FID1A.CH
Acq On : 17 Jan 2002 1:57
Sample : BLA917 W-1301
Misc : BLA02
IntFile : AUTOINT1.E

Vial: 15
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\135\135_15.D\FID2B.CH
Acq On : 17 Jan 2002 2:37
Sample : BLA917 W-1301
Misc : BLA02
IntFile : EVENTS2.E

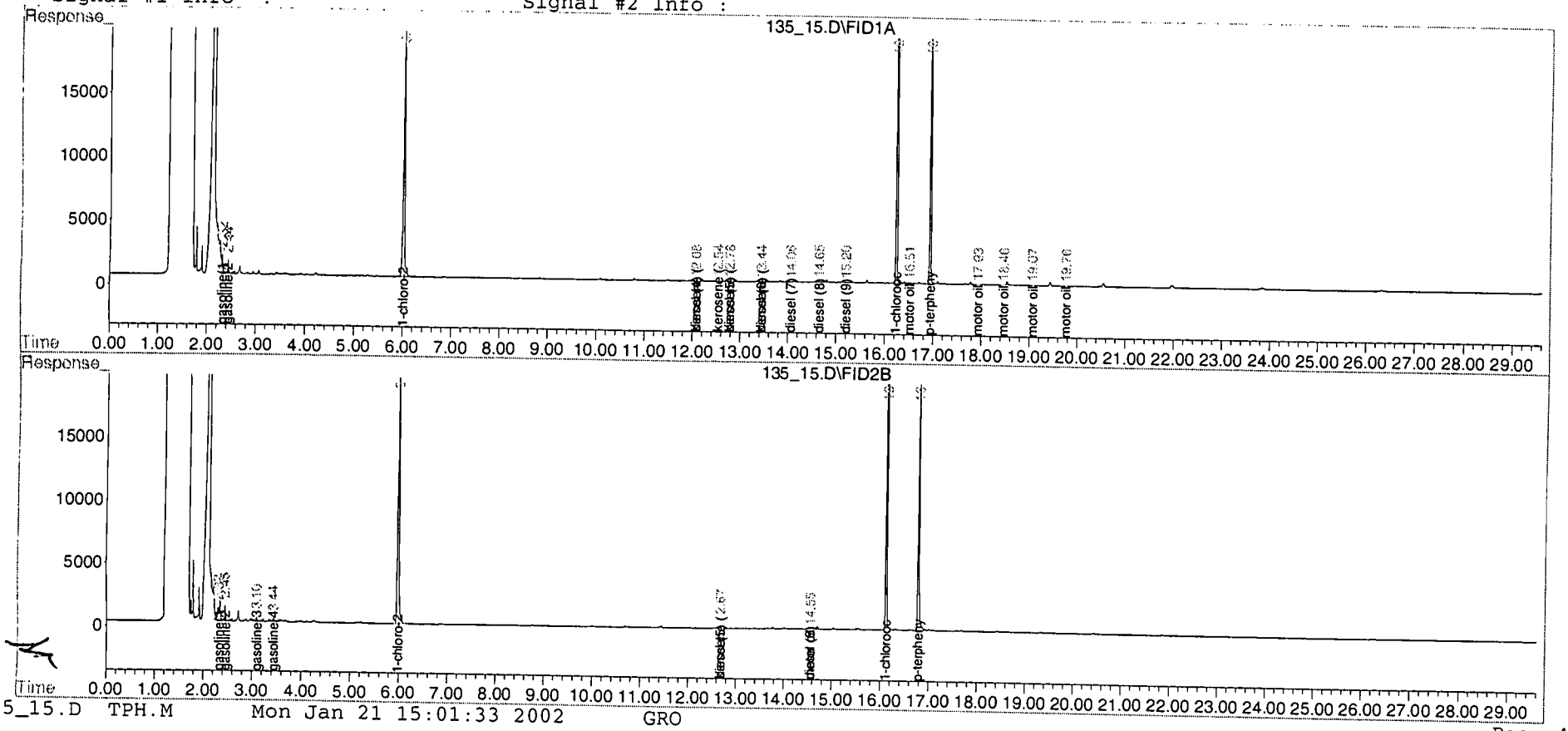
Vial: 15
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :

Signal #2 Phase:
Signal #2 Info :



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Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_16.D\FID1A.CH Vial: 16
Acq On : 17 Jan 2002 2:37 Operator: SAB 5997
Sample : A581214 1:20 W-1301 Inst : GC/FID In
Misc : DK27428 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_16.D\FID2B.CH Vial: 16
Acq On : 17 Jan 2002 3:18 Operator: SAB 5997
Sample : A581214 1:20 W-1301 Inst : GC/FID In
Misc : DK27428 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.01 | 5.99 | 26294 | 14004 | 0.756 | 0.369 # |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 7.56%# | 3.69%# |
| 62) S 1-chlorooctadeca | 16.23 | 16.11 | 48908 | 34633 | 1.103 | 1.099 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 5.51%# | 5.50%# |
| 63) S p-terphenyl | 16.93 | 16.79 | 71440 | 16055 | 1.334 | 0.513 # |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 13.34%# | 5.13%# |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 2.32 | 2.32 | 93398 | 64457 | 68.588 | 33.523 # |
| 2) L1,A gasoline(2) | 2.44 | 2.45 | 109784 | 119160 | 233.563 | 245.868 |
| 3) L1,A gasoline(3) | 0.00 | 3.10 | 0 | 67401 | N.D. | 91.505 # |
| 4) L1,A gasoline(4) | 3.52 | 3.44 | 9107 | 84058 | 2.774 | 20.273 # |
| 5) L1,A gasoline(5) | 6.37 | 6.15 | 9754 | 37905 | 3.247 | 11.373 # |
| 6) L1,A gasoline(6) | 0.00 | 6.65 | 0 | 8217 | N.D. | 6.247 # |
| 7) L1,A gasoline(7) | 7.94 | 7.83 | 23262 | 3914 | 21.693 | 2.300 # |
| 8) L1,A gasoline(8) | 0.00 | 7.91 | 0 | 25872 | N.D. | 43.339 # |
| 9) L1,A gasoline(9) | 8.48 | 8.27 | 22200 | 28516 | 12.994 | 15.415 |
| 10) L1,A gasoline(10) | 8.82 | 8.64 | 26986 | 21488 | 67.564 | 49.528 # |
| Sum gasoline(1) | | | 294491 | 460987 | 410.422 | 519.372 |
| Average gasoline(1) | | | | | 58.632 | 51.937 |
| 11) L2,J JP-4 (1) | 2.71 | 2.45 | 16245 | 119160 | NoCal | NoCal |
| 12) L2,J JP-4 (2) | 0.00 | 3.60 | 0 | 48830 | N.D. | NoCal |
| 13) L2,J JP-4 (3) | 0.00 | 3.91 | 0 | 16025 | N.D. | NoCal |
| 14) L2,J JP-4 (4) | 6.49 | 6.30 | 19223 | 50100 | NoCal | NoCal |
| 15) L2,J JP-4 (5) | 7.16 | 6.65 | 12047 | 8217 | NoCal | NoCal |
| 16) L2,J JP-4 (6) | 8.68 | 8.00 | 12108 | 42340 | NoCal | NoCal |
| 17) L2,J JP-4 (7) | 9.75 | 9.21 | 19025 | 16222 | NoCal | NoCal |
| 18) L2,J JP-4 (8) | 10.70 | 10.18 | 26235 | 21605 | NoCal | NoCal |
| 19) L2,J JP-4 (9) | 11.55 | 0.00 | 25082 | 0 | NoCal | N.D. |
| 20) L2,J JP-4 (10) | 12.27 | 11.79 | 16098 | 29438 | NoCal | NoCal |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 6.86 | 6.87 | 106857 | 79092 | 80.514 | 74.159 |
| 22) L3,P mineral spirits | 7.48 | 7.45 | 43801 | 33021 | 46.695 | 39.184 |
| 23) L3,P mineral spirits | 7.90 | 7.56 | 27889 | 73230 | 30.728 | 91.875 # |
| 24) L3,P mineral spirits | 8.03 | 8.00 | 33703 | 42340 | 23.117 | 33.934 # |
| 25) L3,P mineral spirits | 8.42 | 8.39 | 78798 | 75786 | 23.006 | 21.514 |
| 26) L3,P mineral spirits | 8.72 | 8.67 | 40518 | 46231 | 25.472 | 23.360 |
| 27) L3,P mineral spirits | 9.26 | 9.14 | 20078 | 29014 | 18.959 | 20.861 |
| 28) L3,P mineral spirits | 9.56 | 9.51 | 65364 | 80115 | 19.373 | 18.920 |
| 29) L3,P mineral spirits | 9.84 | 10.03 | 37116 | 49636 | 34.155 | 59.633 # |
| 30) L3,P mineral spirits | 10.50 | 10.44 | 61579 | 62185 | 60.006 | 64.853 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_16.D\FID1A.CH Vial: 16
Acq On : 17 Jan 2002 2:37 Operator: SAB 5997
Sample : A581214 1:20 W-1301 Inst : GC/FID In
Misc : DK27428 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_16.D\FID2B.CH Vial: 16
Acq On : 17 Jan 2002 3:18 Operator: SAB 5997
Sample : A581214 1:20 W-1301 Inst : GC/FID In
Misc : DK27428 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 515702 | 570650 | 362.025 | 448.294 | |
| Average mineral spirits ( | | | | | 36.203 | 44.829 | |
| 31) L4,X SC-150 (1) | 0.00 | 9.14 | 0 | 29014 | N.D. | NoCal | |
| 32) L4,X SC-150 (2) | 9.31 | 9.14 | 20052 | 29014 | NoCal | NoCal | |
| 33) L4,X SC-150 (3) | 9.31 | 9.21 | 20052 | 16222 | NoCal | NoCal | |
| 34) L4,X SC-150 (4) | 9.51 | 0.00 | 15292 | 0 | NoCal | N.D. | |
| 35) L4,X SC-150 (5) | 9.62 | 9.56 | 18938 | 6491 | NoCal | NoCal | |
| 36) L4,X SC-150 (6) | 9.94 | 9.86 | 42632 | 17240 | NoCal | NoCal | |
| 37) L4,X SC-150 (7) | 0.00 | 9.90 | 0 | 21480 | N.D. | NoCal | |
| 38) L4,X SC-150 (8) | 10.19 | 10.08 | 21509 | 17645 | NoCal | NoCal | |
| 39) L4,X SC-150 (9) | 0.00 | 10.34 | 0 | 48514 | N.D. | NoCal | |
| 40) L4,X SC-150 (10) | 0.00 | 10.87 | 0 | 43833 | N.D. | NoCal | |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average SC-150 (1) | | | | | 0.000 | 0.000 | |
| 41) L5,K kerosene (1) | 6.86 | 6.87 | 106857 | 79092 | 184.003 | 146.876 | |
| 42) L5,K kerosene (2) | 8.42 | 8.39 | 78798 | 75786 | 58.291 | 55.420 | |
| 43) L5,K kerosene (3) | 8.48 | 9.51 | 22200 | 80115 | 51.699 | 35.964 | # |
| 44) L5,K kerosene (4) | 9.56 | 10.44 | 65364 | 62185 | 32.837 | 26.937 | |
| 45) L5,K kerosene (5) | 10.50 | 10.56 | 61579 | 58452 | 27.020 | 71.153 | # |
| 46) L5,K kerosene (6) | 11.33 | 11.04 | 76669 | 59337 | 38.878 | 52.124 | # |
| 47) L5,K kerosene (7) | 12.08 | 11.25 | 88327 | 58114 | 58.895 | 25.324 | # |
| 48) L5,K kerosene (8) | 12.54 | 12.00 | 56608 | 80348 | 86.573 | 57.013 | # |
| 49) L5,K kerosene (9) | 12.78 | 12.69 | 118936 | 104999 | 124.144 | 86.253 | # |
| 50) L5,K kerosene (10) | 13.44 | 13.35 | 81425 | 84153 | 195.740 | 237.030 | |
| Sum kerosene (1) | | | 756763 | 742581 | 858.079 | 794.094 | |
| Average kerosene (1) | | | | | 85.808 | 79.409 | |
| 51) L6,D diesel (1) | 9.56 | 9.51 | 65364 | 80115 | 88.030 | 92.150 | |
| 52) L6,D diesel (2) | 10.50 | 10.44 | 61579 | 62185 | 47.863 | 47.078 | |
| 53) L6,D diesel (3) | 11.33 | 11.25 | 76669 | 58114 | 56.054 | 39.120 | # |
| 54) L6,D diesel (4) | 12.08 | 12.00 | 88327 | 80348 | 56.400 | 50.425 | |
| 55) L6,D diesel (5) | 12.78 | 12.69 | 118936 | 104999 | 84.455 | 59.773 | # |
| 56) L6,D diesel (6) | 13.44 | 13.35 | 81425 | 84153 | 68.671 | 74.970 | |
| 57) L6,D diesel (7) | 14.06 | 13.97 | 88928 | 72689 | 90.271 | 86.524 | |
| 58) L6,D diesel (8) | 14.65 | 14.55 | 77487 | 68218 | 105.870 | 102.142 | |
| 59) L6,D diesel (9) | 15.21 | 15.11 | 107904 | 66990 | 169.501 | 138.280 | |
| 60) L6,D diesel (10) | 15.75 | 15.65 | 80498 | 80348 | 227.146 | 258.442 | |
| Sum diesel (1) | | | 847118 | 758160 | 994.261 | 948.902 | |
| Average diesel (1) | | | | | 99.426 | 94.890 | |
| 64) L7,O motor oil (1) | 14.69 | 14.55 | 16876 | 68218 | 282.210 | 2058.393 | # |
| 65) L7,O motor oil (2) | 0.00 | 15.11 | 0 | 66990 | N.D. | 1237.565 | # |
| 66) L7,O motor oil (3) | 0.00 | 15.65 | 0 | 80348 | N.D. | 920.234 | # |
| 67) L7,O motor oil (4) | 16.50 | 15.85 | 29882 | 25335 | 108.777 | 289.559 | # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_16.D\FID1A.CH Vial: 16
Acq On : 17 Jan 2002 2:37 Operator: SAB 5997
Sample : A581214 1:20 W-1301 Inst : GC/FID In
Misc : DK27428 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_16.D\FID2B.CH Vial: 16
Acq On : 17 Jan 2002 3:18 Operator: SAB 5997
Sample : A581214 1:20 W-1301 Inst : GC/FID In
Misc : DK27428 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 16.37 | 0 | 16187 | N.D. | 137.035 # |
| 69) L7,O motor oil (6) | 17.95 | 17.28 | 31350 | 12829 | 57.864 | 134.491 # |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 71) L7,O motor oil (8) | 0.00 | 18.28 | 0 | 4110 | N.D. | 36.840 # |
| 72) L7,O motor oil (9) | 19.80 | 18.86 | 30046 | 820 | 44.975 | 13.131 # |
| 73) L7,O motor oil (10) | 20.63 | 19.55 | 15338 | 861 | 26.748 | 19.083 # |
| Sum motor oil (1) | | | 123493 | 275697 | 520.574 | 4846.331 |
| Average motor oil (1) | | | | | 104.115 | 538.481 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitati eport (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_16.D\FID1A.CH
Acq On : 17 Jan 2002 2:37
Sample : A581214 1:20 W-1301
Misc : DK27428
IntFile : AUTOINT1.E

Vial: 16
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

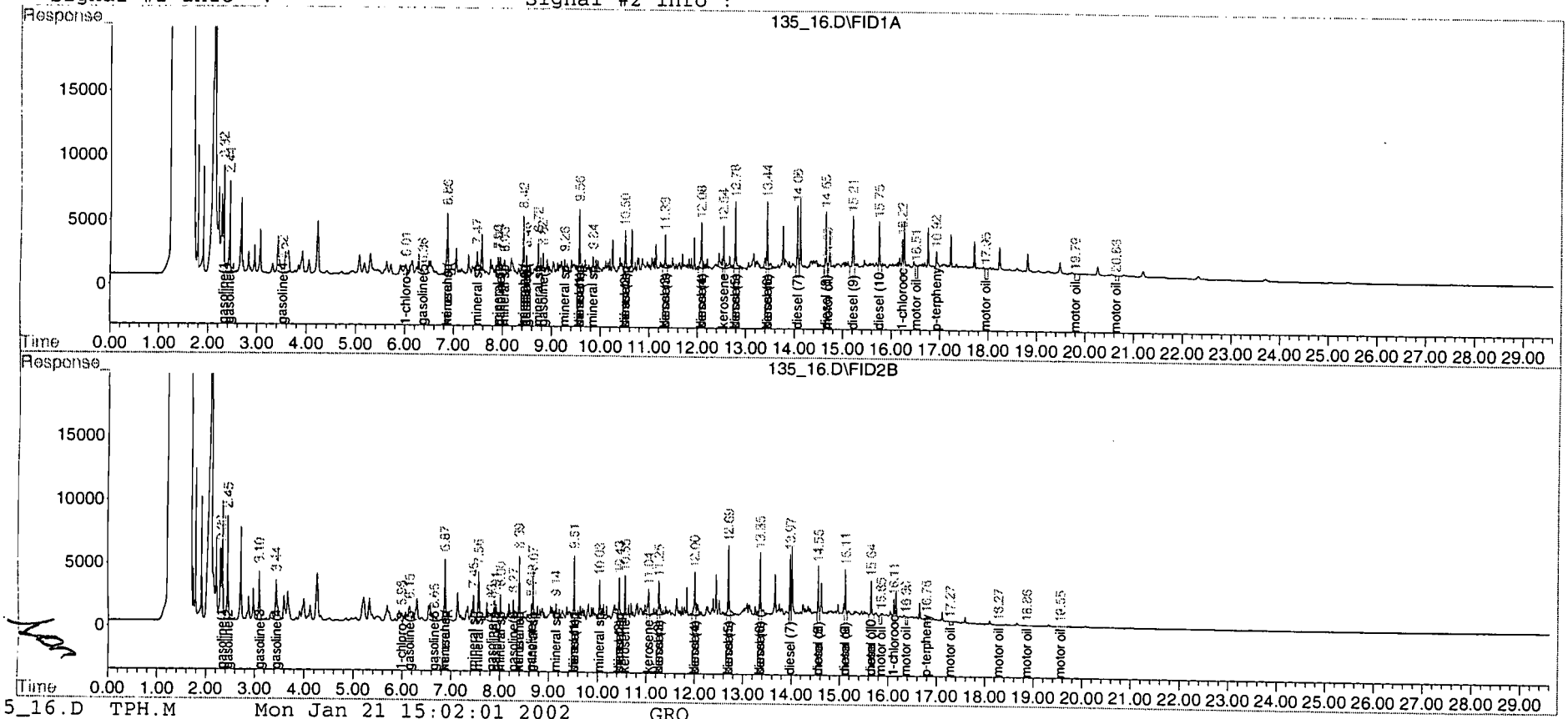
Data File : C:\HPCHEM\3\DATA\135\135_16.D\FID2B.CH
Acq On : 17 Jan 2002 3:18
Sample : A581214 1:20 W-1301
Misc : DK27428
IntFile : EVENTS2.E

Vial: 16
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_17.D\FID1A.CH Vial: 17
Acq On : 17 Jan 2002 3:18 Operator: SAB 5997
Sample : A581215 1:5 W-1301 Inst : GC/FID In
Misc : DK27429 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_17.D\FID2B.CH Vial: 17
Acq On : 17 Jan 2002 3:59 Operator: SAB 5997
Sample : A581215 1:5 W-1301 Inst : GC/FID In
Misc : DK27429 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.02 | 5.98 | 134453 | 146814 | 3.864 | 3.869 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 38.64%# | 38.69%# |
| 62) S 1-chlorooctadeca | 16.23 | 16.11 | 292965 | 192654 | 6.607 | 6.112 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 33.04%# | 30.56%# |
| 63) S p-terphenyl | 16.93 | 16.78 | 205131 | 119991 | 3.830 | 3.832 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 38.30%# | 38.32%# |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 2.32 | 2.30 | 136512 | 122447 | 100.249 | 63.682 # |
| 2) L1,A gasoline(2) | 2.44 | 2.45 | 157168 | 193786 | 334.372 | 399.848 |
| 3) L1,A gasoline(3) | 0.00 | 3.10 | 0 | 95429 | N.D. | 129.557 # |
| 4) L1,A gasoline(4) | 3.53 | 3.43 | 110550 | 212234 | 33.676 | 51.186 # |
| 5) L1,A gasoline(5) | 6.36 | 6.15 | 56227 | 102079 | 18.715 | 30.627 # |
| 6) L1,A gasoline(6) | 6.82 | 6.64 | 46238 | 44802 | 40.107 | 34.062 |
| 7) L1,A gasoline(7) | 7.94 | 0.00 | 37301 | 0 | 34.785 | N.D. # |
| 8) L1,A gasoline(8) | 0.00 | 7.92 | 0 | 47917 | N.D. | 80.265 # |
| 9) L1,A gasoline(9) | 8.48 | 8.27 | 24012 | 32236 | 14.054 | 17.426 |
| 10) L1,A gasoline(10) | 8.82 | 8.64 | 53782 | 50474 | 134.653 | 116.337 |
| Sum gasoline(1) | | | 621792 | 901403 | 710.611 | 922.991 |
| Average gasoline(1) | | | | | 88.826 | 102.555 |
| 11) L2,J JP-4 (1) | 2.72 | 2.45 | 18978 | 193786 | NoCal | NoCal |
| 12) L2,J JP-4 (2) | 0.00 | 3.60 | 0 | 64858 | N.D. | NoCal |
| 13) L2,J JP-4 (3) | 0.00 | 3.91 | 0 | 21368 | N.D. | NoCal |
| 14) L2,J JP-4 (4) | 6.49 | 6.30 | 24576 | 62718 | NoCal | NoCal |
| 15) L2,J JP-4 (5) | 7.16 | 6.64 | 14827 | 44802 | NoCal | NoCal |
| 16) L2,J JP-4 (6) | 8.68 | 8.00 | 14823 | 52111 | NoCal | NoCal |
| 17) L2,J JP-4 (7) | 9.75 | 9.21 | 23355 | 20185 | NoCal | NoCal |
| 18) L2,J JP-4 (8) | 10.70 | 10.18 | 23526 | 27494 | NoCal | NoCal |
| 19) L2,J JP-4 (9) | 11.55 | 0.00 | 29932 | 0 | NoCal | N.D. |
| 20) L2,J JP-4 (10) | 12.27 | 11.78 | 18449 | 37787 | NoCal | NoCal |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 6.86 | 6.87 | 151687 | 152575 | 114.292 | 143.060 # |
| 22) L3,P mineral spirits | 7.48 | 7.45 | 46040 | 39292 | 49.082 | 46.625 |
| 23) L3,P mineral spirits | 7.90 | 7.56 | 34619 | 98254 | 38.142 | 123.270 # |
| 24) L3,P mineral spirits | 8.03 | 8.00 | 41488 | 52111 | 28.457 | 41.765 # |
| 25) L3,P mineral spirits | 8.42 | 8.39 | 107904 | 123718 | 31.504 | 35.120 |
| 26) L3,P mineral spirits | 8.73 | 8.67 | 51046 | 62524 | 32.091 | 31.593 |
| 27) L3,P mineral spirits | 9.26 | 9.14 | 26001 | 37805 | 24.552 | 27.181 |
| 28) L3,P mineral spirits | 9.57 | 9.51 | 112372 | 137265 | 33.306 | 32.416 |
| 29) L3,P mineral spirits | 9.84 | 10.03 | 45418 | 90760 | 41.796 | 109.039 # |
| 30) L3,P mineral spirits | 10.50 | 10.44 | 134181 | 133909 | 130.752 | 139.655 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_17.D\FID1A.CH Vial: 17
Acq On : 17 Jan 2002 3:18 Operator: SAB 5997
Sample : A581215 1:5 W-1301 Inst : GC/FID In
Misc : DK27429 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_17.D\FID2B.CH Vial: 17
Acq On : 17 Jan 2002 3:59 Operator: SAB 5997
Sample : A581215 1:5 W-1301 Inst : GC/FID In
Misc : DK27429 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 750756 | 928212 | 523.974 | 729.726 | |
| Average mineral spirits ( | | | | | 52.397 | 72.973 | |
| 31) L4,X SC-150 (1) | 0.00 | 9.14 | 0 | 37805 | N.D. | NoCal | |
| 32) L4,X SC-150 (2) | 9.31 | 9.14 | 24733 | 37805 | NoCal | NoCal | |
| 33) L4,X SC-150 (3) | 9.31 | 9.21 | 24733 | 20185 | NoCal | NoCal | |
| 34) L4,X SC-150 (4) | 9.51 | 0.00 | 20493 | 0 | NoCal | N.D. | |
| 35) L4,X SC-150 (5) | 9.62 | 0.00 | 24296 | 0 | NoCal | N.D. | |
| 36) L4,X SC-150 (6) | 9.94 | 9.86 | 31111 | 21725 | NoCal | NoCal | |
| 37) L4,X SC-150 (7) | 9.97 | 9.90 | 12472 | 27429 | NoCal | NoCal | |
| 38) L4,X SC-150 (8) | 10.19 | 10.08 | 26811 | 21710 | NoCal | NoCal | |
| 39) L4,X SC-150 (9) | 10.28 | 10.33 | 23105 | 76427 | NoCal | NoCal | |
| 40) L4,X SC-150 (10) | 0.00 | 10.87 | 0 | 53189 | N.D. | NoCal | |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average SC-150 (1) | | | | | 0.000 | 0.000 | |
| 41) L5,K kerosene (1) | 6.86 | 6.87 | 151687 | 152575 | 261.200 | 283.337 | |
| 42) L5,K kerosene (2) | 8.42 | 8.39 | 107904 | 123718 | 79.822 | 90.471 | |
| 43) L5,K kerosene (3) | 8.48 | 9.51 | 24012 | 137265 | 55.920 | 61.619 | |
| 44) L5,K kerosene (4) | 9.57 | 10.44 | 112372 | 133909 | 56.452 | 58.007 | |
| 45) L5,K kerosene (5) | 10.50 | 10.56 | 134181 | 83667 | 58.877 | 101.848 | # |
| 46) L5,K kerosene (6) | 11.33 | 11.04 | 124915 | 72594 | 63.342 | 63.770 | |
| 47) L5,K kerosene (7) | 12.08 | 11.25 | 126445 | 163210 | 84.311 | 71.121 | |
| 48) L5,K kerosene (8) | 12.54 | 12.00 | 69088 | 163541 | 105.659 | 116.044 | |
| 49) L5,K kerosene (9) | 12.78 | 12.69 | 137381 | 169860 | 143.396 | 139.534 | |
| 50) L5,K kerosene (10) | 13.44 | 13.35 | 106755 | 109345 | 256.632 | 307.985 | |
| Sum kerosene (1) | | | 1094740 | 1309684 | 1165.611 | 1293.735 | |
| Average kerosene (1) | | | | | 116.561 | 129.373 | |
| 51) L6,D diesel (1) | 9.57 | 9.51 | 112372 | 137265 | 151.338 | 157.884 | |
| 52) L6,D diesel (2) | 10.50 | 10.44 | 134181 | 133909 | 104.293 | 101.377 | |
| 53) L6,D diesel (3) | 11.33 | 11.25 | 124915 | 163210 | 91.327 | 109.866 | |
| 54) L6,D diesel (4) | 12.08 | 12.00 | 126445 | 163541 | 80.740 | 102.634 | # |
| 55) L6,D diesel (5) | 12.78 | 12.69 | 137381 | 169860 | 97.552 | 96.697 | |
| 56) L6,D diesel (6) | 13.44 | 13.35 | 106755 | 109345 | 90.034 | 97.412 | |
| 57) L6,D diesel (7) | 14.06 | 13.97 | 115548 | 94203 | 117.294 | 112.133 | |
| 58) L6,D diesel (8) | 14.65 | 14.55 | 99927 | 85501 | 136.530 | 128.019 | |
| 59) L6,D diesel (9) | 15.21 | 15.11 | 115700 | 120716 | 181.748 | 249.179 | # |
| 60) L6,D diesel (10) | 15.75 | 15.64 | 85640 | 97766 | 241.654 | 314.467 | # |
| Sum diesel (1) | | | 1158865 | 1275315 | 1292.510 | 1469.668 | |
| Average diesel (1) | | | | | 129.251 | 146.967 | |
| 64) L7,O motor oil (1) | 14.69 | 14.55 | 20994 | 85501 | 351.068 | 2579.886 | # |
| 65) L7,O motor oil (2) | 0.00 | 15.11 | 0 | 120716 | N.D. | 2230.087 | # |
| 66) L7,O motor oil (3) | 15.78 | 15.64 | 16388 | 97766 | 144.140 | 1119.723 | # |
| 67) L7,O motor oil (4) | 16.50 | 15.85 | 36733 | 30453 | 133.712 | 348.061 | # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_17.D\FID1A.CH Vial: 17
Acq On : 17 Jan 2002 3:18 Operator: SAB 5997
Sample : A581215 1:5 W-1301 Inst : GC/FID In
Misc : DK27429 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_17.D\FID2B.CH Vial: 17
Acq On : 17 Jan 2002 3:59 Operator: SAB 5997
Sample : A581215 1:5 W-1301 Inst : GC/FID In
Misc : DK27429 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 750756 | 928212 | 523.974 | 729.726 | |
| Average mineral spirits ( | | | | | 52.397 | 72.973 | |
| 31) L4,X SC-150 (1) | 0.00 | 9.14 | 0 | 37805 | N.D. | NoCal | |
| 32) L4,X SC-150 (2) | 9.31 | 9.14 | 24733 | 37805 | NoCal | NoCal | |
| 33) L4,X SC-150 (3) | 9.31 | 9.21 | 24733 | 20185 | NoCal | NoCal | |
| 34) L4,X SC-150 (4) | 9.51 | 0.00 | 20493 | 0 | NoCal | N.D. | |
| 35) L4,X SC-150 (5) | 9.62 | 0.00 | 24296 | 0 | NoCal | N.D. | |
| 36) L4,X SC-150 (6) | 9.94 | 9.86 | 31111 | 21725 | NoCal | NoCal | |
| 37) L4,X SC-150 (7) | 9.97 | 9.90 | 12472 | 27429 | NoCal | NoCal | |
| 38) L4,X SC-150 (8) | 10.19 | 10.08 | 26811 | 21710 | NoCal | NoCal | |
| 39) L4,X SC-150 (9) | 10.28 | 10.33 | 23105 | 76427 | NoCal | NoCal | |
| 40) L4,X SC-150 (10) | 0.00 | 10.87 | 0 | 53189 | N.D. | NoCal | |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average SC-150 (1) | | | | | 0.000 | 0.000 | |
| 41) L5,K kerosene (1) | 6.86 | 6.87 | 151687 | 152575 | 261.200 | 283.337 | |
| 42) L5,K kerosene (2) | 8.42 | 8.39 | 107904 | 123718 | 79.822 | 90.471 | |
| 43) L5,K kerosene (3) | 8.48 | 9.51 | 24012 | 137265 | 55.920 | 61.619 | |
| 44) L5,K kerosene (4) | 9.57 | 10.44 | 112372 | 133909 | 56.452 | 58.007 | |
| 45) L5,K kerosene (5) | 10.50 | 10.56 | 134181 | 83667 | 58.877 | 101.848 | # |
| 46) L5,K kerosene (6) | 11.33 | 11.04 | 124915 | 72594 | 63.342 | 63.770 | |
| 47) L5,K kerosene (7) | 12.08 | 11.25 | 126445 | 163210 | 84.311 | 71.121 | |
| 48) L5,K kerosene (8) | 12.54 | 12.00 | 69088 | 163541 | 105.659 | 116.044 | |
| 49) L5,K kerosene (9) | 12.78 | 12.69 | 137381 | 169860 | 143.396 | 139.534 | |
| 50) L5,K kerosene (10) | 13.44 | 13.35 | 106755 | 109345 | 256.632 | 307.985 | |
| Sum kerosene (1) | | | 1094740 | 1309684 | 1165.611 | 1293.735 | |
| Average kerosene (1) | | | | | 116.561 | 129.373 | |
| 51) L6,D diesel (1) | 9.57 | 9.51 | 112372 | 137265 | 151.338 | 157.884 | |
| 52) L6,D diesel (2) | 10.50 | 10.44 | 134181 | 133909 | 104.293 | 101.377 | |
| 53) L6,D diesel (3) | 11.33 | 11.25 | 124915 | 163210 | 91.327 | 109.866 | |
| 54) L6,D diesel (4) | 12.08 | 12.00 | 126445 | 163541 | 80.740 | 102.634 | # |
| 55) L6,D diesel (5) | 12.78 | 12.69 | 137381 | 169860 | 97.552 | 96.697 | |
| 56) L6,D diesel (6) | 13.44 | 13.35 | 106755 | 109345 | 90.034 | 97.412 | |
| 57) L6,D diesel (7) | 14.06 | 13.97 | 115548 | 94203 | 117.294 | 112.133 | |
| 58) L6,D diesel (8) | 14.65 | 14.55 | 99927 | 85501 | 136.530 | 128.019 | |
| 59) L6,D diesel (9) | 15.21 | 15.11 | 115700 | 120716 | 181.748 | 249.179 | # |
| 60) L6,D diesel (10) | 15.75 | 15.64 | 85640 | 97766 | 241.654 | 314.467 | # |
| Sum diesel (1) | | | 1158865 | 1275315 | 1292.510 | 1469.668 | |
| Average diesel (1) | | | | | 129.251 | 146.967 | |
| 64) L7,O motor oil (1) | 14.69 | 14.55 | 20994 | 85501 | 351.068 | 2579.886 | # |
| 65) L7,O motor oil (2) | 0.00 | 15.11 | 0 | 120716 | N.D. | 2230.087 | # |
| 66) L7,O motor oil (3) | 15.78 | 15.64 | 16388 | 97766 | 144.140 | 1119.723 | # |
| 67) L7,O motor oil (4) | 16.50 | 15.85 | 36733 | 30453 | 133.712 | 348.061 | # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_17.D\FID1A.CH Vial: 17
Acq On : 17 Jan 2002 3:18 Operator: SAB 5997
Sample : A581215 1:5 W-1301 Inst : GC/FID In
Misc : DK27429 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_17.D\FID2B.CH Vial: 17
Acq On : 17 Jan 2002 3:59 Operator: SAB 5997
Sample : A581215 1:5 W-1301 Inst : GC/FID In
Misc : DK27429 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 17.44 | 0.00 | 20512 | 0 | 40.906 | N.D. | # |
| 69) L7,O motor oil (6) | 17.95 | 17.27 | 34729 | 14176 | 64.101 | 148.610 | # |
| 70) L7,O motor oil (7) | 0.00 | 17.76 | 0 | 10185 | N.D. | 130.868 | # |
| 71) L7,O motor oil (8) | 0.00 | 18.28 | 0 | 6364 | N.D. | 57.038 | # |
| 72) L7,O motor oil (9) | 19.81 | 18.86 | 20059 | 2169 | 30.026 | 34.733 | |
| 73) L7,O motor oil (10) | 0.00 | 19.55 | 0 | 1171 | N.D. | 25.946 | # |
| Sum motor oil (1) | | | 149415 | 368500 | 763.953 | 6674.951 | |
| Average motor oil (1) | | | | | 127.326 | 741.661 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitati eport (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_17.D\FID1A.CH
Acq On : 17 Jan 2002 3:18
Sample : A581215 1:5 W-1301
Misc : DK27429
IntFile : AUTOINT1.E

Vial: 17
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

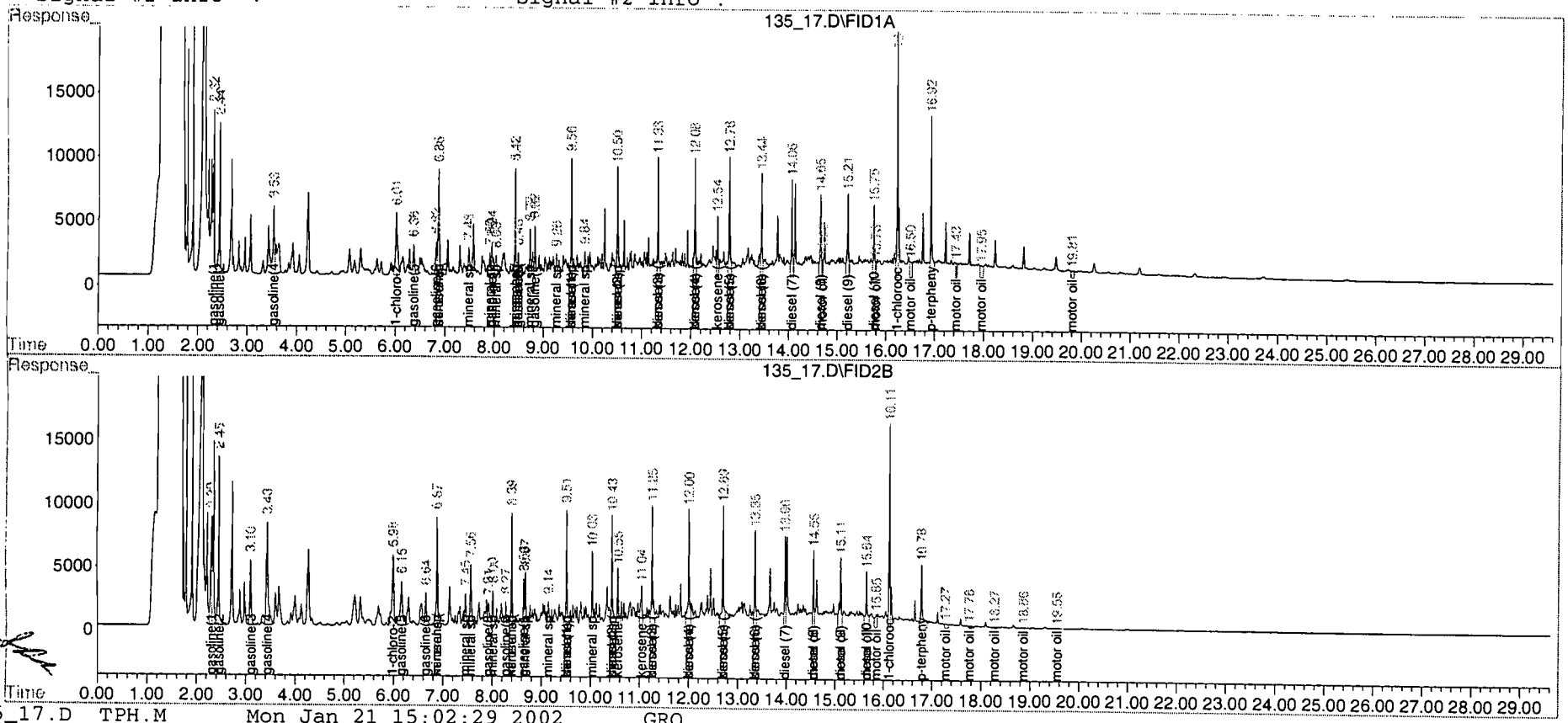
Data File : C:\HPCHEM\3\DATA\135\135_17.D\FID2B.CH
Acq On : 17 Jan 2002 3:59
Sample : A581215 1:5 W-1301
Misc : DK27429
IntFile : EVENTS2.E

Vial: 17
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_18.D\FID1A.CH Vial: 18
Acq On : 17 Jan 2002 3:59 Operator: SAB 5997
Sample : A581216 W-1301 Inst : GC/FID In
Misc : DK27430 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_18.D\FID2B.CH Vial: 18
Acq On : 17 Jan 2002 4:39 Operator: SAB 5997
Sample : A581216 W-1301 Inst : GC/FID In
Misc : DK27430 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.01 | 5.99 | 409841 | 437163 | 11.778 | 11.520 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 117.78% | 115.20% |
| 62) S 1-chlorooctadeca | 16.23 | 16.12 | 1238861 | 861036 | 27.937 | 27.318 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 139.69% | 136.59% |
| 63) S p-terphenyl | 16.93 | 16.78 | 654779 | 372185 | 12.225 | 11.886 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 122.25% | 118.86% |
| Target Compounds | | | | | | |
| L1,A gasoline(1) | 2.32 | 0.00 | 6790 | 0 | 4.986 | N.D. # |
| 2) L1,A gasoline(2) | 2.44 | 2.45 | 6363 | 8596 | 13.537 | 17.738 # |
| 3) L1,A gasoline(3) | 0.00 | 3.10 | 0 | 3030 | N.D. | 4.113 # |
| 4) L1,A gasoline(4) | 0.00 | 3.44 | 0 | 3133 | N.D. | 0.756 # |
| 5) L1,A gasoline(5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 6) L1,A gasoline(6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 7) L1,A gasoline(7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 8) L1,A gasoline(8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 9) L1,A gasoline(9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 10) L1,A gasoline(10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum gasoline(1) | | | 13153 | 14759 | 18.523 | 22.606 |
| Average gasoline(1) | | | | | 9.261 | 7.535 |
| 11) L2,J JP-4 (1) | 0.00 | 2.45 | 0 | 8596 | N.D. | NoCal |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_18.D\FID1A.CH Vial: 18
Acq On : 17 Jan 2002 3:59 Operator: SAB 5997
Sample : A581216 W-1301 Inst : GC/FID In
Misc : DK27430 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_18.D\FID2B.CH Vial: 18
Acq On : 17 Jan 2002 4:39 Operator: SAB 5997
Sample : A581216 W-1301 Inst : GC/FID In
Misc : DK27430 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. | |
| Average mineral spirits ( | | | | | 0.000 | 0.000 | |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average SC-150 (1) | | | | | 0.000 | 0.000 | |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 49) L5,K kerosene (9) | 12.78 | 12.67 | 181 | 3337 | 0.188 | 2.741 | # |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum kerosene (1) | | | 181 | 3337 | 0.188 | 2.741 | |
| Average kerosene (1) | | | | | 0.188 | 2.741 | |
| 51) L6,D diesel (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 52) L6,D diesel (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 53) L6,D diesel (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 54) L6,D diesel (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 55) L6,D diesel (5) | 12.78 | 12.67 | 181 | 3337 | 0.128 | 1.899 | # |
| 56) L6,D diesel (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 57) L6,D diesel (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 58) L6,D diesel (8) | 14.65 | 14.56 | 557 | 384 | 0.761 | 0.575 | |
| 59) L6,D diesel (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 60) L6,D diesel (10) | 15.75 | 0.00 | 232 | 0 | 0.655 | N.D. | # |
| Sum diesel (1) | | | 970 | 3721 | 1.545 | 2.475 | |
| Average diesel (1) | | | | | 0.515 | 1.237 | |
| 64) L7,O motor oil (1) | 0.00 | 14.56 | 0 | 384 | N.D. | 11.597 | # |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 67) L7,O motor oil (4) | 16.51 | 0.00 | 1327 | 0 | 4.831 | N.D. | # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_18.D\FID1A.CH Vial: 18
Acq On : 17 Jan 2002 3:59 Operator: SAB 5997
Sample : A581216 W-1301 Inst : GC/FID In
Misc : DK27430 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_18.D\FID2B.CH Vial: 18
Acq On : 17 Jan 2002 4:39 Operator: SAB 5997
Sample : A581216 W-1301 Inst : GC/FID In
Misc : DK27430 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 69) L7,O motor oil (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 71) L7,O motor oil (8) | 19.09 | 0.00 | 145 | 0 | 0.133 | N.D. | # |
| 72) L7,O motor oil (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum motor oil (1) | | | 1472 | 384 | 4.965 | 11.597 | |
| Average motor oil (1) | | | | | 2.482 | 11.597 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitatic eport (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_18.D\FID1A.CH
Acq On : 17 Jan 2002 3:59
Sample : A581216 W-1301
Misc : DK27430
IntFile : AUTOINT1.E

Vial: 18
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\135\135_18.D\FID2B.CH
Acq On : 17 Jan 2002 4:39
Sample : A581216 W-1301
Misc : DK27430
IntFile : EVENTS2.E

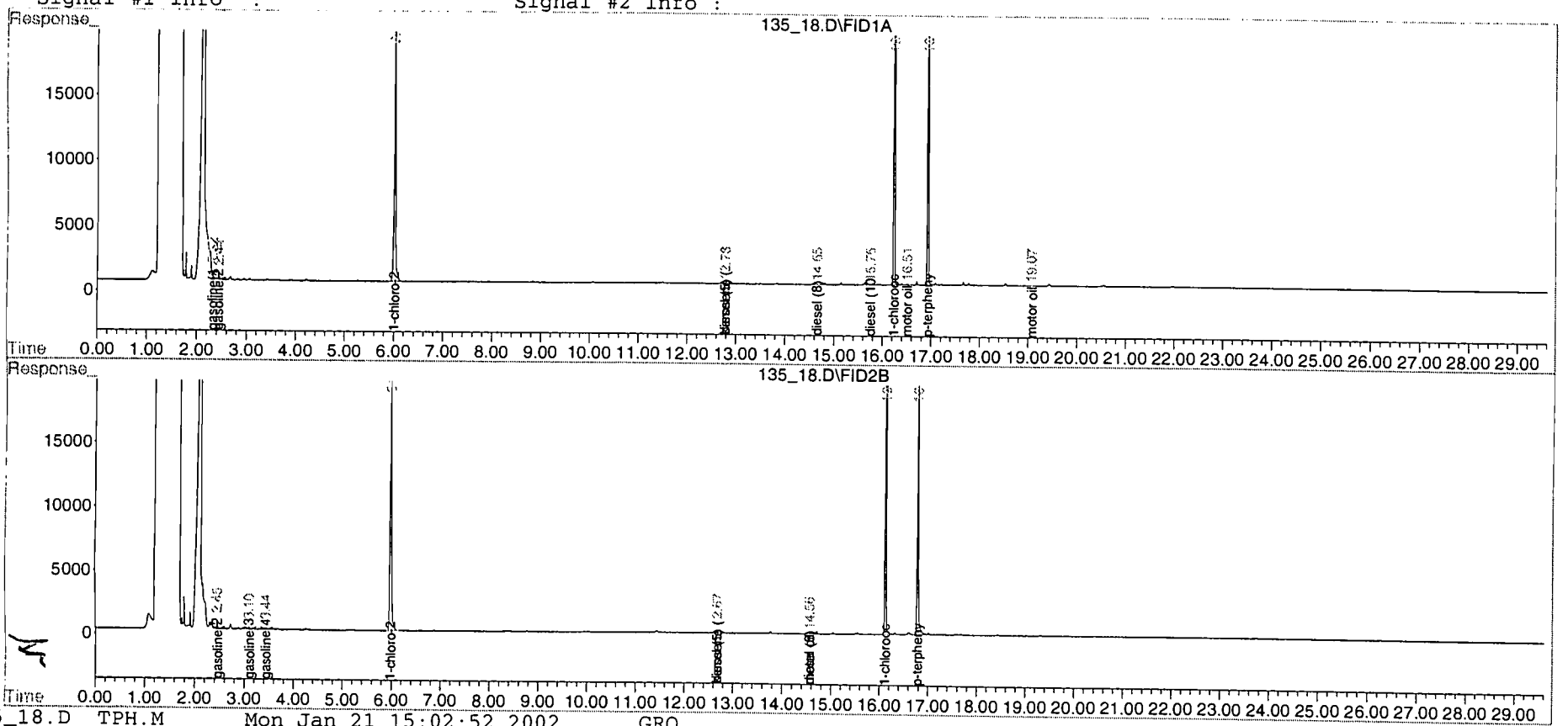
Vial: 18
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :

Signal #2 Phase:
Signal #2 Info :



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Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_19.D\FID1A.CH Vial: 19
Acq On : 17 Jan 2002 4:39 Operator: SAB 5997
Sample : A581217 W-1301 Inst : GC/FID In
Misc : DK27431 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_19.D\FID2B.CH Vial: 19
Acq On : 17 Jan 2002 5:18 Operator: SAB 5997
Sample : A581217 W-1301 Inst : GC/FID In
Misc : DK27431 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.02 | 5.99 | 404168 | 434684 | 11.615 | 11.455 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 116.15% | 114.55% |
| 62) S 1-chlorooctadeca | 16.23 | 16.12 | 1237861 | 854976 | 27.915 | 27.126 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 139.58% | 135.63% |
| 63) S p-terphenyl | 16.93 | 16.78 | 665893 | 378643 | 12.433 | 12.093 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 124.33% | 120.93% |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 2.32 | 2.33 | 6429 | 5178 | 4.721 | 2.693 # |
| 2) L1,A gasoline(2) | 2.44 | 2.46 | 6096 | 8132 | 12.968 | 16.778 # |
| 3) L1,A gasoline(3) | 0.00 | 3.10 | 0 | 2905 | N.D. | 3.944 # |
| 4) L1,A gasoline(4) | 0.00 | 3.44 | 0 | 2917 | N.D. | 0.704 # |
| 5) L1,A gasoline(5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 6) L1,A gasoline(6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 7) L1,A gasoline(7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 8) L1,A gasoline(8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 9) L1,A gasoline(9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 10) L1,A gasoline(10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum gasoline(1) | | | 12525 | 19133 | 17.689 | 24.120 |
| Average gasoline(1) | | | | | 8.845 | 6.030 |
| 11) L2,J JP-4 (1) | 0.00 | 2.46 | 0 | 8132 | N.D. | NoCal |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_19.D\FID1A.CH Vial: 19
Acq On : 17 Jan 2002 4:39 Operator: SAB 5997
Sample : A581217 W-1301 Inst : GC/FID In
Misc : DK27431 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_19.D\FID2B.CH Vial: 19
Acq On : 17 Jan 2002 5:18 Operator: SAB 5997
Sample : A581217 W-1301 Inst : GC/FID In
Misc : DK27431 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. | |
| Average mineral spirits ( | | | | | 0.000 | 0.000 | |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average SC-150 (1) | | | | | 0.000 | 0.000 | |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 47) L5,K kerosene (7) | 12.08 | 0.00 | 180 | 0 | 0.120 | N.D. | # |
| 48) L5,K kerosene (8) | 12.54 | 0.00 | 167 | 0 | 0.256 | N.D. | # |
| 49) L5,K kerosene (9) | 12.78 | 12.67 | 212 | 2734 | 0.221 | 2.246 | # |
| 50) L5,K kerosene (10) | 13.44 | 0.00 | 166 | 0 | 0.400 | N.D. | # |
| Sum kerosene (1) | | | 725 | 2734 | 0.997 | 2.246 | |
| Average kerosene (1) | | | | | 0.249 | 2.246 | |
| 51) L6,D diesel (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 52) L6,D diesel (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 53) L6,D diesel (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 54) L6,D diesel (4) | 12.08 | 0.00 | 180 | 0 | 0.115 | N.D. | # |
| 55) L6,D diesel (5) | 12.78 | 12.67 | 212 | 2734 | 0.150 | 1.556 | # |
| 56) L6,D diesel (6) | 13.44 | 0.00 | 166 | 0 | 0.140 | N.D. | # |
| 57) L6,D diesel (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 58) L6,D diesel (8) | 14.65 | 14.56 | 452 | 367 | 0.617 | 0.550 | |
| 59) L6,D diesel (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum diesel (1) | | | 1010 | 3101 | 1.023 | 2.106 | |
| age diesel (1) | | | | | 0.256 | 1.053 | |
| 64) L7,O motor oil (1) | 0.00 | 14.56 | 0 | 367 | N.D. | 11.075 | # |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 67) L7,O motor oil (4) | 16.51 | 0.00 | 1038 | 0 | 3.777 | N.D. | # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_19.D\FID1A.CH Vial: 19
Acq On : 17 Jan 2002 4:39 Operator: SAB 5997
Sample : A581217 W-1301 Inst : GC/FID In
Misc : DK27431 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_19.D\FID2B.CH Vial: 19
Acq On : 17 Jan 2002 5:18 Operator: SAB 5997
Sample : A581217 W-1301 Inst : GC/FID In
Misc : DK27431 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 17.42 | 0.00 | 240 | 0 | 0.479 | N.D. | # |
| 69) L7,O motor oil (6) | 17.92 | 0.00 | 53 | 0 | 0.098 | N.D. | # |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 72) L7,O motor oil (9) | 19.77 | 0.00 | 76 | 0 | 0.114 | N.D. | # |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum motor oil (1) | | | 1407 | 367 | 4.469 | 11.075 | |
| Average motor oil (1) | | | | | 1.117 | 11.075 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\135\135_19.D\FID1A.CH
Acq On : 17 Jan 2002 4:39
Sample : A581217 W-1301
Misc : DK27431
IntFile : AUTOINT1.E

Vial: 19
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

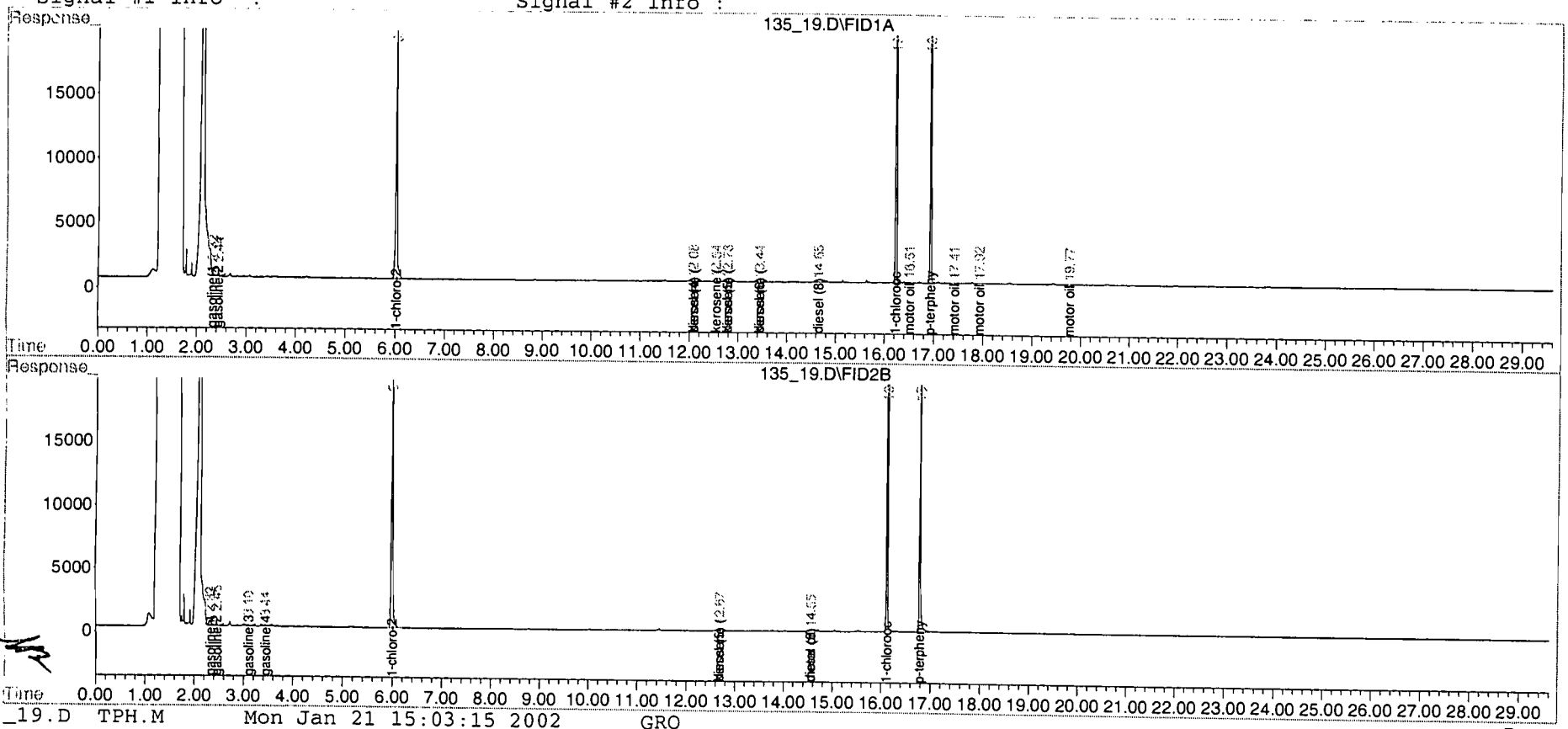
Data File : C:\HPCHEM\3\DATA\135\135_19.D\FID2B.CH
Acq On : 17 Jan 2002 5:18
Sample : A581217 W-1301
Misc : DK27431
IntFile : EVENTS2.E

Vial: 19
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 14:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :






03

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_20.D\FID1A.CH Vial: 20
Acq On : 17 Jan 2002 5:18 Operator: SAB 5997
Sample : A581217 MS W-1301 Inst : GC/FID In
Misc : DK27431 SPI02 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_20.D\FID2B.CH Vial: 20
Acq On : 17 Jan 2002 5:58 Operator: SAB 5997
Sample : A581217 MS W-1301 Inst : GC/FID In
Misc : DK27431 SPI02 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 15:00 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | | |
| 61) S 1-chloro-2-fluor | 6.01 | 5.98 | 405899 | 435187 | 11.664 | 11.468 | |
| Spiked Amount 10.000 | Range 50 - 150 | | | Recovery = | 116.64% | 114.68% | |
| 62) S 1-chlorooctadeca | 16.23 | 16.12 | 1238627 | 852687 | 27.932 | 27.053 | |
| Spiked Amount 20.000 | Range 50 - 150 | | | Recovery = | 139.66% | 135.27% | |
| 63) S p-terphenyl | 16.93 | 16.78 | 659507 | 360570 | 12.314m | 11.516 | |
| Spiked Amount 10.000 | Range 50 - 150 | | | Recovery = | 123.14% | 115.16% | |
| Target Compounds | | | | | | | |
| 1) L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 2) L1,A gasoline(2) | 2.44 | 2.45 | 7673 | 8741 | 16.325 | 18.036 | |
| 3) L1,A gasoline(3) | 0.00 | 3.10 | 0 | 3081 | N.D. | 4.183 | # |
| 4) L1,A gasoline(4) | 3.53 | 3.43 | 1348 | 9466 | 0.411 | 2.283 | # |
| 5) L1,A gasoline(5) | 6.36 | 6.16 | 9039 | 12675 | 3.008 | 3.803 | # |
| 6) L1,A gasoline(6) | 6.82 | 6.65 | 4181 | 4510 | 3.626 | 3.429 | |
| 7) L1,A gasoline(7) | 7.94 | 7.83 | 19462 | 15251 | 18.149 | 8.965 | # |
| 8) L1,A gasoline(8) | 8.16 | 7.92 | 12376 | 8972 | 23.407 | 15.029 | # |
| 9) L1,A gasoline(9) | 8.48 | 8.27 | 14948 | 14916 | 8.749 | 8.063 | |
| 10) L1,A gasoline(10) | 8.82 | 8.64 | 12496 | 12948 | 31.285 | 29.843 | |
| Sum gasoline(1) | | | 81522 | 90561 | 104.961 | 93.634 | |
| Average gasoline(1) | | | | | 13.120 | 10.404 | |
| 11) L2,J JP-4 (1) | 0.00 | 2.45 | 0 | 8741 | N.D. | NoCal | |
| 12) L2,J JP-4 (2) | 0.00 | 3.60 | 0 | 3104 | N.D. | NoCal | |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 14) L2,J JP-4 (4) | 0.00 | 6.30 | 0 | 4145 | N.D. | NoCal | |
| 15) L2,J JP-4 (5) | 0.00 | 6.65 | 0 | 4510 | N.D. | NoCal | |
| 16) L2,J JP-4 (6) | 8.68 | 8.00 | 5533 | 8149 | NoCal | NoCal | |
| 17) L2,J JP-4 (7) | 9.75 | 9.21 | 15868 | 8967 | NoCal | NoCal | |
| 18) L2,J JP-4 (8) | 0.00 | 10.18 | 0 | 27436 | N.D. | NoCal | |
| 19) L2,J JP-4 (9) | 11.55 | 0.00 | 29480 | 0 | NoCal | N.D. | |
| 20) L2,J JP-4 (10) | 0.00 | 11.78 | 0 | 46135 | N.D. | NoCal | |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average JP-4 (1) | | | | | 0.000 | 0.000 | |
| 21) L3,P mineral spirits | 6.86 | 6.87 | 15667 | 14020 | 11.805 | 13.145 | |
| 22) L3,P mineral spirits | 7.47 | 7.45 | 7365 | 8324 | 7.851 | 9.878 | # |
| 23) L3,P mineral spirits | 7.90 | 7.56 | 8570 | 6838 | 9.442 | 8.579 | |
| 24) L3,P mineral spirits | 8.03 | 8.00 | 8206 | 8149 | 5.629 | 6.531 | |
| 25) L3,P mineral spirits | 8.42 | 8.39 | 38538 | 38324 | 11.252 | 10.879 | |
| 26) L3,P mineral spirits | 8.72 | 8.67 | 15932 | 16286 | 10.016 | 8.230 | |
| 27) L3,P mineral spirits | 9.26 | 9.14 | 13917 | 18527 | 13.141 | 13.321 | |
| 28) L3,P mineral spirits | 9.56 | 9.51 | 79431 | 90620 | 23.543 | 21.401 | |
| 29) L3,P mineral spirits | 9.84 | 10.03 | 29240 | 46303 | 26.908 | 55.629 | # |
| 30) L3,P mineral spirits | 10.50 | 10.44 | 142469 | 147228 | 138.829 | 153.546 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_20.D\FID1A.CH Vial: 20
Acq On : 17 Jan 2002 5:18 Operator: SAB 5997
Sample : A581217 MS W-1301 Inst : GC/FID In
Misc : DK27431 SPI02 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_20.D\FID2B.CH Vial: 20
Acq On : 17 Jan 2002 5:58 Operator: SAB 5997
Sample : A581217 MS W-1301 Inst : GC/FID In
Misc : DK27431 SPI02 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 15:00 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 359335 | 394620 | 258.415 | 301.138 |
| Average mineral spirits ( | | | | | 25.842 | 30.114 |
| 31) L4,X SC-150 (1) | 9.20 | 9.14 | 18975 | 18527 | NoCal | NoCal |
| 32) L4,X SC-150 (2) | 9.31 | 9.14 | 11381 | 18527 | NoCal | NoCal |
| 33) L4,X SC-150 (3) | 9.31 | 9.21 | 11381 | 8967 | NoCal | NoCal |
| 34) L4,X SC-150 (4) | 9.50 | 0.00 | 13776 | 0 | NoCal | N.D. |
| 35) L4,X SC-150 (5) | 9.62 | 9.56 | 12012 | 17138 | NoCal | NoCal |
| 36) L4,X SC-150 (6) | 9.94 | 9.87 | 16272 | 15013 | NoCal | NoCal |
| 37) L4,X SC-150 (7) | 9.94 | 9.90 | 16272 | 13680 | NoCal | NoCal |
| 38) L4,X SC-150 (8) | 10.19 | 10.08 | 23520 | 18505 | NoCal | NoCal |
| 39) L4,X SC-150 (9) | 10.28 | 10.33 | 21312 | 45545 | NoCal | NoCal |
| 40) L4,X SC-150 (10) | 0.00 | 10.89 | 0 | 42736 | N.D. | NoCal |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 6.86 | 6.87 | 15667 | 14020 | 26.978 | 26.035 |
| 42) L5,K kerosene (2) | 8.42 | 8.39 | 38538 | 38324 | 28.508 | 28.025 |
| 43) L5,K kerosene (3) | 8.48 | 9.51 | 14948 | 90620 | 34.811 | 40.680 |
| 44) L5,K kerosene (4) | 9.56 | 10.44 | 79431 | 147228 | 39.903 | 63.776 # |
| 45) L5,K kerosene (5) | 10.50 | 10.56 | 142469 | 54204 | 62.514 | 65.982 |
| 46) L5,K kerosene (6) | 11.33 | 11.04 | 164518 | 85436 | 83.424 | 75.050 |
| 47) L5,K kerosene (7) | 12.08 | 11.25 | 169590 | 197088 | 113.079 | 85.884 |
| 48) L5,K kerosene (8) | 12.54 | 12.00 | 87483 | 158127 | 133.791 | 112.202 |
| 49) L5,K kerosene (9) | 12.78 | 12.69 | 154042 | 234967 | 160.787 | 193.017 |
| 50) L5,K kerosene (10) | 13.44 | 13.35 | 130673 | 144961 | 314.130 | 408.304 # |
| Sum kerosene (1) | | | 997359 | 1164974 | 997.926 | 1098.955 |
| Average kerosene (1) | | | | | 99.793 | 109.895 |
| 51) L6,D diesel (1) | 9.56 | 9.51 | 79431 | 90620 | 106.975 | 104.233 |
| 52) L6,D diesel (2) | 10.50 | 10.44 | 142469 | 147228 | 110.736 | 111.460 |
| 53) L6,D diesel (3) | 11.33 | 11.25 | 142262 | 147940 | 104.010m | 99.587m |
| 54) L6,D diesel (4) | 12.08 | 12.00 | 169590 | 158127 | 108.289 | 99.237 |
| 55) L6,D diesel (5) | 12.78 | 12.69 | 154042 | 177172 | 109.383 | 100.859m |
| 56) L6,D diesel (6) | 13.44 | 13.35 | 130673 | 120592 | 110.206 | 107.432m |
| 57) L6,D diesel (7) | 14.06 | 13.96 | 109437 | 94016 | 111.090 | 111.910m |
| 58) L6,D diesel (8) | 14.65 | 14.55 | 79752 | 74505 | 108.965m | 111.554 |
| 59) L6,D diesel (9) | 15.21 | 15.11 | 73916 | 52592 | 116.111 | 108.559m |
| 60) L6,D diesel (10) | 15.75 | 15.64 | 41530 | 31046 | 117.187 | 99.860m |
| Sum diesel (1) | | | 1123102 | 1093837 | 1102.950 | 1054.691 |
| Average diesel (1) | | | | | 110.295 | 105.469 |
| 64) L7,O motor oil (1) | 0.00 | 14.55 | 0 | 74505 | N.D. | 2248.076 # |
| 65) L7,O motor oil (2) | 0.00 | 15.11 | 0 | 73152 | N.D. | 1351.395 # |
| 66) L7,O motor oil (3) | 0.00 | 15.64 | 0 | 37966 | N.D. | 434.829 # |
| 67) L7,O motor oil (4) | 16.51 | 15.85 | 9806 | 17885 | 35.694 | 204.411 # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_20.D\FID1A.CH Vial: 20
Acq On : 17 Jan 2002 5:18 Operator: SAB 5997
Sample : A581217 MS W-1301 Inst : GC/FID In
Misc : DK27431 SPI02 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_20.D\FID2B.CH Vial: 20
Acq On : 17 Jan 2002 5:58 Operator: SAB 5997
Sample : A581217 MS W-1301 Inst : GC/FID In
Misc : DK27431 SPI02 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 15:00 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 69) L7,O motor oil (6) | 17.95 | 0.00 | 1214 | 0 | 2.240 | N.D. | # |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 72) L7,O motor oil (9) | 19.78 | 0.00 | 93 | 0 | 0.139 | N.D. | # |
| 73) L7,O motor oil (10) | 20.64 | 0.00 | 109 | 0 | 0.190 | N.D. | # |
| Sum motor oil (1) | | | 11221 | 203507 | 38.263 | 4238.712 | |
| Average motor oil (1) | | | | | 9.566 | 1059.678 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

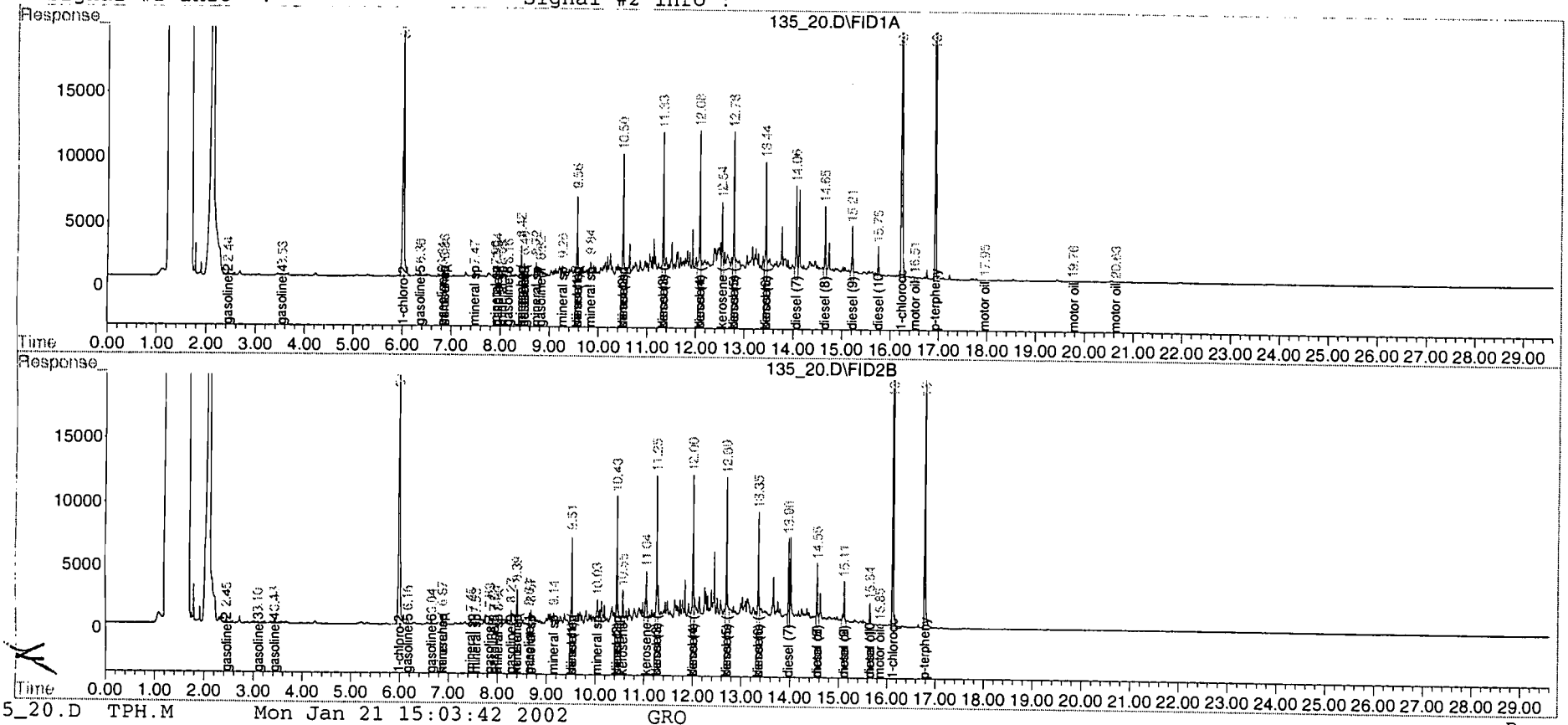
Quantitat[redacted] Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_20.D\FID1A.CH
Acq On : 17 Jan 2002 5:18
Sample : A581217 MS W-1301
Misc : DK27431 SPI02
IntFile : AUTOINT1.E
Vial: 20
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\135\135_20.D\FID2B.CH
Acq On : 17 Jan 2002 5:58
Sample : A581217 MS W-1301
Misc : DK27431 SPI02
IntFile : EVENTS2.E
Vial: 20
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00
Quant Time: Jan 21 15:00 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :






97

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_21.D\FID1A.CH
Acq On : 17 Jan 2002 5:58
Sample : A581218 W-1301
Misc : DK27432
IntFile : AUTOINT1.E

Vial: 21
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\135\135_21.D\FID2B.CH
Acq On : 17 Jan 2002 6:38
Sample : A581218 W-1301
Misc : DK27432
IntFile : EVENTS2.E

