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Design Set 1B
Capping Remedial Action
Implementation Report

Harbor Island Superfund Site
Soil and Groundwater Operable Unit

Prepared by:

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RETEC Project No.: 1-2900-980

Prepared for:

Design Set #1B Participants and
The Harbor Island Superfund Site Soil and Groundwater Operable Unit Steering Committee
Seattle, Washington

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September 15, 1998

USEPA SF
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draft

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1 Introduction

1.1 Purpose

This remedial action implementation report has been prepared by Remediation Technologies, Inc. (RETEC) on behalf of the Participants of Design Set 1B at the Harbor Island Superfund Site Soil and Groundwater Operable Unit (S&GOU). The design for the remedial action capping work described in this report was presented to the United States Environmental Protection Agency (EPA) in the *Design Set 1B Remedial Design Report* (RETEC, 1997a). This document has been prepared to satisfy the requirements of the Harbor Island Soil and Groundwater Operable Unit Consent Decree.

Design Set 1B was defined in the *Remedial Design Work Plan, Harbor Island Soil and Groundwater Operable Unit Superfund Site, Seattle, Washington* (RETEC, 1997b). Design Set 1B includes properties that required limited surficial capping only and which were located outside the footprint of the pending Terminal 18 (T18) expansion project. Design Set 1B consists of properties owned or operated by Asahipen America, Inc. (Aspen Paints); Fisher Mills Inc. (Fisher Mills); Union Pacific Railroad Parcel A (UPRR); Harbor Island Machine Works and Lone Star Northwest (Figure 1-1).

The Lone Star Northwest property, which is part of Design Set 1B, has had remedial action capping work delayed and will be addressed separately. Specifically, an addendum to the Design Set 1B Remedial Design Report will be prepared to incorporate changes to the remedial design for the Lone Star Northwest property. Also, an addendum to this Capping Remedial Action Implementation Report will be prepared following completion of the remedial capping work at the Lone Star Northwest property.

This report documents remedial capping activities recently completed at the Aspen Paints, Fisher Mills, UPRR, and Harbor Island Machine Works properties (1B Participants). Activities consisted of site preparation, cap construction, and off-site disposal of small quantities of soil generated at each property during subgrade preparation and grading work.

1.2 Certificate of Completion

RETEC certifies that the capping remedial action at the Harbor Island Soil and Groundwater Operable Unit 1B properties has been completed in accordance with the Consent Decree Civil No. C95-1495-Z, the EPA Statement of Work, and the

EPA-approved Final Remedial Design submitted for Design Set 1B. A certification letter is included in Appendix A.

1.3 Report Organization

Section 1: Presents an introduction to the report, how it is organized, and a summary of remedial action cleanup requirements.

Section 2: Presents a brief summary of the capping work at each property and describes compliance with performance criteria.

Section 3: Provides more detail on the remedial capping work that was completed at each 1B property.

Section 4: Provides information regarding future cap inspection and maintenance.

Section 5: References.

Appendix A: Certificate of Completion

Appendix B: EPA correspondence regarding ACP cap requirements

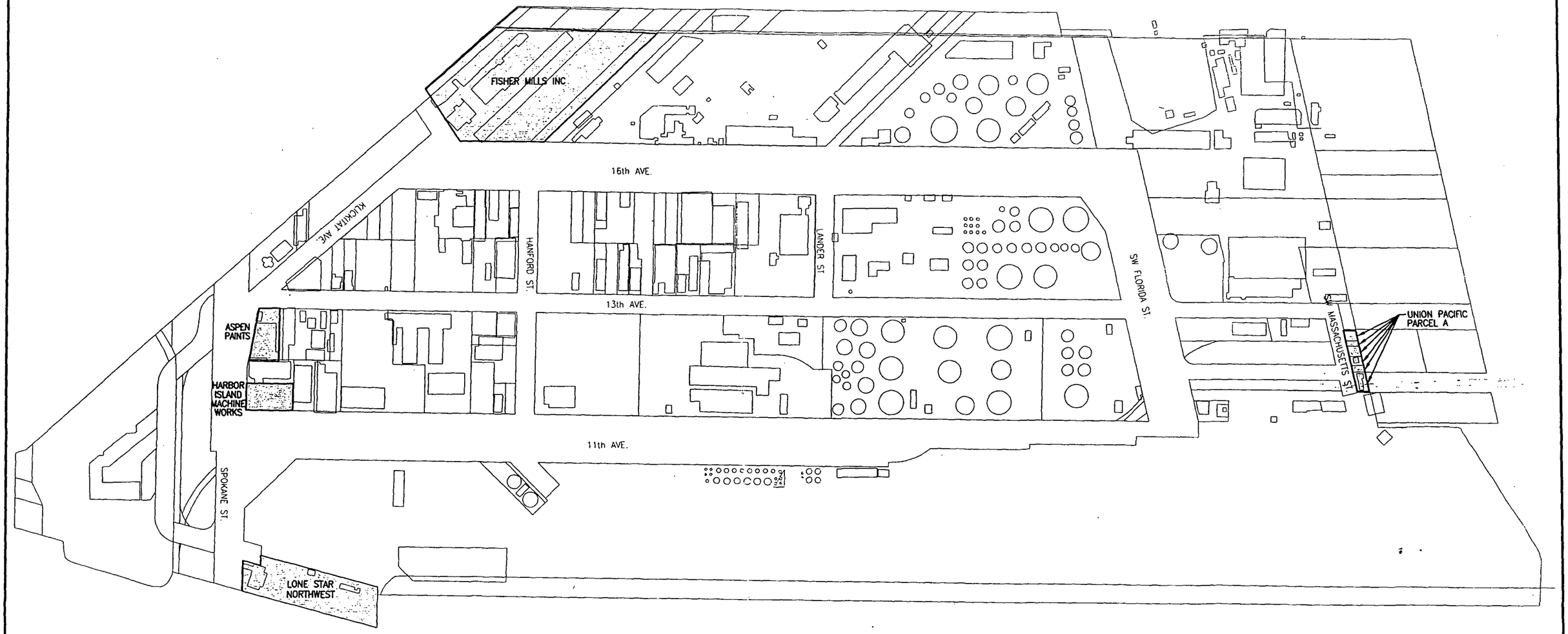
Appendix C: Photographic log of remedial action capping activities

Appendix D: Daily reports of RETEC oversight personnel

Appendix E: Physical testing results for material testing, compaction, and permeability

Appendix F: Analytical data reports for stockpile soil characterization

Appendix G: Documentation of soil disposal



NOTE:
LONE STAR NORTHWEST PROPERTY IS INCLUDED IN DESIGN SET 1B BUT WILL BE ADDRESSED SEPERATELY IN A FORTHCOMING ADDENDUM

LEGEND

DESIGN SET 1B CAPPING PROPERTIES

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SCALE IN FEET

NO	DRWN	DATE	REVISION	CHKD	DATE	APPVD	DATE
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REFERENCE DWG | DESCRIPTION

DESIGN SET 1B
HARBOR ISLAND S&GOU SUPERFUND SITE
1-2900-980

CURRENT DATE: 9/10/98 | CAD FILE 29005002

PROPERTY LOCATION MAP
DESIGN SET 1B

RETEC
REMEDIATION TECHNOLOGIES INC

DRAWING NO. FIGURE 1-1 | REV 0

2 Summary of Work

Those Design Set 1B properties with surface soil that exceeded inorganic or organic cleanup criteria, as identified in the Record of Decision (ROD; EPA, 1996), were capped as required. The primary intent of capping was to prevent dermal contact with native soil and, to a lesser extent, to reduce infiltration. The caps were composed of at least three inches of asphalt concrete pavement (ACP). At some properties, reinforced Portland cement concrete pavement (PCCP) was used for load-bearing surfaces based on property-specific commercial considerations or in areas where adequate compaction of ACP would have been difficult to achieve.

Several of the Design Set 1B properties include railroad tracks or landscape planter areas. Based on prior discussions with EPA, capping in active rail bed areas may be substituted with an equally protective dermal contact barrier comprised of 6 to 12 inches of railroad ballast. Active rail bed areas are defined as the area between rails and between sets of tracks. Fisher Mills was the only 1B property with active rail bed areas, but Fisher Mills decided for operational reasons to install an ACP cap in addition to the railroad ballast dermal barrier. In general, landscape planter areas were not required to be capped although the only soil sample obtained from the UPRR property was from a planter box. UPRR capped their planter area with PCCP. UPRR also capped an adjacent area with ACP, although no soil data was ever obtained from this area during the Remedial Investigation (RI; Weston, 1993).

A summary of the asphalt pavement capping efforts completed at each property (to meet the intent of the Consent Decree) was provided to EPA in a letter dated April 15, 1998. The letter summarized the conditions encountered at each property, the actual capping work performed and how it may have deviated from original plans, and how the information would ultimately be presented to EPA in this Design Set 1B Remedial Action Capping Implementation Report. EPA provided a written response dated May 27, 1998. EPA concurred that the capping work completed at Aspen Paints, Harbor Island Machine Works, UPRR Parcel A and Fisher Mills met the intent of the Consent Decree. EPA further acknowledged new pavement permeability testing data performed by RETEC at an adjacent site outside the boundaries of the S&GOU properties. This data demonstrated that well-compacted pavement sections in excess of five inches thick could meet the pavement permeability criteria of 1×10^{-5} cm/sec. Previous permeability testing results obtained during Design Set 1B capping on three-inch thick conventional asphalt, such as that placed at UPRR Parcel A, are included in Appendix E. The two letters referenced above are attached in Appendix B.

The primary constituents of concern for 1B Participant properties that required soil capping were total petroleum hydrocarbons (TPH), total polynuclear aromatic hydrocarbons (TPAH), heavy polynuclear aromatic hydrocarbons (HPAH), arsenic, and lead. Analytical results for samples taken from the 1B properties were previously summarized by the EPA Project Manager in the EPA Sampling Summary (Table 2-1). Results provided in the EPA Sampling Summary (EPA, 1994) were for samples that had constituent concentrations above capping criteria. RETEC used this summary in the remedial design to evaluate the extent of capping required for each 1B property. Specific capping criteria for the 1B properties stated in the EPA Sampling Summary are also presented in Table 2-1.

The remedial action capping required at the 1B Participant properties was commenced in October 1997, with all capping completed by June 1998 and disposal activities completed by July 1998. The work consisted of subgrade preparation followed by capping with ACP or PCCP. Each property also had limited quantities of soil generated during from subgrade preparation. This soil was characterized and transported offsite for disposal. A summary of the specific work completed at each property is presented below. Along with a discussion of performance criteria. A more detailed description of work at each property and the contractor's who performed the work is presented in Section 3. A photographic log is provided as Appendix C and Field Daily Logs are provided as Appendix D.

Table 2-1 Soil-Sample Constituents and Concentrations above Capping Criteria as Listed in the EPA Sampling Summary*

Sample ID	Constituent Concentrations				
	HPAH (mg/kg)	TPAH (mg/kg)	TPH (mg/kg)	Lead (mg/kg)	Arsenic (mg/kg)
Capping Criteria	22.6	22.6	600	1,000	32.6
Aspen Paints					
HA-AP-03	30.20	36.27			
SS-AP-01			802.20	1,940.00	
SS-AP-02			752.30		
SS-AP-03			1,038.00		
SS-AP-04			2,373.20		
Union Pacific Parcel A					
SS-PT-54	33.38	45.73			207.00
Harbor Island Machine Works					
SS-MW-02-D1			2,771.50		
SS-MW-02-D2			1,868.60		
Fisher Mills, Inc.					
SS-FM-07	73.64	109.66	2,091.30		

NOTES:

* U.S. Environmental Protection Agency, 1994.

HA – hand-auger sample

SS – surface sample

HPAH - sum of benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenz(a,h)anthracene.

TPAH - sum of all polynuclear aromatic hydrocarbons (PAH)

TPH - total petroleum hydrocarbons

2.1 Aspen Paints

Four samples were collected from this property at locations shown in Figure 2-1. All four samples were recorded in the EPA Sampling Summary (EPA, 1994) due to exceedances for total petroleum hydrocarbons (TPH), lead, and polynuclear aromatic hydrocarbons (PAHs).

Sample AP-1 was taken from a small narrow strip of exposed soil running the length of the north property boundary. Because this strip has not been landscaped and is located within the Aspen Paints property boundary, capping was proposed in the Remedial Design Report along the entire strip as shown in Figure 2-1. The area on both sides of the strip of exposed soil is composed of suitable PCCP.

Sample AP-2 was taken from the southwest corner of the property. Based on discussions with Aspen Paints, the Port of Seattle is negotiating with Aspen Paints to purchase this corner. The Port plans on widening the road during the T-18 Expansion Project and will, therefore, cap the affected area as necessary at a later date.

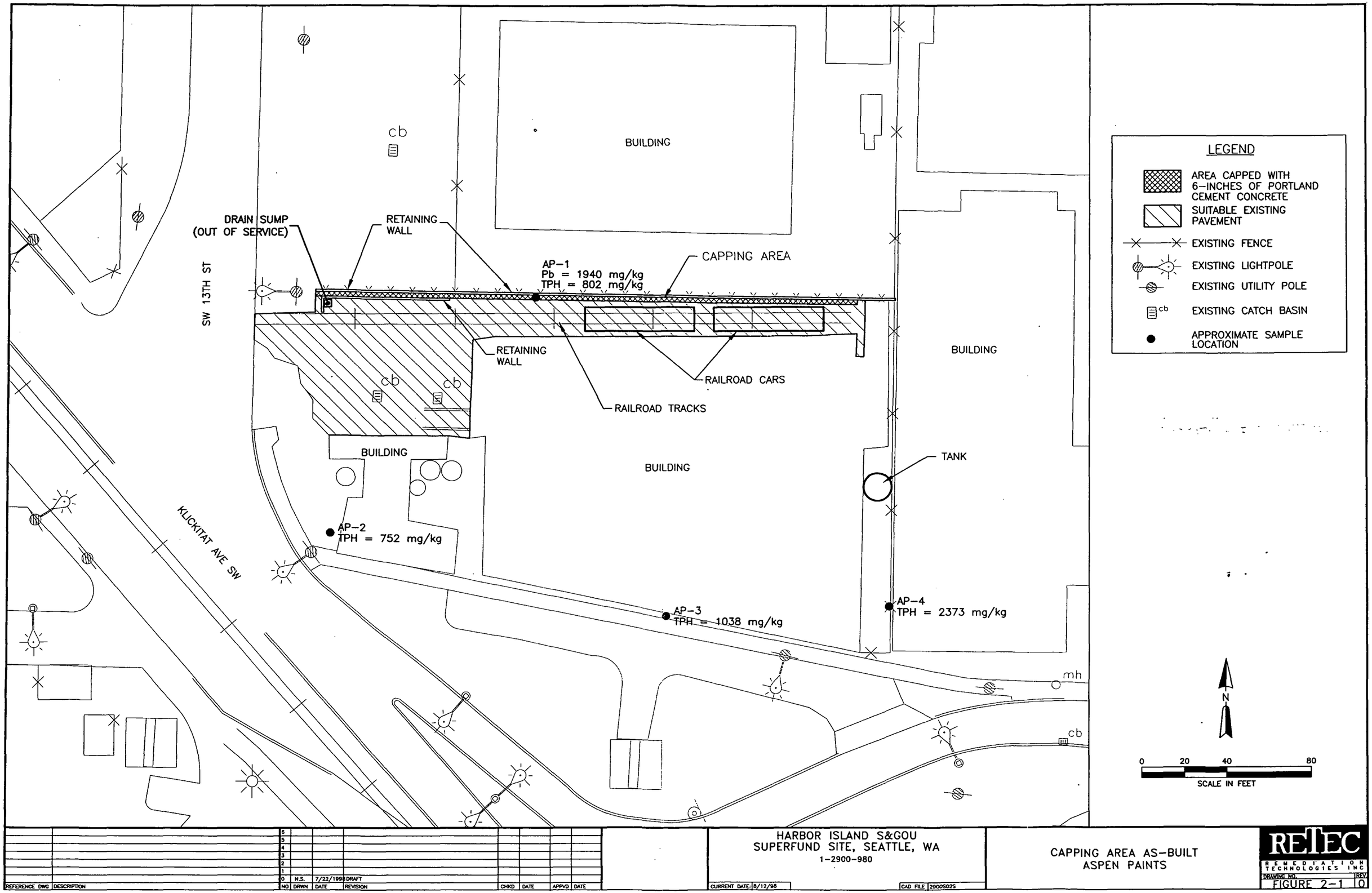
Sample AP-3 was taken from a landscaped area in front of the property. Based on prior discussions with EPA, no capping actions are required in landscaped planter areas.

Sample AP-4 was taken in the alley between Aspen Paints and the building to the east. This area contains suitable existing PCCP. Therefore, no additional capping is required for this area.

The narrow strip of exposed soil along the north property boundary, associated with Sample AP-1, was capped with PCCP. Previous RI sampling in the narrow strip detected the presence of TPH and lead. Approximately 6 inches of PCCP was poured into the prepared area. The 6 inches of PCCP replaced the 4 inches of PCCP and 4 inches of crushed surfacing base course (CSBC) proposed due to the presence of existing crushed rock. No exposed soil remains along the north boundary of the Aspen Paints property, and the PCCP has sufficiently capped the area in accordance with EPA requirements.

2.2 Fisher Mills

Two samples were collected from this property at locations shown in Figure 2-2. Sample FM-07 was the only location to be recorded in the EPA Sampling Summary (EPA, 1994). This sample exceeded capping criteria for TPH and PAHs.



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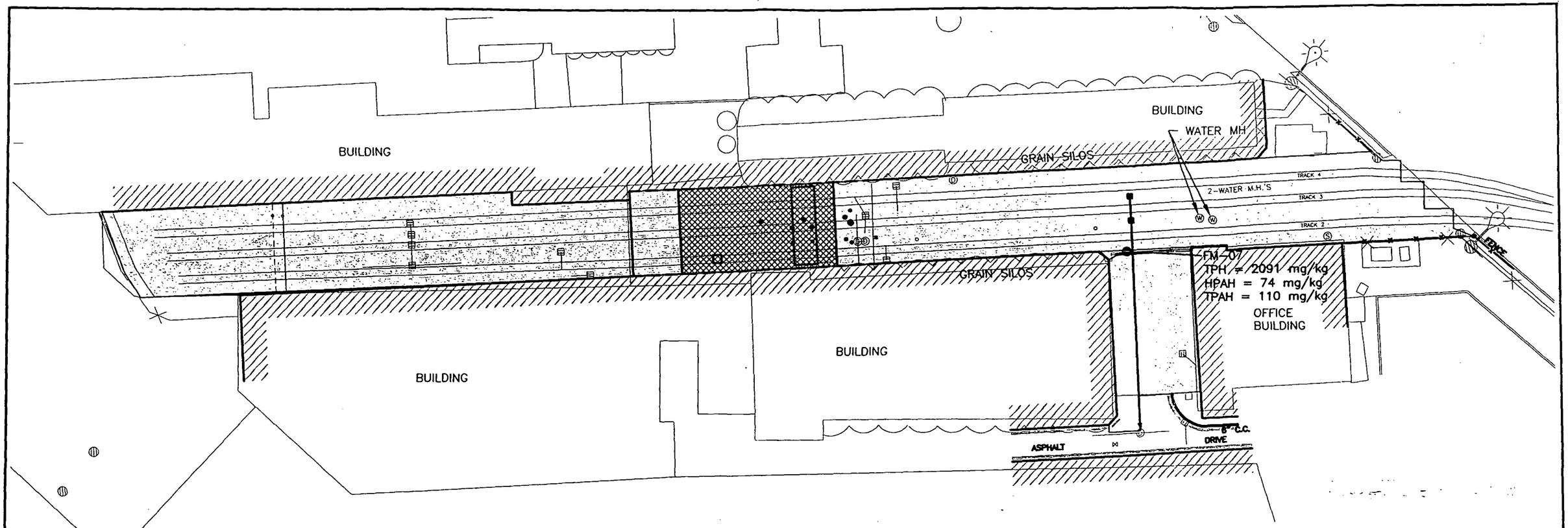
HARBOR ISLAND S&GOU
SUPERFUND SITE, SEATTLE, WA
1-2900-980

CURRENT DATE: 8/12/98 | CAD FILE 29005025

CAPPING AREA AS-BUILT
ASPEN PAINTS

RETEC
REMEDIATION TECHNOLOGIES INC

DRAWING NO. FIGURE 2-1 | REV 0



LEGEND

EXISTING

- EDGE OF EXISTING ASPHALTIC CONCRETE
- CATCH BASIN
- C.C. — CONCRETE CURB
- FENCE LINE
- I.E. — INVERT ELEVATION
- I.P. — IRON PIPE
- RAILROAD TRACKS
- SANITARY SEWER MANHOLE
- SD — STORM DRAIN
- STORM DRAIN MANHOLE
- WATER VALVE
- WATER MANHOLE
- BUILDING FOUNDATION LINE NOTE: BUILDING FACE JOGS IN SEVERAL AREAS ALONG THIS LINE
- LIGHT POLE
- CB — CATCH BASIN
- MH — MANHOLE
- NEW CL. B ASPHALTIC CONCRETE (THICKNESS VARIES FROM 3 TO 5-INCHES)
- NEW 6-INCH THICK PORTLAND CEMENT CONCRETE
- APPROXIMATE SAMPLE LOCATION

0 30 60 120
SCALE IN FEET

SOURCE: DAVID EVANS AND ASSOCIATES, TACOMA, WA. 1997. TRACK AND DRAINAGE IMPROVEMENT PLANS.

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HARBOR ISLAND S&GOU
SUPERFUND SITE, SEATTLE, WA
1-2900-980

CURRENT DATE: 9/10/98 CAD FILE 2900S07S

CAPPING AREA AS-BUILT
FISHER MILLS INC.

RETEC REMEDIATION TECHNOLOGIES INC

DRAWING NO. FIGURE 2-2 REV 0

The area to the south of sample location FM-07 is a concrete parking lot. South of the parking lot is an asphalt roadway. Both are suitable existing pavements. In the north section of the parking lot, the concrete slab was broken and water ponded in the northwest corner. The concrete was planned to be removed, the area regraded, and a new ACP surface placed. The area to the north of FM-07 is an active rail bed and, as a result, only requires a clean ballast cap. However, as part of facility revisions, Fisher Mills chose to place ACP in addition to be ballast for operational reasons.

A minimum lift of 12 inches of crushed rock was placed as a dermal barrier within the railroad-track areas of the site. The rock ballast was then covered with WSDOT Class B ACP as a working surface and to further protect the ballast layer. The ACP varies in thickness from 3 to 5 inches and is sloped to convey surface water into an existing network of catch basins.

The parking lot adjacent to the railroad-track area was also resurfaced with a 3-inch lift of WSDOT Class B ACP, underlaid by 4-inches of crushed rock. This area was also sloped to convey storm water to an adjacent network of existing catch basins.

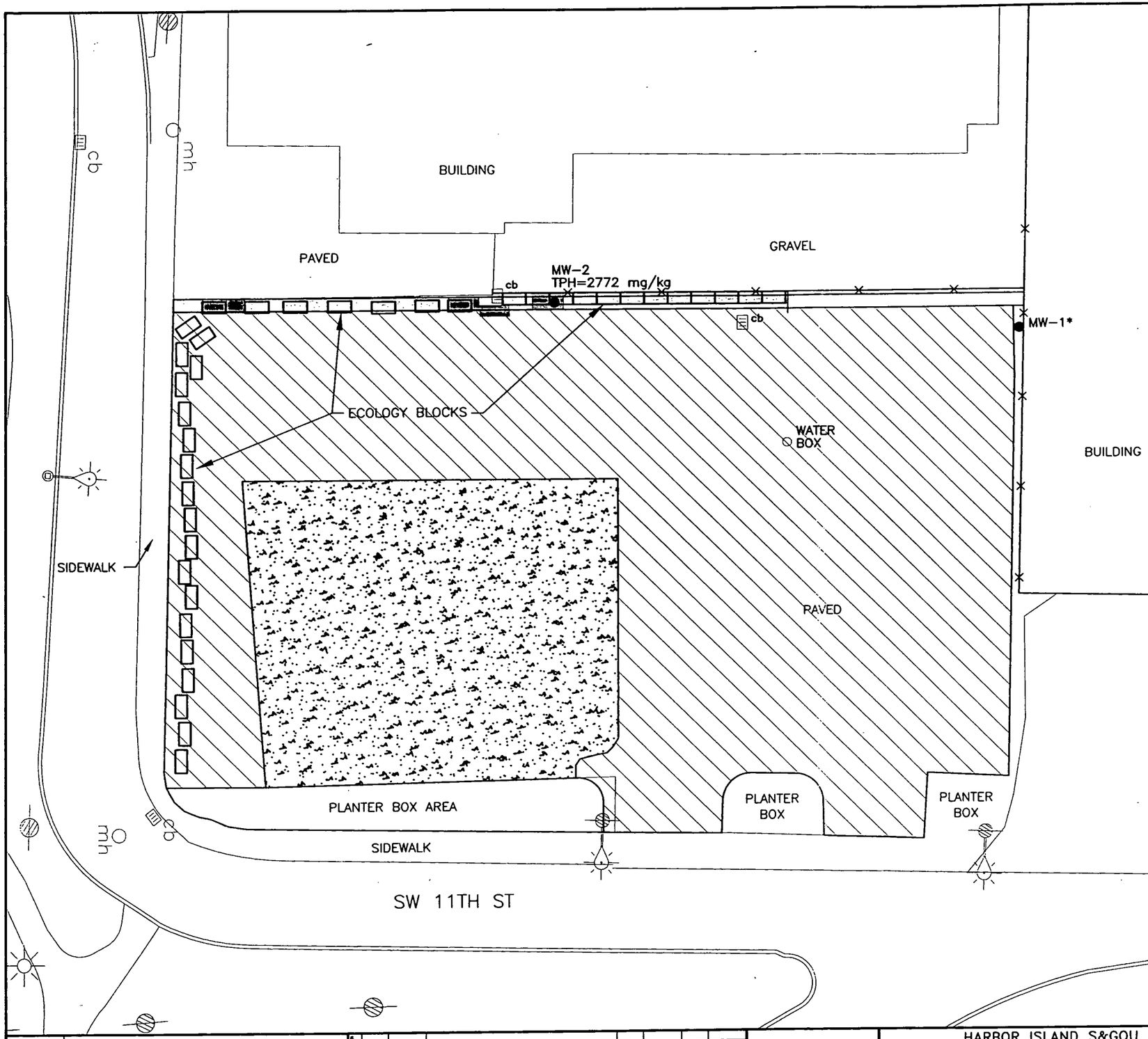
The remedial action capping work has been completed at both areas in accordance with EPA requirements.

2.3 Harbor Island Machine Works

Two samples (MW-1 and MW-2) were collected from this property from locations shown in Figure 2-3. Sample MW-2 was the only location to be recorded in the EPA Sampling Summary (EPA, 1994). This sample exceeded capping criteria for TPH.

Because both samples were taken from the same strip of soil, the area impacted by TPH is well defined around the MW-2 sample location. Capping was planned to begin halfway between the north and south sample (65 feet north of MW-2) and extend south 175 feet. No capping or repairs were planned to be completed in the parking area because the existing pavement provides an effective barrier against dermal contact. The southeast corner of the property contains a compacted gravel surface.

During subgrade preparation, it was discovered that the area to be paved had existing ACP underlying the soil that extended up to the property line fence. The soil overlying the existing asphalt was surficial soil from the adjacent property that



LEGEND

- SOIL STRIP PROPOSED TO BE CAPPED WITH 3-INCH ASPHALTIC CONCRETE
- SUITABLE EXISTING PAVEMENT
- EXISTING COMPACTED GRAVEL
- ACTUAL PATCH REPAIRS OF 3-INCH ASPHALTIC CONCRETE PAVEMENT
- EXISTING FENCE
- EXISTING LIGHTPOLE
- EXISTING UTILITY POLE
- CB CATCH BASIN
- MH MANHOLE
- APPROXIMATE SAMPLE LOCATION

* CONSTITUENT CONCENTRATIONS IN SAMPLE WERE BELOW EPA CAPPING CRITERIA.

N

0 15 30 60

SCALE IN FEET

NO	DRWN	DATE	REVISION	CHKD	DATE	APPVD	DATE
0	N.S.	7/22/1998	DRAFT				

REFERENCE DWG | DESCRIPTION

HARBOR ISLAND S&GOU
SUPERFUND SITE, SEATTLE, WA
1-2900-980

CURRENT DATE: 7/23/98 | CAD FILE 2499S21S

CAPPING AREA AS-BUILT
HARBOR ISLAND MACHINE WORKS

REMEDIATION TECHNOLOGIES INC

DRAWING NO. FIGURE 2-3 | REV. 0

had apparently sloughed onto the Harbor Island Machine Works property through the chain-link fence. This surficial soil (that was the source of the original TPH exceedance) was excavated and temporarily stockpiled in a covered drop box, characterized, and ultimately disposed of at Rabanco's Rooselvelt Landfill as a solid waste.

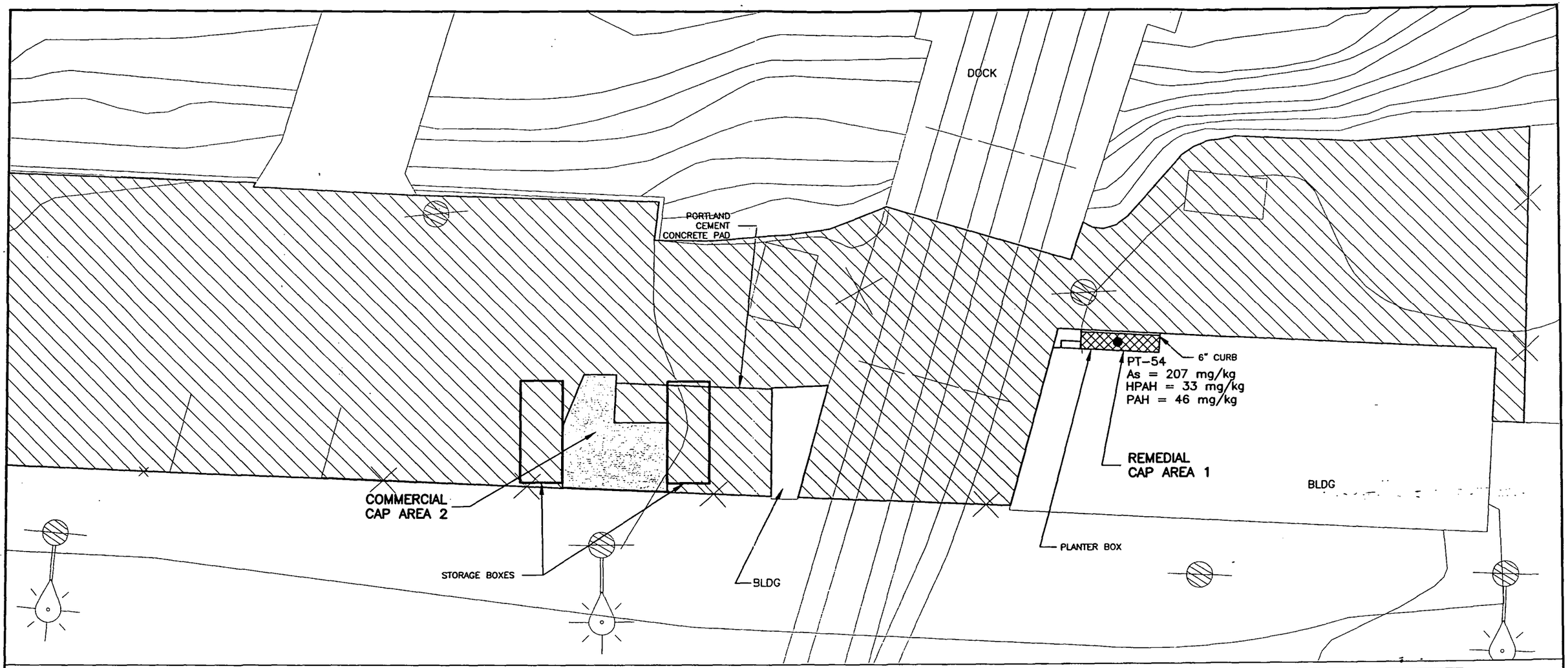
Four areas in the newly discovered existing pavement contained potholes, that were patched with WSDOT Class B ACP. ACP patching work was performed to repair the parking lot but was not required based on EPA capping criteria since all impacted soil had been removed. Ecology blocks were then placed on top of the pavement along the fence line to prevent soil from sloughing off the adjacent property in the future.

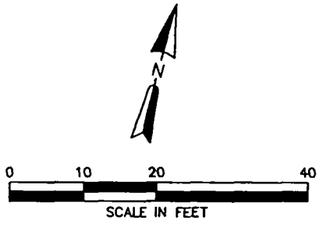
2.4 Union Pacific Railroad Parcel A

Only one sample was collected from this property. The exact sample location is not known because the sampling log was not included in the RI sampling logs provided by EPA. However, based on maps in the RI, this sample appears to have been taken from the planter box on the northwest side of the building as shown in Figure 2-4. This sample exceeded capping criteria for arsenic and PAHs.