Vial: 21
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.02 | 5.99 | 401525 | 433926 | 11.539 | 11.435 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 115.39% | 114.35% |
| 62) S 1-chlorooctadeca | 16.24 | 16.12 | 1238207 | 854813 | 27.923 | 27.121 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 139.62% | 135.60% |
| 63) S p-terphenyl | 16.93 | 16.78 | 671345 | 376099 | 12.535 | 12.011 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 125.35% | 120.11% |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 2.32 | 2.32 | 3099 | 2243 | 2.276 | 1.167 # |
| 2) L1,A gasoline(2) | 2.44 | 2.45 | 3012 | 3543 | 6.409 | 7.310 |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 5) L1,A gasoline(5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 6) L1,A gasoline(6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 7) L1,A gasoline(7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 8) L1,A gasoline(8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 9) L1,A gasoline(9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 10) L1,A gasoline(10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum gasoline(1) | | | 6112 | 5786 | 8.685 | 8.477 |
| Average gasoline(1) | | | | | 4.342 | 4.238 |
| 11) L2,J JP-4 (1) | 2.68 | 2.45 | 2142 | 3543 | NoCal | NoCal |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_21.D\FID1A.CH Vial: 21
Acq On : 17 Jan 2002 5:58 Operator: SAB 5997
Sample : A581218 W-1301 Inst : GC/FID In
Misc : DK27432 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_21.D\FID2B.CH Vial: 21
Acq On : 17 Jan 2002 6:38 Operator: SAB 5997
Sample : A581218 W-1301 Inst : GC/FID In
Misc : DK27432 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. | |
| Average mineral spirits ( | | | | | 0.000 | 0.000 | |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average SC-150 (1) | | | | | 0.000 | 0.000 | |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 47) L5,K kerosene (7) | 12.08 | 0.00 | 472 | 0 | 0.315 | N.D. | # |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 49) L5,K kerosene (9) | 12.78 | 12.67 | 295 | 2780 | 0.308 | 2.284 | # |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum kerosene (1) | | | 767 | 2780 | 0.623 | 2.284 | |
| Average kerosene (1) | | | | | 0.311 | 2.284 | |
| 51) L6,D diesel (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 52) L6,D diesel (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 53) L6,D diesel (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 54) L6,D diesel (4) | 12.08 | 0.00 | 472 | 0 | 0.302 | N.D. | # |
| 55) L6,D diesel (5) | 12.78 | 12.67 | 295 | 2780 | 0.209 | 1.583 | # |
| 56) L6,D diesel (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 57) L6,D diesel (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 58) L6,D diesel (8) | 14.65 | 14.56 | 441 | 408 | 0.603 | 0.611 | |
| 59) L6,D diesel (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum diesel (1) | | | 1208 | 3188 | 1.113 | 2.193 | |
| Average diesel (1) | | | | | 0.371 | 1.097 | |
| 64) L7,O motor oil (1) | 0.00 | 14.56 | 0 | 408 | N.D. | 12.306 | # |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 67) L7,O motor oil (4) | 16.51 | 0.00 | 1262 | 0 | 4.596 | N.D. | # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_21.D\FID1A.CH Vial: 21
Acq On : 17 Jan 2002 5:58 Operator: SAB 5997
Sample : A581218 W-1301 Inst : GC/FID In
Misc : DK27432 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_21.D\FID2B.CH Vial: 21
Acq On : 17 Jan 2002 6:38 Operator: SAB 5997
Sample : A581218 W-1301 Inst : GC/FID In
Misc : DK27432 Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 17.42 | 0.00 | 207 | 0 | 0.412 | N.D. | # |
| 69) L7,O motor oil (6) | 17.93 | 0.00 | 122 | 0 | 0.224 | N.D. | # |
| 70) L7,O motor oil (7) | 18.48 | 0.00 | 61 | 0 | 0.073 | N.D. | # |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 72) L7,O motor oil (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum motor oil (1) | | | 1651 | 408 | 5.305 | 12.306 | |
| Average motor oil (1) | | | | | 1.326 | 12.306 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\135\135_21.D\FID1A.CH
Acq On : 17 Jan 2002 5:58
Sample : A581218 W-1301
Misc : DK27432
IntFile : AUTOINT1.E

Vial: 21
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\135\135_21.D\FID2B.CH
Acq On : 17 Jan 2002 6:38
Sample : A581218 W-1301
Misc : DK27432
IntFile : EVENTS2.E

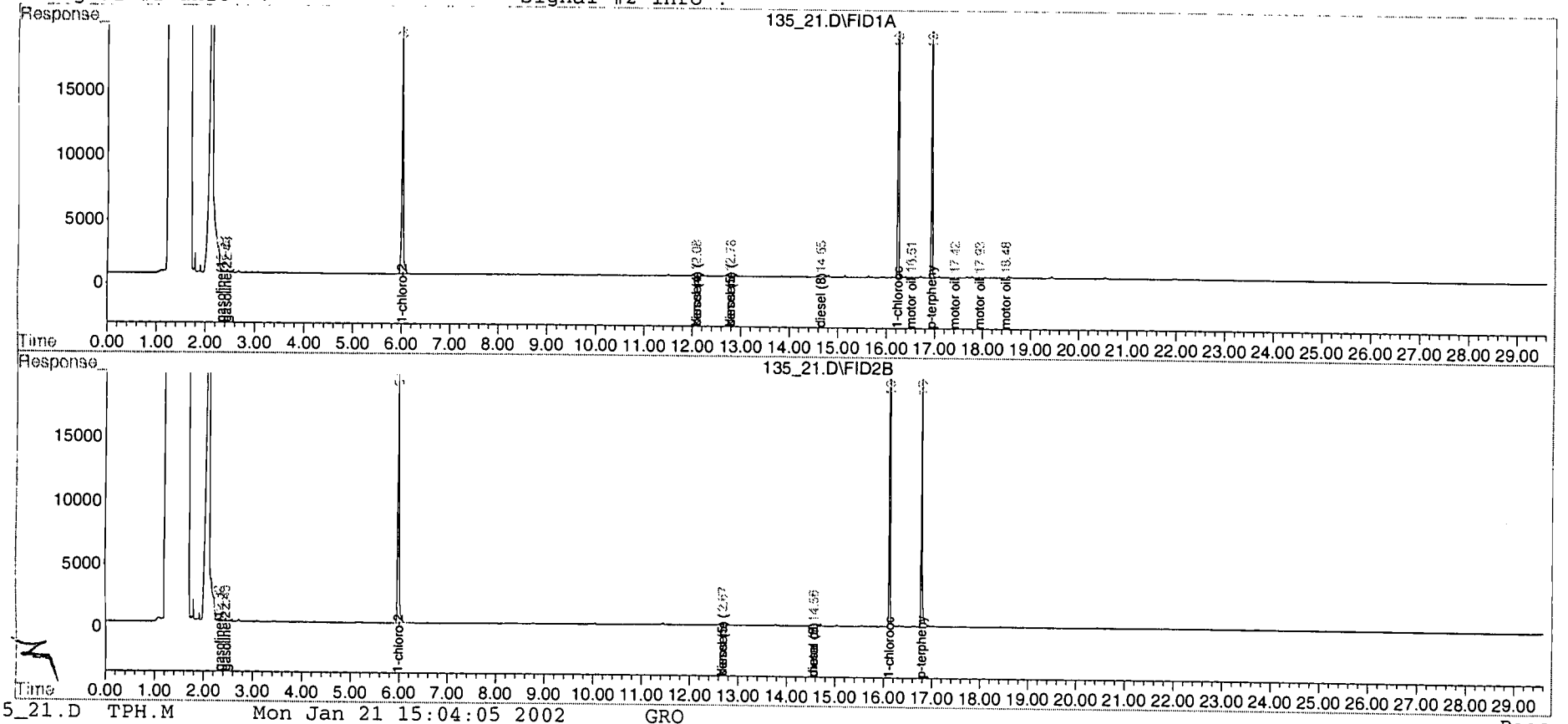
Vial: 21
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :

Signal #2 Phase:
Signal #2 Info :



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Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_22.D\FID1A.CH Vial: 22
Acq On : 17 Jan 2002 6:38 Operator: SAB 5997
Sample : DK27428 @500PPM Inst : GC/FID In
Misc : CLIENT CRUDE OIL STANDARD Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_22.D\FID2B.CH Vial: 22
Acq On : 17 Jan 2002 7:17 Operator: SAB 5997
Sample : DK27428 @500PPM Inst : GC/FID In
Misc : CLIENT CRUDE OIL STANDARD Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.02 | 5.99 | 11104 | 3878 | 0.319 | 0.102 # |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 3.19%# | 1.02%# |
| 62) S 1-chlorooctadeca | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 0.00%# |
| 63) S p-terphenyl | 0.00 | 16.78 | 0 | 5592 | N.D. | 0.179 # |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 1.79%# |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 2.32 | 2.33 | 53979 | 37426 | 39.640 | 19.464 # |
| 2) L1,A gasoline(2) | 2.44 | 2.46 | 69236 | 74595 | 147.297 | 153.916 |
| 3) L1,A gasoline(3) | 0.00 | 3.10 | 0 | 45565 | N.D. | 61.861 # |
| 4) L1,A gasoline(4) | 3.52 | 0.00 | 5370 | 0 | 1.636 | N.D. # |
| 5) L1,A gasoline(5) | 0.00 | 6.15 | 0 | 33579 | N.D. | 10.075 # |
| 6) L1,A gasoline(6) | 0.00 | 6.65 | 0 | 5288 | N.D. | 4.020 # |
| 7) L1,A gasoline(7) | 7.95 | 0.00 | 26247 | 0 | 24.476 | N.D. # |
| 8) L1,A gasoline(8) | 0.00 | 7.92 | 0 | 18023 | N.D. | 30.190 # |
| 9) L1,A gasoline(9) | 8.48 | 8.27 | 14354 | 15352 | 8.401 | 8.299 |
| 10) L1,A gasoline(10) | 8.83 | 8.64 | 18346 | 14227 | 45.933 | 32.792 # |
| Sum gasoline(1) | | | 187531 | 244055 | 267.384 | 320.618 |
| Average gasoline(1) | | | | | 44.564 | 40.077 |
| 11) L2,J JP-4 (1) | 2.72 | 2.46 | 10269 | 74595 | NoCal | NoCal |
| 12) L2,J JP-4 (2) | 0.00 | 3.60 | 0 | 32179 | N.D. | NoCal |
| 13) L2,J JP-4 (3) | 0.00 | 3.91 | 0 | 10289 | N.D. | NoCal |
| 14) L2,J JP-4 (4) | 6.49 | 6.30 | 12776 | 35608 | NoCal | NoCal |
| 15) L2,J JP-4 (5) | 7.16 | 6.65 | 8316 | 5288 | NoCal | NoCal |
| 16) L2,J JP-4 (6) | 8.68 | 8.01 | 8665 | 30127 | NoCal | NoCal |
| 17) L2,J JP-4 (7) | 9.76 | 9.21 | 13326 | 11461 | NoCal | NoCal |
| 18) L2,J JP-4 (8) | 10.71 | 0.00 | 18654 | 0 | NoCal | N.D. |
| 19) L2,J JP-4 (9) | 11.55 | 0.00 | 17645 | 0 | NoCal | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 11.79 | 0 | 20908 | N.D. | NoCal |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 6.87 | 6.87 | 74208 | 56254 | 55.913 | 52.746 |
| 22) L3,P mineral spirits | 7.48 | 7.45 | 30293 | 23522 | 32.295 | 27.912 |
| 23) L3,P mineral spirits | 7.90 | 7.56 | 19694 | 51462 | 21.699 | 64.564 # |
| 24) L3,P mineral spirits | 8.03 | 8.01 | 24163 | 30127 | 16.573 | 24.146 # |
| 25) L3,P mineral spirits | 8.42 | 8.39 | 56117 | 54125 | 16.384 | 15.365 |
| 26) L3,P mineral spirits | 8.73 | 8.67 | 28722 | 33072 | 18.056 | 16.711 |
| 27) L3,P mineral spirits | 9.26 | 9.14 | 14061 | 20544 | 13.277 | 14.771 |
| 28) L3,P mineral spirits | 9.57 | 9.51 | 46422 | 56963 | 13.759 | 13.452 |
| 29) L3,P mineral spirits | 9.84 | 10.03 | 25688 | 34406 | 23.639 | 41.336 # |
| 30) L3,P mineral spirits | 10.50 | 10.44 | 42596 | 43898 | 41.507 | 45.782 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_22.D\FID1A.CH Vial: 22
Acq On : 17 Jan 2002 6:38 Operator: SAB 5997
Sample : DK27428 @500PPM Inst : GC/FID In
Misc : CLIENT CRUDE OIL STANDARD Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_22.D\FID2B.CH Vial: 22
Acq On : 17 Jan 2002 7:17 Operator: SAB 5997
Sample : DK27428 @500PPM Inst : GC/FID In
Misc : CLIENT CRUDE OIL STANDARD Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 361963 | 404373 | 253.103 | 316.785 | |
| Average mineral spirits ( | | | | | 25.310 | 31.678 | |
| 31) L4,X SC-150 (1) | 9.20 | 9.14 | 17485 | 20544 | NoCal | NoCal | |
| 32) L4,X SC-150 (2) | 9.32 | 9.14 | 13869 | 20544 | NoCal | NoCal | |
| 33) L4,X SC-150 (3) | 9.32 | 9.21 | 13869 | 11461 | NoCal | NoCal | |
| 34) L4,X SC-150 (4) | 9.51 | 0.00 | 10564 | 0 | NoCal | N.D. | |
| 35) L4,X SC-150 (5) | 9.62 | 9.56 | 13240 | 4728 | NoCal | NoCal | |
| 36) L4,X SC-150 (6) | 9.94 | 9.86 | 15222 | 12136 | NoCal | NoCal | |
| 37) L4,X SC-150 (7) | 9.97 | 9.90 | 14624 | 15238 | NoCal | NoCal | |
| 38) L4,X SC-150 (8) | 10.19 | 10.08 | 15090 | 12540 | NoCal | NoCal | |
| 39) L4,X SC-150 (9) | 10.28 | 10.34 | 12663 | 33169 | NoCal | NoCal | |
| 40) L4,X SC-150 (10) | 0.00 | 10.87 | 0 | 30917 | N.D. | NoCal | |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average SC-150 (1) | | | | | 0.000 | 0.000 | |
| 41) L5,K kerosene (1) | 6.87 | 6.87 | 74208 | 56254 | 127.783 | 104.465 | |
| 42) L5,K kerosene (2) | 8.42 | 8.39 | 56117 | 54125 | 41.513 | 39.580 | |
| 43) L5,K kerosene (3) | 8.48 | 9.51 | 14354 | 56963 | 33.427 | 25.571 | |
| 44) L5,K kerosene (4) | 9.57 | 10.44 | 46422 | 43898 | 23.321 | 19.016 | |
| 45) L5,K kerosene (5) | 10.50 | 10.56 | 42596 | 41578 | 18.691 | 50.613 | # |
| 46) L5,K kerosene (6) | 11.33 | 11.04 | 54524 | 48512 | 27.648 | 42.615 | # |
| 47) L5,K kerosene (7) | 12.08 | 11.25 | 62054 | 41270 | 41.377 | 17.984 | # |
| 48) L5,K kerosene (8) | 12.54 | 12.00 | 40674 | 57013 | 62.204 | 40.455 | # |
| 49) L5,K kerosene (9) | 12.78 | 12.69 | 83589 | 73818 | 87.250 | 60.639 | # |
| 50) L5,K kerosene (10) | 13.44 | 13.35 | 56898 | 59343 | 136.779 | 167.148 | |
| Sum kerosene (1) | | | 531436 | 532773 | 599.992 | 568.084 | |
| Average kerosene (1) | | | | | 59.999 | 56.808 | |
| 51) L6,D diesel (1) | 9.57 | 9.51 | 46422 | 56963 | 62.519 | 65.519 | |
| 52) L6,D diesel (2) | 10.50 | 10.44 | 42596 | 43898 | 33.108 | 33.233 | |
| 53) L6,D diesel (3) | 11.33 | 11.25 | 54524 | 41270 | 39.863 | 27.781 | # |
| 54) L6,D diesel (4) | 12.08 | 12.00 | 62054 | 57013 | 39.624 | 35.780 | |
| 55) L6,D diesel (5) | 12.78 | 12.69 | 83589 | 73818 | 59.356 | 42.022 | # |
| 56) L6,D diesel (6) | 13.44 | 13.35 | 56898 | 59343 | 47.986 | 52.867 | |
| 57) L6,D diesel (7) | 14.06 | 13.97 | 62846 | 51568 | 63.796 | 61.383 | |
| 58) L6,D diesel (8) | 14.65 | 14.55 | 55292 | 47505 | 75.545 | 71.128 | |
| 59) L6,D diesel (9) | 15.21 | 15.11 | 76864 | 47269 | 120.742 | 97.572 | |
| 60) L6,D diesel (10) | 15.75 | 15.64 | 56290 | 57390 | 158.835 | 184.598 | |
| Sum diesel (1) | | | 597375 | 536038 | 701.373 | 671.885 | |
| Average diesel (1) | | | | | 70.137 | 67.189 | |
| 64) L7,O motor oil (1) | 14.69 | 14.55 | 12107 | 47505 | 202.459 | 1433.400 | # |
| 65) L7,O motor oil (2) | 0.00 | 15.11 | 0 | 47269 | N.D. | 873.247 | # |
| 66) L7,O motor oil (3) | 0.00 | 15.64 | 0 | 57390 | N.D. | 657.298 | # |
| 67) L7,O motor oil (4) | 16.51 | 15.85 | 21104 | 18787 | 76.820 | 214.725 | # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_22.D\FID1A.CH Vial: 22
Acq On : 17 Jan 2002 6:38 Operator: SAB 5997
Sample : DK27428 @500PPM Inst : GC/FID In
Misc : CLIENT CRUDE OIL STANDARD Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_22.D\FID2B.CH Vial: 22
Acq On : 17 Jan 2002 7:17 Operator: SAB 5997
Sample : DK27428 @500PPM Inst : GC/FID In
Misc : CLIENT CRUDE OIL STANDARD Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 16.37 | 0 | 11411 | N.D. | 96.600 # |
| 69) L7,O motor oil (6) | 17.96 | 17.28 | 21460 | 9592 | 39.611 | 100.552 # |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 72) L7,O motor oil (9) | 0.00 | 18.86 | 0 | 996 | N.D. | 15.958 # |
| 73) L7,O motor oil (10) | 0.00 | 19.55 | 0 | 499 | N.D. | 11.059 # |
| Sum motor oil (1) | | | 54671 | 193449 | 318.890 | 3402.840 |
| Average motor oil (1) | | | | | 106.297 | 425.355 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitati Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_22.D\FID1A.CH
Acq On : 17 Jan 2002 6:38
Sample : DK27428 @500PPM
Misc : CLIENT CRUDE OIL STANDARD
IntFile : AUTOINT1.E

Vial: 22
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

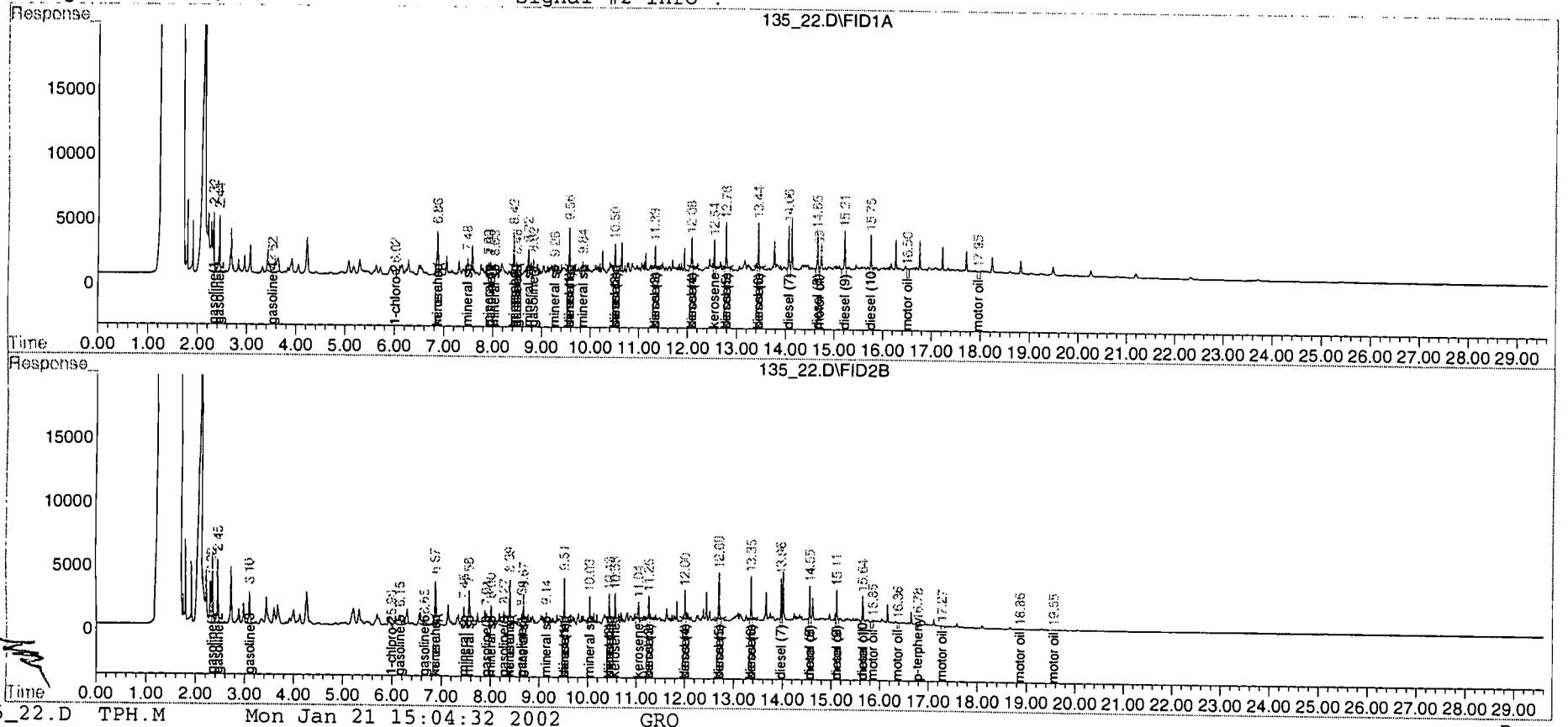
Data File : C:\HPCHEM\3\DATA\135\135_22.D\FID2B.CH
Acq On : 17 Jan 2002 7:17
Sample : DK27428 @500PPM
Misc : CLIENT CRUDE OIL STANDARD
IntFile : EVENTS2.E

Vial: 22
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_23.D\FID1A.CH Vial: 23
Acq On : 17 Jan 2002 7:17 Operator: SAB 5997
Sample : DK27429 @500PPM Inst : GC/FID In
Misc : CLIENT CRUDE OIL STANDARD Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_23.D\FID2B.CH Vial: 23
Acq On : 17 Jan 2002 7:57 Operator: SAB 5997
Sample : DK27429 @500PPM Inst : GC/FID In
Misc : CLIENT CRUDE OIL STANDARD Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.02 | 5.98 | 16252 | 7175 | 0.467 | 0.189 # |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 4.67%# | 1.89%# |
| 62) S 1-chlorooctadeca | 16.23 | 0.00 | 8459 | 0 | 0.191 | N.D. # |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 0.95%# | 0.00%# |
| 63) S p-terphenyl | 16.94 | 0.00 | 17010 | 0 | 0.318 | N.D. # |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 3.18%# | 0.00%# |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 2.32 | 2.33 | 51936 | 37775 | 38.140 | 19.646 # |
| 2) L1,A gasoline(2) | 2.44 | 2.46 | 75603 | 94518 | 160.843 | 195.023 |
| 3) L1,A gasoline(3) | 0.00 | 3.11 | 0 | 47940 | N.D. | 65.085 # |
| 4) L1,A gasoline(4) | 3.53 | 0.00 | 8725 | 0 | 2.658 | N.D. # |
| 5) L1,A gasoline(5) | 6.36 | 6.15 | 11117 | 40559 | 3.700 | 12.169 # |
| 6) L1,A gasoline(6) | 0.00 | 6.65 | 0 | 8315 | N.D. | 6.322 # |
| 7) L1,A gasoline(7) | 7.95 | 0.00 | 19750 | 0 | 18.418 | N.D. # |
| 8) L1,A gasoline(8) | 8.12 | 7.91 | 7324 | 20013 | 13.852 | 33.524 # |
| 9) L1,A gasoline(9) | 8.49 | 8.27 | 8519 | 13515 | 4.986 | 7.306 # |
| 10) L1,A gasoline(10) | 8.83 | 8.64 | 21371 | 17616 | 53.505 | 40.604 |
| Sum gasoline(1) | | | 204343 | 280252 | 296.102 | 379.680 |
| Average gasoline(1) | | | | | 37.013 | 47.460 |
| 11) L2,J JP-4 (1) | 2.72 | 2.46 | 8359 | 94518 | NoCal | NoCal |
| 12) L2,J JP-4 (2) | 0.00 | 3.61 | 0 | 35665 | N.D. | NoCal |
| 13) L2,J JP-4 (3) | 3.77 | 3.92 | 3786 | 11844 | NoCal | NoCal |
| 14) L2,J JP-4 (4) | 6.49 | 6.30 | 14709 | 38292 | NoCal | NoCal |
| 15) L2,J JP-4 (5) | 7.16 | 6.65 | 8822 | 8315 | NoCal | NoCal |
| 16) L2,J JP-4 (6) | 8.68 | 8.00 | 9085 | 32369 | NoCal | NoCal |
| 17) L2,J JP-4 (7) | 9.76 | 9.21 | 14180 | 12313 | NoCal | NoCal |
| 18) L2,J JP-4 (8) | 10.71 | 10.18 | 14087 | 16779 | NoCal | NoCal |
| 19) L2,J JP-4 (9) | 11.56 | 0.00 | 18094 | 0 | NoCal | N.D. |
| 20) L2,J JP-4 (10) | 12.28 | 11.79 | 11470 | 21822 | NoCal | NoCal |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 6.87 | 6.87 | 103952 | 95553 | 78.325 | 89.594 |
| 22) L3,P mineral spirits | 7.48 | 7.45 | 27873 | 24918 | 29.714 | 29.569 |
| 23) L3,P mineral spirits | 7.91 | 7.56 | 21259 | 60149 | 23.423 | 75.463 # |
| 24) L3,P mineral spirits | 8.03 | 8.00 | 25614 | 32369 | 17.569 | 25.942 # |
| 25) L3,P mineral spirits | 8.43 | 8.39 | 68148 | 78084 | 19.897 | 22.166 |
| 26) L3,P mineral spirits | 8.73 | 8.67 | 30582 | 38667 | 19.226 | 19.539 |
| 27) L3,P mineral spirits | 9.27 | 9.14 | 15079 | 22362 | 14.239 | 16.078 |
| 28) L3,P mineral spirits | 9.57 | 9.51 | 69003 | 86071 | 20.452 | 20.326 |
| 29) L3,P mineral spirits | 9.84 | 10.03 | 27598 | 46537 | 25.396 | 55.909 # |
| 30) L3,P mineral spirits | 10.51 | 10.44 | 77184 | 81483 | 75.212 | 84.979 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_23.D\FID1A.CH Vial: 23
Acq On : 17 Jan 2002 7:17 Operator: SAB 5997
Sample : DK27429 @500PPM Inst : GC/FID In
Misc : CLIENT CRUDE OIL STANDARD Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_23.D\FID2B.CH Vial: 23
Acq On : 17 Jan 2002 7:57 Operator: SAB 5997
Sample : DK27429 @500PPM Inst : GC/FID In
Misc : CLIENT CRUDE OIL STANDARD Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 466291 | 566192 | 323.452 | 439.566 | |
| Average mineral spirits ( | | | | | 32.345 | 43.957 | |
| 31) L4,X SC-150 (1) | 9.20 | 9.14 | 18258 | 22362 | NoCal | NoCal | |
| 32) L4,X SC-150 (2) | 9.32 | 9.14 | 15163 | 22362 | NoCal | NoCal | |
| 33) L4,X SC-150 (3) | 9.32 | 9.21 | 15163 | 12313 | NoCal | NoCal | |
| 34) L4,X SC-150 (4) | 9.51 | 0.00 | 11240 | 0 | NoCal | N.D. | |
| 35) L4,X SC-150 (5) | 9.62 | 0.00 | 14461 | 0 | NoCal | N.D. | |
| 36) L4,X SC-150 (6) | 9.94 | 9.86 | 16823 | 12953 | NoCal | NoCal | |
| 37) L4,X SC-150 (7) | 9.98 | 9.90 | 8131 | 16593 | NoCal | NoCal | |
| 38) L4,X SC-150 (8) | 10.19 | 10.08 | 16291 | 13033 | NoCal | NoCal | |
| 39) L4,X SC-150 (9) | 10.28 | 10.34 | 13772 | 37855 | NoCal | NoCal | |
| 40) L4,X SC-150 (10) | 0.00 | 10.87 | 0 | 32078 | N.D. | NoCal | |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average SC-150 (1) | | | | | 0.000 | 0.000 | |
| 41) L5,K kerosene (1) | 6.87 | 6.87 | 103952 | 95553 | 179.001 | 177.445 | |
| 42) L5,K kerosene (2) | 8.43 | 8.39 | 68148 | 78084 | 50.413 | 57.100 | |
| 43) L5,K kerosene (3) | 8.49 | 9.51 | 8519 | 86071 | 19.838 | 38.637 | # |
| 44) L5,K kerosene (4) | 9.57 | 10.44 | 69003 | 81483 | 34.665 | 35.297 | |
| 45) L5,K kerosene (5) | 10.51 | 10.56 | 77184 | 50833 | 33.867 | 61.879 | # |
| 46) L5,K kerosene (6) | 11.33 | 11.04 | 76132 | 44380 | 38.605 | 38.985 | |
| 47) L5,K kerosene (7) | 12.08 | 11.25 | 75152 | 97317 | 50.110 | 42.407 | |
| 48) L5,K kerosene (8) | 12.54 | 12.00 | 41008 | 110936 | 62.715 | 78.717 | # |
| 49) L5,K kerosene (9) | 12.78 | 12.69 | 83176 | 131238 | 86.818 | 107.807 | |
| 50) L5,K kerosene (10) | 13.44 | 13.35 | 64498 | 65868 | 155.050 | 185.527 | |
| Sum kerosene (1) | | | 666771 | 841762 | 711.082 | 823.802 | |
| Average kerosene (1) | | | | | 71.108 | 82.380 | |
| 51) L6,D diesel (1) | 9.57 | 9.51 | 69003 | 86071 | 92.931 | 99.000 | |
| 52) L6,D diesel (2) | 10.51 | 10.44 | 77184 | 81483 | 59.992 | 61.687 | |
| 53) L6,D diesel (3) | 11.33 | 11.25 | 76132 | 97317 | 55.661 | 65.510 | |
| 54) L6,D diesel (4) | 12.08 | 12.00 | 75152 | 110936 | 47.987 | 69.621 | # |
| 55) L6,D diesel (5) | 12.78 | 12.69 | 83176 | 131238 | 59.062 | 74.710 | # |
| 56) L6,D diesel (6) | 13.44 | 13.35 | 64498 | 65868 | 54.396 | 58.680 | |
| 57) L6,D diesel (7) | 14.07 | 13.97 | 70491 | 56361 | 71.555 | 67.089 | |
| 58) L6,D diesel (8) | 14.66 | 14.55 | 59475 | 51980 | 81.261 | 77.828 | |
| 59) L6,D diesel (9) | 15.22 | 15.11 | 71813 | 51080 | 112.808 | 105.438 | |
| 60) L6,D diesel (10) | 15.75 | 15.64 | 61236 | 58148 | 172.793 | 187.035 | |
| Sum diesel (1) | | | 708161 | 790482 | 808.446 | 866.597 | |
| Average diesel (1) | | | | | 80.845 | 86.660 | |
| 64) L7,O motor oil (1) | 14.70 | 14.55 | 12700 | 51980 | 212.370 | 1568.419 | # |
| 65) L7,O motor oil (2) | 0.00 | 15.11 | 0 | 51080 | N.D. | 943.644 | # |
| 66) L7,O motor oil (3) | 0.00 | 15.64 | 0 | 58148 | N.D. | 665.974 | # |
| 67) L7,O motor oil (4) | 16.51 | 15.88 | 20123 | 40002 | 73.252 | 457.193 | # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_23.D\FID1A.CH Vial: 23
Acq On : 17 Jan 2002 7:17 Operator: SAB 5997
Sample : DK27429 @500PPM Inst : GC/FID In
Misc : CLIENT CRUDE OIL STANDARD Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_23.D\FID2B.CH Vial: 23
Acq On : 17 Jan 2002 7:57 Operator: SAB 5997
Sample : DK27429 @500PPM Inst : GC/FID In
Misc : CLIENT CRUDE OIL STANDARD Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 17.43 | 16.36 | 18050 | 17278 | 35.996 | 146.275 | # |
| 69) L7,O motor oil (6) | 17.96 | 17.28 | 23037 | 8264 | 42.520 | 86.630 | # |
| 70) L7,O motor oil (7) | 18.50 | 0.00 | 7280 | 0 | 8.781 | N.D. | # |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 72) L7,O motor oil (9) | 0.00 | 18.86 | 0 | 814 | N.D. | 13.038 | # |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum motor oil (1) | | | 81191 | 227565 | 372.919 | 3881.174 | |
| Average motor oil (1) | | | | | 74.584 | 554.453 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

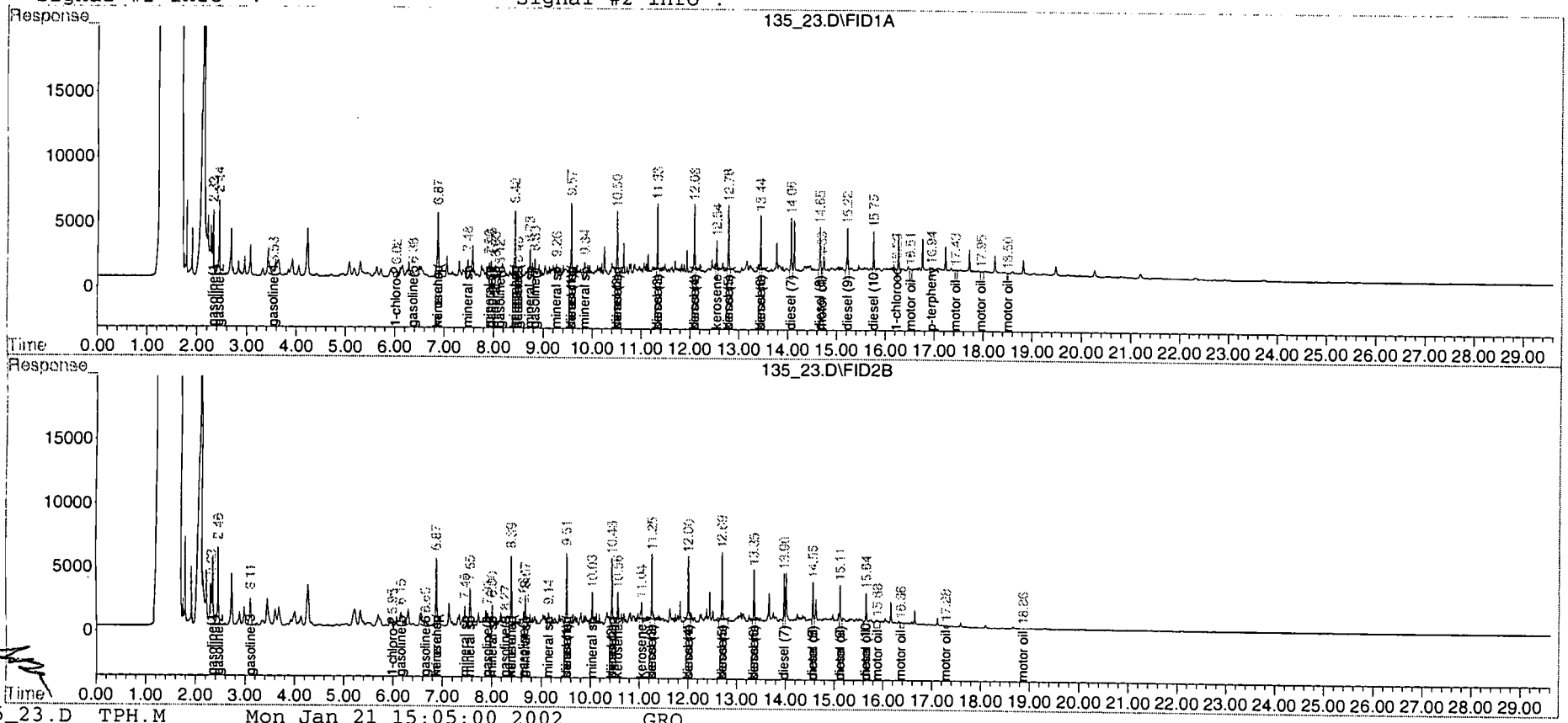
Quantitati eport (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_23.D\FID1A.CH Vial: 23
Acq On : 17 Jan 2002 7:17 Operator: SAB 5997
Sample : DK27429 @500PPM Inst : GC/FID In
Misc : CLIENT CRUDE OIL STANDARD Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_23.D\FID2B.CH Vial: 23
Acq On : 17 Jan 2002 7:57 Operator: SAB 5997
Sample : DK27429 @500PPM Inst : GC/FID In
Misc : CLIENT CRUDE OIL STANDARD Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_24.D\FID1A.CH Vial: 24
Acq On : 17 Jan 2002 7:57 Operator: SAB 5997
Sample : FID A712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_24.D\FID2B.CH Vial: 24
Acq On : 17 Jan 2002 8:36 Operator: SAB 5997
Sample : FID A712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | | |
| 61) S 1-chloro-2-fluor | 6.02 | 5.98 | 339601 | 365092 | 9.759 | 9.621 | |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 97.59% | 96.21% | |
| 62) S 1-chlorooctadeca | 16.24 | 16.11 | 904070 | 644414 | 20.388 | 20.445 | |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 101.94% | 102.23% | |
| 63) S p-terphenyl | 16.94 | 16.78 | 566054 | 329414 | 10.569 | 10.520 | |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 105.69% | 105.20% | |
| Target Compounds | | | | | | | |
| L1,A gasoline(1) | 2.34 | 2.32 | 68004 | 107054 | 49.939 | 55.677 | |
| 2) L1,A gasoline(2) | 2.44 | 2.45 | 25376 | 28839 | 53.987 | 59.504 | |
| 3) L1,A gasoline(3) | 3.12 | 3.12 | 33205 | 37669 | 49.378 | 51.141 | |
| 4) L1,A gasoline(4) | 3.53 | 3.42 | 190327 | 209601 | 57.977 | 50.551 | |
| 5) L1,A gasoline(5) | 6.37 | 6.16 | 148330 | 168523 | 49.371 | 50.563 | |
| 6) L1,A gasoline(6) | 6.82 | 6.64 | 58836 | 66320 | 51.034 | 50.421 | |
| 7) L1,A gasoline(7) | 7.95 | 7.83 | 53088 | 84874 | 49.507 | 49.890 | |
| 8) L1,A gasoline(8) | 8.16 | 7.93 | 26299 | 29917 | 49.742 | 50.114 | |
| 9) L1,A gasoline(9) | 8.49 | 8.27 | 85164 | 93350 | 49.846 | 50.463 | |
| 10) L1,A gasoline(10) | 8.83 | 8.64 | 19472 | 21963 | 48.753 | 50.622 | |
| Sum gasoline(1) | | | 708102 | 848110 | 509.534 | 518.946 | |
| Average gasoline(1) | | | | | 50.953 | 51.895 | |
| 11) L2,J JP-4 (1) | 0.00 | 2.49 | 0 | 13757 | N.D. | NoCal | |
| 12) L2,J JP-4 (2) | 0.00 | 3.60 | 0 | 18758 | N.D. | NoCal | |
| 13) L2,J JP-4 (3) | 3.80 | 3.91 | 10817 | 1590 | NoCal | NoCal | |
| 14) L2,J JP-4 (4) | 0.00 | 6.30 | 0 | 8906 | N.D. | NoCal | |
| 15) L2,J JP-4 (5) | 0.00 | 6.64 | 0 | 66320 | N.D. | NoCal | |
| 16) L2,J JP-4 (6) | 0.00 | 8.01 | 0 | 2779 | N.D. | NoCal | |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 18) L2,J JP-4 (8) | 10.71 | 0.00 | 2172 | 0 | NoCal | N.D. | |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average JP-4 (1) | | | | | 0.000 | 0.000 | |
| 21) L3,P mineral spirits | 6.86 | 6.87 | 6610 | 6159 | 4.981 | 5.775 | |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 23) L3,P mineral spirits | 7.90 | 0.00 | 6310 | 0 | 6.952 | N.D. | # |
| 24) L3,P mineral spirits | 8.04 | 8.01 | 2415 | 2779 | 1.656 | 2.227 | # |
| 25) L3,P mineral spirits | 8.43 | 8.39 | 2821 | 3785 | 0.824 | 1.074 | # |
| 26) L3,P mineral spirits | 8.73 | 8.69 | 2345 | 3201 | 1.474 | 1.618 | |
| 27) L3,P mineral spirits | 9.27 | 9.16 | 5331 | 6979 | 5.034 | 5.018 | |
| 28) L3,P mineral spirits | 9.57 | 9.51 | 2820 | 2779 | 0.836 | 0.656 | |
| 29) L3,P mineral spirits | 0.00 | 10.02 | 0 | 14885 | N.D. | 17.883 | # |
| 30) L3,P mineral spirits | 10.48 | 10.45 | 1714 | 8197 | 1.670 | 8.549 | # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_24.D\FID1A.CH Vial: 24
Acq On : 17 Jan 2002 7:57 Operator: SAB 5997
Sample : FID A712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_24.D\FID2B.CH Vial: 24
Acq On : 17 Jan 2002 8:36 Operator: SAB 5997
Sample : FID A712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 30366 | 48765 | 23.427 | 42.801 | |
| Average mineral spirits ( | | | | | 2.928 | 5.350 | |
| 31) L4,X SC-150 (1) | 9.22 | 0.00 | 16124 | 0 | NoCal | N.D. | |
| 32) L4,X SC-150 (2) | 0.00 | 9.16 | 0 | 6979 | N.D. | NoCal | |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 34) L4,X SC-150 (4) | 9.51 | 0.00 | 14834 | 0 | NoCal | N.D. | |
| 35) L4,X SC-150 (5) | 9.62 | 0.00 | 2110 | 0 | NoCal | N.D. | |
| 36) L4,X SC-150 (6) | 9.92 | 9.88 | 8458 | 1664 | NoCal | NoCal | |
| 37) L4,X SC-150 (7) | 9.95 | 9.91 | 13589 | 5766 | NoCal | NoCal | |
| 38) L4,X SC-150 (8) | 10.19 | 10.07 | 2665 | 2583 | NoCal | NoCal | |
| 39) L4,X SC-150 (9) | 10.29 | 10.34 | 4139 | 15065 | NoCal | NoCal | |
| 40) L4,X SC-150 (10) | 10.57 | 10.91 | 1596 | 2790 | NoCal | NoCal | |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average SC-150 (1) | | | | | 0.000 | 0.000 | |
| 41) L5,K kerosene (1) | 6.86 | 6.87 | 6610 | 6159 | 11.383 | 11.438 | |
| 42) L5,K kerosene (2) | 8.43 | 8.39 | 2821 | 3785 | 2.087 | 2.768 | # |
| 43) L5,K kerosene (3) | 8.49 | 9.51 | 85164 | 2779 | 198.328 | 1.248 | # |
| 44) L5,K kerosene (4) | 9.57 | 10.45 | 2820 | 8197 | 1.417 | 3.551 | # |
| 45) L5,K kerosene (5) | 10.52 | 10.55 | 14404 | 1902 | 6.320 | 2.315 | # |
| 46) L5,K kerosene (6) | 11.34 | 11.02 | 2296 | 2263 | 1.164 | 1.988 | # |
| 47) L5,K kerosene (7) | 12.09 | 0.00 | 675 | 0 | 0.450 | N.D. | # |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 49) L5,K kerosene (9) | 0.00 | 12.67 | 0 | 2247 | N.D. | 1.845 | # |
| 50) L5,K kerosene (10) | 13.44 | 0.00 | 313 | 0 | 0.753 | N.D. | # |
| Sum kerosene (1) | | | 115104 | 27331 | 221.902 | 25.152 | |
| Average kerosene (1) | | | | | 27.738 | 3.593 | |
| 51) L6,D diesel (1) | 9.57 | 9.51 | 2820 | 2779 | 3.798 | 3.197 | |
| 52) L6,D diesel (2) | 10.48 | 10.45 | 1714 | 8197 | 1.332 | 6.206 | # |
| 53) L6,D diesel (3) | 11.34 | 0.00 | 2296 | 0 | 1.679 | N.D. | # |
| 54) L6,D diesel (4) | 12.09 | 0.00 | 675 | 0 | 0.431 | N.D. | # |
| 55) L6,D diesel (5) | 0.00 | 12.67 | 0 | 2247 | N.D. | 1.279 | # |
| 56) L6,D diesel (6) | 13.44 | 0.00 | 313 | 0 | 0.264 | N.D. | # |
| 57) L6,D diesel (7) | 14.07 | 0.00 | 257 | 0 | 0.261 | N.D. | # |
| 58) L6,D diesel (8) | 14.66 | 14.56 | 826 | 356 | 1.129 | 0.533 | # |
| 59) L6,D diesel (9) | 15.22 | 0.00 | 430 | 0 | 0.676 | N.D. | # |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum diesel (1) | | | 9332 | 13579 | 9.570 | 11.215 | |
| Average diesel (1) | | | | | 1.196 | 2.804 | |
| 64) L7,O motor oil (1) | 14.66 | 14.56 | 826 | 356 | 13.813 | 10.747 | |
| 65) L7,O motor oil (2) | 15.22 | 0.00 | 430 | 0 | 4.542 | N.D. | # |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 67) L7,O motor oil (4) | 16.47 | 0.00 | 504 | 0 | 1.834 | N.D. | # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_24.D\FID1A.CH Vial: 24
Acq On : 17 Jan 2002 7:57 Operator: SAB 5997
Sample : FID A712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_24.D\FID2B.CH Vial: 24
Acq On : 17 Jan 2002 8:36 Operator: SAB 5997
Sample : FID A712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 17.46 | 0.00 | 180 | 0 | 0.358 | N.D. | # |
| 69) L7,O motor oil (6) | 17.95 | 0.00 | 521 | 0 | 0.962 | N.D. | # |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 71) L7,O motor oil (8) | 19.08 | 0.00 | 236 | 0 | 0.217 | N.D. | # |
| 72) L7,O motor oil (9) | 19.78 | 0.00 | 1944 | 0 | 2.911 | N.D. | # |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum motor oil (1) | | | 4641 | 356 | 24.637 | 10.747 | |
| Average motor oil (1) | | | | | 3.520 | 10.747 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitati Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_24.D\FID1A.CH
Acq On : 17 Jan 2002 7:57
Sample : FID A712 L4
Misc : MIX [S,A]
IntFile : AUTOINT1.E

Vial: 24
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

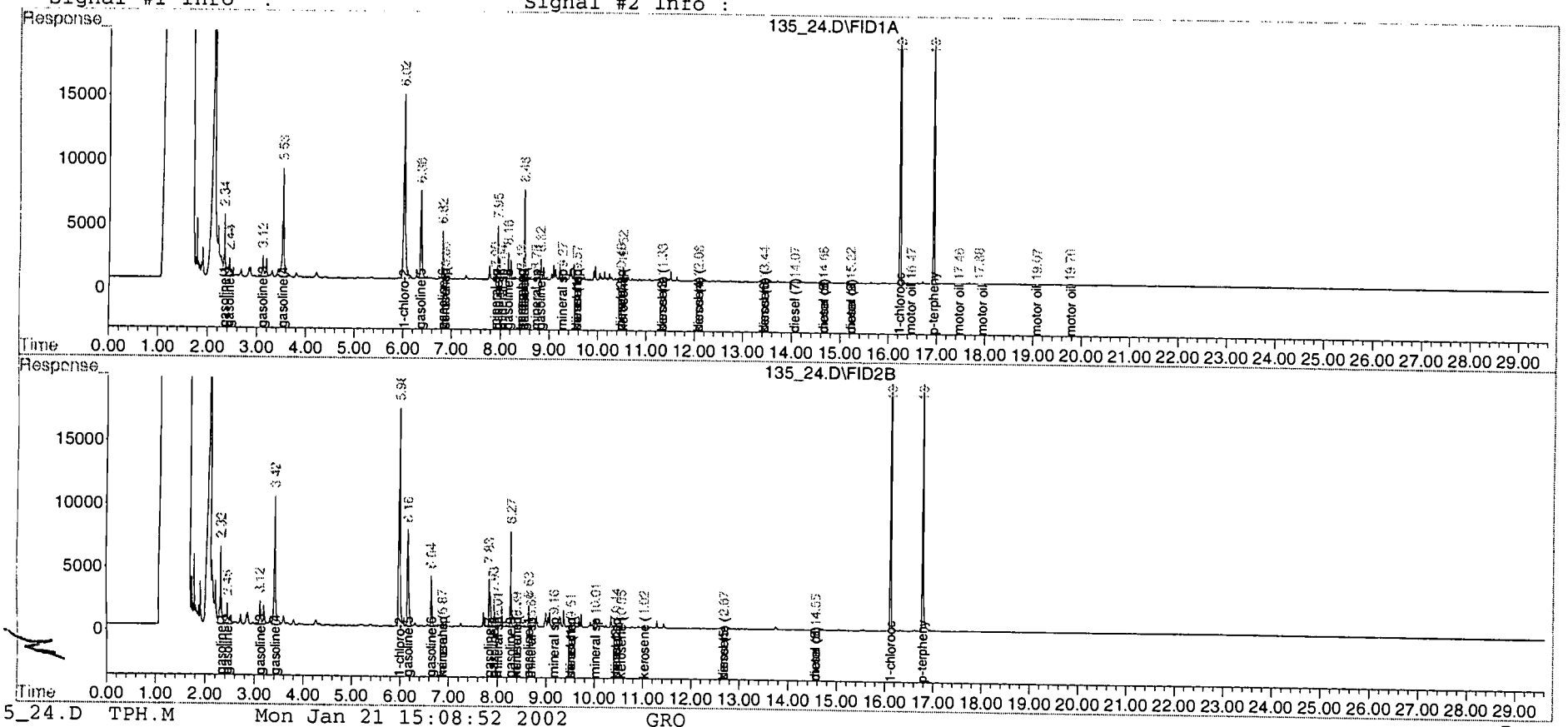
Data File : C:\HPCHEM\3\DATA\135\135_24.D\FID2B.CH
Acq On : 17 Jan 2002 8:36
Sample : FID A712 L4
Misc : MIX [S,A]
IntFile : EVENTS2.E

Vial: 24
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_25.D\FID1A.CH Vial: 25
Acq On : 17 Jan 2002 8:36 Operator: SAB 5997
Sample : FID A713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_25.D\FID2B.CH Vial: 25
Acq On : 17 Jan 2002 9:16 Operator: SAB 5997
Sample : FID A713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 15:11 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.02 | 5.98 | 311217 | 334574 | 8.943 | 8.817 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 89.43% | 88.17% |
| 62) S 1-chlorooctadeca | 16.24 | 16.11 | 963984 | 666374 | 21.739 | 21.142 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 108.70% | 105.71% |
| 63) S p-terphenyl | 16.94 | 16.78 | 597557 | 343563 | 11.157 | 10.972 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 111.57% | 109.72% |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 2.43 | 0 | 1371 | N.D. | 2.829 # |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 3.53 | 3.41 | 1903 | 5111 | 0.580 | 1.233 # |
| 5) L1,A gasoline(5) | 6.37 | 6.15 | 9050 | 12336 | 3.012 | 3.701 |
| 6) L1,A gasoline(6) | 6.82 | 6.64 | 4115 | 4518 | 3.570 | 3.435 |
| 7) L1,A gasoline(7) | 7.95 | 7.83 | 19676 | 15115 | 18.348 | 8.885 # |
| 8) L1,A gasoline(8) | 8.17 | 7.92 | 12258 | 10020 | 23.185 | 16.784 # |
| 9) L1,A gasoline(9) | 8.49 | 8.27 | 15191 | 16552 | 8.891 | 8.947 |
| 10) L1,A gasoline(10) | 8.83 | 8.64 | 12484 | 14445 | 31.256 | 33.295 |
| Sum gasoline(1) | | | 74677 | 79467 | 88.843 | 79.109 |
| Average gasoline(1) | | | | | 12.692 | 9.889 |
| 11) L2,J JP-4 (1) | 2.68 | 0.00 | 3199 | 0 | NoCal | N.D. |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 6.29 | 0 | 3956 | N.D. | NoCal |
| 15) L2,J JP-4 (5) | 0.00 | 6.64 | 0 | 4518 | N.D. | NoCal |
| 16) L2,J JP-4 (6) | 8.65 | 8.00 | 5122 | 7940 | NoCal | NoCal |
| 17) L2,J JP-4 (7) | 9.76 | 9.21 | 16098 | 10001 | NoCal | NoCal |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 19) L2,J JP-4 (9) | 11.56 | 0.00 | 29296 | 0 | NoCal | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 11.78 | 0 | 46004 | N.D. | NoCal |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 6.87 | 6.87 | 15399 | 13851 | 11.603 | 12.987 |
| 22) L3,P mineral spirits | 7.48 | 7.45 | 7104 | 6494 | 7.573 | 7.706 |
| 23) L3,P mineral spirits | 7.91 | 7.56 | 8395 | 6671 | 9.249 | 8.369 |
| 24) L3,P mineral spirits | 8.04 | 8.00 | 7956 | 7940 | 5.457 | 6.363 |
| 25) L3,P mineral spirits | 8.43 | 8.39 | 38949 | 38832 | 11.372 | 11.023 |
| 26) L3,P mineral spirits | 8.73 | 8.67 | 16235 | 17872 | 10.207 | 9.031 |
| 27) L3,P mineral spirits | 9.27 | 9.14 | 14043 | 20256 | 13.260 | 14.564 |
| 28) L3,P mineral spirits | 9.57 | 9.51 | 80606 | 95037 | 23.891 | 22.444 |
| 29) L3,P mineral spirits | 9.85 | 10.03 | 29701 | 47909 | 27.331 | 57.558 # |
| 30) L3,P mineral spirits | 10.51 | 10.44 | 139343 | 142715 | 135.783 | 148.839 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_25.D\FID1A.CH Vial: 25
Acq On : 17 Jan 2002 8:36 Operator: SAB 5997
Sample : FID A713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_25.D\FID2B.CH Vial: 25
Acq On : 17 Jan 2002 9:16 Operator: SAB 5997
Sample : FID A713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 15:11 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 357731 | 397577 | 255.726 | 298.885 |
| Average mineral spirits ( | | | | | 25.573 | 29.889 |
| 31) L4,X SC-150 (1) | 9.20 | 9.14 | 19430 | 20256 | NoCal | NoCal |
| 32) L4,X SC-150 (2) | 9.32 | 9.14 | 11701 | 20256 | NoCal | NoCal |
| 33) L4,X SC-150 (3) | 9.32 | 9.21 | 11701 | 10001 | NoCal | NoCal |
| 34) L4,X SC-150 (4) | 9.51 | 0.00 | 14597 | 0 | NoCal | N.D. |
| 35) L4,X SC-150 (5) | 9.62 | 9.56 | 12149 | 7227 | NoCal | NoCal |
| 36) L4,X SC-150 (6) | 9.91 | 9.86 | 18466 | 15840 | NoCal | NoCal |
| 37) L4,X SC-150 (7) | 9.95 | 9.90 | 16402 | 14349 | NoCal | NoCal |
| 38) L4,X SC-150 (8) | 10.19 | 10.08 | 23667 | 19392 | NoCal | NoCal |
| 39) L4,X SC-150 (9) | 10.29 | 10.33 | 22050 | 47035 | NoCal | NoCal |
| 40) L4,X SC-150 (10) | 10.57 | 10.89 | 16339 | 45274 | NoCal | NoCal |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 6.87 | 6.87 | 15399 | 13851 | 26.517 | 25.721 |
| 42) L5,K kerosene (2) | 8.43 | 8.39 | 38949 | 38832 | 28.813 | 28.397 |
| 43) L5,K kerosene (3) | 8.49 | 9.51 | 15191 | 95037 | 35.375 | 42.663 |
| 44) L5,K kerosene (4) | 9.57 | 10.44 | 80606 | 142715 | 40.493 | 61.821 # |
| 45) L5,K kerosene (5) | 10.51 | 10.56 | 139343 | 50890 | 61.142 | 61.948 |
| 46) L5,K kerosene (6) | 11.33 | 11.04 | 168647 | 87870 | 85.518 | 77.188 |
| 47) L5,K kerosene (7) | 12.09 | 11.25 | 171835 | 152722 | 114.576 | 66.551 # |
| 48) L5,K kerosene (8) | 12.55 | 12.00 | 87917 | 163110 | 134.455 | 115.738 |
| 49) L5,K kerosene (9) | 12.79 | 12.69 | 154664 | 186937 | 161.437 | 153.562 |
| 50) L5,K kerosene (10) | 13.45 | 13.35 | 131393 | 126750 | 315.860 | 357.009 |
| Sum kerosene (1) | | | 1003944 | 1058714 | 1004.187 | 990.598 |
| Average kerosene (1) | | | | | 100.419 | 99.060 |
| 51) L6,D diesel (1) | 9.57 | 9.51 | 80606 | 95037 | 108.556 | 109.313 |
| 52) L6,D diesel (2) | 10.51 | 10.44 | 139343 | 142715 | 108.306 | 108.044 |
| 53) L6,D diesel (3) | 11.33 | 11.25 | 144150 | 152722 | 105.390m | 102.806 |
| 54) L6,D diesel (4) | 12.09 | 12.00 | 171835 | 163110 | 109.723 | 102.364 |
| 55) L6,D diesel (5) | 12.79 | 12.69 | 154664 | 186937 | 109.825 | 106.418 |
| 56) L6,D diesel (6) | 13.45 | 13.35 | 131393 | 126750 | 110.813 | 112.918 |
| 57) L6,D diesel (7) | 14.07 | 13.97 | 111466 | 94009 | 113.150 | 111.901 |
| 58) L6,D diesel (8) | 14.66 | 14.55 | 79368 | 74928 | 108.440m | 112.189 |
| 59) L6,D diesel (9) | 15.22 | 15.11 | 69744 | 55712 | 109.557m | 115.000 |
| 60) L6,D diesel (10) | 15.76 | 15.64 | 36832 | 29576 | 103.930m | 95.132m |
| Sum diesel (1) | | | 1119401 | 1121497 | 1087.690 | 1076.085 |
| Average diesel (1) | | | | | 108.769 | 107.609 |
| 64) L7,O motor oil (1) | 14.66 | 14.55 | 93727 | 74928 | 1567.326 | 2260.869 # |
| 65) L7,O motor oil (2) | 15.22 | 15.11 | 76299 | 55712 | 805.336 | 1029.222 # |
| 66) L7,O motor oil (3) | 15.76 | 15.64 | 41739 | 40014 | 367.103 | 458.286 |
| 67) L7,O motor oil (4) | 16.47 | 15.85 | 14974 | 6778 | 54.509 | 77.468 # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_25.D\FID1A.CH Vial: 25
Acq On : 17 Jan 2002 8:36 Operator: SAB 5997
Sample : FID A713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_25.D\FID2B.CH Vial: 25
Acq On : 17 Jan 2002 9:16 Operator: SAB 5997
Sample : FID A713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 15:11 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,0 motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 69) L7,0 motor oil (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 70) L7,0 motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 71) L7,0 motor oil (8) | 19.08 | 0.00 | 96 | 0 | 0.088 | N.D. | # |
| 72) L7,0 motor oil (9) | 19.76 | 0.00 | 195 | 0 | 0.291 | N.D. | # |
| 73) L7,0 motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum motor oil (1) | | | 227029 | 177433 | 2794.653 | 3825.845 | |
| Average motor oil (1) | | | | | 465.776 | 956.461 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Qedit)

Data File : C:\HPCHEM\3\DATA\135\135_25.D\FID1A.CH
Acq On : 17 Jan 2002 8:36
Sample : FID A713 L4
Misc : MIX [S,D]
IntFile : AUTOINT1.E

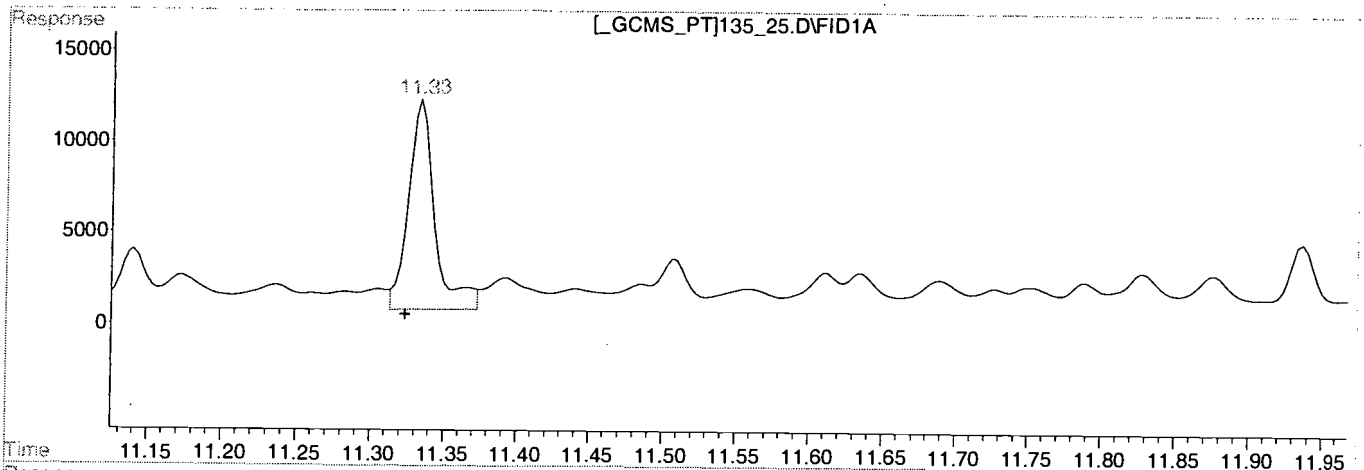
Vial: 25
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

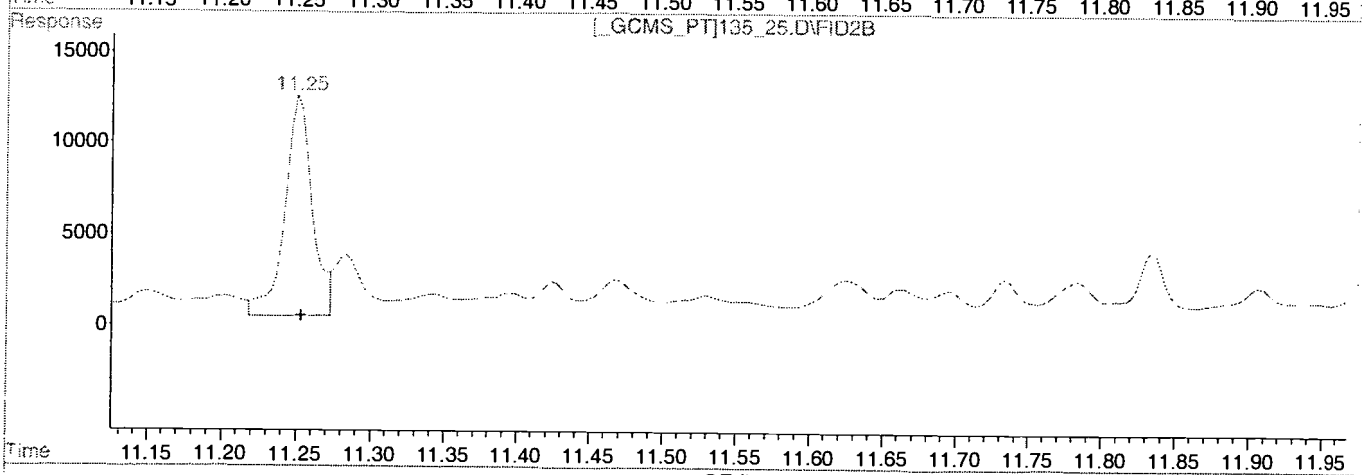
Data File : C:\HPCHEM\3\DATA\135\135_25.D\FID2B.CH
Acq On : 17 Jan 2002 9:16
Sample : FID A713 L4
Misc : MIX [S,D]
IntFile : EVENTS2.E

Vial: 25
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration




(51) diesel (1) #2 (L6,D)

| R.T. | Response | Conc |
|---|---|---|
| 9.57 | 80606 | 108.56 |
| 10.51 | 139343 | 108.31 |
| 11.33 | 144150 | 105.39 |
| 12.09 | 171835 | 109.72 |
| 12.79 | 154664 | 109.82 |
| 13.45 | 131393 | 110.81 |
| 14.07 | 111466 | 113.15 |
| 14.66 | 93727 | 128.06 |
| 15.22 | 76299 | 119.85 |
| 15.76 | 41739 | 117.78 |

(51) diesel (1) #2 (L6,D)

| R.T. | Response | Conc |
|---|---|---|
| 9.51 | 95037 | 109.31 |
| 10.44 | 142715 | 108.04 |
| 11.25 | 152722 | 102.81 |
| 12.00 | 163110 | 102.36 |
| 12.69 | 186937 | 106.42 |
| 13.35 | 126750 | 112.92 |
| 13.97 | 94009 | 111.90 |
| 14.55 | 74928 | 112.19 |
| 15.11 | 55712 | 115.00 |
| 15.64 | 40014 | 128.71 |

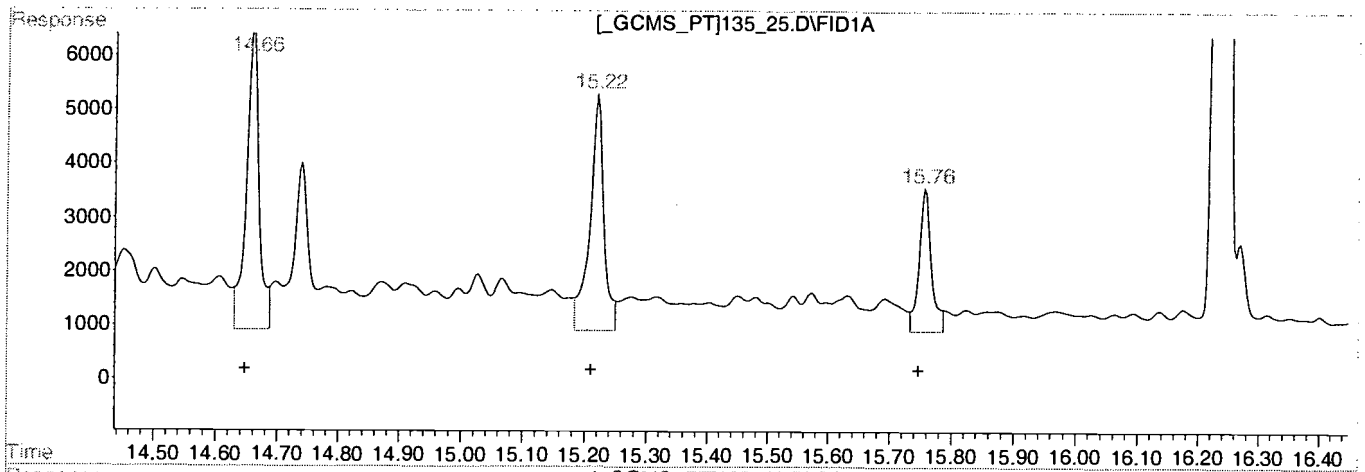
(+) = Expected Retention Time

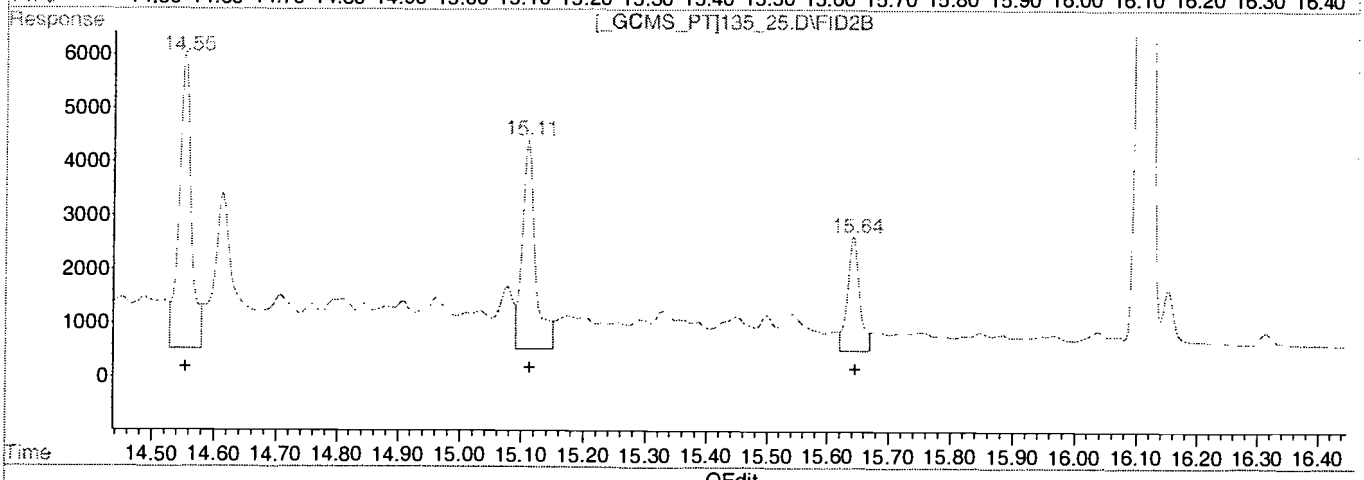
Quantitation Report (Qedit)

Data File : C:\HPCHEM\3\DATA\135\135_25.D\FID1A.CH  Vial: 25
Acq On : 17 Jan 2002 8:36  Operator: SAB 5997
Sample : FID A713 L4  Inst : GC/FID In
Misc : MIX [S,D]  Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_25.D\FID2B.CH  Vial: 25
Acq On : 17 Jan 2002 9:16  Operator: SAB 5997
Sample : FID A713 L4  Inst : GC/FID In
Misc : MIX [S,D]  Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 14:48 2002 Quant Results File: TPH.RES

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration




(51) diesel (1) #2 (L6,D)

| R.T. | Response | Conc |
|---|---|---|
| 9.57 | 80606 | 108.56 |
| 10.51 | 139343 | 108.31 |
| 11.33 | 144150 | 105.39 |
| 12.09 | 171835 | 109.72 |
| 12.79 | 154664 | 109.82 |
| 13.45 | 131393 | 110.81 |
| 14.07 | 111466 | 113.15 |
| 14.66 | 79368 | 108.44 |
| 15.22 | 69744 | 109.56 |
| 15.76 | 36832 | 103.93 |

(51) diesel (1) #2 (L6,D)

| R.T. | Response | Conc |
|---|---|---|
| 9.51 | 95037 | 109.31 |
| 10.44 | 142715 | 108.04 |
| 11.25 | 152722 | 102.81 |
| 12.00 | 163110 | 102.36 |
| 12.69 | 186937 | 106.42 |
| 13.35 | 126750 | 112.92 |
| 13.97 | 94009 | 111.90 |
| 14.55 | 74928 | 112.19 |
| 15.11 | 55712 | 115.00 |
| 15.64 | 29576 | 95.13 |

(+) = Expected Retention Time

Data File : C:\HPCHEM\3\DATA\135\135_25.D\FID1A.CH
Acq On : 17 Jan 2002 8:36
Sample : FID A713 L4
Misc : MIX [S,D]
IntFile : AUTOINT1.E

Vial: 25
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

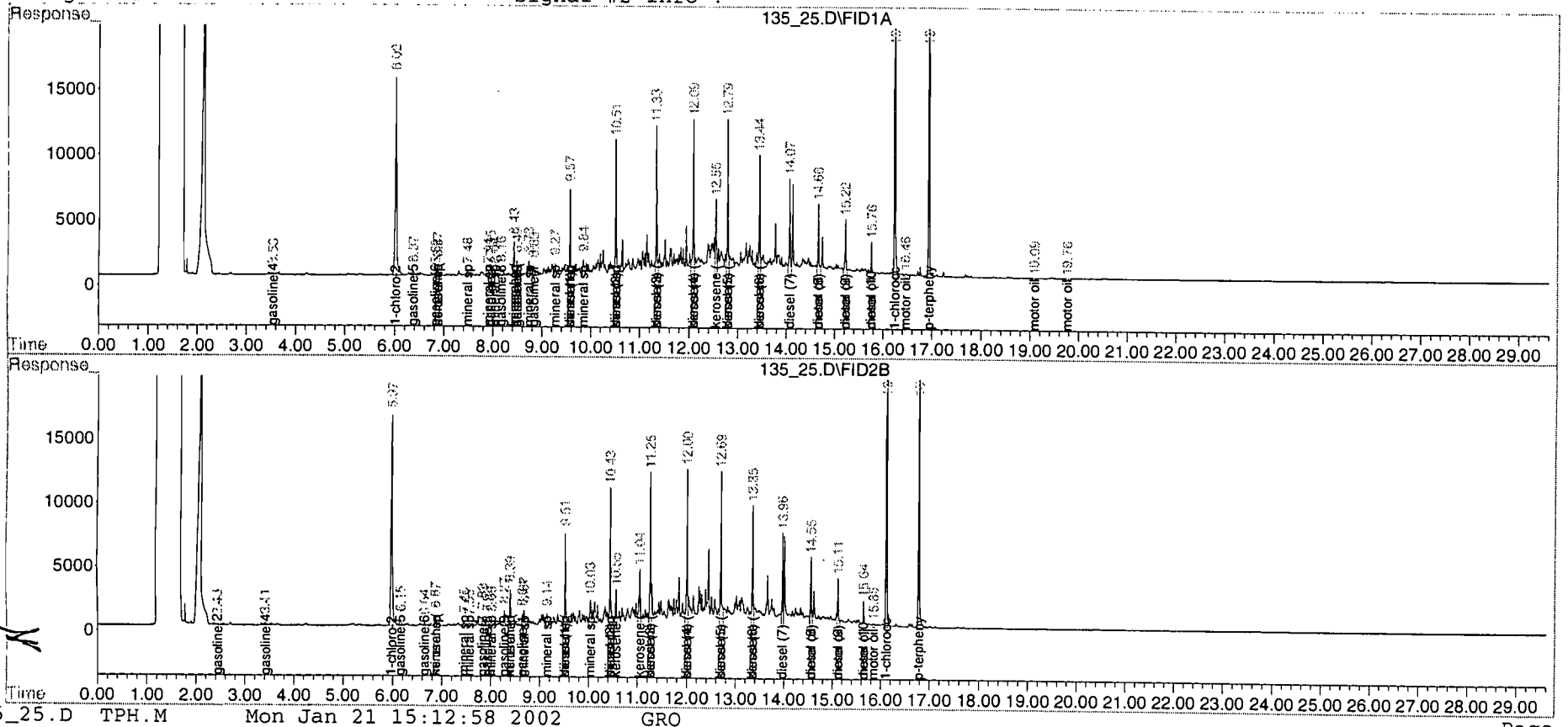
Data File : C:\HPCHEM\3\DATA\135\135_25.D\FID2B.CH
Acq On : 17 Jan 2002 9:16
Sample : FID A713 L4
Misc : MIX [S,D]
IntFile : EVENTS2.E