The planter box and an area to the west near an old shed were the only unpaved areas on the site. The remainder of the property is covered with suitable ACP and PCCP. As a conservative measure, UPRR further desired to cap all other unpaved portions of their property. As a result, the area to the west was also capped, although no soil samples or data were ever collected in this area during the RI to indicate that capping was necessary. The planter area was planned to be capped with PCCP due to compaction concerns and the area to the west was planned to be capped with ACP.

During construction, the shrubbery in the planter was removed, and the area was suitably capped with 4 inches of PCCP. Due to poor subgrade soil, a total of 7 inches of CSBC was placed and compacted to prepare the area for capping. The area to the west, which measured approximately 10 feet by 20 feet, was surrounded by suitable existing pavement on three sides and an unpaved city right-of-way to the south. It was capped with a 4-inch layer of crushed rock, overlaid with a 3-inch thick layer of WSDOT Class B ACP. The newly placed caps provide a suitable dermal-contact barrier with native soil. Remedial action capping at UPRR Parcel A has been completed in accordance with EPA requirements.





LEGEND

- REMEDIAL AREA CAPPED WITH 4-INCHES PORTLAND CEMENT CONCRETE PAVEMENT
- SUITABLE EXISTING PAVEMENT
- COMMERCIAL AREA CAPPED WITH 3-INCHES OF ASPHALTIC CONCRETE PAVEMENT
- EXISTING FENCE
- EXISTING LIGHTPOLE
- EXISTING UTILITY POLE
- APPROXIMATE SAMPLE LOCATION

REFERENCE DWG	DESCRIPTION	NO	DRWN	DATE	REVISION	CHKD	DATE	APPVD	DATE
		6							
		5							
		4							
		3							
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HARBOR ISLAND S&GOU
SUPERFUND SITE, SEATTLE, WA
1-2900-980

CURRENT DATE: 7/22/98
CAD FILE 2900S04S

CAPPING AREAS
UNION PACIFIC RAILROAD
PARCEL A

RETEC
REMEDIATION TECHNOLOGIES INC

DRAWING NO. FIGURE 2-4 REV. 0

2.5 Compliance With Performance Standards

Performance standards were provided in the *Remedial Design Report, Design Set 1B* (RETEC, 1997.) These section presents the results of testing for compliance with these performance standards and explains any significant differences.

2.5.1 Emissions

Remedial action activities were visually monitored for emissions by the RETEC Oversight Engineer. No emissions occurred that required suppression.

2.5.2 Base Course

CSBC, complying with WSDOT 9-03.9(3), was used to prepare capping locations for pavement. Specific requirements and test results (Appendix E) are listed below:

Parameter	Criteria	Test Results
Los Angeles Wear, 500 rev	35 maximum	16
Degradation Factor	15 minimum	69

Compaction of the CSBC at each site was to be performed to 95% of the maximum standard density according to WSDOT Test Method 613. Compaction testing data is provided in Appendix E and following is a summary of CSBC Compaction Data:

Property	CSBC Compaction
Harbor Island Machine Works	96%
UPRR Planter Box	94.4%
UPRR West Patch	99%

No compaction data is available for Aspen Paints as existing crushed rock was present in the paving area and no imported CSBC was placed. No compaction data is provided for Fisher Mills as this cap was placed in an active railbed and only clean ballast placement was required. ACP paving activities performed at Fisher Mills in the railbed area were for operational purposes.

2.5.3 Asphalt Concrete Pavement

ACP was placed at Harbor Island Machine Works, UPRR, and Fisher Mills. ACP to be placed to specifications presented in the Remedial Design Report was only

necessary at UPRR and Fisher Mills (for parking lot ACP). Specific requirements and test results are provided in Appendix E and are summarized below:

Parameter	Criteria	Test Result
Aggregate Los Angeles Wear, 500 rev	30 maximum	16
Aggregate Degradation Factor	30 minimum	69
Cohesion Value	100 minimum	156
Stabilometer	35 minimum	39
Asphalt Content (AR4000W)	4.0-7.5%	5.2%
Percent Voids	2.0-4.5%	4.2%
Maximum Standard Density (Rice)	92-96%	92%

Permeability testing was also performed for the ACP caps and data is provided in Appendix E. Laboratory-compacted samples were analyzed at PTI/PSI prior to commencing remedial action capping activities. These data indicated that in order to achieve the specified permeability criteria of $1x10^{-5}$ centimeters per second, the ACP should be compacted to approximately 97% Rice density. As indicated in the table, above, field compaction of 92% Rice density was achieved. A field core was collected from the UPRR site and tested. The permeability testing result was $5.6x10^{-4}$ centimeters per second, slightly exceeding the specified criteria. As discussed in Section 2, correspondence from the EPA Project Manager indicated that placement of the WSDOT Class B ACP to specification satisfied the intent of the permeability requirement.

ACP compaction was not measured at Fisher Mills since capping was done in an active rail bed area and only clean ballast was required. ACP compaction data was not collected from Harbor Island Machine Works since all impacted soil had been removed during site preparation activities. Only minor ACP patching was conducted at Harbor Island Machine Works.

2.5.4 Soil Disposition

Potentially impacted soil generated during site preparation activities for remedial action capping was stockpiled separately at each property and a composite sample was collected from each pile. Less than 200 cubic yards of potentially impacted soil was generated at each property so only one sample was required from each property. Samples were analyzed for soil disposition based on known contamination at the properties. Soil from Fisher Mills, Harbor Island Machine Works, and UPRR was all below Dangerous Waste criteria. Soil from Harbor

Island Machine Works and UPRR was disposed at the Rabanco Subtitle D landfill in Roosevelt, Washington and soil from Fisher Mills was sent to TPS Technologies, Inc. in Tacoma, Washington for low temperature thermal desorption. Soil from Aspen Paints was determined to be a Dangerous Waste based on Toxicity Characteric Leaching Procedure (TCLP) results exceeding the concentration criteria. This soil was manifested as a hazardous waste and shipped to the Chemical Waste Management Columbia Ridge Landfill and Recycling Center in Arlington, Oregon for stabilization and disposal. The following table provides a summary of this information:

Property	Soil Volume (tons)	Disposal Facility	Date Shipped
Aspen Paints	13.52	Chemical Waste Management Columbia Ridge Landfill, Arlington, OR	December 4, 1997
Fisher Mills	32.21	TPS Technologies, Inc., Tacoma, WA	July 27, 1998
Harbor Island Machine Works	12.6	Rabanco Regional Disposal Roosevelt Landfill, Klickitat, WA	December 1, 1997
UPRR	3.02	Rabanco Regional Disposal Roosevelt Landfill, Klickitat, WA	December 1, 1997

Analytical data is provided in Appendix F and soil deposition information including signed manifests is provided in Appendix G.

3 Remedial Capping Work

Remedial action capping activities were performed by several subcontractors under the direction of RETEC at the Aspen Paints, Harbor Island Machine Works, and Union Pacific Railroad Parcel A properties. Site preparation and PCCP capping activities were subcontracted to CeCon Corporation of Tacoma, Washington. ACP capping was subcontracted to AA Asphalting of Kent, Washington. Soil disposal was performed by Rabanco Regional Landfill, Roosevelt, Washington; Chemical Waste Management, Arlington, Oregon; and TPS Technologies in Tacoma, Washington,. All oversight, sampling, and documentation activities were provided by RETEC with compaction testing provided by PTL/PSI. David Evans and Associates of Tacoma, Washington designed the revision to the Fisher Mills property and Salm Construction of Kent, Washington, was the general contractor that performed the remedial action capping at Fisher. All of the remedial actions performed are described in the following sections.

3.1 Aspen Paints

The remedial action cap for this property consisted of capping the small strip of soil along the north edge of the property boundary (Figure 2-1). This strip of soil was approximately 250 feet long, and ranged in width from 15 to 19 inches.

3.1.1 Site Preparation

The subgrade preparation was performed on October 14, 1997 through October 16, 1997 by hand excavating soil to a depth of approximately 6 to 8 inches below ground surface. The Remedial Design Report called for the placement of 4 inches of crushed surfacing base course, but existing base course was present in the area to be capped. As a result, additional base course was not imported and a thicker pavement section than specified in the Remedial Design Report was placed.

3.1.2 Capping

On October 20, 1997, a 6- to 8-inch layer of PCCP was placed with a concrete pump truck. This thickness of PCCP was placed instead of the 4 inches of CSBC and 4 inches of PCCP stated in the Remedial Design Report. The top of the new PCCP surface matches the existing adjacent grades of the PCCP on either side of the former soil strip.

3.1.3 Soil Handling and Testing

Soil removed during subgrade preparation was stockpiled in two covered roll-off containers. A representative composite sample was taken from the stockpiled soil for disposition profiling. Analytical results (Table 3-1) indicated that the soil failed TCLP criteria for lead and the soil was classified as a hazardous waste (D008). The soil (13.52 tons) was transported on December 4, 1997 to the Chemical Waste Management Columbia Ridge Subtitle D Landfill and Recycling Center in Arlington, Oregon for stabilization and disposal. Analytical data reports are located in Appendix F, and documentation related to soil disposal is located in Appendix G.

Table 3-1 Excavated Soil Analytical Data - Aspen Paints

Constituent	Concentration
Total Lead	4520 mg/kg
TCLP Lead	13.4 mg/L
TPH-G	<5.8 mg/kg
TPH-D	210 mg/kg
WTPH-D (Motor Oil)	720 mg/kg

3.2 Fisher Mills

Remedial capping activities at the property included placement of 12-inches of CSBC and railroad ballast in the rail bed areas prior to capping with ACP. A storm water collection system was also installed in the railroad track areas to collect and convey storm water to the existing outfall. Removal of unsuitable concrete in the parking lot area, followed by replacement with ACP, was also performed.

One RI sample (SS-FM-07) exceeded the capping criteria at this property and served as the basis for capping in both the railroad track and parking lot areas. EPA's comments on the 30-Percent Remedial Design Report for capping in the active railbed areas indicated that a minimum lift of 12 inches of CSBC would provide a suitable dermal contact barrier. In addition to this, Fisher covered the rock ballast with a layer of WSDOT Class B ACP as a commercial working surface, and to further protect the ballast layer. The ACP varied in thickness from 3 to 5 inches and was sloped to convey surface water into an existing network of catch basins.

The parking lot was repaired by demolishing the existing pavement and capping it with a 3-inch lift of WSDOT Class B ACP, underlaid by 4 inches of CSBC. This area was also sloped to convey storm water to an adjacent catch basin. This work sufficiently capped both areas in accordance with EPA requirements.

3.2.1 Site Preparation

Site and subgrade preparation activities included:

- Removing existing asphalt in the active rail-bed areas
- Clearing and grading surficial soil in the capping areas around the tracks
- Removing broken and settled concrete in the parking lot

These areas were then graded to the depths shown in the design drawings.

The storm drainage system was upgraded as shown on the design drawings to collect and discharge storm water from capping areas. Several new catch basins and slot drains were also added to improve drainage. These improvements discharge to the existing storm drainage system.

3.2.2 Capping

A minimum of 12 inches of CSBC, per WSDOT specifications, was used as base course in all areas between rails. The cap in the area around the tracks up to the edges of the buildings consists of ACP ranging in thickness from 3 to 5 inches.

The parking lot area was also finished with 4 inches of CSBC and a minimum 3-inch layer of ACP per WSDOT specifications. The final grade matches the existing grade to the south and drains to the existing catch basins in the parking lot.

3.2.3 Soil Handling and Testing

Soil removed during subgrade preparation was stockpiled in a designated area on plastic sheeting covered to keep it dry and prevent erosion. The stockpiles were located on the north side of the property. ACP and PCCP removed during subgrade preparation were stored separately from the site grading soil. Soil from around sample location SS-FM-07 was removed and stockpiled separately. This area of soil that was separated measured approximately 10 feet by 10 feet. No visual or olfactory evidence of impacts were noted.

A single composite sample was collected from the SS-FM-07 stockpile (Table 3-2) for disposition profiling. Based upon analytical results, approximately 32.21 tons of soil were shipped to TPS in Tacoma, Washington for thermal treatment on July 27, 1998. Non-impacted soil that had been removed during subgrade preparation was regraded on the north side of the property, where it was covered with gravel. ACP and PCCP removed during site preparation were sent off site to a recycling facility.

Table 3-2 Stockpile Soil Analytical Data - Fisher Mills

Constituent	Concentration (mg/kg)
WTPH-D (Motor Oil)	140
WTPH-G	<5.4, <5.4
WTPH-D	<56
TPAH	54.38, 18.76
HPAH	21.2, 7.81

Bold data represent duplicates.

3.3 Harbor Island Machine Works

The planned remedial action for this property was to cap a strip of soil running north and south along the west property boundary. The strip of soil was 175 feet long and ranged from 3 to 5 feet in width. The strip of soil along the fence line that contained the TPH exceedance was removed to expose existing pavement that extended to the western property boundary. The existing pavement contained some areas requiring repair that were patched for uniform appearance in the parking lot. Ecology blocks were then placed on top of the pavement along the fence line to further prevent additional soil from the adjacent property from sloughing through the fence on to Harbor Island Machine Works property in the future.

3.3.1 Site Preparation

During subgrade preparation, it was discovered that the area to be paved had existing ACP at depth, that extended up to the fence along the property line. The soil originally sampled by EPA during the RI (samples SS-MW-02-D1 and -D2) was apparently surficial soil that had sloughed onto the Harbor Island Machine Works site through the fence from the (topographically higher) adjacent property to the west. The soil was visually obscuring the existing pavement at the fence

line. The surficial soil that caused the TPH exceedance was up to 8 inches thick, and was excavated and temporarily stockpiled in a covered drop box on October 13 and 14. Four small potholes in the ACP were located and excavated to 7 inches below grade. 4 inches of CSBC were placed on November 4, 1997 and compacted to 96% Proctor density.

3.3.2 Capping

Four small areas in the existing pavement contained potholes, which were then patched with WSDOT Class B ACP on November 4. The patch areas consist of a 3-inch layer of ACP per WSDOT specifications. An asphalt-emulsion tack coat was placed on the joint between the existing and new patch to ensure adequate adhesion between the new and existing pavements. ACP compaction testing was not performed as these patches were no longer required to satisfy new pavement criteria since all the exceedance soil had been removed.

3.3.3 Soil Handling and Testing

The surficial soil (that caused the TPH exceedance) was excavated and temporarily stockpiled in a covered drop box. A single composite soil sample was collected from the stockpile and analyzed for TPH-HCID, followed by WTPH-D extended for diesel and oil (Table 3-3). Approximately 12.6 tons of soil was transferred to Rabanco's Seattle transfer station on November 26, 1997 and ultimately disposed of as solid waste at Rabanco's Subtitle D landfill in Roosevelt, Washington.

Table 3-3 Stockpile Soil Data - Harbor Island Machine Works

Constituent	Concentration (mg/kg)
TPH-D	580
TPH-D (Motor Oil)	2700

3.4 Union Pacific Railroad Parcel A

The RI data for this site indicated a single surficial-soil sample (SS-PT-54), collected from the planter box on the north side of the building, contained arsenic that exceeded the capping criteria. As a conservative measure, UPRR further desired to cap all other unpaved portions of their property. An additional area to the west was also capped for commercial purposes, although no soil samples or data were ever generated at that location during the RI to indicate that capping was necessary. This additional area, which measured approximately 10 feet by

20 feet, was surrounded by suitable existing pavement on three sides and an unpaved city right-of-way to the south.

3.4.1 Site Preparation

Site and subgrade preparation included removing the plants from the planter box on October 16, 1997. 4 inches of CSBC was placed and compacted on October 20 to 92.8% Proctor. Unsuitable subgrade soil caused this low Proctor density and soft spots were evident. As a result, an additional 3 inches of CSBC was added on November 5 and compacted to 94.4% Proctor density and all noticeable soft spots were corrected.

In the area by the old shed, soil was removed to a depth of approximately 7 inches below the existing grade of the surrounding pavement on October 20. Soil removed during subgrade preparation was stockpiled in a covered roll-off container. 4 inches of CSBC was placed on October 20 and compacted to 99% Proctor density.

3.4.2 Capping

The cap for the planter box consisted of a 4-inch PCCP layer and the cap to the west consisted of a 3-inch layer of ACP per WSDOT specifications and EPA requirements. The top of the new PCCP surface in the planter box matches the top of the existing concrete curb and is graded to prevent ponding and direct flow of water away from the building. The PCCP was placed on November 7, 1997.

The final grade of the exposed area to the west matches the existing grade of the surrounding pavement. An emulsion asphalt tack coat was applied on edges of the existing cap prior to placing the ACP, and to the joint between the new cap and existing ACP to ensure adequate adhesion between the new and existing caps. The ACP was placed on November 4, 1997 and compacted to 92% Rice density, completing remedial activities.

3.4.3 Soil Handling and Testing

Soil generated during site preparation activities was temporarily stockpiled on-site in a covered roll-off container. A composite sample was taken from the stockpiled soil for disposition profiling. Based upon analytical results (Table 3-4), 3.02 tons of soil was transported to the Rabanco Seattle transfer station and ultimately disposed at Rabanco's Subtitle D landfill in Roosevelt, Washington.

Table 3-4 Stockpile Soil Analytical Data - Union Pacific Railroad

Constituent	Concentration
Total Arsenic	41 mg/kg
TCLP Arsenic	<0.05 mg/L
HPAH	4.03 mg/kg
TPAH	9.22 mg/kg

4 Cap Inspection and Maintenance Plan

The planned cap inspection and maintenance (I&M) requirements for Design Set 1B properties are presented in the *Remedial Design Report Design Set 1B* (RETEC, 1997a). This plan briefly summarized the I&M requirements. The purpose of this I&M Plan is to ensure future maintenance of the caps in a manner that complies with all of the objectives of the cap. This I&M Plan only applies to the following 1B property environmental caps:

- Aspen Paints
- Fisher Mills
- UPRR Parcel A PCCP cap

These environmental cap areas are indicated on Figures 2-1, 2-2, and 2-4, respectively.

4.1 Cap Inspection and Maintenance Requirements

I&M requirements for each cap include notifications either to or from the affected property owners regarding repairs and/or maintenance efforts that penetrate the cap, cap inspections, and cap maintenance based upon inspection results, each of which is discussed below.

4.1.1 Notifications

Property owners will notify EPA prior to performing any site improvements that will impact the cap in areas where there is previously identified contaminated soil. Affected property owners must obtain EPA approval of plans for handling, storage, and disposal of contaminated soil. These plans must be in compliance with applicable environmental regulations.

4.1.2 Cap Inspections

Cap inspections examine how various activities affect the integrity of the cap. Each cap will be visually inspected by the affected property owner (or their representative) annually and following any site construction activities that require removal and replacement of the cap. Following maintenance and repairs (i.e. patching) on the cap, inspections of the repaired areas will also be performed annually. After ten years, cap monitoring requirements will be determined per agreement with EPA.

Surface conditions and conditions along structures are the two main components of the cap that will be visually inspected. The surface will be inspected for damage, settlement, and standing water. From these visual inspections, the integrity of the cap can be determined, and any areas where maintenance is required can be identified. A sample cap inspection log is provided in Figure 4-1.

4.2 Cap Maintenance

Based upon inspection results, any potential damage, settling, or separation will be evaluated to determine if the item can be addressed by performing maintenance or repair to the cap. Table 4-1 presents the types of cap conditions that may develop over time and the maintenance or repair required.

Table 4-1 Maintenance Required Based Upon Cap Inspections

Inspection Item	CAP Condition	Maintenance Required
ACP/PCCP Pavement Surface	• Surface settlement <3 inches deep	• Surface patching
	• Surface settlement >3 inches deep	• Repair by removing ACP or PCCP and subgrade, replace subgrade and ACP or PCCP

Conditions that may develop include settlement of sections of the cap, water ponding on the asphalt surface, potholes that develop in the cap, or any damage reported by the property owner.

A minimum of every five years, each Design Set 1B property owner will individually evaluate the need to resurface the ACP. Any resurfacing activities deemed necessary would be implemented as appropriate based on the results of the five year evaluation.

4.2.1 Surface Patching

Areas of settlement less than three inches deep will be patched. Surface patching will include brushing the area clean and placing standard asphalt to restore the settled area back to original grade. Standard asphalt patching will be placed in accordance with current WSDOT standard specifications.

4.2.2 Removal/Replacement of Subgrade and Pavement

Areas with settlement greater than three inches deep will require removal/replacement of asphalt and base course. Removal/replacement will include removing the existing ACP or PCCP layer and removing the base course to a depth of

Figure 4-1 Sample Cap Inspection Log

CAP INSPECTION LOG

Use back of this sheet to sketch damaged locations on cap

Property Inspected: _____

Date of Inspection: _____ Name of Inspector: _____

Time of Inspection: _____ Weather Conditions: _____

Cap Inspection

Cap Damage-Location and Description _____

_____

_____

_____

_____

Is Standing Water Visible? _____

_____

Is Settlement Visible? _____

Is settlement greater or less than 3 inches? _____

- Dimension of settlement area _____
- Depth of settlement _____

Notes _____

_____

_____

_____

_____

Follow-up Inspections of Cap-Repaired or Construction Areas

Location _____

_____

Notes _____

_____

_____

_____

Five Year Resurface Evaluation (Due by Year 2003)

Results: _____

_____

seven inches below existing grade. Base course and ACP or PCCP will then be replaced to meet the original EPA specifications, as provided in this document.

Cap repair will be performed by identifying the extent of the failed area. The cap will be saw cut two feet beyond the failed area perimeter, and the full depth of cap and base course material be removed. The subgrade will be inspected by proof rolling for deflection and replaced if necessary. The existing edges will be cleaned and tacking agent applied. CSBC will be placed and compacted with a mechanical hand tamper, as necessary. Existing CSBC may provide a suitable base course. WSDOT Class B ACP will be placed in a minimum 3-inch lift and will be compacted in accordance with current WSDOT specifications. PCCP will be placed in a minimum 4-inch lift.

4.3 Documentation and Reporting

The property owners will document cap conditions and relevant observations noted during routine and construction-related inspections, as well as the results of the 5 year cap resurface evaluation. At a minimum, each inspection event will require that a log be completed. The Harbor Island S&G OU Settling Defendants or their designated representative will provide an annual letter to EPA summarizing activities for the year.

4.4 Inspection and Maintenance Summary

A summary of inspection and maintenance requirements is provided in Table 4-2.

Table 4-2 Summary of Inspection and Maintenance Reporting Requirements

ITEM	REQUIREMENT	DUE	I&M SECTION REFERENCE
Routine Activities:			
Routine Inspection	Inspect Cap Surface	Annually	4.1.2
Routine EPA Notification	Notify EPA of Completed I/M Activities	Annually	4.3
Routine Resurface Evaluation	Evaluate Need to Resurface Cap	Every 5 Years	4.2
Construction Related Activities:			
Post Maintenance or Repair Inspection	Inspect Cap Surface Following Cap Repair	As Required	4.1.2
Post-Construction Inspection	Inspect Cap Surface Following Cap Construction Activities	As Required	4.1.2
Site Improvement Notification	Notify EPA Prior to Cap-Affected Site Improvements	As Required	4.1.1
Soil Handling/Disposal	Obtain EPA Approval Prior to Handling/Disposal of Cap-Related Contaminated Soils	As Required	4.1.1
Cap Repair	Repair Cap as Needed Based on Inspection	As Required	4.2.1 and 4.2.2
Cap Resurfacing	Resurface Cap as Needed Based on 5-Year Review	As Required	4.2

Source: Design Set 1B Cap Remedial Action Implementation Report

5 References

EPA, 1994. *EPA Sampling Summary, Harbor Island Soil, Positive Detections Greater than Reference*. Keith Rose, U.S. Environmental Protection Agency.

EPA, 1996a. *Amended Statement of Work for Remedial Design and Remedial Action at the Soil and Groundwater Operable Unit of the Harbor Island Superfund Site, Seattle, Washington.* U.S. Environmental Protection Agency.

EPA, 1996b. *Amended Record of Decision, Decision Summary, The Revised Remedial Action for the Soil and Groundwater Operable Unit of the Harbor Island Superfund Site, Seattle, Washington.* U.S. Environmental Protection Agency.

EPA, 1996b. *Harbor Island S&G OU Consent Decree Civil No. C95-1495-Z.* U.S. Environmental Protection Agency.

RETEC, 1997a. Remedial Design Report, Design Set 1B, Harbor Island Soil and Groundwater Operable Unit Superfund Site, Seattle, Washington. Harbor Island S&G OU Steering Committee.

RETEC, 1997b. *Remedial Design Work Plan, Harbor Island S&G OU Superfund Site, Seattle, Washington*. Harbor Island S&G OU Steering Committee.

Weston, 1993. *Remedial Investigation Report, Remedial Investigation and Feasibility Study, Harbor Island, Part 1—Air Soil and Groundwater, Vol. 1.* Prepared for U.S. Environmental Protection Agency, Region X, Seattle, Washington. Eaton, Thomas. 1993. Ecology memorandum to all hazardous waste professionals.

APPENDIX A

Appendix A

Certificate of Completion

September 9, 1998

Mr. Neil Thompson
EPA Remedial Project Manager
EPA Region 10, ECL-113
1200 Sixth Avenue
Seattle, WA 98101

RE: Certification of Remedial Action Completion - Design Set #1B Remedial Action Capping
Harbor Island Soil and Groundwater Operable Unit Superfund Site

Dear Mr. Thompson:

This letter is to certify that the remedial action capping performed at Aspen Paints, Fisher Mills, Harbor Island Machine Works, and UPRR Parcel A properties located on Harbor Island has been completed in accordance with the Consent Decree Civil No. C95-1495-Z, EPA Statement of Work, and EPA-approved *Remedial Design Report Design Set #1B* (RETEC, August 1997).

To the best of our knowledge, after thorough investigation, we certify that the information contained in or accompanying the *Design Set #1B Capping Remedial Action Implementation Report* (RETEC, September 1998) is true, accurate, and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

DRAFT

Bryan W. Stone, P.E.
RETEC Project Manager

DRAFT

Mark Valentine
S&GOU Coordinating Contractor

DRAFT

Anita Wong Lovely
S&GOU Project Coordinator

APPENDIX B

Appendix B

EPA Correspondence

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

May 27, 1998

Brian W. Stone, P.E.
Project Manager
Remediation Technologies, Inc.
1011 SW Klickitat Way - Suite 207
Seattle, WA 98134-1162

Re: Capping Work for Design Set #1B, Capped Areas
Harbor Island Soil & Groundwater OU

Dear Mr. Stone;

This letter is a follow up on your letter dated April 15 1998. The letter summarized a telephone discussion on April 10, 1998, during which we clarified several capping issues concerning certain land parcels covered under Design Set #1B. The issue results from several properties that have completed some paving as required under the Harbor Island consent decree and establishing compliance for those parcels with the decree. Based on our discussion and the descriptions in your letter, we concur that the paving done at these parcels; Aspen Paints, Harbor Island Machine Works (HIMW), Union Pacific Railroad (UPRR), and Fisher Mills, meet the intent and the requirements of the decree.

We understand that testing of the Washington State, Department of Transportation (WSDOT) Class B asphaltic concrete paving (ACP) has demonstrated that it can meet the definition of paving and capping with a $1x10^{-5}$ cm/sec permeability. The Portland cement concrete pavement (PCCP) normally exceeds the permeability requirement. Both types of paving provide the dermal barrier that is part of the requirement.

This information is normally provided as part of the Remedial Action Implementation Report which is done at the end of the project. However, this approval for these properties is done because of the duration of the project and desire to document the compliance of some specific tasks within the overall project.

Printed on Recycled Paper

If you have any questions or comments concerning this documentation of compliance with the Harbor Island Consent Decree, please give me a call.

Sincerely,

Neil E. Thompson
Project Manager

cc: Elizabeth Leavitt, Port of Seattle
Anita Lovely, Lovely Consulting
Mark Valentine, de maximis

RETEC

1011 S.W. Klickitat Way
Suite 207
Seattle, WA 98134-1162
(206) 624-9349
FAX (206) 624-2839

April 15, 1998

Mr. Neil Thompson
EPA Remedial Project Manager
EPA Region 10, ECL-111
1200 Sixth Avenue
Seattle, Washington 98101

RE: **Confirmation of Telephone Discussion Regarding Final Capping in Design Set #1B for the Harbor Island S&G OU Superfund Site**

Dear Mr. Thompson:

On behalf of the Design Set #1B Participants, I wanted to confirm the issues we discussed last week regarding remedial action capping at several of the 1B properties within the Harbor Island Soil and Groundwater Operable Unit (S&G OU) Superfund Site.

We discussed the type of asphaltic concrete pavement (ACP) that was installed on the Union Pacific Railroad (UPRR) Parcel A and Harbor Island Machine Works (HIMW) sites, and the proposed cap at the Fisher Mills (Fisher) site. We did not specifically discuss the Aspen Paints property as the cap installed there is Portland cement concrete pavement (PCCP). You further indicated that the administrative mechanism for EPA to approve these capping actions would be EPA's review and acceptance of the Remedial Action Implementation Report.

I have summarized below what we concluded for each of the ACP capping sites and how the information will be presented in the Implementation Report:

- **HIMW.** During subgrade preparation, it was discovered that the area to be paved had existing ACP that extended up to the property line fence. The soil originally sampled by EPA during the RI (samples SS-MW-02-D1 and SS-MW-02-D2) was apparently surficial soil that had sloughed onto the HIMW site through the fence from the (topographically higher) adjacent property to the west. The soil was visually obscuring the existing pavement at the fence line. This surficial soil (that caused the TPH exceedance) was excavated and temporarily stockpiled in a covered drop box, characterized and ultimately disposed of at Rabanco as a solid waste.

An area in the newly discovered existing pavement contained a large pothole which was then patched with WSDOT Class B ACP. The existing adjacent pavement now meets the definition of suitable existing pavement provided in *Section 2.1.2 - Existing Pavement Evaluation Criteria* of the RETEC document titled *Remedial Design Report Design Set #1B, Harbor Island S&G OU, August 1997*. The patched area is now suitably capped and provides a barrier to dermal contact. Ecology blocks were then placed on top of the pavement along the fence line to further prevent additional soil from the adjacent property from migrating onto HIMW property in the future.

- **UPRR.** The RI data for this site indicated a single surficial soil sample (SS-PT-54) collected from the planter box on the north side of the building contained arsenic that exceeded the capping criteria. The shrubbery in the planter was removed and the area was capped with PCCP. As a conservative measure, UPRR further desired to cap all other unpaved portions of their property. An additional area to the west was also capped, although no soil samples or data were ever generated there during the RI to indicate that capping was necessary. This additional area, which measured approximately 10 feet by 20 feet, is surrounded by suitable existing pavement on three sides and an unpaved city right-of-way to the south. It was capped with a 4-inch layer of crushed rock overlaid with a 3-inch-thick layer of WSDOT Class B ACP. The newly placed rock and asphalt provide a suitable dermal contact barrier with native soil. Remedial action capping at UPRR Parcel A has been completed in accordance with EPA requirements.

- **Fisher.** One sample (SS-FM-07) exceeded the capping criteria at this site and serves as the driver for capping in both the railroad track and parking lot areas. EPA's comments on the 30 Percent Remedial Design Report for capping in the rail areas indicated that a minimum lift of 12-inches of crushed rock would provide a suitable dermal contact barrier. Fisher is further proposing to cover the rock ballast with a layer of WSDOT Class B ACP as a working surface and to further protect the ballast layer. The ACP will vary in thickness from 3 to 5 inches and will be sloped to convey surface water into an existing network of catch basins. The parking lot adjacent to the rail area is currently paved but is lacking in integrity. It will be repaired by demolishing the existing pavement and capping it with a 3-inch lift of WSDOT Class B ACP underlaid by 4 inches of crushed rock. This area will also be sloped to convey storm water to an adjacent catch basin. This work will sufficiently cap both areas in accordance with EPA requirements. The paving work is scheduled to occur during the last week of April.

Should you have any comments or questions regarding the capping work for Design Set #1B, please feel free to call.

Sincerely,

REMEDIATION TECHNOLOGIES, INC.