Vial: 25
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 15:11 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_26.D\FID1A.CH Vial: 26
Acq On : 22 Jan 2002 8:25 Operator: SAB 5997
Sample : CS2 Inst : GC/FID In
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_26.D\FID2B.CH Vial: 26
Acq On : 22 Jan 2002 9:05 Operator: SAB 5997
Sample : CS2 Inst : GC/FID In
Misc : Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 22 10:59 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 0.00%# |
| 62) S 1-chlorooctadeca | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 0.00%# |
| 63) S p-terphenyl | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 0.00%# |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 5) L1,A gasoline(5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 6) L1,A gasoline(6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 7) L1,A gasoline(7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 8) L1,A gasoline(8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 9) L1,A gasoline(9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 10) L1,A gasoline(10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum gasoline(1) | | | 0 | 0 | N.D. | N.D. |
| Average gasoline(1) | | | | | 0.000 | 0.000 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_26.D\FID1A.CH Vial: 26
Acq On : 22 Jan 2002 8:25 Operator: SAB 5997
Sample : CS2 Inst : GC/FID In
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_26.D\FID2B.CH Vial: 26
Acq On : 22 Jan 2002 9:05 Operator: SAB 5997
Sample : CS2 Inst : GC/FID In
Misc : Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 22 10:59 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. | |
| Average mineral spirits ( | | | | | 0.000 | 0.000 | |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average SC-150 (1) | | | | | 0.000 | 0.000 | |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 46) L5,K kerosene (6) | 11.31 | 0.00 | 441 | 0 | 0.224 | N.D. | # |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 49) L5,K kerosene (9) | 0.00 | 12.67 | 0 | 6061 | N.D. | 4.979 | # |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum kerosene (1) | | | 441 | 6061 | 0.224 | 4.979 | |
| Average kerosene (1) | | | | | 0.224 | 4.979 | |
| 51) L6,D diesel (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 52) L6,D diesel (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 53) L6,D diesel (3) | 11.31 | 0.00 | 441 | 0 | 0.323 | N.D. | # |
| 54) L6,D diesel (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 55) L6,D diesel (5) | 0.00 | 12.67 | 0 | 6061 | N.D. | 3.450 | # |
| 56) L6,D diesel (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 57) L6,D diesel (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 58) L6,D diesel (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 59) L6,D diesel (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum diesel (1) | | | 441 | 6061 | 0.323 | 3.450 | |
| Average diesel (1) | | | | | 0.323 | 3.450 | |
| 64) L7,O motor oil (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 67) L7,O motor oil (4) | 16.48 | 0.00 | 364 | 0 | 1.326 | N.D. | # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_26.D\FID1A.CH Vial: 26
Acq On : 22 Jan 2002 8:25 Operator: SAB 5997
Sample : CS2 Inst : GC/FID In
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_26.D\FID2B.CH Vial: 26
Acq On : 22 Jan 2002 9:05 Operator: SAB 5997
Sample : CS2 Inst : GC/FID In
Misc : Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 22 10:59 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 69) L7,O motor oil (6) | 17.91 | 0.00 | 3421 | 0 | 6.315 | N.D. | # |
| 70) L7,O motor oil (7) | 18.48 | 0.00 | 2408 | 0 | 2.904 | N.D. | # |
| 71) L7,O motor oil (8) | 19.08 | 0.00 | 943 | 0 | 0.868 | N.D. | # |
| 72) L7,O motor oil (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum motor oil (1) | | | 7137 | 0 | 11.414 | N.D. | |
| Average motor oil (1) | | | | | 2.853 | 0.000 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\135\135_26.D\FID1A.CH
Acq On : 22 Jan 2002 8:25
Sample : CS2
Misc :
IntFile : AUTOINT1.E

Vial: 26
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

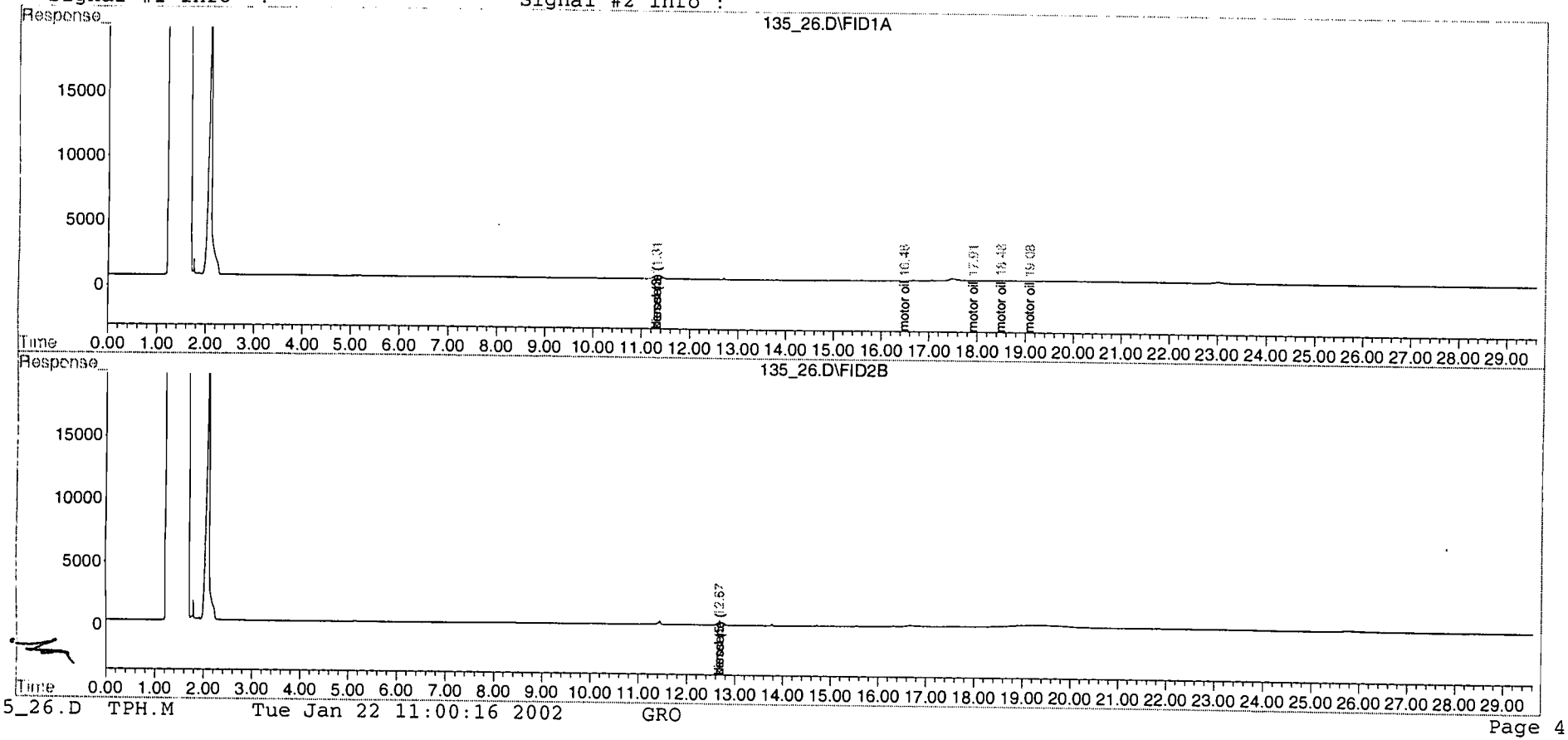
Data File : C:\HPCHEM\3\DATA\135\135_26.D\FID2B.CH
Acq On : 22 Jan 2002 9:05
Sample : CS2
Misc :
IntFile : EVENTS2.E

Vial: 26
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 22 10:59 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_27.D\FID1A.CH Vial: 27
Acq On : 22 Jan 2002 9:05 Operator: SAB 5997
Sample : FID A712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_27.D\FID2B.CH Vial: 27
Acq On : 22 Jan 2002 9:44 Operator: SAB 5997
Sample : FID A712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 22 11:01 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 5.99 | 5.98 | 321076 | 353057 | 9.227 | 9.304 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 92.27% | 93.04% |
| 62) S 1-chlorooctadeca | 16.22 | 16.11 | 831836 | 588458 | 18.759 | 18.670 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 93.80% | 93.35% |
| 63) S p-terphenyl | 16.92 | 16.78 | 520303 | 293714 | 9.715 | 9.380 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 97.15% | 93.80% |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 2.32 | 2.33 | 68337 | 105519 | 50.184 | 54.878 |
| 2) L1,A gasoline(2) | 2.42 | 2.45 | 23424 | 23084 | 49.834m | 47.630m |
| 3) L1,A gasoline(3) | 3.09 | 3.13 | 34040 | 36094 | 50.620 | 49.003 |
| 4) L1,A gasoline(4) | 3.50 | 3.43 | 162085 | 202497 | 49.374 | 48.838 |
| 5) L1,A gasoline(5) | 6.34 | 6.16 | 140330 | 163130 | 46.708 | 48.945 |
| 6) L1,A gasoline(6) | 6.80 | 6.64 | 55645 | 64223 | 48.266 | 48.827 |
| 7) L1,A gasoline(7) | 7.93 | 7.83 | 50194 | 82065 | 46.808 | 48.239 |
| 8) L1,A gasoline(8) | 8.14 | 7.93 | 24810 | 29149 | 46.925 | 48.828 |
| 9) L1,A gasoline(9) | 8.47 | 8.27 | 80456 | 91168 | 47.090 | 49.283 |
| 10) L1,A gasoline(10) | 8.81 | 8.64 | 18215 | 21169 | 45.604 | 48.793 |
| Sum gasoline(1) | | | 657536 | 818099 | 481.414 | 493.265 |
| Average gasoline(1) | | | | | 48.141 | 49.326 |
| 11) L2,J JP-4 (1) | 0.00 | 2.50 | 0 | 13260 | N.D. | NoCal |
| 12) L2,J JP-4 (2) | 0.00 | 3.60 | 0 | 17378 | N.D. | NoCal |
| 13) L2,J JP-4 (3) | 3.77 | 3.91 | 11053 | 1731 | NoCal | NoCal |
| 14) L2,J JP-4 (4) | 0.00 | 6.30 | 0 | 8738 | N.D. | NoCal |
| 15) L2,J JP-4 (5) | 0.00 | 6.64 | 0 | 64223 | N.D. | NoCal |
| 16) L2,J JP-4 (6) | 0.00 | 8.01 | 0 | 2863 | N.D. | NoCal |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 18) L2,J JP-4 (8) | 10.70 | 0.00 | 2031 | 0 | NoCal | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 6.85 | 6.87 | 6410 | 5945 | 4.830 | 5.574 |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 7.89 | 0.00 | 5233 | 0 | 5.766 | N.D. # |
| 24) L3,P mineral spirits | 8.02 | 8.01 | 2030 | 2863 | 1.392 | 2.294 # |
| 25) L3,P mineral spirits | 8.41 | 8.39 | 2762 | 4321 | 0.807 | 1.227 # |
| 26) L3,P mineral spirits | 8.71 | 8.69 | 2065 | 3116 | 1.298 | 1.575 |
| 27) L3,P mineral spirits | 9.26 | 9.16 | 4970 | 7452 | 4.693 | 5.358 |
| 28) L3,P mineral spirits | 9.56 | 9.51 | 2474 | 2665 | 0.733 | 0.629 |
| 29) L3,P mineral spirits | 0.00 | 10.02 | 0 | 15154 | N.D. | 18.206 # |
| 30) L3,P mineral spirits | 10.51 | 10.45 | 13343 | 7285 | 13.002 | 7.597 # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_27.D\FID1A.CH Vial: 27
Acq On : 22 Jan 2002 9:05 Operator: SAB 5997
Sample : FID A712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_27.D\FID2B.CH Vial: 27
Acq On : 22 Jan 2002 9:44 Operator: SAB 5997
Sample : FID A712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 22 11:01 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 39286 | 48800 | 32.520 | 42.460 | |
| Average mineral spirits ( | | | | | 4.065 | 5.307 | |
| 31) L4,X SC-150 (1) | 9.20 | 0.00 | 15248 | 0 | NoCal | N.D. | |
| 32) L4,X SC-150 (2) | 0.00 | 9.16 | 0 | 7452 | N.D. | NoCal | |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 34) L4,X SC-150 (4) | 9.49 | 0.00 | 13895 | 0 | NoCal | N.D. | |
| 35) L4,X SC-150 (5) | 9.61 | 0.00 | 1570 | 0 | NoCal | N.D. | |
| 36) L4,X SC-150 (6) | 9.93 | 9.88 | 12367 | 1635 | NoCal | NoCal | |
| 37) L4,X SC-150 (7) | 0.00 | 9.91 | 0 | 5663 | N.D. | NoCal | |
| 38) L4,X SC-150 (8) | 10.18 | 10.07 | 2183 | 2469 | NoCal | NoCal | |
| 39) L4,X SC-150 (9) | 10.27 | 10.34 | 3552 | 14197 | NoCal | NoCal | |
| 40) L4,X SC-150 (10) | 10.61 | 10.91 | 3933 | 2357 | NoCal | NoCal | |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. | |
| Average SC-150 (1) | | | | | 0.000 | 0.000 | |
| 41) L5,K kerosene (1) | 6.85 | 6.87 | 6410 | 5945 | 11.038 | 11.040 | |
| 42) L5,K kerosene (2) | 8.41 | 8.39 | 2762 | 4321 | 2.043 | 3.160 | # |
| 43) L5,K kerosene (3) | 8.47 | 9.51 | 80456 | 2665 | 187.364 | 1.196 | # |
| 44) L5,K kerosene (4) | 9.56 | 10.45 | 2474 | 7285 | 1.243 | 3.156 | # |
| 45) L5,K kerosene (5) | 10.51 | 10.55 | 13343 | 1671 | 5.855 | 2.034 | # |
| 46) L5,K kerosene (6) | 11.32 | 11.03 | 2221 | 2386 | 1.126 | 2.096 | # |
| 47) L5,K kerosene (7) | 12.07 | 0.00 | 394 | 0 | 0.263 | N.D. | # |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 49) L5,K kerosene (9) | 0.00 | 12.67 | 0 | 9876 | N.D. | 8.113 | # |
| 50) L5,K kerosene (10) | 13.43 | 0.00 | 190 | 0 | 0.458 | N.D. | # |
| Sum kerosene (1) | | | 108251 | 34149 | 209.390 | 30.795 | |
| Average kerosene (1) | | | | | 26.174 | 4.399 | |
| 51) L6,D diesel (1) | 9.56 | 9.51 | 2474 | 2665 | 3.331 | 3.065 | |
| 52) L6,D diesel (2) | 10.51 | 10.45 | 13343 | 7285 | 10.371 | 5.515 | # |
| 53) L6,D diesel (3) | 11.32 | 0.00 | 2221 | 0 | 1.624 | N.D. | # |
| 54) L6,D diesel (4) | 12.07 | 0.00 | 394 | 0 | 0.252 | N.D. | # |
| 55) L6,D diesel (5) | 0.00 | 12.67 | 0 | 9876 | N.D. | 5.622 | # |
| 56) L6,D diesel (6) | 13.43 | 0.00 | 190 | 0 | 0.161 | N.D. | # |
| 57) L6,D diesel (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 58) L6,D diesel (8) | 14.64 | 14.55 | 348 | 372 | 0.475 | 0.557 | |
| 59) L6,D diesel (9) | 15.20 | 0.00 | 268 | 0 | 0.421 | N.D. | # |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| Sum diesel (1) | | | 19238 | 20198 | 16.634 | 14.759 | |
| Average diesel (1) | | | | | 2.376 | 3.690 | |
| 64) L7,O motor oil (1) | 0.00 | 14.55 | 0 | 372 | N.D. | 11.235 | # |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 66) L7,O motor oil (3) | 15.80 | 0.00 | 402 | 0 | 3.535 | N.D. | # |
| 67) L7,O motor oil (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_27.D\FID1A.CH Vial: 27
Acq On : 22 Jan 2002 9:05 Operator: SAB 5997
Sample : FID A712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_27.D\FID2B.CH Vial: 27
Acq On : 22 Jan 2002 9:44 Operator: SAB 5997
Sample : FID A712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 22 11:01 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 17.43 | 0.00 | 672 | 0 | 1.339 | N.D. | # |
| 69) L7,O motor oil (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 72) L7,O motor oil (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 73) L7,O motor oil (10) | 20.61 | 0.00 | 135 | 0 | 0.236 | N.D. | # |
| Sum motor oil (1) | | | 1209 | 372 | 5.110 | 11.235 | |
| Average motor oil (1) | | | | | 1.703 | 11.235 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Qedit)

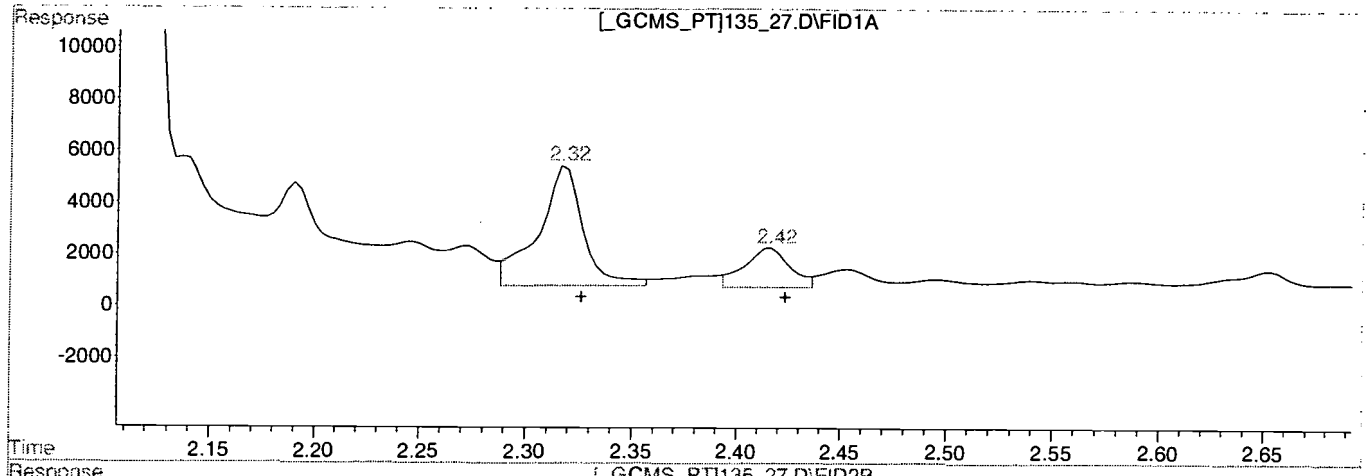
Data File : C:\HPCHEM\3\DATA\135\135_27.D\FID1A.CH
Acq On : 22 Jan 2002 9:05
Sample : FID A712 L4
Misc : MIX [S,A]
IntFile : AUTOINT1.E

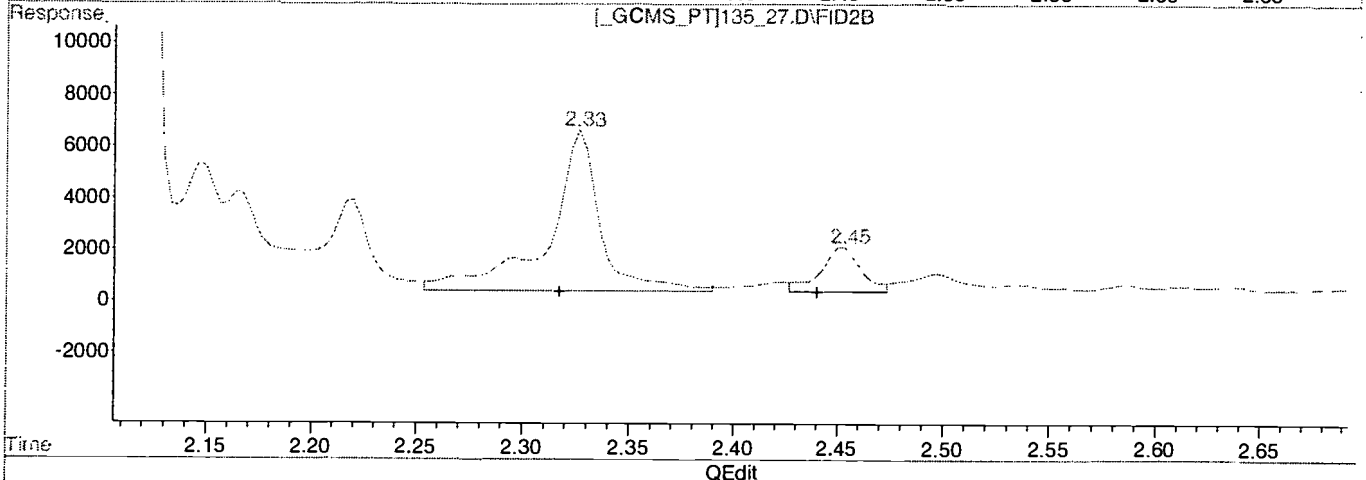
Vial: 27
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\135\135_27.D\FID2B.CH
Acq On : 22 Jan 2002 9:44
Sample : FID A712 L4
Misc : MIX [S,A]
IntFile : EVENTS2.E
Quant Time: Jan 22 11:00 2002 Quant Results File: TPH.RES

Vial: 27
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration




(1) gasoline(1) #2 (L1,A)

| R.T. | Response | Conc |
|---|---|---|
| 2.32 | 68337 | 50.18 |
| 2.42 | 23424 | 49.83 |
| 3.09 | 34040 | 50.62 |
| 3.50 | 162085 | 49.37 |
| 6.34 | 140330 | 46.71 |
| 6.80 | 55645 | 48.27 |
| 7.93 | 50194 | 46.81 |
| 8.14 | 24810 | 46.92 |
| 8.47 | 80456 | 47.09 |
| 8.81 | 18215 | 45.60 |

(1) gasoline(1) #2 (L1,A)

| R.T. | Response | Conc |
|---|---|---|
| 2.33 | 105519 | 54.88 |
| 2.45 | 23084 | 47.63 |
| 3.13 | 36094 | 49.00 |
| 3.43 | 202497 | 48.84 |
| 6.16 | 163130 | 48.95 |
| 6.64 | 64223 | 48.83 |
| 7.83 | 82065 | 48.24 |
| 7.93 | 29149 | 48.83 |
| 8.27 | 91168 | 49.28 |
| 8.64 | 21169 | 48.79 |

(+) = Expected Retention Time

Quantitative Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_27.D\FID1A.CH
Acq On : 22 Jan 2002 9:05
Sample : FID A712 L4
Misc : MIX [S,A]
IntFile : AUTOINT1.E

Vial: 27
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\135\135_27.D\FID2B.CH
Acq On : 22 Jan 2002 9:44
Sample : FID A712 L4
Misc : MIX [S,A]
IntFile : EVENTS2.E

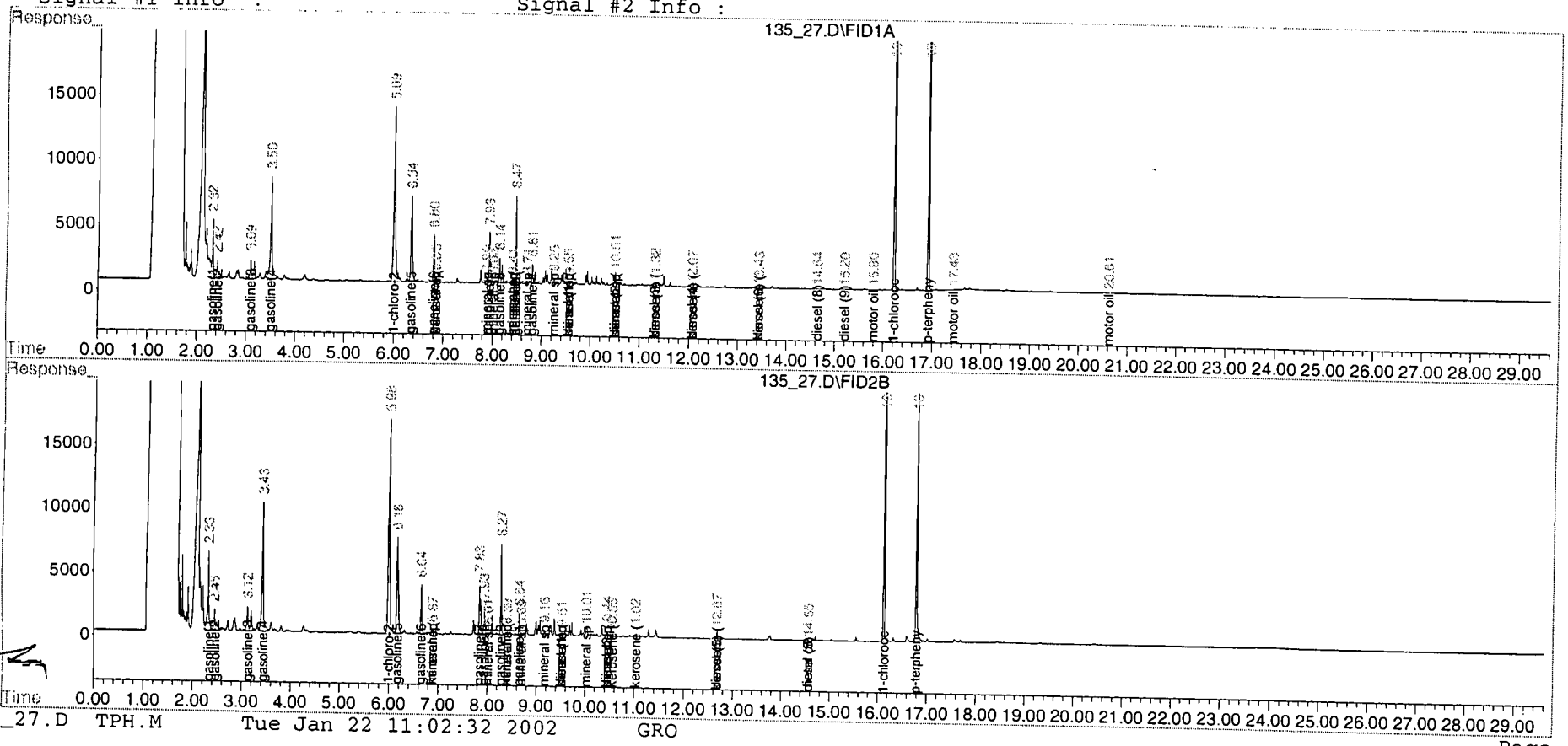
Vial: 27
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 22 11:01 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :

Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_28.D\FID1A.CH Vial: 28
Acq On : 22 Jan 2002 9:44 Operator: SAB 5997
Sample : FID A713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_28.D\FID2B.CH Vial: 28
Acq On : 22 Jan 2002 10:24 Operator: SAB 5997
Sample : FID A713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 22 11:02 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.01 | 5.98 | 278744 | 313806 | 8.010 | 8.270 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 80.10% | 82.70% |
| 62) S 1-chlorooctadeca | 16.23 | 16.11 | 870236 | 596545 | 19.625 | 18.927 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 98.13% | 94.64% |
| 63) S p-terphenyl | 16.93 | 16.78 | 533465 | 297826 | 9.960 | 9.512 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 99.60% | 95.12% |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 3.52 | 3.43 | 1599 | 4871 | 0.487 | 1.175 # |
| 5) L1,A gasoline(5) | 6.36 | 6.16 | 8333 | 11571 | 2.774 | 3.472 # |
| 6) L1,A gasoline(6) | 6.81 | 6.64 | 3843 | 4291 | 3.334 | 3.263 |
| 7) L1,A gasoline(7) | 7.94 | 7.83 | 12045 | 14441 | 11.232 | 8.489 |
| 8) L1,A gasoline(8) | 8.16 | 7.92 | 9047 | 9598 | 17.111 | 16.078 |
| 9) L1,A gasoline(9) | 8.48 | 8.27 | 13611 | 16098 | 7.967 | 8.702 |
| 10) L1,A gasoline(10) | 8.82 | 8.64 | 11157 | 13424 | 27.933 | 30.942 |
| Sum gasoline(1) | | | 59636 | 74296 | 70.837 | 72.120 |
| Average gasoline(1) | | | | | 10.120 | 10.303 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 6.30 | 0 | 3654 | N.D. | NoCal |
| 15) L2,J JP-4 (5) | 0.00 | 6.64 | 0 | 4291 | N.D. | NoCal |
| 16) L2,J JP-4 (6) | 8.68 | 8.00 | 4824 | 7742 | NoCal | NoCal |
| 17) L2,J JP-4 (7) | 9.75 | 9.21 | 14678 | 9207 | NoCal | NoCal |
| 18) L2,J JP-4 (8) | 10.70 | 10.18 | 13171 | 27178 | NoCal | NoCal |
| 19) L2,J JP-4 (9) | 11.55 | 0.00 | 27076 | 0 | NoCal | N.D. |
| 20) L2,J JP-4 (10) | 12.27 | 11.78 | 21809 | 43857 | NoCal | NoCal |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 6.86 | 6.87 | 14114 | 11142 | 10.634 | 10.447 |
| 22) L3,P mineral spirits | 7.47 | 7.45 | 5707 | 6163 | 6.084 | 7.313 |
| 23) L3,P mineral spirits | 7.90 | 7.56 | 5830 | 5634 | 6.424 | 7.069 |
| 24) L3,P mineral spirits | 8.03 | 8.00 | 7483 | 7742 | 5.133 | 6.205 |
| 25) L3,P mineral spirits | 8.42 | 8.39 | 32720 | 37052 | 9.553 | 10.518 |
| 26) L3,P mineral spirits | 8.72 | 8.67 | 14653 | 16397 | 9.212 | 8.285 |
| 27) L3,P mineral spirits | 9.26 | 9.14 | 12504 | 18750 | 11.807 | 13.481 |
| 28) L3,P mineral spirits | 9.56 | 9.51 | 73709 | 88429 | 21.847 | 20.883 |
| 29) L3,P mineral spirits | 9.84 | 10.03 | 27063 | 45380 | 24.904 | 54.520 # |
| 30) L3,P mineral spirits | 10.50 | 10.43 | 133213 | 132910 | 129.809 | 138.614 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_28.D\FID1A.CH Vial: 28
Acq On : 22 Jan 2002 9:44 Operator: SAB 5997
Sample : FID A713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_28.D\FID2B.CH Vial: 28
Acq On : 22 Jan 2002 10:24 Operator: SAB 5997
Sample : FID A713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 22 11:02 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 326996 | 369598 | 235.407 | 277.335 |
| Average mineral spirits ( | | | | | 23.541 | 27.733 |
| 31) L4,X SC-150 (1) | 0.00 | 9.14 | 0 | 18750 | N.D. | NoCal |
| 32) L4,X SC-150 (2) | 9.31 | 9.14 | 10903 | 18750 | NoCal | NoCal |
| 33) L4,X SC-150 (3) | 9.31 | 9.21 | 10903 | 9207 | NoCal | NoCal |
| 34) L4,X SC-150 (4) | 9.50 | 0.00 | 12666 | 0 | NoCal | N.D. |
| 35) L4,X SC-150 (5) | 9.62 | 9.56 | 11089 | 6765 | NoCal | NoCal |
| 36) L4,X SC-150 (6) | 9.94 | 9.86 | 14853 | 14869 | NoCal | NoCal |
| 37) L4,X SC-150 (7) | 9.94 | 9.90 | 14853 | 13582 | NoCal | NoCal |
| 38) L4,X SC-150 (8) | 10.19 | 10.08 | 21413 | 18007 | NoCal | NoCal |
| 39) L4,X SC-150 (9) | 10.28 | 10.33 | 20203 | 43403 | NoCal | NoCal |
| 40) L4,X SC-150 (10) | 0.00 | 10.89 | 0 | 41832 | N.D. | NoCal |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 6.86 | 6.87 | 14114 | 11142 | 24.303 | 20.691 |
| 42) L5,K kerosene (2) | 8.42 | 8.39 | 32720 | 37052 | 24.205 | 27.095 |
| 43) L5,K kerosene (3) | 8.48 | 9.51 | 13611 | 88429 | 31.698 | 39.696 # |
| 44) L5,K kerosene (4) | 9.56 | 10.43 | 73709 | 132910 | 37.029 | 57.574 # |
| 45) L5,K kerosene (5) | 10.50 | 10.56 | 133213 | 47227 | 58.452 | 57.489 |
| 46) L5,K kerosene (6) | 11.33 | 11.04 | 153600 | 81621 | 77.888 | 71.699 |
| 47) L5,K kerosene (7) | 12.08 | 11.25 | 157166 | 142415 | 104.795 | 62.059 # |
| 48) L5,K kerosene (8) | 12.54 | 12.00 | 81373 | 152209 | 124.447 | 108.003 |
| 49) L5,K kerosene (9) | 12.78 | 12.69 | 141379 | 182221 | 147.570 | 149.688 |
| 50) L5,K kerosene (10) | 13.44 | 13.35 | 119322 | 117746 | 286.841 | 331.650 |
| Sum kerosene (1) | | | 920207 | 992972 | 917.229 | 925.644 |
| Average kerosene (1) | | | | | 91.723 | 92.564 |
| 51) L6,D diesel (1) | 9.56 | 9.51 | 73709 | 88429 | 99.268 | 101.712 |
| 52) L6,D diesel (2) | 10.50 | 10.43 | 133213 | 132910 | 103.541 | 100.621 |
| 53) L6,D diesel (3) | 11.33 | 11.25 | 153600 | 142415 | 112.299 | 95.867 |
| 54) L6,D diesel (4) | 12.08 | 12.00 | 157166 | 152209 | 100.356 | 95.523 |
| 55) L6,D diesel (5) | 12.78 | 12.69 | 141379 | 182221 | 100.391 | 103.734 |
| 56) L6,D diesel (6) | 13.44 | 13.35 | 119322 | 117746 | 100.632 | 104.897 |
| 57) L6,D diesel (7) | 14.06 | 13.96 | 101183 | 86821 | 102.711 | 103.345 |
| 58) L6,D diesel (8) | 14.65 | 14.55 | 73295 | 69842 | 100.143 | 104.573 |
| 59) L6,D diesel (9) | 15.21 | 15.11 | 68185 | 49894 | 107.108 | 102.990 |
| 60) L6,D diesel (10) | 15.75 | 15.64 | 37376 | 35689 | 105.465 | 114.795 |
| Sum diesel (1) | | | 1058427 | 1058176 | 1031.915 | 1028.056 |
| Average diesel (1) | | | | | 103.191 | 102.806 |
| 64) L7,O motor oil (1) | 14.69 | 14.55 | 12005 | 69842 | 200.746 | 2107.387 # |
| 65) L7,O motor oil (2) | 0.00 | 15.11 | 0 | 49894 | N.D. | 921.732 # |
| 66) L7,O motor oil (3) | 0.00 | 15.64 | 0 | 35689 | N.D. | 408.751 # |
| 67) L7,O motor oil (4) | 0.00 | 15.85 | 0 | 9104 | N.D. | 104.052 # |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_28.D\FID1A.CH Vial: 28
Acq On : 22 Jan 2002 9:44 Operator: SAB 5997
Sample : FID A713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\135\135_28.D\FID2B.CH Vial: 28
Acq On : 22 Jan 2002 10:24 Operator: SAB 5997
Sample : FID A713 L4 Inst : GC/FID In
Misc : MIX [S,D] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 22 11:02 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 69) L7,O motor oil (6) | 17.94 | 0.00 | 771 | 0 | 1.423 | N.D. | # |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. | |
| 72) L7,O motor oil (9) | 19.77 | 0.00 | 217 | 0 | 0.325 | N.D. | # |
| 73) L7,O motor oil (10) | 20.63 | 0.00 | 423 | 0 | 0.738 | N.D. | # |
| Sum motor oil (1) | | | 13416 | 164529 | 203.233 | 3541.922 | |
| Average motor oil (1) | | | | | 50.808 | 885.480 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitati Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\135\135_28.D\FID1A.CH
Acq On : 22 Jan 2002 9:44
Sample : FID A713 L4
Misc : MIX [S,D]
IntFile : AUTOINT1.E

Vial: 28
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\135\135_28.D\FID2B.CH
Acq On : 22 Jan 2002 10:24
Sample : FID A713 L4
Misc : MIX [S,D]
IntFile : EVENTS2.E

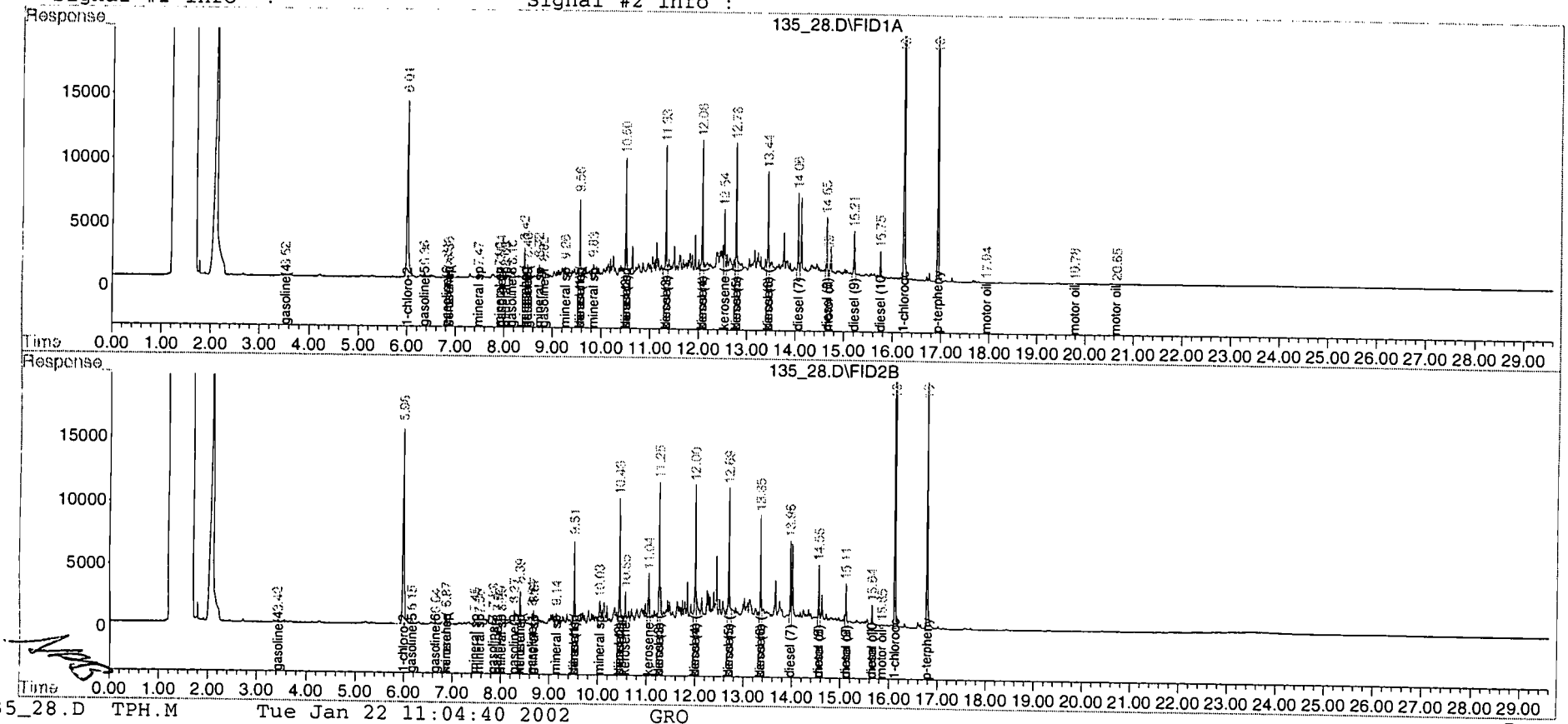
Vial: 28
Operator: SAB 5997
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 22 11:02 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 12:22:22 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :

Signal #2 Phase:
Signal #2 Info :



# CALIBRATION DATA

Sequence Name: C:\HPCHEM\3\SEQUENCE\132.S
Comment:
Operator: DDC/2002
Data Path: C:\HPCHEM\3\DATA\132\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

| Line | Type | Vial | DataFile | Method | Sample Name |
|---|---|---|---|---|---|
| 1 | Comment | - | Sequence Builder Template | | |
| 2 | Comment | - | add keywords as required. | | |
| 3 | Stagger | - | 99 | | |
| 4 | Sample | 1 | 132_01 | TPH | ~~CS2~~ |
| 5 | Sample | 2 | 132_02 | TPH | ~~PCS~~ |
| 6 | Sample | 3 | 132_03 | TPH | FID A 702 L1 |
| 7 | Sample | 4 | 132_04 | TPH | FID A 702 L2 |
| 8 | Sample | 5 | 132_05 | TPH | FID A 702 L3 |
| 9 | Sample | 6 | 132_06 | TPH | FID A 712 L4 |
| 10 | Sample | 7 | 132_07 | TPH | FID A 702 L5 |
| 11 | Sample | 8 | 132_08 | TPH | FID A 702 L6 |
| 12 | Sample | 9 | 132_09 | TPH | FID A 703 L1 |
| 13 | Sample | 10 | 132_10 | TPH | FID A 703 L2 |
| 14 | Sample | 11 | 132_11 | TPH | FID A 703 L3 |
| 15 | Sample | 12 | 132_12 | TPH | FID A 713 L4 |
| 16 | Sample | 13 | 132_13 | TPH | FID A 703 L5 |
| 17 | Sample | 14 | 132_14 | TPH | FID A 703 L6 |
| 18 | Sample | 15 | 132_15 | TPH | FID A 704 L1 |
| 19 | Sample | 16 | 132_16 | TPH | FID A 704 L2 |
| 20 | Sample | 17 | 132_17 | TPH | FID A 704 L3 |
| 21 | Sample | 18 | 132_18 | TPH | FID A 704 L4 |
| 22 | Sample | 19 | 132_19 | TPH | FID A 704 L5 |
| 23 | Sample | 20 | 132_20 | TPH | ~~BLA 733 TPH 733~~ |
| 24 | Sample | 21 | 132_21 | TPH | ~~LCS 733 TPH 733~~ |
| 25 | Sample | 22 | 132_22 | TPH | ~~A580863 TPH 733~~ |
| 26 | Sample | 23 | 132_23 | TPH | ~~A580863 MS TPH 733~~ |
| 27 | Sample | 24 | 132_24 | TPH | ~~A580863 MSD TPH 733~~ |
| 28 | Sample | 25 | 132_25 | TPH | ~~A580864 TPH 733~~ |
| 29 | Sample | 26 | 132_26 | TPH | ~~A580865 TPH 733~~ |
| 30 | Sample | 27 | 132_27 | TPH | ~~A580866 TPH 733~~ |
| 31 | Sample | 28 | 132_28 | TPH | ~~FID A 712 L4~~ |
| 32 | Sample | 29 | 132_29 | TPH | ~~FID A 713 L4~~ |
| 33 | Sample | 99 | 132_99 | TPH | CS2 |

Gas

Diesel

Motor oil

Last Modified: Fri Jan 11 16:02:46 2002

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_04.D\FID1A.CH Vial: 4
Acq On : 11 Jan 2002 18:02 Operator: DDC/2002
Sample : FID A 702 L2 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_04.D\FID2B.CH Vial: 4
Acq On : 11 Jan 2002 18:41 Operator: DDC/2002
Sample : FID A 702 L2 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:46 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 11:46:40 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.02 | 5.99 | 65108 | 74246 | 1.871 | 1.957 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 18.71%# | 19.57%# |
| 62) S 1-chlorooctadeca | 16.25 | 16.11 | 182315 | 130344 | 4.111 | 4.135 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 20.56%# | 20.67%# |
| 63) S p-terphenyl | 16.95 | 16.78 | 528108 | 313655 | 9.860 | 10.017 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 98.60% | 100.17% |
| Target Compounds | | | | | | |
| L1,A gasoline(1) | 2.34 | 2.33 | 12745 | 16028 | 9.445 | 8.336 |
| 2) L1,A gasoline(2) | 2.44 | 2.46 | 3264 | 3460 | 6.591 | 6.915 |
| 3) L1,A gasoline(3) | 3.12 | 3.13 | 6438 | 7317 | 9.574 | 9.934 |
| 4) L1,A gasoline(4) | 3.53 | 3.44 | 34949 | 41550 | 10.708 | 10.021 |
| 5) L1,A gasoline(5) | 6.37 | 6.16 | 30652 | 33420 | 10.202 | 10.027 |
| 6) L1,A gasoline(6) | 6.82 | 6.65 | 10215 | 13308 | 8.860 | 10.118 |
| 7) L1,A gasoline(7) | 7.95 | 7.83 | 10832 | 17199 | 10.101 | 10.110 |
| 8) L1,A gasoline(8) | 8.16 | 7.93 | 5243 | 6126 | 9.860 | 10.261 |
| 9) L1,A gasoline(9) | 8.49 | 8.27 | 17134 | 18600 | 10.028 | 10.055 |
| 10) L1,A gasoline(10) | 8.83 | 8.64 | 4028 | 4266 | 10.085 | 9.834 |
| Sum gasoline(1) | | | 135470 | 161275 | NoCal | NoCal |
| Average gasoline(1) | | | | | 9.546 | 9.561 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_04.D\FID1A.CH Vial: 4
Acq On : 11 Jan 2002 18:02 Operator: DDC/2002
Sample : FID A 702 L2 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_04.D\FID2B.CH Vial: 4
Acq On : 11 Jan 2002 18:41 Operator: DDC/2002
Sample : FID A 702 L2 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:46 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 11:46:40 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. |
| Average mineral spirits ( | | | | | 0.000 | 0.000 |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 49) L5,K kerosene (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum kerosene (1) | | | 0 | 0 | N.D. | N.D. |
| Average kerosene (1) | | | | | 0.000 | 0.000 |
| 51) L6,D diesel (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 52) L6,D diesel (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 53) L6,D diesel (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 54) L6,D diesel (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 55) L6,D diesel (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 56) L6,D diesel (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 57) L6,D diesel (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 58) L6,D diesel (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 59) L6,D diesel (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum diesel (1) | | | 0 | 0 | N.D. | N.D. |
| Average diesel (1) | | | | | 0.000 | 0.000 |
| 64) L7,O motor oil (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 67) L7,O motor oil (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_04.D\FID1A.CH Vial: 4
Acq On : 11 Jan 2002 18:02 Operator: DDC/2002
Sample : FID A 702 L2 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_04.D\FID2B.CH Vial: 4
Acq On : 11 Jan 2002 18:41 Operator: DDC/2002
Sample : FID A 702 L2 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:46 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 11:46:40 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 69) L7,O motor oil (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 72) L7,O motor oil (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum motor oil (1) | | | 0 | 0 | N.D. | N.D. |
| Average motor oil (1) | | | | | 0.000 | 0.000 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\132\132_04.D\FID1A.CH
Acq On : 11 Jan 2002 18:02
Sample : FID A 702 L2
Misc : MIX [S,A]
IntFile : AUTOINT1.E

Vial: 4
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\132\132_04.D\FID2B.CH
Acq On : 11 Jan 2002 18:41
Sample : FID A 702 L2
Misc : MIX [S,A]
IntFile : EVENTS2.E

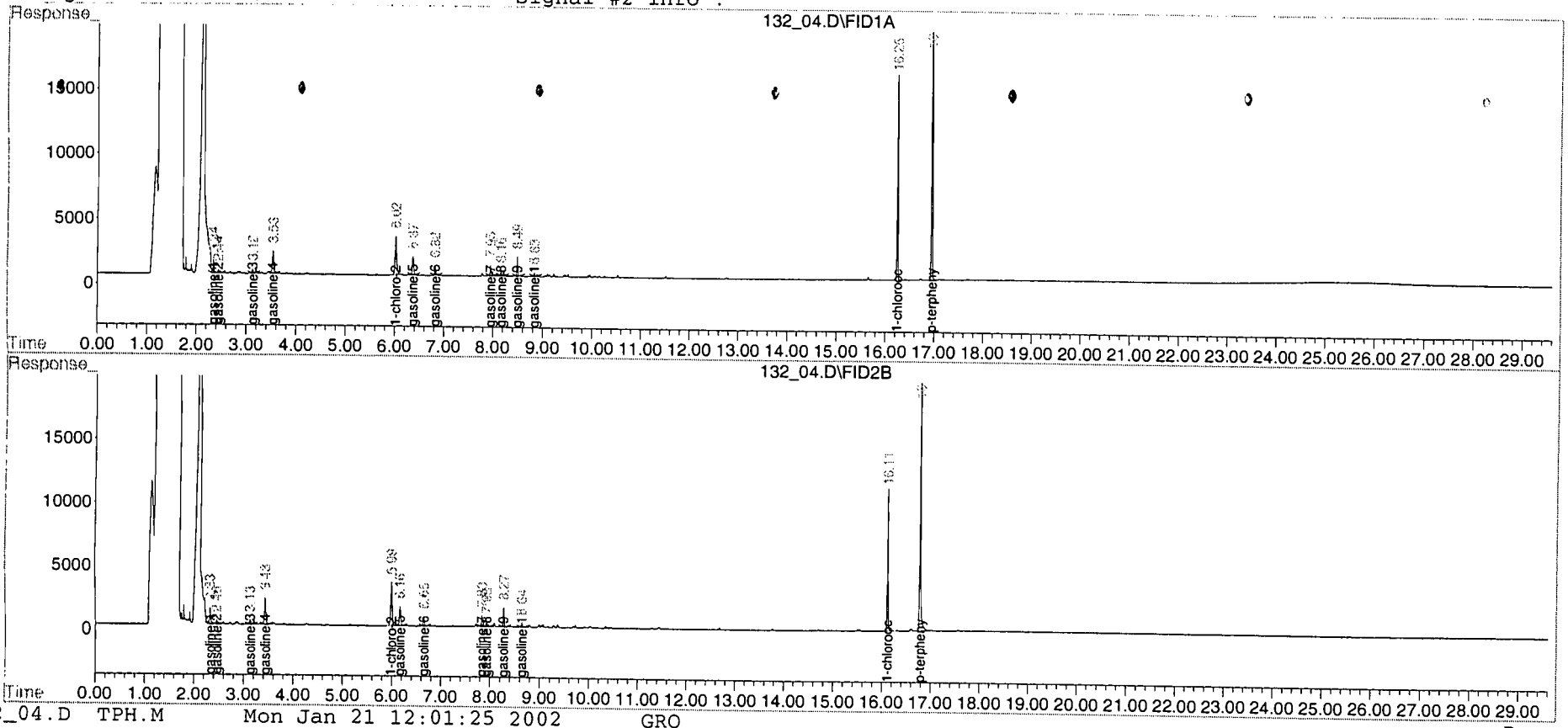
Vial: 4
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 11:46 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 11:46:40 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :

Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_05.D\FID1A.CH Vial: 5
Acq On : 11 Jan 2002 18:41 Operator: DDC/2002
Sample : FID A 702 L3 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_05.D\FID2B.CH Vial: 5
Acq On : 11 Jan 2002 19:20 Operator: DDC/2002
Sample : FID A 702 L3 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:55 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 09:13:05 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.02 | 5.99 | 168543 | 178297 | 4.843 | 4.699 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 48.43%# | 46.99%# |
| 62) S 1-chlorooctadeca | 16.25 | 16.12 | 432699 | 314823 | 9.758 | 9.988 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 48.79%# | 49.94%# |
| 63) S p-terphenyl | 16.95 | 16.78 | 515978 | 307804 | 9.634 | 9.830 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 96.34% | 98.30% |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 2.34 | 2.33 | 35610 | 42303 | 28.751 | 22.001 |
| 2) L1,A gasoline(2) | 2.44 | 2.45 | 14989 | 14362 | 32.020 | 30.997 |
| 3) L1,A gasoline(3) | 3.12 | 3.13 | 16097 | 17828 | 24.354 | 24.204 |
| 4) L1,A gasoline(4) | 3.53 | 3.43 | 79695 | 101713 | 28.555 | 24.531 |
| 5) L1,A gasoline(5) | 6.37 | 6.16 | 74430 | 82923 | 24.774 | 24.880 |
| 6) L1,A gasoline(6) | 6.82 | 6.65 | 29637 | 32732 | 25.707 | 24.885 |
| 7) L1,A gasoline(7) | 7.95 | 7.83 | 26798 | 42279 | 24.990 | 24.852 |
| 8) L1,A gasoline(8) | 8.16 | 7.93 | 13323 | 14752 | 25.198 | 24.712 |
| 9) L1,A gasoline(9) | 8.49 | 8.27 | 42439 | 45944 | 24.827 | 24.836 |
| 10) L1,A gasoline(10) | 8.83 | 8.64 | 9688 | 10768 | 24.257 | 24.820 |
| Sum gasoline(1) | | | 342706 | 405606 | NoCal | NoCal |
| Average gasoline(1) | | | | | 26.343 | 25.072 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_05.D\FID1A.CH Vial: 5
Acq On : 11 Jan 2002 18:41 Operator: DDC/2002
Sample : FID A 702 L3 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_05.D\FID2B.CH Vial: 5
Acq On : 11 Jan 2002 19:20 Operator: DDC/2002
Sample : FID A 702 L3 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:55 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 09:13:05 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. |
| Average mineral spirits ( | | | | | 0.000 | 0.000 |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 49) L5,K kerosene (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum kerosene (1) | | | 0 | 0 | N.D. | N.D. |
| Average kerosene (1) | | | | | 0.000 | 0.000 |
| 51) L6,D diesel (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 52) L6,D diesel (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 53) L6,D diesel (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 54) L6,D diesel (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 55) L6,D diesel (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 56) L6,D diesel (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 57) L6,D diesel (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 58) L6,D diesel (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 59) L6,D diesel (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum diesel (1) | | | 0 | 0 | N.D. | N.D. |
| Average diesel (1) | | | | | 0.000 | 0.000 |
| 64) L7,O motor oil (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 67) L7,O motor oil (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_05.D\FID1A.CH Vial: 5
Acq On : 11 Jan 2002 18:41 Operator: DDC/2002
Sample : FID A 702 L3 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_05.D\FID2B.CH Vial: 5
Acq On : 11 Jan 2002 19:20 Operator: DDC/2002
Sample : FID A 702 L3 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:55 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 09:13:05 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 69) L7,O motor oil (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 72) L7,O motor oil (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum motor oil (1) | | | 0 | 0 | N.D. | N.D. |
| Average motor oil (1) | | | | | 0.000 | 0.000 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\132\132_05.D\FID1A.CH
Acq On : 11 Jan 2002 18:41
Sample : FID A 702 L3
Misc : MIX [S,A]
IntFile : AUTOINT1.E

Vial: 5
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

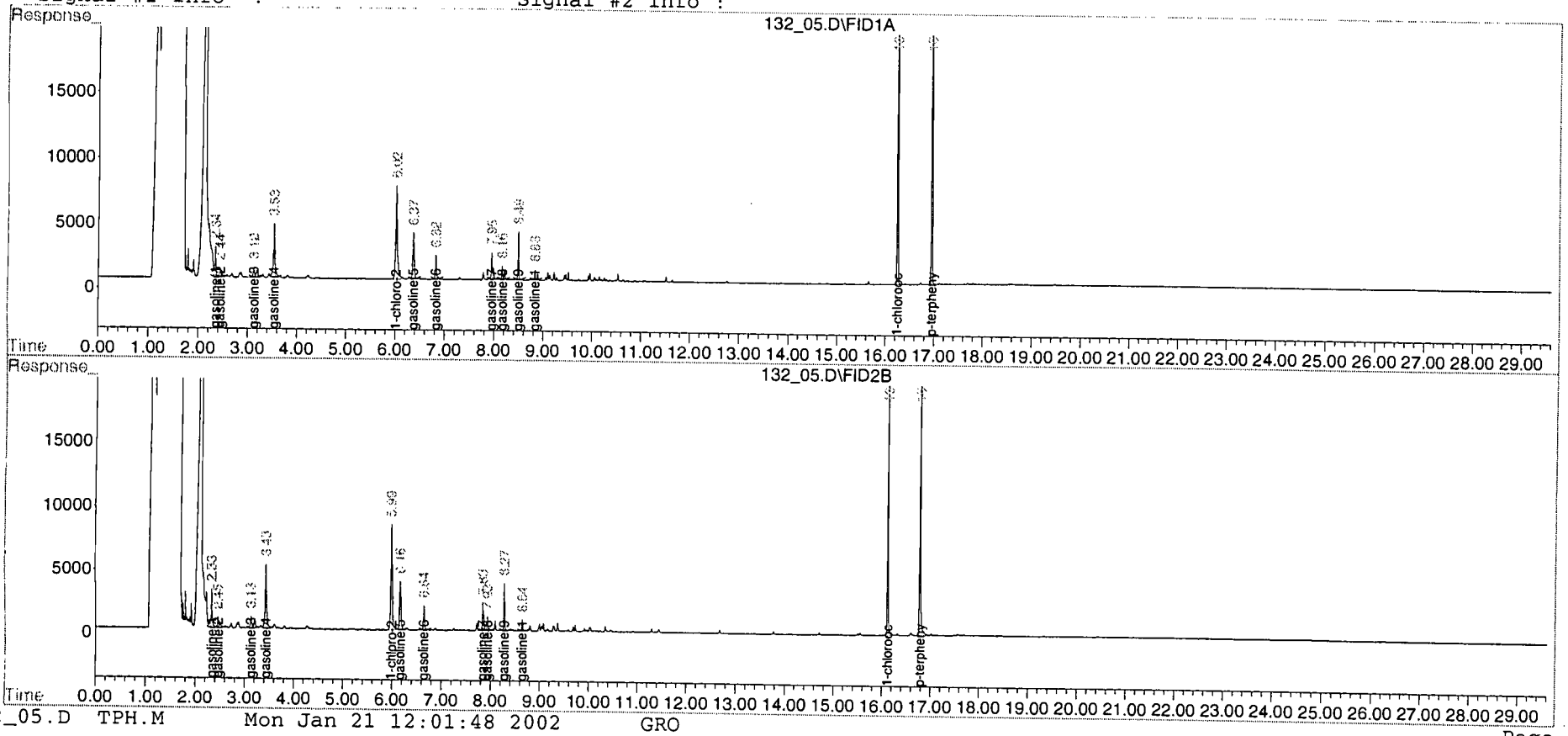
Data File : C:\HPCHEM\3\DATA\132\132_05.D\FID2B.CH
Acq On : 11 Jan 2002 19:20
Sample : FID A 702 L3
Misc : MIX [S,A]
IntFile : EVENTS2.E

Vial: 5
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 11:55 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 09:13:05 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_06.D\FID1A.CH Vial: 6
Acq On : 11 Jan 2002 19:20 Operator: DDC/2002
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_06.D\FID2B.CH Vial: 6
Acq On : 11 Jan 2002 19:59 Operator: DDC/2002
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 10:22 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 09:13:05 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.02 | 5.98 | 341702 | 362374 | 9.820 | 9.549 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 98.20% | 95.49% |
| 62) S 1-chlorooctadeca | 16.25 | 16.12 | 902089 | 648395 | 20.343 | 20.572 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 101.72% | 102.86% |
| 63) S p-terphenyl | 16.95 | 16.78 | 572522 | 336837 | 10.690 | 10.758 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 106.90% | 107.58% |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 2.34 | 2.32 | 66576 | 105946 | 53.754m | 55.101 |
| 2) L1,A gasoline(2) | 2.44 | 2.45 | 24208 | 23186 | 51.714m | 50.041m |
| 3) L1,A gasoline(3) | 3.12 | 3.12 | 35803 | 37145 | 54.169 | 50.429 |
| 4) L1,A gasoline(4) | 3.53 | 3.42 | 156020 | 208414 | 55.901m | 50.265 |
| 5) L1,A gasoline(5) | 6.37 | 6.16 | 149697 | 167915 | 49.826 | 50.381 |
| 6) L1,A gasoline(6) | 6.82 | 6.64 | 59515 | 66185 | 51.623 | 50.318 |
| 7) L1,A gasoline(7) | 7.95 | 7.83 | 53917 | 84579 | 50.280 | 49.717 |
| 8) L1,A gasoline(8) | 8.16 | 7.93 | 26577 | 29826 | 50.267 | 49.962 |
| 9) L1,A gasoline(9) | 8.49 | 8.27 | 86400 | 93536 | 50.545 | 50.564 |
| 10) L1,A gasoline(10) | 8.83 | 8.64 | 20448 | 21902 | 51.196 | 50.483 |
| Sum gasoline(1) | | | 679161 | 838635 | NoCal | NoCal |
| Average gasoline(1) | | | | | 51.927 | 50.726 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_06.D\FID1A.CH Vial: 6
Acq On : 11 Jan 2002 19:20 Operator: DDC/2002
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_06.D\FID2B.CH Vial: 6
Acq On : 11 Jan 2002 19:59 Operator: DDC/2002
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 10:22 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 09:13:05 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. |
| Average mineral spirits ( | | | | | 0.000 | 0.000 |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 49) L5,K kerosene (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum kerosene (1) | | | 0 | 0 | N.D. | N.D. |
| Average kerosene (1) | | | | | 0.000 | 0.000 |
| 51) L6,D diesel (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 52) L6,D diesel (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 53) L6,D diesel (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 54) L6,D diesel (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 55) L6,D diesel (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 56) L6,D diesel (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 57) L6,D diesel (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 58) L6,D diesel (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 59) L6,D diesel (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum diesel (1) | | | 0 | 0 | N.D. | N.D. |
| Average diesel (1) | | | | | 0.000 | 0.000 |
| 64) L7,O motor oil (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 67) L7,O motor oil (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_06.D\FID1A.CH Vial: 6
Acq On : 11 Jan 2002 19:20 Operator: DDC/2002
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_06.D\FID2B.CH Vial: 6
Acq On : 11 Jan 2002 19:59 Operator: DDC/2002
Sample : FID A 712 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 10:22 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 09:13:05 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 69) L7,O motor oil (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 72) L7,O motor oil (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum motor oil (1) | | | 0 | 0 | N.D. | N.D. |
| Average motor oil (1) | | | | | 0.000 | 0.000 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\132\132_06.D\FID1A.CH
Acq On : 11 Jan 2002 19:20
Sample : FID A 712 L4
Misc : MIX [S,A]
IntFile : AUTOINT1.E

Vial: 6
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

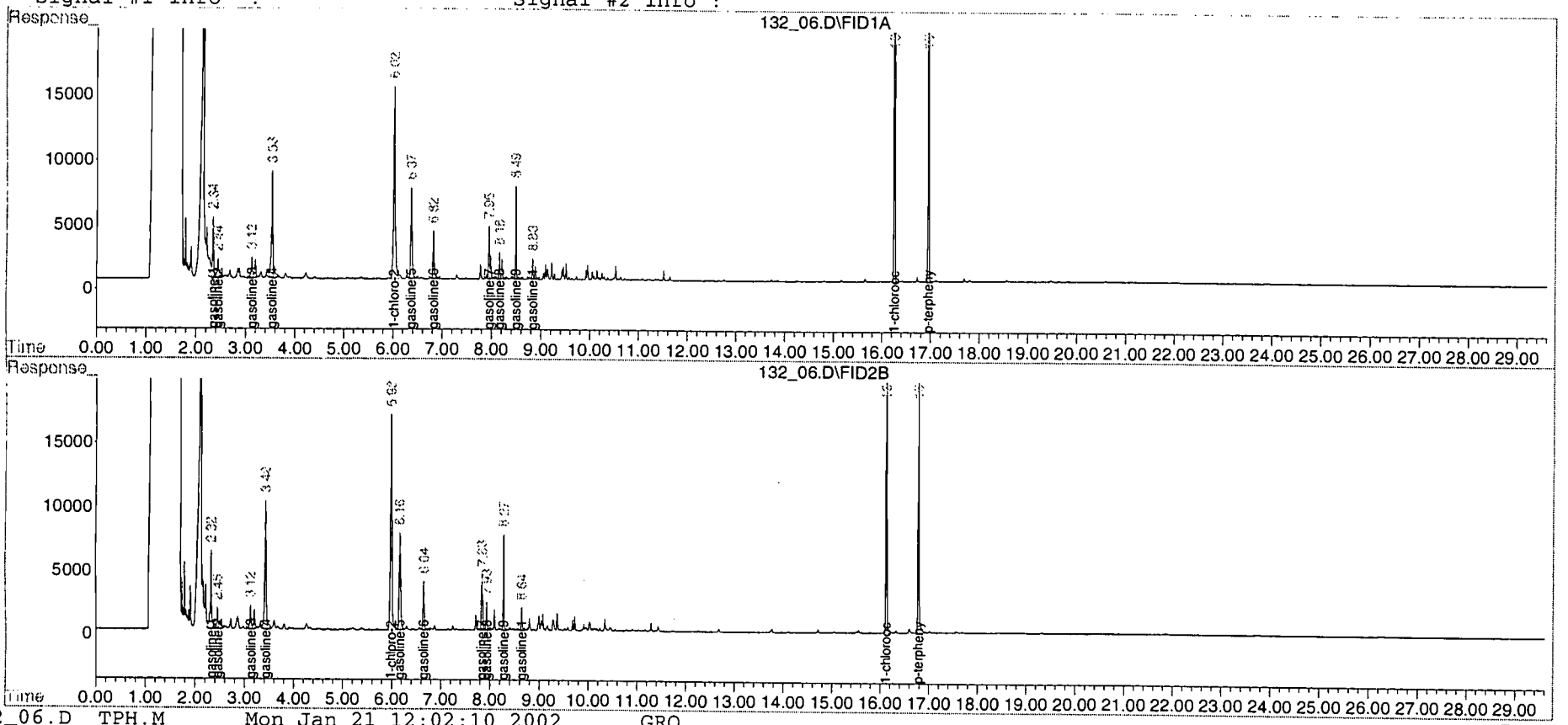
Data File : C:\HPCHEM\3\DATA\132\132_06.D\FID2B.CH
Acq On : 11 Jan 2002 19:59
Sample : FID A 712 L4
Misc : MIX [S,A]
IntFile : EVENTS2.E

Vial: 6
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 10:22 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 09:13:05 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_07.D\FID1A.CH Vial: 7
Acq On : 11 Jan 2002 19:59 Operator: DDC/2002
Sample : FID A 702 L5 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_07.D\FID2B.CH Vial: 7
Acq On : 11 Jan 2002 20:38 Operator: DDC/2002
Sample : FID A 702 L5 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 10:19 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 09:13:05 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.02 | 5.98 | 514787 | 563306 | 14.793 | 14.845 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 147.93% | 148.45% |
| 62) S 1-chlorooctadeca | 16.26 | 16.12 | 1317684 | 935302 | 29.715 | 29.675 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 148.57% | 148.38% |
| 63) S p-terphenyl | 16.95 | 16.78 | 530308 | 310763 | 9.901 | 9.925 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 99.01% | 99.25% |
| Target Compounds | | | | | | |
| L1,A gasoline(1) | 2.34 | 2.31 | 142109 | 212245 | 114.739 | 110.385 |
| 2) L1,A gasoline(2) | 2.44 | 2.44 | 47222 | 48068 | 100.877m | 103.743m |
| 3) L1,A gasoline(3) | 3.12 | 3.11 | 69743 | 74817 | 105.518 | 101.575 |
| 4) L1,A gasoline(4) | 3.53 | 3.41 | 341124 | 418625 | 122.223 | 100.964 |
| 5) L1,A gasoline(5) | 6.37 | 6.15 | 298046 | 335045 | 99.204 | 100.526 |
| 6) L1,A gasoline(6) | 6.82 | 6.64 | 119243 | 131794 | 103.431 | 100.198 |
| 7) L1,A gasoline(7) | 7.95 | 7.83 | 106995 | 170169 | 99.778 | 100.028 |
| 8) L1,A gasoline(8) | 8.16 | 7.93 | 53061 | 59176 | 100.359 | 99.126 |
| 9) L1,A gasoline(9) | 8.49 | 8.27 | 171121 | 185090 | 100.108 | 100.056 |
| 10) L1,A gasoline(10) | 8.83 | 8.64 | 40132 | 43656 | 100.478 | 100.623 |
| Sum gasoline(1) | | | 1388797 | 1678687 | 1046.715 | 1017.224 |
| Average gasoline(1) | | | | | 104.672 | 101.722 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_07.D\FID1A.CH Vial: 7
Acq On : 11 Jan 2002 19:59 Operator: DDC/2002
Sample : FID A 702 L5 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_07.D\FID2B.CH Vial: 7
Acq On : 11 Jan 2002 20:38 Operator: DDC/2002
Sample : FID A 702 L5 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 10:19 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 09:13:05 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. |
| Average mineral spirits ( | | | | | 0.000 | 0.000 |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 49) L5,K kerosene (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum kerosene (1) | | | 0 | 0 | N.D. | N.D. |
| Average kerosene (1) | | | | | 0.000 | 0.000 |
| 51) L6,D diesel (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 52) L6,D diesel (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 53) L6,D diesel (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 54) L6,D diesel (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 55) L6,D diesel (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 56) L6,D diesel (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 57) L6,D diesel (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 58) L6,D diesel (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 59) L6,D diesel (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum diesel (1) | | | 0 | 0 | N.D. | N.D. |
| Average diesel (1) | | | | | 0.000 | 0.000 |
| 64) L7,O motor oil (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 67) L7,O motor oil (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_07.D\FID1A.CH Vial: 7
Acq On : 11 Jan 2002 19:59 Operator: DDC/2002
Sample : FID A 702 L5 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_07.D\FID2B.CH Vial: 7
Acq On : 11 Jan 2002 20:38 Operator: DDC/2002
Sample : FID A 702 L5 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 10:19 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 09:13:05 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 69) L7,O motor oil (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 72) L7,O motor oil (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum motor oil (1) | | | 0 | 0 | N.D. | N.D. |
| Average motor oil (1) | | | | | 0.000 | 0.000 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\132\132_07.D\FID1A.CH
Acq On : 11 Jan 2002 19:59
Sample : FID A 702 L5
Misc : MIX [S,A]
IntFile : AUTOINT1.E

Vial: 7
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\132\132_07.D\FID2B.CH
Acq On : 11 Jan 2002 20:38
Sample : FID A 702 L5
Misc : MIX [S,A]
IntFile : EVENTS2.E

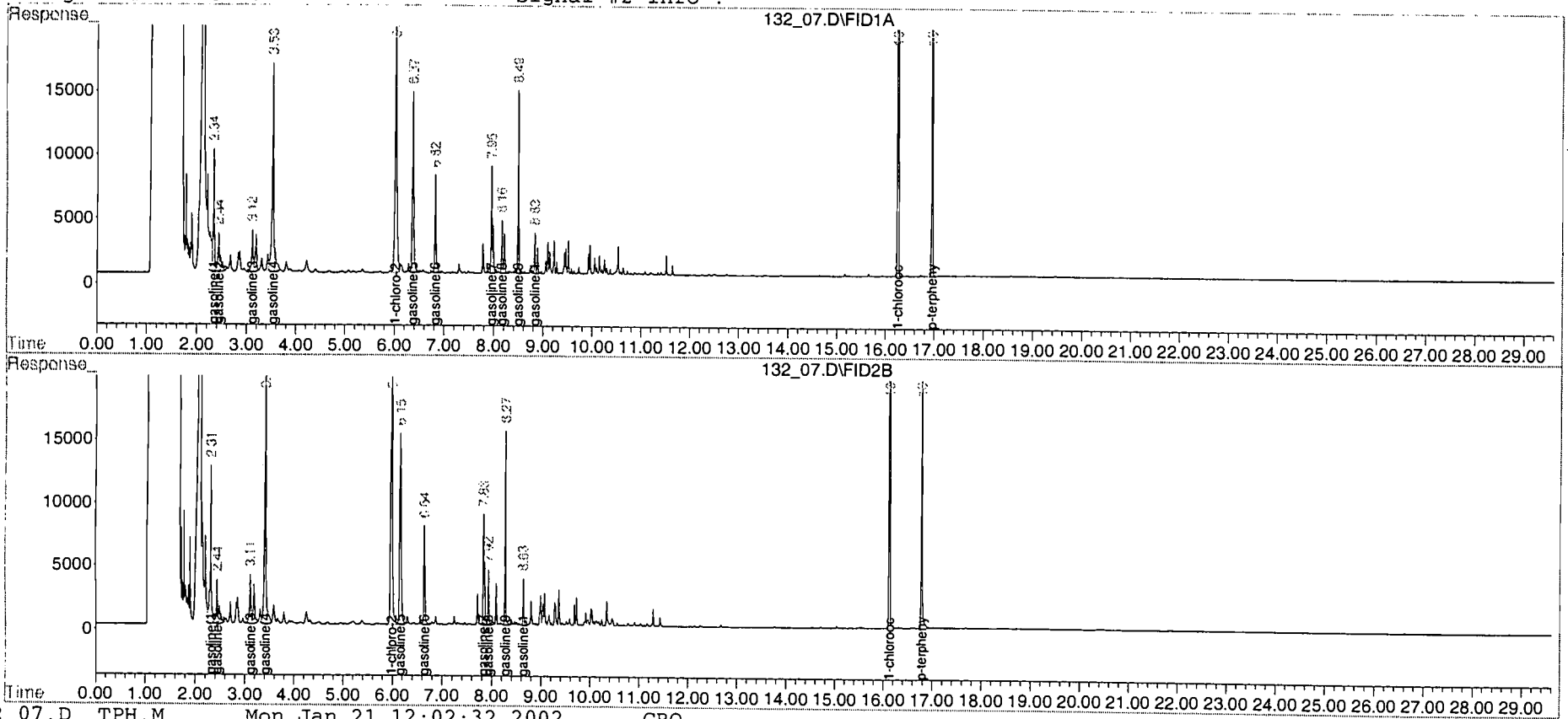
Vial: 7
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 10:19 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 09:13:05 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :

Signal #2 Phase:
Signal #2 Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_08.D\FID1A.CH Vial: 8
Acq On : 11 Jan 2002 20:38 Operator: DDC/2002
Sample : FID A 702 L6 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_08.D\FID2B.CH Vial: 8
Acq On : 11 Jan 2002 21:17 Operator: DDC/2002
Sample : FID A 702 L6 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 10:14 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 09:13:05 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 6.01 | 5.98 | 784789 | 863236 | 22.553 | 22.748 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 225.53%# | 227.48%# |
| 62) S 1-chlorooctadeca | 16.26 | 16.12 | 1753778 | 1197144 | 39.549 | 37.982 |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 197.75%# | 189.91%# |
| 63) S p-terphenyl | 16.95 | 16.78 | 531023 | 296525 | 9.915 | 9.470 |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 99.15% | 94.70% |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 2.31f | 2.32 | 339300 | 519389 | 273.951m | 270.125 |
| 2) L1,A gasoline(2) | 2.41f | 2.44 | 116960 | 139583 | 249.854m | 301.257 |
| 3) L1,A gasoline(3) | 3.09f | 3.12 | 165300 | 186742 | 250.091m | 253.527 |
| 4) L1,A gasoline(4) | 3.51f | 3.42 | 799872 | 1038368 | 286.591m | 250.433 |
| 5) L1,A gasoline(5) | 6.36 | 6.16 | 751286 | 824232 | 250.063 | 247.300 |
| 6) L1,A gasoline(6) | 6.82 | 6.64 | 293682 | 323735 | 254.738 | 246.124 |
| 7) L1,A gasoline(7) | 7.95 | 7.83 | 264563 | 425434 | 246.718 | 250.076 |
| 8) L1,A gasoline(8) | 8.16 | 7.93 | 131796 | 148489 | 249.275 | 248.734 |
| 9) L1,A gasoline(9) | 8.49 | 8.27 | 423144 | 457485 | 247.544m | 247.305 |
| 10) L1,A gasoline(10) | 8.83 | 8.64 | 99104 | 109327 | 248.124 | 251.989 |
| Sum gasoline(1) | | | 3385007 | 4172784 | 2556.949 | 2566.871 |
| Average gasoline(1) | | | | | 255.695 | 256.687 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_08.D\FID1A.CH Vial: 8
Acq On : 11 Jan 2002 20:38 Operator: DDC/2002
Sample : FID A 702 L6 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_08.D\FID2B.CH Vial: 8
Acq On : 11 Jan 2002 21:17 Operator: DDC/2002
Sample : FID A 702 L6 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 10:14 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 09:13:05 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. |
| Average mineral spirits ( | | | | | 0.000 | 0.000 |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 49) L5,K kerosene (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum kerosene (1) | | | 0 | 0 | N.D. | N.D. |
| Average kerosene (1) | | | | | 0.000 | 0.000 |
| 51) L6,D diesel (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 52) L6,D diesel (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 53) L6,D diesel (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 54) L6,D diesel (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 55) L6,D diesel (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 56) L6,D diesel (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 57) L6,D diesel (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 58) L6,D diesel (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 59) L6,D diesel (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum diesel (1) | | | 0 | 0 | N.D. | N.D. |
| Average diesel (1) | | | | | 0.000 | 0.000 |
| 64) L7,O motor oil (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 67) L7,O motor oil (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_08.D\FID1A.CH Vial: 8
Acq On : 11 Jan 2002 20:38 Operator: DDC/2002
Sample : FID A 702 L6 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_08.D\FID2B.CH Vial: 8
Acq On : 11 Jan 2002 21:17 Operator: DDC/2002
Sample : FID A 702 L6 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 10:14 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 09:13:05 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 69) L7,O motor oil (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 72) L7,O motor oil (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum motor oil (1) | | | 0 | 0 | N.D. | N.D. |
| Average motor oil (1) | | | | | 0.000 | 0.000 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\132\132_08.D\FID1A.CH
Acq On : 11 Jan 2002 20:38
Sample : FID A 702 L6
Misc : MIX [S,A]
IntFile : AUTOINT1.E

Vial: 8
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

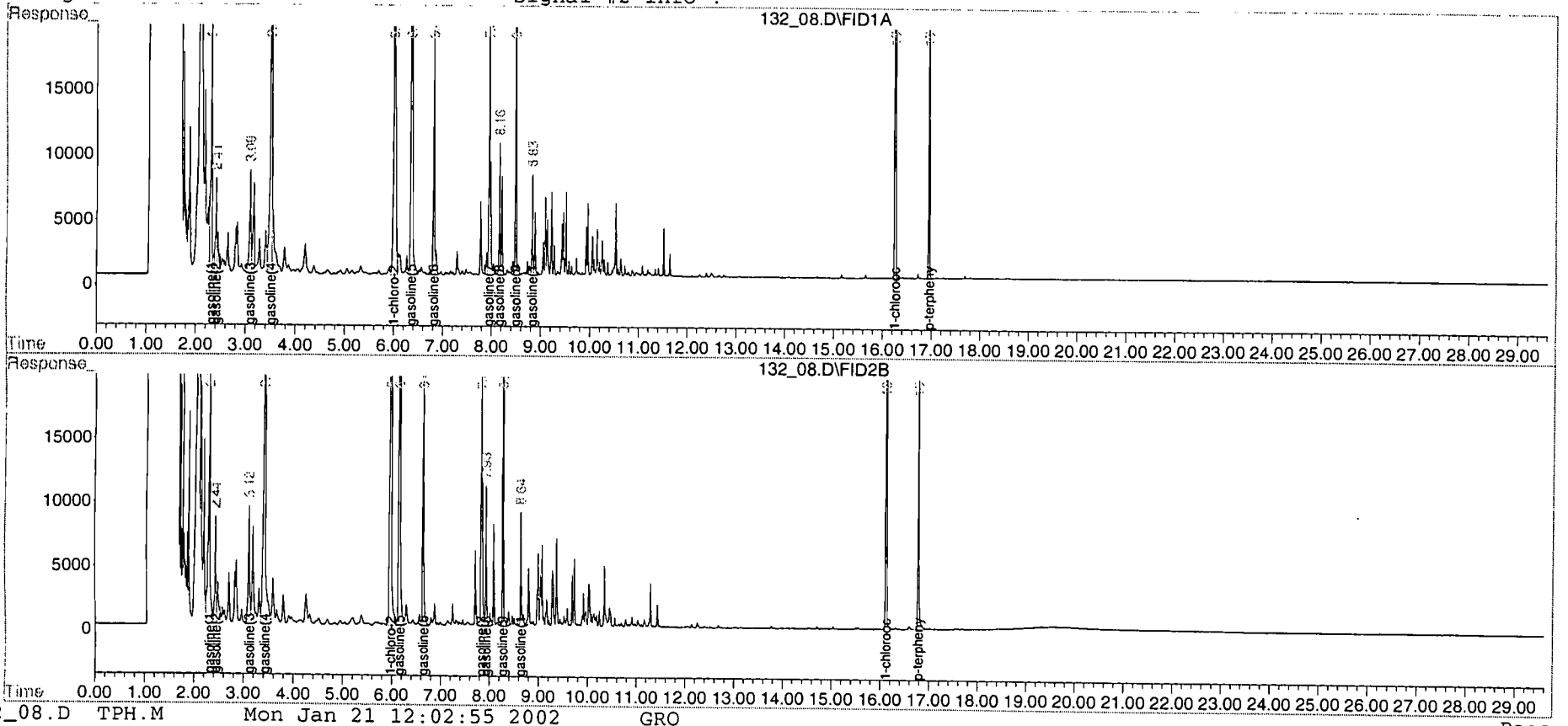
Data File : C:\HPCHEM\3\DATA\132\132_08.D\FID2B.CH
Acq On : 11 Jan 2002 21:17
Sample : FID A 702 L6
Misc : MIX [S,A]
IntFile : EVENTS2.E

Vial: 8
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 10:14 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 09:13:05 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_10.D\FID1A.CH Vial: 10
Acq On : 11 Jan 2002 21:56 Operator: DDC/2002
Sample : FID A 703 L2 Inst : GC/FID In
Misc : MIX [D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_10.D\FID2B.CH Vial: 10
Acq On : 11 Jan 2002 22:35 Operator: DDC/2002
Sample : FID A 703 L2 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 11:46:54 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 0.00%# |
| 62) S 1-chlorooctadeca | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 0.00%# |
| 63) S p-terphenyl | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 0.00%# |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 5) L1,A gasoline(5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 6) L1,A gasoline(6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 7) L1,A gasoline(7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 8) L1,A gasoline(8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 9) L1,A gasoline(9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 10) L1,A gasoline(10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum gasoline(1) | | | 0 | 0 | N.D. | N.D. |
| Average gasoline(1) | | | | | 0.000 | 0.000 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_10.D\FID1A.CH Vial: 10
Acq On : 11 Jan 2002 21:56 Operator: DDC/2002
Sample : FID A 703 L2 Inst : GC/FID In
Misc : MIX [D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_10.D\FID2B.CH Vial: 10
Acq On : 11 Jan 2002 22:35 Operator: DDC/2002
Sample : FID A 703 L2 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 11:46:54 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. |
| Average mineral spirits ( | | | | | 0.000 | 0.000 |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 49) L5,K kerosene (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum kerosene (1) | | | 0 | 0 | N.D. | N.D. |
| Average kerosene (1) | | | | | 0.000 | 0.000 |
| 51) L6,D diesel (1) | 9.58 | 9.51 | 17174 | 19878 | 23.130 | 22.864 |
| 52) L6,D diesel (2) | 10.52 | 10.44 | 29375 | 29096 | 22.832 | 22.027 |
| 53) L6,D diesel (3) | 11.34 | 11.25 | 30189 | 30459 | 22.072 | 20.504 |
| 54) L6,D diesel (4) | 12.10 | 12.00 | 34961 | 28912 | 22.324 | 18.144 |
| 55) L6,D diesel (5) | 12.80 | 12.70 | 31567 | 32996 | 22.415 | 18.784 |
| 56) L6,D diesel (6) | 13.46 | 13.35 | 25862 | 21720 | 21.811 | 19.350 |
| 57) L6,D diesel (7) | 14.08 | 13.97 | 20026 | 17453 | 20.328 | 20.775 |
| 58) L6,D diesel (8) | 14.67 | 14.56 | 13579 | 13118 | 18.553 | 19.641 |
| 59) L6,D diesel (9) | 15.23 | 15.12 | 10681 | 9118 | 16.779 | 18.822 |
| 60) L6,D diesel (10) | 15.77 | 15.65 | 6029 | 4826 | 17.013 | 15.521 |
| Sum diesel (1) | | | 219444 | 207575 | N.D. | N.D. |
| Average diesel (1) | | | | | 20.726 | 19.643 |
| 64) L7,O motor oil (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 67) L7,O motor oil (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_10.D\FID1A.CH Vial: 10
Acq On : 11 Jan 2002 21:56 Operator: DDC/2002
Sample : FID A 703 L2 Inst : GC/FID In
Misc : MIX [D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_10.D\FID2B.CH Vial: 10
Acq On : 11 Jan 2002 22:35 Operator: DDC/2002
Sample : FID A 703 L2 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 11:46:54 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 69) L7,O motor oil (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 72) L7,O motor oil (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum motor oil (1) | | | 0 | 0 | N.D. | N.D. |
| Average motor oil (1) | | | | | 0.000 | 0.000 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\132\132_10.D\FID1A.CH
Acq On : 11 Jan 2002 21:56
Sample : FID A 703 L2
Misc : MIX [D]
IntFile : AUTOINT1.E

Vial: 10
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

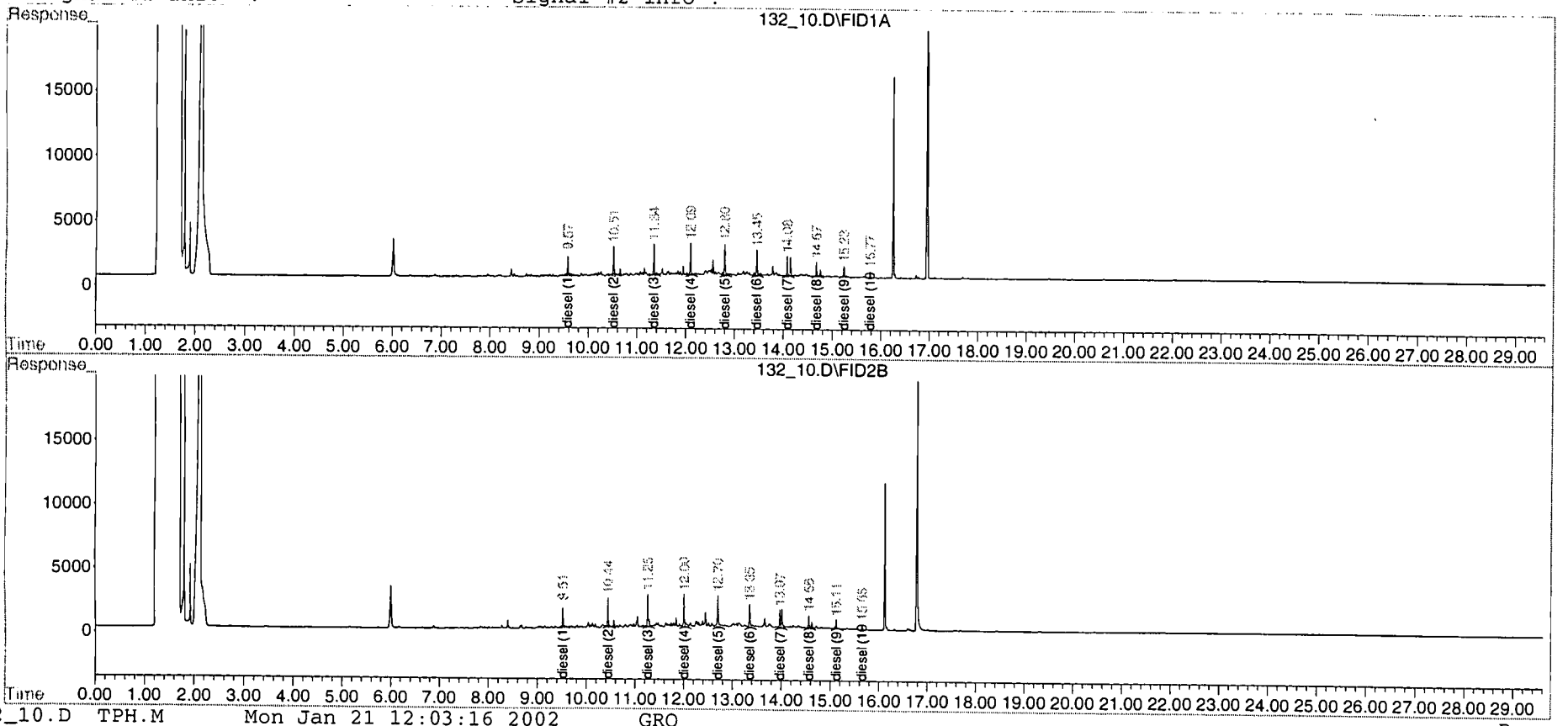
Data File : C:\HPCHEM\3\DATA\132\132_10.D\FID2B.CH
Acq On : 11 Jan 2002 22:35
Sample : FID A 703 L2
Misc : MIX [S,A]
IntFile : EVENTS2.E

Vial: 10
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 11:47 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 21 11:46:54 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_11.D\FID1A.CH Vial: 11
Acq On : 11 Jan 2002 22:35 Operator: DDC/2002
Sample : FID A 703 L3 Inst : GC/FID In
Misc : MIX [D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_11.D\FID2B.CH Vial: 11
Acq On : 11 Jan 2002 23:13 Operator: DDC/2002
Sample : FID A 703 L3 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:56 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 0.00%# |
| 62) S 1-chlorooctadeca | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 0.00%# |
| 63) S p-terphenyl | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 0.00%# |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 5) L1,A gasoline(5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 6) L1,A gasoline(6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 7) L1,A gasoline(7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 8) L1,A gasoline(8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 9) L1,A gasoline(9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 10) L1,A gasoline(10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum gasoline(1) | | | 0 | 0 | N.D. | N.D. |
| Average gasoline(1) | | | | | 0.000 | 0.000 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_11.D\FID1A.CH Vial: 11
Acq On : 11 Jan 2002 22:35 Operator: DDC/2002
Sample : FID A 703 L3 Inst : GC/FID In
Misc : MIX [D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_11.D\FID2B.CH Vial: 11
Acq On : 11 Jan 2002 23:13 Operator: DDC/2002
Sample : FID A 703 L3 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:56 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. |
| Average mineral spirits ( | | | | | 0.000 | 0.000 |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 49) L5,K kerosene (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum kerosene (1) | | | 0 | 0 | N.D. | N.D. |
| Average kerosene (1) | | | | | 0.000 | 0.000 |
| 51) L6,D diesel (1) | 9.58 | 9.51 | 37352 | 44030 | 50.304 | 50.644 |
| 52) L6,D diesel (2) | 10.52 | 10.44 | 64413 | 66744 | 50.066 | 50.529 |
| 53) L6,D diesel (3) | 11.34 | 11.25 | 67084 | 71381 | 49.046 | 48.050 |
| 54) L6,D diesel (4) | 12.10 | 12.00 | 79756 | 75804 | 50.927 | 47.573 |
| 55) L6,D diesel (5) | 12.80 | 12.70 | 71479 | 87551 | 50.756 | 49.840 |
| 56) L6,D diesel (6) | 13.46 | 13.35 | 60220 | 57946 | 50.788 | 51.623 |
| 57) L6,D diesel (7) | 14.08 | 13.97 | 50885 | 43031 | 51.654 | 51.221 |
| 58) L6,D diesel (8) | 14.67 | 14.56 | 36425 | 34778 | 49.767 | 52.073 |
| 59) L6,D diesel (9) | 15.23 | 15.11 | 35167 | 25337 | 55.243 | 52.300 |
| 60) L6,D diesel (10) | 15.77 | 15.65 | 18340 | 17655 | 51.750 | 56.786 |
| Sum diesel (1) | | | 521122 | 524256 | N.D. | N.D. |
| Average diesel (1) | | | | | 51.030 | 51.064 |
| 64) L7,O motor oil (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 67) L7,O motor oil (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_11.D\FID1A.CH Vial: 11
Acq On : 11 Jan 2002 22:35 Operator: DDC/2002
Sample : FID A 703 L3 Inst : GC/FID In
Misc : MIX [D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_11.D\FID2B.CH Vial: 11
Acq On : 11 Jan 2002 23:13 Operator: DDC/2002
Sample : FID A 703 L3 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:56 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 69) L7,O motor oil (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 72) L7,O motor oil (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum motor oil (1) | | | 0 | 0 | N.D. | N.D. |
| Average motor oil (1) | | | | | 0.000 | 0.000 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\132\132_11.D\FID1A.CH
Acq On : 11 Jan 2002 22:35
Sample : FID A 703 L3
Misc : MIX [D]
IntFile : AUTOINT1.E

Vial: 11
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\132\132_11.D\FID2B.CH
Acq On : 11 Jan 2002 23:13
Sample : FID A 703 L3
Misc : MIX [S,A]
IntFile : EVENTS2.E

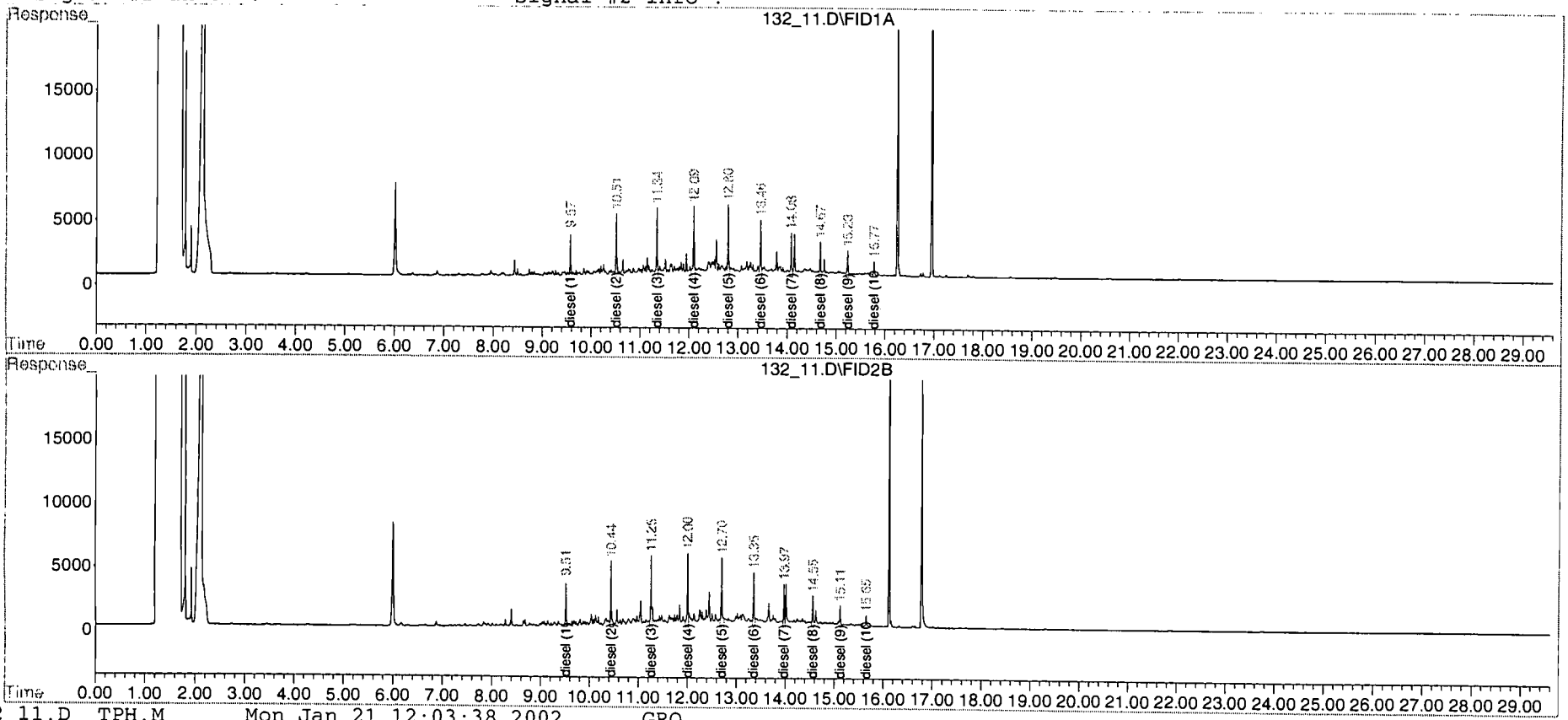
Vial: 11
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 11:56 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :

Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_12.D\FID1A.CH Vial: 12
Acq On : 11 Jan 2002 23:13 Operator: DDC/2002
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_12.D\FID2B.CH Vial: 12
Acq On : 11 Jan 2002 23:52 Operator: DDC/2002
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:55 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount | 10.000 | Range 50 - 150 | Recovery | = | 0.00%# | 0.00%# |
| 62) S 1-chlorooctadeca | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount | 20.000 | Range 50 - 150 | Recovery | = | 0.00%# | 0.00%# |
| 63) S p-terphenyl | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount | 10.000 | Range 50 - 150 | Recovery | = | 0.00%# | 0.00%# |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 5) L1,A gasoline(5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 6) L1,A gasoline(6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 7) L1,A gasoline(7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 8) L1,A gasoline(8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 9) L1,A gasoline(9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 10) L1,A gasoline(10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum gasoline(1) | | | 0 | 0 | N.D. | N.D. |
| Average gasoline(1) | | | | | 0.000 | 0.000 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_12.D\FID1A.CH Vial: 12
Acq On : 11 Jan 2002 23:13 Operator: DDC/2002
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_12.D\FID2B.CH Vial: 12
Acq On : 11 Jan 2002 23:52 Operator: DDC/2002
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:55 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. |
| Average mineral spirits ( | | | | | 0.000 | 0.000 |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 49) L5,K kerosene (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum kerosene (1) | | | 0 | 0 | N.D. | N.D. |
| Average kerosene (1) | | | | | 0.000 | 0.000 |
| 51) L6,D diesel (1) | 9.58 | 9.51 | 78529 | 92642 | 105.759 | 106.558 |
| 52) L6,D diesel (2) | 10.52 | 10.44 | 134617 | 139397 | 104.633 | 105.532 |
| 53) L6,D diesel (3) | 11.34 | 11.25 | 139665 | 149139 | 102.111 | 100.394 |
| 54) L6,D diesel (4) | 12.10 | 12.00 | 165613 | 158854 | 105.750 | 99.693 |
| 55) L6,D diesel (5) | 12.80 | 12.70 | 149385 | 181214 | 106.076 | 103.160 |
| 56) L6,D diesel (6) | 13.46 | 13.35 | 126002 | 122885 | 106.266 | 109.475 |
| 57) L6,D diesel (7) | 14.08 | 13.97 | 105556 | 91452 | 107.151 | 108.859 |
| 58) L6,D diesel (8) | 14.67 | 14.56 | 76562 | 73797 | 104.606 | 110.495 |
| 59) L6,D diesel (9) | 15.24 | 15.12 | 71548 | 53404 | 112.391 | 110.236 |
| 60) L6,D diesel (10) | 15.77 | 15.65 | 38405 | 33341 | 108.369 | 107.243 |
| Sum diesel (1) | | | 1085883 | 1096126 | N.D. | N.D. |
| Average diesel (1) | | | | | 106.311 | 106.164 |
| 64) L7,O motor oil (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 67) L7,O motor oil (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_12.D\FID1A.CH Vial: 12
Acq On : 11 Jan 2002 23:13 Operator: DDC/2002
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_12.D\FID2B.CH Vial: 12
Acq On : 11 Jan 2002 23:52 Operator: DDC/2002
Sample : FID A 713 L4 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:55 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 69) L7,O motor oil (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 72) L7,O motor oil (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum motor oil (1) | | | 0 | 0 | N.D. | N.D. |
| Average motor oil (1) | | | | | 0.000 | 0.000 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitati eport (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_12.D\FID1A.CH
Acq On : 11 Jan 2002 23:13
Sample : FID A 713 L4
Misc : MIX [D]
IntFile : AUTOINT1.E

Vial: 12
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\132\132_12.D\FID2B.CH
Acq On : 11 Jan 2002 23:52
Sample : FID A 713 L4
Misc : MIX [S,A]
IntFile : EVENTS2.E

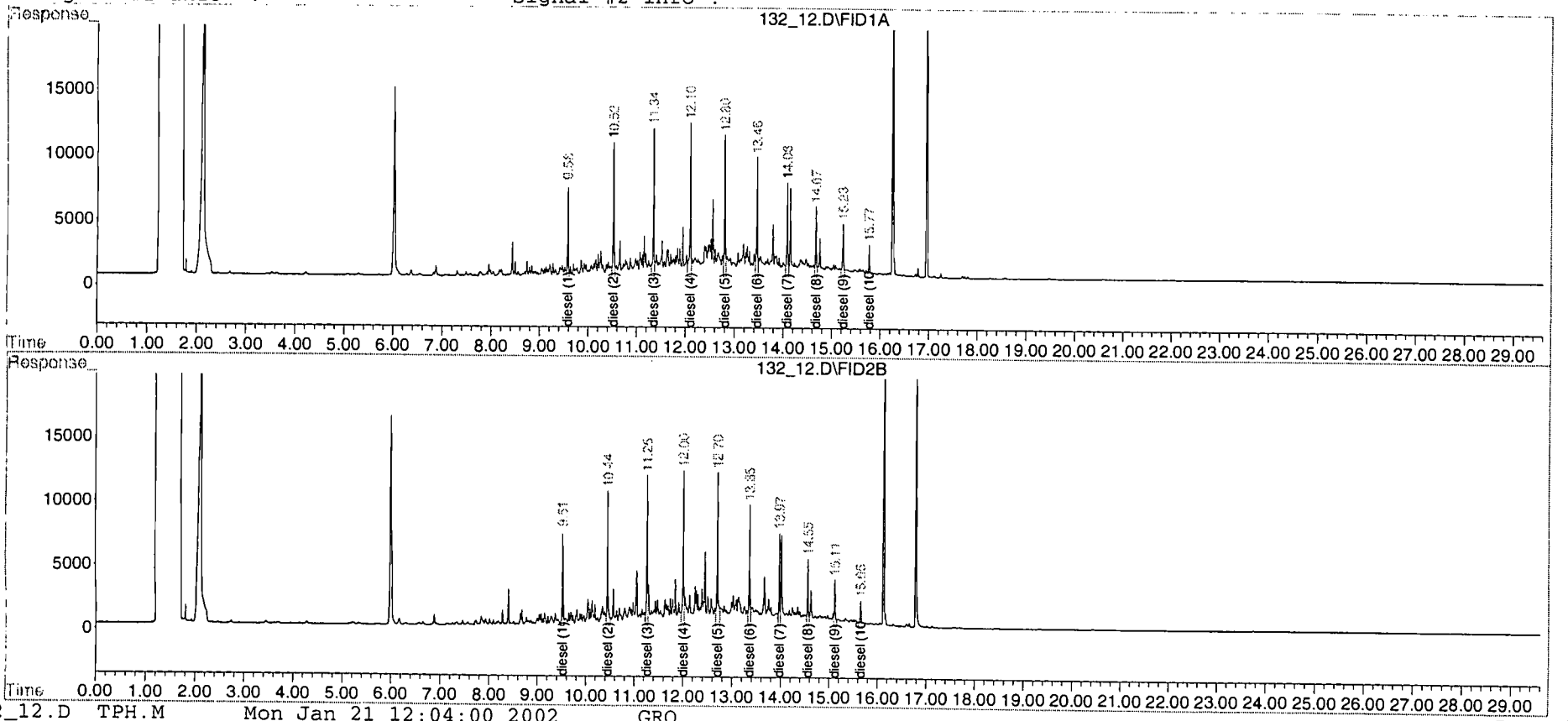
Vial: 12
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 11:55 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :

Signal #2 Phase:
Signal #2 Info :



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Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_13.D\FID1A.CH Vial: 13
Acq On : 11 Jan 2002 23:52 Operator: DDC/2002
Sample : FID A 703 L5 Inst : GC/FID In
Misc : MIX [D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_13.D\FID2B.CH Vial: 13
Acq On : 12 Jan 2002 00:31 Operator: DDC/2002
Sample : FID A 703 L5 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:54 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 0.00%# |
| 62) S 1-chlorooctadeca | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 0.00%# |
| 63) S p-terphenyl | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 0.00%# |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 5) L1,A gasoline(5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 6) L1,A gasoline(6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 7) L1,A gasoline(7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 8) L1,A gasoline(8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 9) L1,A gasoline(9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 10) L1,A gasoline(10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum gasoline(1) | | | 0 | 0 | N.D. | N.D. |
| Average gasoline(1) | | | | | 0.000 | 0.000 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_13.D\FID1A.CH Vial: 13
Acq On : 11 Jan 2002 23:52 Operator: DDC/2002
Sample : FID A 703 L5 Inst : GC/FID In
Misc : MIX [D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_13.D\FID2B.CH Vial: 13
Acq On : 12 Jan 2002 00:31 Operator: DDC/2002
Sample : FID A 703 L5 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:54 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. |
| Average mineral spirits ( | | | | | 0.000 | 0.000 |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 49) L5,K kerosene (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum kerosene (1) | | | 0 | 0 | N.D. | N.D. |
| Average kerosene (1) | | | | | 0.000 | 0.000 |
| 51) L6,D diesel (1) | 9.58 | 9.51 | 189641 | 223314 | 255.401 | 256.859 |
| 52) L6,D diesel (2) | 10.52 | 10.44 | 344191 | 358869 | 267.526 | 271.686 |
| 53) L6,D diesel (3) | 11.35 | 11.26 | 394815 | 478429 | 288.654 | 322.057 |
| 54) L6,D diesel (4) | 12.10 | 12.00 | 405116 | 560437 | 258.681 | 351.717 # |
| 55) L6,D diesel (5) | 12.80 | 12.70 | 362813 | 568942 | 257.628 | 323.883 # |
| 56) L6,D diesel (6) | 13.46 | 13.35 | 310930 | 304259 | 262.228 | 271.056 |
| 57) L6,D diesel (7) | 14.08 | 13.97 | 260915 | 221077 | 264.856 | 263.154 |
| 58) L6,D diesel (8) | 14.68 | 14.56 | 224587 | 179838 | 306.852 | 269.268 |
| 59) L6,D diesel (9) | 15.24 | 15.11 | 170858 | 132557 | 268.392 | 273.622 |
| 60) L6,D diesel (10) | 15.78 | 15.65 | 99549 | 95245 | 280.901 | 306.359 |
| Sum diesel (1) | | | 2763414 | 3122969 | N.D. | N.D. |
| Average diesel (1) | | | | | 271.112 | 290.966 |
| 64) L7,O motor oil (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 67) L7,O motor oil (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_13.D\FID1A.CH Vial: 13
Acq On : 11 Jan 2002 23:52 Operator: DDC/2002
Sample : FID A 703 L5 Inst : GC/FID In
Misc : MIX [D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_13.D\FID2B.CH Vial: 13
Acq On : 12 Jan 2002 00:31 Operator: DDC/2002
Sample : FID A 703 L5 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:54 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 69) L7,O motor oil (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 72) L7,O motor oil (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum motor oil (1) | | | 0 | 0 | N.D. | N.D. |
| Average motor oil (1) | | | | | 0.000 | 0.000 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitati eport (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_13.D\FID1A.CH
Acq On : 11 Jan 2002 23:52
Sample : FID A 703 L5
Misc : MIX [D]
IntFile : AUTOINT1.E

Vial: 13
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\132\132_13.D\FID2B.CH
Acq On : 12 Jan 2002 00:31
Sample : FID A 703 L5
Misc : MIX [S,A]
IntFile : EVENTS2.E

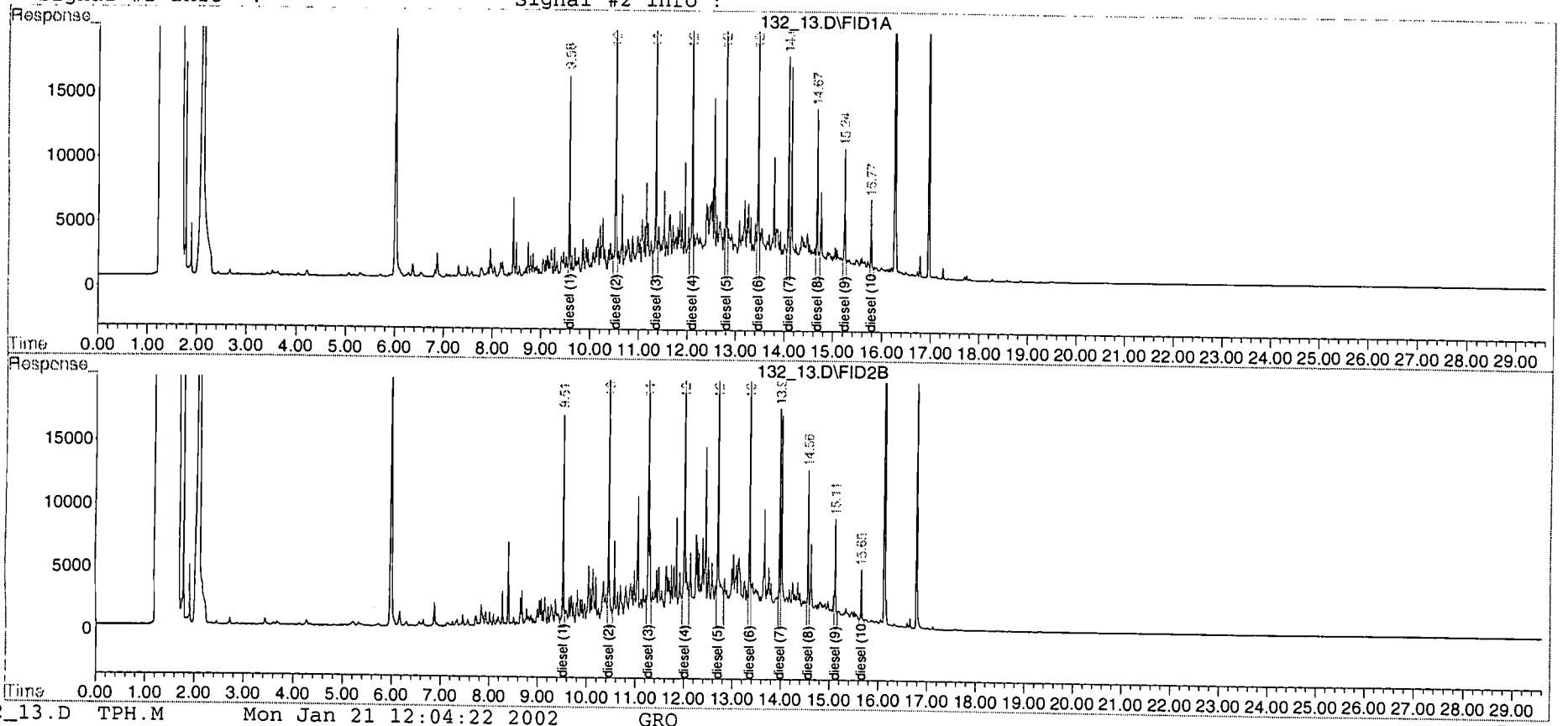
Vial: 13
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 11:54 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :

Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_14.D\FID1A.CH Vial: 14
Acq On : 12 Jan 2002 00:31 Operator: DDC/2002
Sample : FID A 703 L6 Inst : GC/FID In
Misc : MIX [D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_14.D\FID2B.CH Vial: 14
Acq On : 12 Jan 2002 1:09 Operator: DDC/2002
Sample : FID A 703 L6 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:54 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 10.000 | Range | 50 - 150 | Recovery | = | 0.00%# | 0.00%# |
| 62) S 1-chlorooctadeca | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 20.000 | Range | 50 - 150 | Recovery | = | 0.00%# | 0.00%# |
| 63) S p-terphenyl | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 10.000 | Range | 50 - 150 | Recovery | = | 0.00%# | 0.00%# |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 5) L1,A gasoline(5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 6) L1,A gasoline(6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 7) L1,A gasoline(7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 8) L1,A gasoline(8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 9) L1,A gasoline(9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 10) L1,A gasoline(10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum gasoline(1) | | | 0 | 0 | N.D. | N.D. |
| Average gasoline(1) | | | | | 0.000 | 0.000 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_14.D\FID1A.CH Vial: 14
Acq On : 12 Jan 2002 00:31 Operator: DDC/2002
Sample : FID A 703 L6 Inst : GC/FID In
Misc : MIX [D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_14.D\FID2B.CH Vial: 14
Acq On : 12 Jan 2002 1:09 Operator: DDC/2002
Sample : FID A 703 L6 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:54 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. |
| Average mineral spirits ( | | | | | 0.000 | 0.000 |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 49) L5,K kerosene (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. d |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum kerosene (1) | | | 0 | 0 | N.D. | N.D. |
| Average kerosene (1) | | | | | 0.000 | 0.000 |
| 51) L6,D diesel (1) | 9.58 | 9.51 | 367379 | 425818 | 494.770 | 489.781 |
| 52) L6,D diesel (2) | 10.52 | 10.44 | 623317 | 638169 | 484.480 | 483.132 |
| 53) L6,D diesel (3) | 11.35 | 11.26 | 656857 | 688316 | 480.237 | 463.343 |
| 54) L6,D diesel (4) | 12.10 | 12.01 | 780128 | 732166 | 498.139 | 459.489 |
| 55) L6,D diesel (5) | 12.81 | 12.70 | 702032 | 812196 | 498.503 | 462.361 |
| 56) L6,D diesel (6) | 13.46 | 13.35 | 593005 | 569436 | 500.121 | 507.295 |
| 57) L6,D diesel (7) | 14.09 | 13.97 | 503820 | 421465 | 511.430 | 501.682 |
| 58) L6,D diesel (8) | 14.68 | 14.56 | 361943 | 330888 | 494.521 | 495.431 |
| 59) L6,D diesel (9) | 15.24 | 15.12 | 326740 | 243267 | 513.259 | 502.148 |
| 60) L6,D diesel (10) | 15.78 | 15.65 | 190870 | 146982 | 538.585 | 472.773 |
| Sum diesel (1) | | | 5106090 | 5008702 | N.D. | N.D. |
| Average diesel (1) | | | | | 501.404 | 483.744 |
| 64) L7,O motor oil (1) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 65) L7,O motor oil (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 66) L7,O motor oil (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 67) L7,O motor oil (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_14.D\FID1A.CH Vial: 14
Acq On : 12 Jan 2002 00:31 Operator: DDC/2002
Sample : FID A 703 L6 Inst : GC/FID In
Misc : MIX [D] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_14.D\FID2B.CH Vial: 14
Acq On : 12 Jan 2002 1:09 Operator: DDC/2002
Sample : FID A 703 L6 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:54 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 69) L7,O motor oil (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 70) L7,O motor oil (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 71) L7,O motor oil (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 72) L7,O motor oil (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 73) L7,O motor oil (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum motor oil (1) | | | 0 | 0 | N.D. | N.D. |
| Average motor oil (1) | | | | | 0.000 | 0.000 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitati eport (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_14.D\FID1A.CH
Acq On : 12 Jan 2002 00:31
Sample : FID A 703 L6
Misc : MIX [D]
IntFile : AUTOINT1.E

Vial: 14
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

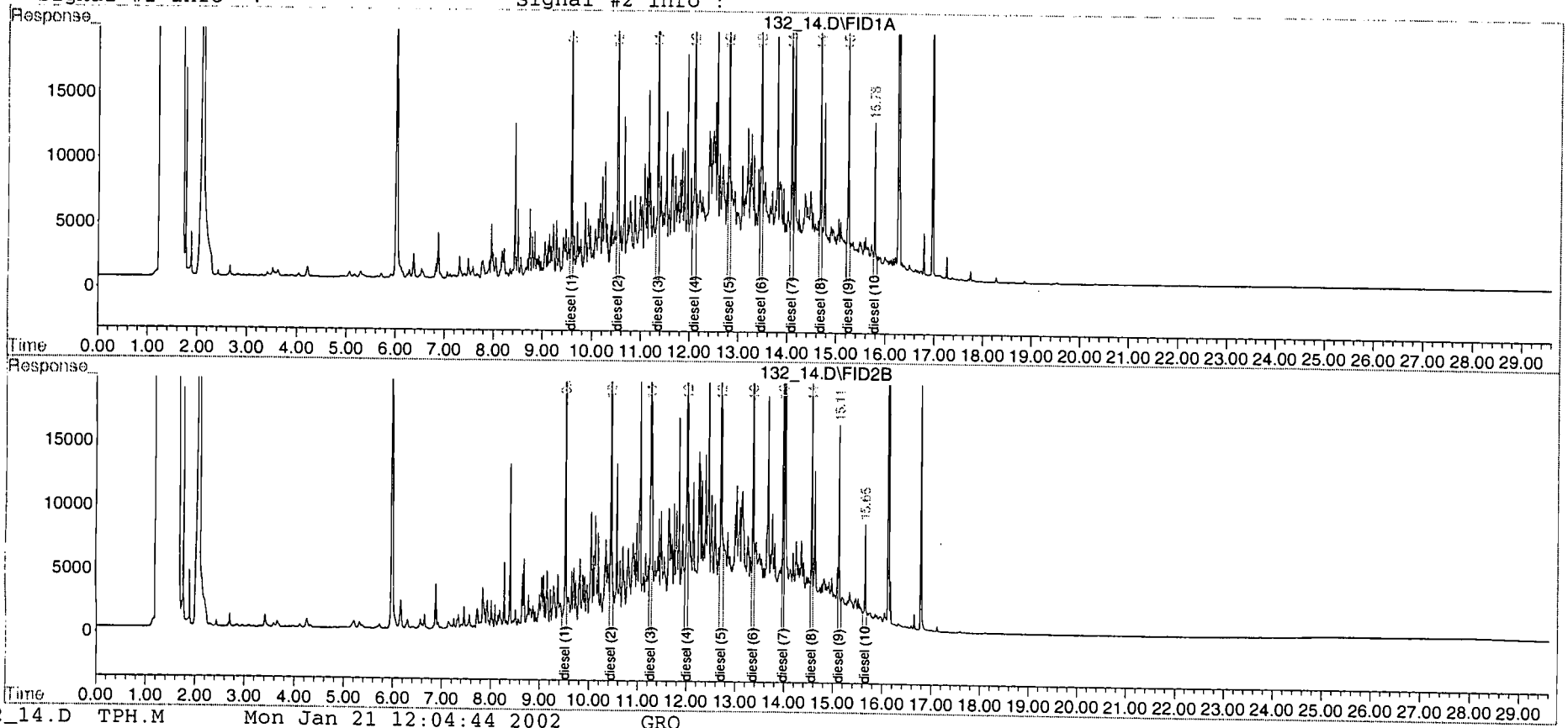
Data File : C:\HPCHEM\3\DATA\132\132_14.D\FID2B.CH
Acq On : 12 Jan 2002 1:09
Sample : FID A 703 L6
Misc : MIX [S,A]
IntFile : EVENTS2.E

Vial: 14
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 11:54 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_15.D\FID1A.CH Vial: 15
Acq On : 12 Jan 2002 1:09 Operator: DDC/2002
Sample : FID A 704 L1 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_15.D\FID2B.CH Vial: 15
Acq On : 12 Jan 2002 1:47 Operator: DDC/2002
Sample : FID A 704 L1 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:57 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery | = | 0.00%# | 0.00%# |
| 62) S 1-chlorooctadeca | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery | = | 0.00%# | 0.00%# |
| 63) S p-terphenyl | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery | = | 0.00%# | 0.00%# |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 5) L1,A gasoline(5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 6) L1,A gasoline(6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 7) L1,A gasoline(7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 8) L1,A gasoline(8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 9) L1,A gasoline(9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 10) L1,A gasoline(10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum gasoline(1) | | | 0 | 0 | N.D. | N.D. |
| Average gasoline(1) | | | | | 0.000 | 0.000 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_15.D\FID1A.CH Vial: 15
Acq On : 12 Jan 2002 1:09 Operator: DDC/2002
Sample : FID A 704 L1 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_15.D\FID2B.CH Vial: 15
Acq On : 12 Jan 2002 1:47 Operator: DDC/2002
Sample : FID A 704 L1 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:57 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. |
| Average mineral spirits ( | | | | | 0.000 | 0.000 |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 49) L5,K kerosene (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum kerosene (1) | | | 0 | 0 | N.D. | N.D. |
| Average kerosene (1) | | | | | 0.000 | 0.000 |
| 51) L6,D diesel (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 52) L6,D diesel (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 53) L6,D diesel (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 54) L6,D diesel (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 55) L6,D diesel (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 56) L6,D diesel (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 57) L6,D diesel (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 58) L6,D diesel (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 59) L6,D diesel (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum diesel (1) | | | 0 | 0 | N.D. | N.D. |
| Average diesel (1) | | | | | 0.000 | 0.000 |
| 64) L7,O motor oil (1) | 14.68 | 14.56 | 6446 | 2720 | 107.791 | 82.065 |
| 65) L7,O motor oil (2) | 15.24 | 15.12 | 8537 | 4334 | 90.113 | 80.067 |
| 66) L7,O motor oil (3) | 15.78 | 15.65 | 10557 | 7877 | 92.848 | 90.212 |
| 67) L7,O motor oil (4) | 16.49 | 15.86 | 27894 | 7772 | 101.539 | 88.832 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_15.D\FID1A.CH Vial: 15
Acq On : 12 Jan 2002 1:09 Operator: DDC/2002
Sample : FID A 704 L1 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_15.D\FID2B.CH Vial: 15
Acq On : 12 Jan 2002 1:47 Operator: DDC/2002
Sample : FID A 704 L1 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:57 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 17.44 | 16.35 | 50036 | 13218 | 99.783 | 111.904 |
| 69) L7,O motor oil (6) | 17.93 | 17.28 | 54797 | 11038 | 101.142 | 115.720 |
| 70) L7,O motor oil (7) | 18.47 | 17.76 | 87924 | 8595 | 106.042 | 110.442 |
| 71) L7,O motor oil (8) | 19.08 | 18.28 | 109818 | 8123 | 101.142 | 72.806 # |
| 72) L7,O motor oil (9) | 19.78 | 18.87 | 67286 | 2507 | 100.717 | 40.149 # |
| 73) L7,O motor oil (10) | 20.60 | 19.55 | 53822 | 2037 | 93.861 | 45.153 # |
| Sum motor oil (1) | | | 477116 | 68221 | 994.977 | 837.349 |
| Average motor oil (1) | | | | | 99.498 | 83.735 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\132\132_15.D\FID1A.CH
Acq On : 12 Jan 2002 1:09
Sample : FID A 704 L1
Misc : MIX [O]
IntFile : AUTOINT1.E

Vial: 15
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Data File : C:\HPCHEM\3\DATA\132\132_15.D\FID2B.CH
Acq On : 12 Jan 2002 1:47
Sample : FID A 704 L1
Misc : MIX [S,A]
IntFile : EVENTS2.E

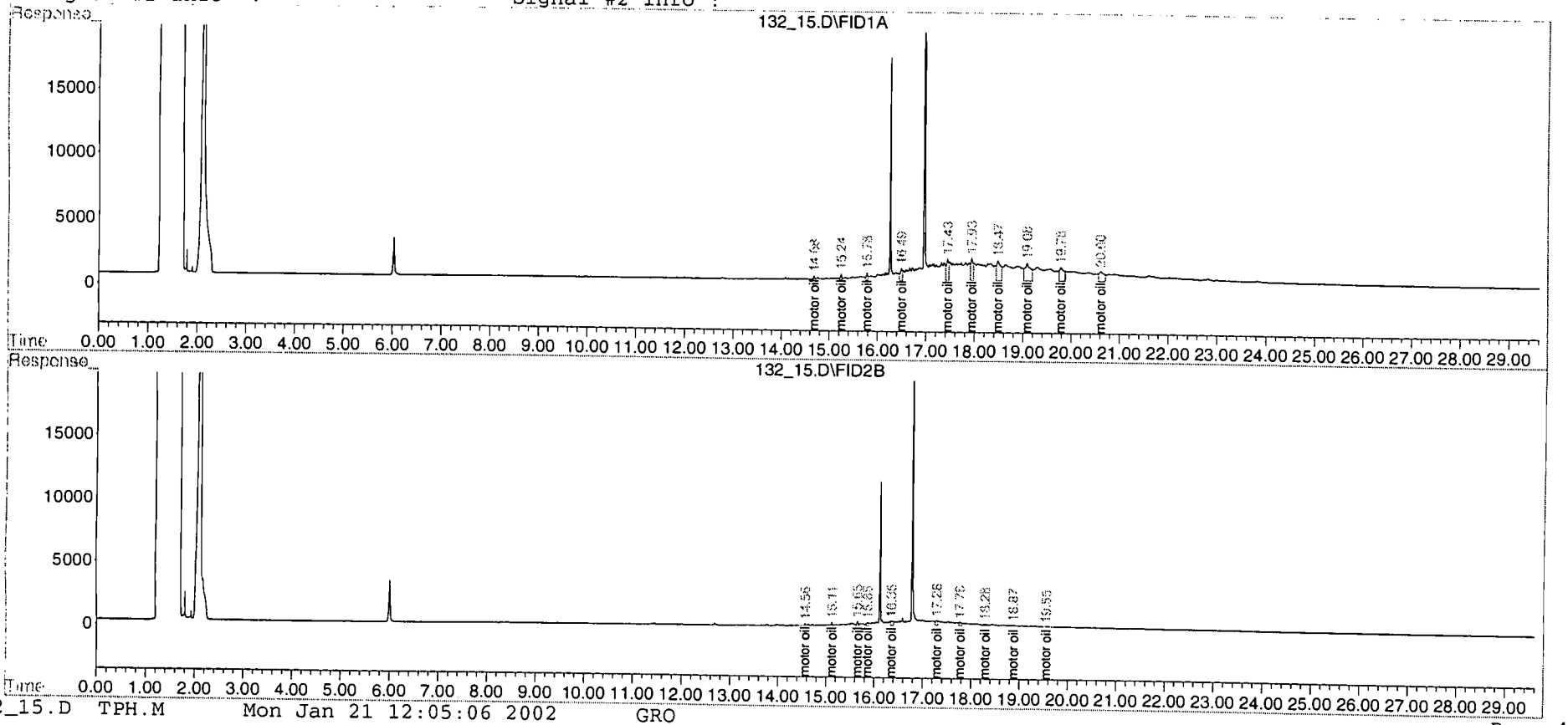
Vial: 15
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 11:57 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :

Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_16.D\FID1A.CH Vial: 16
Acq On : 12 Jan 2002 1:47 Operator: DDC/2002
Sample : FID A 704 L2 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_16.D\FID2B.CH Vial: 16
Acq On : 12 Jan 2002 2:26 Operator: DDC/2002
Sample : FID A 704 L2 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:56 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery | = | 0.00%# | 0.00%# |
| 62) S 1-chlorooctadeca | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery | = | 0.00%# | 0.00%# |
| 63) S p-terphenyl | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery | = | 0.00%# | 0.00%# |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 5) L1,A gasoline(5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 6) L1,A gasoline(6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 7) L1,A gasoline(7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 8) L1,A gasoline(8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 9) L1,A gasoline(9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 10) L1,A gasoline(10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum gasoline(1) | | | 0 | 0 | N.D. | N.D. |
| Average gasoline(1) | | | | | 0.000 | 0.000 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_16.D\FID1A.CH Vial: 16
Acq On : 12 Jan 2002 1:47 Operator: DDC/2002
Sample : FID A 704 L2 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_16.D\FID2B.CH Vial: 16
Acq On : 12 Jan 2002 2:26 Operator: DDC/2002
Sample : FID A 704 L2 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:56 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. |
| Average mineral spirits ( | | | | | 0.000 | 0.000 |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 49) L5,K kerosene (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum kerosene (1) | | | 0 | 0 | N.D. | N.D. |
| Average kerosene (1) | | | | | 0.000 | 0.000 |
| 51) L6,D diesel (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 52) L6,D diesel (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 53) L6,D diesel (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 54) L6,D diesel (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 55) L6,D diesel (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 56) L6,D diesel (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 57) L6,D diesel (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 58) L6,D diesel (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 59) L6,D diesel (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum diesel (1) | | | 0 | 0 | N.D. | N.D. |
| Average diesel (1) | | | | | 0.000 | 0.000 |
| 64) L7,O motor oil (1) | 14.68 | 14.56 | 11813 | 5975 | 197.544 | 180.285 |
| 65) L7,O motor oil (2) | 15.24 | 15.12 | 20710 | 11636 | 218.600 | 214.954 |
| 66) L7,O motor oil (3) | 15.78 | 15.65 | 23782 | 18975 | 209.164 | 217.317 |
| 67) L7,O motor oil (4) | 16.49 | 15.86 | 55565 | 18039 | 202.264 | 206.179 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_16.D\FID1A.CH Vial: 16
Acq On : 12 Jan 2002 1:47 Operator: DDC/2002
Sample : FID A 704 L2 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_16.D\FID2B.CH Vial: 16
Acq On : 12 Jan 2002 2:26 Operator: DDC/2002
Sample : FID A 704 L2 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:56 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l | |
|---|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 17.44 | 16.35 | 102547 | 25996 | 204.503 | 220.078 | |
| 69) L7,O motor oil (6) | 17.93 | 17.28 | 109354 | 18672 | 201.840 | 195.747 | |
| 70) L7,O motor oil (7) | 18.47 | 17.76 | 135876 | 16567 | 163.875 | 212.869 | # |
| 71) L7,O motor oil (8) | 19.08 | 18.28 | 174275 | 21411 | 160.507 | 191.913 | |
| 72) L7,O motor oil (9) | 19.78 | 18.87 | 122311 | 8881 | 183.082 | 142.220 | |
| 73) L7,O motor oil (10) | 20.61 | 19.55 | 123762 | 3961 | 215.830 | 87.812 | # |
| Sum motor oil (1) | | | 879994 | 150112 | 1957.208 | 1869.374 | |
| Average motor oil (1) | | | | | 195.721 | 186.937 | |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\132\132_16.D\FID1A.CH
Acq On : 12 Jan 2002 1:47
Sample : FID A 704 L2
Misc : MIX [O]
IntFile : AUTOINT1.E

Vial: 16
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

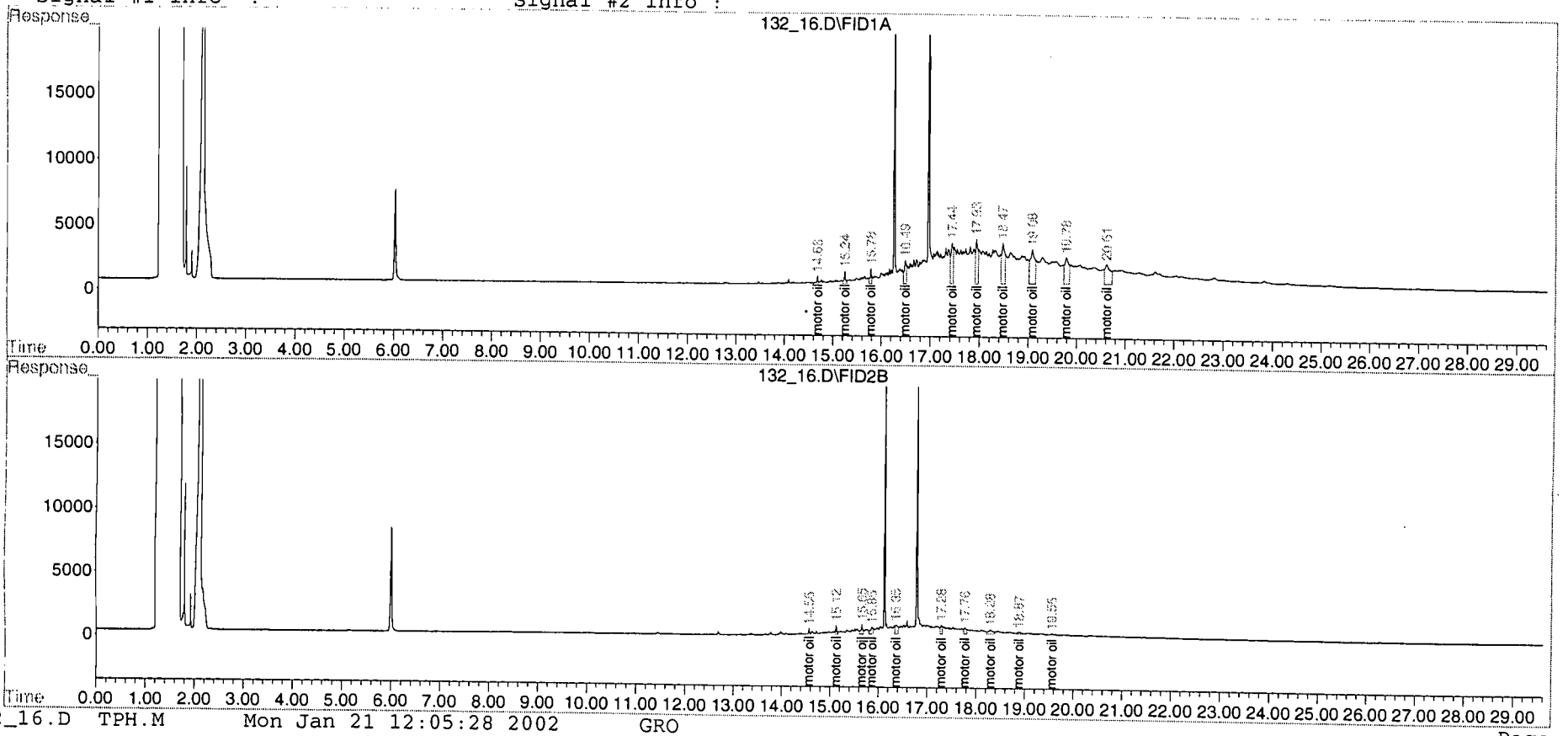
Data File : C:\HPCHEM\3\DATA\132\132_16.D\FID2B.CH
Acq On : 12 Jan 2002 2:26
Sample : FID A 704 L2
Misc : MIX [S,A]
IntFile : EVENTS2.E

Vial: 16
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 11:56 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_17.D\FID1A.CH Vial: 17
Acq On : 12 Jan 2002 2:26 Operator: DDC/2002
Sample : FID A 704 L3 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_17.D\FID2B.CH Vial: 17
Acq On : 12 Jan 2002 3:05 Operator: DDC/2002
Sample : FID A 704 L3 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:55 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount | 10.000 | Range 50 - 150 | Recovery | = | 0.00%# | 0.00%# |
| 62) S 1-chlorooctadeca | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount | 20.000 | Range 50 - 150 | Recovery | = | 0.00%# | 0.00%# |
| 63) S p-terphenyl | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount | 10.000 | Range 50 - 150 | Recovery | = | 0.00%# | 0.00%# |
| Target Compounds | | | | | | |
| L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 5) L1,A gasoline(5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 6) L1,A gasoline(6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 7) L1,A gasoline(7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 8) L1,A gasoline(8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 9) L1,A gasoline(9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 10) L1,A gasoline(10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum gasoline(1) | | | 0 | 0 | N.D. | N.D. |
| Average gasoline(1) | | | | | 0.000 | 0.000 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_17.D\FID1A.CH Vial: 17
Acq On : 12 Jan 2002 2:26 Operator: DDC/2002
Sample : FID A 704 L3 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_17.D\FID2B.CH Vial: 17
Acq On : 12 Jan 2002 3:05 Operator: DDC/2002
Sample : FID A 704 L3 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:55 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. |
| Average mineral spirits ( | | | | | 0.000 | 0.000 |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 49) L5,K kerosene (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum kerosene (1) | | | 0 | 0 | N.D. | N.D. |
| Average kerosene (1) | | | | | 0.000 | 0.000 |
| 51) L6,D diesel (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 52) L6,D diesel (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 53) L6,D diesel (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 54) L6,D diesel (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 55) L6,D diesel (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 56) L6,D diesel (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 57) L6,D diesel (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 58) L6,D diesel (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 59) L6,D diesel (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum diesel (1) | | | 0 | 0 | N.D. | N.D. |
| Average diesel (1) | | | | | 0.000 | 0.000 |
| 64) L7,O motor oil (1) | 14.68 | 14.56 | 15786 | 8857 | 263.971 | 267.250 |
| 65) L7,O motor oil (2) | 15.24 | 15.12 | 27525 | 15619 | 290.529 | 288.536 |
| 66) L7,O motor oil (3) | 15.78 | 15.65 | 31396 | 25256 | 276.137 | 289.262 |
| 67) L7,O motor oil (4) | 16.49 | 15.86 | 80260 | 23795 | 292.159 | 271.956 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_17.D\FID1A.CH Vial: 17
Acq On : 12 Jan 2002 2:26 Operator: DDC/2002
Sample : FID A 704 L3 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_17.D\FID2B.CH Vial: 17
Acq On : 12 Jan 2002 3:05 Operator: DDC/2002
Sample : FID A 704 L3 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:55 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 17.44 | 16.35 | 149648 | 31492 | 298.434 | 266.605 |
| 69) L7,O motor oil (6) | 17.94 | 17.28 | 157680 | 24477 | 291.038 | 256.601 |
| 70) L7,O motor oil (7) | 18.48 | 17.77 | 270846 | 20783 | 326.657 | 267.044 |
| 71) L7,O motor oil (8) | 19.08 | 18.29 | 340698 | 27466 | 313.782 | 246.188 |
| 72) L7,O motor oil (9) | 19.79 | 18.87 | 209546 | 11301 | 313.661 | 180.978 # |
| 73) L7,O motor oil (10) | 20.61 | 19.55 | 157041 | 5671 | 273.865 | 125.714 # |
| Sum motor oil (1) | | | 1440425 | 194717 | 2940.233 | 2460.133 |
| Average motor oil (1) | | | | | 294.023 | 246.013 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitati Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_17.D\FID1A.CH
Acq On : 12 Jan 2002 2:26
Sample : FID A 704 L3
Misc : MIX [O]
IntFile : AUTOINT1.E

Vial: 17
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

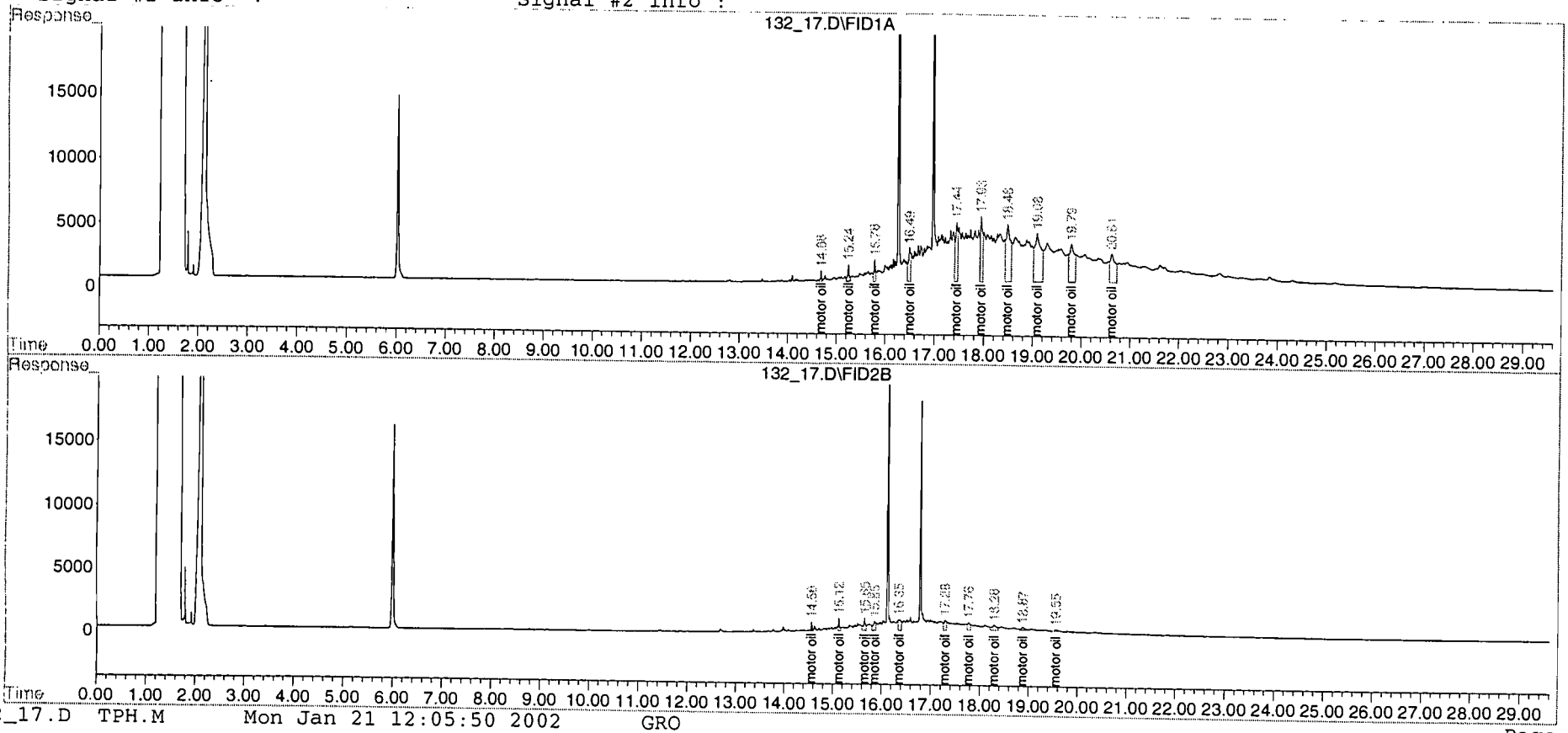
Data File : C:\HPCHEM\3\DATA\132\132_17.D\FID2B.CH
Acq On : 12 Jan 2002 3:05
Sample : FID A 704 L3
Misc : MIX [S,A]
IntFile : EVENTS2.E

Vial: 17
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 11:55 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_18.D\FID1A.CH Vial: 18
Acq On : 12 Jan 2002 3:05 Operator: DDC/2002
Sample : FID A 704 L4 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_18.D\FID2B.CH Vial: 18
Acq On : 12 Jan 2002 3:43 Operator: DDC/2002
Sample : FID A 704 L4 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:55 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount | 10.000 | Range 50 - 150 | Recovery | = | 0.00%# | 0.00%# |
| 62) S 1-chlorooctadeca | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount | 20.000 | Range 50 - 150 | Recovery | = | 0.00%# | 0.00%# |
| 63) S p-terphenyl | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount | 10.000 | Range 50 - 150 | Recovery | = | 0.00%# | 0.00%# |
| Target Compounds | | | | | | |
| L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 5) L1,A gasoline(5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 6) L1,A gasoline(6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 7) L1,A gasoline(7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 8) L1,A gasoline(8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 9) L1,A gasoline(9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 10) L1,A gasoline(10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum gasoline(1) | | | 0 | 0 | N.D. | N.D. |
| Average gasoline(1) | | | | | 0.000 | 0.000 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_18.D\FID1A.CH Vial: 18
Acq On : 12 Jan 2002 3:05 Operator: DDC/2002
Sample : FID A 704 L4 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_18.D\FID2B.CH Vial: 18
Acq On : 12 Jan 2002 3:43 Operator: DDC/2002
Sample : FID A 704 L4 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:55 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. |
| Average mineral spirits ( | | | | | 0.000 | 0.000 |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 49) L5,K kerosene (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum kerosene (1) | | | 0 | 0 | N.D. | N.D. |
| Average kerosene (1) | | | | | 0.000 | 0.000 |
| 51) L6,D diesel (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 52) L6,D diesel (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 53) L6,D diesel (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 54) L6,D diesel (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 55) L6,D diesel (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 56) L6,D diesel (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 57) L6,D diesel (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 58) L6,D diesel (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 59) L6,D diesel (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum diesel (1) | | | 0 | 0 | N.D. | N.D. |
| Average diesel (1) | | | | | 0.000 | 0.000 |
| 64) L7,O motor oil (1) | 14.68 | 14.56 | 30094 | 20949 | 503.239 | 632.117 # |
| 65) L7,O motor oil (2) | 15.24 | 15.12 | 46806 | 30636 | 494.040 | 565.964 |
| 66) L7,O motor oil (3) | 15.78 | 15.65 | 58638 | 48460 | 515.736 | 555.019 |
| 67) L7,O motor oil (4) | 16.49 | 15.86 | 134454 | 46000 | 489.432 | 525.749 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_18.D\FID1A.CH Vial: 18
Acq On : 12 Jan 2002 3:05 Operator: DDC/2002
Sample : FID A 704 L4 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_18.D\FID2B.CH Vial: 18
Acq On : 12 Jan 2002 3:43 Operator: DDC/2002
Sample : FID A 704 L4 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:55 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 17.44 | 16.35 | 247313 | 52243 | 493.200 | 442.279 |
| 69) L7,O motor oil (6) | 17.94 | 17.28 | 264265 | 63595 | 487.767 | 666.696 # |
| 70) L7,O motor oil (7) | 18.48 | 17.76 | 508944 | 40562 | 613.819 | 521.180 |
| 71) L7,O motor oil (8) | 19.09 | 18.28 | 568518 | 79392 | 523.604 | 711.611 # |
| 72) L7,O motor oil (9) | 19.79 | 18.87 | 311865 | 57395 | 466.819 | 919.146 # |
| 73) L7,O motor oil (10) | 20.61 | 19.55 | 288181 | 47888 | 502.561 | 1061.528 # |
| Sum motor oil (1) | | | 2459077 | 487120 | 5090.218 | 6601.290 |
| Average motor oil (1) | | | | | 509.022 | 660.129 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\132\132_18.D\FID1A.CH
Acq On : 12 Jan 2002 3:05
Sample : FID A 704 L4
Misc : MIX [O]
IntFile : AUTOINT1.E