Bryan W. Stone, P.E.
Project Manager

BWS:hhj

cc: R. Sadowski - AGI
D. Defaccio - HIMW
F. Frederickson - Graham & Dunn
D. Heineck - Summit Law
A. Lovely - Lovely Consulting
E. Leavitt - Port of Seattle
M. Valentine - de maximis
RETEC File No. 1-2900

#1 1C

APPENDIX C

Appendix C

Photo Log

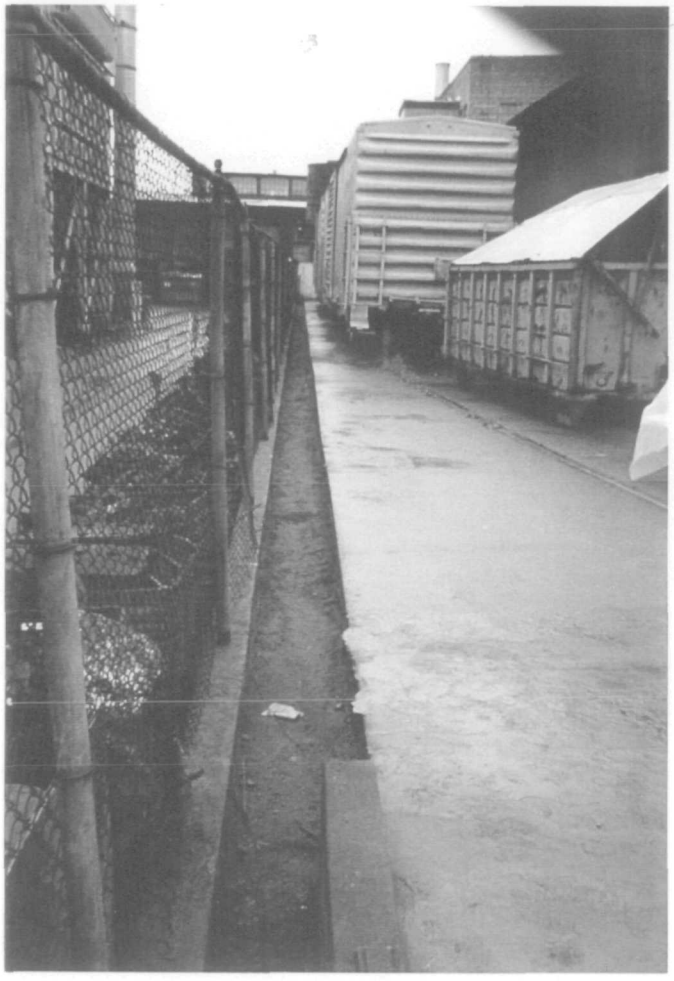


Photo 1 Aspen Paints Property -

Subgrade Prepared for Placement of PCCP Cap

Photo 2 Aspen Paints Property -

Prepared Subgrade with Lined Roll-off Bin for Soil Removed During Subgrade Preparation in Background

Photo 3 Aspen Paints Property - Completed PCCP Cap

Photo 4 Fisher Mills Property - Impacted Soil Stockpile

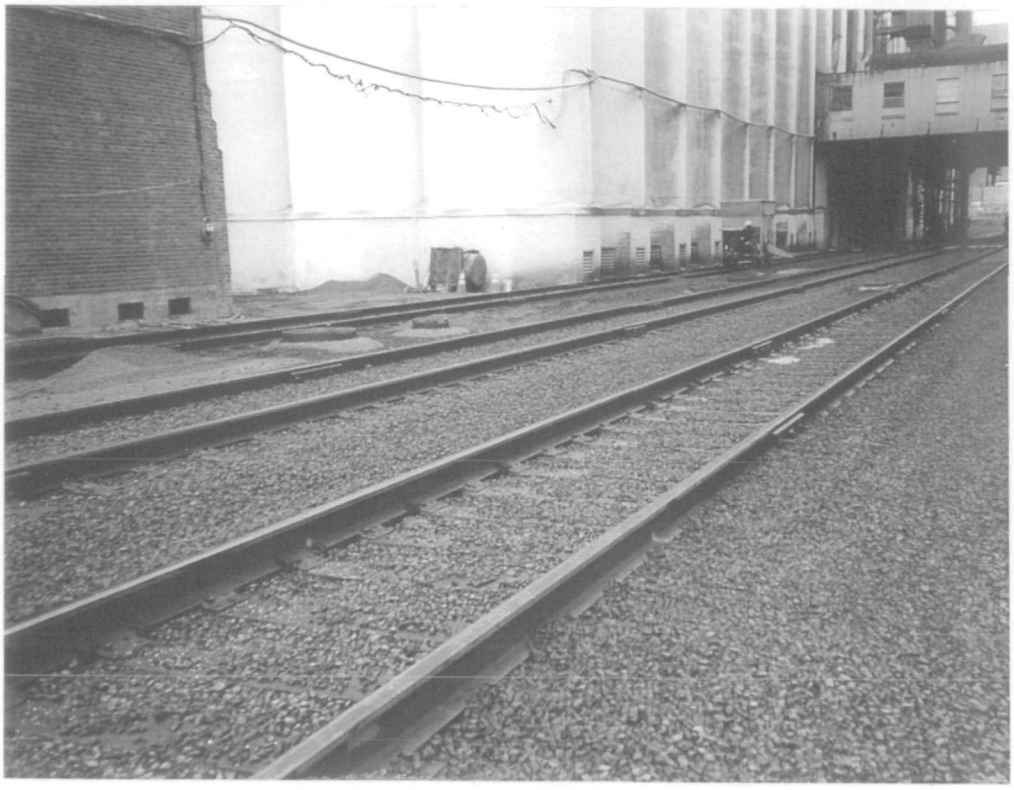


Photo 5 Fisher Mills Property - Railroad Ballast Cap Prior to Paving
Looking West Along Railroad Tracks

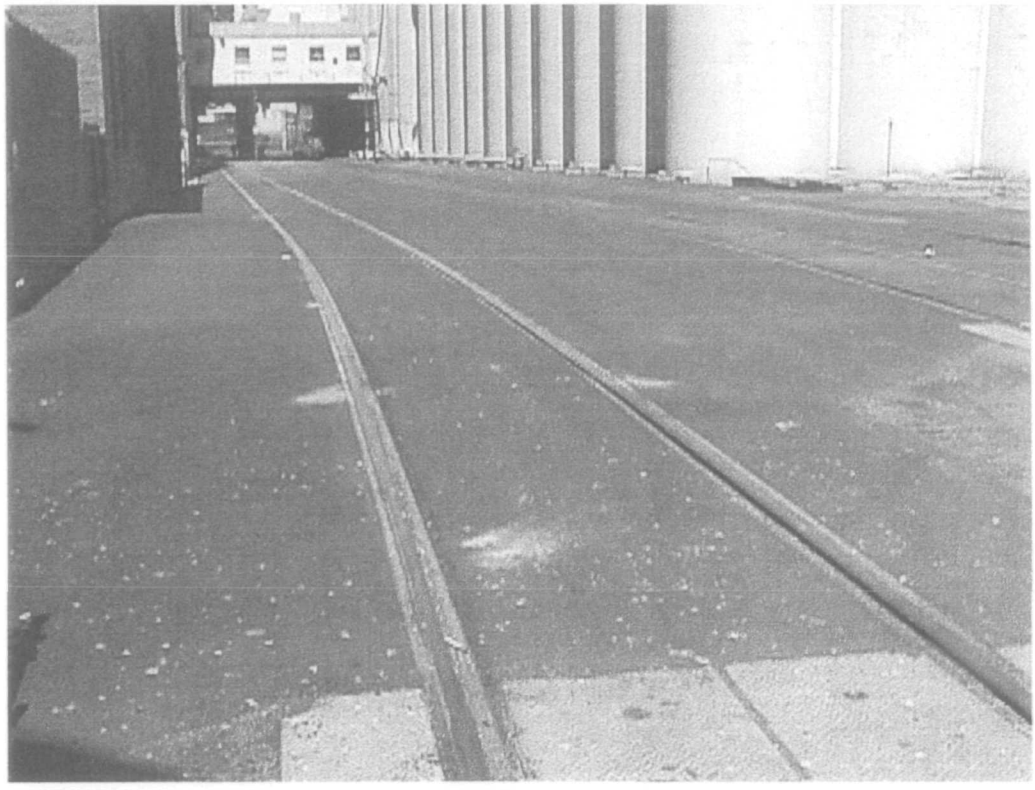


Photo 6 Fisher Mills Property - Completed ACP Cap
Looking West Along Railroad Track

Photo 7 Fisher Mills Property - Completed ACP Cap
Looking South Towards Repaired Parking Area

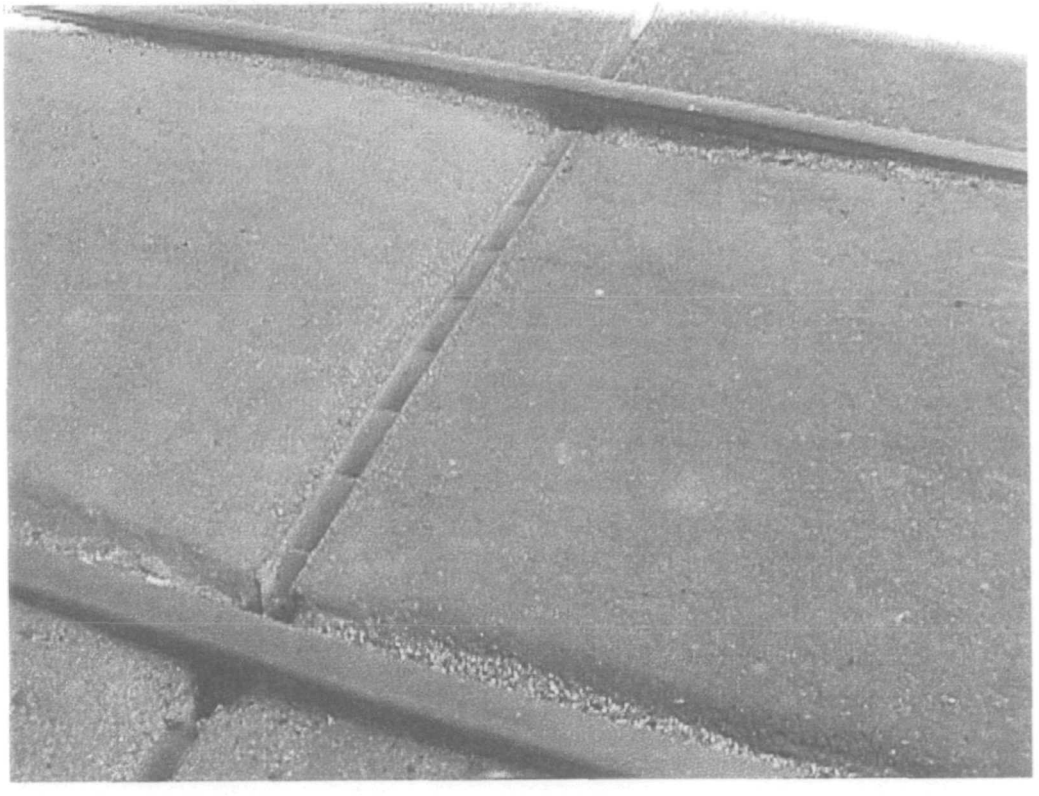


Photo 8 Fisher Mills Property - Slot Drains that Were Part of Storm Drainage Improvements

Photo 9 Harbor Island Machine Works Property -

Looking North at Patches Prepared for ACP Cap Placement

Photo 10 Harbor Island Machine Works Property -

Patches Repaired with ACP Cap

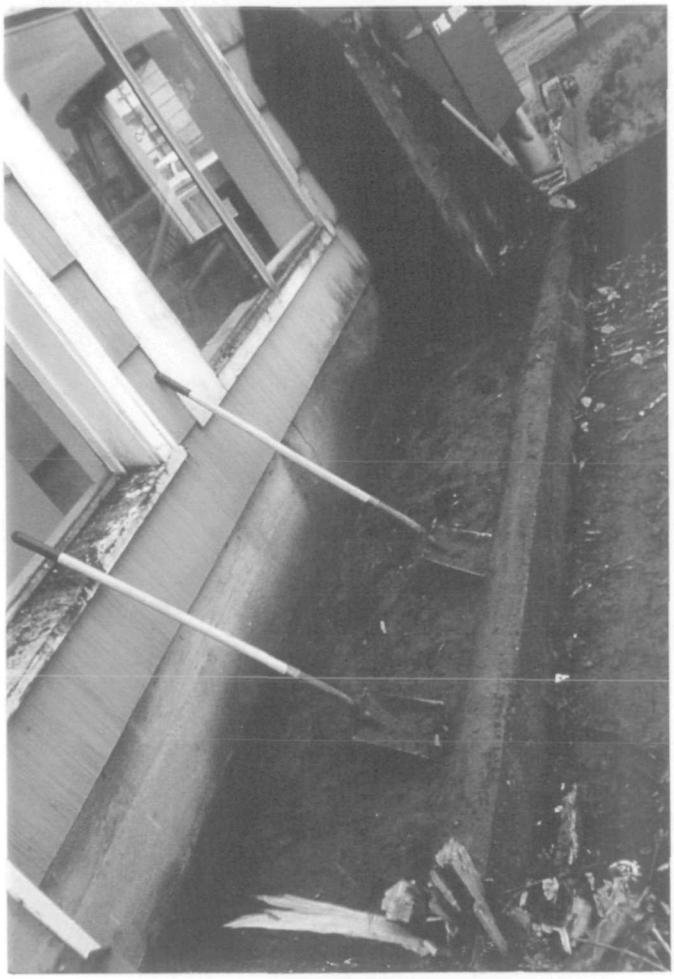


Photo 11 UPPR Parcel A Property -
Subgrade Prepared at Remedial Cap Area 1

Photo 12 UPPR Parcel A Property -
PCCP Cap Completed at Remedial Cap Area 1

Photo 13 UPPR Parcel A Property -
Subgrade Partially Prepared at Commercial Cap Area 2

Photo 14 UPPR Parcel A Property -
ACP Cap Completed at Commercial Cap Area 2

APPENDIX D

Appendix D

Daily Field Reports

DAILY INSPECTION FORM

PROJECT: Harbor Island - 1B **PROJECT #:** 1 2900 965

DATE: Oct 13, 1997 **WEATHER:** Overcast **NAME:** SBC

Sketches

NOTES:

7:00 to 15:30

- Excavate 8" to 0" of gravel from east side of HI Machine works parking lot
- Materials placed on tarp and covered
- 1 Roll off delivered to Aspen paints
- 1 CEC on employee
  1 On Site Laborer
  1 Backhoe

OVER >

TESTS / ANALYSES:

Test/Sample #				
Analysis				
Result				

OVER >

ACTION ITEMS:

DAILY INSPECTION FORM

PROJECT: Harbor Island - 1B **PROJECT #:** 1 2900965

DATE: Oct 14, 1997 **WEATHER:** Overcast **NAME:** SBC

Sketches

NOTES:

7:00 to 15:30 - Excavate gravel from HI machine works and expose three x 10 ft² holes in asphalt that will require a cap

- Move to Aspen paints and commence trench excavation

30 On Site Staff
1 CECON Employee
1 Backhoe
1 electric jackhammer

- Roll Offs delivered to UPRR Site & HI Machine works

- Gravel moved from tarp to rolloff - extra 3" of native soil taken to ensure clean up.

OVER >

TESTS / ANALYSES:

Test/Sample #				
Analysis				
Result				

OVER >

ACTION ITEMS:

DAILY INSPECTION FORM

PROJECT: Harbor Island - 1B **PROJECT #:** 1 2900 965

DATE: Oct 15, 1997 **WEATHER:** _____ **NAME:** Stephen Codrington

Sketches

NOTES:

7:00 - CECon continues to prep Aspen points site for concrete
-15:30 cap

- CECon inspected UPRR Planter box

- Verbal OK to CECon to excavate Aspen trench to 6" & Compact existing granular materials where appropriate

- Crowley - requested to move 2 containers to allow access to damaged concrete/asphalt areas

OVER >

TESTS / ANALYSES:

Test/Sample #				
Analysis				
Result				

OVER >

ACTION ITEMS:

DAILY INSPECTION FORM

1/1

PROJECT: Harbor Island - 1B **PROJECT #:** 1-2900-965

DATE: Oct 16, 1997 **WEATHER:** Sunny / Warm **NAME:** Stephen Covington

Sketches

NOTES:

7:00 - CECon continued to excavate and prepare Aspen points site
- 15:30 for concrete cap

- CECon completed excavation of gravel on the Harbor Island Machine Works site

- CECon commenced preparation of UPRR planter box for gravel sub base. Vegetation removed.

- 1 CECon Employee

- 2 On Site Environmental Laborers

OVER >

TESTS / ANALYSES:

Test/Sample #				
Analysis				
Result				

OVER >

ACTION ITEMS:

- Contact Crowley to remove 2 storage bins from UPRR Site to allow for site preparation

DAILY INSPECTION FORM CONTINUED

PROJECT: Harbor Island 1B **PROJECT #:**

DATE: Oct 20/97 **WEATHER:** Sunny **NAME:**

Sketches:

NOTES:

8:30am CECon performed two tasks today
-6pm i) Cleared / grubbed / excavated UPRR site for Asphalt Cap (Concrete stockpiled for useas shoreline protection - awaiting approval)

ii) poured concrete cap at Aspen paints (Approx 9 cuyds)

PTL (PSI on site from 10:40am - 12:15pm for density testing (due at 10am)

CECon - 4 Employees
- 1 Backhoe
- Rental Backhoe returned today

Salmon Bay Concrete truck on site from 2:30 to 5pm

Pumpcrete truck on site from 2:30 to 5pm

TESTS / ANALYSES: Density Testing - see file 01 402

Test/Sample #					
Analysis					
Result					
Sample #					
Analysis					
Result					

DAILY INSPECTION FORM CONTINUED

PROJECT: Harbor Island 1D **PROJECT #:**

DATE: Oct 21/97 **WEATHER:** Partly Cloudy **NAME:** SBC

Sketches

NOTES:

CECon cleaning up Aspen paint site

- Crew of 3 CECon Employees
- no equipment

Contacted Rob Ross to request data & information - See fax

TESTS / ANALYSES:

Test/Sample #					
Analysis					
Result					
Test/Sample #					
Analysis					
Result					

DAILY INSPECTION FORM

4/

PROJECT: Harbor Island 1B **PROJECT #:**

DATE: Oct 22/97 **WEATHER:** Overcast **NAME:** SBC

Sketches

NOTES:

no personnel on site today

John Vicente - Mngr of Dept of Construction Services

↳ I spoke with John today and requested prompt attention to the overdue permeability data. Rob Ross was not responding to his pages.

As per approval ~~with~~ of Roy Sadowski, the concrete stockpiled from the UPRR site was cleaned of free dirt and then used as shoreline protection. The excess dirt was placed in the roll off container for disposal. (approval forwarded by voice mail from Bryan Stone - 10am Oct 22)

OVER >

TESTS / ANALYSES:

Test/Sample #				
Analysis				
Result				

OVER >

ACTION ITEMS:

DAILY INSPECTION FORM CONTINUED

PROJECT: Harbor Island - 1B **PROJECT #:**

DATE: Oct 23 / 97 **WEATHER:** Cloudy / Cool **NAME:** SBC

Sketches

NOTES:

I received the permeability results from PTL/PSI today at 8 am.

Shawn Lough (RETEC) will be cutting clean edges for the asphalt paving areas.

No CECON or AA activities are scheduled for today

TESTS / ANALYSES:

Test/Sample #					
Analysis					
Result					
Test/Sample #					
Analysis					
Result					

DAILY INSPECTION FORM CONTINUED

PROJECT: Harbor Island 1B PROJECT #: 1 2900 965

DATE: Nov 4, 1997 WEATHER: Sunny NAME: SBC

Sketches

NOTES:

AA Asphalt on site today 10:30 am → 5 pm
- 1 dump truck
- 1 trailer
- 1 roller
- 1 plate tamper
- Crew of 3 laborer (incl. foreman) (10:30 → 5 pm)
- 1 foreman + 1 laborer visited site (< 1 hour)

Placed Asphalt (total area - 325 sq ft) incl. 1/4" base coarse

1 material tester on site from 12 noon to 5 pm
- density tests on base coarse & asphalt

- The subgrades at both sites were placed at 97% of proctor density. The asphalt was placed at 92% density (greater compaction was desired but it was unachievable)

TESTS / ANALYSES:

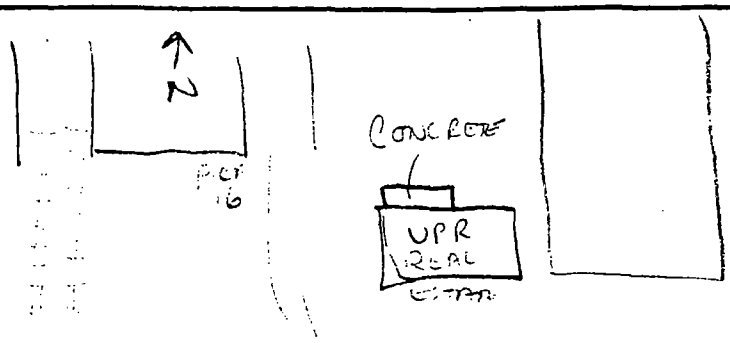
Test/Sample #					
Analysis					
Result					
Sample #					
Analysis					
Result					

DAILY INSPECTION FORM

PROJECT: HARBOR ISLAND **PROJECT #:** 1-2900-965

DATE: 11/7/97 **WEATHER:** CLOUDY / RAIN **NAME:** J GIBBONS

Sketches



NOTES: ARRIVES ONSITE (PIER 16) 0700 - MET W/ DAN & NICK (CELON). THEY GOT STARTED ON CONCRETE PRED.

CELON LEFT PIER 16 TO GO MOVE ECOLOGY BLOCKS @ HIMW. ALSO INSTRUCTED THEM ABOUT PLACING GRAVEL BEHIND BLOCKS

PTLPSI ARRIVES 1030 TO DO COMPACTION TEST

CONCRETE TRUCK ARRIVES AND CELON RETURNS TO PLACE. ECOLOGY BLOCKS COMPLETED. CONCRETE POURED AND TARP SET TO KEEP RAIN OFF. CELON BACK TO HIMW TO COMPLETE GRAVEL WORK

CELON OFFSITE 1445

OVER >

TESTS / ANALYSES:

Test/Sample #				
Analysis				
Result				

OVER >

ACTION ITEMS: REMOVE TARP ON MONDAY 11/10/97

REIEC

FIELD ACTIVITY LOG

PROJECT Harbor Island - Fisher Mills **COMPLETED BY** Jestin Horst

JOB NO. _____ **APPROVED BY** _____

DAY & DATE 12/16/97 **SHEET** 1 **OF** 1

FIELD ACTIVITY SUBJECT:
DESCRIPTION ON DAILY ACTIVITIES AND EVENTS:

TIME	
3:00	WENT TO FISHER Mills ~ Brick wall has already been demoed
	staked out w/ flagging the area of dirt
	to be stockpiled seperately
	see sketch below
	Called Grant - John Bossi not in
	Talked to only construction worker on site
	I showed him the area that needs to be stockpiled
	seperately that I flagged off
	I asked him if big stockpile of soil was covered
	he said the covered it Fri. 12/12 but it blew
	off. I told him it needs to be recovered
	now.
3:20	Left site

VISITORS ON SITE:

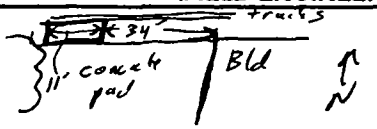
CHANGES FROM PLANS, SPECIFICATIONS, SPECIAL ORDERS AND IMPORTANT DECISIONS

WEATHER CONDITIONS:

IMPORTANT TELEPHONE CALLS:

PERSONNEL ON SITE:

(FIELD ENGINEER)



REIEC

FIELD ACTIVITY LOG

PROJECT Fisher Mills **COMPLETED BY** Jestin Hurst

JOB NO. _____ **APPROVED BY** _____

DAY & DATE 1/5/98 Mon **SHEET** 1 **OF** 1

FIELD ACTIVITY SUBJECT:
DESCRIPTION ON DAILY ACTIVITIES AND EVENTS:

TIME	
10:30	ON SITE - Drove by stockpiles - all are covered somewhat could use more cover- thick
	WENT AND CHECKED IN John Bossi is there but not at desk
	showed steve the area to be stockpiled seperately
	- Contractor is removing dirt near grain unload area
	on North side of area stockpiling
	- contractor is also laying ballast and North Track
	- met John Bossi - showed him area to be stockpiled
	seperately ~~& also~~ marked by flagging
	- told him stockpile should be covered better
	- told him Contractor HASP is not site specific
	& should be better - told him to call Grant w/
	questions
11:05	left site

VISITORS ON SITE:	CHANGES FROM PLANS, SPECIFICATIONS, SPECIAL ORDERS AND IMPORTANT DECISIONS
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**

PERSONNEL ON SITE:
Jestin Hurst
Stephen Carrington (FIELD ENGINEER)

REIEC

FIELD ACTIVITY LOG

PROJECT Fisher Mills **COMPLETED BY** SBC

JOB NO. _____ **APPROVED BY** _____

DAY & DATE Jan 21 / 98 **SHEET** 1 **OF** 1

FIELD ACTIVITY SUBJECT:
DESCRIPTION ON DAILY ACTIVITIES AND EVENTS:

TIME	
12:00	On site - viewed 10' x 10' area associated w previous testing & unchanged but still delineated - John Bossi not available - no major changes to rail bed area - gravel in place - no crew working (could be on lunch) - stock pile could use better coverage - approx ½ of pile is covered.
12:30	left site
	NB We have supplies for field sampling of stockpile (PAH & TPH)
	Grant Hainsworth to contact John Bossi re: - Health & Safety plan - Stockpile

VISITORS ON SITE:

CHANGES FROM PLANS, SPECIFICATIONS, SPECIAL ORDERS AND IMPORTANT DECISIONS

WEATHER CONDITIONS:

IMPORTANT TELEPHONE CALLS:

PERSONNEL ON SITE:

(FIELD ENGINEER)

DAILY INSPECTION FORM

PROJECT: Harbor Island - Fisher Mills **PROJECT #:** 1-2900 -

DATE: Jan 29/98 **WEATHER:** Overcast **NAME:** SBC

Sketches

NOTES: Crew 10+ people on site today

I walked around the site @ 2 pm. Some additional work has been completed. The 10' square area of concern has not been disturbed. The pile of spoils has been covered, a reasonable cover has been achieved. Briefly spoke with John Bossi, he has no additional concerns.

OVER >

TESTS / ANALYSES:

Test/Sample #				
Analysis				
Result				

OVER >

ACTION ITEMS:

DAILY INSPECTION FORM

PROJECT: Fisher Mills **PROJECT #:** 1

DATE: Feb 4/98 **WEATHER:** Overcast / Rain **NAME:** Stephen Codrington

Sketches

NOTES:

The stockpile ~~cover~~ is still approx 90% covered. No action has occured regarding the soil associated with the the sample - the flags remain in place.

A crew of approx 5 ~~em~~ were working in the vicinity of the grain unloading facility, though it was difficult to distinguish between Fisher Mills employees and the construction crews.

OVER >

TESTS / ANALYSES:

Test/Sample #				
Analysis				
Result				

OVER >

ACTION ITEMS:

DAILY INSPECTION FORM

PROJECT: Fisher Mills **PROJECT #:** F

DATE: Feb 16 /98 **WEATHER:** Sunny **NAME:** SBC

Sketches

NOTES:

Towed the site @ 4:45 PM. No one on site at this time. Soils may have been disturbed in the vicinity of the 'flagged' sample location adjacent to the parking lot.

The soil stockpile is covered, though it will need attention. New rail ties present in vicinity of the soil stockpile.

Awaiting the Health and safety plan for Salm Constr.
Bob Harberson - 253 854 8509

OVER >

TESTS / ANALYSES:

Test/Sample #				
Analysis				
Result				

OVER >

ACTION ITEMS:

DAILY INSPECTION FORM CONTINUED

PROJECT: Fisher Mills **PROJECT #:**

DATE: Feb 27 98 **WEATHER:** Sunny **NAME:** SBC

NOTES:

Toured the site @ 3:30 p.m

Spoils pile increased - new material - gravel / soil mix
- 100' x 25' x 3'

The Soil (stockpile) has approx 100' x 25' x 3' of new material. The plastic tarp / cover is in good condition and new material has been added.

The soil in the vicinity of the flagged sampling location has been distabed and I am uncertain of where it has been stockpiled - Will call John Bossi

Still waiting for HASP from Rob Harbison of Salem Constr.
- called John Bossi

TESTS / ANALYSES:

Test/Sample #					
Analysis					
Result					
Test/Sample #					
Analysis					
Result					

DAILY INSPECTION FORM CONTINUED

PROJECT: Fisher Mills **PROJECT #:**

DATE: Fri Mar 13/98 **WEATHER:** Sunny **NAME:** SBC

Sketch:

NOTES:

The rail line has been roughed in at this point. I assume no further soil excavation will be necessary.

The soil stockpile associated with the flagged area (10' x 10') was sampled for TPH & TPAH. Contractor communicated that soil was taken from flagged area and stockpiled. The stockpile included proper isolation (plastic above and below materials - secured using small boulders.)

TESTS / ANALYSES:

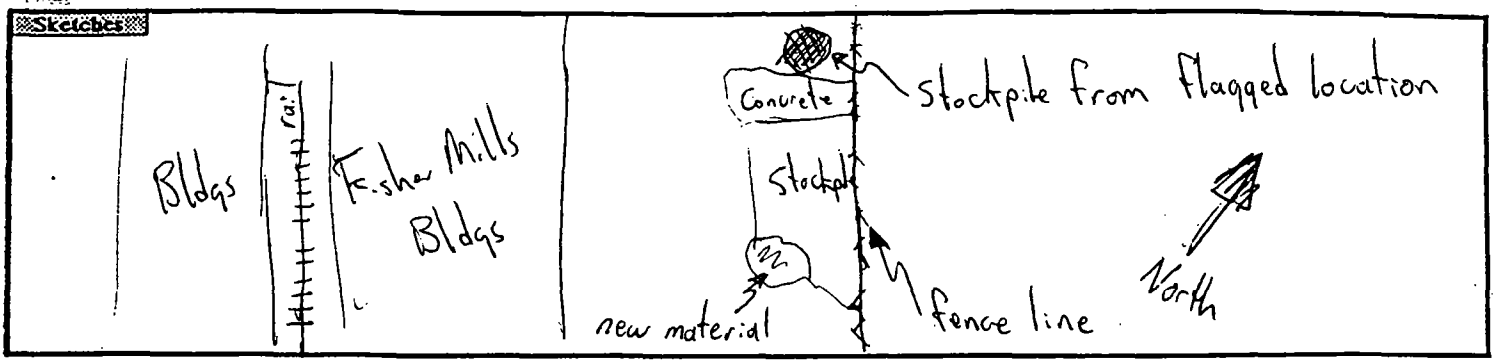
Test/Sample #	Stockpile Sampled for	PAH / TPH	SP1 → SP6		
Analysis					
Result					
Test/Sample #					
Analysis					
Result					

DAILY INSPECTION FORM

PROJECT: Fisher Mills **PROJECT #:**

DATE: May 5/98 **WEATHER:** Sunny / Warm **NAME:** SBC

Sketches



NOTES:

Stockpile from flagged location was uncovered, but appeared undisturbed. The parking lot adjacent to the rail line (South west of rail line) was under construction.

OVER >

TESTS / ANALYSES:

Test/Sample #				
Analysis				
Result				

OVER >

ACTION ITEMS:

Determine fate of stockpile from flagged location (stabilization ??)

APPENDIX E

Appendix E

Physical Testing Data

Pit Approval Report

3/18/97

Owner: **Lone Star Northwest** Pit No. **PS-B-335**

Located in: **A part of Section 22 and 23 Section ,22,23, T. ,19N, R. ,1E, WM**

Preliminary Sample Test Values

Min Agg Tested 3/7/95		Gravel Base Tested 3/7/95			SP G	Absorp	Conc Agg Tested 3/11/97	
							% Steilacoom	
LA Wear	16	R Value	74	FCA	2.65	1.99	Structural Conc	98
Deg Factor	69	Swell Press	0.0	CCA	2.68	1.03	Paving Beam	99
Bulk Sp G	2.68	S.E.		LA Wear	12			

Pit Run Materials

Approved as a source of Gravel Backfill for Foundation Class B, Pipe Bedding, Walls, Drains; Bedding Material for Rigid Pipe, Flexible Pipe; Foundation Material Class A, B, and C; Bank Run Gravel for Trench Backfill; Backfill for Sand Drains; Sand Drainage Blanket and Gravel Borrow. Acceptance testing for gradation and SE to confirm conformance to specifications to be preformed at point acceptance prior to use.

Mineral Aggregate and Surfacing

Currently approved as a source of Crushed Screening; Crushed Cover Stone; ATB Mineral Aggregate; ACP Mineral Aggregate; ; Ballast; Shoulder Ballast; CSTC; CSBC; Maint Rock. Approval expires 3-7-2005.

Gravel Base

Currently approved as a source for the production of Gravel Base, gradation and SE to meet specifications at point of acceptance. Approval expires 3-7-2005.

Concrete Aggregates Combinations

Fine and Coarse concrete aggregates approved for use in both State and Producer Designed Concrete Mixes in the combinations shown below. The use of other combinations must be approved by Headquarters Material Laboratory.

Fine Agg.	Cr. Agg.	% Steil.	Test Date	Approval Status
B-335	B-335	98	3/11/1997	State & Producer Designed Structural Conc. Mixes
B-335	B-335	99	3/11/1997	State Designed Conc. Paving Mixes

Rip Rap & Quarry Spalls

Submit sample to Hqtrs Lab for preliminary evaluation prior to using this site as a source of Rip Rap or Quarry Spalls.

Distribution: Physical Testing ____ Dist. Opr's. ____
Project Engineer ____ Dist. Mat'l's ____

Washington State Department of Transportation - Materials Laboratory
PO Box 167 Olympia / 1655 S 2nd Ave Tumwater / WA 98504

BITUMINOUS SECTION TEST REPORT

WORK ORDER NO: 004766
LAB ID NO: 0000112220
TRANSMITTAL NO: 157683
MIX ID NO: G7772
BID ITEM NO:

TEST OF: A.C.P. JOB MIX DESIGN CLASS A AND B
DATE SAMPLED:
DATE RECVD HQS: 02/02/96
SR NO: 405
SECTION: TUKWILA TO FACTORIA SC&DI - STAGE 1

CONTRACTOR'S PROPOSAL

Mat'l:	MIN. AGG.	FINE AGG.	BL. SAND	Combined	Specifications
Source:	A-338	A-464	A-464		
Ratio:	75.0 %	10.0 %	15.0 %	100%	
---	100.0	100.0	100.0	100	
3/4	100.0	100.0	100.0	100	100
1/2	98.0	100.0	100.0	99	90-100
3/8	81.0	100.0	100.0	86	75-90
1/4	60.0	98.0	100.0	70	55-75
10	28.0	46.0	73.0	37	30-42
40	13.0	16.0	27.0	15	11-24
200	6.10	6.40	2.00	5.5	3-7

LABORATORY ANALYSIS

Asph % by Wt of Total Mix:	4.3	4.8	5.2	5.7	6.1	6.5
Stabilometer "S" Value:	40	34	39	32	30	27
Cohesiometer "C" Value:	154	155	156	152	167	166
Density (lbs/cf):	146.5	148.0	149.0	151.4	150.4	151.1
% Voids - Volume in Mix:	7.2	5.6	4.2	2.0	2.0	0.9
% Voids in Mineral Agg:	16.5	16.0	16.8	14.9	15.9	15.9
Max Density from Rice:	158.0	156.8	156.0			

LOTTMAN STRIPPING EVALUATION

		0%	1/4%	1/2%	3/4%	1%
U.S.OIL	Visual Appearance:	NONE	NONE	NONE	NONE	NONE
	% Retained Strength:	65	91	102	107	98
CHEVRON	Visual Appearance	NONE	NONE	NONE	NONE	NONE
	% Retained Strength	54	108	120	114	115

RECOMMENDATIONS

Supplier	U.S.OIL	CHEVRON RICHMOND BEACH
% Asphalt (by total mix)	5.2	5.2
Grade of Asphalt	AR4000W	AR4000W
% Anti Strip (by wt asph)	0.25	0.25
Type of Anti Strip	AKR-MAZ	ARR-MAZ
Rice Density lbs/cf	156.0	156.0
NUCLEAR CALIBRATION NUMBER:	01072	NO
MIX ID NUMBER:	7772	CALIB

Remarks:

Headquarters:
Construction Engineer x
Materials File x
General File x
Bituminous Section x
Region: Northwest
Administrator 41 x
Materials Engr 41 x
PR: K. HENRY

T160-1
T166-
T172-1
T175-

Dennis C. Jackson, P.E.
Materials Engineer
By: Dennis M. Duffy, P.E.
(360) 753-7107
Date: 2/27/96

END

Post-it® Fax Note 7671
To Bill Bartholomew
Co./Dept. [illegible]
Phone #
Fax # 206-575-0319

Date 28 FEB # of pages ▶ 2
From EMIL MOORE
Co. MAT LAB
Phone #
Fax # 360-556-4611

November 4, 1997
Job No. 712-71507.01

Mr. Grant Hainsworth:
RETEC
11011 S.W. Klickitat Way, Suite 207
Seattle, WA 98134-1162

Subject: Harbor Island Superfund

Dear Mr. Hainsworth:

As requested and agreed, PTL/PSI analyzed the material sampled by a representative of PTL/PSI for proctor analysis (refer to LR 11832). Material testing was performed in accordance to ASTM D 1557-91. Test results conform to applicable specifications unless otherwise noted. Please refer to Table 1 on page 2 for test results.

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Thank you for using PTL/PSI. If you have any questions, or if we can be of further assistance to you, please contact us at (206) 282-0666.

Sincerely,

John F. Vicente, E.I.T., Manager
Seattle Construction Services

JFV/ld

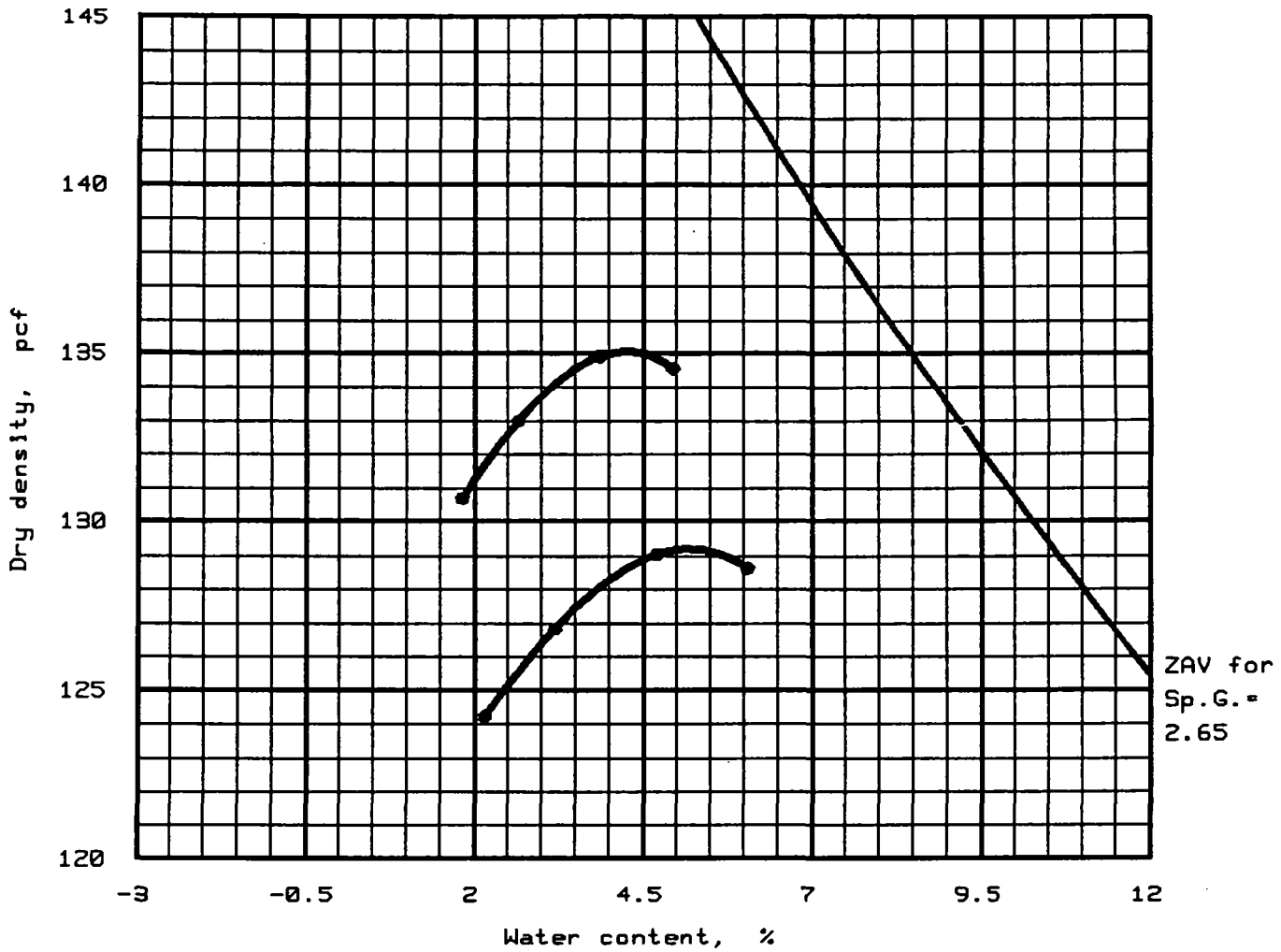
BART JARDINE
Job No. 712-71507
November 4, 1997

Table 1 Test Results

Sample ID:712-71507.01	**.0001**
Sample Description	1 ¼" minus crushed
Sample Location	Harbor Island Superfund
Maximum Dry Density	135.1 pcf
Optimum % Moisture	4.3

Please see the attached graphic results for further details.

MOISTURE-DENSITY RELATIONSHIP TEST



Test specification: ASTM D 1557-91 Method C, Modified
Oversize correction applied to each point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in	% < No.200
	USCS	AASHTO						
NA	NA	NA	NA %	2.65	NA	NA	19.9 %	NA %

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 135.1 pcf Optimum moisture = 4.3 %	129.2 pcf 5.2 %	1 1/4 INCH MINUS CRUSHED

Certificate No.: 712-71106 LR No.: 11832
Client: RETEC
Location: HARBOR ISLAND SUPERFUND

Date: 10/23/97

MOISTURE-DENSITY RELATIONSHIP TEST

PACIFIC TESTING LABORATORIES

Remarks:
ID#:.
SAMPLE SOURCE - M.A. SEGALE PLANT
Tested by: JO
Date: 10/22/97
Checked by: JM
Date: SEA, 10/23/97

Fig. No. 1

PACIFIC TESTING LABORATORIES

A Division of psi Information To Build On
Engineering • Consulting • Testing

January 21, 1998
Job No. 712-71507.1

Mr. Grant Hainsworth
RETEC
11011 S.W. Klickitat Way, Ste. 207
Seattle, WA 98134-1162

Subject: Harbor Island Superfund

Dear Mr. Hainsworth:

As requested and agreed, PTL/PSI analyzed the material sampled by a representative of PTL/PSI for permeability testing (refer to FR11818). Material testing was performed in accordance to ASTM D2434. Test results conform to applicable specifications unless otherwise noted. Please refer to the following table for test results.

This report is provided for the information of RETEC only. If this report is to be reproduced and/or transmitted to a third party, it must be reproduced and/or transmitted in its entirety. Any exceptions will be made only with the written permission of PTL/PSI.

Thank you for using PTL/PSI. If you have any questions, or if we can be of further assistance to you, please contact us at (206) 282-0666.

Sincerely,

Sam Yaghmaie, P.E.
Manager, Seattle Construction Services

SY/ld

Table 1 Test Results

Sample ID 0.0001	
Sample Description	Class B Asphalt Cores
Sample Location	Harbor Island Superfund Site
Maximum Dry Density	146.42 pcf
Average Permeability	7.5
% Compaction	95.7

Table 2 Test Results

Sample ID 0.0002	
Sample Description	Asphalt Cores
Sample Location	Harbor Island Superfund Site
Maximum Dry Density	143.01 pcf
Average Permeability	1.93E-04
% Compaction	93.3

Table 3 Test Results

Sample ID 0.0003	2A - Recompacted
Sample Description	Asphalt Cores
Sample Location	Harbor Island Superfund Site
Maximum Dry Density	149.59 pcf
Average Permeability	3.51E-06
% Compaction	96.7

REPORT NUMBER **FR 11816**

PREVIOUS RPT. NO. _____

A Division of PSI Environmental Geotechnical Construction
Consulting • Engineering • Testing

PACIFIC TESTING LABORATORIES

SEATTLE DIVISION (206) 282-0666 • FAX (206) 282-0710
EASTSIDE DIVISION (425) 485-4244 • FAX (425) 485-4811
TACOMA DIVISION (253) 589-1804 • FAX (253) 589-2136
PORTLAND CS DIVISION (503) 254-8418 • FAX (503) 252-5608
PORTLAND FORENSICS DIVISION (503) 232-7852 • FAX (503) 232-7886
SPOKANE DIVISION (509) 535-3571 • FAX (509) 535-1267
PENINSULA DIVISION (360) 297-8821 • FAX (360) 297-8828

MAILING ADDRESS: RETEC
11011 S.W. Klickitat Way
Suite 207, Seattle, Wa. 98134-1162

ATTENTION:

PROJECT: Asphalt Testing - Harbor Isle Superfund

LOCATION: Harbor Island PURCH. ORD. NUMBER

REPORTED BY: S. Schweyen DATE: October 15, 1997

REVIEWED BY: SY DATE: 11-17-97

PERMIT NUMBER: NA CERTIFICATE NUMBER: 712-71106

ARCHITECT: N/A

ENGINEER: N/A

CONTRACTOR: NA

Went to Segale Asphalt mixing plant in Tukwila to obtain (2) samples of Class B asphalt and (1) Sample of Class B aggregate as follows;

Asphalt - Sample 1A - Class B asphalt from Truck 1101
2A/B - at 1:50 pm from Tukwila Plant 2601.

Aggregate - Sample 1 - Class B aggregate from Belt at 2:15 pm.

Returned Samples to Lab for required tests.

ASTM TEST METHOD (AS APPLICABLE) MODIFIED YES ☐ NO ☐ EXPLAIN:

EQUIPMENT IDENTIFICATION AND S/N (AS APPLICABLE) WORK CONFORMS YES ☐ NO ☐

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Certified Report by Pacific Testing Laboratories _____ DATE

FIELD CONTACT: _____ DATE _____

HOURS								MILE-AGE
COST CODE						ON	OFF	ST	OT	
1	0	1	9	0	10	1:00	3:30			35

Contract Min. ____ TOTAL HOURS 2½

Chargeable Hours ____

FR 89-2

REPORT NUMBER DR 19015

PREVIOUS RPT. NO. _____

PACIFIC TESTING LABORATORIES

EXECUTIVE OFFICES • Seattle, WA (206) 282-0666 • FAX (206) 282-0710
EASTSIDE DIVISION • Bothell, WA (206) 485-4244 • 451-8436 • FAX (206) 485-4811
TACOMA DIVISION • Tacoma, WA (206) 589-1804 • FAX (206) 589-2136
PORTLAND DIVISION • Portland, OR (503) 224-2248 • FAX (503) 244-5265
PENINSULA DIVISION • Poulsbo, WA (360) 297-8821 • FAX (360) 297-8828

MAILING ADDRESS: RETEC c/o PORT OF SEATTLE

REPORTED BY: R MARLER DATE: 11/4/97

REVIEWED BY: _____ DATE: _____

PERMIT NUMBER: _____ CERTIFICATE NUMBER: 712-71507

ATTENTION: HARBOR IS. MACHINE WORKS AND ARCHITECT: _____

PROJECT: UNION PACIFIC RR TERMINALS ENGINEER: _____

LOCATION: HARBOR IS. PURCH. ORD. NUMBER: _____ CONTRACTOR: _____

WORK DESCRIPTION: ON SITE FOR IPD'S FOR ASPHALT BASE COURSE. 1 1/4" CRUSHED PLACED IN 2" TO 4" LIFTS. COMPACTED BY MOTORIZED PLATE COMPACTOR. WITNESSED AND TESTED ASPHAT PLACEMENT. SAMPLE TAKEN.

ASPHALT TEMP – 275° F 6 1/2 TONS STATE CLASS B ASPHALT

INPLACE DENSITY TEST RESULTS

TEST	LOCATION	WET DEN.	DRY DEN.	MOIST %	*	COMP %	SPEC %	P/F
1	8 FT x 12 FT Approx. PAD AREA NORTH SITE	139.0	133.7	4.0	1	99.0	97	P
2	HARBOR IS MACHINE LOT PATCHES SOUTH PATCH	134.2	129.6	3.7	1	96.0	96	P
3	" " " NORTH PATCH	NOT TAKEN						
4	8' x 12' ASPHALT PAD AREA	142.3	N/A	N/A	2	92.0	97	F
~~5~~	~~H.I. MACH. LOT ASPHALT PATCHES~~				~~2~~		~~92~~	

GAUGE STANDARD: MS DS

*1 SAMPLE I.D. PROCTOR VALUE 135.1

LAB METHOD: ☐ D1557 ☐ D698 ☐ Rice

*2 SAMPLE I.D. PROCTOR VALUE 154.6

ASTM TEST METHOD (AS APPLICABLE): MODIFIED ☐ YES ☐ NO EXPLAIN:

EQUIPMENT IDENTIFICATION AND S/N (AS APPLICABLE) TROXLER 3411B #8005 WORK CONFORMS YES ☑ NO ☐

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Certified Report by Pacific Testing Laboratories _____ DATE _____

FIELD CONTACT: _____ DATE _____

HOURS										MILE-AGE
COST CODE							ON	OFF	ST	OT	
3	C	2	0	1	0	1	11:30	5:00	5.5		
									.5		12
Contract Min.							TOTAL HOURS		6.0		
							Chargeable Hours				

DR 93-2

REPORT NUMBER DR 19016

PREVIOUS RPT. NO. _____

PACIFIC TESTING LABORATORIES

EXECUTIVE OFFICES • Seattle, WA (206) 282-0666 • FAX (206) 282-0710

EASTSIDE DIVISION • Bothell, WA (206) 485-4244 • 451-8436 • FAX (206) 485-4611

TACOMA DIVISION • Tacoma, WA (206) 589-1804 • FAX (206) 589-2136

PORTLAND DIVISION • Portland, OR (503) 224-2248 • FAX (503) 244-5265

PENINSULA DIVISION • Poulsbo, WA (360) 297-8821 • FAX (360) 297-8828

MAILING ADDRESS: RETEC

REPORTED BY: R MARCER DATE: 11/4/97

REVIEWED BY: _____ DATE: _____

PERMIT NUMBER: _____ CERTIFICATE NUMBER: FR-71507

ATTENTION: _____ ARCHITECT: _____

PROJECT: _____ ENGINEER: _____

LOCATION: HARBOR IS. PURCH. ORD. NUMBER: _____ CONTRACTOR: _____

WORK DESCRIPTION:

INPLACE DENSITY TEST RESULTS

TEST	LOCATION	WET DEN.	DRY DEN.	MOIST %	*	COMP %	SPEC %	P/F
5	HARBOR IS. MACHINE WORKS LOT PATCHES	119.2	N/A	N/A		77.1		

GAUGE STANDARD: MS DS

*1 SAMPLE I.D. _____ PROCTOR VALUE 154.6

LAB METHOD: ☐ D1557 ☐ D698 ☐ Rice

*2 SAMPLE I.D. _____ PROCTOR VALUE _____

ASTM TEST METHOD (AS APPLICABLE) MODIFIED ☐ YES ☒ NO EXPLAIN:

EQUIPMENT IDENTIFICATION AND S/N (AS APPLICABLE) WORK CONFORMS YES ☐ NO ☐

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Certified Report by Pacific Testing Laboratories _____ DATE _____

FIELD CONTACT: _____ DATE _____

HOURS				MILE-AGE
COST CODE	ON	OFF	ST	OT	
Contract Min.	TOTAL HOURS				
	Chargeable Hours				

DR 93-2

REPORT NUMBER DR 17071

PREVIOUS RPT. NO. _____

PACIFIC TESTING LABORATORIES

EXECUTIVE OFFICES • Seattle, WA (206) 282-0666 • FAX (206) 282-0710 | EASTSIDE DIVISION • Bothell, WA (206) 485-4244 • 451-8436 • FAX (206) 485-4611 | TACOMA DIVISION • Tacoma, WA (206) 589-1804 • FAX (206) 589-2138 | PORTLAND DIVISION • Portland, OR (503) 224-2248 • FAX (503) 244-5265 | PENINSULA DIVISION • Poulsbo, WA (360) 297-8821 • FAX (360) 297-8828

REPORTED BY S. Schweyen DATE Nov. 7, 1997

MAILING ADDRESS RETEC
1011 S.W. Klickitat Way Suite 207
Seattle, WA.

REVIEWED BY _____ DATE _____

PERMIT NUMBER _____ CERTIFICATE NUMBER 712

ATTENTION: _____ ARCHITECT _____

PROJECT Pier 16 - Harbor Island ENGINEER _____

LOCATION 11th & Massachusetts PURCH. ORD. NUMBER _____ CONTRACTOR RETEC

WORK DESCRIPTION: Arrived on site for density test at Pier 16, No. side of Bldg., at grade.

INPLACE DENSITY TEST RESULTS

TEST	LOCATION	WET DEN.	DRY DEN.	MOIST %	•	COMP %	SPEC %	P/F
1	Pier 16, N. side of Bldg, grade.	137.0	127.5	7.2	1	94.4	95	

GAUGE STANDARD: MS 503 DS 2417

*1 SAMPLE I.D. _____ PROCTOR VALUE 135.1 @ 4.3

LAB METHOD: ☐ D1557 ☐ D698 ☐ Rice

*2 SAMPLE I.D. _____ PROCTOR VALUE _____

ASTM TEST METHOD (AS APPLICABLE) _____ MODIFIED ☐ YES ☐ NO EXPLAIN: _____

EQUIPMENT IDENTIFICATION AND S/N (AS APPLICABLE) _____ WORK CONFORMS YES ☐ NO ☐

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"This certification attests to the accuracy of the results obtained from the actual test performed and/or observations made within the defined scope of the work. Certification shall not be construed to represent inspection, approval or acceptance of other associated work or a warranty of design or workability of the specification requirements."

Certified Report by Pacific Testing Laboratories _____ DATE _____

FIELD CONTACT: _____ DATE _____

HOURS									MILE-AGE
COST CODE						ON	OFF	ST	OT	
1	0	2	1	0	1					

Contract Min. _____ TOTAL HOURS _____

Chargeable Hours _____

DR 93-2

REPORT NUMBER DR24673

PREVIOUS RPT. NO. _____

A Division of PSI Environmental Geotechnical Construction
Consulting • Engineering • Testing

PACIFIC TESTING LABORATORIES

SEATTLE DIVISION (206) 282-0668 • FAX (206) 282-0710
EASTSIDE DIVISION (425) 485-4244 • FAX (425) 485-4611
TACOMA DIVISION (253) 589-1804 • FAX (253) 589-2136
PORTLAND CS DIVISION (503) 254-8418 • FAX (503) 252-5608
PORTLAND FORENSICS DIVISION (503) 232-7852 • FAX (503) 232-7886
SPOKANE DIVISION (509) 535-3571 • FAX (509) 535-1267
PENINSULA DIVISION (360) 297-8821 • FAX (360) 297-8828

RETEC

MAILING ADDRESS 1011 S.W. KLICKITAT WAY
Suite 207
SEATTLE, WA. 98134

ATTENTION: Stephen B. Codrington

PROJECT HARBOR ISL. 1-B

LOCATION HARBOR ISL PURCH. ORD. NUMBER _____

REPORTED BY Harold McCurdy DATE Oct. 20, 97

REVIEWED BY _____ DATE _____

PERMIT NUMBER _____ CERTIFICATE NUMBER 72-71507

ARCHITECT _____

ENGINEER Stephen B. Codrington

CONTRACTOR CECON CONST.

WORK DESCRIPTION: As requested PSI on site for in-place density Tests of Native and imported soils for back fill of soil cap. Backfill compacted by hand operated compactor/ vibratory hoe pack

INPLACE DENSITY TEST RESULTS

TEST	LOCATION	WET DEN.	DRY DEN.	MOIST %	*	COMP %	SPEC %	P/F
01	20' East of West end of Trench on North property line of Aspen Point Co. on 13th St. / Spokane St.	113.8	104.3	9.0				
02	Planter box at UNION PACIFIC Rail Road barge Terminal at North end of Harbor ISL on 13th St.	134.8	125.4	7.4				

GAUGE STANDARD: MS 526 DS 1974

*1 SAMPLE I.D. _____ PROCTOR VALUE _____

LAB METHOD: ☒ D1557 ☐ D698 ☐ Rice

*2 SAMPLE I.D. _____ PROCTOR VALUE _____

ASTM TEST METHOD (AS APPLICABLE) MODIFIED ☒ YES ☐ NO EXPLAIN:

EQUIPMENT IDENTIFICATION AND S/N (AS APPLICABLE) TROXLER model 3411B S/N 9198 WORK CONFORMS YES ☐ NO ☐

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Certified Report by Pacific Testing Laboratories _____ DATE _____

FIELD CONTACT: _____ DATE Oct 20/97

HOURS COST CODE							ON	OFF	ST	OT	MILEAGE
3	6	2	1	0	1	0					

Contract Min. _____ TOTAL HOURS _____ Chargeable Hours _____

DR 93-2

REG Lab WMBE
Rosa Environmental & Geotechnical Laboratory, LLC

400 Ninth Avenue N., Suite B
Seattle, WA 98109-5187
(206) 287-9122

April 3, 1998

Mr. Brian Stone
Remediation Technologies, Inc.
1011 SW Klickitat Way
Suite 207
Seattle, WA 98134

Subject: Harbor Island Drilled Core Asphalt Permeability Tests, REGL Project 1003-009

Dear Mr. Stone;

Enclosed are the laboratory data for the asphalt permeability tests conducted on drilled core specimens. The specimens were drilled by Retec, and were tested in our laboratory. A total of six tests were performed. The report consists of a data table summarizing the test data, and a narrative describing the testing and results.

At your request, cores 1 through 3 have been returned to you. Cores 5 and UP have had the top surface coated with a coal tar emulsion and are being re-tested. This information will be reported separately as soon as it is available.

Thank you for selecting us to perform this work for you.

Best Regards,
Rosa Environmental and Geotechnical Laboratory, LLC

Harold Benny
Laboratory Manager

REG Lab WMBE
Rosa Environmental & Geotechnical Laboratory, LLC

400 Ninth Avenue N., Suite B
Seattle, WA 98109-5187
(206) 287-9122

Client: Remediation Technology, Inc. REGL Project No.: 1003-009

Client Project No.: Harbor Island Asphalt Core Permeability Tests

Case Narrative

1. A total of six asphalt cores were delivered to the laboratory for saturated hydraulic conductivity testing. Four were delivered on March 6, 1998, and an additional two on March 17, 1998. The samples were cut to the specified length and tested according to ASTM D-5084. Test data is provided in table 1. However, since the samples contained open pores, and following the test as they were being disassembled for weighing and drying, they all lost considerable amounts of moisture. So much water was lost that the calculation of the percent saturation was not meaningful. A description of the cores and any surface treatment they may have had is provided in the table.
2. Asphalt core #4 was set up on March 11, 1998 with a back pressure of 30 psi, and a hydraulic gradient of 1.9. Water began to flow into the head water end of the specimen, but did not enter the tailwater end. On March 12, 1998, the gradient was increased to 6.7. After five days at this gradient, no flow through the specimen was observed. On March 18, 1998 the gradient was increased to 11.4. After five days at this gradient, no flow through the specimen was observed. During this entire saturation period, minimal flow into the head end of the sample was observed, but this decreased over time. A value for hydraulic conductivity was calculated using this inflow data to obtain a "less than" value, as reported in table 1. The test was terminated on March 25, 1998, and no flow was observed through the specimen during the 14 days of the test.
3. Asphalt core #5 had a hydraulic conductivity value higher than expected, given that it had a sealing coating on the top surface. After the test, the top surface was examined and it appeared that there were at least two holes through this seal coat. These holes probably accounted for most of the water flow resulting in the higher than expected hydraulic conductivity.
4. Asphalt core #UP had no surface treatment, and had a hydraulic conductivity similar to the unsealed laboratory compacted cores reported in 1003-007.

Approved by: Harold Barney Date: 3/31/98
Title: Laboratory Manager

Table 1. Saturated Hydraulic Conductivity Test Results
Harbor Island Drilled Asphalt Core Permeability Tests

Sample Identification	Specimen Description	Hydraulic Conductivity cm/s
Core #1	Surface Seal Coat, upper 3 inches	4.0×10^{-4}
Core #2	Surface Seal Coat, upper 6 inches	1.6×10^{-6}
Core #3	No Surface Seal Coat, upper 3 inches	4.4×10^{-8}
Core #4	No Surface Seal Coat, upper 6 inches	$< 4 \times 10^{-8}$
Core #5	Surface Seal Coat, upper 3 inches	1.5×10^{-4}
Core #UP	No Surface Seal Coat, upper 3 inches	5.6×10^{-4}

Tests according to ASTM D-5084

Please review the case narrative for further information on these tests.

APPENDIX F

Appendix F

Soil Analytical Data

Analytical Resources, Incorporated
Analytical Chemists and Consultants

2 December 1997

Steven Codrington
Remediation Technologies Inc.
1011 S.W. Klickitat Way
Suite 207
Seattle, WA 98134

RE: Client Project #1-2900
ARI Project: #U269

Dear Steven:

Please find enclosed the original Chain-of-Custody record (COC) and the final data package for the samples from the project referenced above. Five soil samples were received on 10/27/97. All samples were received intact. It was noted upon sample receipt that one Trip Blank was received but not listed on the COC. It was also noted that Samples HI 1B 06 and HI 1B 07 were the WTPH-G containers for Samples HI 1B 01 and HI 1B 02, respectively.

The samples were analyzed for WTPH-HCID, PAHs and Total and TCLP Metals as requested. Based on the WTPH-HCID results, the tests for WTPH-G and WTPH-D+Oil were added where gasoline, diesel and/or motor oil range hydrocarbons were detected.

Problems associated with these analyses are discussed in the Case Narrative.

A copy of this package will be kept on file with ARI. Should you have any questions or problems, please feel free to call any time.

Sincerely,

ANALYTICAL RESOURCES, INC.

Mark D. Harris
Project Manager
206/340-2866, ext. 113

Enclosures

cc: file #U269

MDH/mdh

CHAIN-OF-CUSTODY

Chain of Custody Record & Laboratory Analysis Request

Date: Oct 27/97
Page 1 of 1
Number of coolers: 1
Cooler Temp:

Analytical Resources Incorporated
Analytical Chemist and Consultants
400 Ninth Avenue North
Seattle, WA 98109-4708
(206) 621-6490
(206) 621-7523 (Fax)

ARI Client: RETEC Phone#: 624 9349
Client Contact: Stephen Codrington
Client Project ID: 12900
Samplers: SBC

	Sample ID	Date	Time	Matx	No Cont	Lab ID	TPH	TPH-G	Total Pb	TCLP Pb	total As	TCLP As	DAH		Notes/Comments
1	HI IB 01	10/27/97	13:15	Soil			✓								97-20167 to 97-20174
2	02	"	13:00	"			✓								* received 2 trip blanks
3	03	"	13:30	"							✓	✓	*hold		
4	04	"	13:00	"					✓	✓					
5	05	"	13:30	"									✓		
6	06	"	13:15	"				✓							
7	07	"	13:00	"				✓							

ARI Project No: 12609
T.A.T. Requested:
Comments/Special Instructions:

Relinquished by: (Signature)	Relinquished by: (Signature)	Relinquished by: (Signature)
Printed Name: Stephen Codrington	Printed Name:	Printed Name:
Company: RETEC	Company:	Company:
Date: Oct 27/97 Time: 2:35	Date: Time:	Date: Time:
Received by: (Signature)	**Received by: (Signature)**	**Received by: (Signature)**
Printed Name: Carrie McDougal	Printed Name:	Printed Name:
Company: AEI	Company:	Company:
Date: 10/27/97 Time: 1435	Date: Time:	Date: Time:

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following Standard Operating Procedures and our Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the client.

003

CASE NARRATIVE

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Case Narrative

Client Project: 1-2900
ARI Job No.: U269
Date: December 2, 1997

PAHs

1) These analyses proceeded without incident of note.

WTPH-HCID

1) These analyses proceeded without incident of note.

WTPH-G

1) The surrogate, bromobenzene, is not detected in the LCS associated with the analysis of these samples due to its co-elution with gasoline. No corrective actions were taken based on the bromobenzene results for the LCS.

WTPH-D+Oil

1) These analyses proceeded without incident of note.

Metals

1) These analyses proceeded without incident of note.