Vial: 18
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

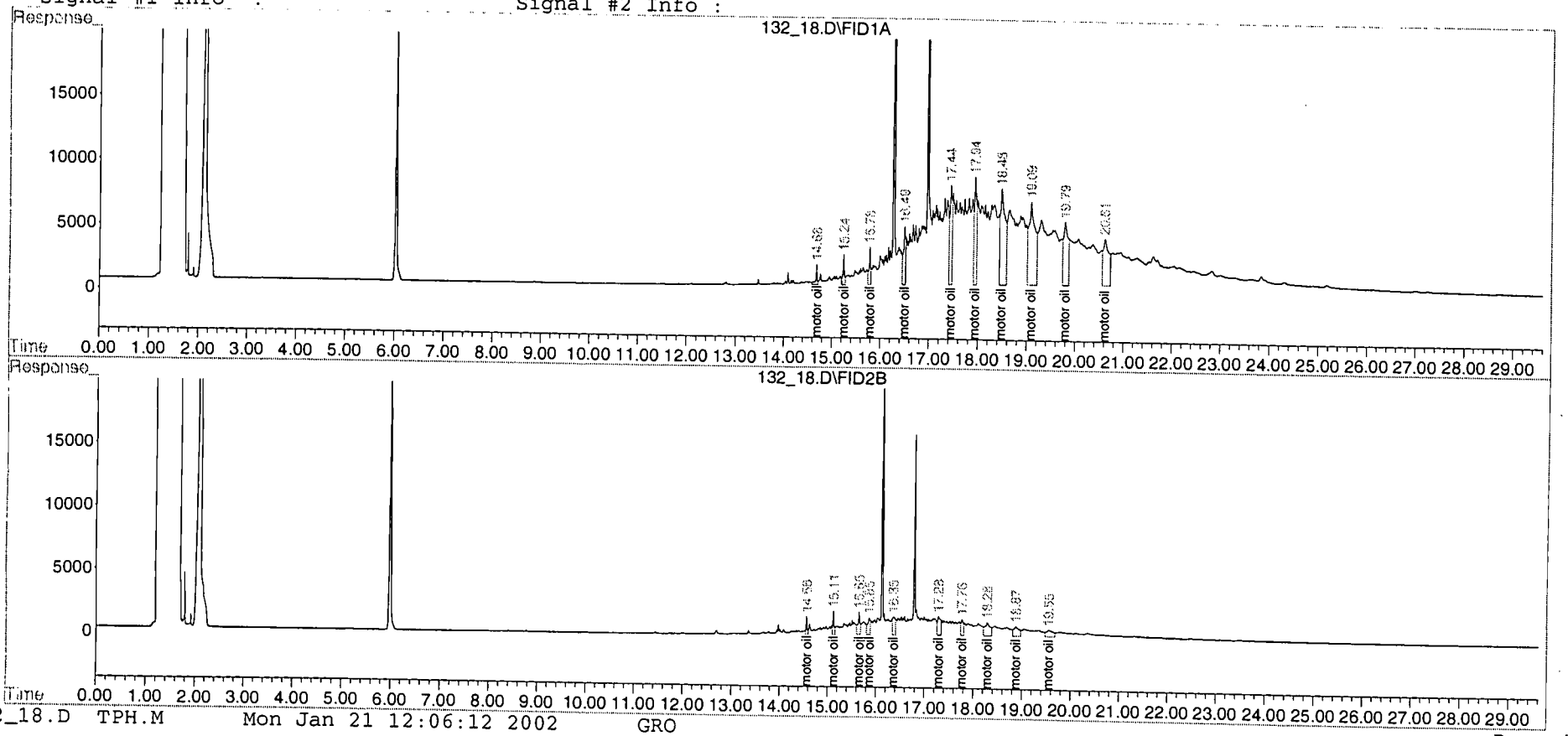
Data File : C:\HPCHEM\3\DATA\132\132_18.D\FID2B.CH
Acq On : 12 Jan 2002 3:43
Sample : FID A 704 L4
Misc : MIX [O]
IntFile : EVENTS2.E

Vial: 18
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 11:55 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



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Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_19.D\FID1A.CH Vial: 19
Acq On : 12 Jan 2002 3:43 Operator: DDC/2002
Sample : FID A 704 L5 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_19.D\FID2B.CH Vial: 19
Acq On : 12 Jan 2002 4:22 Operator: DDC/2002
Sample : FID A 704 L5 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:54 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | | |
| 61) S 1-chloro-2-fluor | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 0.00%# |
| 62) S 1-chlorooctadeca | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 20.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 0.00%# |
| 63) S p-terphenyl | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Spiked Amount 10.000 | Range 50 - 150 | | Recovery = | | 0.00%# | 0.00%# |
| Target Compounds | | | | | | |
| 1) L1,A gasoline(1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 2) L1,A gasoline(2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 3) L1,A gasoline(3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 4) L1,A gasoline(4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 5) L1,A gasoline(5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 6) L1,A gasoline(6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 7) L1,A gasoline(7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 8) L1,A gasoline(8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 9) L1,A gasoline(9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 10) L1,A gasoline(10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum gasoline(1) | | | 0 | 0 | N.D. | N.D. |
| Average gasoline(1) | | | | | 0.000 | 0.000 |
| 11) L2,J JP-4 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 12) L2,J JP-4 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 13) L2,J JP-4 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 14) L2,J JP-4 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 15) L2,J JP-4 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 16) L2,J JP-4 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 17) L2,J JP-4 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 18) L2,J JP-4 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 19) L2,J JP-4 (9) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 20) L2,J JP-4 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum JP-4 (1) | | | 0 | 0 | N.D. | N.D. |
| Average JP-4 (1) | | | | | 0.000 | 0.000 |
| 21) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 22) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 23) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 24) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 25) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 26) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 27) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 28) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 29) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 30) L3,P mineral spirits | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_19.D\FID1A.CH Vial: 19
Acq On : 12 Jan 2002 3:43 Operator: DDC/2002
Sample : FID A 704 L5 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_19.D\FID2B.CH Vial: 19
Acq On : 12 Jan 2002 4:22 Operator: DDC/2002
Sample : FID A 704 L5 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:54 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| Sum mineral spirits ( | | | 0 | 0 | N.D. | N.D. |
| Average mineral spirits ( | | | | | 0.000 | 0.000 |
| 31) L4,X SC-150 (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 32) L4,X SC-150 (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 33) L4,X SC-150 (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 34) L4,X SC-150 (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 35) L4,X SC-150 (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 36) L4,X SC-150 (6) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 37) L4,X SC-150 (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 38) L4,X SC-150 (8) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 39) L4,X SC-150 (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 40) L4,X SC-150 (10) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| Sum SC-150 (1) | | | 0 | 0 | N.D. | N.D. |
| Average SC-150 (1) | | | | | 0.000 | 0.000 |
| 41) L5,K kerosene (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 42) L5,K kerosene (2) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 43) L5,K kerosene (3) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 44) L5,K kerosene (4) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 45) L5,K kerosene (5) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 46) L5,K kerosene (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 47) L5,K kerosene (7) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 48) L5,K kerosene (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 49) L5,K kerosene (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 50) L5,K kerosene (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| Sum kerosene (1) | | | 0 | 0 | N.D. | N.D. |
| Average kerosene (1) | | | | | 0.000 | 0.000 |
| 51) L6,D diesel (1) | 0.00 | 0.00 | 0 | 0 | N.D. | N.D. |
| 52) L6,D diesel (2) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 53) L6,D diesel (3) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. |
| 54) L6,D diesel (4) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 55) L6,D diesel (5) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 56) L6,D diesel (6) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 57) L6,D diesel (7) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 58) L6,D diesel (8) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 59) L6,D diesel (9) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| 60) L6,D diesel (10) | 0.00 | 0.00 | 0 | 0 | N.D. d | N.D. d |
| Sum diesel (1) | | | 0 | 0 | N.D. | N.D. |
| Average diesel (1) | | | | | 0.000 | 0.000 |
| 64) L7,O motor oil (1) | 14.68 | 14.56 | 47003 | 27910 | 785.996 | 842.142 |
| 65) L7,O motor oil (2) | 15.25 | 15.12 | 74564 | 41850 | 787.021 | 773.139 |
| 66) L7,O motor oil (3) | 15.78 | 15.65 | 91564 | 61362 | 805.330 | 702.787 |
| 67) L7,O motor oil (4) | 16.50 | 15.85 | 210272 | 73677 | 765.423 | 842.078 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\3\DATA\132\132_19.D\FID1A.CH Vial: 19
Acq On : 12 Jan 2002 3:43 Operator: DDC/2002
Sample : FID A 704 L5 Inst : GC/FID In
Misc : MIX [O] Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\3\DATA\132\132_19.D\FID2B.CH Vial: 19
Acq On : 12 Jan 2002 4:22 Operator: DDC/2002
Sample : FID A 704 L5 Inst : GC/FID In
Misc : MIX [S,A] Multiplr: 1.00
IntFile : EVENTS2.E
Quant Time: Jan 21 11:54 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Initial Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | mg/l | mg/l |
|---|---|---|---|---|---|---|
| 68) L7,O motor oil (5) | 17.45 | 16.35 | 375509 | 89240 | 748.854 | 755.496 |
| 69) L7,O motor oil (6) | 17.94 | 17.28 | 420044 | 48315 | 775.295 | 506.505 # |
| 70) L7,O motor oil (7) | 18.48 | 17.76 | 499793 | 52458 | 602.783 | 674.044 |
| 71) L7,O motor oil (8) | 19.09 | 18.28 | 889984 | 89409 | 819.674 | 801.393 |
| 72) L7,O motor oil (9) | 19.79 | 18.87 | 550270 | 67714 | 823.680 | 1084.397 # |
| 73) L7,O motor oil (10) | 20.62 | 19.55 | 457693 | 53029 | 798.175 | 1175.479 # |
| Sum motor oil (1) | | | 3616697 | 604964 | 7712.231 | 8157.459 |
| Average motor oil (1) | | | | | 771.223 | 815.746 |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : C:\HPCHEM\3\DATA\132\132_19.D\FID1A.CH
Acq On : 12 Jan 2002 3:43
Sample : FID A 704 L5
Misc : MIX [O]
IntFile : AUTOINT1.E

Vial: 19
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

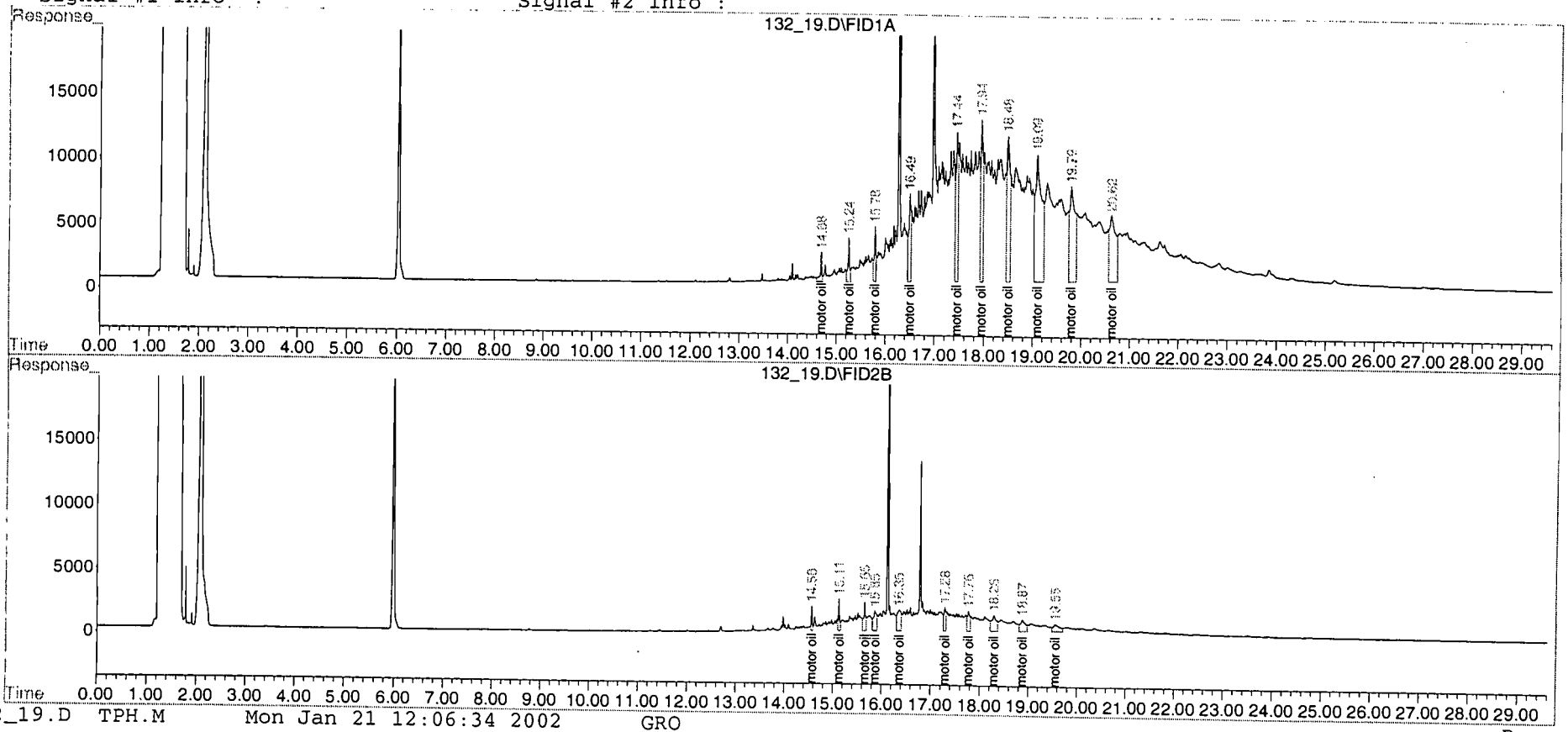
Data File : C:\HPCHEM\3\DATA\132\132_19.D\FID2B.CH
Acq On : 12 Jan 2002 4:22
Sample : FID A 704 L5
Misc : MIX [S,A]
IntFile : EVENTS2.E

Vial: 19
Operator: DDC/2002
Inst : GC/FID In
Multiplr: 1.00

Quant Time: Jan 21 11:54 2002 Quant Results File: TPH.RES

Quant Method : C:\HPCHEM\3\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 11:53:46 2002
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



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CASE NARRATIVE

IDEM – Office of Water Management
Organics Section Packet #1769

18 January 2002

| Sample | Client ID |
|---|---|
| A581214 | DK27428 |
| A581215 | DK27429 |
| A581216 | DK27430 |
| A581217 | DK27431 |
| A581218 | DK27432 |

These samples were analyzed for chloride, bromide, and sulfate by Ion Chromatography (EPA 300.0) using normal procedures with no modifications. The required holding time was met for the analysis. The method blanks were below the reporting limit. The Initial Calibration Verification and Continuing Calibration Verification were within the control limits. In addition, the matrix spike and matrix spike duplicate were within the control limits.

Heritage Environmental Services
Limited Liability Company

Jay M. Montgomery
IC Analyst

Recycled Paper

Run Number R4263 60

File Number 02-0114

# ION CHROMATOGRAPHY

Instrument # 268

Analyst JMM 1663

Start Date 14-Jan-02

Start Time 14:37

End Date 15-Jan-02

End Time 1:00

Reviewed By GW/103

Date 1-15-02

Recorded By RLB

Date 1-16-02

MBS 1-17-02

| TestID | Sample | Parm | Area | Dil'n | Conc. | Result | RQL | DL | Units | Samp | Spike | Rec | RPD | # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1\375 | BLA01 14-Jan-02 14:37 | | | | | | | | | | | | | |
| | 367 | F | 0 | 1 | 0.013 | | BDL | 0.10 | mg/L | | | | | |
| | 223 | Cl | 0 | 1 | 0.023 | | BDL | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 1 | 0.006 | | BDL | 0.050 | mg/L | | | | | |
| | 192 | Br | 0 | 1 | 0.005 | | BDL | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 0 | 1 | 0.004 | | BDL | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 0 | 1 | 0.010 | | BDL | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 0 | 1 | 0.019 | | BDL | 0.25 | mg/L | | | | | |
| | CCV L 14-Jan-02 14:56 | | | | | | | | | | | | | |
| | 367 | F | 186832 | 1 | 0.490 | 0.490 | | 0.10 | mg/L | | 0.5 | 98.0 | | |
| | 223 | Cl | 324437 | 1 | 1.230 | 1.23 | | 0.25 | mg/L | | 1.25 | 98.4 | | |
| | 507 | $NO_2$ | 271544 | 1 | 0.488 | 0.488 | | 0.050 | mg/L | | 0.5 | 97.6 | | |
| | 192 | Br | 52104 | 1 | 0.498 | 0.498 | | 0.050 | mg/L | | 0.5 | 99.6 | | |
| | 508 | $NO_3$ | 307032 | 1 | 0.487 | 0.487 | | 0.050 | mg/L | | 0.5 | 97.4 | | |
| | 539 | $HPO_4$ | 102915 | 1 | 0.490 | 0.490 | | 0.050 | mg/L | | 0.5 | 98.0 | | |
| | 681 | $SO_4$ | 480278 | 1 | 2.516 | 2.52 | | 0.25 | mg/L | | 2.5 | 100.8 | | |
| | CCV H 14-Jan-02 15:18 | | | | | | | | | | | | | |
| | 367 | F | 2209555 | 1 | 4.814 | 4.81 | | 0.10 | mg/L | | 5 | 96.2 | | |
| | 223 | Cl | 3930260 | 1 | 11.725 | 11.7 | | 0.25 | mg/L | | 12.5 | 93.6 | | |
| | 507 | $NO_2$ | 3056718 | 1 | 4.805 | 4.81 | | 0.050 | mg/L | | 5 | 96.2 | | |
| | 192 | Br | 544461 | 1 | 4.573 | 4.57 | | 0.050 | mg/L | | 5 | 91.4 | | |
| | 508 | $NO_3$ | 3576225 | 1 | 4.662 | 4.66 | | 0.050 | mg/L | | 5 | 93.2 | | |
| | 539 | $HPO_4$ | 1152138 | 1 | 4.537 | 4.54 | | 0.050 | mg/L | | 5 | 90.8 | | |
| | 681 | $SO_4$ | 5271372 | 1 | 23.291 | 23.3 | | 0.25 | mg/L | | 25 | 93.2 | | |
| 1\375 | LFB01 SPI 14-Jan-02 16:01 | | | | | | | | | | | | | |
| G | 367 | F | 397669 | 1 | 0.988 | 0.988 | | 0.10 | mg/L | | 1 | 98.8 | | |
| G | 223 | Cl | 673007 | 1 | 2.499 | 2.50 | | 0.25 | mg/L | | 2.5 | 100.0 | | |
| | 507 | $NO_2$ | 570048 | 1 | 0.994 | | | 0.050 | mg/L | | 1 | | | |
| G | 192 | Br | 113282 | 1 | 1.069 | 1.07 | | 0.050 | mg/L | | 1 | 107.0 | | |
| | 508 | $NO_3$ | 639512 | 1 | 1.018 | | | 0.050 | mg/L | | 1 | | | |
| | 539 | $HPO_4$ | 217252 | 1 | 1.025 | | | 0.050 | mg/L | | 1 | | | |
| G | 681 | $SO_4$ | 950030 | 1 | 4.957 | 4.96 | | 0.25 | mg/L | | 5 | 99.2 | | |
| | A581214 1:100 14-Jan-02 16:23 | | | | | | | | | | | | | |
| | 367 | F | 0 | 100 | 1.280 | | | 10. | mg/L | | | | | |
| | 223 | Cl | 80548411 | 100 | 22873.110 | HIGH | | 25. | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 100 | 0.646 | | | 5.0 | mg/L | | | | | |
| G300.4 | 192 | Br | 59042 | 100 | 56.394 | 56. | | 5.0 | mg/L | | | | | |
| | 508 | $NO_3$ | 0 | 100 | 0.445 | | | 5.0 | mg/L | | | | | |
| | 539 | $HPO_4$ | 4849 | 100 | 3.296 | | | 5.0 | mg/L | | | | | |
| G300.7 | 681 | $SO_4$ | 236665 | 100 | 124.930 | 120 | | 25. | mg/L | | | | | |
| | A581214 1:2000 14-Jan-02 16:41 | | | | | | | | | | | | | |
| | 367 | F | 0 | 2000 | 25.603 | | | 200 | mg/L | | | | | |
| G300.2 | 223 | Cl | 3295988 | 2000 | 19856.527 | 20000 | | 500 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 2000 | 12.928 | | | 100 | mg/L | | | | | |
| | 192 | Br | 2952 | 2000 | 66.341 | | | 100 | mg/L | | | | | |
| | 508 | $NO_3$ | 0 | 2000 | 8.900 | | | 100 | mg/L | | | | | |
| | 539 | $HPO_4$ | 0 | 2000 | 20.733 | | | 100 | mg/L | | | | | |
| | 681 | $SO_4$ | 8782 | 2000 | 129.539 | | | 500 | mg/L | | | | | |
| | A581215 1:50 14-Jan-02 17:00 | | | | | | | | | | | | | |
| | 367 | F | 3530 | 50 | 1.091 | | | 5.0 | mg/L | | | | | |
| | 223 | Cl | 44346024 | 50 | 6309.735 | HIGH | | 13. | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 50 | 0.323 | | | 2.5 | mg/L | | | | | |
| G300.4 | 192 | Br | 30919 | 50 | 14.891 | 15. | | 2.5 | mg/L | | | | | |
| | 508 | $NO_3$ | 0 | 50 | 0.223 | | | 2.5 | mg/L | | | | | |
| | 539 | $HPO_4$ | 0 | 50 | 0.518 | | | 2.5 | mg/L | | | | | |
| G300.7 | 681 | $SO_4$ | 114034 | 50 | 30.593 | 31. | | 13. | mg/L | | | | | |

| TestID | Sample | Parm | Area | Dil'n | Conc. | Result | RQL | DL | Units | Samp | Spike | Rec | RPD | # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **A581215 1:500 14-Jan-02 17:18** | | | | | | | | | | | | | | |
| | 367 | F | 0 | 500 | 6.401 | | | 50. | mg/L | | | | | |
| G300.2 | 223 | Cl | 4064690 | 500 | 6052.733 | 6100 | | 130 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 500 | 3.232 | | | 25. | mg/L | | | | | |
| | 192 | Br | 0 | 500 | 2.618 | | | 25. | mg/L | | | | | |
| | 508 | $NO_3$ | 0 | 500 | 2.225 | | | 25. | mg/L | | | | | |
| | 539 | $HPO_4$ | 0 | 500 | 5.183 | | | 25. | mg/L | | | | | |
| | 681 | $SO_4$ | 0 | 500 | 9.561 | | | 130 | mg/L | | | | | |
| **A581216 14-Jan-02 19:29** | | | | | | | | | | | | | | |
| | 367 | F | 978662 | 1 | 2.215 | | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 344438156 | 1 | 976.149 | HIGH | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 1 | 0.006 | | | 0.050 | mg/L | | | | | |
| G300.4 | 192 | Br | 350526 | 1 | 2.997 | 3.0 | | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 0 | 1 | 0.004 | | | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 10294 | 1 | 0.058 | | | 0.050 | mg/L | | | | | |
| G300.7 | 681 | $SO_4$ | 0 | 1 | 0.019 | | BDL | 0.25 | mg/L | | | | | |
| 375 **SPI01 A581216 14-Jan-02 19:47** | | | | | | | | | | | | | | |
| | 367 | F | 1308605 | 1 | 2.911 | | | 0.10 | mg/L | | 1 | | | |
| | 223 | Cl | 304341347 | 1 | 862.582 | HIGH | | 0.25 | mg/L | | 2.5 | | | |
| | 507 | $NO_2$ | 117844 | 1 | 0.215 | | | 0.050 | mg/L | | 1 | | | |
| G | 192 | Br | 431367 | 1 | 3.654 | 3.65 | | 0.050 | mg/L | 2.7 | 1 | 95.0 | | |
| | 508 | $NO_3$ | 657071 | 1 | 1.040 | | | 0.050 | mg/L | | 1 | | | |
| | 539 | $HPO_4$ | 227094 | 1 | 1.062 | | | 0.050 | mg/L | | 1 | | | |
| G | 681 | $SO_4$ | 958052 | 1 | 4.999 | 5.00 | | 0.25 | mg/L | 0 | 5 | 100.0 | | |
| 375 **DPS01 A581216 14-Jan-02 20:05** | | | | | | | | | | | | | | |
| | 367 | F | 1314975 | 1 | 2.925 | | | 0.10 | mg/L | | 1 | | | |
| | 223 | Cl | 303884889 | 1 | 861.289 | HIGH | | 0.25 | mg/L | | 2.5 | | | |
| | 507 | $NO_2$ | 116613 | 1 | 0.213 | | | 0.050 | mg/L | | 1 | | | |
| G | 192 | Br | 427163 | 1 | 3.620 | 3.62 | | 0.050 | mg/L | 2.7 | 1 | 92.0 | 3.2 | |
| | 508 | $NO_3$ | 656632 | 1 | 1.039 | | | 0.050 | mg/L | | 1 | | | |
| | 539 | $HPO_4$ | 229764 | 1 | 1.072 | | | 0.050 | mg/L | | 1 | | | |
| G | 681 | $SO_4$ | 963399 | 1 | 5.140 | 5.14 | | 0.25 | mg/L | 0 | 5 | 102.8 | 2.8 | |
| **A581216 1:50 14-Jan-02 18:30** | | | | | | | | | | | | | | |
| | 367 | F | 19413 | 50 | 3.117 | | | 5.0 | mg/L | | | | | |
| G300.2 | 223 | Cl | 5869641 | 50 | 860.882 | 860 | | 13. | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 50 | 0.323 | | | 2.5 | mg/L | | | | | |
| | 192 | Br | 5351 | 50 | 2.794 | | | 2.5 | mg/L | | | | | |
| | 508 | $NO_3$ | 0 | 50 | 0.223 | | | 2.5 | mg/L | | | | | |
| | 539 | $HPO_4$ | 1652 | 50 | 0.903 | | | 2.5 | mg/L | | | | | |
| | 681 | $SO_4$ | 2430 | 50 | 1.588 | | | 13. | mg/L | | | | | |
| 375 **SPI01 A581216 1:50 14-Jan-02 18:48** | | | | | | | | | | | | | | |
| | 367 | F | 402089 | 50 | 49.875 | | | 5.0 | mg/L | | 50 | | | |
| G | 223 | Cl | 6183180 | 50 | 905.284 | 905. | | 13. | mg/L | 775 | 125 | 104.0 | | |
| | 507 | $NO_2$ | 552806 | 50 | 49.327 | | | 2.5 | mg/L | | 50 | | | |
| | 192 | Br | 115098 | 50 | 54.163 | | | 2.5 | mg/L | | 50 | | | |
| | 508 | $NO_3$ | 621751 | 50 | 49.128 | | | 2.5 | mg/L | | 50 | | | |
| | 539 | $HPO_4$ | 211123 | 50 | 50.086 | | | 2.5 | mg/L | | 50 | | | |
| | 681 | $SO_4$ | 928312 | 50 | 242.224 | | | 13. | mg/L | | 250 | | | |
| 375 **DPS01 A581216 1:50 14-Jan-02 19:06** | | | | | | | | | | | | | | |
| | 367 | F | 412026 | 50 | 50.924 | | | 5.0 | mg/L | | 50 | | | |
| G | 223 | Cl | 6117115 | 50 | 895.929 | 896. | | 13. | mg/L | 775 | 125 | 96.8 | 7.2 | |
| | 507 | $NO_2$ | 566975 | 50 | 49.485 | | | 2.5 | mg/L | | 50 | | | |
| | 192 | Br | 117399 | 50 | 55.099 | | | 2.5 | mg/L | | 50 | | | |
| | 508 | $NO_3$ | 645370 | 50 | 51.256 | | | 2.5 | mg/L | | 50 | | | |
| | 539 | $HPO_4$ | 210682 | 50 | 50.003 | | | 2.5 | mg/L | | 50 | | | |
| | 681 | $SO_4$ | 950879 | 50 | 248.089 | | | 13. | mg/L | | 250 | | | |

| TestID | Sample | Parm | Area | Dil'n | Conc. | Result | RQL | DL | Units | Samp | Spike | Rec | RPD | # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **CCV L 14-Jan-02 20:28** | | | | | | | | | | | | | |
| | 367 | F | 187753 | 1 | 0.492 | 0.492 | | 0.10 | mg/L | | 0.5 | 98.4 | | |
| | 223 | Cl | 320743 | 1 | 1.216 | 1.22 | | 0.25 | mg/L | | 1.25 | 97.6 | | |
| | 507 | $NO_2$ | 268046 | 1 | 0.482 | 0.482 | | 0.050 | mg/L | | 0.5 | 96.4 | | |
| | 192 | Br | 50710 | 1 | 0.485 | 0.485 | | 0.050 | mg/L | | 0.5 | 97.0 | | |
| | 508 | $NO_3$ | 303162 | 1 | 0.481 | 0.481 | | 0.050 | mg/L | | 0.5 | 96.2 | | |
| | 539 | $HPO_4$ | 106158 | 1 | 0.505 | 0.505 | | 0.050 | mg/L | | 0.5 | 101.0 | | |
| | 681 | $SO_4$ | 458926 | 1 | 2.405 | 2.41 | | 0.25 | mg/L | | 2.5 | 96.4 | | |
| | **CCV H 14-Jan-02 20:46** | | | | | | | | | | | | | |
| | 367 | F | 2220383 | 1 | 4.836 | 4.84 | | 0.10 | mg/L | | 5 | 96.8 | | |
| | 223 | Cl | 3965262 | 1 | 11.824 | 11.8 | | 0.25 | mg/L | | 12.5 | 94.4 | | |
| | 507 | $NO_2$ | 3112131 | 1 | 4.890 | 4.89 | | 0.050 | mg/L | | 5 | 97.8 | | |
| | 192 | Br | 566227 | 1 | 4.750 | 4.75 | | 0.050 | mg/L | | 5 | 95.0 | | |
| | 508 | $NO_3$ | 3606866 | 1 | 4.700 | 4.70 | | 0.050 | mg/L | | 5 | 94.0 | | |
| | 539 | $HPO_4$ | 1170220 | 1 | 4.604 | 4.60 | | 0.050 | mg/L | | 5 | 92.0 | | |
| | 681 | $SO_4$ | 5290398 | 1 | 23.371 | 23.4 | | 0.25 | mg/L | | 25 | 93.6 | | |
| 1\375 | **BLA01 14-Jan-02 21:04** | | | | | | | | | | | | | |
| | 367 | F | 0 | 1 | 0.013 | | BDL | 0.10 | mg/L | | | | | |
| | 223 | Cl | 0 | 1 | 0.023 | | BDL | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 1 | 0.006 | | BDL | 0.050 | mg/L | | | | | |
| | 192 | Br | 0 | 1 | 0.005 | | BDL | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 0 | 1 | 0.004 | | BDL | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 4820 | 1 | 0.033 | 0.033 | J | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 0 | 1 | 0.019 | | BDL | 0.25 | mg/L | | | | | |
| | **A581217 14-Jan-02 21:22** | | | | | | | | | | | | | |
| | 367 | F | 0 | 1 | 0.013 | | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 434287963 | 1 | 1230.631 | HIGH | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 1 | 0.006 | | | 0.050 | mg/L | | | | | |
| G300.4 | 192 | Br | 446169 | 1 | 3.774 | 3.8 | | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 0 | 1 | 0.004 | | | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 6633 | 1 | 0.041 | | | 0.050 | mg/L | | | | | |
| G300.7 | 681 | $SO_4$ | 200618 | 1 | 1.062 | 1.1 | | 0.25 | mg/L | | | | | |
| | **A581217 1:100 14-Jan-02 21:40** | | | | | | | | | | | | | |
| | 367 | F | 7598 | 100 | 3.219 | | | 10. | mg/L | | | | | |
| G300.2 | 223 | Cl | 3291111 | 100 | 991.445 | 990 | | 25. | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 100 | 0.646 | | | 5.0 | mg/L | | | | | |
| | 192 | Br | 0 | 100 | 0.524 | | | 5.0 | mg/L | | | | | |
| | 508 | $NO_3$ | 3188 | 100 | 0.947 | | | 5.0 | mg/L | | | | | |
| | 539 | $HPO_4$ | 0 | 100 | 1.037 | | | 5.0 | mg/L | | | | | |
| | 681 | $SO_4$ | 0 | 100 | 1.912 | | | 25. | mg/L | | | | | |
| | **A581218 1:10 14-Jan-02 21:58** | | | | | | | | | | | | | |
| | 367 | F | 23647 | 10 | 0.732 | | | 1.0 | mg/L | | | | | |
| G300.2 | 223 | Cl | 5401190 | 10 | 158.908 | 160 | | 2.5 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 10 | 0.065 | | | 0.50 | mg/L | | | | | |
| | 192 | Br | 2211 | 10 | 0.262 | | | 0.50 | mg/L | | | | | |
| | 508 | $NO_3$ | 78804 | 10 | 1.284 | | | 0.50 | mg/L | | | | | |
| | 539 | $HPO_4$ | 0 | 10 | 0.104 | | | 0.50 | mg/L | | | | | |
| G300.7 | 681 | $SO_4$ | 978844 | 10 | 52.051 | 52. | | 2.5 | mg/L | | | | | |
| | **A581283 14-Jan-02 22:17** | | | | | | | | | | | | | |
| G300.1 | 367 | F | 489467 | 1 | 1.182 | 1.2 | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 47736709 | 1 | 135.798 | HIGH | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 3465 | 1 | 0.013 | | | 0.050 | mg/L | | | | | |
| | 192 | Br | 17787 | 1 | 0.174 | | | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 210926 | 1 | 0.336 | | | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 81660 | 1 | 0.391 | | | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 112346286 | 1 | 474.442 | HIGH | | 0.25 | mg/L | | | | | |

| TestID | Sample | Parm | Area | Dil'n | Conc. | Result | RQL | DL | Units | Samp | Spike | Rec | RPD | # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 375 | SPI01 A581283 14-Jan-02 22:35 | | | | | | | | | | | | | |
| G | 367 | F | 861286 | 1 | 1.967 | 1.97 | | 0.10 | mg/L | 1.06 | 1 | 91.0 | | |
| | 223 | Cl | 43843621 | 1 | 124.772 | HIGH | | 0.25 | mg/L | | 2.5 | | | |
| | 507 | $NO_2$ | 535220 | 1 | 0.955 | | | 0.050 | mg/L | | 1 | | | |
| | 192 | Br | 127422 | 1 | 1.183 | | | 0.050 | mg/L | | 1 | | | |
| | 508 | $NO_3$ | 851481 | 1 | 1.281 | | | 0.050 | mg/L | | 1 | | | |
| | 539 | $HPO_4$ | 198406 | 1 | 0.935 | | | 0.050 | mg/L | | 1 | | | |
| | 681 | $SO_4$ | 102415513 | 1 | 432.599 | HIGH | | 0.25 | mg/L | | 5 | | | |
| 375 | DPS01 A581283 14-Jan-02 22:53 | | | | | | | | | | | | | |
| G | 367 | F | 878241 | 1 | 2.003 | 2.00 | | 0.10 | mg/L | 1.06 | 1 | 94.0 | 3.2 | |
| | 223 | Cl | 43901244 | 1 | 124.935 | HIGH | | 0.25 | mg/L | | 2.5 | | | |
| | 507 | $NO_2$ | 542331 | 1 | 0.968 | | | 0.050 | mg/L | | 1 | | | |
| | 192 | Br | 121765 | 1 | 1.137 | | | 0.050 | mg/L | | 1 | | | |
| | 508 | $NO_3$ | 856226 | 1 | 1.287 | | | 0.050 | mg/L | | 1 | | | |
| | 539 | $HPO_4$ | 205875 | 1 | 0.970 | | | 0.050 | mg/L | | 1 | | | |
| | 681 | $SO_4$ | 102311456 | 1 | 432.161 | HIGH | | 0.25 | mg/L | | 5 | | | |
| | A581284 14-Jan-02 23:11 | | | | | | | | | | | | | |
| G300.1 | 367 | F | 365029 | 1 | 0.944 | 0.94 | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 32331089 | 1 | 92.165 | HIGH | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 1 | 0.006 | | | 0.050 | mg/L | | | | | |
| | 192 | Br | 2654 | 1 | 0.030 | | | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 435391 | 1 | 0.689 | | | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 162139 | 1 | 0.766 | | | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 180882417 | 1 | 763.213 | HIGH | | 0.25 | mg/L | | | | | |
| | A581285 14-Jan-02 23:29 | | | | | | | | | | | | | |
| G300.1 | 367 | F | 441950 | 1 | 1.082 | 1.1 | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 36736307 | 1 | 104.642 | HIGH | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 1 | 0.006 | | | 0.050 | mg/L | | | | | |
| | 192 | Br | 0 | 1 | 0.005 | | | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 524508 | 1 | 0.830 | | | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 77824 | 1 | 0.373 | | | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 206988159 | 1 | 873.207 | HIGH | | 0.25 | mg/L | | | | | |
| | A581286 14-Jan-02 23:47 | | | | | | | | | | | | | |
| G300.1 | 367 | F | 378708 | 1 | 0.979 | 0.98 | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 50961734 | 1 | 144.932 | HIGH | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 18005 | 1 | 0.038 | | | 0.050 | mg/L | | | | | |
| | 192 | Br | 0 | 1 | 0.005 | | | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 302999 | 1 | 0.481 | | | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 112204 | 1 | 0.533 | | | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 154283496 | 1 | 651.140 | HIGH | | 0.25 | mg/L | | | | | |
| | A581287 15-Jan-02 00:05 | | | | | | | | | | | | | |
| G300.1 | 367 | F | 370595 | 1 | 0.959 | 0.96 | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 51788912 | 1 | 147.275 | HIGH | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 6863 | 1 | 0.019 | | | 0.050 | mg/L | | | | | |
| | 192 | Br | 17957 | 1 | 0.175 | | | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 250590 | 1 | 0.399 | | | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 96767 | 1 | 0.461 | | | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 144929953 | 1 | 611.730 | HIGH | | 0.25 | mg/L | | | | | |
| | CCV L 15-Jan-02 00:23 | | | | | | | | | | | | | |
| | 367 | F | 185451 | 1 | 0.486 | 0.486 | | 0.10 | mg/L | | 0.5 | 97.2 | | |
| | 223 | Cl | 318156 | 1 | 1.206 | 1.21 | | 0.25 | mg/L | | 1.25 | 96.8 | | |
| | 507 | $NO_2$ | 269082 | 1 | 0.484 | 0.484 | | 0.050 | mg/L | | 0.5 | 96.8 | | |
| | 192 | Br | 55513 | 1 | 0.531 | 0.531 | | 0.050 | mg/L | | 0.5 | 106.2 | | |
| | 508 | $NO_3$ | 305868 | 1 | 0.486 | 0.486 | | 0.050 | mg/L | | 0.5 | 97.2 | | |
| | 539 | $HPO_4$ | 130047 | 1 | 0.616 | 0.616 | | 0.050 | mg/L | | 0.5 | 123.2 | | * |
| | 681 | $SO_4$ | 465434 | 1 | 2.438 | 2.44 | | 0.25 | mg/L | | 2.5 | 97.6 | | |

| TestID | Sample | Parm | Area | Dil'n | Conc. | Result | RQL | DL | Units | Samp | Spike | Rec | RPD | # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CCV H 15-Jan-02 00:42 | | | | | | | | | | | | | |
| | 367 | F | 2220935 | 1 | 4.838 | 4.84 | | 0.10 | mg/L | | 5 | 96.8 | | |
| | 223 | Cl | 3986392 | 1 | 11.884 | 11.9 | | 0.25 | mg/L | | 12.5 | 95.2 | | |
| | 507 | $NO_2$ | 3090839 | 1 | 4.858 | 4.86 | | 0.050 | mg/L | | 5 | 97.2 | | |
| | 192 | Br | 559419 | 1 | 4.695 | 4.70 | | 0.050 | mg/L | | 5 | 94.0 | | |
| | 508 | $NO_3$ | 3604668 | 1 | 4.697 | 4.70 | | 0.050 | mg/L | | 5 | 94.0 | | |
| | 539 | $HPO_4$ | 1192545 | 1 | 4.688 | 4.69 | | 0.050 | mg/L | | 5 | 93.8 | | |
| | 681 | $SO_4$ | 5351790 | 1 | 23.630 | 23.6 | | 0.25 | mg/L | | 25 | 94.4 | | |
| 1\375 | BLA01 15-Jan-02 01:00 | | | | | | | | | | | | | |
| | 367 | F | 0 | 1 | 0.013 | | BDL | 0.10 | mg/L | | | | | |
| | 223 | Cl | 0 | 1 | 0.023 | | BDL | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 1 | 0.006 | | BDL | 0.050 | mg/L | | | | | |
| | 192 | Br | 0 | 1 | 0.005 | | BDL | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 0 | 1 | 0.004 | | BDL | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 3464 | 1 | 0.027 | 0.027 | J | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 0 | 1 | 0.019 | | BDL | 0.25 | mg/L | | | | | |

Run Number R426414

File Number 02-0115

# ION CHROMATOGRAPHY

Instrument # 268

Analyst JMM 1663

Start Date 15-Jan-02

Start Time 14:41

End Date 16-Jan-02

End Time 1:46

Reviewed By CW/LMB

Date 1-16-02

Recorded By KLB

Date 1-17-02

JMM 1.17.02

| TestID | Sample | Parm | Area | Dil'n | Conc. | Result | RQL | DL | Units | Samp | Spike | Rec | RPD | # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1\416 | **BLA01 15-Jan-02 14:41** | | | | | | | | | | | | | |
| | 367 | F | 0 | 1 | 0.013 | | BDL | 0.10 | mg/L | | | | | |
| | 223 | Cl | 0 | 1 | 0.023 | | BDL | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 1 | 0.006 | | BDL | 0.050 | mg/L | | | | | |
| | 192 | Br | 0 | 1 | 0.005 | | BDL | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 0 | 1 | 0.004 | | BDL | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 0 | 1 | 0.010 | | BDL | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 0 | 1 | 0.019 | | BDL | 0.25 | mg/L | | | | | |
| | **CCV L 15-Jan-02 14:59** | | | | | | | | | | | | | |
| | 367 | F | 188069 | 1 | 0.493 | 0.493 | | 0.10 | mg/L | | 0.5 | 98.6 | | |
| | 223 | Cl | 319639 | 1 | 1.212 | 1.21 | | 0.25 | mg/L | | 1.25 | 96.8 | | |
| | 507 | $NO_2$ | 273854 | 1 | 0.492 | 0.492 | | 0.050 | mg/L | | 0.5 | 98.4 | | |
| | 192 | Br | 51457 | 1 | 0.492 | 0.492 | | 0.050 | mg/L | | 0.5 | 98.4 | | |
| | 508 | $NO_3$ | 302814 | 1 | 0.481 | 0.481 | | 0.050 | mg/L | | 0.5 | 96.2 | | |
| | 539 | $HPO_4$ | 112095 | 1 | 0.533 | 0.533 | | 0.050 | mg/L | | 0.5 | 106.6 | | |
| | 681 | $SO_4$ | 469795 | 1 | 2.461 | 2.46 | | 0.25 | mg/L | | 2.5 | 98.4 | | |
| | **CCV H 15-Jan-02 15:22** | | | | | | | | | | | | | |
| | 367 | F | 2181852 | 1 | 4.755 | 4.76 | | 0.10 | mg/L | | 5 | 95.2 | | |
| | 223 | Cl | 3900063 | 1 | 11.639 | 11.6 | | 0.25 | mg/L | | 12.5 | 92.8 | | |
| | 507 | $NO_2$ | 3061632 | 1 | 4.813 | 4.81 | | 0.050 | mg/L | | 5 | 96.2 | | |
| | 192 | Br | 558732 | 1 | 4.689 | 4.69 | | 0.050 | mg/L | | 5 | 93.8 | | |
| | 508 | $NO_3$ | 3543377 | 1 | 4.621 | 4.62 | | 0.050 | mg/L | | 5 | 92.4 | | |
| | 539 | $HPO_4$ | 1152784 | 1 | 4.539 | 4.54 | | 0.050 | mg/L | | 5 | 90.8 | | |
| | 681 | $SO_4$ | 5234526 | 1 | 23.136 | 23.1 | | 0.25 | mg/L | | 25 | 92.4 | | |
| 1\416 | **LFB01 SPI 15-Jan-02 15:40** | | | | | | | | | | | | | |
| | 367 | F | 397509 | 1 | 0.988 | | | 0.10 | mg/L | | 1 | | | |
| | 223 | Cl | 669094 | 1 | 2.488 | 2.49 | | 0.25 | mg/L | | 2.5 | 99.6 | | |
| | 507 | $NO_2$ | 559347 | 1 | 0.998 | | | 0.050 | mg/L | | 1 | | | |
| G | 192 | Br | 105410 | 1 | 1.005 | 1.01 | | 0.050 | mg/L | | 1 | 101.0 | | |
| G | 508 | $NO_3$ | 630991 | 1 | 0.997 | 0.997 | | 0.050 | mg/L | | 1 | 99.7 | | |
| | 539 | $HPO_4$ | 229460 | 1 | 1.071 | | | 0.050 | mg/L | | 1 | | | |
| G | 681 | $SO_4$ | 944504 | 1 | 4.929 | 4.93 | | 0.25 | mg/L | | 5 | 98.6 | | |
| | **R1 A581361 15-Jan-02 16:07** | | | | | | | | | | | | | |
| | 367 | F | 261894 | 1 | 0.681 | | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 20503415 | 1 | 58.665 | HIGH | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 1 | 0.006 | | | 0.050 | mg/L | | | | | |
| | 192 | Br | 5608 | 1 | 0.058 | | | 0.050 | mg/L | | | | | |
| G310.5 | 508 | $NO_3$ | 0 | 1 | 0.004 | | BDL | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 0 | 1 | 0.010 | | | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 45851422 | 1 | 194.272 | HIGH | | 0.25 | mg/L | | | | | |
| | **R1 A581362 15-Jan-02 16:25** | | | | | | | | | | | | | |
| | 367 | F | 155834 | 1 | 0.411 | | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 16850399 | 1 | 48.319 | HIGH | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 1 | 0.006 | | | 0.050 | mg/L | | | | | |
| | 192 | Br | 32610 | 1 | 0.314 | | | 0.050 | mg/L | | | | | |
| G310.5 | 508 | $NO_3$ | 0 | 1 | 0.004 | | BDL | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 2021 | 1 | 0.020 | | | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 143681713 | 1 | 606.471 | HIGH | | 0.25 | mg/L | | | | | |
| 416 | **SPI01 R1 A581362 15-Jan-02 16:43** | | | | | | | | | | | | | |
| | 367 | F | 517857 | 1 | 1.242 | | | 0.10 | mg/L | | 1 | | | |
| | 223 | Cl | 15986488 | 1 | 45.872 | HIGH | | 0.25 | mg/L | | 2.5 | | | |
| | 507 | $NO_2$ | 528868 | 1 | 0.944 | | | 0.050 | mg/L | | 1 | | | |
| | 192 | Br | 135881 | 1 | 1.252 | | | 0.050 | mg/L | | 1 | | | |
| G | 508 | $NO_3$ | 618687 | 1 | 0.978 | 0.978 | | 0.050 | mg/L | 0 | 1 | 97.8 | | |
| | 539 | $HPO_4$ | 20961 | 1 | 0.108 | | | 0.050 | mg/L | | 1 | | | |
| | 681 | $SO_4$ | 130595285 | 1 | 551.332 | HIGH | | 0.25 | mg/L | | 5 | | | |

| TestID | Sample | Parm | Area | Dil'n | Conc. | Result | RQL | DL | Units | Samp | Spike | Rec | RPD | # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **CCV L 15-Jan-02 19:08** | | | | | | | | | | | | | |
| | 367 | F | 184149 | 1 | 0.483 | 0.483 | | 0.10 | mg/L | | 0.5 | 96.6 | | |
| | 223 | Cl | 318400 | 1 | 1.207 | 1.21 | | 0.25 | mg/L | | 1.25 | 96.8 | | |
| | 507 | $NO_2$ | 273580 | 1 | 0.491 | 0.491 | | 0.050 | mg/L | | 0.5 | 98.2 | | |
| | 192 | Br | 54466 | 1 | 0.521 | 0.521 | | 0.050 | mg/L | | 0.5 | 104.2 | | |
| | 508 | $NO_3$ | 301781 | 1 | 0.479 | 0.479 | | 0.050 | mg/L | | 0.5 | 95.8 | | |
| | 539 | $HPO_4$ | 118224 | 1 | 0.561 | 0.561 | | 0.050 | mg/L | | 0.5 | 112.2 | | * |
| | 681 | $SO_4$ | 465762 | 1 | 2.440 | 2.44 | | 0.25 | mg/L | | 2.5 | 97.6 | | |
| | **CCV H 15-Jan-02 19:26** | | | | | | | | | | | | | |
| | 367 | F | 2202200 | 1 | 4.798 | 4.80 | | 0.10 | mg/L | | 5 | 96.0 | | |
| | 223 | Cl | 3955832 | 1 | 11.797 | 11.8 | | 0.25 | mg/L | | 12.5 | 94.4 | | |
| | 507 | $NO_2$ | 3096704 | 1 | 4.867 | 4.87 | | 0.050 | mg/L | | 5 | 97.4 | | |
| | 192 | Br | 566244 | 1 | 4.750 | 4.75 | | 0.050 | mg/L | | 5 | 95.0 | | |
| | 508 | $NO_3$ | 3599739 | 1 | 4.691 | 4.69 | | 0.050 | mg/L | | 5 | 93.8 | | |
| | 539 | $HPO_4$ | 1159899 | 1 | 4.566 | 4.57 | | 0.050 | mg/L | | 5 | 91.4 | | |
| | 681 | $SO_4$ | 5279507 | 1 | 23.326 | 23.3 | | 0.25 | mg/L | | 25 | 93.2 | | |
| 1416 | **BLA01 15-Jan-02 19:44** | | | | | | | | | | | | | |
| | 367 | F | 0 | 1 | 0.013 | | BDL | 0.10 | mg/L | | | | | |
| | 223 | Cl | 2810 | 1 | 0.033 | | BDL | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 1 | 0.006 | | BDL | 0.050 | mg/L | | | | | |
| | 192 | Br | 0 | 1 | 0.005 | | BDL | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 0 | 1 | 0.004 | | BDL | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 3387 | 1 | 0.026 | 0.026 | J | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 0 | 1 | 0.019 | | BDL | 0.25 | mg/L | | | | | |
| | **R1 A581369 15-Jan-02 20:02** | | | | | | | | | | | | | |
| | 367 | F | 87342 | 1 | 0.236 | | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 14471599 | 1 | 41.581 | HIGH | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 1 | 0.006 | | | 0.050 | mg/L | | | | | |
| | 192 | Br | 71725 | 1 | 0.684 | | | 0.050 | mg/L | | | | | |
| G310.5 | 508 | $NO_3$ | 38855 | 1 | 0.066 | 0.066 | | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 3917 | 1 | 0.029 | | | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 229327159 | 1 | 967.330 | HIGH | | 0.25 | mg/L | | | | | |
| | **A581218 15-Jan-02 20:20** | | | | | | | | | | | | | |
| | 367 | F | 235991 | 1 | 0.615 | | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 60060693 | 1 | 170.704 | HIGH | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 1 | 0.006 | | | 0.050 | mg/L | | | | | |
| G300.4 | 192 | Br | 50982 | 1 | 0.488 | 0.49 | | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 739474 | 1 | 1.142 | | | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 3442 | 1 | 0.026 | | | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 11519090 | 1 | 49.615 | | | 0.25 | mg/L | | | | | |
| 375 | **SPI01 A581218 15-Jan-02 20:38** | | | | | | | | | | | | | |
| | 367 | F | 640060 | 1 | 1.500 | | | 0.10 | mg/L | | 1 | | | |
| | 223 | Cl | 54247947 | 1 | 154.240 | HIGH | | 0.25 | mg/L | | 2.5 | | | |
| | 507 | $NO_2$ | 564728 | 1 | 0.986 | | | 0.050 | mg/L | | 1 | | | |
| G | 192 | Br | 155332 | 1 | 1.410 | 1.41 | | 0.050 | mg/L | 0.439 | 1 | 97.1 | | |
| | 508 | $NO_3$ | 1394953 | 1 | 1.955 | | | 0.050 | mg/L | | 1 | | | |
| | 539 | $HPO_4$ | 210813 | 1 | 1.001 | | | 0.050 | mg/L | | 1 | | | |
| | 681 | $SO_4$ | 11508680 | 1 | 49.572 | | | 0.25 | mg/L | | 5 | | | |
| 375 | **DPS01 A581218 15-Jan-02 20:56** | | | | | | | | | | | | | |
| | 367 | F | 626370 | 1 | 1.471 | | | 0.10 | mg/L | | 1 | | | |
| | 223 | Cl | 54666226 | 1 | 155.425 | HIGH | | 0.25 | mg/L | | 2.5 | | | |
| | 507 | $NO_2$ | 531867 | 1 | 0.949 | | | 0.050 | mg/L | | 1 | | | |
| G | 192 | Br | 150737 | 1 | 1.373 | 1.37 | | 0.050 | mg/L | 0.439 | 1 | 93.1 | 4.2 | |
| | 508 | $NO_3$ | 1365197 | 1 | 1.918 | | | 0.050 | mg/L | | 1 | | | |
| | 539 | $HPO_4$ | 203377 | 1 | 0.958 | | | 0.050 | mg/L | | 1 | | | |
| | 681 | $SO_4$ | 11492039 | 1 | 49.502 | | | 0.25 | mg/L | | 5 | | | |

| TestID | Sample | Parm | Area | Dil'n | Conc. | Result | RQL | DL | Units | Samp | Spike | Rec | RPD | # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A581283 1:10 15-Jan-02 21:15 | | | | | | | | | | | | | |
| | 367 | F | 46612 | 10 | 1.318 | | | 1.0 | mg/L | | | | | |
| G300.2 | 223 | Cl | 3852463 | 10 | 115.044 | 120 | | 2.5 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 10 | 0.065 | | | 0.50 | mg/L | | | | | |
| | 192 | Br | 0 | 10 | 0.052 | | | 0.50 | mg/L | | | | | |
| | 508 | $NO_3$ | 22639 | 10 | 0.401 | | | 0.50 | mg/L | | | | | |
| | 539 | $HPO_4$ | 15442 | 10 | 0.823 | | | 0.50 | mg/L | | | | | |
| G300.7 | 681 | $SO_4$ | 9009089 | 10 | 390.398 | 390 | | 2.5 | mg/L | | | | | |
| 375 | SPI01 A581283 1:10 15-Jan-02 21:33 | | | | | | | | | | | | | |
| | 367 | F | 426423 | 10 | 10.489 | | | 1.0 | mg/L | | 10 | | | |
| G | 223 | Cl | 4345638 | 10 | 129.012 | 129. | | 2.5 | mg/L | 104 | 25 | 100.0 | | |
| | 507 | $NO_2$ | 545642 | 10 | 9.738 | | | 0.50 | mg/L | | 10 | | | |
| | 192 | Br | 108832 | 10 | 10.323 | | | 0.50 | mg/L | | 10 | | | |
| | 508 | $NO_3$ | 637142 | 10 | 10.149 | | | 0.50 | mg/L | | 10 | | | |
| | 539 | $HPO_4$ | 202214 | 10 | 9.527 | | | 0.50 | mg/L | | 10 | | | |
| G | 681 | $SO_4$ | 9264689 | 10 | 401.168 | 401. | | 2.5 | mg/L | 351 | 50 | 100.0 | | |
| 3A | DPS01 A581283 1:10 15-Jan-02 21:51 | | | | | | | | | | | | | |
| | 367 | F | 438096 | 10 | 10.735 | | | 1.0 | mg/L | | 10 | | | |
| G | 223 | Cl | 4353029 | 10 | 129.221 | 129. | | 2.5 | mg/L | 104 | 25 | 100.0 | 0 | |
| | 507 | $NO_2$ | 562604 | 10 | 10.039 | | | 0.50 | mg/L | | 10 | | | |
| | 192 | Br | 111153 | 10 | 10.512 | | | 0.50 | mg/L | | 10 | | | |
| | 508 | $NO_3$ | 652261 | 10 | 10.337 | | | 0.50 | mg/L | | 10 | | | |
| | 539 | $HPO_4$ | 217010 | 10 | 10.238 | | | 0.50 | mg/L | | 10 | | | |
| G | 681 | $SO_4$ | 9307576 | 10 | 402.975 | 403. | | 2.5 | mg/L | 351 | 50 | 104.0 | 3.9 | |
| | A581284 1:25 15-Jan-02 22:09 | | | | | | | | | | | | | |
| | 367 | F | 13279 | 25 | 1.167 | | | 2.5 | mg/L | | | | | |
| G300.2 | 223 | Cl | 918242 | 25 | 79.844 | 80. | | 6.3 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 25 | 0.162 | | | 1.3 | mg/L | | | | | |
| | 192 | Br | 0 | 25 | 0.131 | | | 1.3 | mg/L | | | | | |
| | 508 | $NO_3$ | 16150 | 25 | 0.746 | | | 1.3 | mg/L | | | | | |
| | 539 | $HPO_4$ | 12003 | 25 | 1.658 | | | 1.3 | mg/L | | | | | |
| G300.7 | 681 | $SO_4$ | 5511940 | 25 | 607.623 | 610 | | 6.3 | mg/L | | | | | |
| | A581285 1:25 15-Jan-02 22:27 | | | | | | | | | | | | | |
| | 367 | F | 17255 | 25 | 1.421 | | | 2.5 | mg/L | | | | | |
| G300.2 | 223 | Cl | 1059033 | 25 | 89.813 | 90. | | 6.3 | mg/L | | | | | |
| | 507 | $NO_2$ | 1530 | 25 | 0.229 | | | 1.3 | mg/L | | | | | |
| | 192 | Br | 0 | 25 | 0.131 | | | 1.3 | mg/L | | | | | |
| | 508 | $NO_3$ | 23498 | 25 | 1.035 | | | 1.3 | mg/L | | | | | |
| | 539 | $HPO_4$ | 6744 | 25 | 1.045 | | | 1.3 | mg/L | | | | | |
| G300.7 | 681 | $SO_4$ | 6513899 | 25 | 713.164 | 710 | | 6.3 | mg/L | | | | | |
| | A581286 1:25 15-Jan-02 22:45 | | | | | | | | | | | | | |
| | 367 | F | 14843 | 25 | 1.267 | | | 2.5 | mg/L | | | | | |
| G300.2 | 223 | Cl | 1535031 | 25 | 123.517 | 120 | | 6.3 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 25 | 0.162 | | | 1.3 | mg/L | | | | | |
| | 192 | Br | 0 | 25 | 0.131 | | | 1.3 | mg/L | | | | | |
| | 508 | $NO_3$ | 10844 | 25 | 0.538 | | | 1.3 | mg/L | | | | | |
| | 539 | $HPO_4$ | 4997 | 25 | 0.841 | | | 1.3 | mg/L | | | | | |
| G300.7 | 681 | $SO_4$ | 4780455 | 25 | 530.572 | 530 | | 6.3 | mg/L | | | | | |
| | CCV L 15-Jan-02 23:03 | | | | | | | | | | | | | |
| | 367 | F | 189877 | 1 | 0.497 | 0.497 | | 0.10 | mg/L | | 0.5 | 99.4 | | |
| | 223 | Cl | 314723 | 1 | 1.193 | 1.19 | | 0.25 | mg/L | | 1.25 | 95.2 | | |
| | 507 | $NO_2$ | 268727 | 1 | 0.483 | 0.483 | | 0.050 | mg/L | | 0.5 | 96.6 | | |
| | 192 | Br | 51503 | 1 | 0.493 | 0.493 | | 0.050 | mg/L | | 0.5 | 98.6 | | |
| | 508 | $NO_3$ | 309518 | 1 | 0.491 | 0.491 | | 0.050 | mg/L | | 0.5 | 98.2 | | |
| | 539 | $HPO_4$ | 109591 | 1 | 0.521 | 0.521 | | 0.050 | mg/L | | 0.5 | 104.2 | | |
| | 681 | $SO_4$ | 449925 | 1 | 2.358 | 2.36 | | 0.25 | mg/L | | 2.5 | 94.4 | | |

| TestID | Sample | Parm | Area | Dil'n | Conc. | Result | RQL | DL | Units | Samp | Spike | Rec | RPD | # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **CCV H 15-Jan-02 23:21** | | | | | | | | | | | | | |
| | 367 | F | 2228374 | 1 | 4.853 | 4.85 | | 0.10 | mg/L | | 5 | 97.0 | | |
| | 223 | Cl | 3980286 | 1 | 11.866 | 11.9 | | 0.25 | mg/L | | 12.5 | 95.2 | | |
| | 507 | $NO_2$ | 3120710 | 1 | 4.903 | 4.90 | | 0.050 | mg/L | | 5 | 98.0 | | |
| | 192 | Br | 563110 | 1 | 4.725 | 4.73 | | 0.050 | mg/L | | 5 | 94.6 | | |
| | 508 | $NO_3$ | 3630513 | 1 | 4.729 | 4.73 | | 0.050 | mg/L | | 5 | 94.6 | | |
| | 539 | $HPO_4$ | 1180640 | 1 | 4.644 | 4.64 | | 0.050 | mg/L | | 5 | 92.8 | | |
| | 681 | $SO_4$ | 5336356 | 1 | 23.565 | 23.6 | | 0.25 | mg/L | | 25 | 94.4 | | |
| 1\375 | **BLA01 15-Jan-02 23:39** | | | | | | | | | | | | | |
| | 367 | F | 2261 | 1 | 0.019 | | BDL | 0.10 | mg/L | | | | | |
| | 223 | Cl | 0 | 1 | 0.023 | | BDL | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 1 | 0.006 | | BDL | 0.050 | mg/L | | | | | |
| | 192 | Br | 0 | 1 | 0.005 | | BDL | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 0 | 1 | 0.004 | | BDL | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 1757 | 1 | 0.019 | | BDL | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 0 | 1 | 0.019 | | BDL | 0.25 | mg/L | | | | | |
| | **A581287 1:25 15-Jan-02 23:58** | | | | | | | | | | | | | |
| | 367 | F | 13970 | 25 | 1.211 | | | 2.5 | mg/L | | | | | |
| G300.2 | 223 | Cl | 1514769 | 25 | 122.082 | 120 | | 6.3 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 25 | 0.162 | | | 1.3 | mg/L | | | | | |
| | 192 | Br | 2900 | 25 | 0.817 | | | 1.3 | mg/L | | | | | |
| | 508 | $NO_3$ | 6364 | 25 | 0.362 | | | 1.3 | mg/L | | | | | |
| | 539 | $HPO_4$ | 0 | 25 | 0.259 | | | 1.3 | mg/L | | | | | |
| G300.7 | 681 | $SO_4$ | 4337338 | 25 | 483.896 | 480 | | 6.3 | mg/L | | | | | |
| | **A581334 1:10 16-Jan-02 00:16** | | | | | | | | | | | | | |
| | 367 | F | 127958 | 10 | 3.394 | | | 1.0 | mg/L | | | | | |
| G300.2 | 223 | Cl | 740282 | 10 | 26.897 | 27. | | 2.5 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 10 | 0.065 | | | 0.50 | mg/L | | | | | |
| | 192 | Br | 2620 | 10 | 0.300 | | | 0.50 | mg/L | | | | | |
| | 508 | $NO_3$ | 0 | 10 | 0.045 | | | 0.50 | mg/L | | | | | |
| | 539 | $HPO_4$ | 0 | 10 | 0.104 | | | 0.50 | mg/L | | | | | |
| | 681 | $SO_4$ | 534803 | 10 | 27.990 | | | 2.5 | mg/L | | | | | |
| | **A581335 1:10 16-Jan-02 00:34** | | | | | | | | | | | | | |
| | 367 | F | 123709 | 10 | 3.285 | | | 1.0 | mg/L | | | | | |
| G300.2 | 223 | Cl | 1582675 | 10 | 50.756 | 51. | | 2.5 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 10 | 0.065 | | | 0.50 | mg/L | | | | | |
| | 192 | Br | 0 | 10 | 0.052 | | | 0.50 | mg/L | | | | | |
| | 508 | $NO_3$ | 5367 | 10 | 0.129 | | | 0.50 | mg/L | | | | | |
| | 539 | $HPO_4$ | 4439 | 10 | 0.311 | | | 0.50 | mg/L | | | | | |
| | 681 | $SO_4$ | 521951 | 10 | 27.322 | | | 2.5 | mg/L | | | | | |
| | **A581336 1:10 16-Jan-02 00:52** | | | | | | | | | | | | | |
| | 367 | F | 105257 | 10 | 2.814 | | | 1.0 | mg/L | | | | | |
| G300.2 | 223 | Cl | 2502521 | 10 | 76.809 | 77. | | 2.5 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 10 | 0.065 | | | 0.50 | mg/L | | | | | |
| | 192 | Br | 3748 | 10 | 0.407 | | | 0.50 | mg/L | | | | | |
| | 508 | $NO_3$ | 0 | 10 | 0.045 | | | 0.50 | mg/L | | | | | |
| | 539 | $HPO_4$ | 0 | 10 | 0.104 | | | 0.50 | mg/L | | | | | |
| | 681 | $SO_4$ | 431506 | 10 | 22.621 | | | 2.5 | mg/L | | | | | |
| | **CCV L 16-Jan-02 01:10** | | | | | | | | | | | | | |
| | 367 | F | 189345 | 1 | 0.496 | 0.496 | | 0.10 | mg/L | | 0.5 | 99.2 | | |
| | 223 | Cl | 318649 | 1 | 1.208 | 1.21 | | 0.25 | mg/L | | 1.25 | 96.8 | | |
| | 507 | $NO_2$ | 267435 | 1 | 0.481 | 0.481 | | 0.050 | mg/L | | 0.5 | 96.2 | | |
| | 192 | Br | 56766 | 1 | 0.542 | 0.542 | | 0.050 | mg/L | | 0.5 | 108.4 | | |
| | 508 | $NO_3$ | 313169 | 1 | 0.497 | 0.497 | | 0.050 | mg/L | | 0.5 | 99.4 | | |
| | 539 | $HPO_4$ | 103075 | 1 | 0.491 | 0.491 | | 0.050 | mg/L | | 0.5 | 98.2 | | |
| | 681 | $SO_4$ | 476702 | 1 | 2.497 | 2.50 | | 0.25 | mg/L | | 2.5 | 100.0 | | |

# Sample Analysis Report

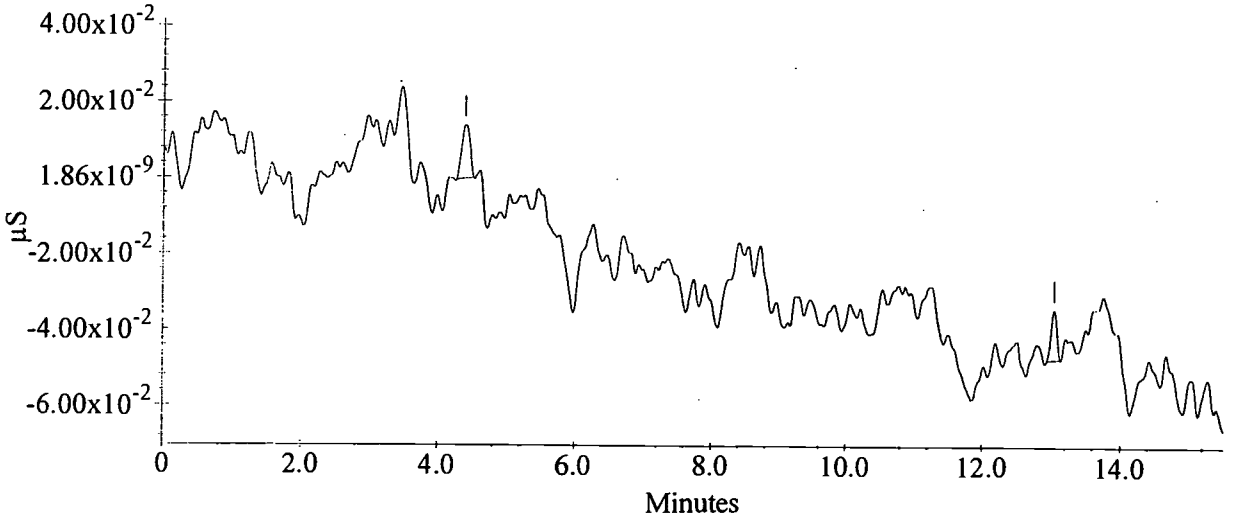
**Sample Name : BLA01**
**Data File Name : C:\PeakNet51\data\01140201\DATA_001.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 2:37:45 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | | 4.40 | 0.00 | 1161 | 139 |
| 2 | | 13.04 | 0.00 | 752 | 132 |

*BLA01*



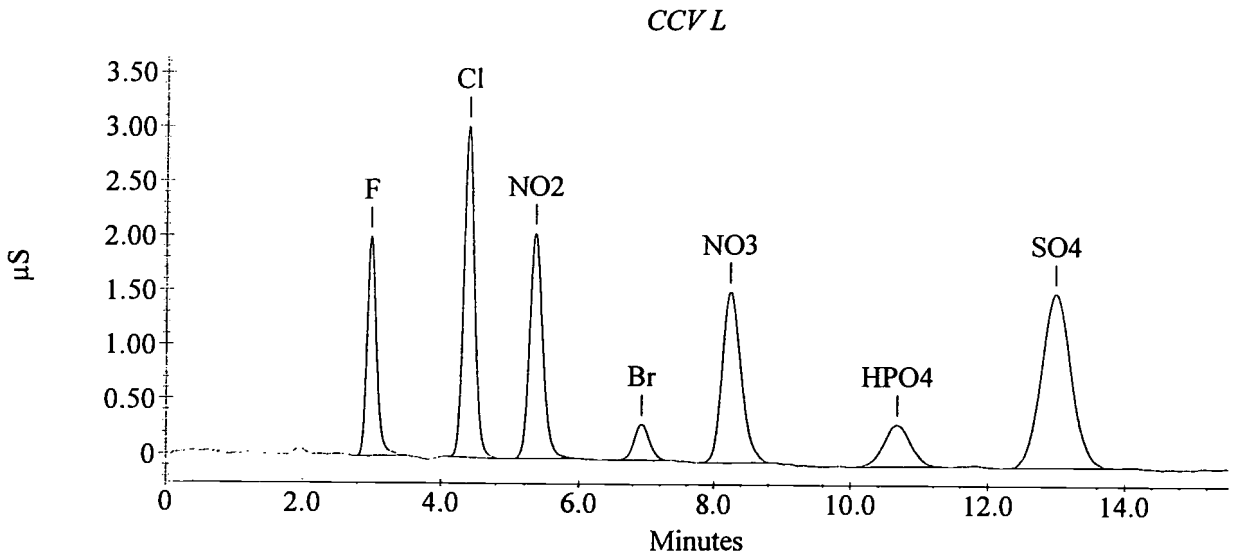
# Sample Analysis Report

**Sample Name : CCV L**
**Data File Name : C:\PeakNet51\data\01140201\DATA_002.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 2:56:01 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 2.99 | 0.44 | 186832 | 20048 |
| 2 | Cl | 4.39 | 1.32 | 324437 | 30336 |
| 3 | NO2 | 5.36 | 0.50 | 271544 | 20575 |
| 4 | Br | 6.92 | 0.52 | 52104 | 3256 |
| 5 | NO3 | 8.24 | 0.51 | 307032 | 15589 |
| 6 | HPO4 | 10.67 | 0.52 | 102915 | 3780 |
| 7 | SO4 | 12.99 | 2.73 | 480278 | 15887 |