POLYNUCLEAR AROMATIC HYDROCARBONS

Ext. 4742
QA 4746
BDF PA0930B-02

ANALYTICAL RESOURCES INCORPORATED

PNA EXTRACTION - SOIL

8270

ARI Job No.: U269 II

Client Name: RETEC

Client Project: 12902

Extraction Requirements		Amount Extracted	GPC Aliquot	Alumina Aliquot (OPT) 1:1	Total Final Vol. 0.5ml	Comments: 8:30 AM
MB: U269 MB05 11/4		7.50g				Blank linked to Jobs:
SB: SB05 11/4		7.50g				
ARI Lab ID	Client Sample ID	Amount Extracted	GPC Aliquot	Alumina Aliquot	Total Final Vol.	Comments:
U269 E	HI1805	7.50g				
			11/6 GP			
		GP				
Date/Analyst:		GSA 11/04/97		11/5/97	11-5-97	

Surrogate Amt.: 125µl Added By: MJC /Spk Witness GSA
Conc.: 100µg/ml ID: 602-1

Spike Amt.: 125µl Added By: MJC /Spk Witness GSA
Conc.: 100µg/ml ID: 540-2

Date:

Ext. Storage Location:

Worklist No: 3339

Total Solids
extts.wlf: 10/31/97

Data Analyst: Mark Coppa
Date Entered: 10/30/97
Comments:

Analyzed by: RM
Date Analyzed: 10/31/97

** Use appropriate worklist to enter SRM Total Solids (see your SOPs) **

Sample	Client ID/Client	Tare	Wet Wt	Final Wt	%Solids	pH
1.	U281C 97-20249 TP6	1.08	11.89	9.66	Not Reque	Not Requested
2.	U281F 97-20252 TP9	1.07	10.59	8.58	Not Reque	Not Requested
3.	U281I 97-20255 TP13-TOP	1.07	10.83	9.96	Not Reque	Not Requested
4.	U281J 97-20256 S1	1.07	11.46	10.01	Not Reque	Not Requested
5.	U281K 97-20257 S2	1.08	11.02	9.21	Not Reque	Not Requested
6.	U281L 97-20258 S2-D	1.09	11.39	9.54	Not Reque	Not Requested
7.	U281M 97-20259 S3	1.05	11.72	10.80	Not Reque	Not Requested
8.	U269E 97-20171 HI1B05	1.07	10.29	9.14	87.5	Not Requested

See WL 6067 [illegible] 4/6/97

Analyst/Date: _____

Data Entered/Distributed By: [signature]

ANALYTICAL
RESOURCES
INCORPORATED

SOIL PNA SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project:
1 2900

Client ID	TPH	DPH
Method Blank	101%	60%
Spike Blank	116%	58%
HI1B05	119%	85%

(TPH) = d14-p-Terphenyl
(DPH) = d10-Diphenyl

D Surrogate Compound diluted out

FORM-II PNA-1

ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by GC/MS

Lab Sample ID: U269SB
LIMS ID: 97-20171
Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900

Data Release Authorized: MW
Reported: 11/19/97

Date extracted: 11/04/97
Date analyzed: 11/18/97

LABORATORY CONTROL SAMPLE CONSTITUENT	SPIKE VALUE	SPIKE ADDED	% RECOVERY
Naphthalene	1090	1670	65.3%
Acenaphthene	1100	1670	65.9%
Fluoranthene	1550	1670	92.8%
Benzo(a)anthracene	1590	1670	95.2%

Spike Blank Surrogate Recovery

d14-p-Terphenyl	116.%
d10-Diphenyl	57.5%

Values reported in ppb (ug/kg) dry weight

4B

SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

U269MBS

Lab Name: ANALYTICAL RESOURCES INC. Contract: 1 2900

Lab Code: U269 Case No.: SDG No.: U269

Lab File ID: F61117H Lab Sample ID: U269MBS

Instrument ID: FINN6 Date Extracted: 11/04/97

Matrix: (soil/water) SOIL Date Analyzed: 11/17/97

Level: (low/med) LOW Time Analyzed: 2342

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	U269SBS	U269SBS	F61117I	11/18/97
02	HT1B05	U269E	F61117M	11/18/97
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC. Contract: 1 2900

Lab Code: U269 Case No.: SDG No.: U269

Lab File ID: F6DF1107 DFTPP Injection Date: 11/07/97

Instrument ID: FINN6 DFTPP Injection Time: 1432

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	56.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	47.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	42.8
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.2
275	10.0 - 30.0% of mass 198	24.1
365	Greater than 0.75% of mass 198	0.79
441	Present, but less than mass 443	8.2
442	40.0 - 110.0% of mass 198	57.8
443	15.0 - 24.0% of mass 442	10.4 (18.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	IC1107	F6251107	11/07/97	1457
02	SSTD080	IC1107	F6801107	11/07/97	1554
03	SSTD005	IC1107	F6051107	11/07/97	1634
04	SSTD040	IC1107	F6401107	11/07/97	1724
05	SSTD010	IC1107	F6101107	11/07/97	1813
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC. Contract: 1 2900

Lab Code: U269 Case No.: SDG No.: U269

Lab File ID: F251117A DFTPP Injection Date: 11/17/97

Instrument ID: FINN6 DFTPP Injection Time: 1838

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	57.1
68	Less than 2.0% of mass 69	0.7 (1.5)1
69	Mass 69 relative abundance	49.0
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	46.8
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.1
275	10.0 - 30.0% of mass 198	24.2
365	Greater than 0.75% of mass 198	1.98
441	Present, but less than mass 443	9.0
442	40.0 - 110.0% of mass 198	57.5
443	15.0 - 24.0% of mass 442	11.7 (20.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	CC1117	F251117A	11/17/97	1838
02	U269MBS	U269MBS	F61117H	11/17/97	2342
03	U269SBS	U269SBS	F61117I	11/18/97	0017
04	HT1B05	U269E	F61117M	11/18/97	0234
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC. Contract: 1 2900

Lab Code: U269 Case No.: SDG No.: U269

Lab File ID (Standard): F251117A Date Analyzed: 11/17/97

Instrument ID: FINN6 Time Analyzed: 1838

		IS1(NPT) AREA	#	RT	#	IS2(ANT) AREA	#	RT	#	IS3(PHN) AREA	#	RT	#
	12 HOUR STD	248492		5.48		143752		9.73		241858		13.62	
	UPPER LIMIT	496984		5.98		287504		10.23		483716		14.12	
	LOWER LIMIT	124246		4.98		71876		9.23		120929		13.12	
	CLIENT SAMPLE NO.												
01	U269MBS	293132		5.47		166558		9.72		253342		13.60	
02	U269SBS	249946		5.47		136194		9.72		204016		13.60	
03	HT1B05	275062		5.45		148534		9.70		237784		13.60	
04													
05													
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 (NPT) = Naphthalene-d8
IS2 (ANT) = Acenaphthene-d10
IS3 (PHN) = Phenanthrene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC. Contract: 1 2900

Lab Code: U269 Case No.: SDG No.: U269

Lab File ID (Standard): F251117A Date Analyzed: 11/17/97

Instrument ID: FINN6 Time Analyzed: 1838

		IS4(CRY) AREA	#	RT	#	IS5(PRY) AREA	#	RT	#	AREA	#	RT	#
	12 HOUR STD	217962		20.88		195044		24.52					
	UPPER LIMIT	435924		21.38		390088		25.02					
	LOWER LIMIT	108981		20.38		97522		24.02					
	CLIENT SAMPLE NO.												
01	U269MBS	229408		20.85		205958		24.48					
02	U269SBS	165468		20.85		156722		24.48					
03	HT1B05	194162		20.85		177926		24.50					
04													
05													
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS4 (CRY) = Chrysene-d12
IS5 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET **Sample No: HI1B05**
PNAs by GC/MS

Lab Sample ID: U269E
LIMS ID: 97-20171
Matrix: Soil
Data Release Authorized: WW
Reported: 11/19/97

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900
Date Sampled: 10/27/97
Date Received: 10/27/97

Date extracted: 11/04/97 8:30
Date analyzed: 11/18/97
Instrument: finn6
GPC Cleanup: NO
Alumina: 1:1

Sample Amount: 6.56 g-dry-wt
Final Extract Volume: 0.5 mL
Conc/Dilution Factor: 1:1
Moisture: 12.5%
pH: NA

CAS Number	Analyte	ug/kg	
91-20-3	**Naphthalene**	88	
91-57-6	2-Methylnaphthalene	76	U
208-96-8	Acenaphthylene	76	U
83-32-9	**Acenaphthene**	82	
86-73-7	**Fluorene**	97	
85-01-8	**Phenanthrene**	980	
120-12-7	**Anthracene**	220	
206-44-0	**Fluoranthene**	1,800	
129-00-0	**Pyrene**	1,500	
56-55-3	**Benzo(a)anthracene**	560	M
218-01-9	**Chrysene**	1,100	
205-99-2	**Benzo(b)fluoranthene**	670	
207-08-9	**Benzo(k)fluoranthene**	730	
50-32-8	**Benzo(a)pyrene**	480	
193-39-5	**Indeno(1,2,3-cd)pyrene**	380	
53-70-3	**Dibenz(a,h)anthracene**	110	M
191-24-2	**Benzo(g,h,i)perylene**	380	
132-64-9	Dibenzofuran	76	U

Base/Neutral Surrogate Recovery	
d14-p-Terphenyl	119%
d10-Diphenyl	85.4%

Analytical Resources, Inc.

Semivolatile Report Modified Method 8270

Data file : /var/chem/finn6.i/17NOV97.b/F61117M.d
Lab Smp Id: U269E Client Smp ID: HT1B05
Inj Date : 18-NOV-97 02:34:00
Operator : CM Inst ID: finn6.i
Smp Info : U269-E (RETEC # HT1B05)
Misc Info : 97-20171
Comment :
Method : /var/chem/finn6.i/17NOV97.b/abn.m
Meth Date : 18-Nov-97 13:56:47 charles Quant Type: ISTD
Cal Date : 17-NOV-97 18:38:00 Cal File: F251117A.LG
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna.sub
Target Version: 3.30
Processing Host: cserv2

Concentration Formula: Vt/(Ws * (100 - M)/100)

Name	Value	Description
Vt	500.000	Volume of final extract (uL)
Ws	7.500	Weight of sample extracted (g)
M	0.000	% Moisture

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/Kg)
*	27 Naphthalene-d8	136	5.450	5.483	(1.000)	275062	20.0000	
	28 Naphthalene	128	5.500	5.517	(1.009)	18364	1.16263	77.51
	32 2-Methylnaphthalene	141.00	Compound Not Detected.					
	40 Acenaphthylene	152.00	Compound Not Detected.					
*	42 Acenaphthene-d10	164	9.700	9.733	(1.000)	148534	20.0000	
	44 Acenaphthene	153	9.783	9.817	(1.009)	10784	1.08389	72.26
	46 Dibenzofuran	168	10.217	10.250	(1.053)	11600	~~0.92462~~	61.64
	49 Fluorene	166	11.117	11.150	(1.146)	12338	1.26581	84.39
*	59 Phenanthrene-d10	188	13.600	13.617	(1.000)	237784	20.0000	
	60 Phenanthrene	178	13.650	13.683	(1.004)	176824	12.8393	855.96
	61 Anthracene	178	13.767	13.800	(1.012)	37530	2.82071	188.05
	64 Fluoranthene	202	16.883	16.917	(1.241)	330632	23.1212	1541.41
	65 Pyrene	202	17.450	17.483	(0.837)	262898	19.6310	1308.74
$	66 Terphenyl-d14	244	18.167	18.200	(0.871)	268550	29.6478	1976.52
	68 Benzo(a)anthracene	228	20.800	20.833	(0.998)	87660	7.34152	489.43
*	69 Chrysene-d12	240	20.850	20.883	(1.000)	194162	20.0000	

11/18/97

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/Kg)
71	Chrysene	228	20.917	20.950	(1.003)	147392	13.9123	927.49
74	Benzo(b)fluoranthene	252	23.617	23.633	(0.964)	113880	8.80572	587.05
75	Benzo(k)fluoranthene	252	23.650	23.700	(0.965)	119050	9.61169	640.78(M)
76	Benzo(a)pyrene	252	24.350	24.367	(0.994)	66264	6.33301	422.20
* 77	Perylene-d12	264	24.500	24.517	(1.000)	177926	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	26.800	26.833	(1.094)	49606	4.97294	331.53
79	Dibenzo(a,h)anthracene	278	26.883	26.900	(1.097)	13202	1.44484	96.32
80	Benzo(g,h,i)perylene	276	27.300	27.333	(1.114)	51094	5.00501	333.67
$ 89	Diphenyl-d10	164	8.233	8.267	(0.849)	223004	21.3520	1423.47
105	1-methylnaphthalene	141.00	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn6.i
Lab File ID: F61117M.d
Lab Smp Id: U269E
Analysis Type: SV
Quant Type: ISTD
Operator: CM
Method File: /var/chem/finn6.i/17NOV97.b/abn.m
Misc Info: 97-20171

Calibration Date: 11/17/97
Calibration Time: 1838
Client Smp ID: HT1B05
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
27 Naphthalene-d8	248492	124246	496984	275062	10.69
42 Acenaphthene-d10	143752	71876	287504	148534	3.33
59 Phenanthrene-d10	241858	120929	483716	237784	-1.68
69 Chrysene-d12	217962	108981	435924	194162	-10.92
77 Perylene-d12	195044	97522	390088	177926	-8.78

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
27 Naphthalene-d8	5.48	4.98	5.98	5.45	-0.61
42 Acenaphthene-d10	9.73	9.23	10.23	9.70	-0.34
59 Phenanthrene-d10	13.62	13.12	14.12	13.60	-0.12
69 Chrysene-d12	20.88	20.38	21.38	20.85	-0.16
77 Perylene-d12	24.52	24.02	25.02	24.50	-0.07

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

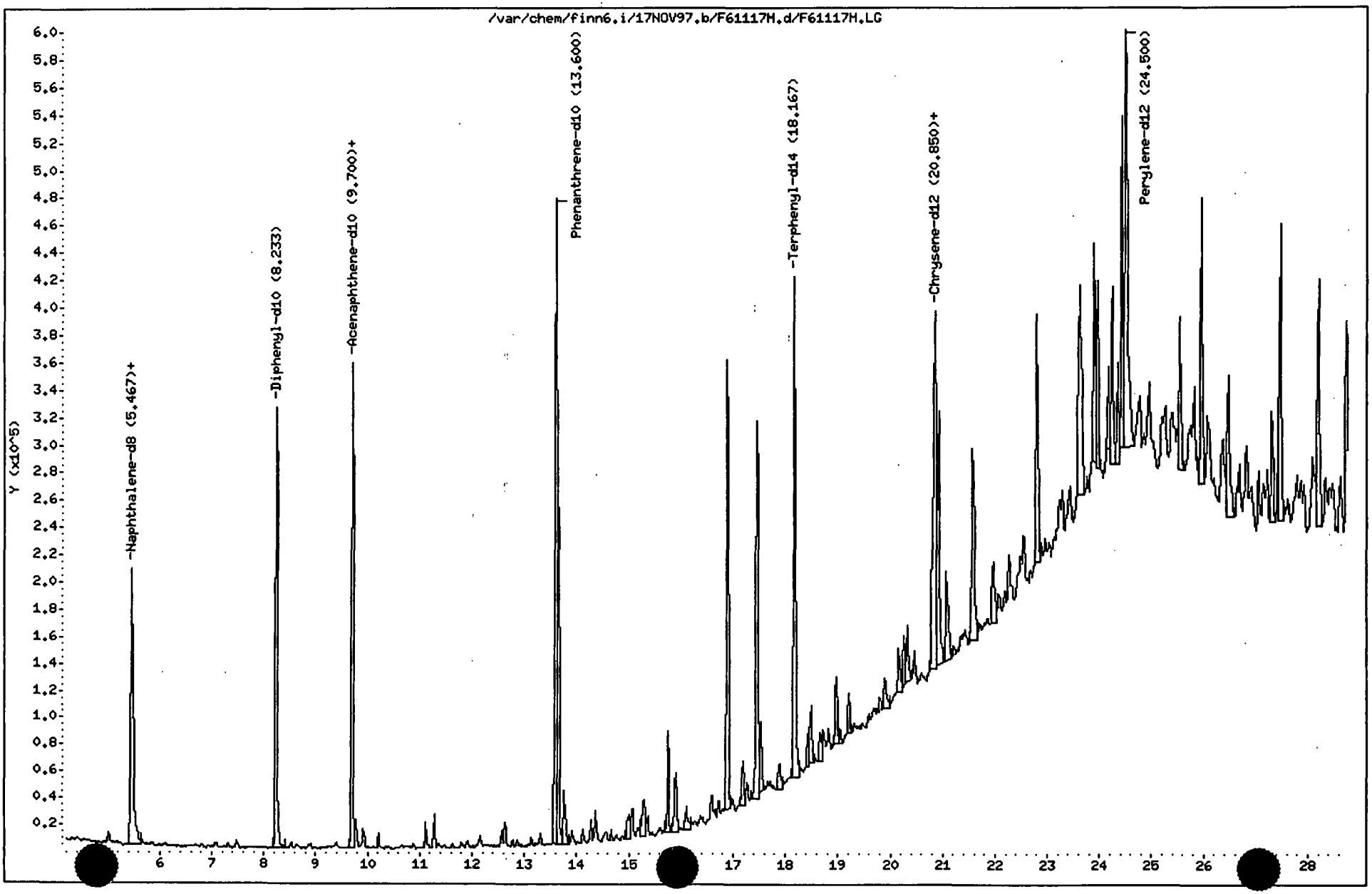
RECOVERY REPORT

Client Name: Client SDG: U269
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: U269E Client Smp ID: HT1B05
Level: LOW Operator: CM
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SINSB.spk Quant Type: ISTD
Method File: /var/chem/finn6.i/17NOV97.b/abn.m
Misc Info: 97-20171

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 66 Terphenyl-d14	1666.67	1976.52	118.59	43-122
$ 89 Diphenyl-d10	1666.67	1423.47	85.41	43-122

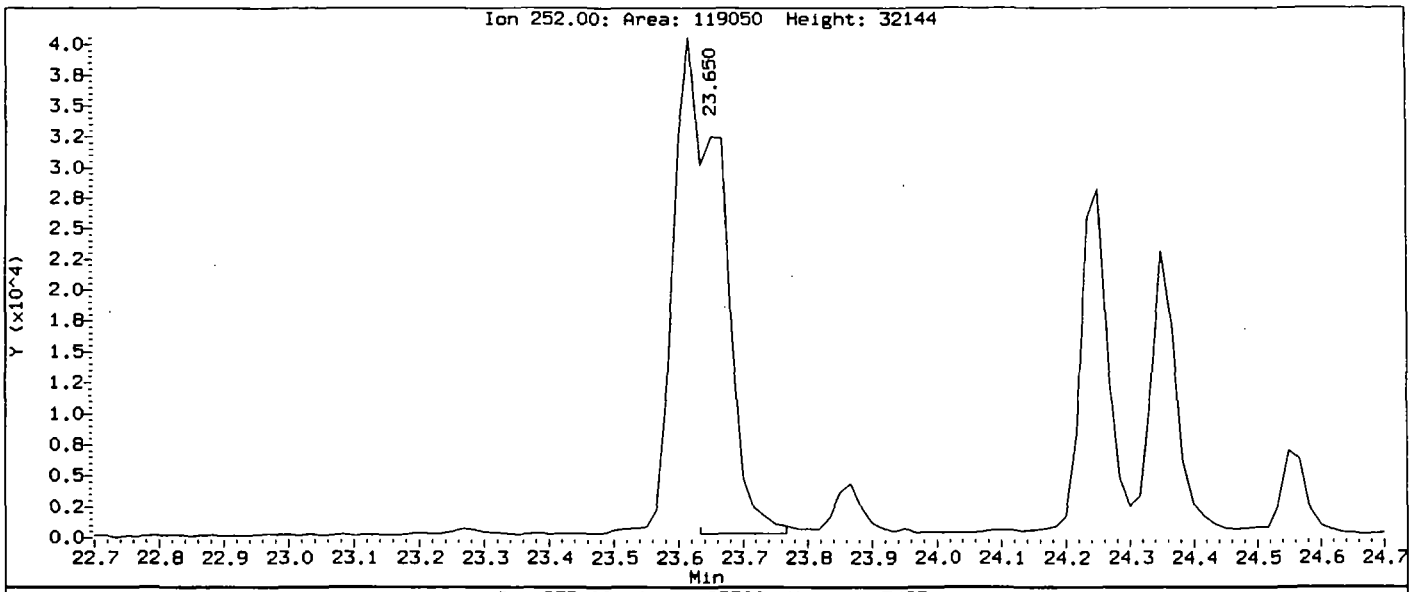
Data File: /var/chem/finn6.i/17NOV97.b/F61117H.d
Date : 18-NOV-97 02:34:00
Client ID: HT1B05
Sample Info: U269-E (RETEC # HT1B05)
Volume Injected (uL): 2.0
Column phase: RTX-5

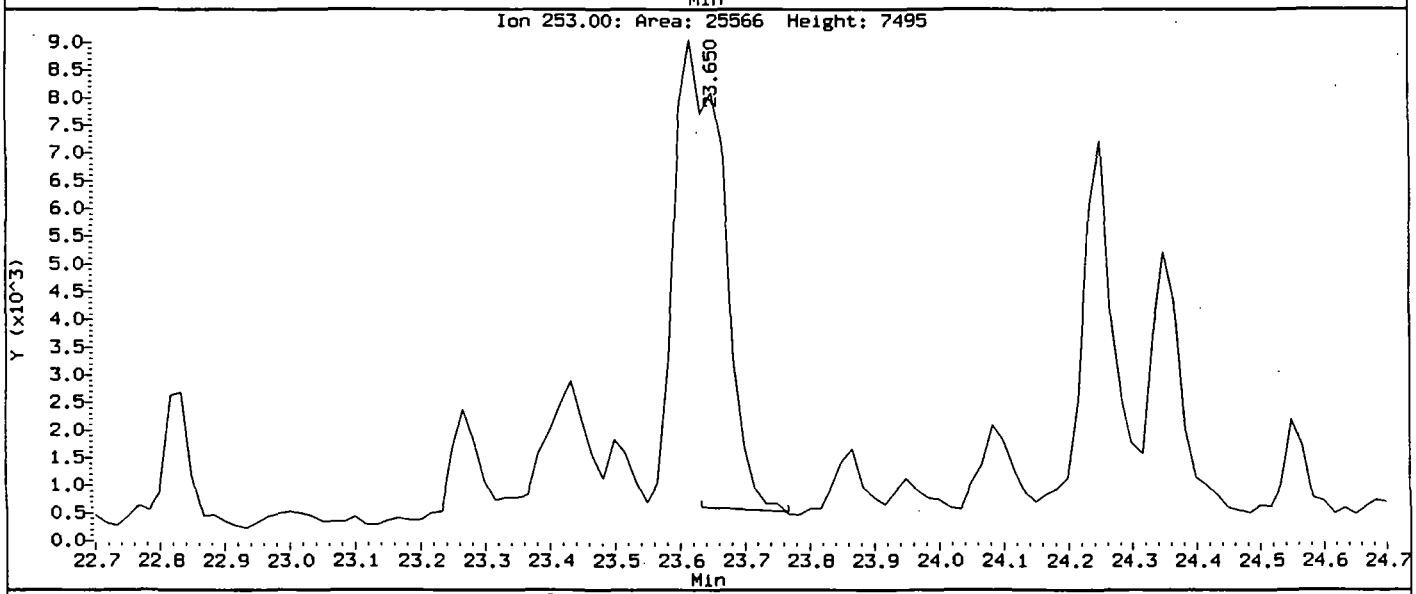
Instrument: finn6.i
Operator: CH
Column diameter: 0.32

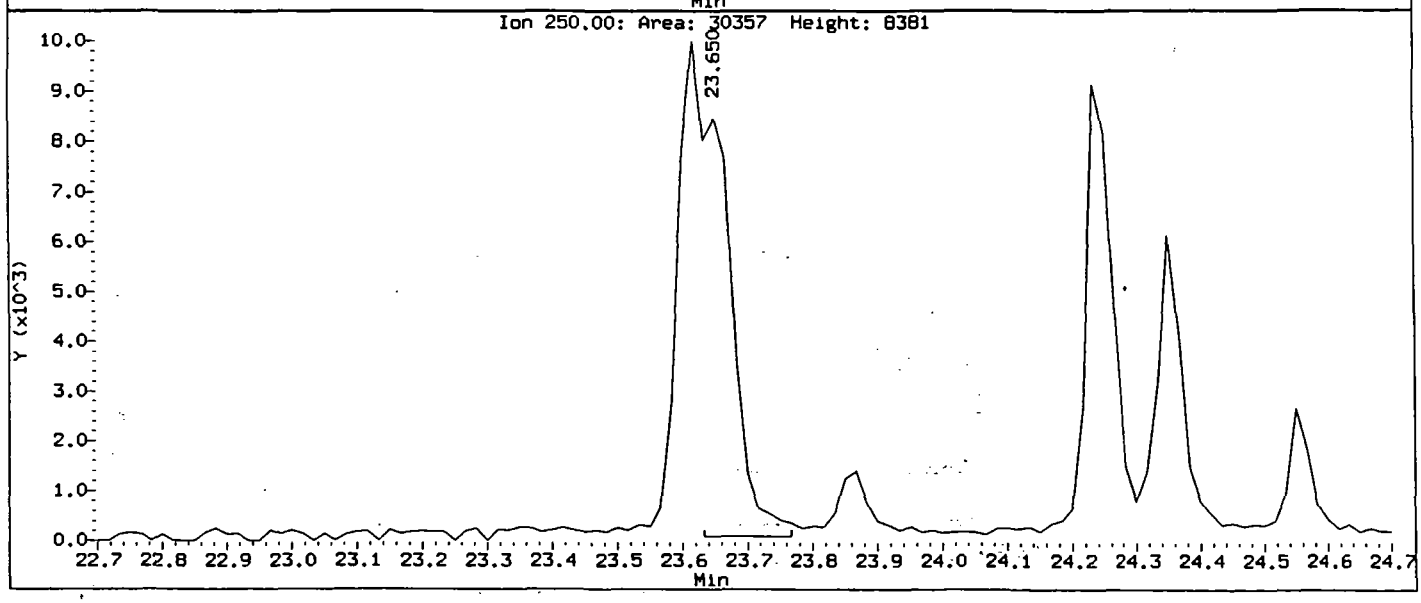


Data File: /var/chem/finn6.i/17NOV97.b/F61117M.d/F61117M.LG
Injection Date: 18-NOV-97 02:34:00
Instrument: finn6.i
Client Sample ID: HT1B05

Compound: Benzo(k)fluoranthene
CAS Number: 207-08-9







Data File: /var/chem/finn6.i/17NOV97.b/F61117M.d

Date : 18-NOV-97 02:34:00

Client ID: HT1B05

Instrument: finn6.i

Sample Info: U269-E (RETEC # HT1B05)

Volume Injected (uL): 2.0

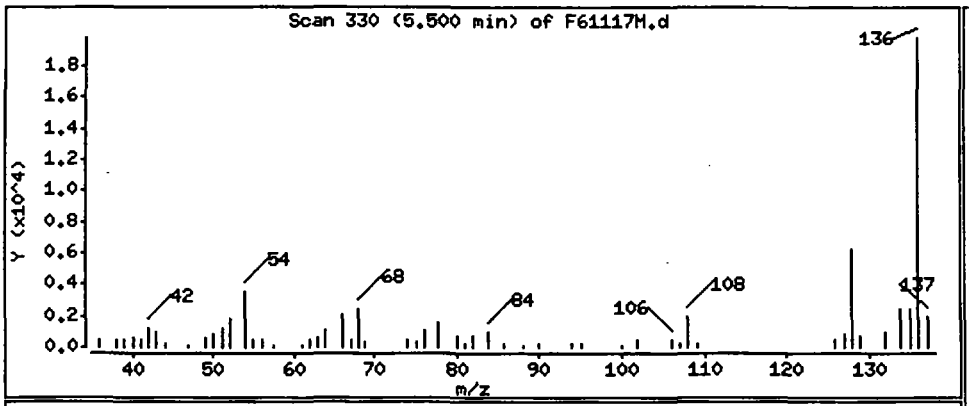
Operator: CM

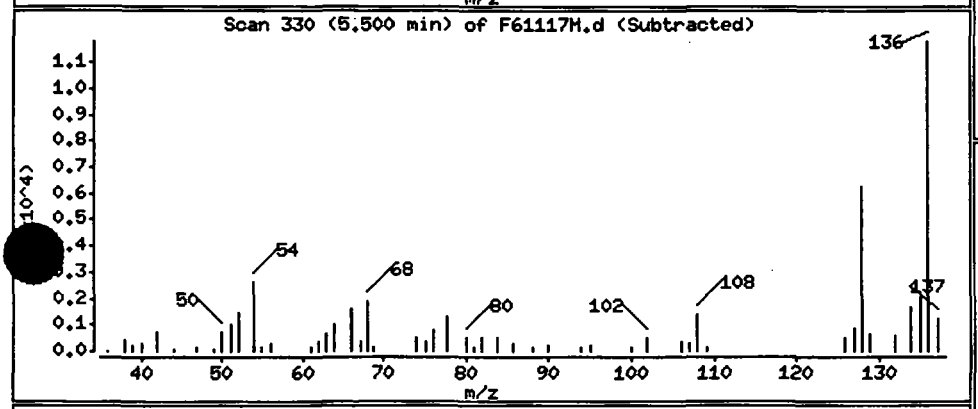
Column phase: RTX-5

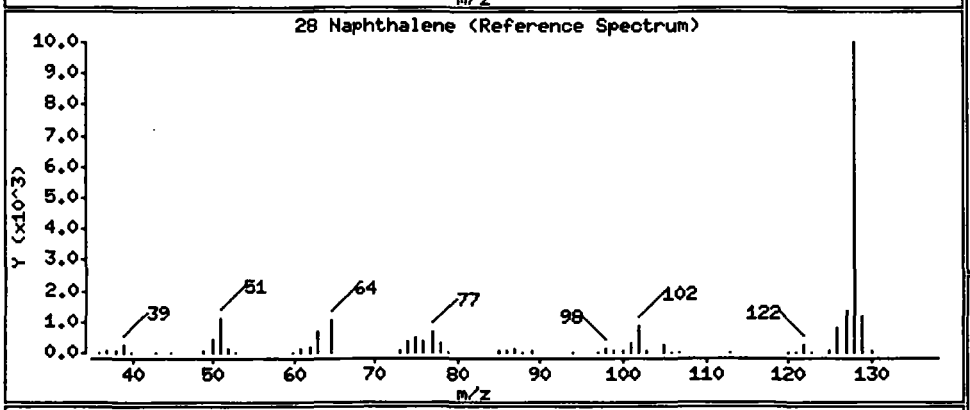
Column diameter: 0.32

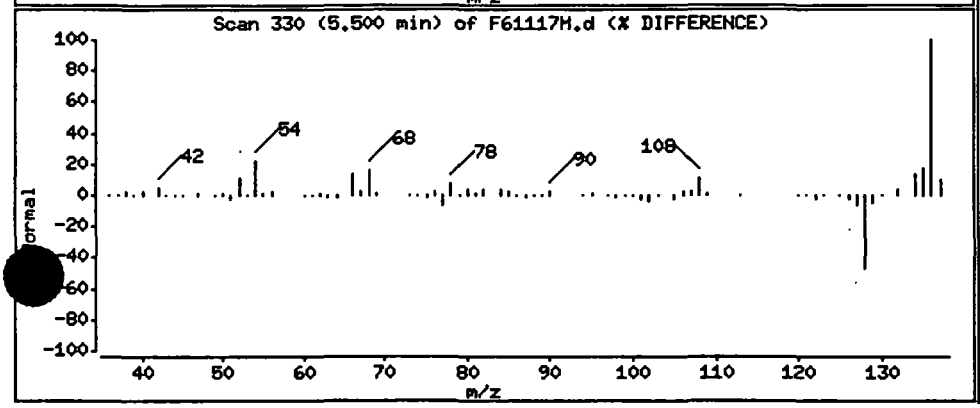
28 Naphthalene

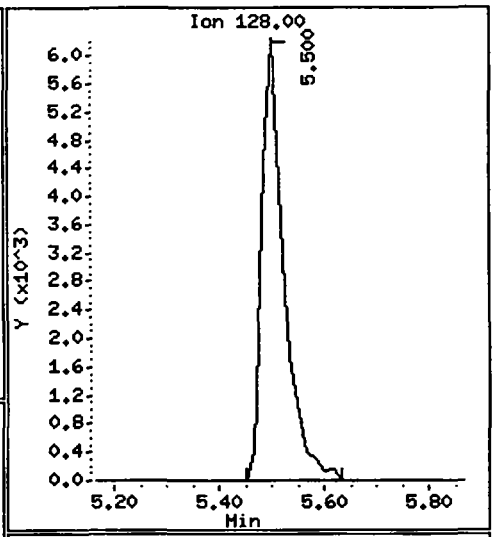
Concentration: 77.51 ug/Kg

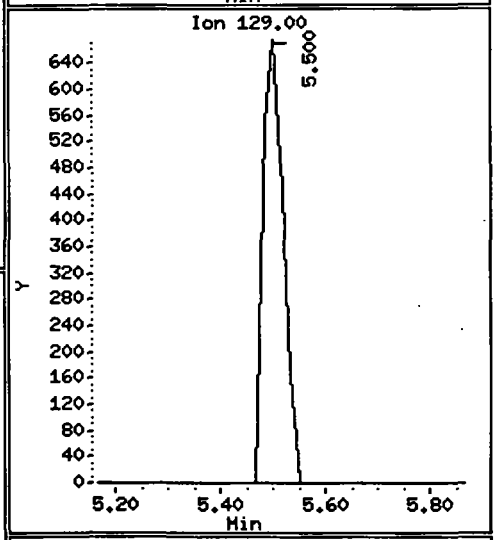


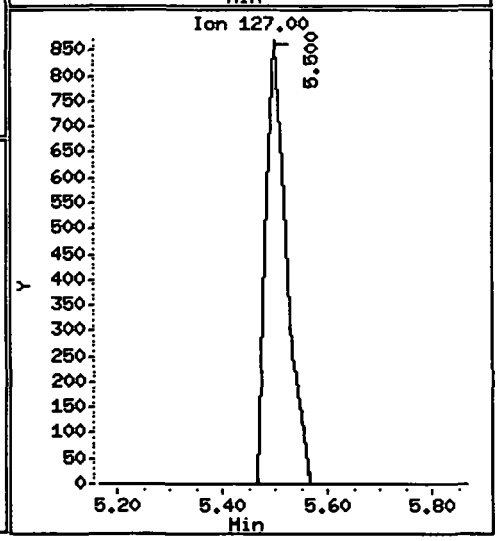












Data File: /var/chem/finn6.i/17NOV97.b/F61117M.d

Date : 18-NOV-97 02:34:00

Client ID: HT1B05

Instrument: finn6.i

Sample Info: U269-E (RETEC # HT1B05)