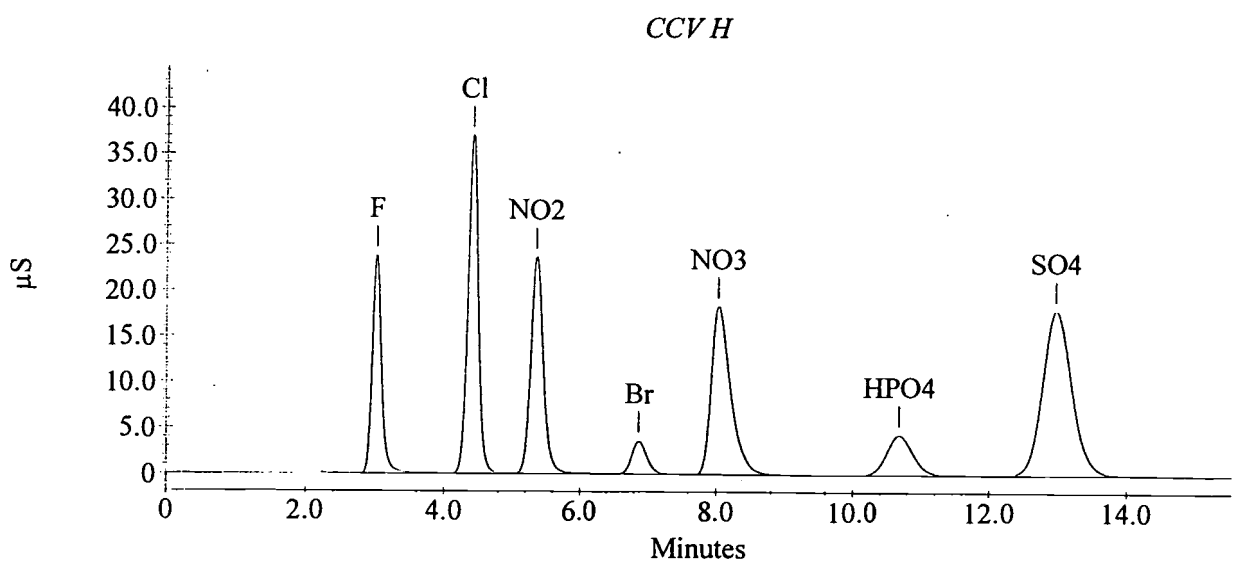
# Sample Analysis Report

**Sample Name : CCV H**
**Data File Name : C:\PeakNet51\data\01140201\DATA_003.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 3:18:24 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.02 | 4.77 | 2209555 | 237930 |
| 2 | Cl | 4.42 | 11.64 | 3930260 | 369235 |
| 3 | NO2 | 5.36 | 4.79 | 3056718 | 236195 |
| 4 | Br | 6.87 | 4.55 | 544461 | 35276 |
| 5 | NO3 | 8.03 | 4.79 | 3576225 | 182841 |
| 6 | HPO4 | 10.68 | 4.51 | 1152138 | 43387 |
| 7 | SO4 | 12.97 | 23.13 | 5271372 | 179667 |



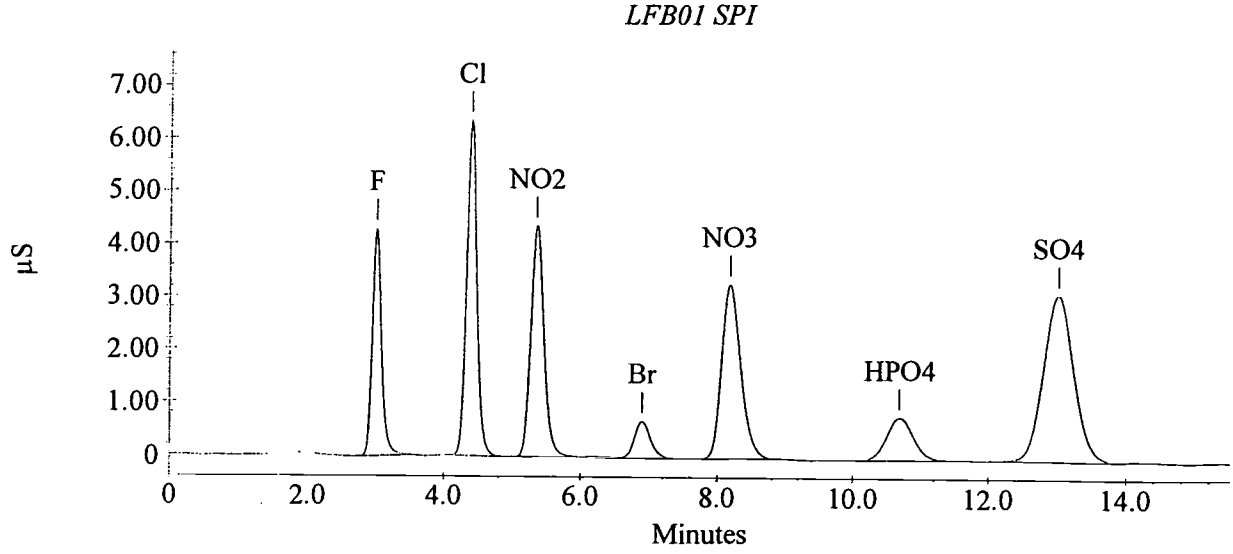
# Sample Analysis Report

**Sample Name : LFB01 SPI**
**Data File Name : C:\PeakNet51\data\01140201\DATA_004.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 4:01:22 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.00 | 0.90 | 397668 | 42831 |
| 2 | Cl | 4.39 | 2.31 | 673007 | 63184 |
| 3 | NO2 | 5.35 | 0.96 | 570048 | 43518 |
| 4 | Br | 6.90 | 1.02 | 113282 | 6894 |
| 5 | NO3 | 8.18 | 0.94 | 639512 | 32855 |
| 6 | HPO4 | 10.69 | 0.96 | 217252 | 7948 |
| 7 | SO4 | 13.01 | 4.73 | 950030 | 31338 |



# Sample Analysis Report

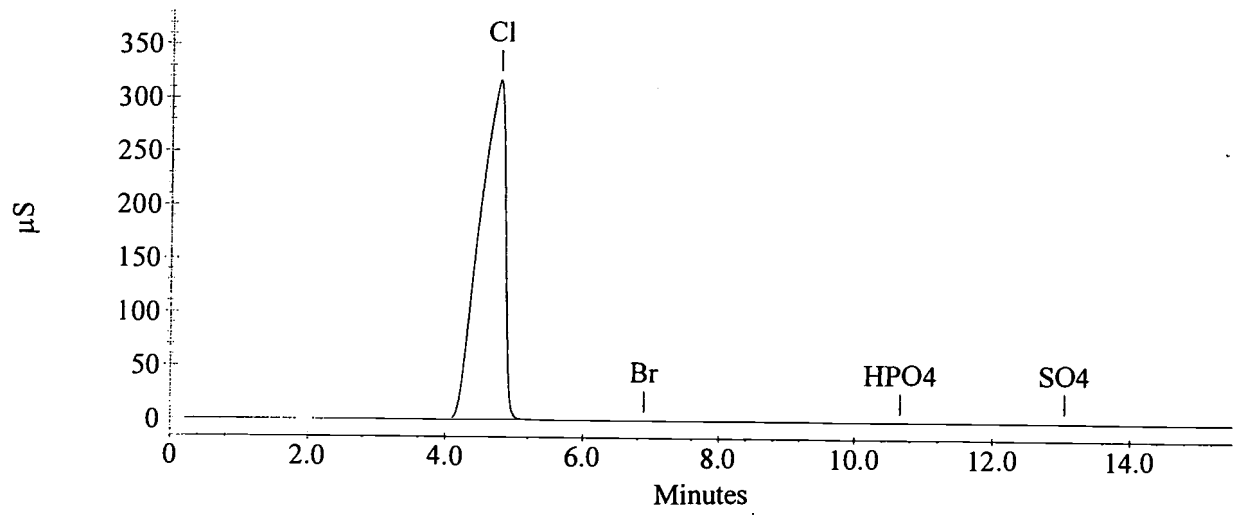
**Sample Name : A581214 1:100**
**Data File Name : C:\PeakNet51\data\01140201\DATA_005.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 4:23:45 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | Cl | 4.77 | 23100.73 | 80548411 | 3161914 |
| 2 | Br | 6.89 | 58.13 | 59042 | 3507 |
| 3 | HPO4 | 10.66 | 15.19 | 4849 | 216 |
| 4 | SO4 | 13.04 | 169.11 | 236665 | 7838 |

*A581214 1:100*



# Sample Analysis Report

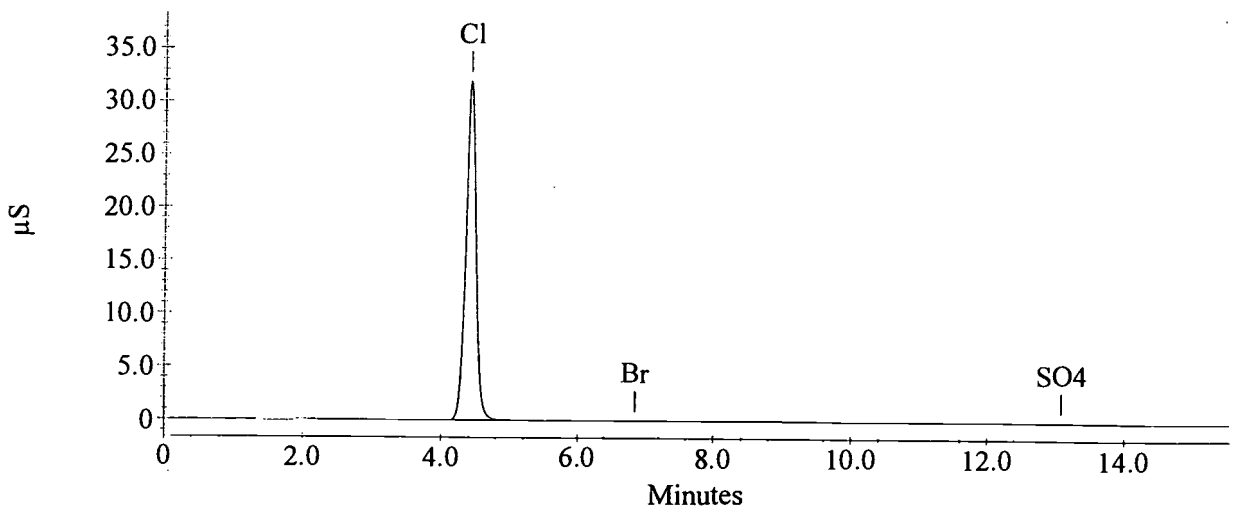
**Sample Name : A581214 1:2000**
**Data File Name : C:\PeakNet51\data\01140201\DATA_006.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 4:41:52 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | Cl | 4.42 | 19648.63 | 3295988 | 318226 |
| 2 | Br | 6.85 | 244.98 | 2952 | 226 |
| 3 | SO4 | 13.09 | 1441.36 | 8782 | 452 |

*A581214 1:2000*



# Sample Analysis Report

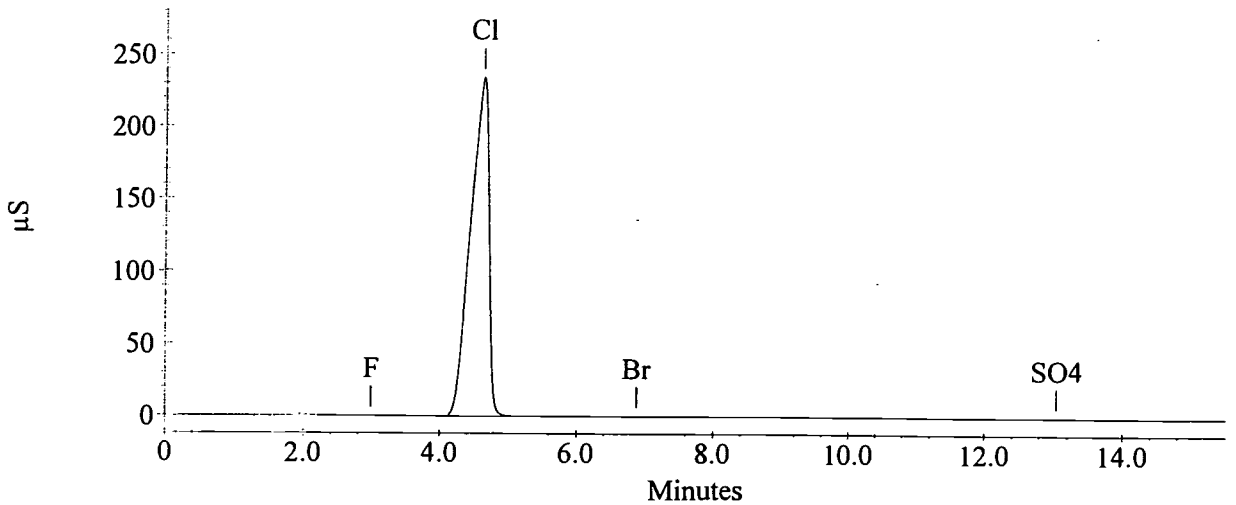
**Sample Name : A581215 1:50**
**Data File Name : C:\PeakNet51\data\01140201\DATA_007.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 5:00:02 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 2.99 | 2.64 | 3530 | 427 |
| 2 | Cl | 4.64 | 6367.77 | 44346024 | 2340119 |
| 3 | Br | 6.88 | 17.56 | 30919 | 1908 |
| 4 | SO4 | 13.05 | 58.45 | 114034 | 3740 |

*A581215 1:50*



# Sample Analysis Report

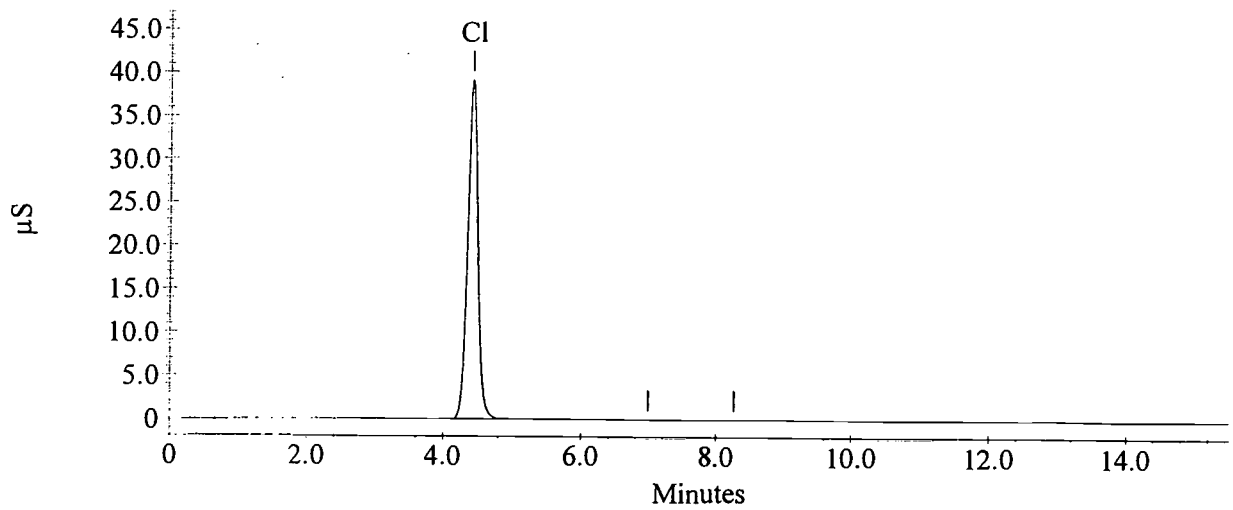
**Sample Name : A581215 1:500**
**Data File Name : C:\PeakNet51\data\01140201\DATA_008.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 5:18:07 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | Cl | 4.43 | 6012.60 | 4064690 | 391117 |
| 2 | | 6.99 | 0.00 | 3217 | 195 |
| 3 | | 8.26 | 0.00 | 1146 | 105 |

*A581215 1:500*



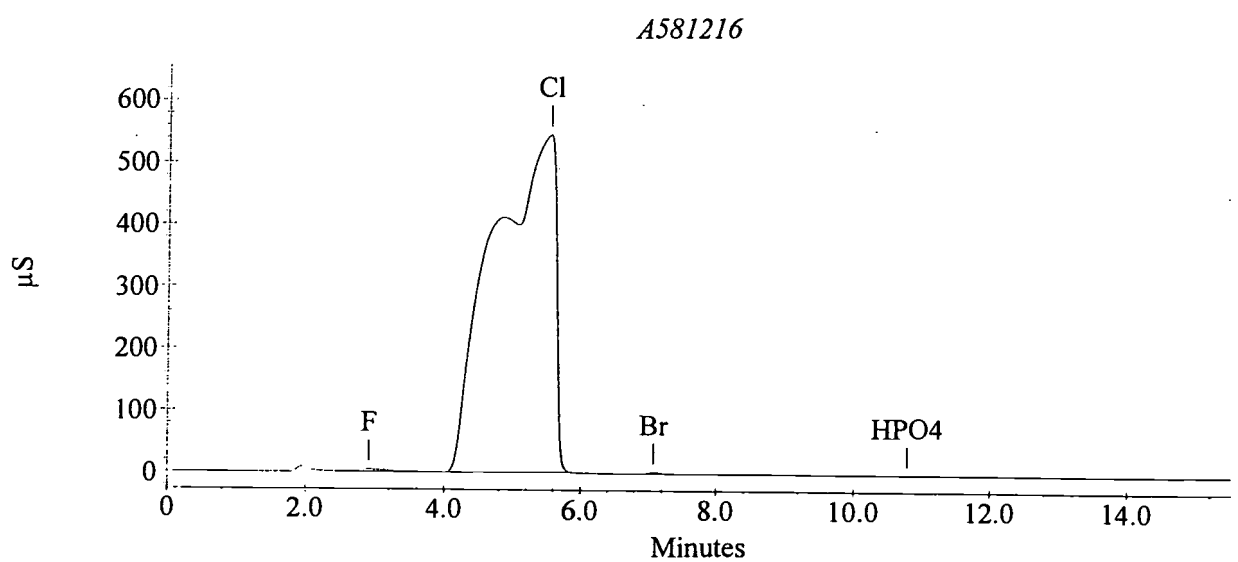
# Sample Analysis Report

**Sample Name : A581216**
**Data File Name : C:\PeakNet51\data\01140201\DATA_009.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 7:29:36 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 2.91 | 2.14 | 978662 | 42300 |
| 2 | Cl | 5.54 | 986.56 | 344438156 | 5436566 |
| 3 | Br | 7.08 | 2.97 | 350526 | 23671 |
| 4 | HPO4 | 10.78 | 0.17 | 10294 | 466 |



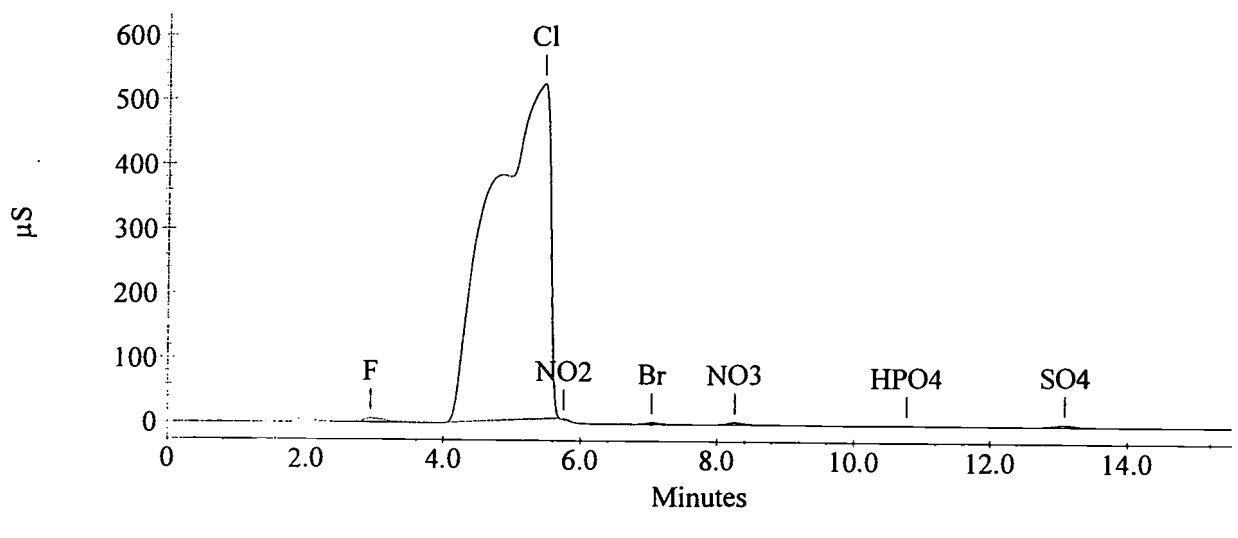
# Sample Analysis Report

**Sample Name : SPI01 A581216**
**Data File Name : C:\PeakNet51\data\01140201\DATA_010.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 7:47:45 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 2.93 | 2.84 | 1308605 | 59684 |
| 2 | Cl | 5.46 | 871.75 | 304341347 | 5188219 |
| 3 | NO2 | 5.76 | 0.26 | 117844 | 13614 |
| 4 | Br | 7.05 | 3.63 | 431367 | 29204 |
| 5 | NO3 | 8.26 | 0.97 | 657071 | 34850 |
| 6 | HPO4 | 10.77 | 1.00 | 227094 | 8584 |
| 7 | SO4 | 13.09 | 4.76 | 958052 | 31884 |



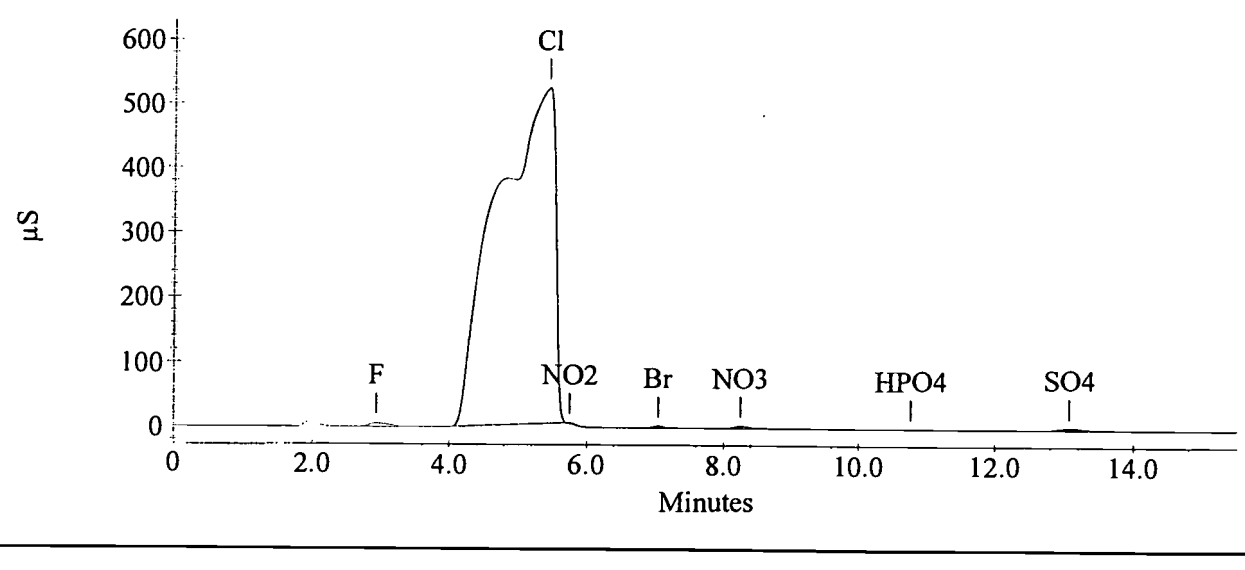
# Sample Analysis Report

**Sample Name : DPS01 A581216**
**Data File Name : C:\PeakNet51\data\01140201\DATA_011.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 8:05:49 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 2.93 | 2.86 | 1314975 | 60576 |
| 2 | Cl | 5.45 | 870.45 | 303884889 | 5187773 |
| 3 | NO2 | 5.76 | 0.26 | 116613 | 15251 |
| 4 | Br | 7.04 | 3.59 | 427163 | 29214 |
| 5 | NO3 | 8.25 | 0.97 | 656632 | 35349 |
| 6 | HPO4 | 10.77 | 1.01 | 229764 | 8683 |
| 7 | SO4 | 13.08 | 4.79 | 963399 | 32298 |



# Sample Analysis Report

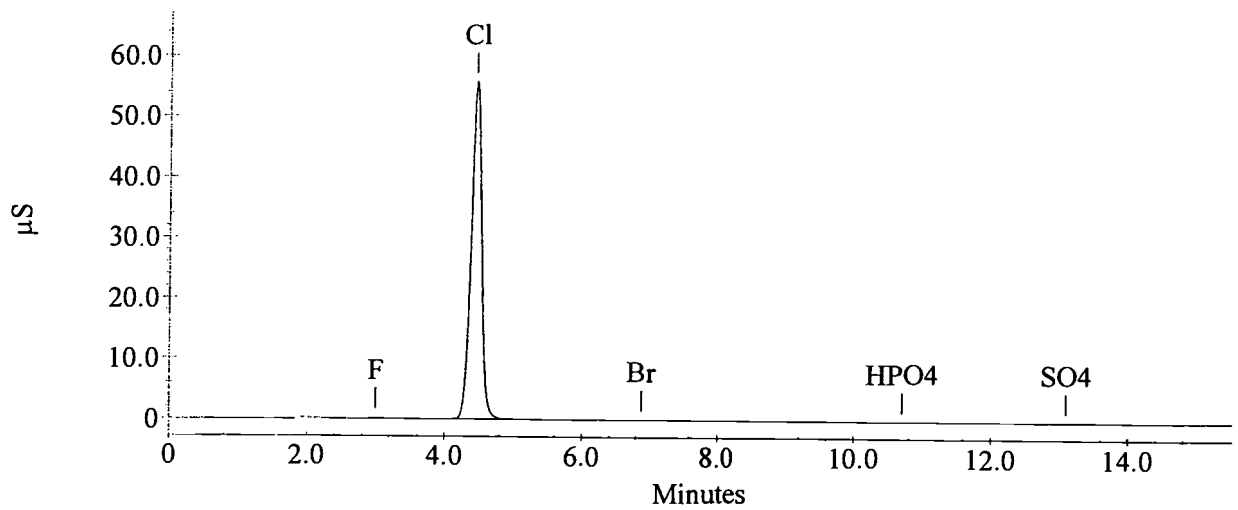
**Sample Name : A581216 1:50**
**Data File Name : C:\PeakNet51\data\01140201\DATA_012.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 6:30:29 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.00 | 4.33 | 19413 | 2110 |
| 2 | Cl | 4.45 | 859.65 | 5869641 | 557041 |
| 3 | Br | 6.88 | 7.11 | 5351 | 416 |
| 4 | HPO4 | 10.70 | 6.99 | 1652 | 215 |
| 5 | SO4 | 13.10 | 34.68 | 2430 | 114 |

*A581216 1:50*



# Sample Analysis Report

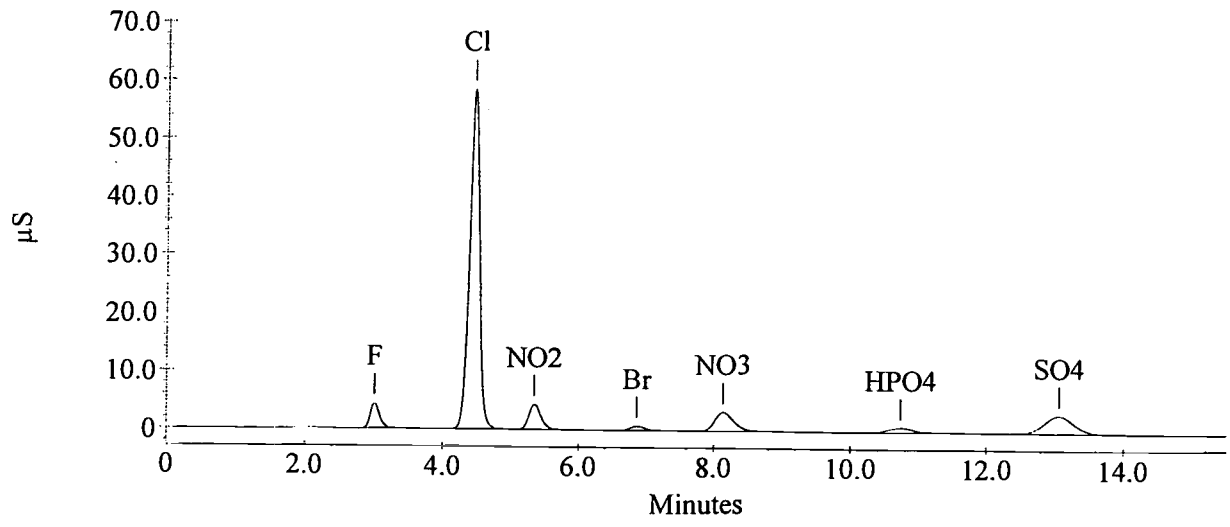
**Sample Name : SPI01 A581216 1:50**
**Data File Name : C:\PeakNet51\data\01140201\DATA_013.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 6:48:38 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.01 | 45.23 | 402089 | 42973 |
| 2 | Cl | 4.46 | 904.53 | 6183180 | 584453 |
| 3 | NO2 | 5.35 | 46.66 | 552806 | 43157 |
| 4 | Br | 6.87 | 51.99 | 115098 | 7225 |
| 5 | NO3 | 8.14 | 46.06 | 621751 | 32414 |
| 6 | HPO4 | 10.73 | 46.73 | 211123 | 7872 |
| 7 | SO4 | 13.06 | 231.83 | 928312 | 30677 |

*SPI01 A581216 1:50*



# Sample Analysis Report

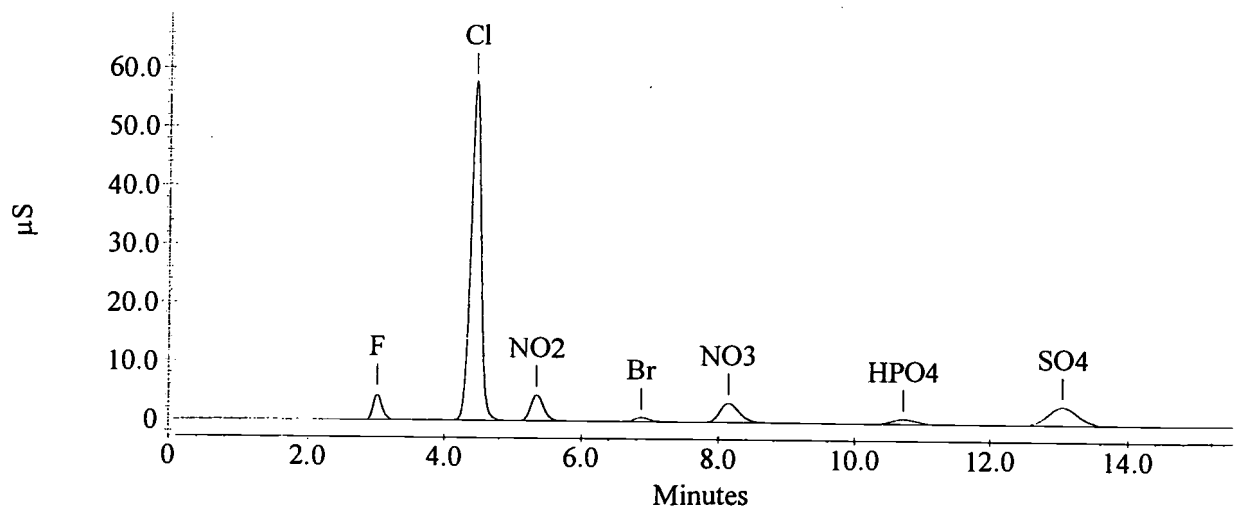
**Sample Name : DPS01 A581216 1:50**
**Data File Name : C:\PeakNet51\data\01140201\DATA_014.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 7:06:48 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.01 | 46.29 | 412026 | 44111 |
| 2 | Cl | 4.45 | 895.08 | 6117115 | 575611 |
| 3 | NO2 | 5.35 | 47.75 | 566975 | 44395 |
| 4 | Br | 6.87 | 52.93 | 117399 | 7405 |
| 5 | NO3 | 8.14 | 47.61 | 645370 | 33300 |
| 6 | HPO4 | 10.72 | 46.65 | 210682 | 8080 |
| 7 | SO4 | 13.06 | 236.63 | 950879 | 31461 |

*DPS01 A581216 1:50*



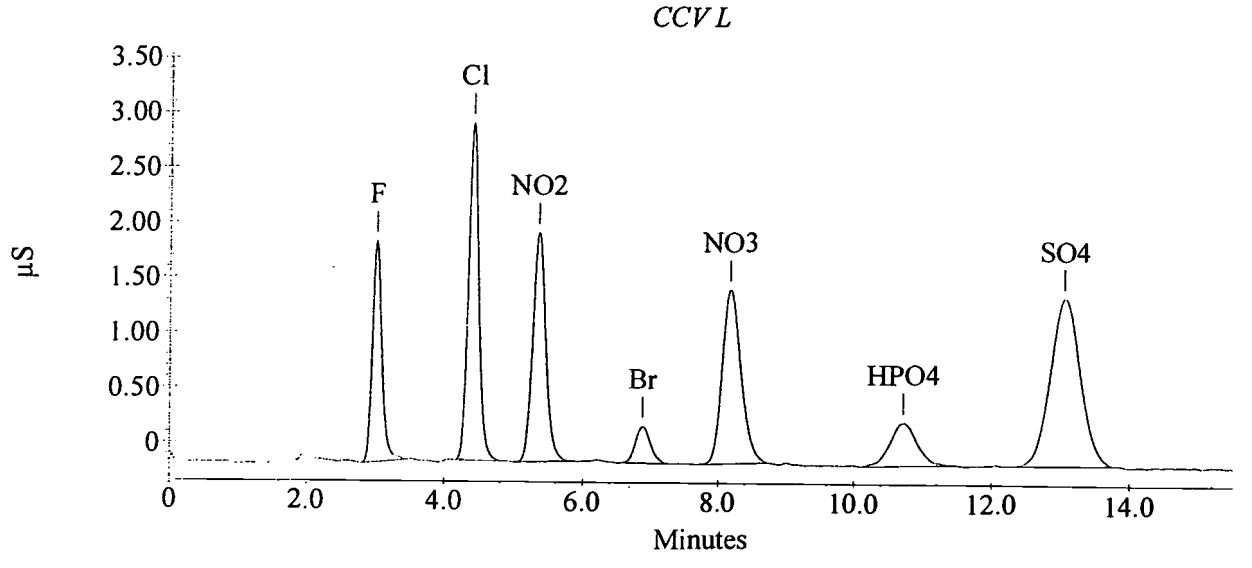
# Sample Analysis Report

**Sample Name : CCV L**
**Data File Name : C:\PeakNet51\data\01140201\DATA_015.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 8:28:27 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.01 | 0.45 | 187753 | 20012 |
| 2 | Cl | 4.40 | 1.31 | 320743 | 30592 |
| 3 | NO2 | 5.35 | 0.49 | 268046 | 20752 |
| 4 | Br | 6.88 | 0.51 | 50710 | 3296 |
| 5 | NO3 | 8.18 | 0.50 | 303162 | 15736 |
| 6 | HPO4 | 10.72 | 0.54 | 106158 | 3897 |
| 7 | SO4 | 13.05 | 2.64 | 458926 | 15182 |



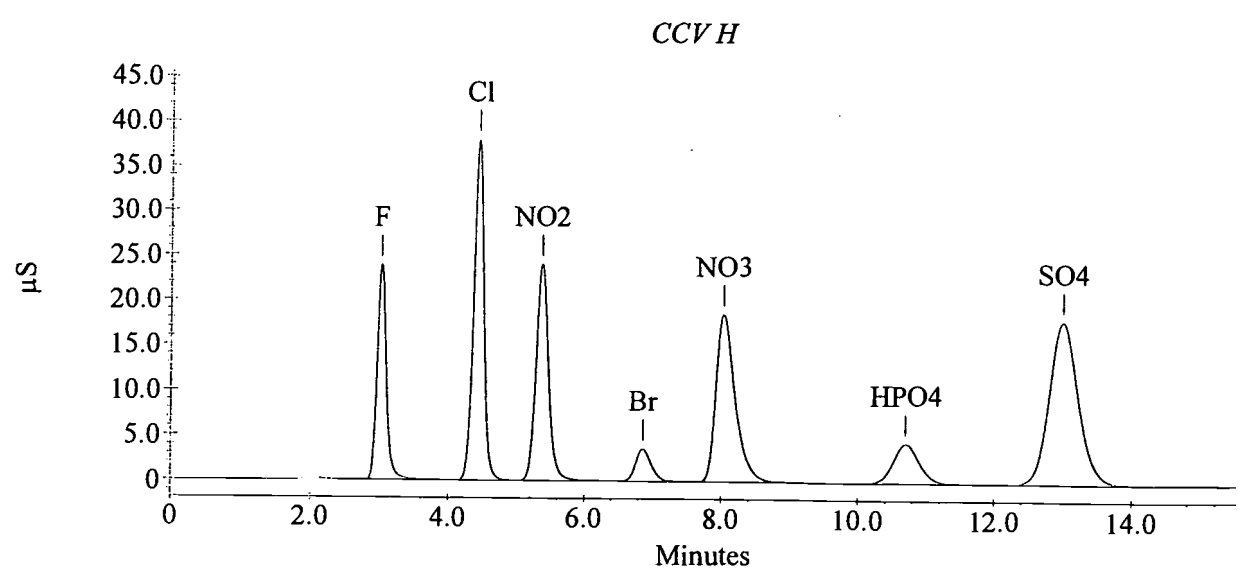
# Sample Analysis Report

**Sample Name : CCV H**
**Data File Name : C:\PeakNet51\data\01140201\DATA_016.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 8:46:36 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.02 | 4.79 | 2220383 | 238256 |
| 2 | Cl | 4.44 | 11.74 | 3965262 | 378911 |
| 3 | NO2 | 5.37 | 4.87 | 3112131 | 239947 |
| 4 | Br | 6.86 | 4.73 | 566227 | 35857 |
| 5 | NO3 | 8.03 | 4.83 | 3606866 | 185215 |
| 6 | HPO4 | 10.70 | 4.57 | 1170220 | 43904 |
| 7 | SO4 | 13.00 | 23.21 | 5290398 | 179806 |



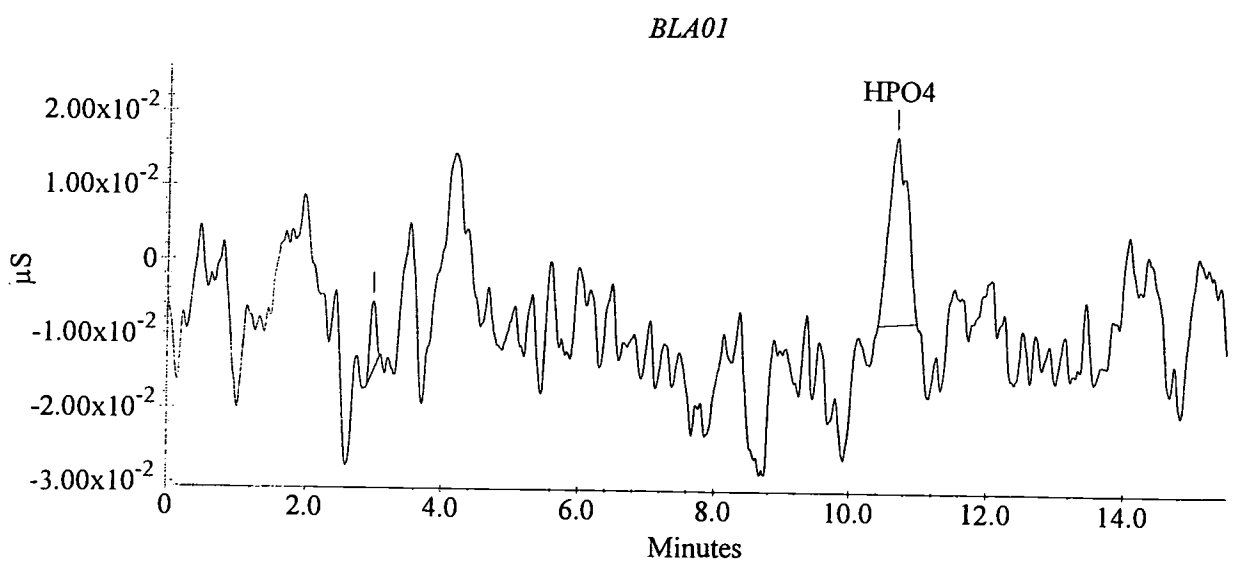
# Sample Analysis Report

**Sample Name : BLA01**
**Data File Name : C:\PeakNet51\data\01140201\DATA_017.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 9:04:41 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | | 2.99 | 0.00 | 560 | 94 |
| 2 | HPO4 | 10.67 | 0.15 | 4820 | 252 |



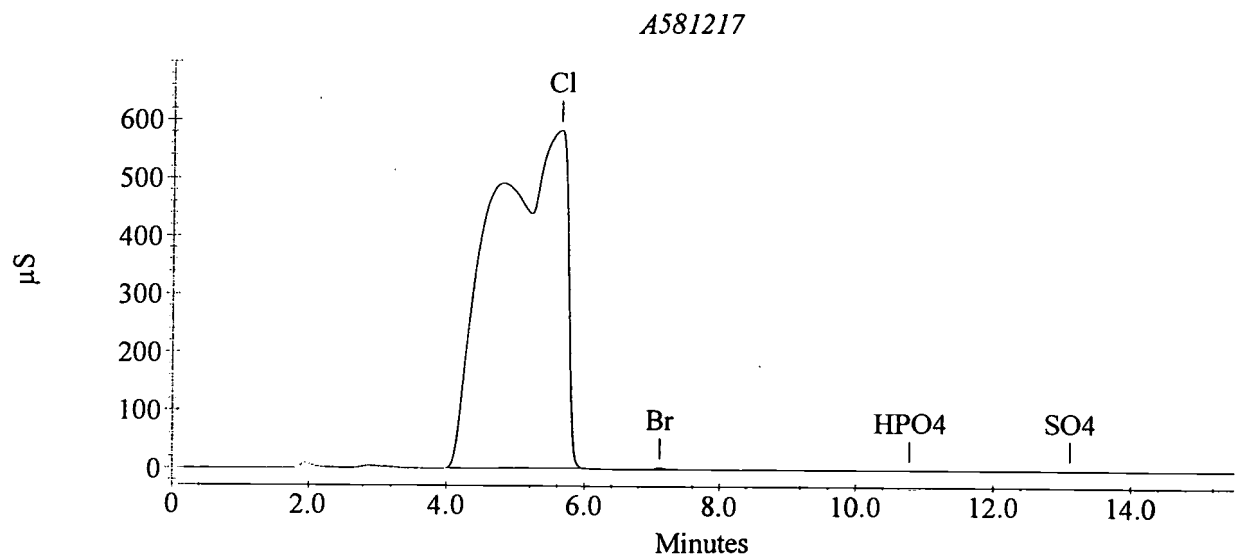
# Sample Analysis Report

**Sample Name : A581217**
**Data File Name : C:\PeakNet51\data\01140201\DATA_018.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 9:22:45 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | Cl | 5.65 | 1243.81 | 434287963 | 5811155 |
| 2 | Br | 7.11 | 3.75 | 446169 | 30297 |
| 3 | HPO4 | 10.79 | 0.16 | 6633 | 380 |
| 4 | SO4 | 13.11 | 1.54 | 200618 | 6594 |



# Sample Analysis Report

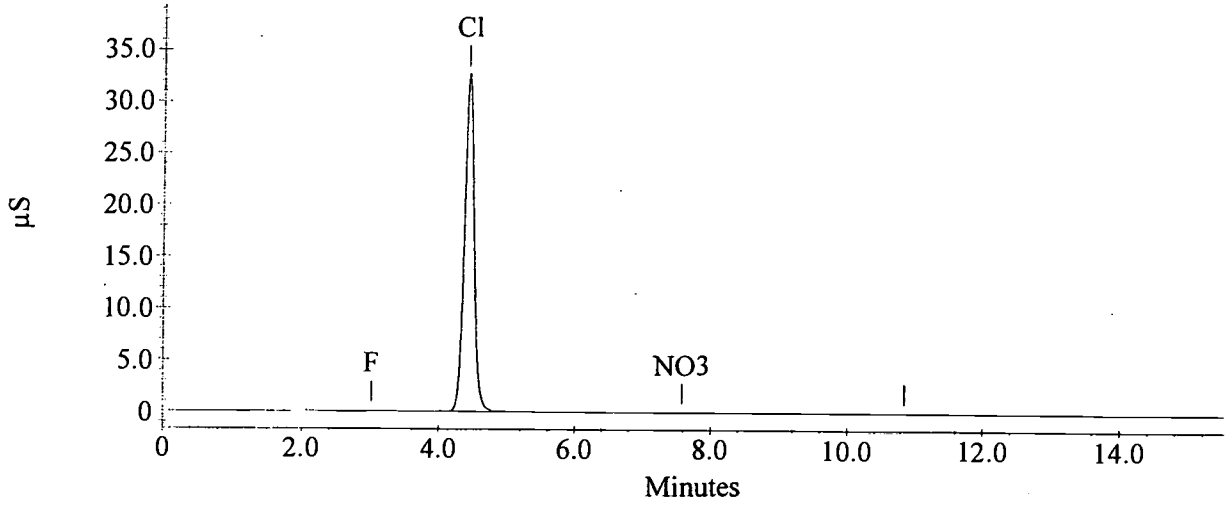
**Sample Name : A581217 1:100**
**Data File Name : C:\PeakNet51\data\01140201\DATA_019.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 9:40:48 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.01 | 6.14 | 7598 | 931 |
| 2 | Cl | 4.43 | 981.04 | 3291111 | 324388 |
| 3 | NO3 | 7.59 | 11.15 | 3188 | 191 |
| 4 | | 10.84 | 0.00 | 906 | 111 |

*A581217 1:100*



# Sample Analysis Report

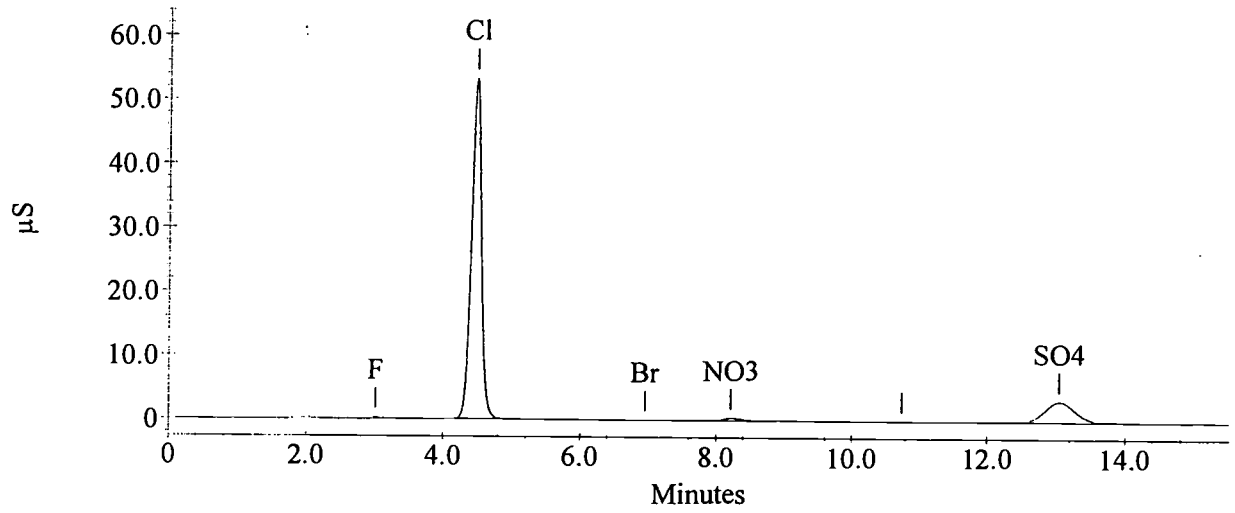
**Sample Name : A581218 1:10**
**Data File Name : C:\PeakNet51\data\01140201\DATA_020.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/14/02 9:58:52 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.01 | 0.96 | 23647 | 2520 |
| 2 | Cl | 4.48 | 158.52 | 5401190 | 532235 |
| 3 | Br | 6.95 | 1.16 | 2211 | 188 |
| 4 | NO3 | 8.22 | 2.11 | 78804 | 3932 |
| 5 | | 10.74 | 0.00 | 892 | 106 |
| 6 | SO4 | 13.05 | 48.52 | 978844 | 32313 |

*A581218 1:10*



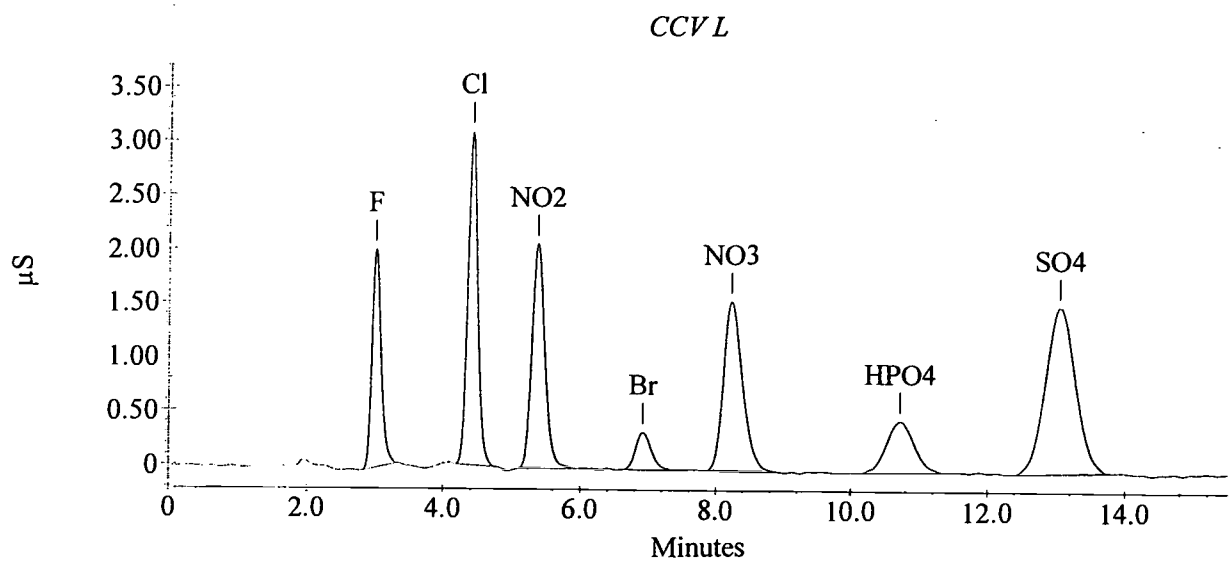
# Sample Analysis Report

**Sample Name : CCV L**
**Data File Name : C:\PeakNet51\data\01140201\DATA_028.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/15/02 12:23:55 AM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.01 | 0.44 | 185451 | 20101 |
| 2 | Cl | 4.42 | 1.30 | 318156 | 30789 |
| 3 | NO2 | 5.37 | 0.50 | 269082 | 20672 |
| 4 | Br | 6.92 | 0.55 | 55513 | 3424 |
| 5 | NO3 | 8.23 | 0.51 | 305868 | 15616 |
| 6 | HPO4 | 10.72 | 0.63 | 130047 | 4710 |
| 7 | SO4 | 13.05 | 2.67 | 465434 | 15345 |



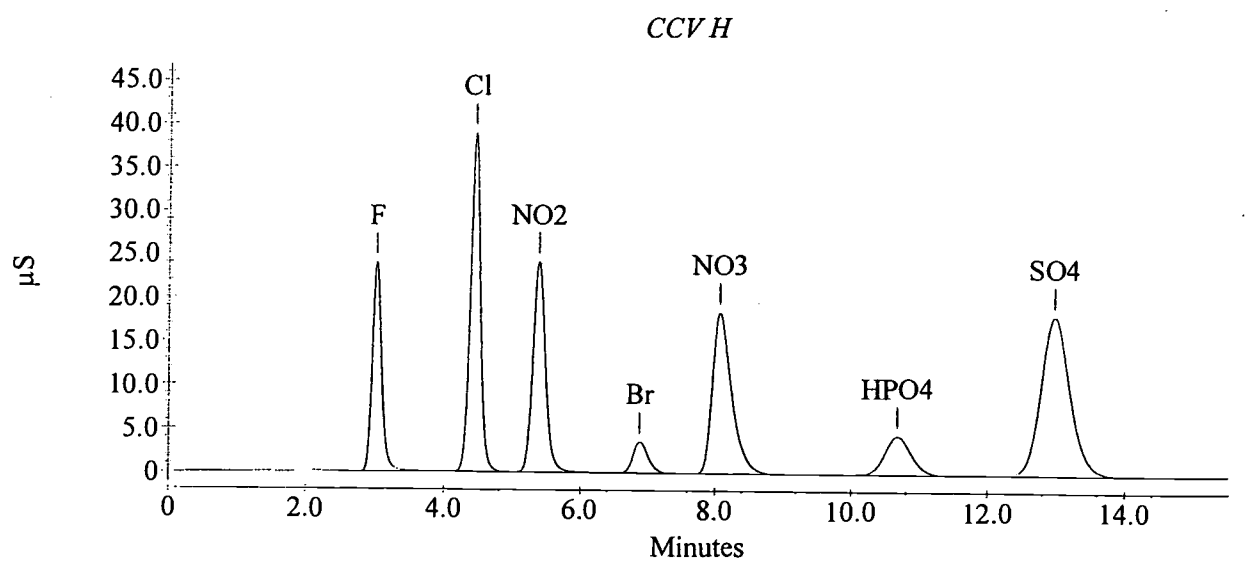
# Sample Analysis Report

**Sample Name : CCV H**
**Data File Name : C:\PeakNet51\data\01140201\DATA_029.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/15/02 12:42:04 AM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.02 | 4.79 | 2220935 | 239157 |
| 2 | Cl | 4.45 | 11.80 | 3986392 | 388012 |
| 3 | NO2 | 5.38 | 4.84 | 3090839 | 240264 |
| 4 | Br | 6.89 | 4.67 | 559419 | 35547 |
| 5 | NO3 | 8.07 | 4.83 | 3604668 | 183873 |
| 6 | HPO4 | 10.67 | 4.66 | 1192545 | 44359 |
| 7 | SO4 | 12.97 | 23.47 | 5351790 | 181404 |



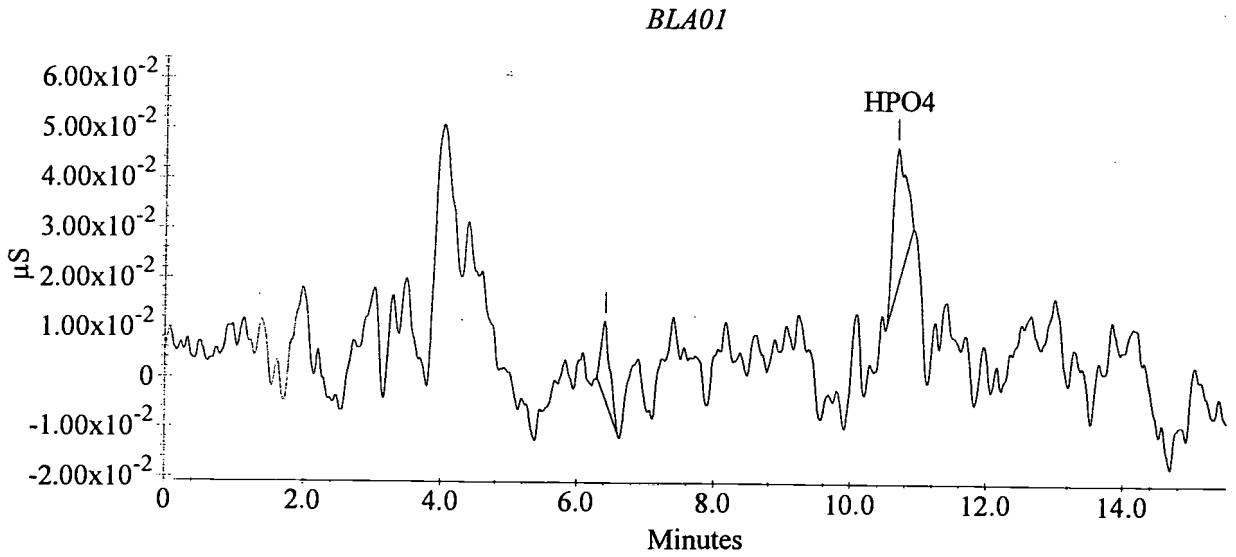
# Sample Analysis Report

**Sample Name : BLA01**
**Data File Name : C:\PeakNet51\data\01140201\DATA_030.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/15/02 1:00:14 AM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | | 6.41 | 0.00 | 1429 | 156 |
| 2 | HPO4 | 10.68 | 0.15 | 3464 | 279 |



# Sample Analysis Report

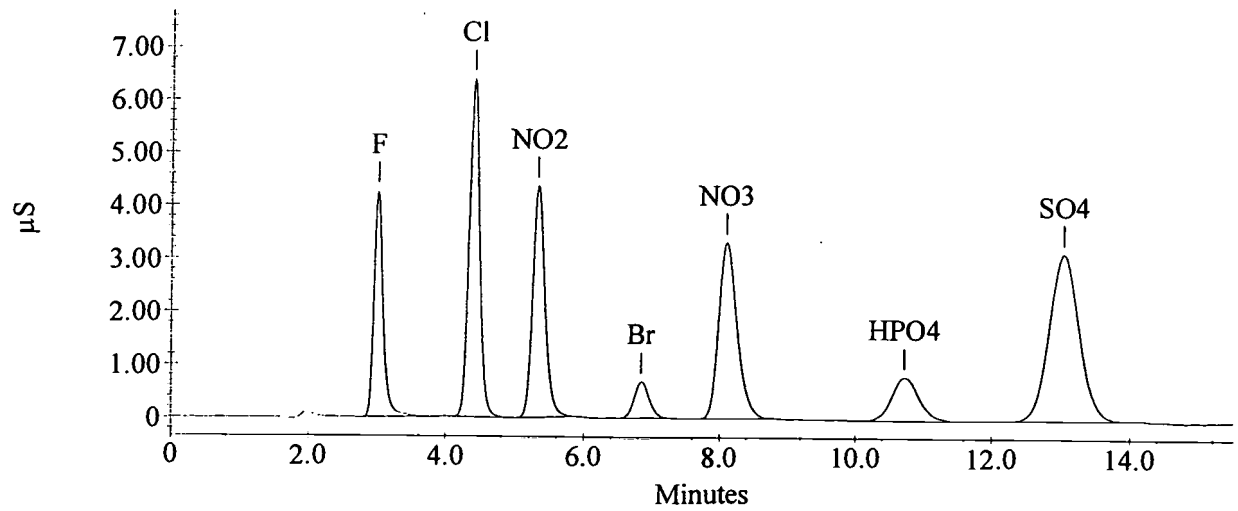
**Sample Name : LFB01 SPI**
**Data File Name : C:\PeakNet51\data\01150201\DATA_004.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/15/02 3:40:14 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.01 | 0.89 | 397509 | 42483 |
| 2 | Cl | 4.39 | 2.30 | 669094 | 63859 |
| 3 | NO2 | 5.33 | 0.94 | 559347 | 43612 |
| 4 | Br | 6.84 | 0.96 | 105410 | 6841 |
| 5 | NO3 | 8.10 | 0.93 | 630991 | 33135 |
| 6 | HPO4 | 10.72 | 1.00 | 229460 | 8214 |
| 7 | SO4 | 13.04 | 4.71 | 944504 | 31494 |

*LFB01 SPI*



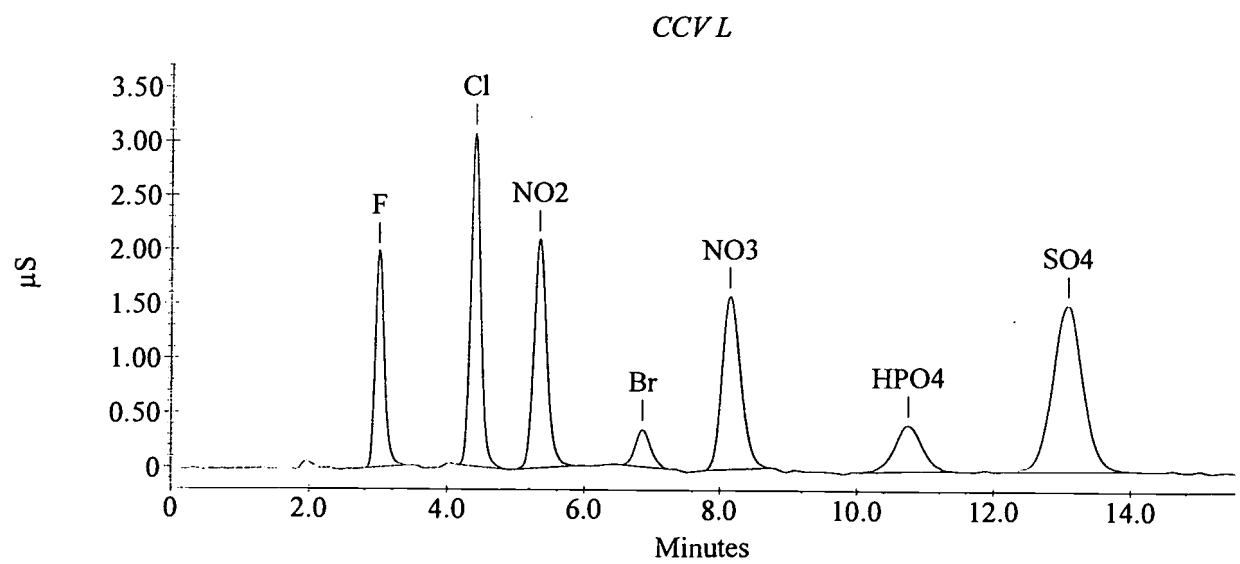
# Sample Analysis Report

**Sample Name : CCV L**
**Data File Name : C:\PeakNet51\data\01150201\DATA_015.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/15/02 7:08:23 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.00 | 0.44 | 184149 | 19812 |
| 2 | Cl | 4.40 | 1.30 | 318400 | 30617 |
| 3 | NO2 | 5.34 | 0.50 | 273580 | 20960 |
| 4 | Br | 6.86 | 0.54 | 54466 | 3380 |
| 5 | NO3 | 8.15 | 0.50 | 301781 | 15813 |
| 6 | HPO4 | 10.75 | 0.58 | 118224 | 4225 |
| 7 | SO4 | 13.08 | 2.67 | 465762 | 15184 |



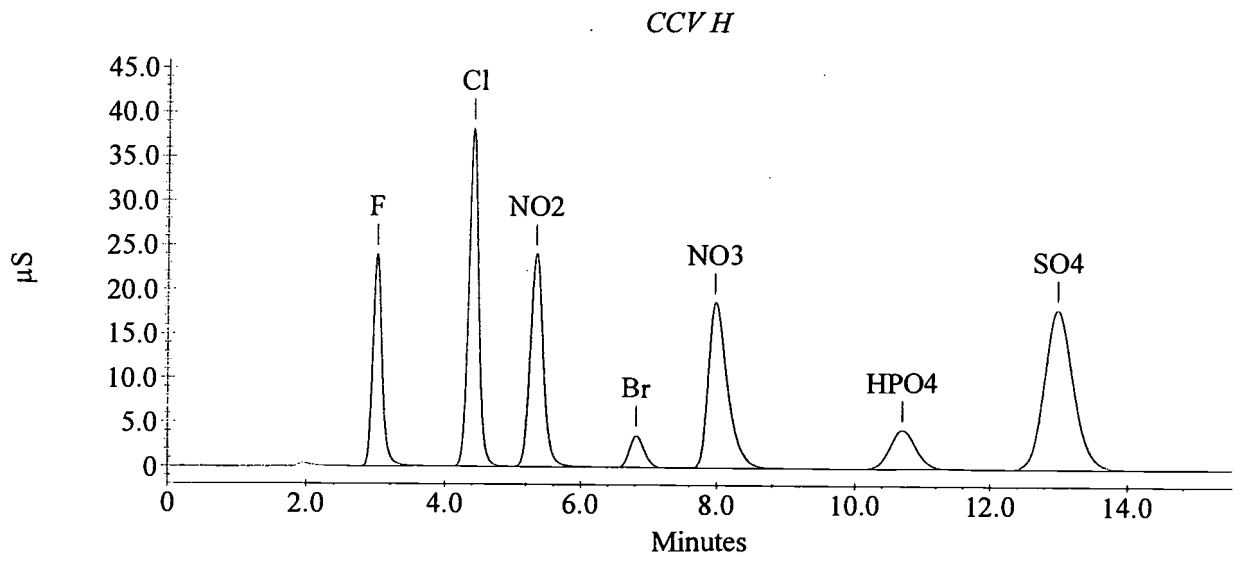
# Sample Analysis Report

**Sample Name : CCV H**
**Data File Name : C:\PeakNet51\data\01150201\DATA_016.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/15/02 7:26:29 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.01 | 4.75 | 2202200 | 238948 |
| 2 | Cl | 4.42 | 11.71 | 3955832 | 380900 |
| 3 | NO2 | 5.34 | 4.85 | 3096704 | 239552 |
| 4 | Br | 6.82 | 4.73 | 566244 | 36086 |
| 5 | NO3 | 7.98 | 4.82 | 3599739 | 186398 |
| 6 | HPO4 | 10.70 | 4.53 | 1159899 | 43738 |
| 7 | SO4 | 12.99 | 23.17 | 5279507 | 180072 |



# Sample Analysis Report

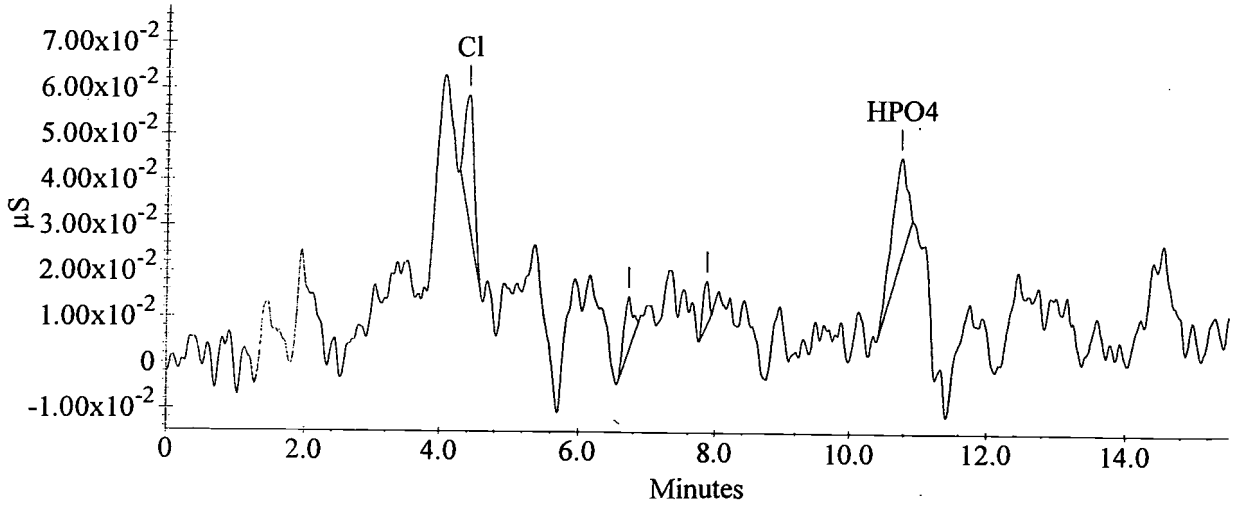
**Sample Name : BLA01**
**Data File Name : C:\PeakNet51\data\01150201\DATA_017.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/15/02 7:44:38 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | Cl | 4.41 | 0.40 | 2810 | 282 |
| 2 | | 6.73 | 0.00 | 1045 | 119 |
| 3 | | 7.87 | 0.00 | 619 | 98 |
| 4 | HPO4 | 10.75 | 0.15 | 3387 | 220 |

*BLA01*



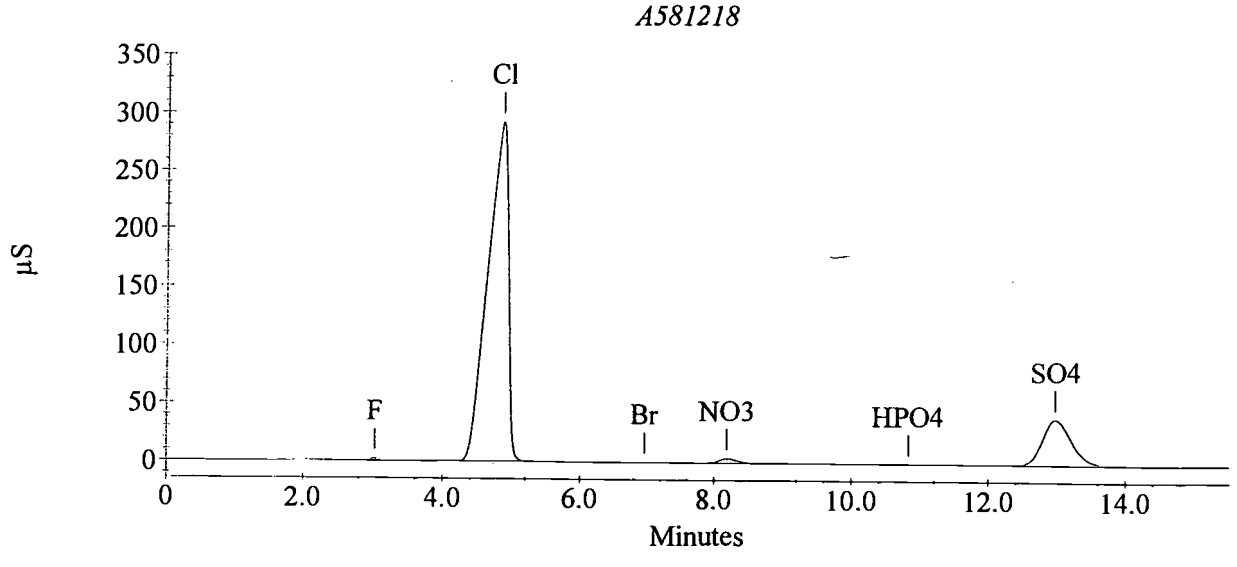
# Sample Analysis Report

**Sample Name : A581218**
**Data File Name : C:\PeakNet51\data\01150201\DATA_019.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/15/02 8:20:45 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.03 | 0.55 | 235991 | 19586 |
| 2 | Cl | 4.86 | 172.35 | 60060693 | 2925629 |
| 3 | Br | 6.96 | 0.52 | 50982 | 3168 |
| 4 | NO3 | 8.19 | 1.08 | 739474 | 38992 |
| 5 | HPO4 | 10.82 | 0.15 | 3442 | 159 |
| 6 | SO4 | 12.97 | 49.74 | 11519090 | 394035 |



# Sample Analysis Report

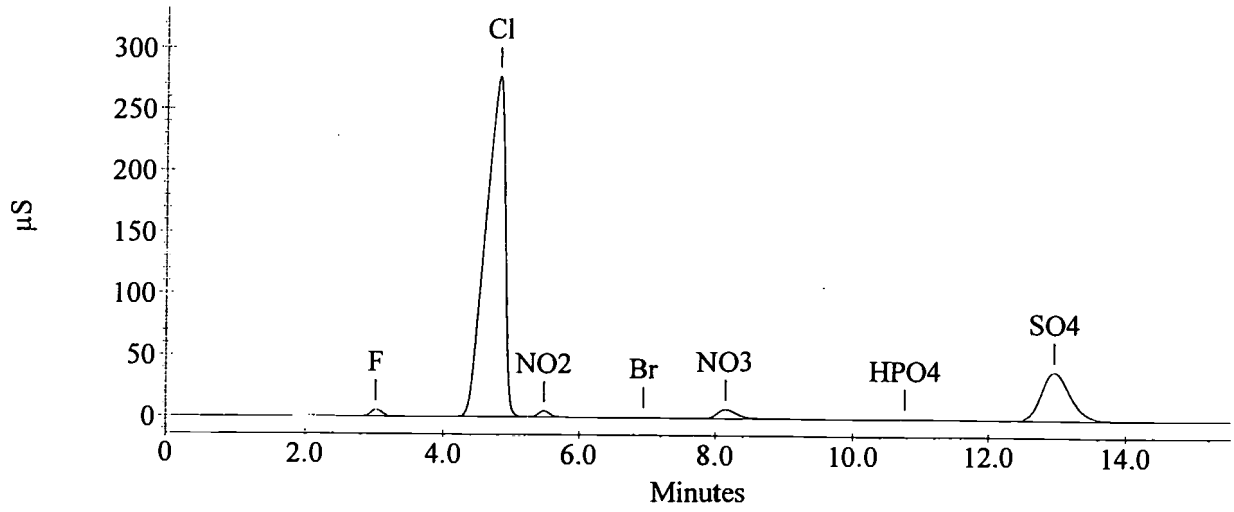
**Sample Name : SPI01 A581218**
**Data File Name : C:\PeakNet51\data\01150201\DATA_020.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/15/02 8:38:55 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.02 | 1.41 | 640060 | 56161 |
| 2 | Cl | 4.82 | 155.71 | 54247947 | 2766558 |
| 3 | NO2 | 5.48 | 0.95 | 564728 | 49233 |
| 4 | Br | 6.94 | 1.37 | 155332 | 10422 |
| 5 | NO3 | 8.14 | 1.93 | 1394953 | 73731 |
| 6 | HPO4 | 10.76 | 0.93 | 210813 | 7780 |
| 7 | SO4 | 12.96 | 49.69 | 11508680 | 393416 |