Volume Injected (uL): 2.0

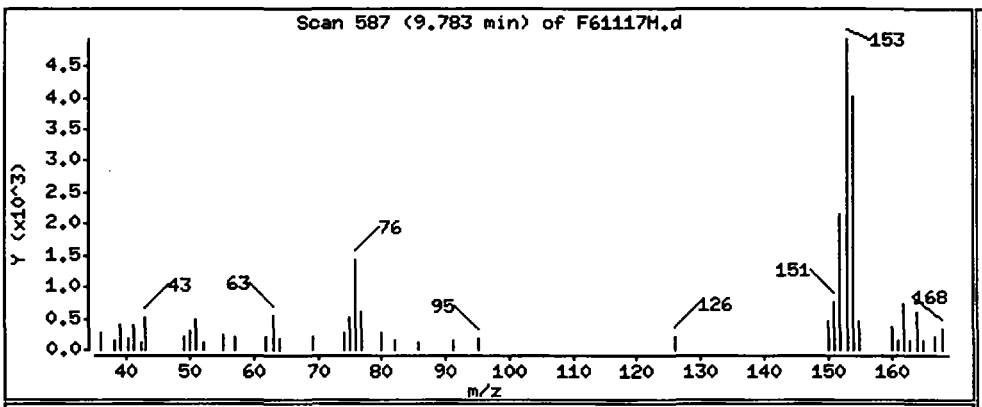
Operator: CH

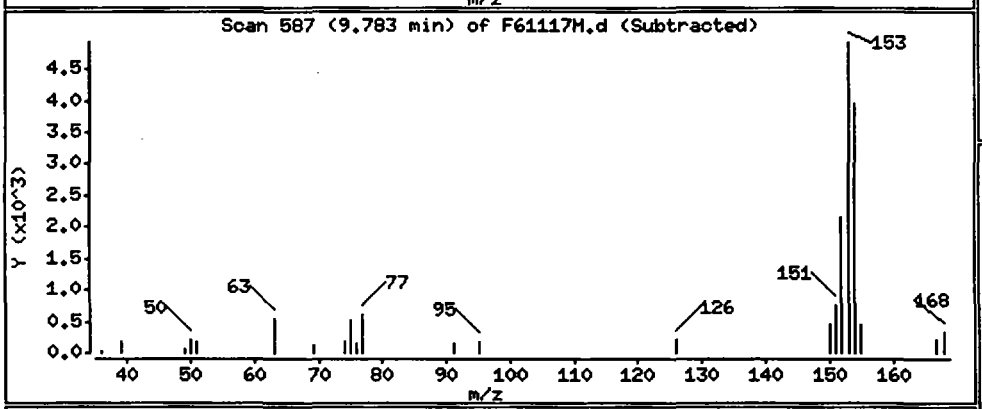
Column phase: RTX-5

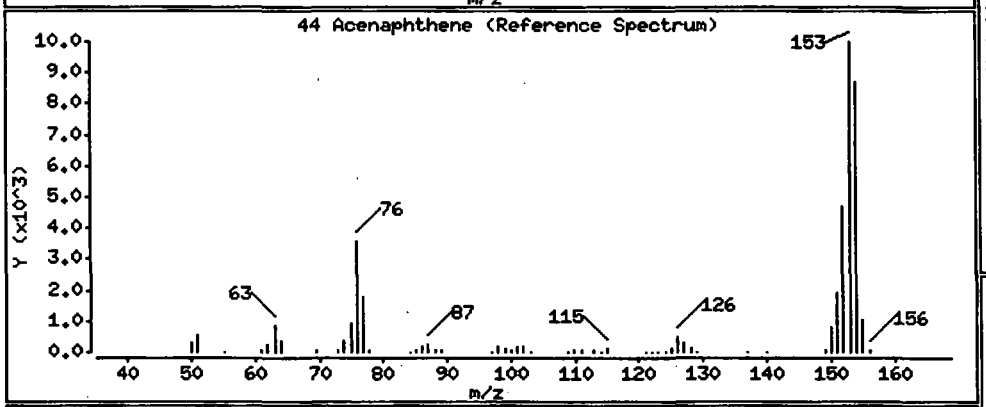
Column diameter: 0.32

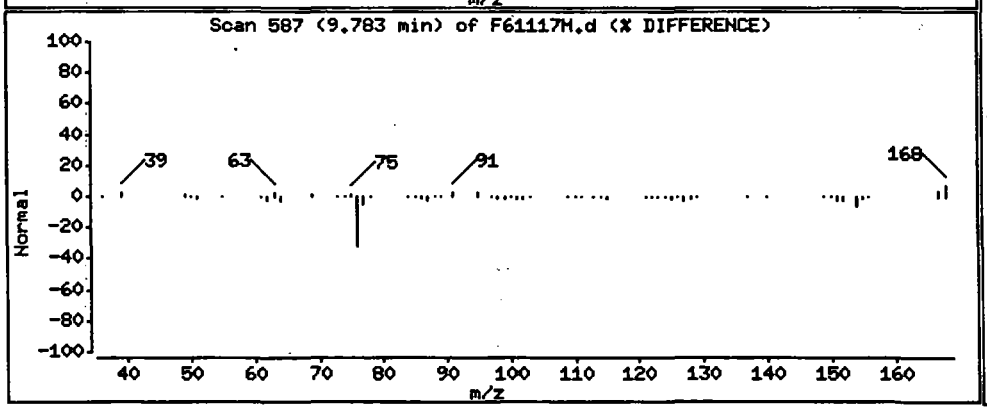
44 Acenaphthene

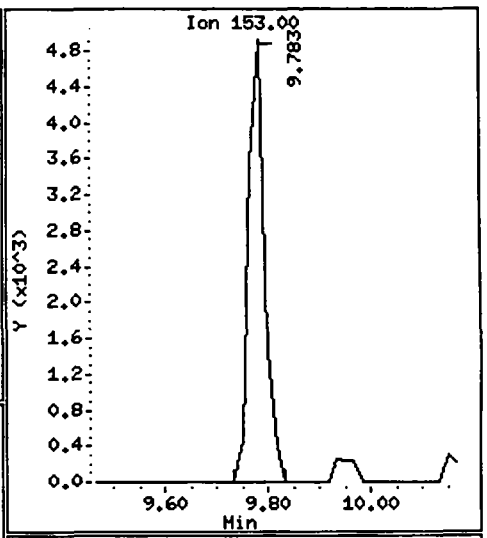
Concentration: 72.26 ug/Kg

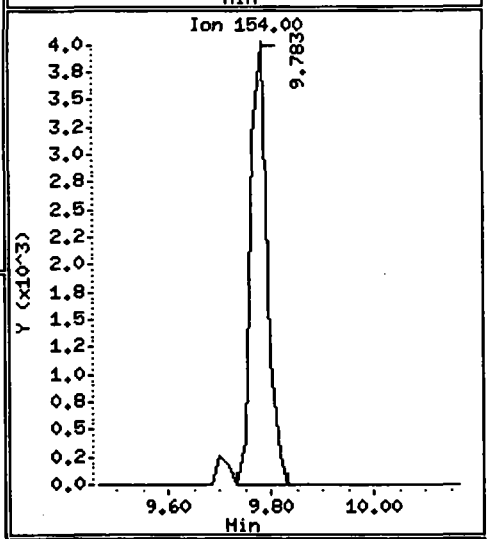


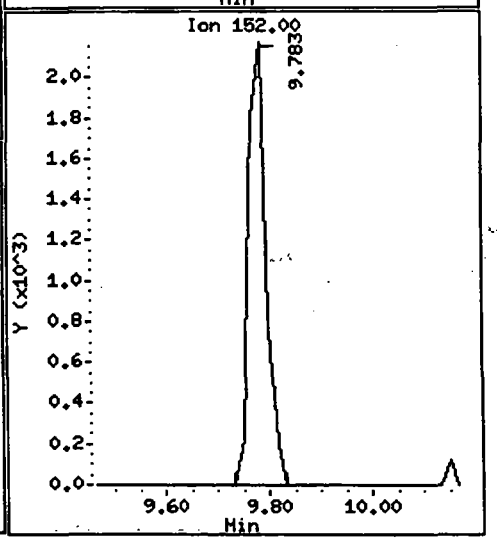












Data File: /var/chem/finn6.i/17NOV97.b/F61117H.d

Date : 18-NOV-97 02:34:00

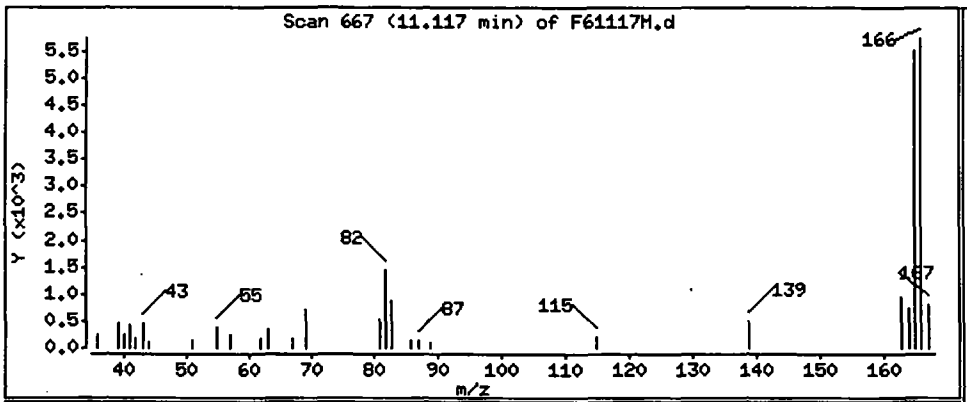
Client ID: HT1B05 Instrument: finn6.i

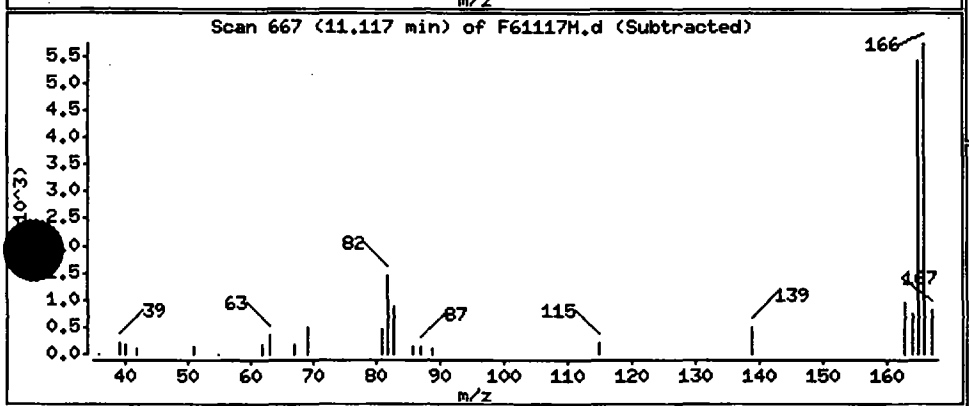
Sample Info: U269-E (RETEC # HT1B05)

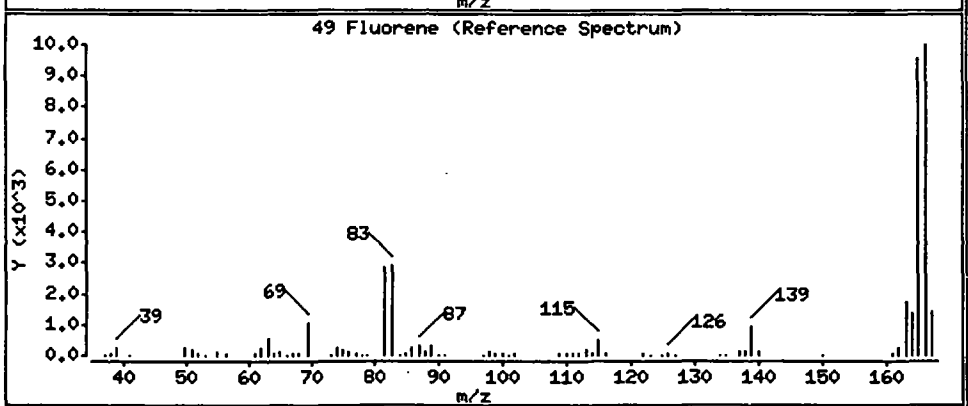
Volume Injected (uL): 2.0 Operator: CH

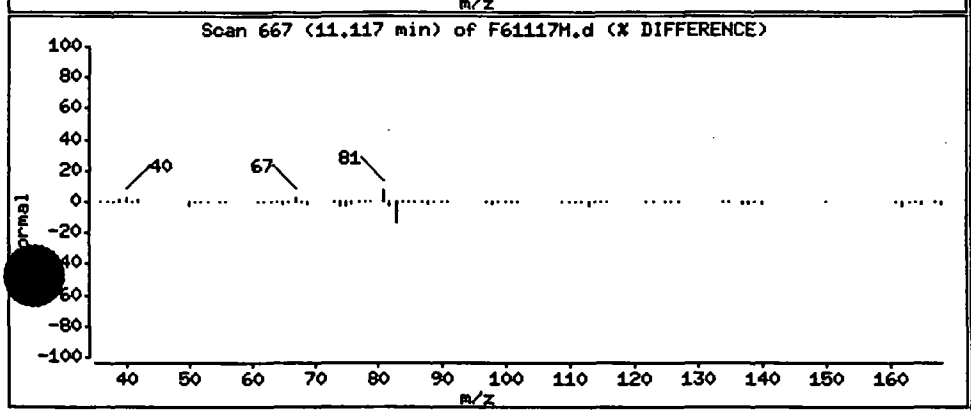
Column phase: RTX-5 Column diameter: 0.32

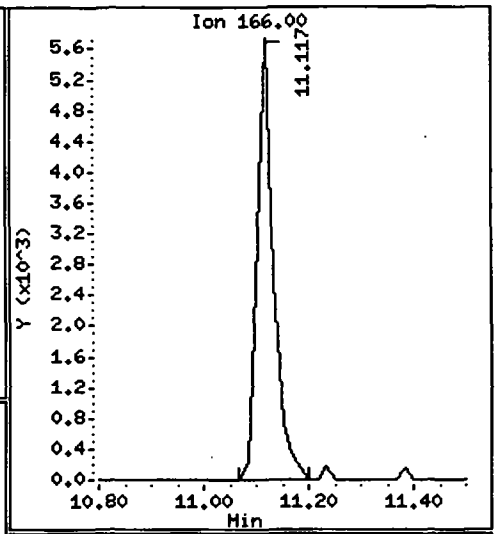
49 Fluorene Concentration: 84.39 ug/Kg

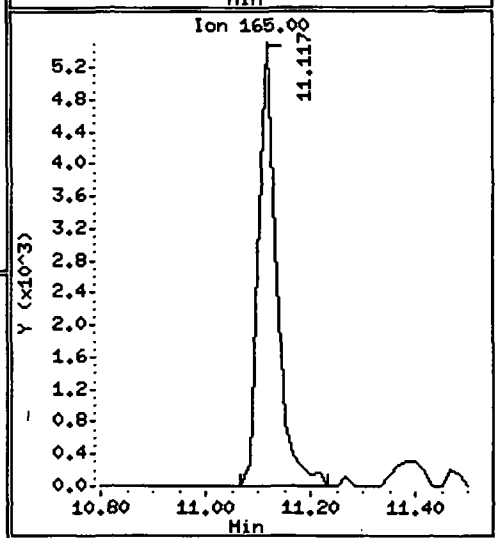


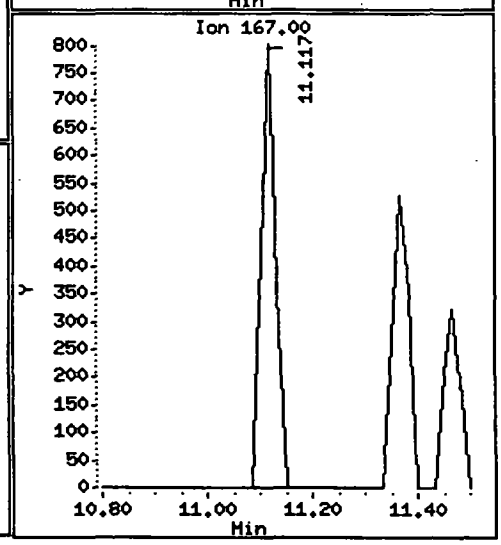












Data File: /var/chem/finn6.i/17NOV97.b/F61117H.d

Date : 18-NOV-97 02:34:00

Client ID: HT1B05

Instrument: finn6.i

Sample Info: U269-E (RETEC # HT1B05)

Volume Injected (uL): 2.0

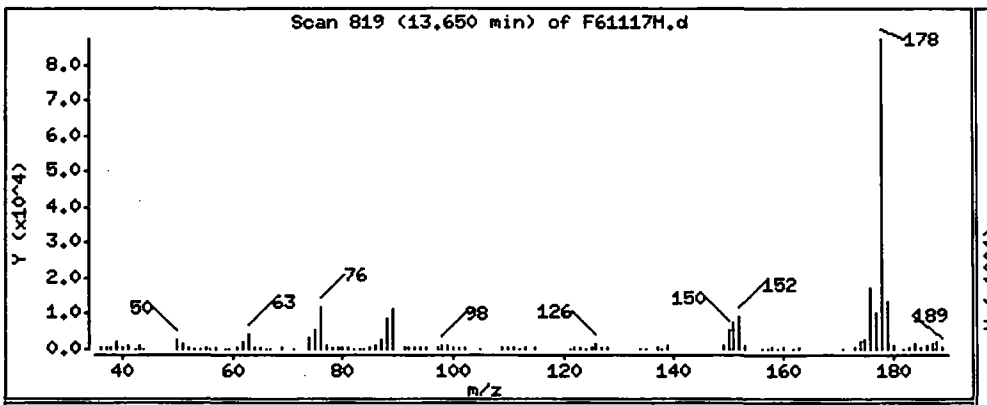
Operator: CH

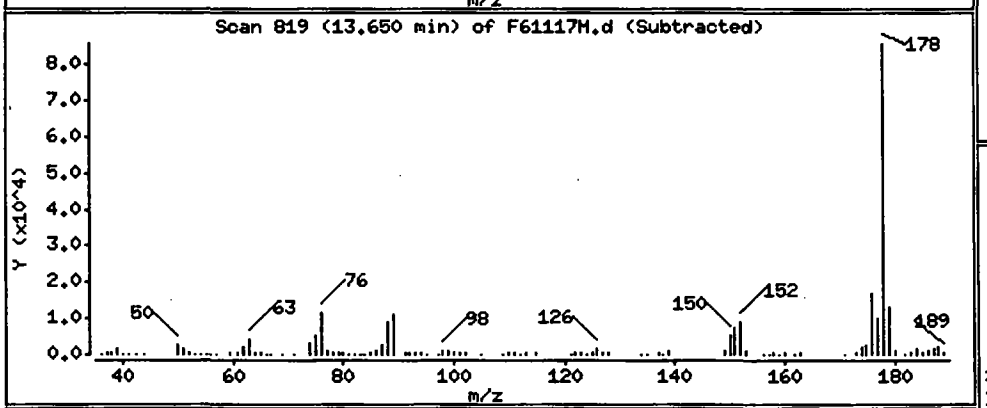
Column phase: RTX-5

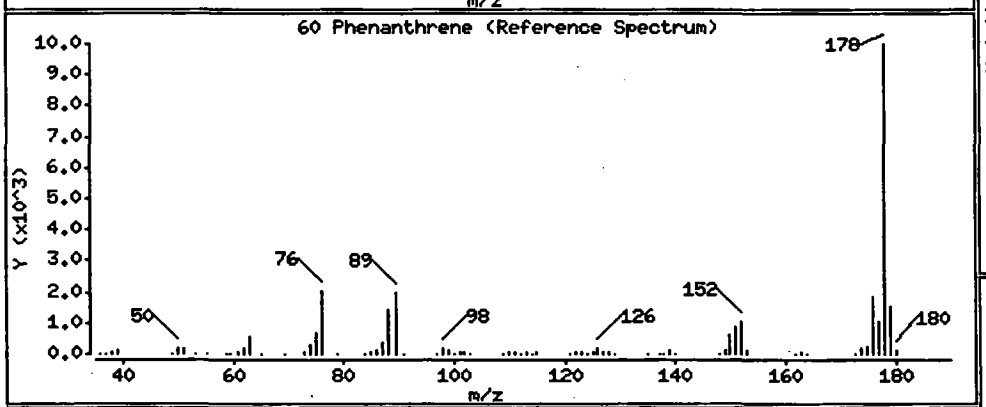
Column diameter: 0.32

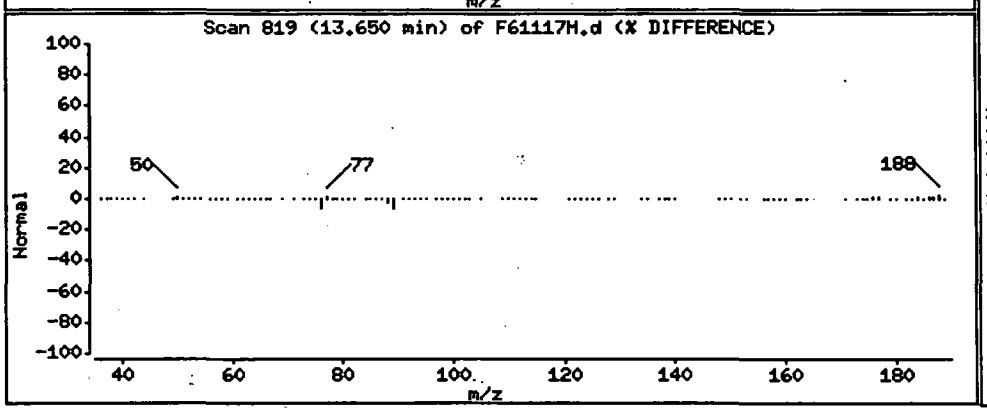
60 Phenanthrene

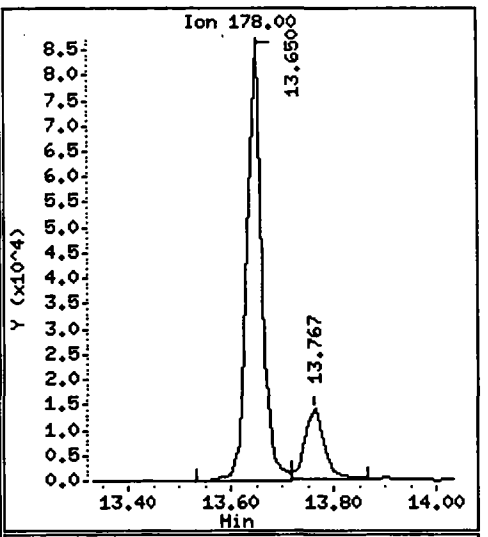
Concentration: 855.96 ug/Kg

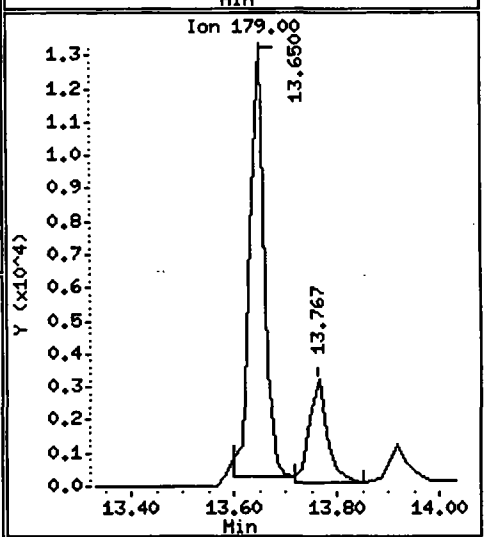


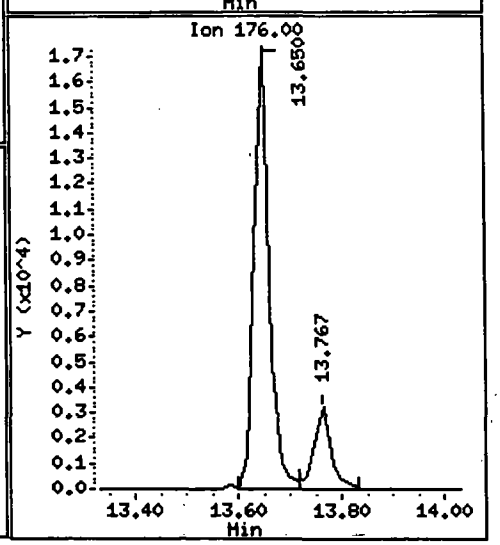












Data File: /var/chem/finn6.i/17NOV97.b/F61117H.d

Date : 18-NOV-97 02:34:00

Client ID: HT1B05

Instrument: finn6.i

Sample Info: U269-E (RETEC # HT1B05)

Volume Injected (uL): 2.0

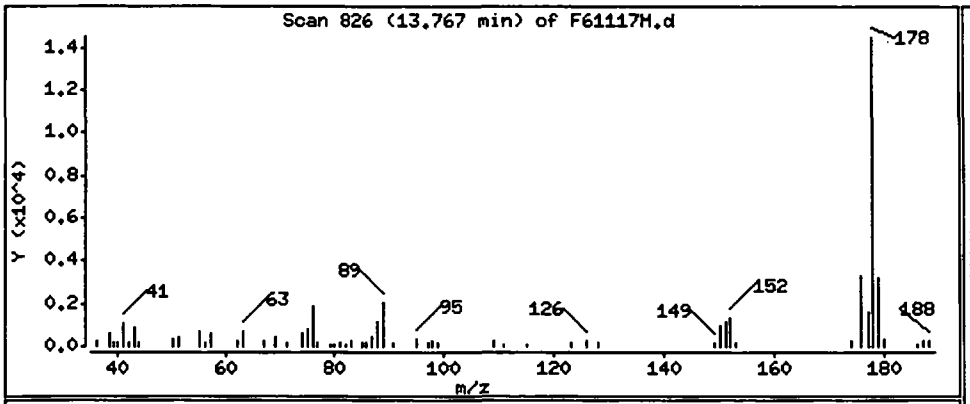
Operator: CH

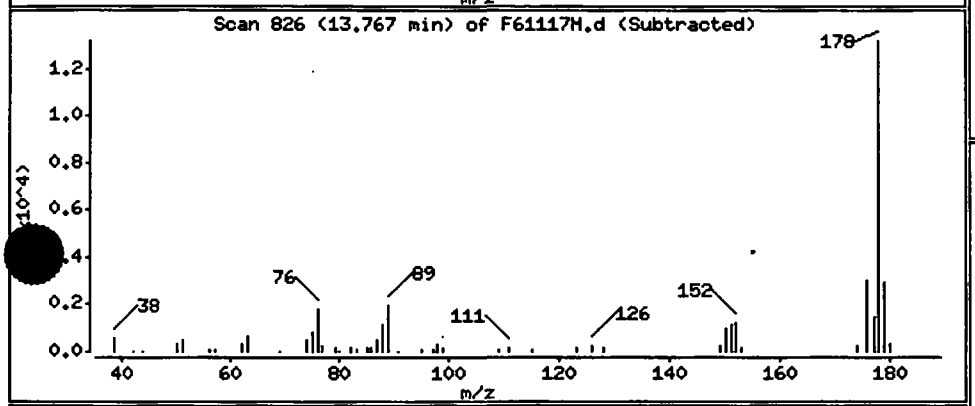
Column phase: RTX-5

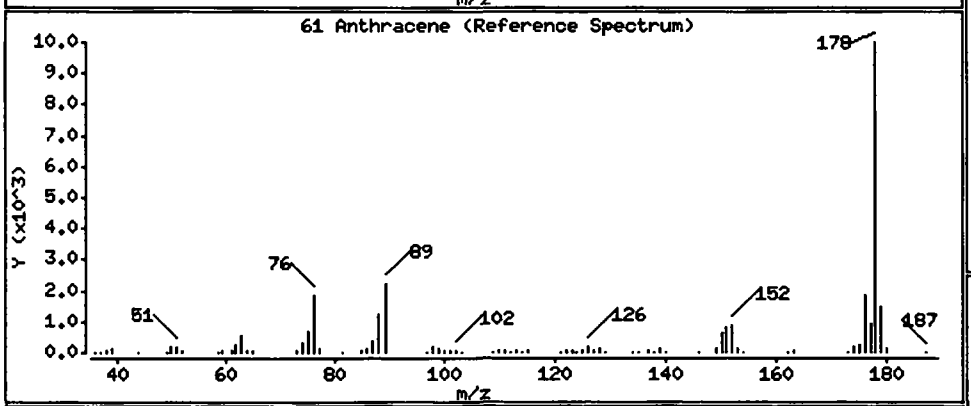
Column diameter: 0.32

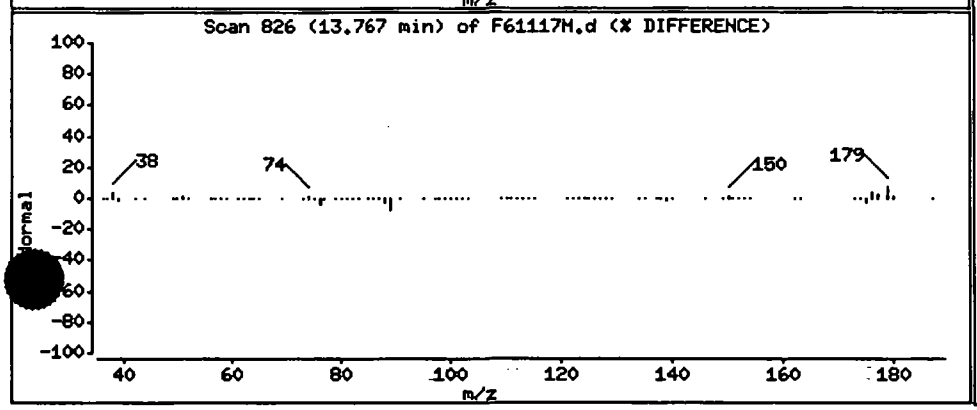
61 Anthracene

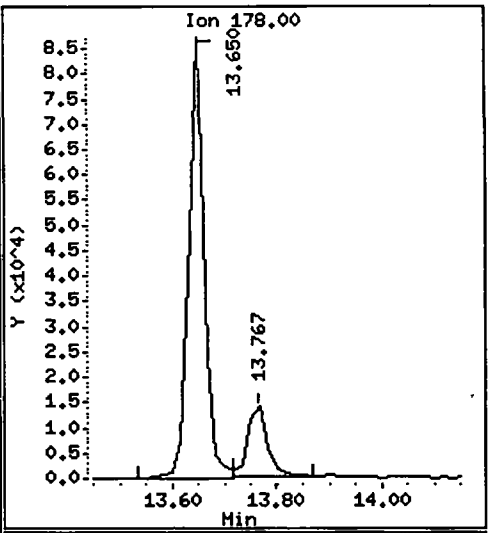
Concentration: 188.05 ug/Kg

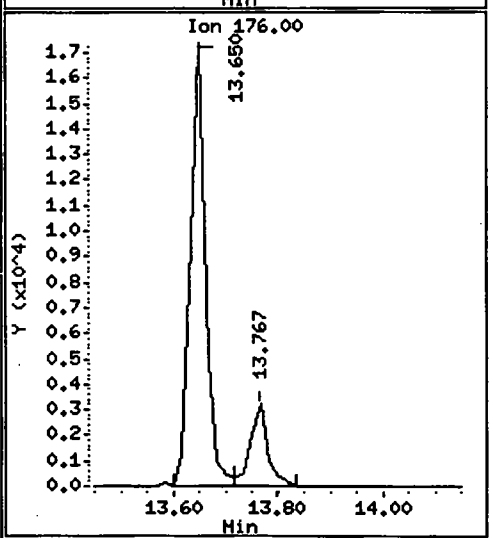


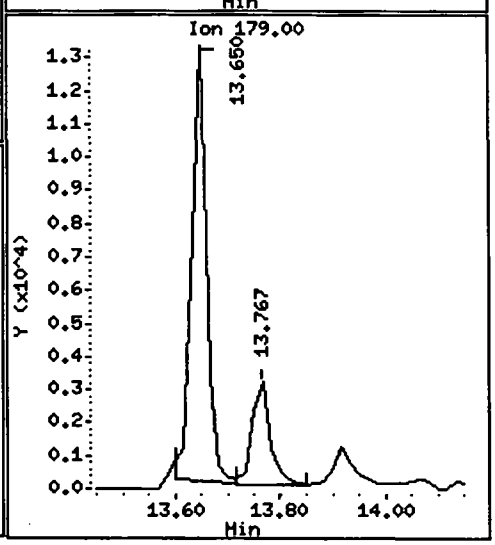












Data File: /var/chem/finn6.i/17NOV97.b/F61117M.d

Date : 18-NOV-97 02:34:00

Client ID: HT1B05

Instrument: finn6.i

Sample Info: U269-E (RETEC # HT1B05)