*SPI01 A581218*



# Sample Analysis Report

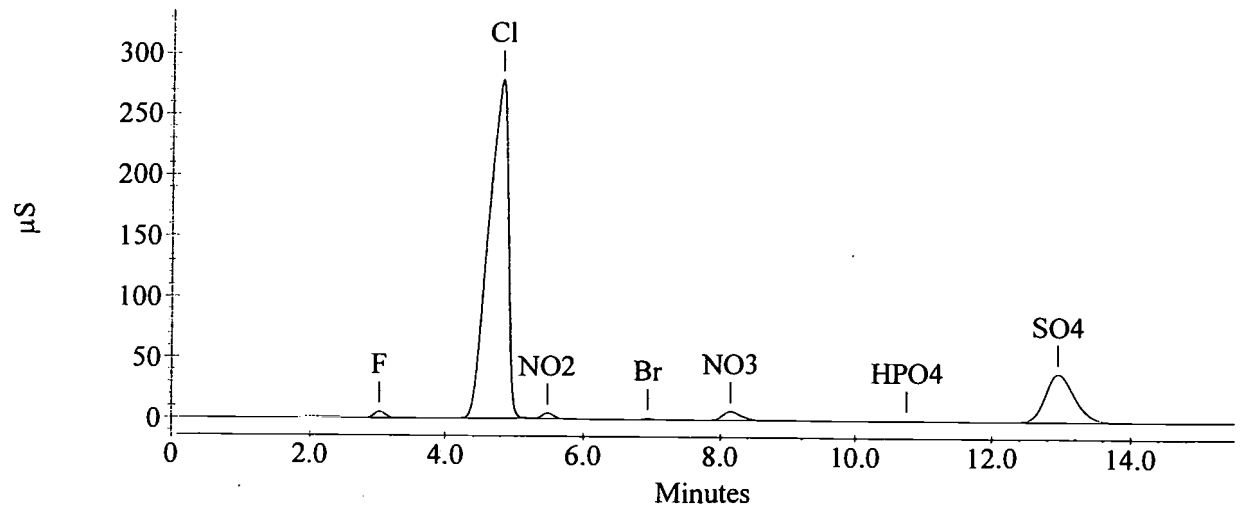
**Sample Name : DPS01 A581218**
**Data File Name : C:\PeakNet51\data\01150201\DATA_021.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/15/02 8:56:59 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.02 | 1.38 | 626370 | 53653 |
| 2 | Cl | 4.82 | 156.90 | 54666226 | 2775253 |
| 3 | NO2 | 5.48 | 0.90 | 531867 | 46461 |
| 4 | Br | 6.94 | 1.33 | 150737 | 9984 |
| 5 | NO3 | 8.15 | 1.89 | 1365197 | 71642 |
| 6 | HPO4 | 10.76 | 0.91 | 203377 | 7691 |
| 7 | SO4 | 12.95 | 49.62 | 11492039 | 393722 |

*DPS01 A581218*



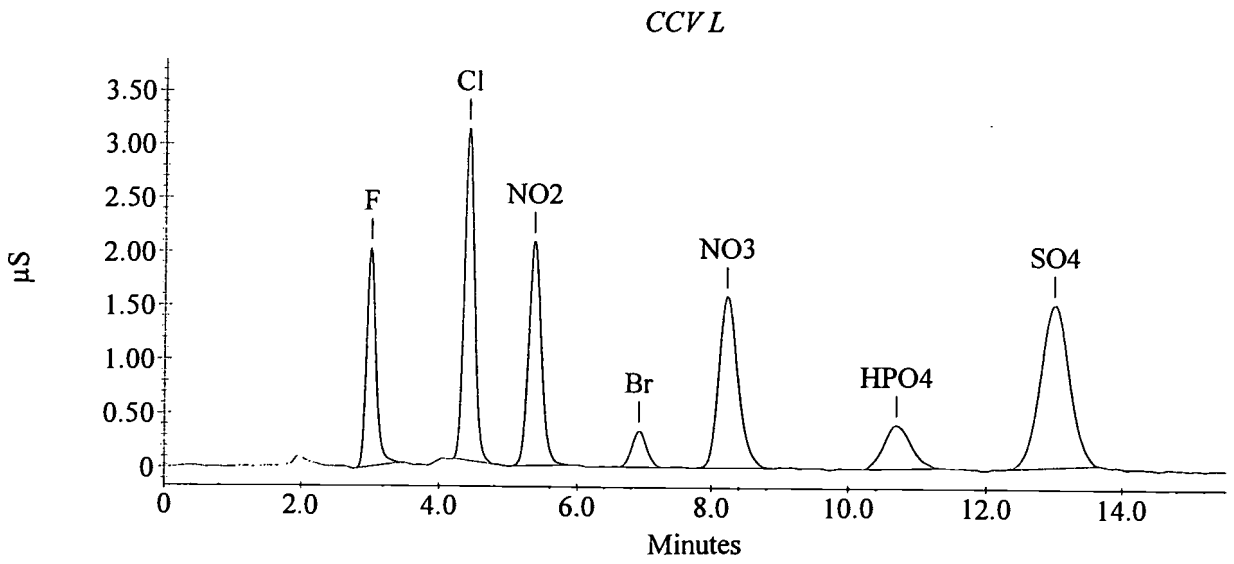
# Sample Analysis Report

**Sample Name : CCV L**
**Data File Name : C:\PeakNet51\data\01150201\DATA_028.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/15/02 11:03:47 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.01 | 0.45 | 189877 | 20184 |
| 2 | Cl | 4.41 | 1.29 | 314722 | 30769 |
| 3 | NO2 | 5.36 | 0.50 | 268727 | 20721 |
| 4 | Br | 6.91 | 0.52 | 51503 | 3351 |
| 5 | NO3 | 8.22 | 0.51 | 309518 | 15821 |
| 6 | HPO4 | 10.69 | 0.55 | 109591 | 4012 |
| 7 | SO4 | 13.00 | 2.60 | 449925 | 15013 |



# Sample Analysis Report

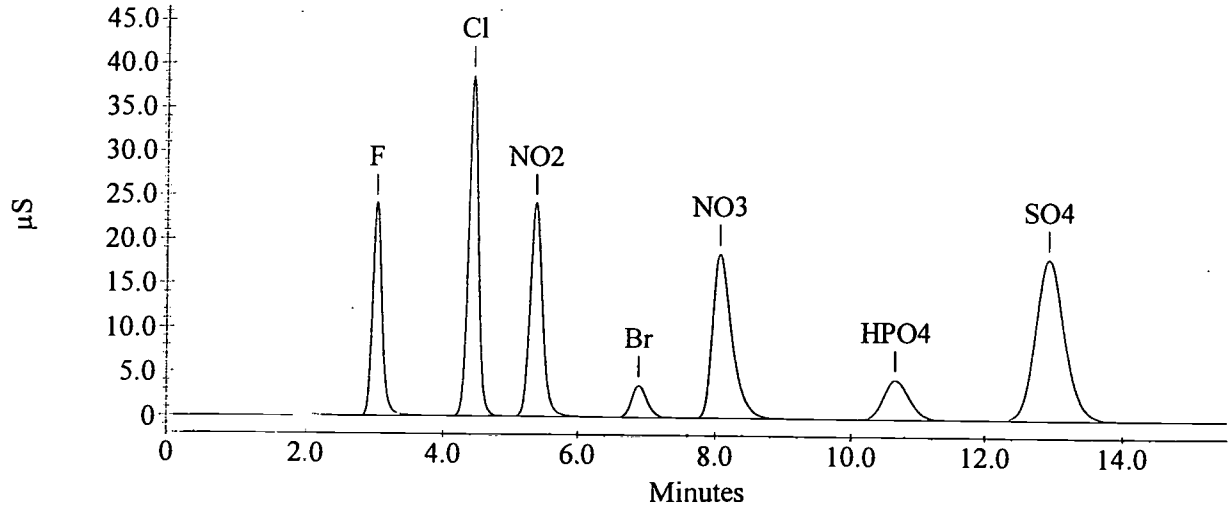
**Sample Name : CCV H**
**Data File Name : C:\PeakNet51\data\01150201\DATA_029.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/15/02 11:21:50 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.01 | 4.81 | 2228374 | 238576 |
| 2 | Cl | 4.44 | 11.78 | 3980286 | 384496 |
| 3 | NO2 | 5.37 | 4.89 | 3120710 | 239945 |
| 4 | Br | 6.89 | 4.70 | 563110 | 35565 |
| 5 | NO3 | 8.07 | 4.86 | 3630513 | 184634 |
| 6 | HPO4 | 10.66 | 4.61 | 1180640 | 44313 |
| 7 | SO4 | 12.93 | 23.41 | 5336356 | 181149 |

*CCV H*



# Sample Analysis Report

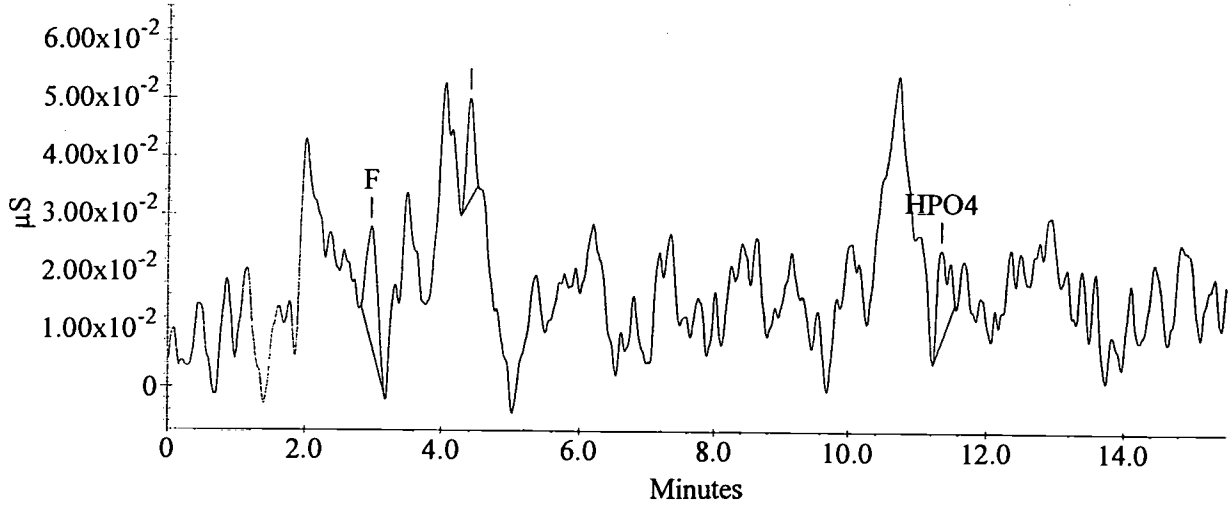
**Sample Name : BLA01**
**Data File Name : C:\PeakNet51\data\01150201\DATA_030.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/15/02 11:39:59 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 2.97 | 0.05 | 2261 | 200 |
| 2 | | 4.40 | 0.00 | 1287 | 177 |
| 3 | HPO4 | 11.34 | 0.14 | 1757 | 161 |

*BLA01*



Run Number CALIBRATION

File Number 02-0108

# ION CHROMATOGRAPHY

Instrument # 268

Analyst JMM 1663

Start Date 8-Jan-02

Start Time 15:57

End Date 9-Jan-02

End Time 14:26

Reviewed By _____

Date _____

Recorded By _____

Date _____

| Date Time Collected: | Dilution Factor: | Sample Name: | F Peak Ar | Cl Peak A | NO2 Pea | Br Peak A | NO3 Pea | HPO4 Pe | SO4 Peak |
|---|---|---|---|---|---|---|---|---|---|
| 1/8/02 15:57 | 1 | AUTOCAL 1 | 0 | 0 | 0 | 0 | 0 | 3835.6 | 0 |
| 1/8/02 19:38 | 1 | AUTOCAL 2 | 19119.7 | 24715.2 | 27766.5 | 3823.2 | 27869 | 0 | 44430.2 |
| 1/8/02 18:57 | 1 | AUTOCAL 3 | 68252.8 | 125785.4 | 104464.1 | 20529.3 | 122766.4 | 40407.1 | 188379.6 |
| 1/8/02 19:15 | 1 | AUTOCAL 4 | 181349.2 | 326998.6 | 272818.8 | 53019.8 | 313917.8 | 111012.5 | 470559.3 |
| 1/8/02 17:19 | 1 | AUTOCAL 5 | 391895.4 | 668061 | 563805 | 104794.5 | 633728.3 | 209160.2 | 961583.4 |
| 1/8/02 17:37 | 1 | AUTOCAL 6 | 821541.6 | 1425939 | 1169673 | 218478.1 | 1330906 | 457323 | 1971922 |
| 1/8/02 17:55 | 1 | AUTOCAL 7 | 2270177 | 4026111 | 3138305 | 577291.1 | 3654383 | 1199147 | 5373785 |
| 1/8/02 18:13 | 1 | AUTOCAL 8 | 4690123 | 8721125 | 6479542 | 1223126 | 7982600 | 2644610 | 11770451 |
| | | | | | | | | | |
| | | **low correl** | **0.9991** | **0.9999** | **0.9998** | **0.9999** | **1.0000** | **0.9975** | **0.9999** |
| | | | | | | | | | |
| | | std calc | 0.013 | 0.023 | 0.006 | 0.005 | 0.004 | 0.028 | 0.019 |
| | | | 0.062 | 0.115 | 0.056 | 0.041 | 0.048 | 0.010 | 0.250 |
| | | | 0.187 | 0.491 | 0.192 | 0.200 | 0.198 | 0.199 | 0.998 |
| | | | 0.476 | 1.239 | 0.490 | 0.507 | 0.498 | 0.528 | 2.465 |
| | | | | | | | | | |
| | | **std % rec** | **124.00** | **92.00** | **112.00** | **82.00** | **96.00** | **20.00** | **100.00** |
| | | | **93.50** | **98.20** | **96.00** | **100.00** | **99.00** | **99.50** | **99.80** |
| | | | **95.20** | **99.12** | **98.00** | **101.40** | **99.60** | **105.60** | **98.60** |

| Date Time Collected: | Dilution Factor: | Sample Name: | F Peak Ar | Cl Peak A | NO2 Pea | Br Peak A | NO3 Pea | HPO4 Pe | SO4 Peak |
|---|---|---|---|---|---|---|---|---|---|
| 1/8/02 15:57 | 1 | AUTOCAL 1 | 0 | 0 | 0 | 0 | 0 | 3835.6 | 0 |
| 1/8/02 17:19 | 1 | AUTOCAL 5 | 391895.4 | 668061 | 563805 | 104794.5 | 633728.3 | 209160.2 | 961583.4 |
| 1/8/02 17:37 | 1 | AUTOCAL 6 | 821541.6 | 1425939 | 1169673 | 218478.1 | 1330906 | 457323 | 1971922 |
| 1/8/02 17:55 | 1 | AUTOCAL 7 | 2270177 | 4026111 | 3138305 | 577291.1 | 3654383 | 1199147 | 5373785 |
| 1/8/02 18:13 | 1 | AUTOCAL 8 | 4690123 | 8721125 | 6479542 | 1223126 | 7982600 | 2644610 | 11770451 |
| | | | | | | | | | |
| | | **high correl** | **0.9997** | **0.9990** | **0.9998** | **0.9995** | **0.9989** | **0.9988** | **0.9989** |
| | | | | | | | | | |
| | 5 | **std calc** | **0.98** | **2.49** | **0.98** | **1.00** | **1.01** | **0.99** | **5.13** |
| | 6 | | **1.88** | **4.63** | **1.91** | **1.92** | **1.88** | **1.93** | **9.39** |
| | 7 | | **4.94** | **12.00** | **4.93** | **4.84** | **4.76** | **4.71** | **23.72** |
| | 8 | | **10.05** | **25.29** | **10.05** | **10.09** | **10.13** | **10.14** | **50.67** |
| | | | | | | | | | |
| | 5 | **std % rec** | **98.00** | **99.60** | **98.00** | **100.00** | **101.00** | **99.00** | **102.60** |
| | 6 | | **94.00** | **92.60** | **95.50** | **96.00** | **94.00** | **96.50** | **93.90** |
| | 7 | | **98.80** | **96.00** | **98.60** | **96.80** | **95.20** | **94.20** | **94.88** |
| | 8 | | **100.50** | **101.16** | **100.50** | **100.90** | **101.30** | **101.40** | **101.34** |

Calibration Report

Calibration Date/Time Jan 08, 2002 15:57 to Jan 08, 2002 18:13

| | AUTOCAL 1 | AUTOCAL 2 | AUTOCAL 3 | AUTOCAL 4 | AUTOCAL 5 | AUTOCAL 6 | AUTOCAL 7 | AUTOCAL 8 |
|---|---|---|---|---|---|---|---|---|
| F Peak Area | 0 | 19120 | 68253 | 181349 | 391895 | 821542 | 2270177 | 4690123 |
| Cl Peak Are | 0 | 24715 | 125785 | 326999 | 668061 | 1425939 | 4026111 | 8721125 |
| NO2 Peak A | 0 | 27767 | 104464 | 272819 | 563805 | 1169673 | 3138305 | 6479542 |
| Br Peak Are | 0 | 3823 | 20529 | 53020 | 104795 | 218478 | 577291 | 1223126 |
| NO3 Peak A | 0 | 27869 | 122766 | 313918 | 633728 | 1330906 | 3654383 | 7982600 |
| HPO4 Peak | 3836 | 0 | 40407 | 111013 | 209160 | 457323 | 1199147 | 2644610 |
| SO4 Peak A | 0 | 44430 | 188380 | 470559 | 961583 | 1971922 | 5373785 | 11770451 |

| | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L |
|---|---|---|---|---|---|---|---|---|
| Fl Conc | 0 | 0.05 | 0.2 | 0.5 | 1 | 2 | 5 | 10 |
| Cl Conc | 0 | 0.125 | 0.5 | 1.25 | 2.5 | 5 | 12.5 | 25 |
| NO2 Conc | 0 | 0.05 | 0.2 | 0.5 | 1 | 2 | 5 | 10 |
| Br Conc | 0 | 0.05 | 0.2 | 0.5 | 1 | 2 | 5 | 10 |
| NO3 Conc | 0 | 0.05 | 0.2 | 0.5 | 1 | 2 | 5 | 10 |
| HPO4 Conc | 0 | 0.05 | 0.2 | 0.5 | 1 | 2 | 5 | 10 |
| SO4 Conc | 0 | 0.25 | 1 | 2.5 | 5 | 10 | 25 | 50 |

**Low Calibration Curve Autocal 1 - 5**

| Parameter | Slope | Intercept | Cor. Coef |
|---|---|---|---|
| F | 2.5521e-06 | 0.01280 | 0.99910 |
| Cl | 3.7191e-06 | 0.02292 | 0.99990 |
| $NO_2$ | 1.7729e-06 | 0.00646 | 0.99980 |
| Br | 9.4629e-06 | 0.00524 | 0.99988 |
| $NO_3$ | 1.5731e-06 | 0.00445 | 0.99998 |
| $HPO_4$ | 4.6600e-06 | 0.01037 | 0.99753 |
| $SO_4$ | 5.1980e-06 | 0.01912 | 0.99994 |

**High Calibration Curve Autocal 1,5 - 8**

| Parameter | Slope | Intercept | Cor. Coef |
|---|---|---|---|
| F | 2.1113e-06 | 0.14858 | 0.99968 |
| Cl | 2.8323e-06 | 0.59300 | 0.99898 |
| $NO_2$ | 1.5325e-06 | 0.12081 | 0.99977 |
| Br | 8.1279e-06 | 0.14776 | 0.99953 |
| $NO_3$ | 1.2409e-06 | 0.22426 | 0.99892 |
| $HPO_4$ | 3.7564e-06 | 0.20866 | 0.99879 |
| $SO_4$ | 4.2134e-06 | 1.08085 | 0.99888 |

Sample Areas less than L5 area are calculated using the low calibration.
Sample Areas between L5 area and the L8 are calculated using the high calibration.

Concentration = (Slope)*(area)+Intercept
y = (mx+b)

odified 11/18/98 sab

| TestID | Sample | Parm | Area | Dil'n | Conc. | Result | RQL | DL | Units | Samp | Spike | Rec | RPD | # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AUTOCAL 1 08-Jan-02 15:57** | | | | | | | | | | | | | | |
| | 367 | F | 0 | 1 | 0.013 | | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 0 | 1 | 0.023 | | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 0 | 1 | 0.006 | | | 0.050 | mg/L | | | | | |
| | 192 | Br | 0 | 1 | 0.005 | | | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 0 | 1 | 0.004 | | | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 3836 | 1 | 0.028 | | | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 0 | 1 | 0.019 | | | 0.25 | mg/L | | | | | |
| **AUTOCAL 2 08-Jan-02 19:38** | | | | | | | | | | | | | | |
| | 367 | F | 19120 | 1 | 0.062 | | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 24715 | 1 | 0.115 | | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 27767 | 1 | 0.056 | | | 0.050 | mg/L | | | | | |
| | 192 | Br | 3823 | 1 | 0.041 | | | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 27869 | 1 | 0.048 | | | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 0 | 1 | 0.010 | | | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 44430 | 1 | 0.250 | | | 0.25 | mg/L | | | | | |
| **AUTOCAL 3 08-Jan-02 18:57** | | | | | | | | | | | | | | |
| | 367 | F | 68253 | 1 | 0.187 | | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 125785 | 1 | 0.491 | | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 104464 | 1 | 0.192 | | | 0.050 | mg/L | | | | | |
| | 192 | Br | 20529 | 1 | 0.199 | | | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 122766 | 1 | 0.198 | | | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 40407 | 1 | 0.199 | | | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 188380 | 1 | 0.998 | | | 0.25 | mg/L | | | | | |
| **AUTOCAL 4 08-Jan-02 19:15** | | | | | | | | | | | | | | |
| | 367 | F | 181349 | 1 | 0.476 | | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 326999 | 1 | 1.239 | | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 272819 | 1 | 0.490 | | | 0.050 | mg/L | | | | | |
| | 192 | Br | 53020 | 1 | 0.507 | | | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 313918 | 1 | 0.498 | | | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 111013 | 1 | 0.528 | | | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 470559 | 1 | 2.465 | | | 0.25 | mg/L | | | | | |
| **AUTOCAL 5 08-Jan-02 17:19** | | | | | | | | | | | | | | |
| | 367 | F | 391895 | 1 | 1.013 | | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 668061 | 1 | 2.485 | | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 563805 | 1 | 0.985 | | | 0.050 | mg/L | | | | | |
| | 192 | Br | 104795 | 1 | 1.000 | | | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 633728 | 1 | 1.001 | | | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 209160 | 1 | 0.985 | | | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 961583 | 1 | 5.017 | | | 0.25 | mg/L | | | | | |
| **AUTOCAL 6 08-Jan-02 17:37** | | | | | | | | | | | | | | |
| | 367 | F | 821542 | 1 | 1.883 | | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 1425939 | 1 | 4.632 | | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 1169673 | 1 | 1.913 | | | 0.050 | mg/L | | | | | |
| | 192 | Br | 218478 | 1 | 1.924 | | | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 1330906 | 1 | 1.876 | | | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 457323 | 1 | 1.927 | | | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 1971922 | 1 | 9.389 | | | 0.25 | mg/L | | | | | |
| **AUTOCAL 7 08-Jan-02 17:55** | | | | | | | | | | | | | | |
| | 367 | F | 2270177 | 1 | 4.942 | | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 4026111 | 1 | 11.996 | | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 3138305 | 1 | 4.930 | | | 0.050 | mg/L | | | | | |
| | 192 | Br | 577291 | 1 | 4.840 | | | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 3654383 | 1 | 4.759 | | | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 1199147 | 1 | 4.713 | | | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 5373785 | 1 | 23.723 | | | 0.25 | mg/L | | | | | |

| TestID | Sample | Parm | Area | Dil'n | Conc. | Result | RQL | DL | Units | Samp | Spike | Rec | RPD | # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AUTOCAL 8 08-Jan-02 18:13** | | | | | | | | | | | | | | |
| | 367 | F | 4690123 | 1 | 10.051 | | | 0.10 | mg/L | | | | | |
| | 223 | Cl | 8721125 | 1 | 25.294 | | | 0.25 | mg/L | | | | | |
| | 507 | $NO_2$ | 6479542 | 1 | 10.051 | HIGH | | 0.050 | mg/L | | | | | |
| | 192 | Br | 1223126 | 1 | 10.089 | | | 0.050 | mg/L | | | | | |
| | 508 | $NO_3$ | 7982600 | 1 | 10.130 | | | 0.050 | mg/L | | | | | |
| | 539 | $HPO_4$ | 2644610 | 1 | 10.143 | | | 0.050 | mg/L | | | | | |
| | 681 | $SO_4$ | 11770451 | 1 | 50.675 | HIGH | | 0.25 | mg/L | | | | | |
| **ICV01 08-Jan-02 21:30** | | | | | | | | | | | | | | |
| | 367 | F | 1646767 | 1 | 3.625 | 3.63 | | 0.10 | mg/L | | 4 | 90.8 | | |
| | 223 | Cl | 3847663 | 1 | 11.491 | 11.5 | | 0.25 | mg/L | | 12 | 95.8 | | |
| | 507 | $NO_2$ | 2484259 | 1 | 3.928 | 3.93 | | 0.050 | mg/L | | 4 | 98.3 | | |
| | 192 | Br | 442208 | 1 | 3.742 | 3.74 | | 0.050 | mg/L | | 4 | 93.5 | | |
| | 508 | $NO_3$ | 3362401 | 1 | 4.397 | 4.40 | | 0.050 | mg/L | | 4 | 110.0 | | |
| | 539 | $HPO_4$ | 915348 | 1 | 3.647 | 3.65 | | 0.050 | mg/L | | 4 | 91.3 | | |
| | 681 | $SO_4$ | 4115679 | 1 | 18.422 | 18.4 | | 0.25 | mg/L | | 20 | 92.0 | | |
| **ICV01 1:5 09-Jan-02 14:26** | | | | | | | | | | | | | | |
| | 367 | F | 282448 | 5 | 3.668 | 3.67 | | 0.50 | mg/L | | 4 | 91.8 | | |
| | 223 | Cl | 606199 | 5 | 11.387 | 11.4 | | 1.3 | mg/L | | 12 | 95.0 | | |
| | 507 | $NO_2$ | 429587 | 5 | 3.840 | 3.84 | | 0.25 | mg/L | | 4 | 96.0 | | |
| | 192 | Br | 87228 | 5 | 4.153 | 4.15 | | 0.25 | mg/L | | 4 | 103.8 | | |
| | 508 | $NO_3$ | 556219 | 5 | 4.397 | 4.40 | | 0.25 | mg/L | | 4 | 110.0 | | |
| | 539 | $HPO_4$ | 170736 | 5 | 4.030 | 4.03 | | 0.25 | mg/L | | 4 | 100.8 | | |
| | 681 | $SO_4$ | 720295 | 5 | 18.816 | 18.8 | | 1.3 | mg/L | | 20 | 94.0 | | |

# Calibration Update Report

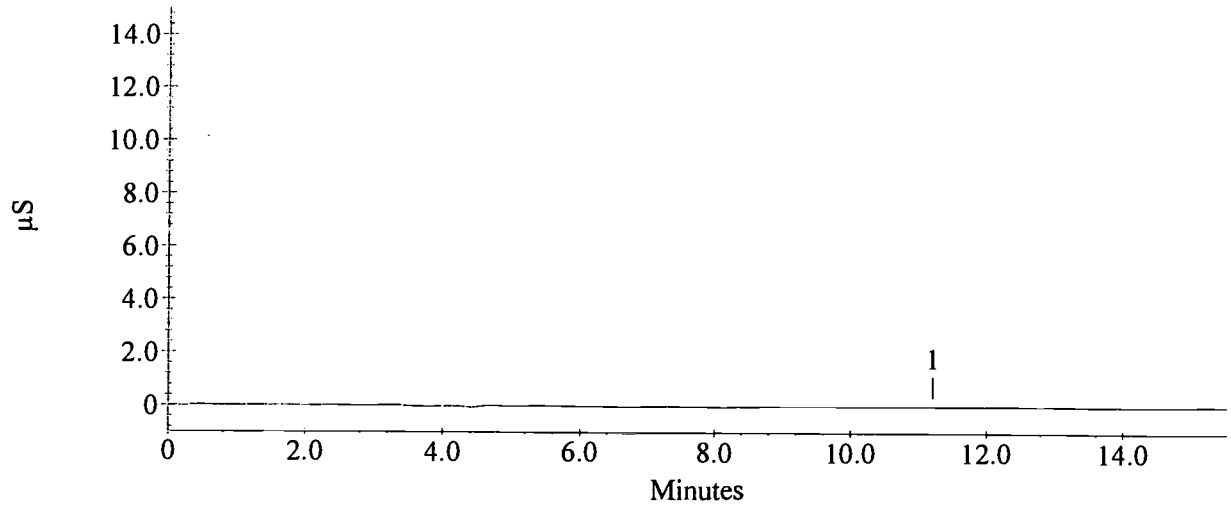
**Sample Name : AUTOCAL 1**
**Data File Name : C:\PeakNet51\data\01080201\DATA_001.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Schedule File Name : c:\peaknet51\schedule\01080201.sch
Date Time Collected : 1/8/02 3:57:53 PM
Calibration Date : 1/8/02 4:15:53 PM
System Operator : JMM 1663

Peak Information : All Components

| Peak # | Component Name | Retention Time | Cal Response (Previous) | Cal Response (Measured) | Cal Response (New) |
|---|---|---|---|---|---|
| 1 | HPO4<br>Cl<br>NO2<br>Br<br>NO3 | 11.20 | 2361 | 3836 | 3836 |
| 1 | HPO4<br>SO4 | 11.20 | 2361 | 3836 | 3836 |

*AUTOCAL 1*



# Calibration Update Report

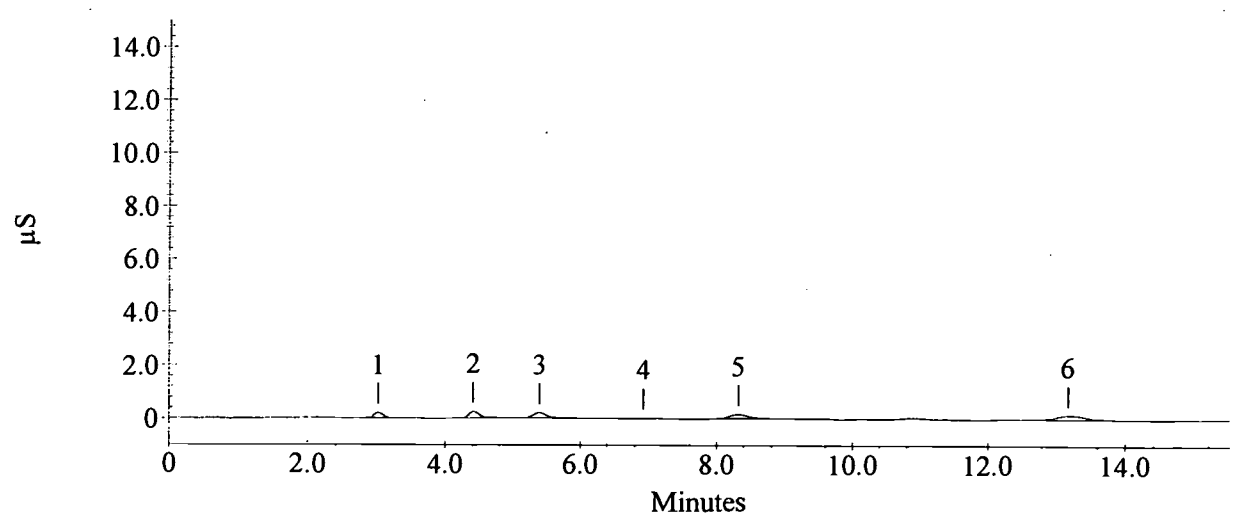
**Sample Name : AUTOCAL 2**
**Data File Name : C:\PeakNet51\data\01080201\DATA_002.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Schedule File Name : c:\peaknet51\schedule\01080201.sch
Date Time Collected : 1/8/02 7:38:53 PM
Calibration Date : 1/8/02 7:56:55 PM
System Operator : JMM 1663

Peak Information : All Components

| Peak # | Component Name | Retention Time | Cal Response (Previous) | Cal Response (Measured) | Cal Response (New) |
|---|---|---|---|---|---|
| 1 | F | 3.02 | 19642 | 19120 | 19120 |
| 2 | Cl | 4.41 | 55186 | 24715 | 24715 |
| 3 | NO2 | 5.39 | 25347 | 27767 | 27767 |
| 4 | Br | 6.93 | 4954 | 3823 | 2357 |
| 5 | NO3<br>HPO4 | 8.32 | 33192 | 27869 | 27869 |
| 6 | SO4 | 13.17 | 60636 | 44430 | 44430 |

*AUTOCAL 2*



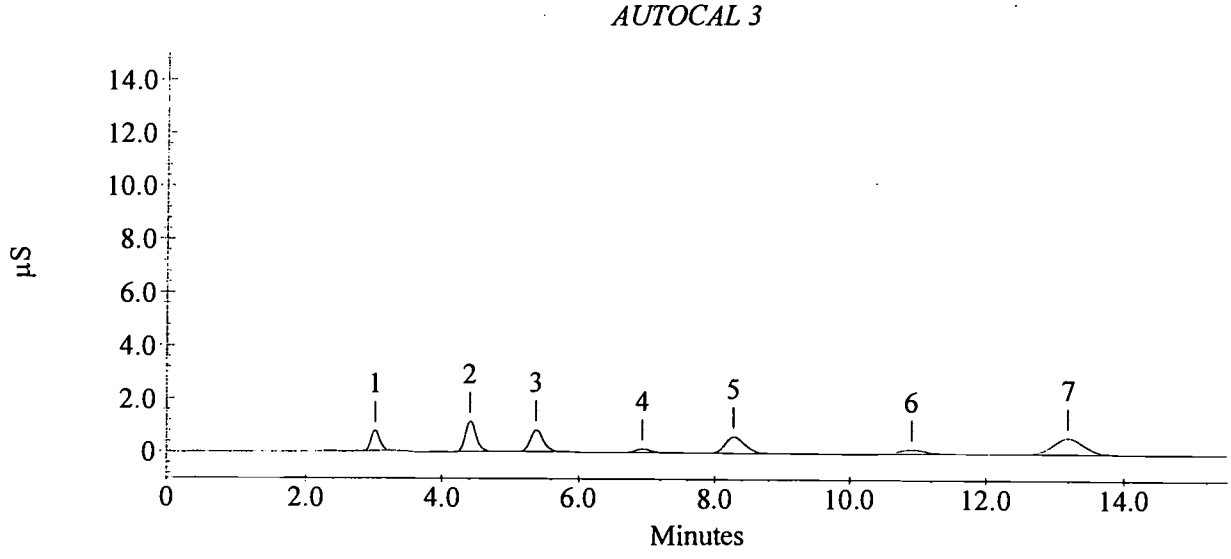
# Calibration Update Report

**Sample Name : AUTOCAL 3**
**Data File Name : C:\PeakNet51\data\01080201\DATA_003.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Schedule File Name : c:\peaknet51\schedule\01080201.sch
Date Time Collected : 1/8/02 6:57:11 PM
Calibration Date : 1/8/02 7:15:15 PM
System Operator : JMM 1663

Peak Information : All Components

| Peak # | Component Name | Retention Time | Cal Response (Previous) | Cal Response (Measured) | Cal Response (New) |
|---|---|---|---|---|---|
| 1 | F | 3.02 | 74061 | 68253 | 68253 |
| 2 | Cl | 4.41 | 133748 | 125785 | 125785 |
| 3 | NO2 | 5.38 | 107123 | 104464 | 104464 |
| 4 | Br | 6.94 | 22136 | 20529 | 20529 |
| 5 | NO3 | 8.28 | 118662 | 122766 | 122766 |
| 6 | HPO4 | 10.91 | 36588 | 40407 | 40407 |
| 7 | SO4 | 13.19 | 203627 | 188380 | 188380 |



# Calibration Update Report

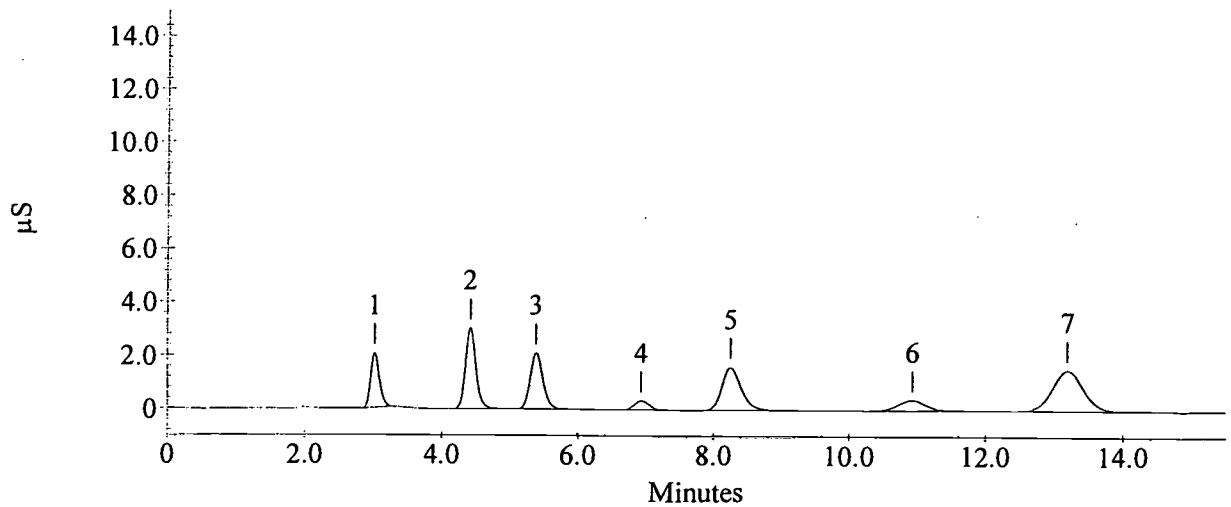
**Sample Name : AUTOCAL 4**
**Data File Name : C:\PeakNet51\data\01080201\DATA_004.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Schedule File Name : c:\peaknet51\schedule\01080201.sch
Date Time Collected : 1/8/02 7:15:20 PM
Calibration Date : 1/8/02 7:33:24 PM
System Operator : JMM 1663

Peak Information : All Components

| Peak # | Component Name | Retention Time | Cal Response (Previous) | Cal Response (Measured) | Cal Response (New) |
|---|---|---|---|---|---|
| 1 | F | 3.02 | 194397 | 181349 | 181349 |
| 2 | Cl | 4.42 | 391913 | 326999 | 326999 |
| 3 | NO2 | 5.38 | 276433 | 272819 | 272819 |
| 4 | Br | 6.93 | 54503 | 53020 | 53020 |
| 5 | NO3 | 8.25 | 322212 | 313918 | 313918 |
| 6 | HPO4 | 10.93 | 199806 | 111012 | 111012 |
| 7 | SO4 | 13.19 | 498708 | 470559 | 470559 |

*AUTOCAL 4*



# Calibration Update Report

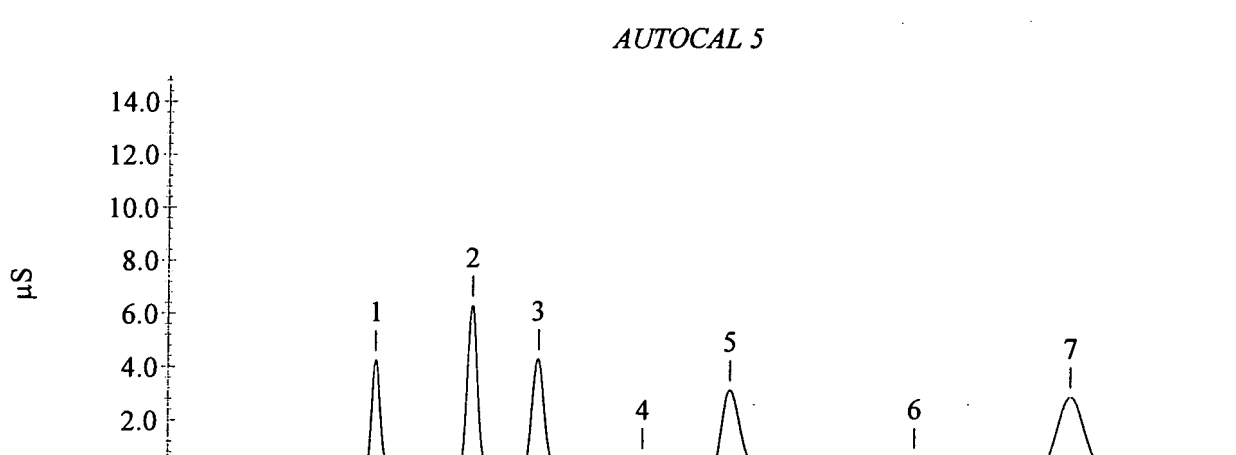
**Sample Name : AUTOCAL 5**
**Data File Name : C:\PeakNet51\data\01080201\DATA_005.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Schedule File Name : c:\peaknet51\schedule\01080201.sch
Date Time Collected : 1/8/02 5:19:21 PM
Calibration Date : 1/8/02 5:37:20 PM
System Operator : JMM 1663

Peak Information : All Components

| Peak # | Component Name | Retention Time | Cal Response (Previous) | Cal Response (Measured) | Cal Response (New) |
|---|---|---|---|---|---|
| 1 | F | 3.01 | 361045 | 391895 | 391895 |
| 2 | Cl | 4.42 | 622973 | 668061 | 668061 |
| 3 | NO2 | 5.38 | 473777 | 563805 | 563805 |
| 4 | Br | 6.91 | 99847 | 104794 | 104794 |
| 5 | NO3 | 8.20 | 599435 | 633728 | 633728 |
| 6 | HPO4 | 10.90 | 126827 | 209160 | 209160 |
| 7 | SO4 | 13.18 | 845513 | 961583 | 961583 |

*AUTOCAL 5*



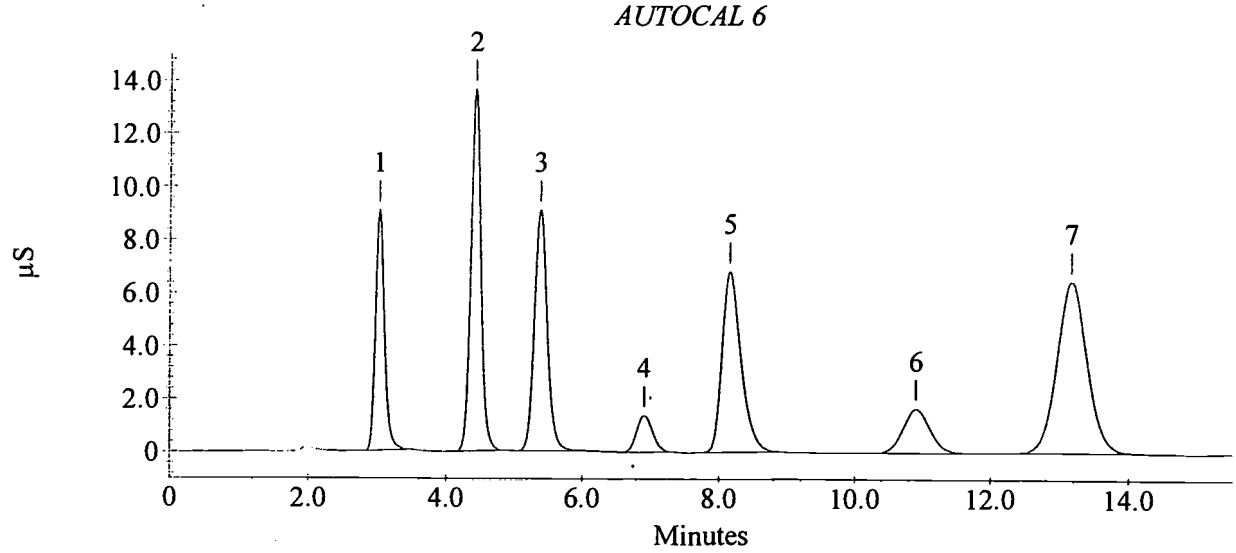
# Calibration Update Report

**Sample Name : AUTOCAL 6**
**Data File Name : C:\PeakNet51\data\01080201\DATA_006.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Schedule File Name : c:\peaknet51\schedule\01080201.sch
Date Time Collected : 1/8/02 5:37:26 PM
Calibration Date : 1/8/02 5:55:24 PM
System Operator : JMM 1663

Peak Information : All Components

| Peak # | Component Name | Retention Time | Cal Response (Previous) | Cal Response (Measured) | Cal Response (New) |
|---|---|---|---|---|---|
| 1 | F | 3.02 | 762832 | 821542 | 821542 |
| 2 | Cl | 4.43 | 1319550 | 1425939 | 1425939 |
| 3 | NO2 | 5.38 | 1011434 | 1169673 | 1169673 |
| 4 | Br | 6.91 | 200262 | 218478 | 218478 |
| 5 | NO3 | 8.16 | 1255672 | 1330906 | 1330906 |
| 6 | HPO4 | 10.91 | 331958 | 457323 | 457323 |
| 7 | SO4 | 13.17 | 1884021 | 1971922 | 1971922 |



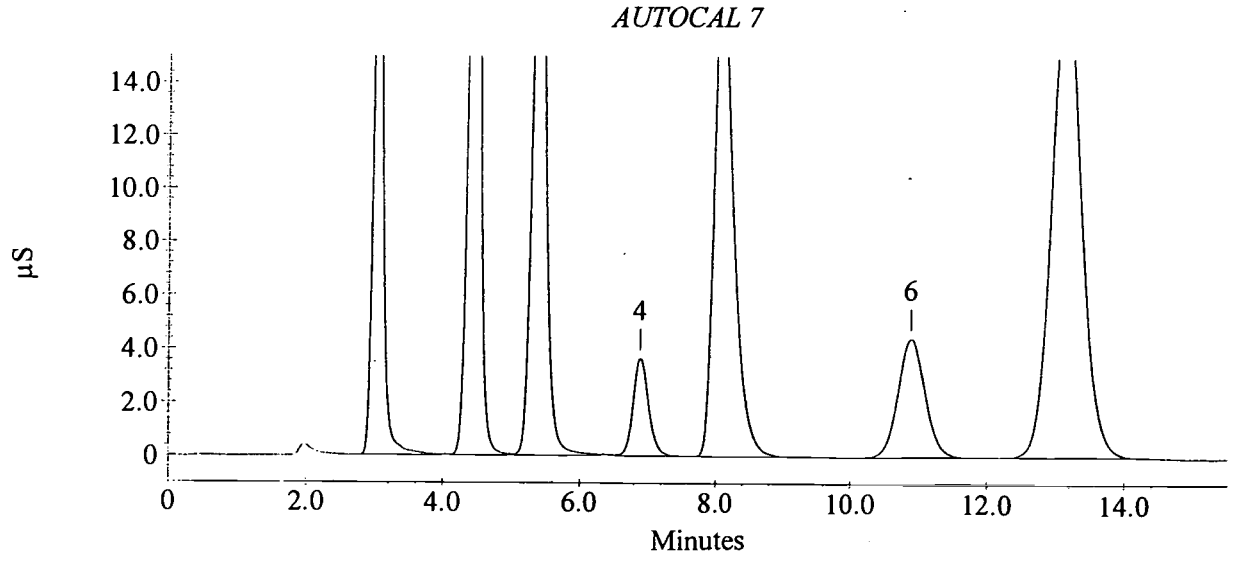
# Calibration Update Report

**Sample Name : AUTOCAL 7**
**Data File Name : C:\PeakNet51\data\01080201\DATA_007.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Schedule File Name : c:\peaknet51\schedule\01080201.sch
Date Time Collected : 1/8/02 5:55:29 PM
Calibration Date : 1/8/02 6:13:28 PM
System Operator : JMM 1663

Peak Information : All Components

| Peak # | Component Name | Retention Time | Cal Response (Previous) | Cal Response (Measured) | Cal Response (New) |
|---|---|---|---|---|---|
| 1 | F | 3.03 | 2031053 | 2270177 | 2281655 |
| 2 | Cl | 4.45 | 3670333 | 4026111 | 4032224 |
| 3 | NO2 | 5.39 | 2734493 | 3138305 | 3143515 |
| 4 | Br | 6.89 | 514750 | 577291 | 578244 |
| 5 | NO3 | 8.08 | 3460730 | 3654383 | 3654383 |
| 6 | HPO4 | 10.88 | 973112 | 1199147 | 1199147 |
| 7 | SO4 | 13.13 | 5200592 | 5373785 | 5373785 |



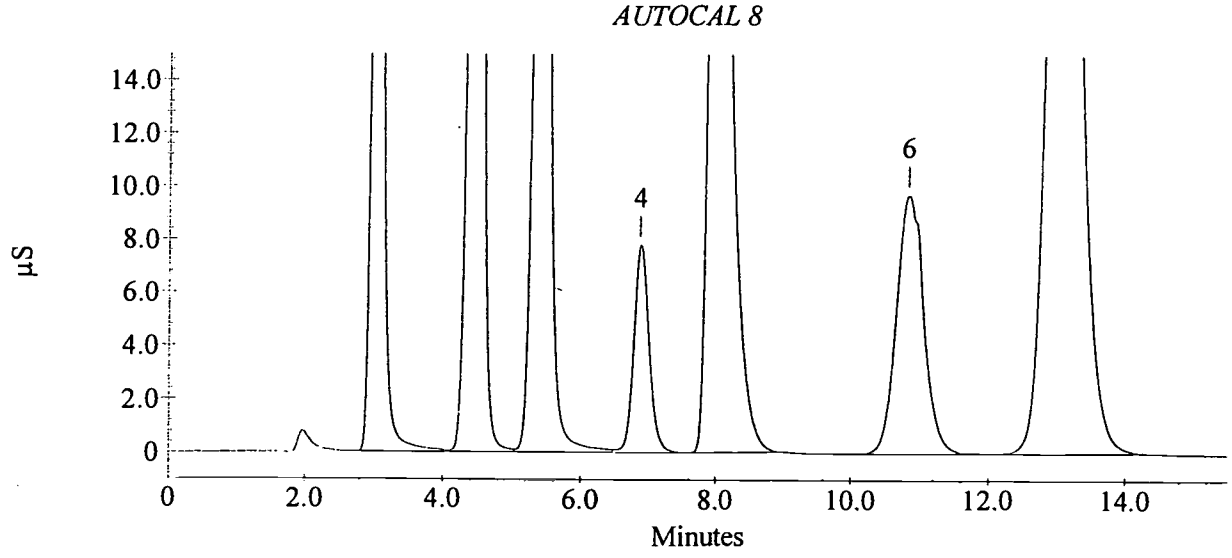
# Calibration Update Report

**Sample Name : AUTOCAL 8**
**Data File Name : C:\PeakNet51\data\01080201\DATA_008.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Schedule File Name : c:\peaknet51\schedule\01080201.sch
Date Time Collected : 1/8/02 6:13:33 PM
Calibration Date : 1/8/02 6:31:59 PM
System Operator : JMM 1663

Peak Information : All Components

| Peak # | Component Name | Retention Time | Cal Response (Previous) | Cal Response (Measured) | Cal Response (New) |
|---|---|---|---|---|---|
| 1 | F | 3.04 | 4239241 | 4690123 | 4690123 |
| 2 | Cl | 4.48 | 7966138 | 8721125 | 8721125 |
| 3 | NO2 | 5.41 | 5728359 | 6479542 | 6479542 |
| 4 | Br | 6.88 | 1086600 | 1223126 | 1223126 |
| 5 | NO3 | 8.00 | 8314825 | 7982600 | 7620448 |
| 6 | HPO4 | 10.84 | 2197080 | 2644610 | 2644610 |
| 7 | SO4 | 13.05 | 11274558 | 11770451 | 11770451 |



# Sample Analysis Report

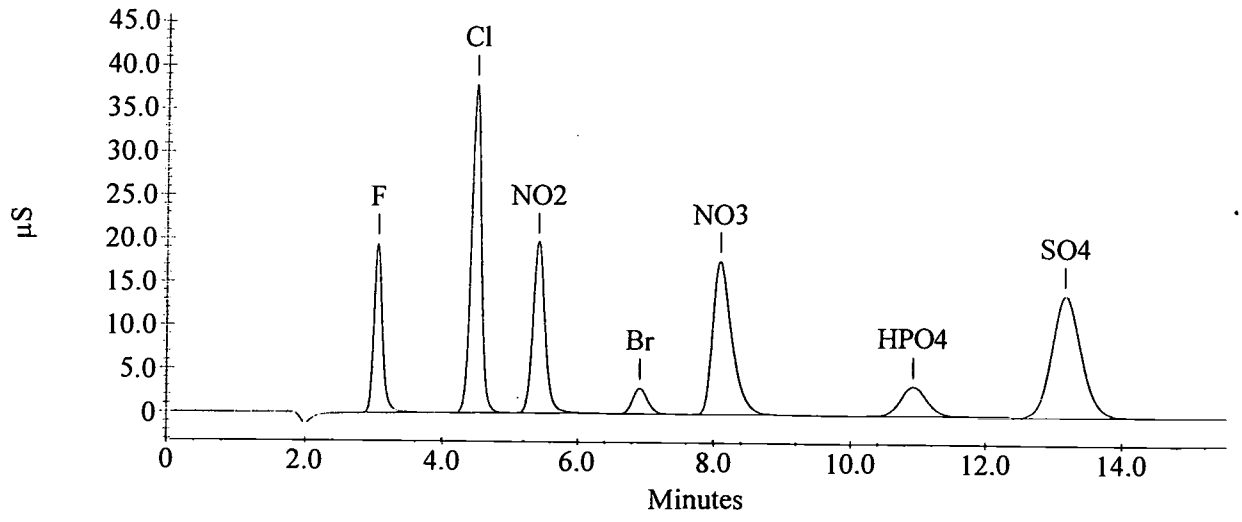
**Sample Name : ICV01**
**Data File Name : C:\PeakNet51\data\01080201\DATA_009.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/8/02 9:30:13 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.05 | 3.57 | 1646767 | 193771 |
| 2 | Cl | 4.49 | 11.40 | 3847663 | 376665 |
| 3 | NO2 | 5.41 | 3.91 | 2484259 | 196281 |
| 4 | Br | 6.91 | 3.72 | 442208 | 28888 |
| 5 | NO3 | 8.09 | 4.51 | 3362401 | 175332 |
| 6 | HPO4 | 10.92 | 3.61 | 915348 | 33460 |
| 7 | SO4 | 13.17 | 18.21 | 4115679 | 138980 |

*ICV01*



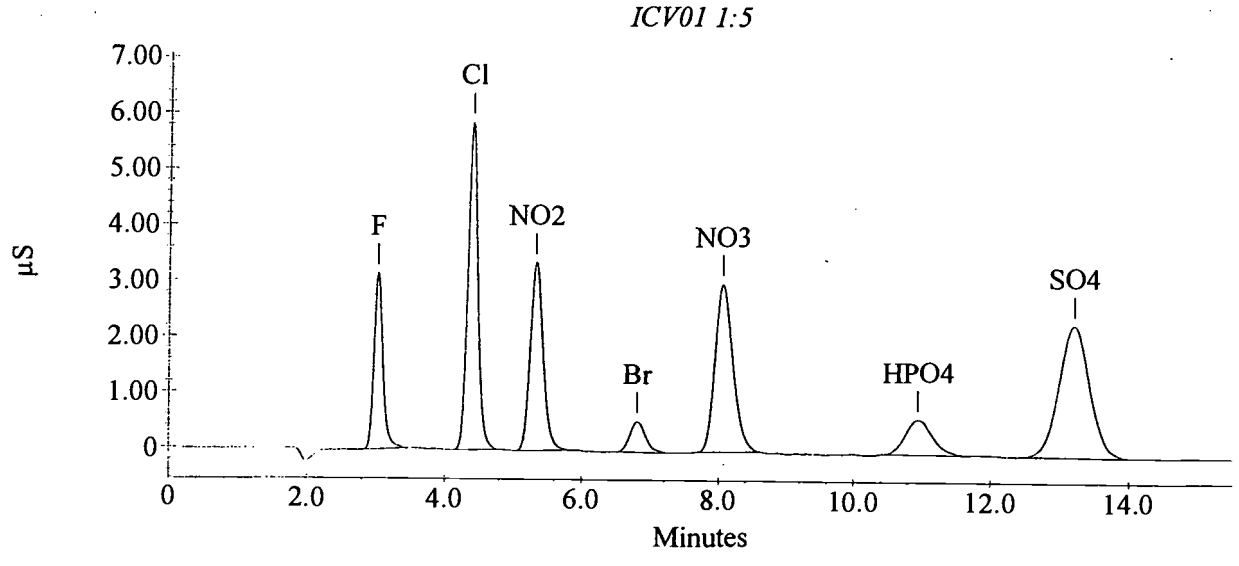
# Sample Analysis Report

**Sample Name : ICV01 1:5**
**Data File Name : C:\PeakNet51\data\01080201\DATA_010.DXD**

Method File Name : c:\peaknet51\method\as14_an1.met
Date Time Collected : 1/9/02 2:26:13 PM
System Operator : JMM 1663

Peak Information : All Peaks

| Peak # | Component Name | Retention Time | Amount (mg/l) | Peak Area | Peak Height |
|---|---|---|---|---|---|
| 1 | F | 3.02 | 3.24 | 282448 | 31424 |
| 2 | Cl | 4.40 | 10.62 | 606199 | 58469 |
| 3 | NO2 | 5.33 | 3.72 | 429587 | 33615 |
| 4 | Br | 6.81 | 4.06 | 87228 | 5454 |
| 5 | NO3 | 8.06 | 4.18 | 556219 | 29984 |
| 6 | HPO4 | 10.95 | 3.91 | 170736 | 6229 |
| 7 | SO4 | 13.20 | 18.75 | 720295 | 23587 |



# CERTIFICATE OF ANALYSIS

| Service Location | Received | Project | Lab ID |
|---|---|---|---|
| HERITAGE ENVIRONMENTAL SERVICES, LLC<br>COMMERCIAL LABORATORY OPERATIONS<br>7901 W. MORRIS ST.<br>INDIANAPOLIS, IN 46231<br>(317)243-8304 | 11-JAN-02 | | A581214 |
| | Complete | PO Number | |
| | 29-JAN-02 | 98-653298-317B* | |
| | Printed | Sampled | |
| | 30-JAN-02 | 09-JAN-02 10:00 | |

| Report To | Bill To |
|---|---|
| MITT L. DENNEY<br>INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN<br>2525 NORTH SHADELAND AVENUE<br>BUILDING 30<br>INDIANAPOLIS, IN 46219 | DEBBIE HILTON (SHADELAND)<br>INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN<br>100 N. SENATE AVENUE<br>PO BOX 6015<br>INDIANAPOLIS, IN 46206 |

Sample Description

CLIENT ID: DK27428
MATRIX TYPE: NON-SPECIFIC WATER
DESCRIPTION: DK27428
Submitter Code :7195

**FAA OR ICP ACID DIGESTION EPA 200.0**
Analyst: M. HALL | Analysis Date: 14-JAN-02 10:00 | Instrument: PREP | Test: P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| INITIAL WEIGHT OR VOLUME | 50 | | mL |
| FINAL VOLUME | 50 | | mL |

**ARSENIC TRACE ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: D. DRABENSTOTT | Analysis Date: 17-JAN-02 16:32 | Instrument: TRACE ICP | Test: M403.0.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| ARSENIC | BDL | 0.0050 | mg/L |

**COPPER ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER | Analysis Date: 15-JAN-02 00:16 | Instrument: ICP | Test: M412.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| COPPER | 0.048 | 0.020 | mg/L |

**LEAD TRACE ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: D. DRABENSTOTT | Analysis Date: 17-JAN-02 16:32 | Instrument: TRACE ICP | Test: M416.0.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| LEAD | BDL | 0.0050 | mg/L |

**BARIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER | Analysis Date: 15-JAN-02 00:16 | Instrument: ICP | Test: M404.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BARIUM | 13. | 0.010 | mg/L |

**CALCIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:16 Instrument: ICP Test: M409.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| CALCIUM | 350 | 0.10 | mg/L |

**IRON ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:16 Instrument: ICP Test: M415.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| IRON | 5.5 | 0.025 | mg/L |

**MAGNESIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:16 Instrument: ICP Test: M418.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| MAGNESIUM | 230 | 0.10 | mg/L |

**POTASSIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 22:17 Instrument: ICP Test: M426.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| POTASSIUM | 40. | 5.0 | mg/L |
| *DILUTION 1:50* | | | |

**SODIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 22:17 Instrument: ICP Test: M431.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| SODIUM | 13000 | 5.0 | mg/L |
| *DILUTION 1:50* | | | |

**BORON ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:16 Instrument: ICP Test: M407.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BORON | 3.5 | 0.050 | mg/L |

**ALKALINITY TOTAL EPA 310.1** NELAC:Y
Analyst: B. STACEY Analysis Date: 12-JAN-02 14:00 Test: G605.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| ALKALINITY | 1800 | 1.0 | mg/L |

**BROMIDE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1** NELAC:N
Analyst: J. MONTGOMERY Analysis Date: 14-JAN-02 16:23 Instrument: IC Test: G300.4.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BROMIDE | 56 | 5.0 | mg/L |

*1:100 Dilution.*

**TOTAL ORGANIC CARBON EPA 415.1** NELAC:N

Analyst: B. BATTANI Analysis Date: 14-JAN-02 10:30 Instrument: TOC Test: 0401.1.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| TOTAL ORGANIC CARBON (TOC) | 87 | 1.0 | mg/L |

*1:10 Dilution due to matrix interference.*

**CHLORIDE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1** NELAC:Y

Analyst: J. MONTGOMERY Analysis Date: 14-JAN-02 16:41 Instrument: IC Test: G300.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| CHLORIDE | 20000 | 500 | mg/L |

*1:2000 Dilution.*

**SULFATE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1** NELAC:Y

Analyst: J. MONTGOMERY Analysis Date: 14-JAN-02 16:23 Instrument: IC Test: G300.7.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| SULFATE | 120 | 25 | mg/L |

*1:100 Dilution.*

**MICRO-EXTRACTION FOR FID HLI2**

Analyst: S. BRYAN Analysis Date: 16-JAN-02 Instrument: PREP Test: P409.0.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| INITIAL WEIGHT OR VOLUME | 40 | | mL |
| FINAL VOLUME | 2 | | mL |

**HYDROCARBON SCAN BY GC:FID SW846-8015B(MOD)** NELAC:N

Analyst: S. BRYAN Analysis Date: 17-JAN-02 02:37 Instrument: GC/FID Test: 0409.1.0

Prep: MICRO-EXTRACTION FOR FID HLI2 P409.0.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| GASOLINE | BDL | 10 | mg/L |
| DIESEL FUEL | 99 | 25 | mg/L |
| OTHER HYDROCARBONS | BDL | 50 | mg/L |
| .... | | | |
| SURROGATE RECOVERY | | | |
| ---------- | | | |
| 1-CHLORO-2-FLUOROBENZENE | 151.2 | | % Rec |
| 1-CHLOROOCTADECANE | 110.2 | | % Rec |

*1:20 Dilution*
*First surrogate out of range due to crude oil interference. Crude oil present is estimated off of diesel fuel result.*

Sample Comments

*BDL Below Detection Limit*

*Sample was received on ice at temperature 2.6 C.*
*All aqueous samples are reported on a wet weight basis unless otherwise noted.*

Sample Comments

*This Certificate shall not be reproduced, except in full, without the written approval of the lab.*
*The sample results relate only to the analytes of interest tested or to the sample as received by the lab.*
*Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.*
*Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.*
*Arizona License Number AZ0627.*

Approved : H.E. Busch, QAO

# CERTIFICATE OF ANALYSIS

| Service Location | Received | Project | Lab ID |
|---|---|---|---|
| HERITAGE ENVIRONMENTAL SERVICES, LLC<br>COMMERCIAL LABORATORY OPERATIONS<br>7901 W. MORRIS ST.<br>INDIANAPOLIS, IN 46231<br>(317)243-8304 | 11-JAN-02 | | A581215 |
| | Complete | PO Number | |
| | 29-JAN-02 | 98-653298-317B* | |
| | Printed | Sampled | |
| | 30-JAN-02 | 09-JAN-02 11:00 | |

| Report To | Bill To |
|---|---|
| MITT L. DENNEY<br>INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN<br>2525 NORTH SHADELAND AVENUE<br>BUILDING 30<br>INDIANAPOLIS, IN 46219 | DEBBIE HILTON (SHADELAND)<br>INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN<br>100 N. SENATE AVENUE<br>PO BOX 6015<br>INDIANAPOLIS, IN 46206 |

Sample Description

CLIENT ID: DK27429
MATRIX TYPE: NON-SPECIFIC WATER
DESCRIPTION: DK27429
Submitter Code :7195

## FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: M. HALL | Analysis Date: 14-JAN-02 10:00 | Instrument: PREP | Test: P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| INITIAL WEIGHT OR VOLUME | 50 | | mL |
| FINAL VOLUME | 50 | | mL |

## ARSENIC TRACE ICP EPA 200.7 REV. 4.4

NELAC:Y

Analyst: D. DRABENSTOTT | Analysis Date: 17-JAN-02 16:37 | Instrument: TRACE ICP | Test: M403.0.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| ARSENIC | BDL | 0.0050 | mg/L |

## COPPER ICP EPA 200.7 REV. 4.4

NELAC:Y

Analyst: J. KRAMER | Analysis Date: 15-JAN-02 00:20 | Instrument: ICP | Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| COPPER | BDL | 0.020 | mg/L |

## LEAD TRACE ICP EPA 200.7 REV. 4.4

NELAC:Y

Analyst: D. DRABENSTOTT | Analysis Date: 17-JAN-02 16:37 | Instrument: TRACE ICP | Test: M416.0.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| LEAD | BDL | 0.0050 | mg/L |

## BARIUM ICP EPA 200.7 REV. 4.4

NELAC:Y

Analyst: J. KRAMER | Analysis Date: 15-JAN-02 00:20 | Instrument: ICP | Test: M404.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BARIUM | 0.16 | 0.010 | mg/L |

**CALCIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:20 Instrument: ICP Test: M409.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| CALCIUM | 38. | 0.10 | mg/L |

**IRON ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:20 Instrument: ICP Test: M415.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| IRON | 24. | 0.025 | mg/L |

**MAGNESIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:20 Instrument: ICP Test: M418.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| MAGNESIUM | 16. | 0.10 | mg/L |

**POTASSIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:20 Instrument: ICP Test: M426.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| POTASSIUM | 28. | 0.10 | mg/L |

*There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated.*

**SODIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 22:20 Instrument: ICP Test: M431.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| SODIUM | 3800 | 5.0 | mg/L |

*DILUTION 1:50*

**BORON ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:20 Instrument: ICP Test: M407.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BORON | 2.3 | 0.050 | mg/L |

**ALKALINITY TOTAL EPA 310.1** NELAC:Y
Analyst: B. STACEY Analysis Date: 12-JAN-02 14:00 Test: G605.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| ALKALINITY | 680 | 1.0 | mg/L |

**BROMIDE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1** NELAC:N
Analyst: J. MONTGOMERY Analysis Date: 14-JAN-02 17:00 Instrument: IC Test: G300.4.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BROMIDE | 15 | 2.5 | mg/L |

*1:50 Dilution.*

**TOTAL ORGANIC CARBON EPA 415.1** NELAC:N

Analyst: B. BATTANI Analysis Date: 14-JAN-02 10:30 Instrument: TOC Test: 0401.1.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| TOTAL ORGANIC CARBON (TOC) | 8.4 | 1.0 | mg/L |

*1:5 Dilution due to matrix interference.*

**CHLORIDE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1** NELAC:Y

Analyst: J. MONTGOMERY Analysis Date: 14-JAN-02 17:18 Instrument: IC Test: G300.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| CHLORIDE | 6100 | 130 | mg/L |

*1:500 Dilution.*

**SULFATE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1** NELAC:Y

Analyst: J. MONTGOMERY Analysis Date: 14-JAN-02 17:00 Instrument: IC Test: G300.7.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| SULFATE | 31 | 13 | mg/L |

*1:50 Dilution.*

**MICRO-EXTRACTION FOR FID HLI2**

Analyst: S. BRYAN Analysis Date: 16-JAN-02 Instrument: PREP Test: P409.0.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| INITIAL WEIGHT OR VOLUME | 40 | | mL |
| FINAL VOLUME | 2 | | mL |

**HYDROCARBON SCAN BY GC:FID SW846-8015B(MOD)** NELAC:N

Analyst: S. BRYAN Analysis Date: 17-JAN-02 03:18 Instrument: GC/FID Test: 0409.1.0

Prep: MICRO-EXTRACTION FOR FID HLI2 P409.0.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| GASOLINE | BDL | 2.5 | mg/L |
| DIESEL FUEL | 32 | 6.3 | mg/L |
| OTHER HYDROCARBONS | BDL | 12.5 | mg/L |
| ... | | | |
| SURROGATE RECOVERY | | | |
| ---------- | | | |
| 1-CHLORO-2-FLUOROBENZENE | 193.2 | | % Rec |
| 1-CHLOROOCTADECANE | 165.2 | | % Rec |

*1:5 Dilution*
*Surrogates high due to crude oil interference. Crude oil present is estimated off of diesel fuel result.*

Sample Comments

*BDL Below Detection Limit*

*Sample was received on ice at temperature 2.6 C.*
*All aqueous samples are reported on a wet weight basis unless otherwise noted.*

Sample Comments

*This Certificate shall not be reproduced, except in full, without the written approval of the lab.*
*The sample results relate only to the analytes of interest tested or to the sample as received by the lab.*
*Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.*
*Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.*
*Arizona License Number AZ0627.*

Approved : _____

# CERTIFICATE OF ANALYSIS

| Service Location | Received | Project | Lab ID |
|---|---|---|---|
| HERITAGE ENVIRONMENTAL SERVICES, LLC<br>COMMERCIAL LABORATORY OPERATIONS<br>7901 W. MORRIS ST.<br>INDIANAPOLIS, IN 46231<br>(317)243-8304 | 11-JAN-02 | | A581216 |
| | Complete<br>29-JAN-02 | PO Number<br>98-653298-317B* | |
| | Printed<br>30-JAN-02 | Sampled<br>09-JAN-02 11:30 | |

| Report To | Bill To |
|---|---|
| MITT L. DENNEY<br>INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN<br>2525 NORTH SHADELAND AVENUE<br>BUILDING 30<br>INDIANAPOLIS, IN 46219 | DEBBIE HILTON (SHADELAND)<br>INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN<br>100 N. SENATE AVENUE<br>PO BOX 6015<br>INDIANAPOLIS, IN 46206 |

Sample Description

CLIENT ID: DK27430
MATRIX TYPE: NON-SPECIFIC WATER
DESCRIPTION: DK27430
Submitter Code :7195

**FAA OR ICP ACID DIGESTION EPA 200.0**
Analyst: M. HALL | Analysis Date: 14-JAN-02 10:00 | Instrument: PREP | Test: P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| INITIAL WEIGHT OR VOLUME | 50 | | mL |
| FINAL VOLUME | 50 | | mL |

**ANTIMONY ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER | Analysis Date: 15-JAN-02 00:07 | Instrument: ICP | Test: M402.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| ANTIMONY | BDL | 0.010 | mg/L |

**ARSENIC TRACE ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: D. DRABENSTOTT | Analysis Date: 17-JAN-02 16:07 | Instrument: TRACE ICP | Test: M403.0.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| ARSENIC | BDL | 0.0050 | mg/L |

**BERYLLIUM TRACE ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: D. DRABENSTOTT | Analysis Date: 17-JAN-02 16:07 | Instrument: TRACE ICP | Test: M405.0.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BERYLLIUM | BDL | 0.0010 | mg/L |

**CADMIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER | Analysis Date: 15-JAN-02 00:07 | Instrument: ICP | Test: M408.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| CADMIUM | BDL | 0.0050 | mg/L |

**CHROMIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:07 Instrument: ICP Test: M410.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| CHROMIUM | BDL | 0.010 | mg/L |

**COPPER ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:07 Instrument: ICP Test: M412.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| COPPER | BDL | 0.020 | mg/L |

**LEAD TRACE ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: D. DRABENSTOTT Analysis Date: 17-JAN-02 16:07 Instrument: TRACE ICP Test: M416.0.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| LEAD | BDL | 0.0050 | mg/L |

**NICKEL ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:07 Instrument: ICP Test: M422.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| NICKEL | BDL | 0.010 | mg/L |

**BARIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:07 Instrument: ICP Test: M404.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BARIUM | 0.33 | 0.010 | mg/L |

**CALCIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:07 Instrument: ICP Test: M409.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| CALCIUM | 2.6 | 0.10 | mg/L |

**IRON ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:07 Instrument: ICP Test: M415.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| IRON | 0.051 | 0.025 | mg/L |

**MAGNESIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:07 Instrument: ICP Test: M418.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| MAGNESIUM | 1.5 | 0.10 | mg/L |

**POTASSIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:07 Instrument: ICP Test: M426.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| POTASSIUM | 5.5 | 0.10 | mg/L |

*There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated.*

**SODIUM ICP EPA 200.7 REV. 4.4** NELAC:Y

Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:07 Instrument: ICP Test: M431.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| SODIUM | 1100 | 0.50 | mg/L |

*DILUTION 1:5*

**BORON ICP EPA 200.7 REV. 4.4** NELAC:Y

Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:07 Instrument: ICP Test: M407.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BORON | 1.5 | 0.050 | mg/L |

**MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0**

Analyst: J. O'BRYAN Analysis Date: 14-JAN-02 12:30 Instrument: PREP Test: P131.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| INITIAL WEIGHT OR VOLUME | 40 | | mL |
| FINAL VOLUME | 40 | | mL |

**MERCURY CVAA EPA 245.1 REV. 3.0** NELAC:Y

Analyst: J. O'BRYAN Analysis Date: 15-JAN-02 13:22 Instrument: CVAA Test: M420.2.0

Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0 P131.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| MERCURY | BDL | 0.00020 | mg/L |

**ALKALINITY TOTAL EPA 310.1** NELAC:Y

Analyst: B. STACEY Analysis Date: 12-JAN-02 14:00 Test: G605.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| ALKALINITY | 1100 | 1.0 | mg/L |

**NITROGEN, NITRATE-NITRITE EPA 353.2 REV. 2.0** NELAC:Y

Analyst: M. ADKINS Analysis Date: 11-JAN-02 18:05 Instrument: AUTO-ANALYZER Test: G113.3.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| NITROGEN, NITRATE-NITRITE | BDL | 0.01 | mg/L |

**BROMIDE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1** NELAC:N

Analyst: J. MONTGOMERY Analysis Date: 14-JAN-02 19:29 Instrument: IC Test: G300.4.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BROMIDE | 3.0 | 0.050 | mg/L |

**TOTAL ORGANIC CARBON EPA 415.1** NELAC:N

Analyst: B. BATTANI Analysis Date: 14-JAN-02 10:30 Instrument: TOC Test: O401.1.0

**HERITAGE ENVIRONMENTAL SERVICES, LLC** **Sample ID: A581216 DK27430**

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| TOTAL ORGANIC CARBON (TOC) | BDL | 1.0 | mg/L |

**CHLORIDE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1** NELAC:Y

Analyst: J. MONTGOMERY Analysis Date: 14-JAN-02 18:30 Instrument: IC Test: G300.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| CHLORIDE | 860 | 13 | mg/L |

*1:50 Dilution.*

**SULFATE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1** NELAC:Y

Analyst: J. MONTGOMERY Analysis Date: 14-JAN-02 19:29 Instrument: IC Test: G300.7.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| SULFATE | BDL | 0.25 | mg/L |

**MICRO-EXTRACTION FOR FID HLI2**

Analyst: S. BRYAN Analysis Date: 16-JAN-02 Instrument: PREP Test: P409.0.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| INITIAL WEIGHT OR VOLUME | 40 | | mL |
| FINAL VOLUME | 2 | | mL |

**HYDROCARBON SCAN BY GC:FID SW846-8015B(MOD)** NELAC:N

Analyst: S. BRYAN Analysis Date: 17-JAN-02 03:59 Instrument: GC/FID Test: O409.1.0

Prep: MICRO-EXTRACTION FOR FID HLI2 P409.0.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| GASOLINE | BDL | 0.5 | mg/L |
| DIESEL FUEL | BDL | 1.3 | mg/L |
| OTHER HYDROCARBONS | BDL | 2.5 | mg/L |
| ... | | | |
| SURROGATE RECOVERY | | | |
| 1-CHLORO-2-FLUOROBENZENE | 117.8 | | % Rec |
| 1-CHLOROOCTADECANE | 139.7 | | % Rec |

HERITAGE

Sample Comments

*BDL Below Detection Limit*

*Sample was received on ice at temperature 2.6 C.*
*All aqueous samples are reported on a wet weight basis unless otherwise noted.*

*This Certificate shall not be reproduced, except in full, without the written approval of the lab.*
*The sample results relate only to the analytes of interest tested or to the sample as received by the lab.*
*Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.*
*Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.*
*Arizona License Number AZ0627.*

Approved : H.A. Burch, QAO

# CERTIFICATE OF ANALYSIS

| Service Location | Received | Project | Lab ID |
|---|---|---|---|
| HERITAGE ENVIRONMENTAL SERVICES, LLC<br>COMMERCIAL LABORATORY OPERATIONS<br>7901 W. MORRIS ST.<br>INDIANAPOLIS, IN 46231<br>(317)243-8304 | 11-JAN-02 | | A581217 |
| | Complete | PO Number | |
| | 29-JAN-02 | 98-653298-317B* | |
| | Printed | Sampled | |
| | 30-JAN-02 | 10-JAN-02 10:00 | |

| Report To | Bill To |
|---|---|
| MITT L. DENNEY<br>INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN<br>2525 NORTH SHADELAND AVENUE<br>BUILDING 30<br>INDIANAPOLIS, IN 46219 | DEBBIE HILTON (SHADELAND)<br>INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN<br>100 N. SENATE AVENUE<br>PO BOX 6015<br>INDIANAPOLIS, IN 46206 |

Sample Description

CLIENT ID: DK27431
MATRIX TYPE: NON-SPECIFIC WATER
DESCRIPTION: DK27431
Submitter Code :7195

## FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: M. HALL | Analysis Date: 14-JAN-02 10:00 | Instrument: PREP | Test: P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| INITIAL WEIGHT OR VOLUME | 50 | | mL |
| FINAL VOLUME | 50 | | mL |

## ANTIMONY ICP EPA 200.7 REV. 4.4

NELAC:Y

Analyst: J. KRAMER | Analysis Date: 15-JAN-02 00:23 | Instrument: ICP | Test: M402.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| ANTIMONY | BDL | 0.010 | mg/L |

## ARSENIC TRACE ICP EPA 200.7 REV. 4.4

NELAC:Y

Analyst: D. DRABENSTOTT | Analysis Date: 17-JAN-02 16:41 | Instrument: TRACE ICP | Test: M403.0.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| ARSENIC | BDL | 0.0050 | mg/L |

## BERYLLIUM TRACE ICP EPA 200.7 REV. 4.4

NELAC:Y

Analyst: D. DRABENSTOTT | Analysis Date: 17-JAN-02 16:41 | Instrument: TRACE ICP | Test: M405.0.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BERYLLIUM | BDL | 0.0010 | mg/L |

## CADMIUM ICP EPA 200.7 REV. 4.4

NELAC:Y

Analyst: J. KRAMER | Analysis Date: 15-JAN-02 00:23 | Instrument: ICP | Test: M408.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| CADMIUM | BDL | 0.0050 | mg/L |

**CHROMIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:23 Instrument: ICP Test: M410.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| CHROMIUM | BDL | 0.010 | mg/L |

**COPPER ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:23 Instrument: ICP Test: M412.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| COPPER | BDL | 0.020 | mg/L |

**LEAD TRACE ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: D. DRABENSTOTT Analysis Date: 17-JAN-02 16:41 Instrument: TRACE ICP Test: M416.0.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| LEAD | BDL | 0.0050 | mg/L |

**NICKEL ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:23 Instrument: ICP Test: M422.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| NICKEL | BDL | 0.010 | mg/L |

**BARIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:23 Instrument: ICP Test: M404.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BARIUM | 0.39 | 0.010 | mg/L |

**CALCIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:23 Instrument: ICP Test: M409.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| CALCIUM | 3.3 | 0.10 | mg/L |

**IRON ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:23 Instrument: ICP Test: M415.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| IRON | 0.029 | 0.025 | mg/L |

**MAGNESIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:23 Instrument: ICP Test: M418.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| MAGNESIUM | 1.9 | 0.10 | mg/L |

**POTASSIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:23 Instrument: ICP Test: M426.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| POTASSIUM | 6.5 | 0.10 | mg/L |

*There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated.*

**SODIUM ICP EPA 200.7 REV. 4.4** NELAC:Y

Analyst: J. KRAMER Analysis Date: 15-JAN-02 22:24 Instrument: ICP Test: M431.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| SODIUM | 1200 | 5.0 | mg/L |

*DILUTION 1:50*

**BORON ICP EPA 200.7 REV. 4.4** NELAC:Y

Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:23 Instrument: ICP Test: M407.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BORON | 1.5 | 0.050 | mg/L |

**MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0**

Analyst: J. O'BRYAN Analysis Date: 14-JAN-02 12:30 Instrument: PREP Test: P131.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| INITIAL WEIGHT OR VOLUME | 40 | | mL |
| FINAL VOLUME | 40 | | mL |

**MERCURY CVAA EPA 245.1 REV. 3.0** NELAC:Y

Analyst: J. O'BRYAN Analysis Date: 15-JAN-02 13:22 Instrument: CVAA Test: M420.2.0

Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0 P131.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| MERCURY | BDL | 0.00020 | mg/L |

**ALKALINITY TOTAL EPA 310.1** NELAC:Y

Analyst: B. STACEY Analysis Date: 12-JAN-02 14:00 Test: G605.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| ALKALINITY | 1000 | 1.0 | mg/L |

**NITROGEN, NITRATE-NITRITE EPA 353.2 REV. 2.0** NELAC:Y

Analyst: M. ADKINS Analysis Date: 11-JAN-02 18:11 Instrument: AUTO-ANALYZER Test: G113.3.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| NITROGEN, NITRATE-NITRITE | BDL | 0.01 | mg/L |

**BROMIDE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1** NELAC:N

Analyst: J. MONTGOMERY Analysis Date: 14-JAN-02 21:22 Instrument: IC Test: G300.4.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BROMIDE | 3.8 | 0.050 | mg/L |

**TOTAL ORGANIC CARBON EPA 415.1** NELAC:N

Analyst: B. BATTANI Analysis Date: 14-JAN-02 10:30 Instrument: TOC Test: 0401.1.0

**HERITAGE ENVIRONMENTAL SERVICES, LLC** **Sample ID: A581217 DK27431**

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| TOTAL ORGANIC CARBON (TOC) | BDL | 1.0 | mg/L |

**CHLORIDE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1** NELAC:Y

Analyst: J. MONTGOMERY Analysis Date: 14-JAN-02 21:40 Instrument: IC Test: G300.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| CHLORIDE | 990 | 25 | mg/L |

*1:100 Dilution.*

**SULFATE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1** NELAC:Y

Analyst: J. MONTGOMERY Analysis Date: 14-JAN-02 21:22 Instrument: IC Test: G300.7.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| SULFATE | 1.1 | 0.25 | mg/L |

**MICRO-EXTRACTION FOR FID HLI2**

Analyst: S. BRYAN Analysis Date: 16-JAN-02 Instrument: PREP Test: P409.0.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| INITIAL WEIGHT OR VOLUME | 40 | | mL |
| FINAL VOLUME | 2 | | mL |

**HYDROCARBON SCAN BY GC:FID SW846-8015B(MOD)** NELAC:N

Analyst: S. BRYAN Analysis Date: 17-JAN-02 04:39 Instrument: GC/FID Test: 0409.1.0

Prep: MICRO-EXTRACTION FOR FID HLI2 P409.0.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| GASOLINE | BDL | 0.5 | mg/L |
| DIESEL FUEL | BDL | 1.3 | mg/L |
| OTHER HYDROCARBONS | BDL | 2.5 | mg/L |
| ... | | | |
| SURROGATE RECOVERY | | | |
| 1-CHLORO-2-FLUOROBENZENE | 116.2 | | % Rec |
| 1-CHLOROOCTADECANE | 139.6 | | % Rec |

Sample Comments

*BDL Below Detection Limit*

*Sample was received on ice at temperature 2.6 C.*
*All aqueous samples are reported on a wet weight basis unless otherwise noted.*

*This Certificate shall not be reproduced, except in full, without the written approval of the lab.*
*The sample results relate only to the analytes of interest tested or to the sample as received by the lab.*
*Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.*
*Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.*
*Arizona License Number AZ0627.*

Approved : G.A. Busch, QAO

# CERTIFICATE OF ANALYSIS

| Service Location | Received | Project | Lab ID |
|---|---|---|---|
| HERITAGE ENVIRONMENTAL SERVICES, LLC<br>COMMERCIAL LABORATORY OPERATIONS<br>7901 W. MORRIS ST.<br>INDIANAPOLIS, IN 46231<br>(317)243-8304 | 11-JAN-02 | | A581218 |
| | Complete<br>29-JAN-02 | PO Number<br>98-653298-3178* | |
| | Printed<br>30-JAN-02 | Sampled<br>10-JAN-02 11:30 | |

| Report To | Bill To |
|---|---|
| MITT L. DENNEY<br>INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN<br>2525 NORTH SHADELAND AVENUE<br>BUILDING 30<br>INDIANAPOLIS, IN 46219 | DEBBIE HILTON (SHADELAND)<br>INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN<br>100 N. SENATE AVENUE<br>PO BOX 6015<br>INDIANAPOLIS, IN 46206 |

Sample Description

CLIENT ID: DK27432
MATRIX TYPE: NON-SPECIFIC WATER
DESCRIPTION: DK27432
Submitter Code :7195

## FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: M. HALL  Analysis Date: 14-JAN-02 10:00  Instrument: PREP  Test: P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| INITIAL WEIGHT OR VOLUME | 50 | | mL |
| FINAL VOLUME | 50 | | mL |

## ANTIMONY ICP EPA 200.7 REV. 4.4

NELAC:Y

Analyst: J. KRAMER  Analysis Date: 15-JAN-02 00:26  Instrument: ICP  Test: M402.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| ANTIMONY | BDL | 0.010 | mg/L |

## ARSENIC TRACE ICP EPA 200.7 REV. 4.4

NELAC:Y

Analyst: D. DRABENSTOTT  Analysis Date: 17-JAN-02 16:45  Instrument: TRACE ICP  Test: M403.0.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| ARSENIC | BDL | 0.0050 | mg/L |

## BERYLLIUM TRACE ICP EPA 200.7 REV. 4.4

NELAC:Y

Analyst: D. DRABENSTOTT  Analysis Date: 17-JAN-02 16:45  Instrument: TRACE ICP  Test: M405.0.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BERYLLIUM | BDL | 0.0010 | mg/L |

## CADMIUM ICP EPA 200.7 REV. 4.4

NELAC:Y

Analyst: J. KRAMER  Analysis Date: 15-JAN-02 00:26  Instrument: ICP  Test: M408.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| CADMIUM | BDL | 0.0050 | mg/L |

**CHROMIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:26 Instrument: ICP Test: M410.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| CHROMIUM | BDL | 0.010 | mg/L |

**COPPER ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:26 Instrument: ICP Test: M412.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| COPPER | BDL | 0.020 | mg/L |

**LEAD TRACE ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: D. DRABENSTOTT Analysis Date: 17-JAN-02 16:45 Instrument: TRACE ICP Test: M416.0.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| LEAD | BDL | 0.0050 | mg/L |

**NICKEL ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:26 Instrument: ICP Test: M422.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| NICKEL | BDL | 0.010 | mg/L |

**BARIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:26 Instrument: ICP Test: M404.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BARIUM | 0.071 | 0.010 | mg/L |

**CALCIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:26 Instrument: ICP Test: M409.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| CALCIUM | 60. | 0.10 | mg/L |

**IRON ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:26 Instrument: ICP Test: M415.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| IRON | 0.57 | 0.025 | mg/L |

**MAGNESIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:26 Instrument: ICP Test: M418.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| MAGNESIUM | 26. | 0.10 | mg/L |

**POTASSIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:26 Instrument: ICP Test: M426.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| POTASSIUM | 2.5 | 0.10 | mg/L |

*There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated.*

**SODIUM ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:26 Instrument: ICP Test: M431.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| SODIUM | 270 | 0.10 | mg/L |

**BORON ICP EPA 200.7 REV. 4.4** NELAC:Y
Analyst: J. KRAMER Analysis Date: 15-JAN-02 00:26 Instrument: ICP Test: M407.3.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BORON | 0.41 | 0.050 | mg/L |

**MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0**
Analyst: J. O'BRYAN Analysis Date: 14-JAN-02 12:30 Instrument: PREP Test: P131.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| INITIAL WEIGHT OR VOLUME | 40 | | mL |
| FINAL VOLUME | 40 | | mL |

**MERCURY CVAA EPA 245.1 REV. 3.0** NELAC:Y
Analyst: J. O'BRYAN Analysis Date: 15-JAN-02 13:22 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0 P131.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| MERCURY | BDL | 0.00020 | mg/L |

**ALKALINITY TOTAL EPA 310.1** NELAC:Y
Analyst: B. STACEY Analysis Date: 12-JAN-02 14:00 Test: G605.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| ALKALINITY | 440 | 1.0 | mg/L |

**NITROGEN, NITRATE-NITRITE EPA 353.2 REV. 2.0** NELAC:Y
Analyst: M. ADKINS Analysis Date: 11-JAN-02 18:12 Instrument: AUTO-ANALYZER Test: G113.3.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| NITROGEN, NITRATE-NITRITE | 0.98 | 0.01 | mg/L |

**BROMIDE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1** NELAC:N
Analyst: J. MONTGOMERY Analysis Date: 15-JAN-02 20:20 Instrument: IC Test: G300.4.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| BROMIDE | 0.49 | 0.050 | mg/L |

**TOTAL ORGANIC CARBON EPA 415.1** NELAC:N
Analyst: B. BATTANI Analysis Date: 14-JAN-02 10:30 Instrument: TOC Test: O401.1.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| TOTAL ORGANIC CARBON (TOC) | 1.6 | 1.0 | mg/L |

**CHLORIDE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1** NELAC:Y
Analyst: J. MONTGOMERY Analysis Date: 14-JAN-02 21:58 Instrument: IC Test: G300.2.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| CHLORIDE | 160 | 2.5 | mg/L |

*1:10 Dilution.*

**SULFATE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1** NELAC:Y

Analyst: J. MONTGOMERY Analysis Date: 14-JAN-02 21:58 Instrument: IC Test: G300.7.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| SULFATE | 52 | 2.5 | mg/L |

*1:10 Dilution.*

**MICRO-EXTRACTION FOR FID HLI2**

Analyst: S. BRYAN Analysis Date: 16-JAN-02 Instrument: PREP Test: P409.0.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| INITIAL WEIGHT OR VOLUME | 40 | | mL |
| FINAL VOLUME | 2 | | mL |

**HYDROCARBON SCAN BY GC:FID SW846-8015B(MOD)** NELAC:N

Analyst: S. BRYAN Analysis Date: 17-JAN-02 05:58 Instrument: GC/FID Test: 0409.1.0

Prep: MICRO-EXTRACTION FOR FID HLI2 P409.0.0

| Parameter | Result | Det. Limit | Units |
|---|---|---|---|
| GASOLINE | BDL | 0.5 | mg/L |
| DIESEL FUEL | BDL | 1.3 | mg/L |
| OTHER HYDROCARBONS | BDL | 2.5 | mg/L |
| ... | | | |
| SURROGATE RECOVERY | | | |
| 1-CHLORO-2-FLUOROBENZENE | 115.4 | | % Rec |
| 1-CHLOROOCTADECANE | 139.6 | | % Rec |

Sample Comments

*BDL Below Detection Limit*

*Sample was received on ice at temperature 2.6 C.*
*All aqueous samples are reported on a wet weight basis unless otherwise noted.*

*This Certificate shall not be reproduced, except in full, without the written approval of the lab.*
*The sample results relate only to the analytes of interest tested or to the sample as received by the lab.*
*Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.*
*Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.*
*Arizona License Number AZ0627.*

Approved : G A Burch, QAO

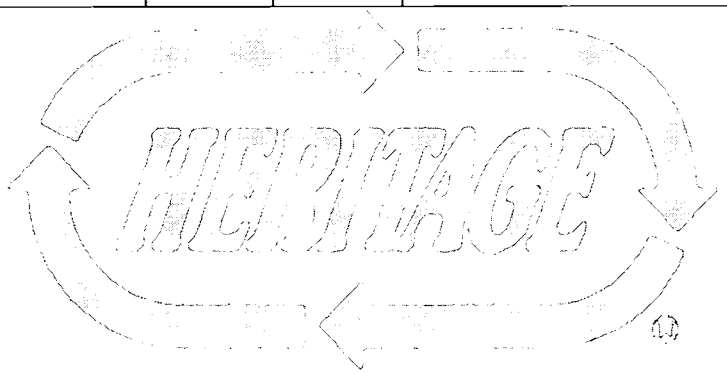
# QUALITY ASSURANCE REPORT

Service Location
HERITAGE ENVIRONMENTAL SERVICES, LLC
COMMERCIAL LABORATORY OPERATIONS
7901 W. MORRIS ST.
INDIANAPOLIS, IN 46231
(317)243-8304

Report Date
29-JAN-02

Submitter
INDIANA DEPARTMENT OF ENVIRONMENTAL MGMT
.
P O BOX 6015
INDIANAPOLIS, IN 46206

| Client ID | Lab ID | Date-Time Sampled | Date Received | Date Complete | Description |
|---|---|---|---|---|---|
| DK27428 | A581214 | 09-JAN-02 10:00 | 11-JAN-02 | 29-JAN-02 | DESCRIPTION: DK27428 |
| DK27429 | A581215 | 09-JAN-02 11:00 | 11-JAN-02 | 29-JAN-02 | DESCRIPTION: DK27429 |
| DK27430 | A581216 | 09-JAN-02 11:30 | 11-JAN-02 | 29-JAN-02 | DESCRIPTION: DK27430 |
| DK27431 | A581217 | 10-JAN-02 10:00 | 11-JAN-02 | 29-JAN-02 | DESCRIPTION: DK27431 |
| DK27432 | A581218 | 10-JAN-02 11:30 | 11-JAN-02 | 29-JAN-02 | DESCRIPTION: DK27432 |



## HERITAGE ENVIRONMENTAL SERVICES, LLC

### NITROGEN, NITRATE-NITRITE EPA 353.2 REV. 2.0 — G113.3

Run: R426234 Analyst.: M ADKINS Run Date...: 11-JAN-02 Instrument: AUTO-ANALYZER
ANALYTICAL Reviewer: B SHRAKE Review Date: 14-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| CDL01 | Q1325208 | | NITROGEN, NITRATE-NITRITE | 0.05 | | 0.049 | mg/L | 98 | |
| ICV01 | Q1325209 | | NITROGEN, NITRATE-NITRITE | 0.788 | | 0.821 | mg/L | 104.2 | |
| CCV | Q1325215 | | NITROGEN, NITRATE-NITRITE | 0.2 | | 0.197 | mg/L | 98.5 | |
| BLA01 | Q1325216 | | NITROGEN, NITRATE-NITRITE | | | BDL 0.01 | mg/L | | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI01 | Q1325220 | A581216 | NITROGEN, NITRATE-NITRITE | 0 | 0.1 | 0.101 | mg/L | 101 | |
| DPS01 | Q1325221 | A581216 | NITROGEN, NITRATE-NITRITE | 0 | 0.1 | 0.101 | mg/L | 101 | 0 |
| CCV | Q1325222 | | NITROGEN, NITRATE-NITRITE | 0.2 | | 0.197 | mg/L | 98.5 | |
| BLA01 | Q1325223 | | NITROGEN, NITRATE-NITRITE | | | BDL 0.01 | mg/L | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1325224 | | NITROGEN, NITRATE-NITRITE | 0.2 | | 0.196 | mg/L | 98 | |
| BLA01 | Q1325225 | | NITROGEN, NITRATE-NITRITE | | | BDL 0.01 | mg/L | | |

### CHLORIDE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1 — G300.2

Run: R426360 Analyst.: J MONTGOMERY Run Date...: 14-JAN-02 Instrument: IC
ANALYTICAL Reviewer: E WERNZ Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| BLA01 | Q1325832 | | CHLORIDE | | | BDL 0.25 | mg/L | | |
| CCVL | Q1325833 | | CHLORIDE | 1.25 | | 1.23 | mg/L | 98.4 | |
| CCVH | Q1325834 | | CHLORIDE | 12.5 | | 11.7 | mg/L | 93.6 | |
| LFB01 | Q1325835 | | CHLORIDE | 2.5 | | 2.5 | mg/L | 100 | |
| SAMPLE | A581214 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581215 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI01 | Q1325838 | A581216 | CHLORIDE | 775 | 125 | 905 | mg/L | 104 | |
| DPS01 | Q1325839 | A581216 | CHLORIDE | 775 | 125 | 896 | mg/L | 96.8 | 7.2 |
| CCVL | Q1325840 | | CHLORIDE | 1.25 | | 1.22 | mg/L | 97.6 | |
| CCVH | Q1325841 | | CHLORIDE | 12.5 | | 11.8 | mg/L | 94.4 | |
| BLA01 | Q1325842 | | CHLORIDE | | | BDL 0.25 | mg/L | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCVL | Q1325845 | | CHLORIDE | 1.25 | | 1.21 | mg/L | 96.8 | |
| CCVH | Q1325846 | | CHLORIDE | 12.5 | | 11.9 | mg/L | 95.2 | |
| BLA01 | Q1325847 | | CHLORIDE | | | BDL 0.25 | mg/L | | |

### BROMIDE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1 — G300.4

Run: R426360 Analyst.: J MONTGOMERY Run Date...: 14-JAN-02 Instrument: IC
ANALYTICAL Reviewer: E WERNZ Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| BLA01 | Q1325832 | | BROMIDE | | | BDL 0.05 | mg/L | | |
| CCVL | Q1325833 | | BROMIDE | 0.5 | | 0.498 | mg/L | 99.6 | |
| CCVH | Q1325834 | | BROMIDE | 5 | | 4.57 | mg/L | 91.4 | |
| LFB01 | Q1325835 | | BROMIDE | 1 | | 1.07 | mg/L | 107 | |
| SAMPLE | A581214 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581215 | | See Cert. of Analysis, Rep: 0 | | | | | | |

## HERITAGE ENVIRONMENTAL SERVICES, LLC

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI01 | Q1325836 | A581216 | BROMIDE | 2.7 | 1 | 3.65 | mg/L | 95 | |
| DPS01 | Q1325837 | A581216 | BROMIDE | 2.7 | 1 | 3.62 | mg/L | 92 | 3.2 |
| CCVL | Q1325840 | | BROMIDE | 0.5 | | 0.485 | mg/L | 97 | |
| CCVH | Q1325841 | | BROMIDE | 5 | | 4.75 | mg/L | 95 | |
| BLA01 | Q1325842 | | BROMIDE | | | BDL 0.05 | mg/L | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCVL | Q1325845 | | BROMIDE | 0.5 | | 0.531 | mg/L | 106.2 | |
| CCVH | Q1325846 | | BROMIDE | 5 | | 4.7 | mg/L | 94 | |
| BLA01 | Q1325847 | | BROMIDE | | | BDL 0.05 | mg/L | | |
| Run: R426414 | | Analyst.: J MONTGOMERY | | Run Date...: 15-JAN-02 | | Instrument: IC | | | |
| ANALYTICAL | | Reviewer: E WERNZ | | Review Date: 16-JAN-02 | | | | | |
| LFB01 | Q1326064 | | BROMIDE | 1 | | 1.01 | mg/L | 101 | |
| CCVL | Q1326067 | | BROMIDE | 0.5 | | 0.521 | mg/L | 104.2 | |
| CCVH | Q1326068 | | BROMIDE | 5 | | 4.75 | mg/L | 95 | |
| BLA01 | Q1326069 | | BROMIDE | | | BDL 0.05 | mg/L | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI01 | Q1326070 | A581218 | BROMIDE | 0.439 | 1 | 1.41 | mg/L | 97.1 | |
| DPS01 | Q1326071 | A581218 | BROMIDE | 0.439 | 1 | 1.37 | mg/L | 93.1 | 4.2 |
| CCVL | Q1326074 | | BROMIDE | 0.5 | | 0.493 | mg/L | 98.6 | |
| CCVH | Q1326075 | | BROMIDE | 5 | | 4.73 | mg/L | 94.6 | |
| BLA01 | Q1326076 | | BROMIDE | | | BDL 0.05 | mg/L | | |

## SULFATE BY ION CHROMATOGRAPHY EPA 300.0 REV. 2.1 — G300.7

| Run: R426360 | Analyst.: J MONTGOMERY | Run Date...: 14-JAN-02 | Instrument: IC |
|---|---|---|---|
| ANALYTICAL | Reviewer: E WERNZ | Review Date: 15-JAN-02 | |

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| BLA01 | Q1325832 | | SULFATE | | | BDL 0.25 | mg/L | | |
| CCVL | Q1325833 | | SULFATE | 2.5 | | 2.52 | mg/L | 100.8 | |
| CCVH | Q1325834 | | SULFATE | 25 | | 23.3 | mg/L | 93.2 | |
| LFB01 | Q1325835 | | SULFATE | 5 | | 4.96 | mg/L | 99.2 | |
| SAMPLE | A581214 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581215 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI01 | Q1325836 | A581216 | SULFATE | 0 | 5 | 5 | mg/L | 100 | |
| DPS01 | Q1325837 | A581216 | SULFATE | 0 | 5 | 5.14 | mg/L | 102.8 | 2.8 |
| CCVL | Q1325840 | | SULFATE | 2.5 | | 2.41 | mg/L | 96.4 | |
| CCVH | Q1325841 | | SULFATE | 25 | | 23.4 | mg/L | 93.6 | |
| BLA01 | Q1325842 | | SULFATE | | | BDL 0.25 | mg/L | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCVL | Q1325845 | | SULFATE | 2.5 | | 2.44 | mg/L | 97.6 | |
| CCVH | Q1325846 | | SULFATE | 25 | | 23.6 | mg/L | 94.4 | |
| BLA01 | Q1325847 | | SULFATE | | | BDL 0.25 | mg/L | | |

## ALKALINITY TOTAL EPA 310.1 — G605.2

| Run: R426225 | Analyst.: B STACEY | Run Date...: 12-JAN-02 |
|---|---|---|
| ANALYTICAL | Reviewer: B SHRAKE | Review Date: 14-JAN-02 |

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| LFB01 | Q1325167 | | ALKALINITY | 39 | | 38 | mg/L | 97.4 | |

## HERITAGE ENVIRONMENTAL SERVICES, LLC

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE | A581214 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581215 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| DUP01 | Q1325168 | A581216 | ALKALINITY | 1100 | | 1100 | mg/L | | 0 |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1325169 | | ALKALINITY | 125 | | 120 | mg/L | 96 | |

ANTIMONY ICP EPA 200.7 REV. 4.4 M402.3

Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R426208 Analyst.: M HALL Run Date...: 14-JAN-02
PREP Reviewer: W WATNESS Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| BLA02 | Q1325137 | NA | R426284 |
| LCS | Q1325140 | SPEX | R426284 |
| SPI02 | Q1325141 | A581216 | R426284 |
| DPS02 | Q1325142 | A581216 | R426284 |
| SAMPLE | A581216 | Rep: 0 | R426284 |
| SAMPLE | A581217 | Rep: 0 | R426284 |
| SAMPLE | A581218 | Rep: 0 | R426284 |

Run: R426284 Analyst.: J KRAMER Run Date...: 14-JAN-02 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1325407 | PERKIN | ANTIMONY | 1 | | 1.00 | mg/L | 100 | |
| CDL01 | Q1325412 | PERKIN | ANTIMONY | 0.120 | | 0.124 | mg/L | 103.3 | |
| ICS-A | Q1325415 | PERKIN | ANTIMONY | 0.6 | | 0.616 | mg/L | 102.7 | |
| CCV | Q1325416 | INORGAN | ANTIMONY | 1 | | 1.02 | mg/L | 102 | |
| BLA01 | Q1325417 | NA | ANTIMONY | | | < 0.00400 | mg/L | | |
| BLA02 | Q1325137 | NA | ANTIMONY | | | < 0.00400 | mg/L | | |
| LCS | Q1325140 | SPEX | ANTIMONY | 5.00 | | 5.14 | mg/L | 102.8 | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI02 | Q1325141 | A581216 | ANTIMONY | 0 | 0.500 | 0.541 | mg/L | 108.2 | |
| DPS02 | Q1325142 | A581216 | ANTIMONY | 0 | 0.500 | 0.537 | mg/L | 107.4 | .7 |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1325418 | INORGAN | ANTIMONY | 1 | | 1.03 | mg/L | 103 | |
| BLA01 | Q1325419 | NA | ANTIMONY | | | 0.00460 | mg/L | | |
| CDL01 | Q1325420 | PERKIN | ANTIMONY | 0.120 | | 0.121 | mg/L | 100.8 | |
| ICS-A | Q1325422 | PERKIN | ANTIMONY | 0.6 | | 0.613 | mg/L | 102.2 | |

Comments

*Q1325141* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

*Q1325142* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

## HERITAGE ENVIRONMENTAL SERVICES, LLC

### ARSENIC TRACE ICP EPA 200.7 REV. 4.4 — M403.0
### Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R426208 — Analyst.: M HALL — Run Date...: 14-JAN-02
PREP — Reviewer: W WATNESS — Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| SAMPLE | A581214 | Rep: 0 | R426456 |
| SAMPLE | A581215 | Rep: 0 | R426456 |
| SAMPLE | A581216 | Rep: 0 | R426456 |
| SAMPLE | A581217 | Rep: 0 | R426456 |
| SAMPLE | A581218 | Rep: 0 | R426456 |
| BLA02 | Q1325143 | NA | R426456 |
| LCS | Q1325144 | INORGAN | R426456 |
| SPI02 | Q1325145 | A581216 | R426456 |
| DPS02 | Q1325146 | A581216 | R426456 |

Run: R426456 — Analyst.: D DRABENSTOTT — Run Date...: 17-JAN-02 — Instrument: TRACE ICP
ANALYTICAL — Reviewer: S ENDERSON — Review Date: 18-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1326375 | PERKIN- | ARSENIC | 0.05 | | 0.0466 | mg/L | 93.2 | |
| CDL01 | Q1326380 | INORGAN | ARSENIC | 0.5 | | 0.483 | mg/L | 96.6 | |
| ICS-A | Q1326382 | PERKIN | ARSENIC | 0.1 | | 0.0925 | mg/L | 92.5 | |
| CCV | Q1326383 | INORGAN | ARSENIC | 0.1 | | 0.0934 | mg/L | 93.4 | |
| BLA01 | Q1326384 | NA | ARSENIC | | | < 0.00200 | mg/L | | |
| BLA02 | Q1325143 | NA | ARSENIC | | | < 0.00200 | mg/L | | |
| LCS | Q1325144 | INORGAN | ARSENIC | 0.5 | | 0.482 | mg/L | 96.4 | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI02 | Q1325145 | A581216 | ARSENIC | 0 | 2 | 1.87 | mg/L | 93.5 | |
| DPS02 | Q1325146 | A581216 | ARSENIC | 0 | 2 | 1.92 | mg/L | 96 | 2.6 |
| CCV | Q1326385 | INORGAN | ARSENIC | 0.1 | | 0.0959 | mg/L | 95.9 | |
| BLA01 | Q1326386 | NA | ARSENIC | | | < 0.00200 | mg/L | | |
| SAMPLE | A581214 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581215 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1326387 | INORGAN | ARSENIC | 0.1 | | 0.0959 | mg/L | 95.9 | |
| BLA01 | Q1326388 | NA | ARSENIC | | | < 0.00200 | mg/L | | |
| CDL01 | Q1326389 | PERKIN- | ARSENIC | 0.02 | | 0.0188 | mg/L | 94 | |
| ICS-A | Q1326391 | PERKIN | ARSENIC | 0.1 | | 0.0930 | mg/L | 93 | |

### BARIUM ICP EPA 200.7 REV. 4.4 — M404.3
### Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R426208 — Analyst.: M HALL — Run Date...: 14-JAN-02
PREP — Reviewer: W WATNESS — Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| BLA02 | Q1325137 | NA | R426284 |
| LCS | Q1325140 | SPEX | R426284 |
| SPI02 | Q1325141 | A581216 | R426284 |
| DPS02 | Q1325142 | A581216 | R426284 |
| SAMPLE | A581214 | Rep: 0 | R426284 |
| SAMPLE | A581215 | Rep: 0 | R426284 |
| SAMPLE | A581216 | Rep: 0 | R426284 |
| SAMPLE | A581217 | Rep: 0 | R426284 |
| SAMPLE | A581218 | Rep: 0 | R426284 |

## HERITAGE ENVIRONMENTAL SERVICES, LLC

Run: R426284 Analyst.: J KRAMER Run Date...: 14-JAN-02 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1325408 | PERKIN | BARIUM | 1 | | 1.06 | mg/L | 106 | |
| CDL01 | Q1325413 | INORGAN | BARIUM | 10 | | 10.2 | mg/L | 102 | |
| ICS-A | Q1325415 | PERKIN | BARIUM | 0.500 | | 0.527 | mg/L | 105.4 | |
| CCV | Q1325416 | INORGAN | BARIUM | 5.00 | | 5.15 | mg/L | 103 | |
| BLA01 | Q1325417 | NA | BARIUM | | | < 0.00400 | mg/L | | |
| BLA02 | Q1325137 | NA | BARIUM | | | < 0.00400 | mg/L | | |
| LCS | Q1325140 | SPEX | BARIUM | 20.0 | | 20.3 | mg/L | 101.5 | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI02 | Q1325141 | A581216 | BARIUM | 0.333 | 2.00 | 2.44 | mg/L | 105.4 | |
| DPS02 | Q1325142 | A581216 | BARIUM | 0.333 | 2.00 | 2.41 | mg/L | 103.9 | 1.4 |
| SAMPLE | A581214 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581215 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1325418 | INORGAN | BARIUM | 5.00 | | 5.18 | mg/L | 103.6 | |
| BLA01 | Q1325419 | NA | BARIUM | | | < 0.00400 | mg/L | | |
| ICS-A | Q1325422 | PERKIN | BARIUM | 0.500 | | 0.528 | mg/L | 105.6 | |

Comments

*Q1325141* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

*Q1325142* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

BERYLLIUM TRACE ICP EPA 200.7 REV. 4.4 M405.0
Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R426208 Analyst.: M HALL Run Date...: 14-JAN-02
PREP Reviewer: W WATNESS Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| SAMPLE | A581216 | Rep: 0 | R426456 |
| SAMPLE | A581217 | Rep: 0 | R426456 |
| SAMPLE | A581218 | Rep: 0 | R426456 |
| BLA02 | Q1325143 | NA | R426456 |
| LCS | Q1325144 | INORGAN | R426456 |
| SPI02 | Q1325145 | A581216 | R426456 |
| DPS02 | Q1325146 | A581216 | R426456 |

Run: R426456 Analyst.: D DRABENSTOTT Run Date...: 17-JAN-02 Instrument: TRACE ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 18-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1326375 | PERKIN- | BERYLLIUM | 0.05 | | 0.0477 | mg/L | 95.4 | |
| CDL01 | Q1326380 | INORGAN | BERYLLIUM | 0.5 | | 0.484 | mg/L | 96.8 | |
| ICS-A | Q1326382 | PERKIN | BERYLLIUM | 0.5 | | 0.463 | mg/L | 92.6 | |
| CCV | Q1326383 | INORGAN | BERYLLIUM | 0.1 | | 0.0937 | mg/L | 93.7 | |
| BLA01 | Q1326384 | NA | BERYLLIUM | | | < 0.000400 | mg/L | | |
| BLA02 | Q1325143 | NA | BERYLLIUM | | | < 0.000400 | mg/L | | |
| LCS | Q1325144 | INORGAN | BERYLLIUM | 0.5 | | 0.482 | mg/L | 96.4 | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI02 | Q1325145 | A581216 | BERYLLIUM | 0 | 0.05 | 0.0444 | mg/L | 88.8 | |

## HERITAGE ENVIRONMENTAL SERVICES, LLC

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| DPS02 | Q1325146 | A581216 | BERYLLIUM | 0 | 0.05 | 0.0455 | mg/L | 91 | 2.4 |
| CCV | Q1326385 | INORGAN | BERYLLIUM | 0.1 | | 0.0935 | mg/L | 93.5 | |
| BLA01 | Q1326386 | NA | BERYLLIUM | | | < 0.000400 | mg/L | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1326387 | INORGAN | BERYLLIUM | 0.1 | | 0.0946 | mg/L | 94.6 | |
| BLA01 | Q1326388 | NA | BERYLLIUM | | | < 0.000400 | mg/L | | |
| CDL01 | Q1326389 | PERKIN- | BERYLLIUM | 0.01 | | 0.00962 | mg/L | 96.2 | |
| ICS-A | Q1326391 | PERKIN | BERYLLIUM | 0.5 | | 0.466 | mg/L | 93.2 | |

BORON ICP EPA 200.7 REV. 4.4 M407.3

Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R426208 Analyst.: M HALL Run Date...: 14-JAN-02
PREP Reviewer: W WATNESS Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| BLA02 | Q1325137 | NA | R426284 |
| LCS | Q1325140 | SPEX | R426284 |
| SPI02 | Q1325141 | A581216 | R426284 |
| DPS02 | Q1325142 | A581216 | R426284 |
| SAMPLE | A581214 | Rep: 0 | R426284 |
| SAMPLE | A581215 | Rep: 0 | R426284 |
| SAMPLE | A581216 | Rep: 0 | R426284 |
| SAMPLE | A581217 | Rep: 0 | R426284 |
| SAMPLE | A581218 | Rep: 0 | R426284 |

Run: R426284 Analyst.: J KRAMER Run Date...: 14-JAN-02 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1325408 | PERKIN | BORON | 1 | | 1.04 | mg/L | 104 | |
| CDL01 | Q1325413 | INORGAN | BORON | 10 | | 9.90 | mg/L | 99 | |
| CCV | Q1325416 | INORGAN | BORON | 2 | | 2.05 | mg/L | 102.5 | |
| BLA01 | Q1325417 | NA | BORON | | | < 0.0200 | mg/L | | |
| BLA02 | Q1325137 | NA | BORON | | | < 0.0200 | mg/L | | |
| LCS | Q1325140 | SPEX | BORON | 1.00 | | 0.987 | mg/L | 98.7 | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI02 | Q1325141 | A581216 | BORON | 1.51 | 1 | 2.56 | mg/L | 105 | |
| DPS02 | Q1325142 | A581216 | BORON | 1.51 | 1.00 | 2.54 | mg/L | 103 | 1.9 |
| SAMPLE | A581214 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581215 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1325418 | INORGAN | BORON | 2 | | 2.07 | mg/L | 103.5 | |
| BLA01 | Q1325419 | NA | BORON | | | < 0.0200 | mg/L | | |

Comments

*Q1325141* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

*Q1325142* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

## CADMIUM ICP EPA 200.7 REV. 4.4 — M408.3

Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R426208 PREP — Analyst.: M HALL — Reviewer: W WATNESS — Run Date...: 14-JAN-02 — Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| BLA02 | Q1325137 | NA | R426284 |
| LCS | Q1325140 | SPEX | R426284 |
| SPI02 | Q1325141 | A581216 | R426284 |
| DPS02 | Q1325142 | A581216 | R426284 |
| SAMPLE | A581216 | Rep: 0 | R426284 |
| SAMPLE | A581217 | Rep: 0 | R426284 |
| SAMPLE | A581218 | Rep: 0 | R426284 |

Run: R426284 ANALYTICAL — Analyst.: J KRAMER — Reviewer: S ENDERSON — Run Date...: 14-JAN-02 — Review Date: 15-JAN-02 — Instrument: ICP

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1325407 | PERKIN | CADMIUM | 1 | | 1.04 | mg/L | 104 | |
| CDL01 | Q1325413 | INORGAN | CADMIUM | 10 | | 10.1 | mg/L | 101 | |
| ICS-A | Q1325415 | PERKIN | CADMIUM | 1.00 | | 1.08 | mg/L | 108 | |
| CCV | Q1325416 | INORGAN | CADMIUM | 5.00 | | 5.19 | mg/L | 103.8 | |
| BLA01 | Q1325417 | NA | CADMIUM | | | < 0.00200 | mg/L | | |
| BLA02 | Q1325137 | NA | CADMIUM | | | < 0.00200 | mg/L | | |
| LCS | Q1325140 | SPEX | CADMIUM | 0.500 | | 0.538 | mg/L | 107.6 | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI02 | Q1325141 | A581216 | CADMIUM | 0 | 0.050 | 0.0555 | mg/L | 111 | |
| DPS02 | Q1325142 | A581216 | CADMIUM | 0 | 0.050 | 0.0562 | mg/L | 112.4 | 1.3 |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1325418 | INORGAN | CADMIUM | 5.00 | | 5.19 | mg/L | 103.8 | |
| BLA01 | Q1325419 | NA | CADMIUM | | | < 0.00200 | mg/L | | |
| CDL01 | Q1325420 | PERKIN | CADMIUM | 0.010 | | 0.0107 | mg/L | 107 | |
| ICS-A | Q1325422 | PERKIN | CADMIUM | 1.00 | | 1.08 | mg/L | 108 | |

Comments

*Q1325141* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

*Q1325142* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

## CALCIUM ICP EPA 200.7 REV. 4.4 — M409.3

Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R426208 PREP — Analyst.: M HALL — Reviewer: W WATNESS — Run Date...: 14-JAN-02 — Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| BLA02 | Q1325137 | NA | R426284 |
| LCS | Q1325140 | SPEX | R426284 |
| SPI02 | Q1325141 | A581216 | R426284 |
| DPS02 | Q1325142 | A581216 | R426284 |
| SAMPLE | A581214 | Rep: 0 | R426284 |
| SAMPLE | A581215 | Rep: 0 | R426284 |
| SAMPLE | A581216 | Rep: 0 | R426284 |

## HERITAGE ENVIRONMENTAL SERVICES, LLC

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| SAMPLE | A581217 | Rep: 0 | R426284 |
| SAMPLE | A581218 | Rep: 0 | R426284 |

Run: R426284 Analyst.: J KRAMER Run Date...: 14-JAN-02 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1325409 | SPEX | CALCIUM | 20 | | 20.9 | mg/L | 104.5 | |
| ICS-A | Q1325415 | PERKIN | CALCIUM | 500 | | 503. | mg/L | 100.6 | |
| CCV | Q1325416 | INORGAN | CALCIUM | 50.0 | | 51.5 | mg/L | 103 | |
| BLA01 | Q1325417 | NA | CALCIUM | | | < 0.0400 | mg/L | | |
| BLA02 | Q1325137 | NA | CALCIUM | | | < 0.0400 | mg/L | | |
| LCS | Q1325140 | SPEX | CALCIUM | 100 | | 101. | mg/L | 101 | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI02 | Q1325141 | A581216 | CALCIUM | 2.58 | 100 | 106. | mg/L | 103.4 | |
| DPS02 | Q1325142 | A581216 | CALCIUM | 2.58 | 100 | 105. | mg/L | 102.4 | 1 |
| SAMPLE | A581214 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581215 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1325418 | INORGAN | CALCIUM | 50.0 | | 51.6 | mg/L | 103.2 | |
| BLA01 | Q1325419 | NA | CALCIUM | | | < 0.0400 | mg/L | | |
| ICS-A | Q1325421 | PERKIN- | CALCIUM | 500 | | 508. | mg/L | 101.6 | |

Comments

Q1325141 *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

Q1325142 *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

CHROMIUM ICP EPA 200.7 REV. 4.4 M410.3
Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R426208 Analyst.: M HALL Run Date...: 14-JAN-02
PREP Reviewer: W WATNESS Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| BLA02 | Q1325137 | NA | R426284 |
| LCS | Q1325140 | SPEX | R426284 |
| SPI02 | Q1325141 | A581216 | R426284 |
| DPS02 | Q1325142 | A581216 | R426284 |
| SAMPLE | A581216 | Rep: 0 | R426284 |
| SAMPLE | A581217 | Rep: 0 | R426284 |
| SAMPLE | A581218 | Rep: 0 | R426284 |

Run: R426284 Analyst.: J KRAMER Run Date...: 14-JAN-02 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1325407 | PERKIN | CHROMIUM | 1 | | 1.05 | mg/L | 105 | |
| CDL01 | Q1325413 | INORGAN | CHROMIUM | 10 | | 10.2 | mg/L | 102 | |
| ICS-A | Q1325415 | PERKIN | CHROMIUM | 0.500 | | 0.509 | mg/L | 101.8 | |
| CCV | Q1325416 | INORGAN | CHROMIUM | 5.00 | | 5.12 | mg/L | 102.4 | |
| BLA01 | Q1325417 | NA | CHROMIUM | | | < 0.00400 | mg/L | | |
| BLA02 | Q1325137 | NA | CHROMIUM | | | < 0.00400 | mg/L | | |
| LCS | Q1325140 | SPEX | CHROMIUM | 2.00 | | 2.09 | mg/L | 104.5 | |

## HERITAGE ENVIRONMENTAL SERVICES, LLC

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI02 | Q1325141 | A581216 | CHROMIUM | 0 | 0.200 | 0.213 | mg/L | 106.5 | |
| DPS02 | Q1325142 | A581216 | CHROMIUM | 0 | 0.200 | 0.213 | mg/L | 106.5 | 0 |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1325418 | INORGAN | CHROMIUM | 5.00 | | 5.14 | mg/L | 102.8 | |
| BLA01 | Q1325419 | NA | CHROMIUM | | | < 0.00400 | mg/L | | |
| CDL01 | Q1325420 | PERKIN | CHROMIUM | 0.020 | | 0.0218 | mg/L | 109 | |
| ICS-A | Q1325422 | PERKIN | CHROMIUM | 0.500 | | 0.509 | mg/L | 101.8 | |

Comments

*Q1325141 There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

*Q1325142 There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

COPPER ICP EPA 200.7 REV. 4.4 M412.3

Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R426208 Analyst.: M HALL Run Date...: 14-JAN-02
PREP Reviewer: W WATNESS Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| BLA02 | Q1325137 | NA | R426284 |
| LCS | Q1325140 | SPEX | R426284 |
| SPI02 | Q1325141 | A581216 | R426284 |
| DPS02 | Q1325142 | A581216 | R426284 |
| SAMPLE | A581214 | Rep: 0 | R426284 |
| SAMPLE | A581215 | Rep: 0 | R426284 |
| SAMPLE | A581216 | Rep: 0 | R426284 |
| SAMPLE | A581217 | Rep: 0 | R426284 |
| SAMPLE | A581218 | Rep: 0 | R426284 |

HERITAGE

Run: R426284 Analyst.: J KRAMER Run Date...: 14-JAN-02 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1325407 | PERKIN | COPPER | 1 | | 1.04 | mg/L | 104 | |
| CDL01 | Q1325413 | INORGAN | COPPER | 10 | | 10.0 | mg/L | 100 | |
| ICS-A | Q1325415 | PERKIN | COPPER | 0.500 | | 0.537 | mg/L | 107.4 | |
| CCV | Q1325416 | INORGAN | COPPER | 5.00 | | 5.07 | mg/L | 101.4 | |
| BLA01 | Q1325417 | NA | COPPER | | | < 0.00800 | mg/L | | |
| BLA02 | Q1325137 | NA | COPPER | | | < 0.00800 | mg/L | | |
| LCS | Q1325140 | SPEX | COPPER | 2.50 | | 2.61 | mg/L | 104.4 | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI02 | Q1325141 | A581216 | COPPER | 0 | 0.250 | 0.271 | mg/L | 108.4 | |
| DPS02 | Q1325142 | A581216 | COPPER | 0 | 0.250 | 0.271 | mg/L | 108.4 | 0 |
| SAMPLE | A581214 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581215 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1325418 | INORGAN | COPPER | 5.00 | | 5.11 | mg/L | 102.2 | |
| BLA01 | Q1325419 | NA | COPPER | | | < 0.00800 | mg/L | | |
| CDL01 | Q1325420 | PERKIN | COPPER | 0.050 | | 0.0524 | mg/L | 104.8 | |

## HERITAGE ENVIRONMENTAL SERVICES, LLC

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| ICS-A | Q1325422 | PERKIN | COPPER | 0.5DD | | 0.541 | mg/L | 1D8.2 | |

Comments

*Q1325141* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

*Q1325142* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

IRON ICP EPA 200.7 REV. 4.4 M415.3

Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R4262D8 Analyst.: M HALL Run Date...: 14-JAN-02
PREP Reviewer: W WATNESS Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| BLA02 | Q1325137 | NA | R426284 |
| LCS | Q1325140 | SPEX | R426284 |
| SPI02 | Q1325141 | A581216 | R426284 |
| DPS02 | Q1325142 | A581216 | R426284 |
| SAMPLE | A581214 | Rep: 0 | R426284 |
| SAMPLE | A581215 | Rep: 0 | R426284 |
| SAMPLE | A581216 | Rep: 0 | R426284 |
| SAMPLE | A581217 | Rep: D | R426284 |
| SAMPLE | A581218 | Rep: 0 | R426284 |

Run: R426284 Analyst.: J KRAMER Run Date...: 14-JAN-02 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1325407 | PERKIN | IRON | 1 | | 1.06 | mg/L | 106 | |
| CDL01 | Q1325413 | INORGAN | IRON | 10 | | 10.2 | mg/L | 102 | |
| ICS-A | Q1325415 | PERKIN | IRON | 200 | | 198. | mg/L | 99 | |
| CCV | Q1325416 | INORGAN | IRON | 5.00 | | 5.11 | mg/L | 102.2 | |
| BLA01 | Q1325417 | NA | IRON | | | < 0.0100 | mg/L | | |
| BLA02 | Q1325137 | NA | IRON | | | < 0.0100 | mg/L | | |
| LCS | Q1325140 | SPEX | IRON | 10.0 | | 10.3 | mg/L | 103 | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI02 | Q1325141 | A581216 | IRON | 0.0512 | 1.00 | 1.08 | mg/L | 102.9 | |
| DPS02 | Q1325142 | A581216 | IRON | 0.0512 | 1.00 | 1.08 | mg/L | 102.9 | 0 |
| SAMPLE | A581214 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581215 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1325418 | INORGAN | IRON | 5.00 | | 5.13 | mg/L | 102.6 | |
| BLA01 | Q1325419 | NA | IRON | | | < 0.0100 | mg/L | | |
| ICS-A | Q1325421 | PERKIN- | IRON | 200 | | 200. | mg/L | 100 | |

Comments

*Q1325141* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

*Q1325142* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

## LEAD TRACE ICP EPA 200.7 REV. 4.4 — M416.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R426208 PREP — Analyst.: M HALL — Reviewer: W WATNESS — Run Date...: 14-JAN-02 — Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| SAMPLE | A581214 | Rep: 0 | R426456 |
| SAMPLE | A581215 | Rep: 0 | R426456 |
| SAMPLE | A581216 | Rep: 0 | R426456 |
| SAMPLE | A581217 | Rep: 0 | R426456 |
| SAMPLE | A581218 | Rep: 0 | R426456 |
| BLA02 | Q1325143 | NA | R426456 |
| LCS | Q1325144 | INORGAN | R426456 |
| SPI02 | Q1325145 | A581216 | R426456 |
| DPS02 | Q1325146 | A581216 | R426456 |

Run: R426456 ANALYTICAL — Analyst.: D DRABENSTOTT — Reviewer: S ENDERSON — Run Date...: 17-JAN-02 — Review Date: 18-JAN-02 — Instrument: TRACE ICP

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1326375 | PERKIN- | LEAD | 0.05 | | 0.0495 | mg/L | 99 | |
| CDL01 | Q1326380 | INORGAN | LEAD | 0.5 | | 0.486 | mg/L | 97.2 | |
| ICS-A | Q1326382 | PERKIN | LEAD | 0.05 | | 0.0414 | mg/L | 82.8 | |
| CCV | Q1326383 | INORGAN | LEAD | 0.1 | | 0.0963 | mg/L | 96.3 | |
| BLA01 | Q1326384 | NA | LEAD | | | < 0.00200 | mg/L | | |
| BLA02 | Q1325143 | NA | LEAD | | | < 0.00200 | mg/L | | |
| LCS | Q1325144 | INORGAN | LEAD | 0.5 | | 0.484 | mg/L | 96.8 | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI02 | Q1325145 | A581216 | LEAD | 0 | 0.5 | 0.448 | mg/L | 89.6 | |
| DPS02 | Q1325146 | A581216 | LEAD | 0 | 0.5 | 0.466 | mg/L | 93.2 | 3.9 |
| CCV | Q1326385 | INORGAN | LEAD | 0.1 | | 0.0972 | mg/L | 97.2 | |
| BLA01 | Q1326386 | NA | LEAD | | | < 0.00200 | mg/L | | |
| SAMPLE | A581214 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581215 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1326387 | INORGAN | LEAD | 0.1 | | 0.101 | mg/L | 101 | |
| BLA01 | Q1326388 | NA | LEAD | | | < 0.00200 | mg/L | | |
| CDL01 | Q1326389 | PERKIN- | LEAD | 0.006 | | 0.00600 | mg/L | 100 | |
| ICS-A | Q1326391 | PERKIN | LEAD | 0.05 | | 0.0434 | mg/L | 86.8 | |

## MAGNESIUM ICP EPA 200.7 REV. 4.4 — M418.3

Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R426208 PREP — Analyst.: M HALL — Reviewer: W WATNESS — Run Date...: 14-JAN-02 — Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| BLA02 | Q1325137 | NA | R426284 |
| LCS | Q1325140 | SPEX | R426284 |
| SPI02 | Q1325141 | A581216 | R426284 |
| DPS02 | Q1325142 | A581216 | R426284 |
| SAMPLE | A581214 | Rep: 0 | R426284 |
| SAMPLE | A581215 | Rep: 0 | R426284 |
| SAMPLE | A581216 | Rep: 0 | R426284 |
| SAMPLE | A581217 | Rep: 0 | R426284 |
| SAMPLE | A581218 | Rep: 0 | R426284 |

## HERITAGE ENVIRONMENTAL SERVICES, LLC

Run: R426284 Analyst.: J KRAMER Run Date...: 14-JAN-02 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1325409 | SPEX | MAGNESIUM | 20 | | 20.7 | mg/L | 103.5 | |
| ICS-A | Q1325415 | PERKIN | MAGNESIUM | 500 | | 534. | mg/L | 106.8 | |
| CCV | Q1325416 | INORGAN | MAGNESIUM | 50.0 | | 50.2 | mg/L | 100.4 | |
| BLA01 | Q1325417 | NA | MAGNESIUM | | | < 0.0400 | mg/L | | |
| BLA02 | Q1325137 | NA | MAGNESIUM | | | < 0.0400 | mg/L | | |
| LCS | Q1325140 | SPEX | MAGNESIUM | 100 | | 103. | mg/L | 103 | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI02 | Q1325141 | A581216 | MAGNESIUM | 1.55 | 100 | 103. | mg/L | 101.5 | |
| DPS02 | Q1325142 | A581216 | MAGNESIUM | 1.55 | 100 | 103. | mg/L | 101.5 | 0 |
| SAMPLE | A581214 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581215 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1325418 | INORGAN | MAGNESIUM | 50.0 | | 50.4 | mg/L | 100.8 | |
| BLA01 | Q1325419 | NA | MAGNESIUM | | | < 0.0400 | mg/L | | |
| ICS-A | Q1325421 | PERKIN- | MAGNESIUM | 500 | | 539. | mg/L | 107.8 | |

Comments

*Q1325141* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

*Q1325142* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

MERCURY CVAA EPA 245.1 REV. 3.0 M420.2

Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0

Run: R426247 Analyst.: J O'BRYAN Run Date...: 14-JAN-02
PREP Reviewer: S O'NEAL Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| LCS | Q1325275 | | R426329 |
| BLA02 | Q1325276 | | R426329 |
| SPI02 | Q1325277 | A581216 | R426329 |
| DPS02 | Q1325278 | A581216 | R426329 |
| SAMPLE | A581216 | Rep: 0 | R426329 |
| SAMPLE | A581217 | Rep: 0 | R426329 |
| SAMPLE | A581218 | Rep: 0 | R426329 |

Run: R426329 Analyst.: J O'BRYAN Run Date...: 15-JAN-02 Instrument: CVAA
ANALYTICAL Reviewer: S O'NEAL Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1325607 | | MERCURY | 0.002 | | 0.00201 | mg/L | 100.5 | |
| CCV | Q1325609 | | MERCURY | 0.003 | | 0.00304 | mg/L | 101.3 | |
| BLA01 | Q1325610 | | MERCURY | | | < 0.00008 | mg/L | | |
| CDL01 | Q1325611 | | MERCURY | 0.0002 | | 0.00022 | mg/L | 110 | |
| LCS | Q1325275 | | MERCURY | 0.002 | | 0.00209 | mg/L | 104.5 | |
| BLA02 | Q1325276 | | MERCURY | | | < 0.00008 | mg/L | | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI02 | Q1325277 | A581216 | MERCURY | 0 | 0.001 | 0.00101 | mg/L | 101 | |
| DPS02 | Q1325278 | A581216 | MERCURY | 0 | 0.001 | 0.001 | mg/L | 100 | 1 |
| CCV | Q1325612 | | MERCURY | 0.003 | | 0.00304 | mg/L | 101.3 | |

## HERITAGE ENVIRONMENTAL SERVICES, LLC

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| BLA01 | Q1325613 | | MERCURY | | | < 0.00008 | mg/L | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CDL01 | Q1325614 | | MERCURY | 0.0002 | | 0.00022 | mg/L | 110 | |
| CCV | Q1325615 | | MERCURY | 0.003 | | 0.00311 | mg/L | 103.7 | |
| BLA01 | Q1325616 | | MERCURY | | | < 0.00008 | mg/L | | |

### NICKEL ICP EPA 200.7 REV. 4.4 — M422.3

### Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R426208 Analyst.: M HALL Run Date...: 14-JAN-02
PREP Reviewer: W WATNESS Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| BLA02 | Q1325137 | NA | R426284 |
| LCS | Q1325140 | SPEX | R426284 |
| SPI02 | Q1325141 | A581216 | R426284 |
| DPS02 | Q1325142 | A581216 | R426284 |
| SAMPLE | A581216 | Rep: 0 | R426284 |
| SAMPLE | A581217 | Rep: 0 | R426284 |
| SAMPLE | A581218 | Rep: 0 | R426284 |

Run: R426284 Analyst.: J KRAMER Run Date...: 14-JAN-02 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1325407 | PERKIN | NICKEL | 1 | | 1.06 | mg/L | 106 | |
| CDL01 | Q1325413 | INORGAN | NICKEL | 10 | | 10.3 | mg/L | 103 | |
| ICS-A | Q1325415 | PERKIN | NICKEL | 1.00 | | 0.971 | mg/L | 97.1 | |
| CCV | Q1325416 | INORGAN | NICKEL | 5.00 | | 5.10 | mg/L | 102 | |
| BLA01 | Q1325417 | NA | NICKEL | | | < 0.00400 | mg/L | | |
| BLA02 | Q1325137 | NA | NICKEL | | | < 0.00400 | mg/L | | |
| LCS | Q1325140 | SPEX | NICKEL | 5.00 | | 5.12 | mg/L | 102.4 | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI02 | Q1325141 | A581216 | NICKEL | 0 | 0.500 | 0.516 | mg/L | 103.2 | |
| DPS02 | Q1325142 | A581216 | NICKEL | 0 | 0.500 | 0.514 | mg/L | 102.8 | .4 |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1325418 | INORGAN | NICKEL | 5.00 | | 5.13 | mg/L | 102.6 | |
| BLA01 | Q1325419 | NA | NICKEL | | | < 0.00400 | mg/L | | |
| CDL01 | Q1325420 | PERKIN | NICKEL | 0.080 | | 0.0868 | mg/L | 108.5 | |
| ICS-A | Q1325422 | PERKIN | NICKEL | 1.00 | | 0.970 | mg/L | 97 | |

Comments

*Q1325141* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

*Q1325142* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

## POTASSIUM ICP EPA 200.7 REV. 4.4 — M426.3

Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R426208 Analyst.: M HALL Run Date...: 14-JAN-02
PREP Reviewer: W WATNESS Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| BLA02 | Q1325137 | NA | R426284 |
| LCS | Q1325140 | SPEX | R426284 |
| SPI02 | Q1325141 | A581216 | R426284 |
| DPS02 | Q1325142 | A581216 | R426284 |
| SAMPLE | A581214 | Rep: 0 | R426356 |
| SAMPLE | A581215 | Rep: 0 | R426284 |
| SAMPLE | A581216 | Rep: 0 | R426284 |
| SAMPLE | A581217 | Rep: 0 | R426284 |
| SAMPLE | A581218 | Rep: 0 | R426284 |

Run: R426284 Analyst.: J KRAMER Run Date...: 14-JAN-02 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1325408 | PERKIN | POTASSIUM | 10 | | 9.88 | mg/L | 98.8 | |
| ICV01 | Q1325409 | SPEX | POTASSIUM | 20 | | 20.8 | mg/L | 104 | |
| CCV | Q1325416 | INORGAN | POTASSIUM | 50 | | 53.5 | mg/L | 107 | |
| BLA01 | Q1325417 | NA | POTASSIUM | | | < 0.0400 | mg/L | | |
| BLA02 | Q1325137 | NA | POTASSIUM | | | < 0.0400 | mg/L | | |
| LCS | Q1325140 | SPEX | POTASSIUM | 100 | | 104. | mg/L | 104 | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI02 | Q1325141 | A581216 | POTASSIUM | 5.54 | 100 | 145 | mg/L | 139.5 | |
| DPS02 | Q1325142 | A581216 | POTASSIUM | 5.54 | 100 | 145 | mg/L | 139.5 | 0 |
| SAMPLE | A581215 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1325418 | INORGAN | POTASSIUM | 50 | | 54.0 | mg/L | 108 | |
| BLA01 | Q1325419 | NA | POTASSIUM | | | < 0.0400 | mg/L | | |

Run: R426356 Analyst.: J KRAMER Run Date...: 15-JAN-02 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 16-JAN-02

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1325771 | PERKIN | POTASSIUM | 10 | | 10.1 | mg/L | 101 | |
| ICV01 | Q1325772 | SPEX | POTASSIUM | 20 | | 20.8 | mg/L | 104 | |
| CDL01 | Q1325774 | INORGAN | POTASSIUM | 0.1 | | 0.106 | mg/L | 106 | |
| CCV | Q1325779 | INORGAN | POTASSIUM | 50 | | 53.8 | mg/L | 107.6 | |
| BLA01 | Q1325780 | NA | POTASSIUM | | | < 0.0400 | mg/L | | |
| SAMPLE | A581214 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1325781 | INORGAN | POTASSIUM | 50 | | 53.6 | mg/L | 107.2 | |
| BLA01 | Q1325782 | NA | POTASSIUM | | | < 0.0400 | mg/L | | |

Comments

*Q1325141* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

*Q1325142* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

**HERITAGE ENVIRONMENTAL SERVICES, LLC**

SODIUM ICP EPA 200.7 REV. 4.4 M431.3

Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R426208 Analyst.: M HALL Run Date...: 14-JAN-02
PREP Reviewer: W WATNESS Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| BLA02 | Q1325137 | NA | R426284 |
| LCS | Q1325140 | SPEX | R426284 |
| SPI02 | Q1325141 | A581216 | R426284 |
| DPS02 | Q1325142 | A581216 | R426284 |
| SAMPLE | A581214 | Rep: 0 | R426356 |
| SAMPLE | A581215 | Rep: 0 | R426356 |
| SAMPLE | A581216 | Rep: 0 | R426284 |
| SAMPLE | A581217 | Rep: 0 | R426356 |
| SAMPLE | A581218 | Rep: 0 | R426284 |

Run: R426284 Analyst.: J KRAMER Run Date...: 14-JAN-02 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1325408 | PERKIN | SODIUM | 1 | | 0.999 | mg/L | 99.9 | |
| ICV01 | Q1325409 | SPEX | SODIUM | 20 | | 21.7 | mg/L | 108.5 | |
| CCV | Q1325416 | INORGAN | SODIUM | 50 | | 54.3 | mg/L | 108.6 | |
| BLA01 | Q1325417 | NA | SODIUM | | | < 0.0400 | mg/L | | |
| BLA02 | Q1325137 | NA | SODIUM | | | < 0.0400 | mg/L | | |
| LCS | Q1325140 | SPEX | SODIUM | 100 | | 104. | mg/L | 104 | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI02 | Q1325141 | A581216 | SODIUM | 1140 | 100 | NQR 1280 | mg/L | | |
| DPS02 | Q1325142 | A581216 | SODIUM | 1140 | 100 | NQR 1270 | mg/L | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1325418 | INORGAN | SODIUM | 50 | | 54.1 | mg/L | 108.2 | |
| BLA01 | Q1325419 | NA | SODIUM | | | < 0.0400 | mg/L | | |

Run: R426356 Analyst.: J KRAMER Run Date...: 15-JAN-02 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 16-JAN-02

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ICV01 | Q1325771 | PERKIN | SODIUM | 1 | | 0.994 | mg/L | 99.4 | |
| ICV01 | Q1325772 | SPEX | SODIUM | 20 | | 21.6 | mg/L | 108 | |
| CDL01 | Q1325774 | INORGAN | SODIUM | 0.1 | | 0.0972 | mg/L | 97.2 | |
| CCV | Q1325779 | INORGAN | SODIUM | 50 | | 54.0 | mg/L | 108 | |
| BLA01 | Q1325780 | NA | SODIUM | | | < 0.0400 | mg/L | | |
| SAMPLE | A581214 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581215 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1325781 | INORGAN | SODIUM | 50 | | 53.1 | mg/L | 106.2 | |
| BLA01 | Q1325782 | NA | SODIUM | | | < 0.0400 | mg/L | | |

Comments

*Q1325141* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

*Q1325142* *There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria. Results for this sample are estimated. (K)*

## HERITAGE ENVIRONMENTAL SERVICES, LLC

### TOTAL ORGANIC CARBON EPA 415.1 — 0401.1

Run: R426355 Analyst.: B BATTANI Run Date...: 14-JAN-02 Instrument: TOC
ANALYTICAL Reviewer: B SHRAKE Review Date: 15-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| CDL01 | Q1325758 | | TOTAL ORGANIC CARBON (TOC) | 5 | | 3.86 | mg/L | 77.2 | |
| ICV01 | Q1325759 | | TOTAL ORGANIC CARBON (TOC) | 83.8 | | 90.9 | mg/L | 108.5 | |
| CCV | Q1325762 | | TOTAL ORGANIC CARBON (TOC) | 50 | | 49.9 | mg/L | 99.8 | |
| BLA01 | Q1325763 | | TOTAL ORGANIC CARBON (TOC) | | | BDL 0.5 | mg/L | | |
| SAMPLE | A581214 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581215 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI01 | Q1325764 | A581218 | TOTAL ORGANIC CARBON (TOC) | 1.44 | 25 | 26.9 | mg/L | 101.8 | |
| DPS01 | Q1325765 | A581218 | TOTAL ORGANIC CARBON (TOC) | 1.44 | 25 | 25.9 | mg/L | 97.8 | 4 |
| CCV | Q1325766 | | TOTAL ORGANIC CARBON (TOC) | 50 | | 51.6 | mg/L | 103.2 | |
| BLA01 | Q1325767 | | TOTAL ORGANIC CARBON (TOC) | | | BDL 0.5 | mg/L | | |

### HYDROCARBON SCAN BY GC:FID SW846-8015B(MOD) — 0409.1
Prep: MICRO-EXTRACTION FOR FID HLI2

Run: R426202 Analyst.: D WARD Run Date...: 11-JAN-02
PREP Reviewer: S BRYAN Review Date: 17-JAN-02

| QC Type | Lab ID | Source | Anal Run |
|---|---|---|---|
| LCS | Q1325000 | | R426545 |
| DLCS | Q1325001 | | R426545 |
| SPI02 | Q1326121 | A581217 | R426545 |
| BLA02 | Q1326122 | | R426545 |
| SAMPLE | A581214 | Rep: 0 | R426545 |
| SAMPLE | A581215 | Rep: 0 | R426545 |
| SAMPLE | A581216 | Rep: 0 | R426545 |
| SAMPLE | A581217 | Rep: 0 | R426545 |
| SAMPLE | A581218 | Rep: 0 | R426545 |

HERITAGE

Run: R426545 Analyst.: S BRYAN Run Date...: 16-JAN-02 Instrument: GC/FID
ANALYTICAL Reviewer: E WERNZ Review Date: 24-JAN-02

| QC Type | Lab ID | Source | Parameter | True/Sampl | Spike Val | Observed | Units | % Rec | RPD |
|---|---|---|---|---|---|---|---|---|---|
| LCS | Q1325000 | | DIESEL FUEL | 5 | | 4.69 | mg/L | 93.8 | |
| DLCS | Q1325001 | | DIESEL FUEL | 5 | | 4.72 | mg/L | 94.4 | .6 |
| CCV | Q1327039 | | DIESEL FUEL | 100 | | 108 | mg/L | 108 | |
| BLA02 | Q1326122 | | GASOLINE | | | BDL 0.5 | mg/L | | |
| BLA02 | Q1326122 | | DIESEL FUEL | | | BDL 1.3 | mg/L | | |
| BLA02 | Q1326122 | | OTHER HYDROCARBONS | | | BDL 2.5 | mg/L | | |
| SAMPLE | A581214 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581215 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581216 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SAMPLE | A581217 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| SPI02 | Q1326121 | A581217 | DIESEL FUEL | 0 | 5 | 5.52 | mg/L | 110.4 | |
| SAMPLE | A581218 | | See Cert. of Analysis, Rep: 0 | | | | | | |
| CCV | Q1328135 | | GASOLINE | 50 | | 51 | mg/L | 102 | |

QC Sample Comments

< Less Than Lower Detection Limit

**HERITAGE ENVIRONMENTAL SERVICES, LLC**

| BDL Below Detection Limit | QC Sample Comments |
|---|---|
| NQR No QC Result. High Sample Concentration. | |

Approved by: G A Busch, QAO