Volume Injected (uL): 2.0

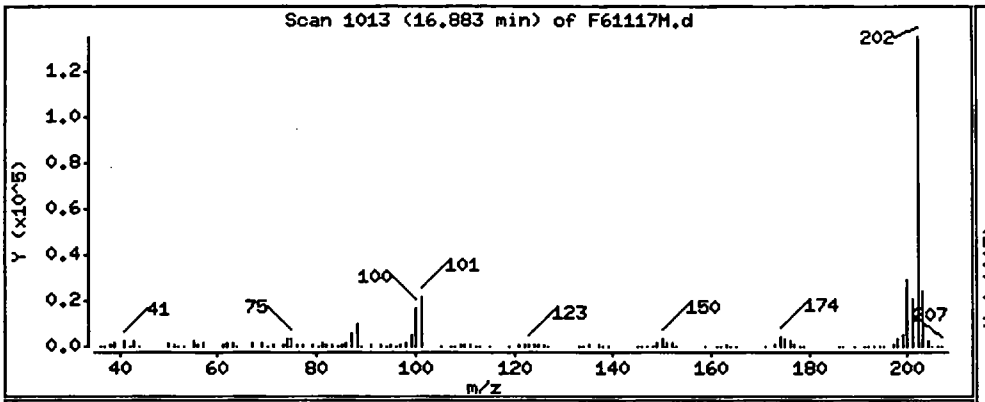
Operator: CH

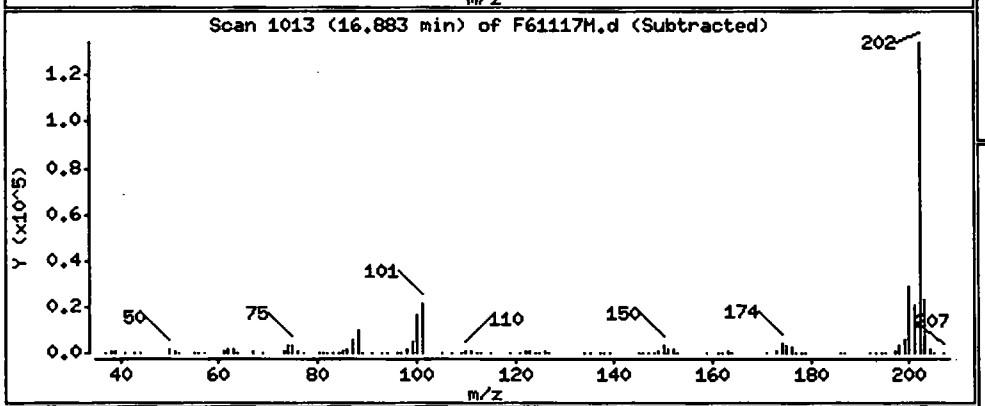
Column phase: RTX-5

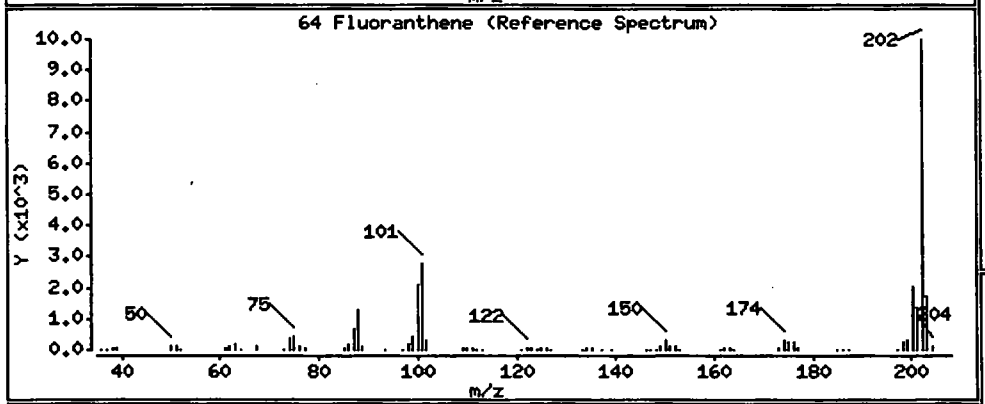
Column diameter: 0.32

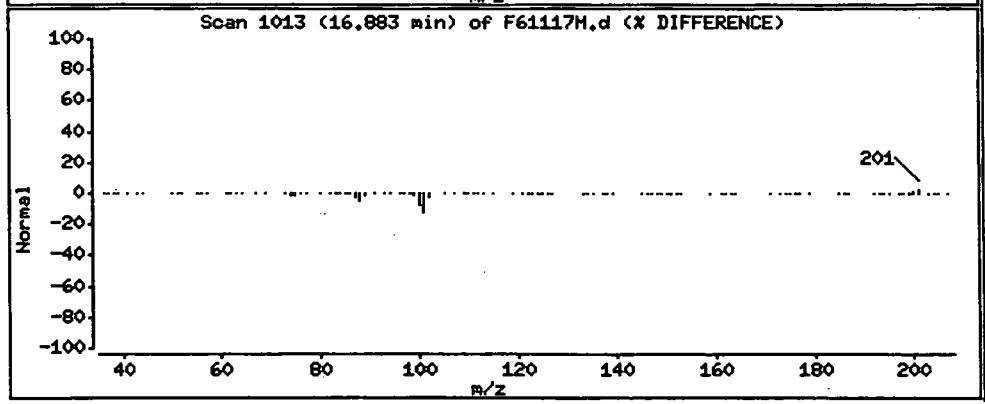
64 Fluoranthene

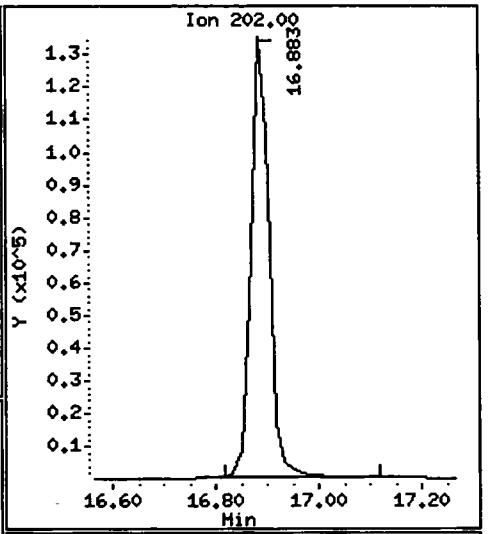
Concentration: 1541.41 ug/Kg

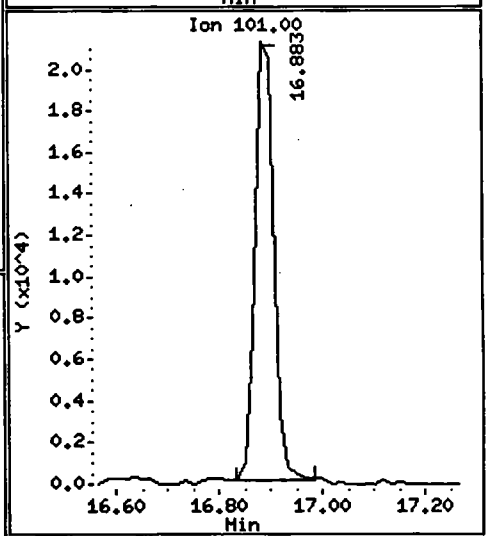


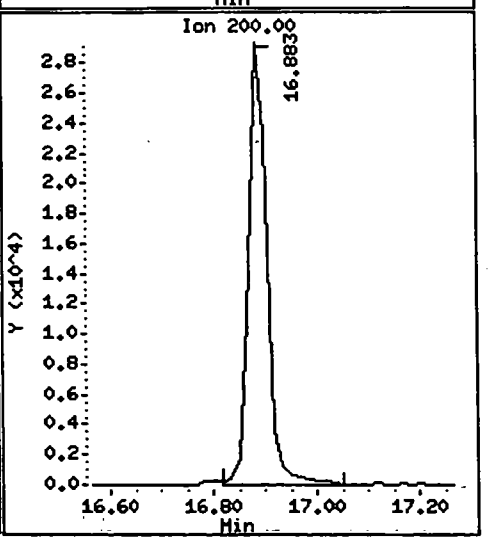












Data File: /var/chem/finn6.i/17NOV97.b/F61117M.d

Date : 18-NOV-97 02:34:00

Client ID: HT1B05

Instrument: finn6.i

Sample Info: U269-E (RETEC # HT1B05)

Volume Injected (uL): 2.0

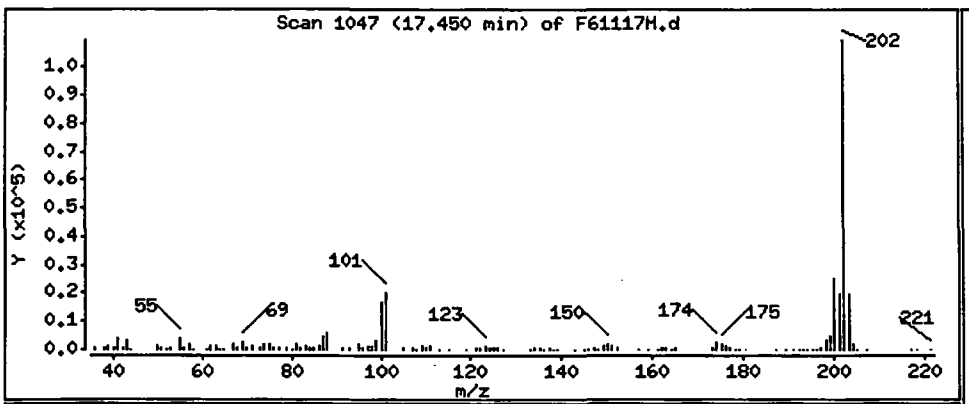
Operator: CH

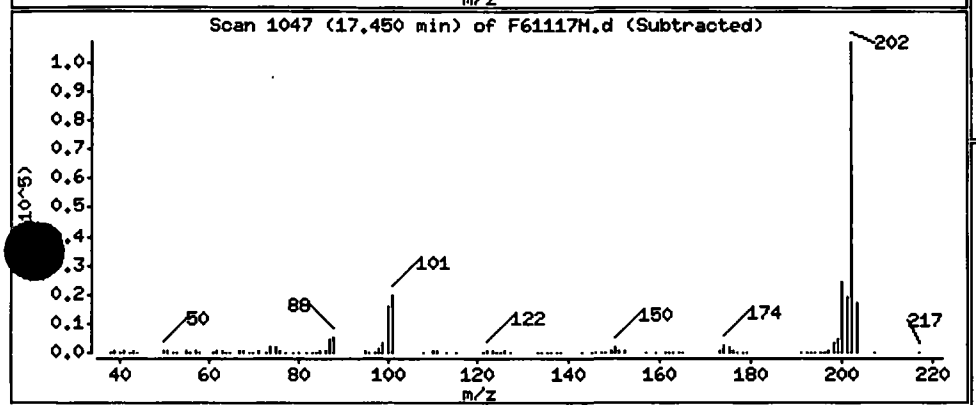
Column phase: RTX-5

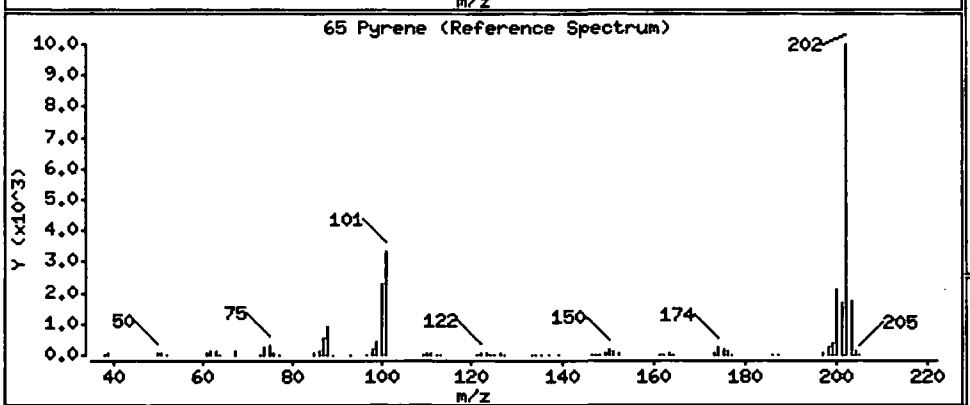
Column diameter: 0.32

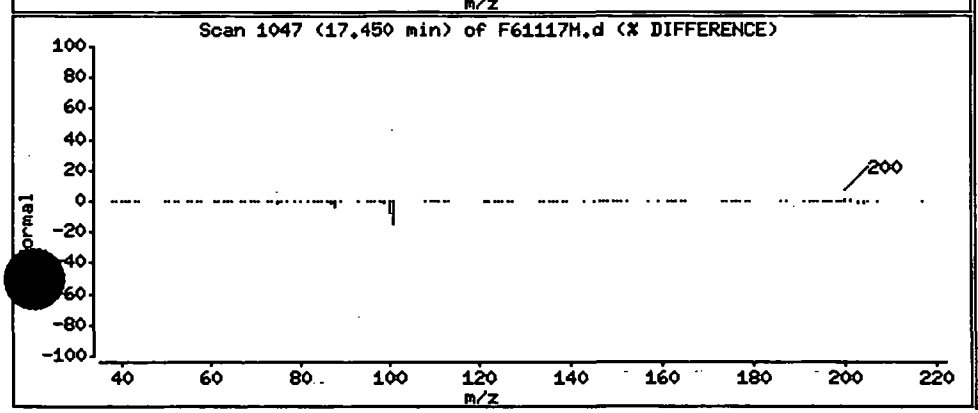
65 Pyrene

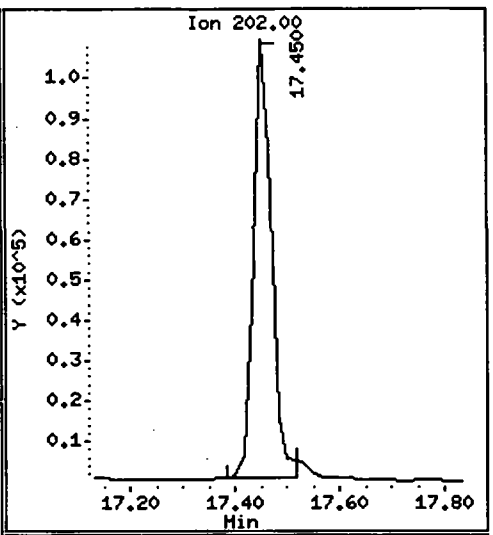
Concentration: 1308.74 ug/Kg

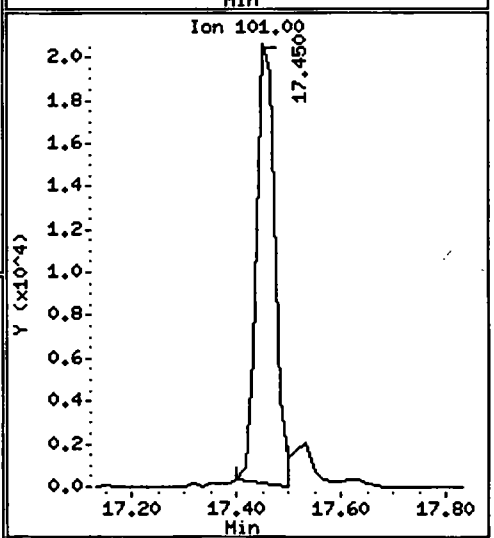


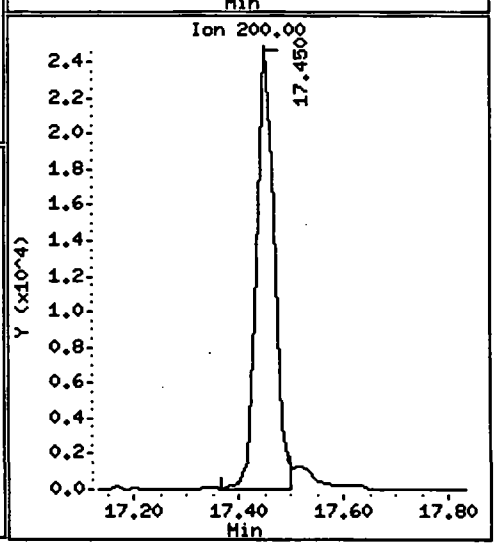












Data File: /var/chem/finn6.i/17NOV97.b/F61117M.d

Date : 18-NOV-97 02:34:00

Client ID: HT1B05

Instrument: finn6.i

Sample Info: U269-E (RETEC # HT1B05)

Volume Injected (uL): 2.0

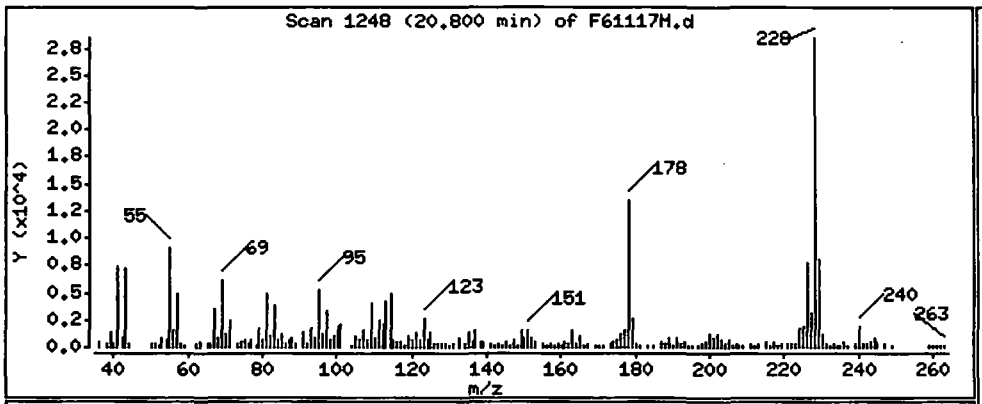
Operator: CM

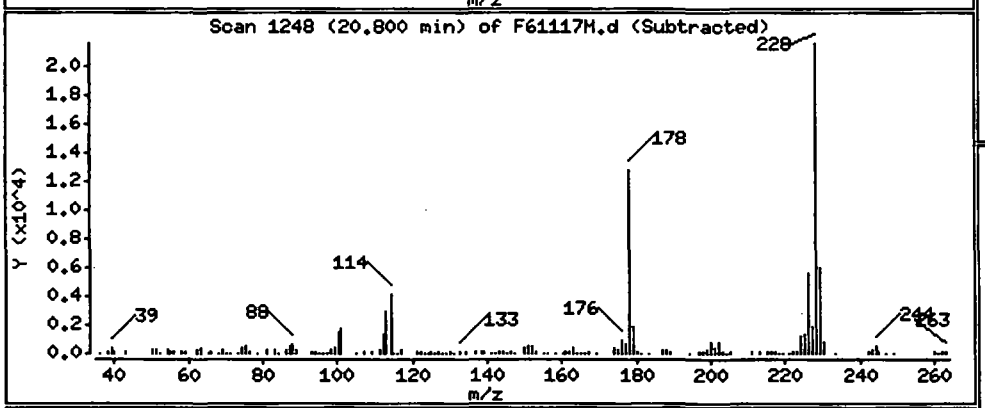
Column phase: RTX-5

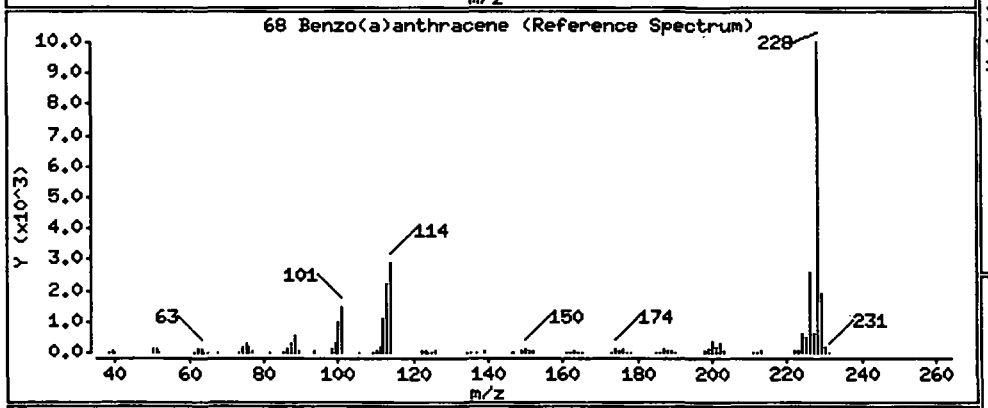
Column diameter: 0.32

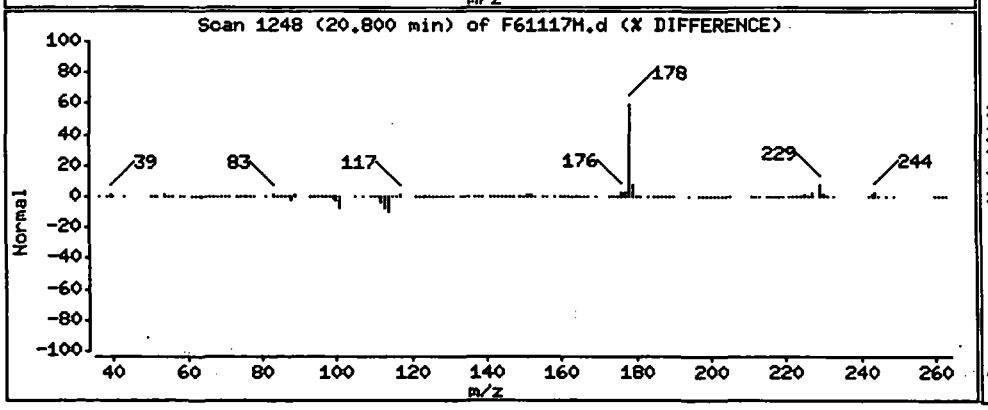
68 Benzo(a)anthracene

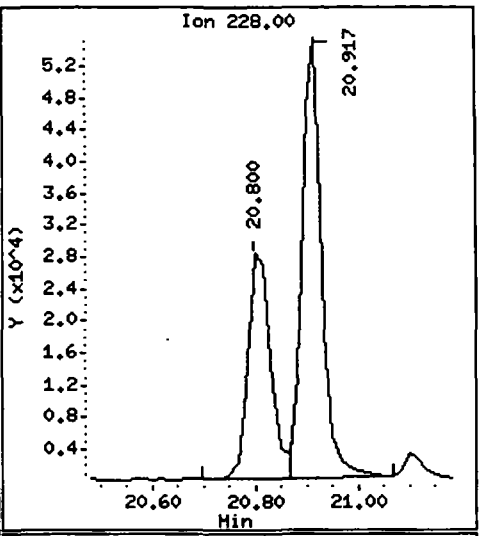
Concentration: 489.43 ug/Kg

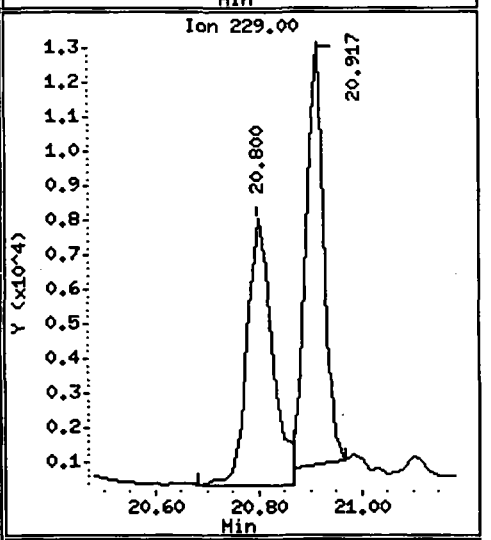


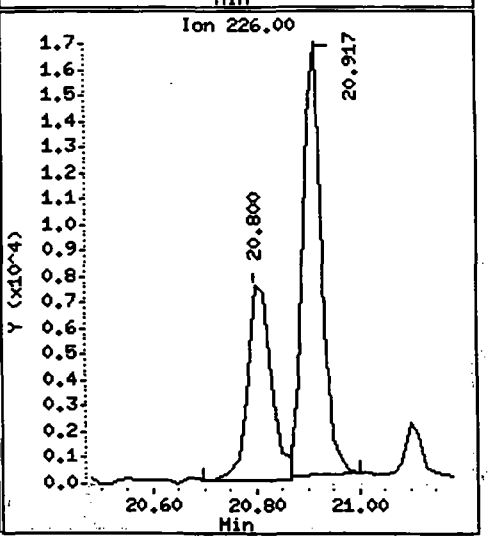












Data File: /var/chem/finn6.i/17NOV97.b/F61117H.d

Date : 18-NOV-97 02:34:00

Client ID: HT1B05

Instrument: finn6.i

Sample Info: U269-E (RETEC # HT1B05)

Volume Injected (uL): 2.0

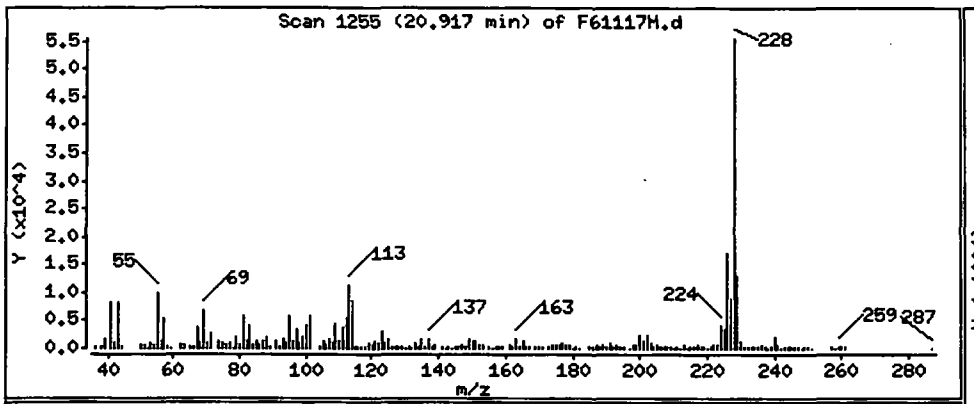
Operator: CH

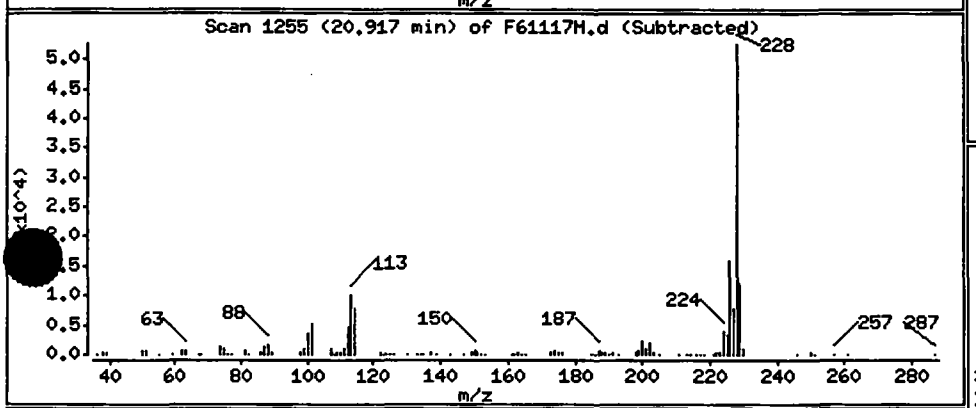
Column phase: RTX-5

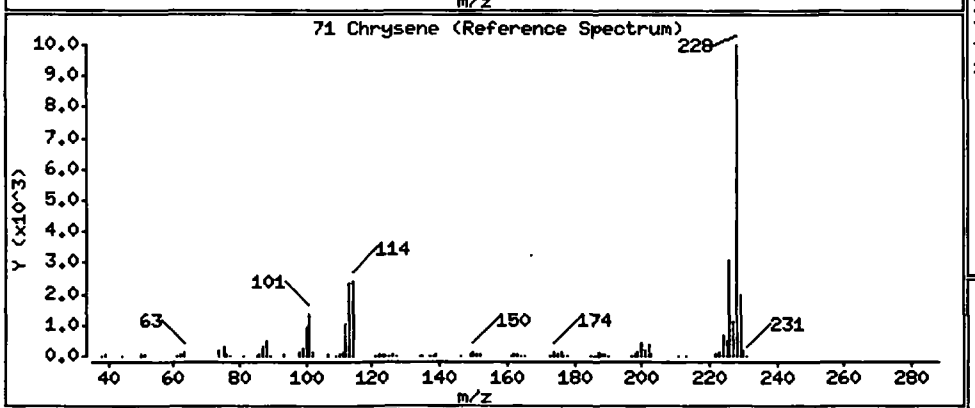
Column diameter: 0.32

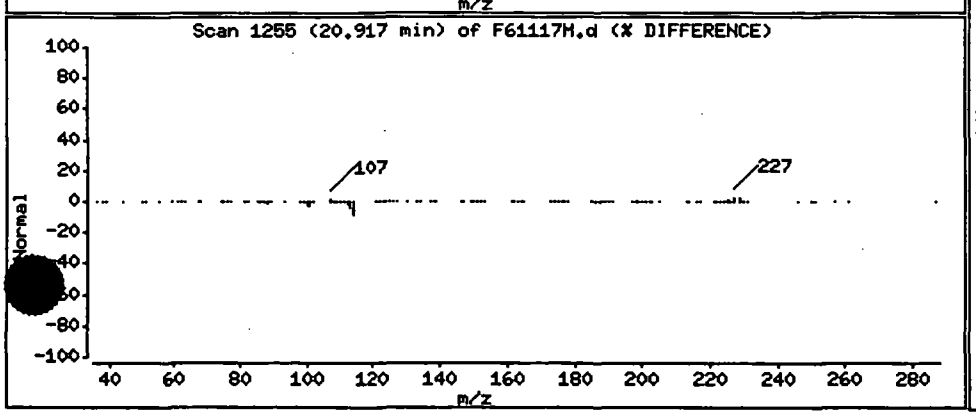
71 Chrysene

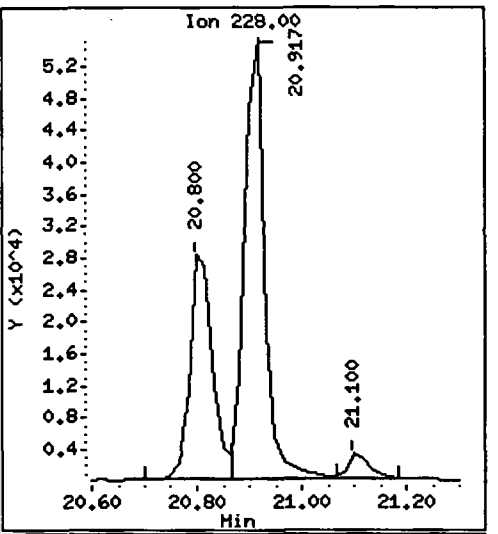
Concentration: 927.49 ug/Kg

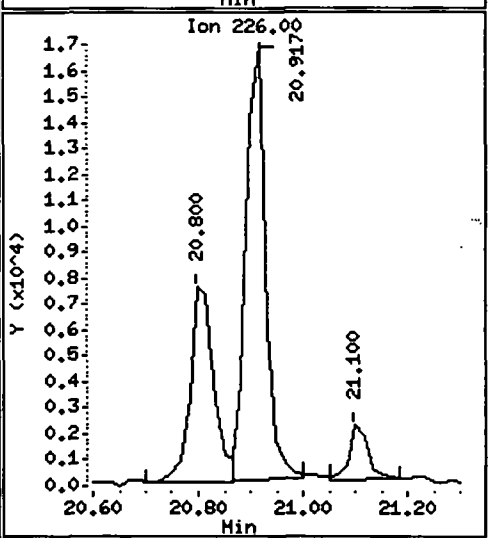


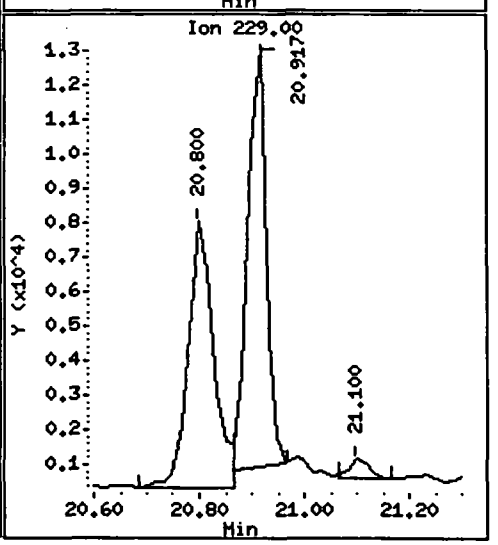












Data File: /var/chem/finn6.i/17NOV97.b/F61117M.d

Date : 18-NOV-97 02:34:00

Client ID: HT1B05

Instrument: finn6.i

Sample Info: U269-E (RETEC # HT1B05)

Volume Injected (uL): 2.0

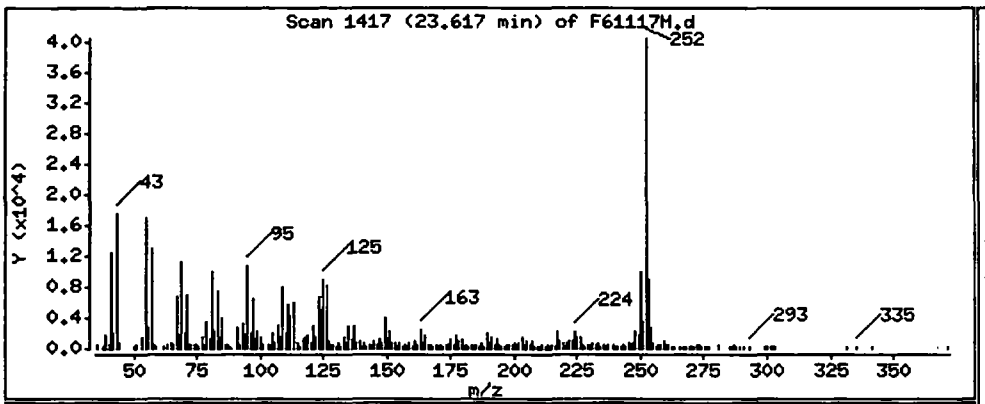
Operator: CM

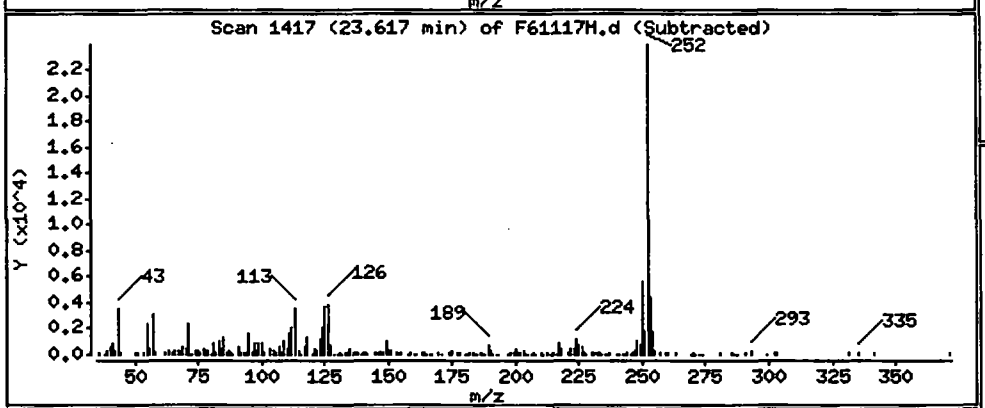
Column phase: RTX-5

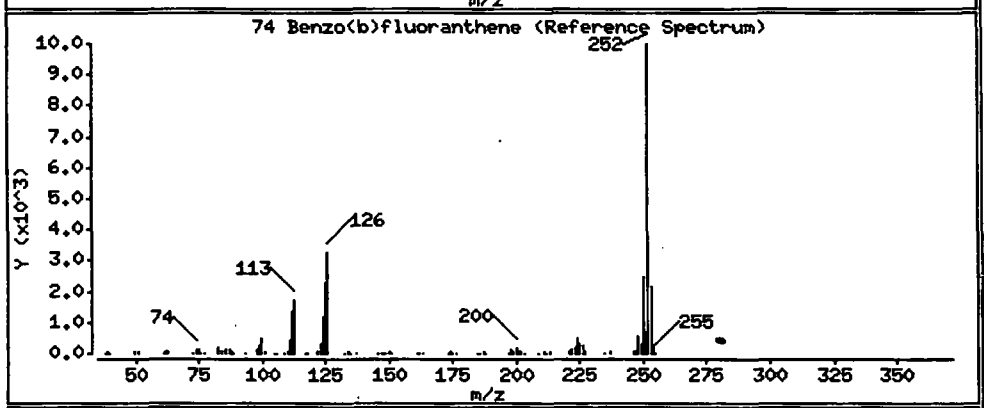
Column diameter: 0.32

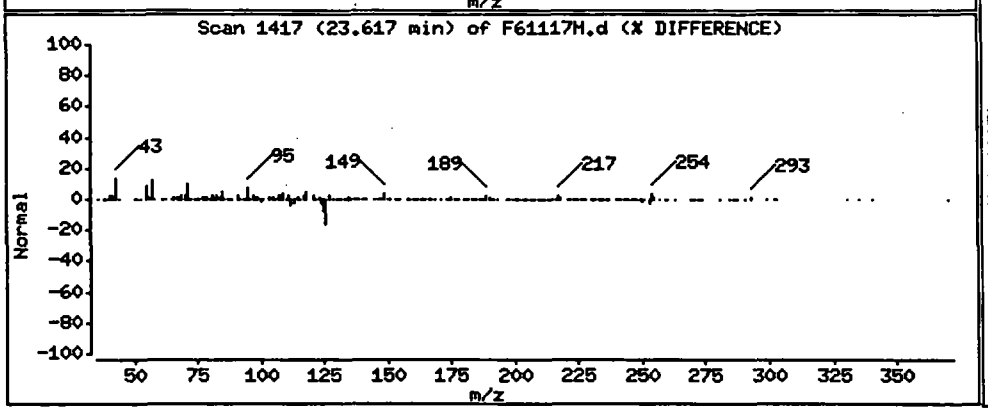
74 Benzo(b)fluoranthene

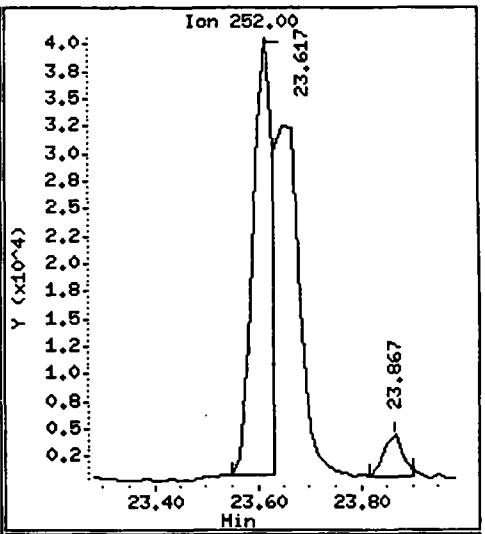
Concentration: 587.05 ug/Kg

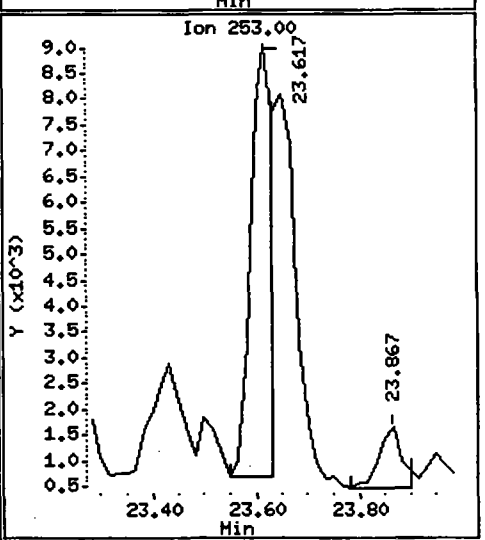


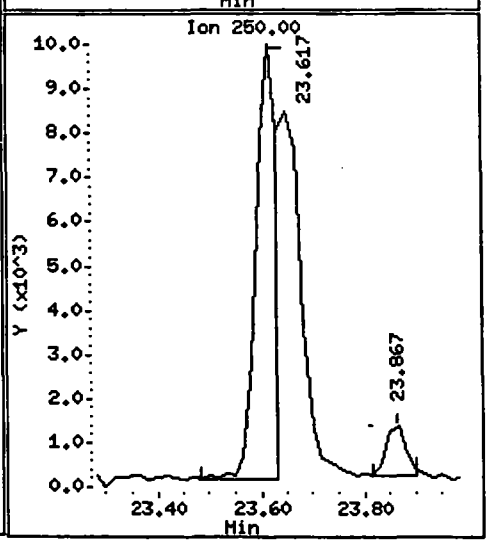












Data File: /var/chem/finn6.i/17NOV97.b/F61117H.d

Date : 18-NOV-97 02:34:00

Client ID: HT1B05

Instrument: finn6.i

Sample Info: U269-E (RETEC # HT1B05)

Volume Injected (uL): 2.0

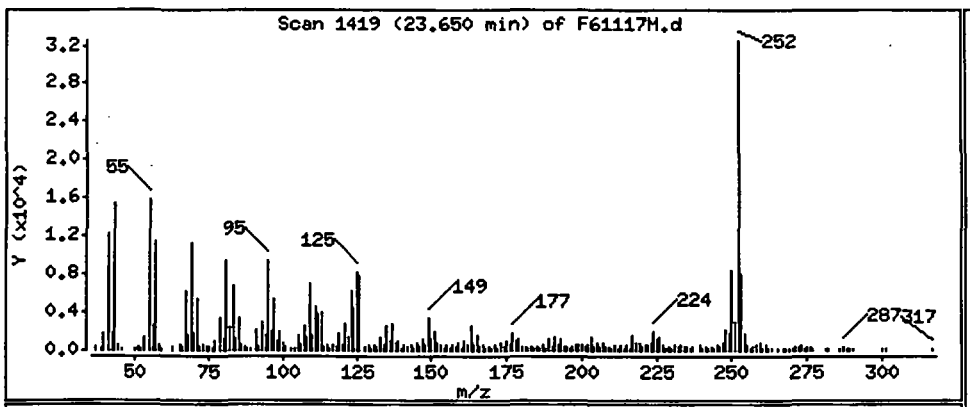
Operator: CM

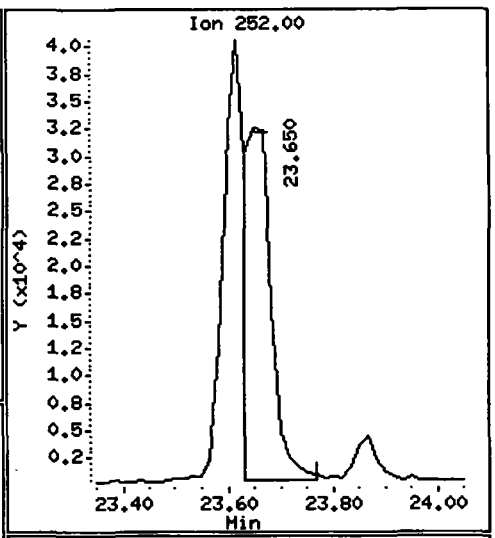
Column phase: RTX-5

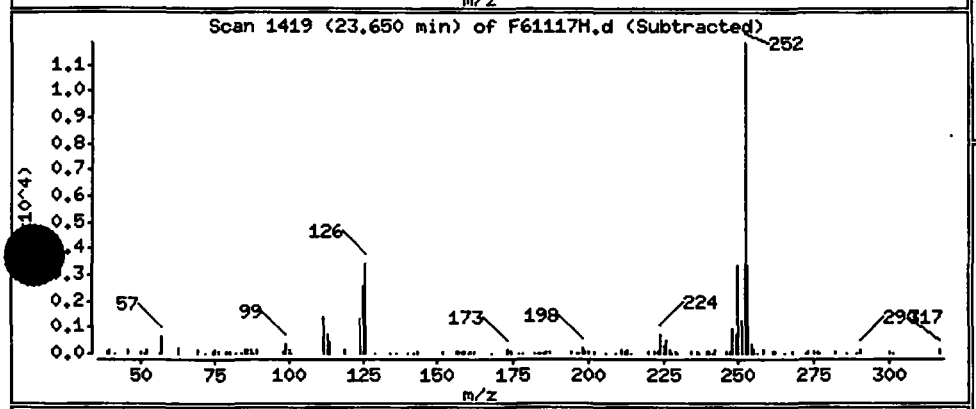
Column diameter: 0.32

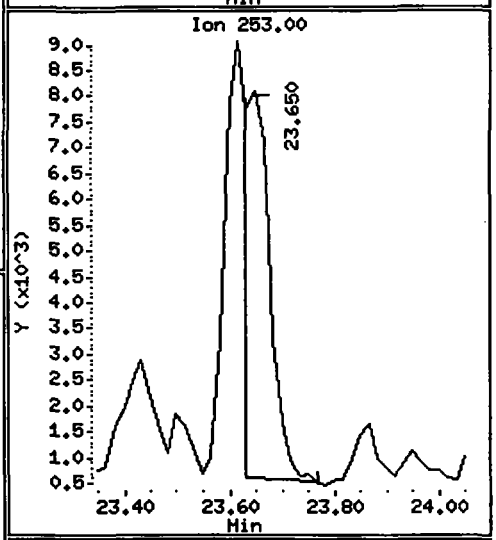
75 Benzo(k)fluoranthene

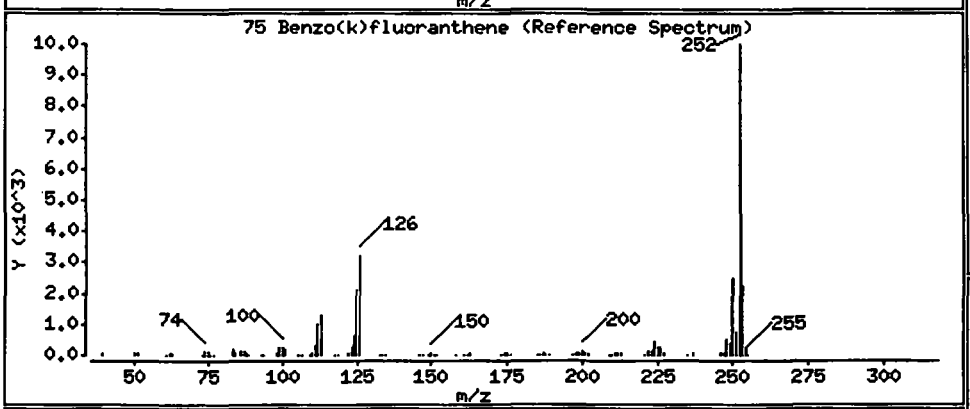
Concentration: 640.78 ug/Kg

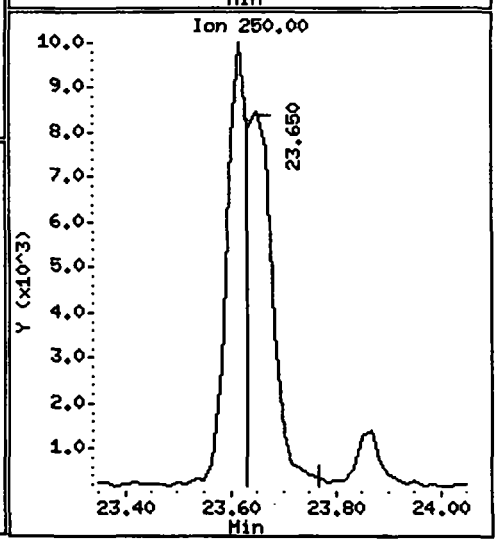


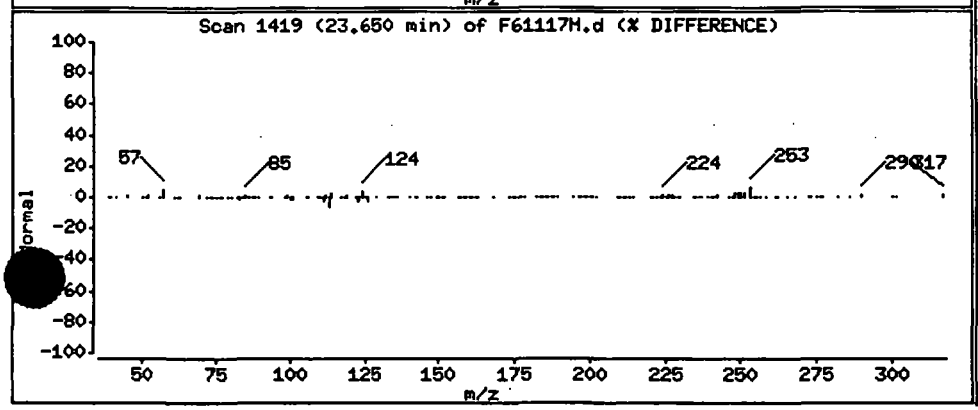












Data File: /var/chem/finn6.i/17NOV97.b/F61117M.d

Date : 18-NOV-97 02:34:00

Client ID: HT1B05

Instrument: finn6.i

Sample Info: U269-E (RETEC # HT1B05)

Volume Injected (uL): 2.0

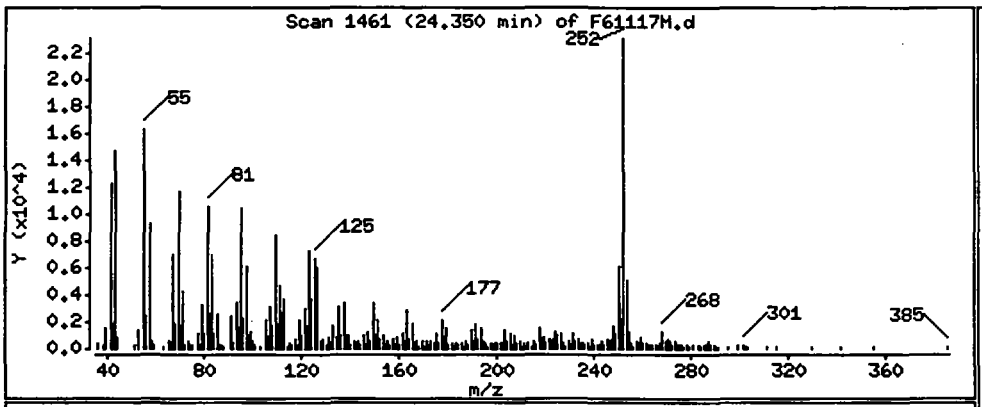
Operator: CH

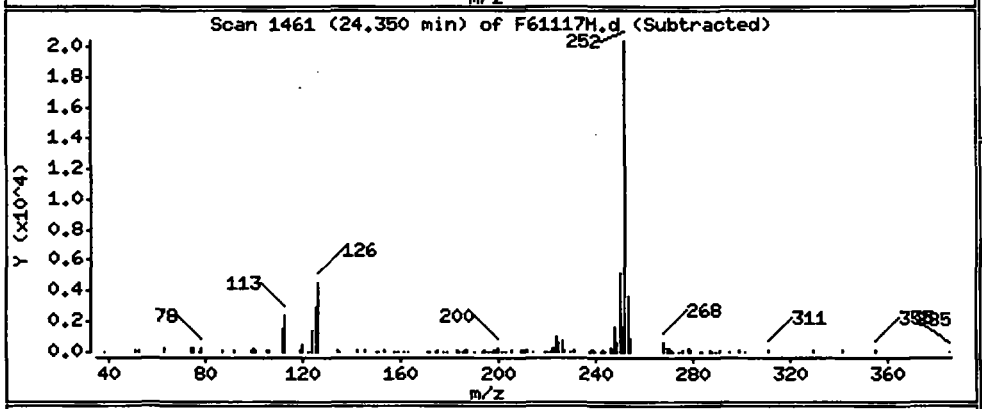
Column phase: RTX-5

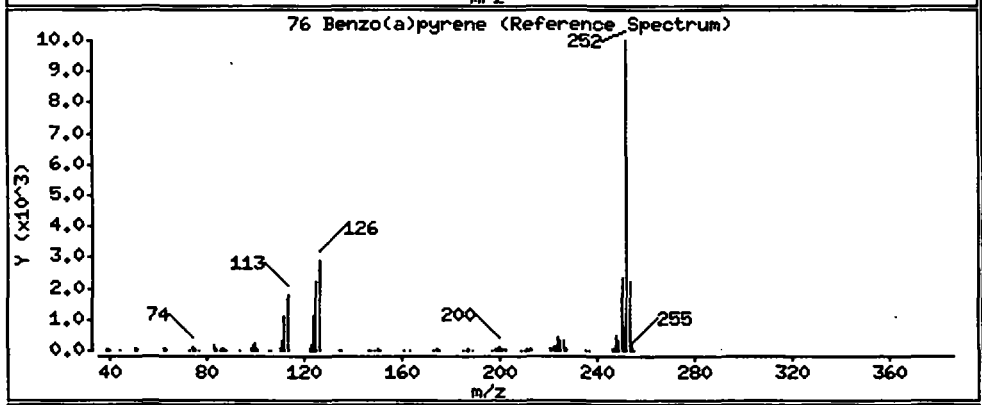
Column diameter: 0.32

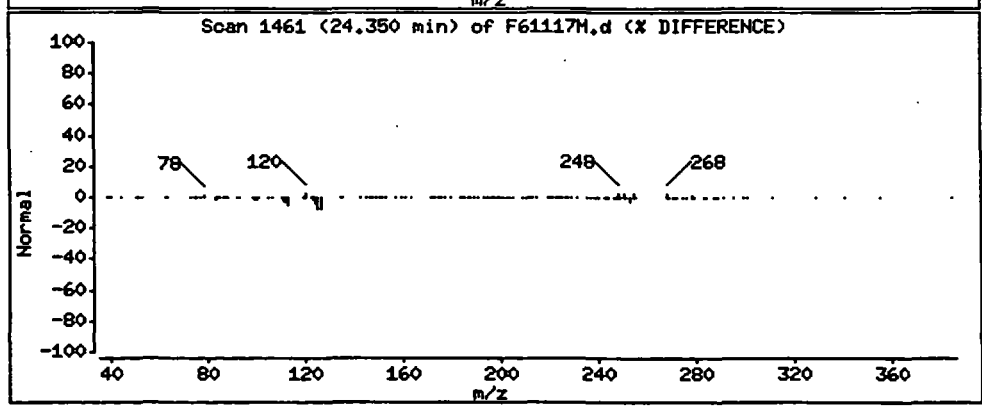
76 Benzo(a)pyrene

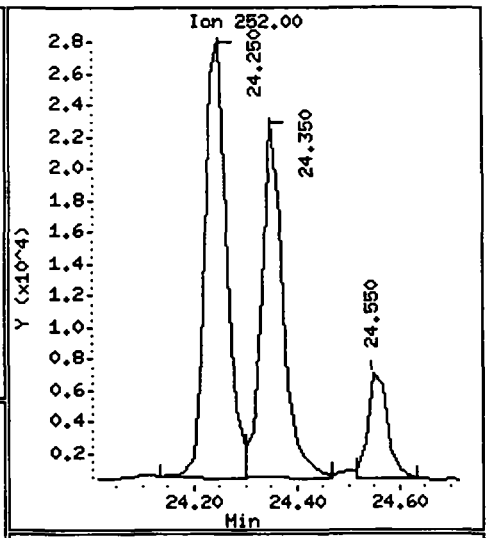
Concentration: 422.20 ug/Kg

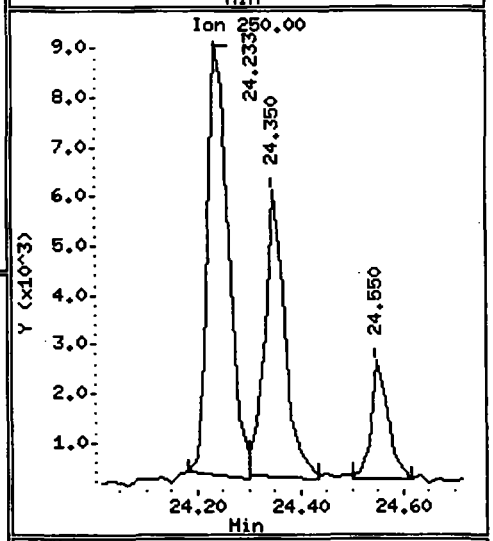


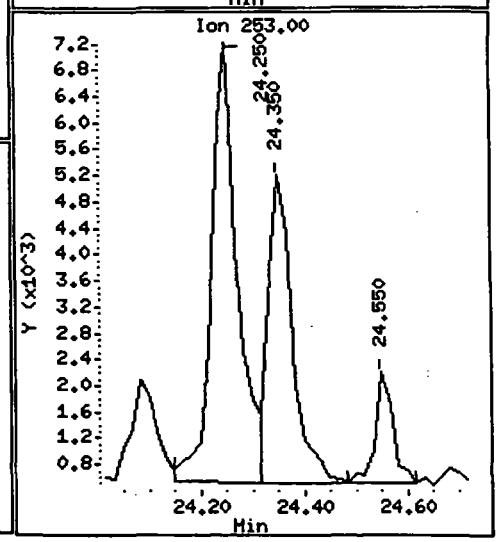












Data File: /var/chem/finn6.i/17NOV97.b/F61117M.d

Date : 18-NOV-97 02:34:00

Client ID: HT1B05

Instrument: finn6.i

Sample Info: U269-E (RETEC # HT1B05)

Volume Injected (uL): 2.0

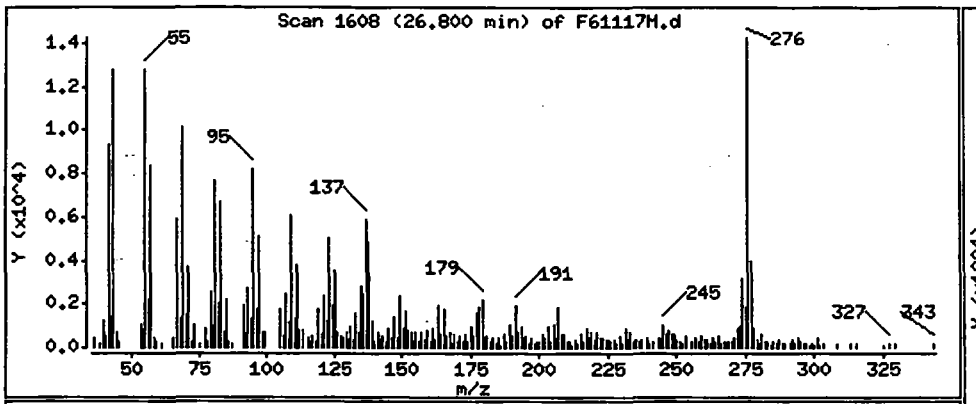
Operator: CM

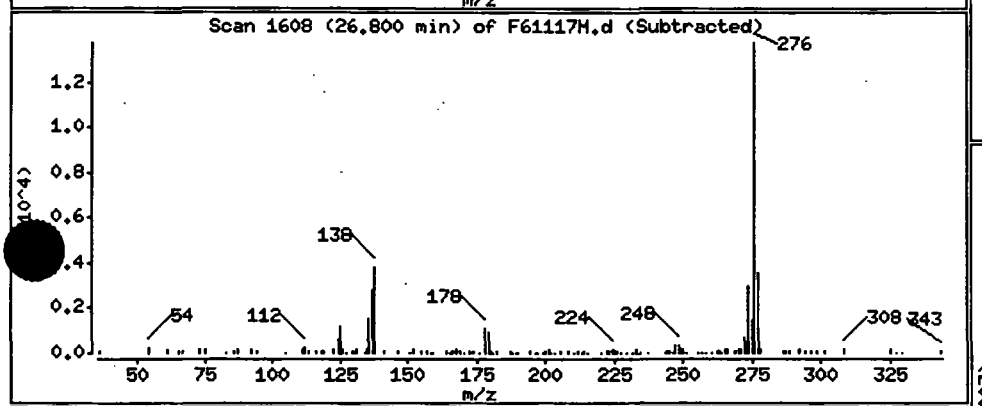
Column phase: RTX-5

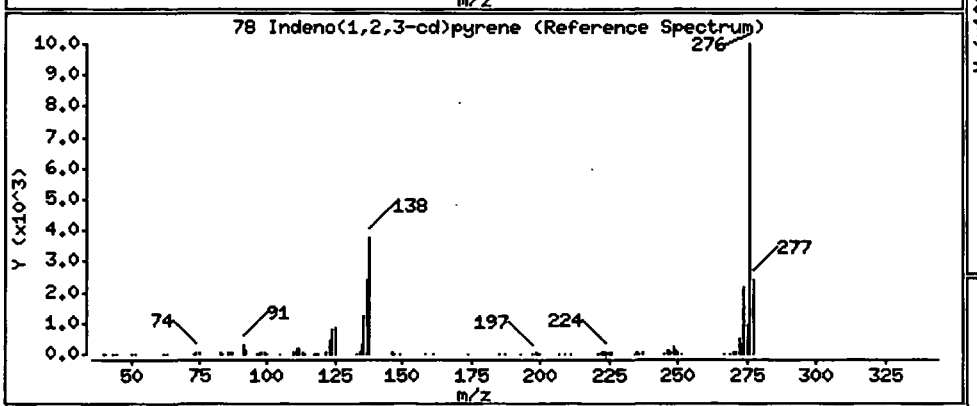
Column diameter: 0.32

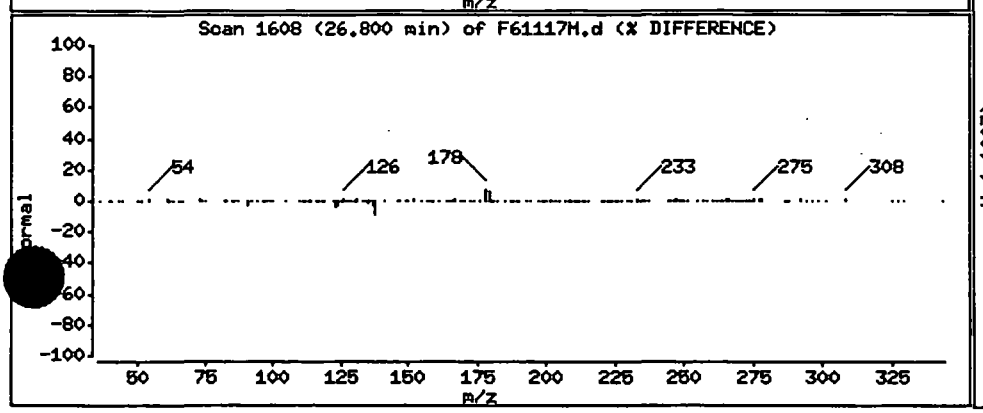
78 Indeno(1,2,3-cd)pyrene

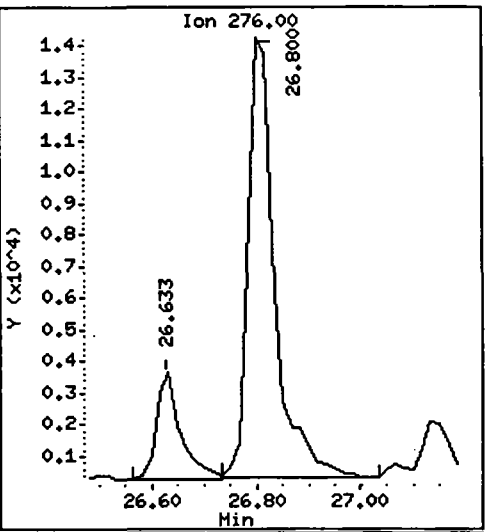
Concentration: 331.53 ug/Kg

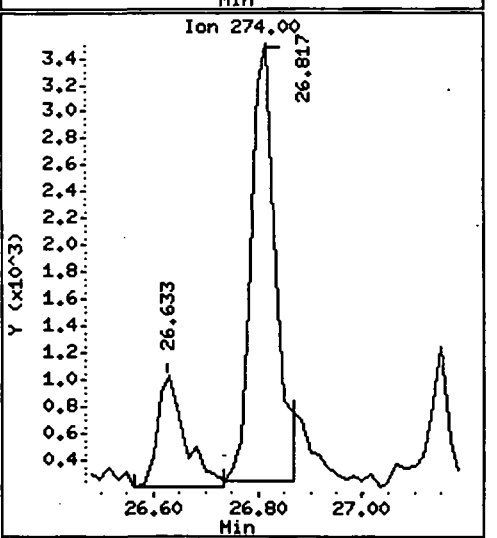


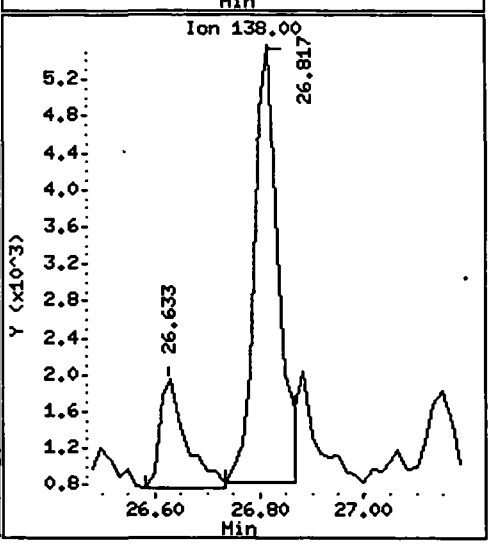












Data File: /var/chem/finn6.i/17NOV97.b/F61117H.d

Date : 18-NOV-97 02:34:00

Client ID: HT1B05

Instrument: finn6.i

Sample Info: U269-E (RETEC # HT1B05)

Volume Injected (uL): 2.0

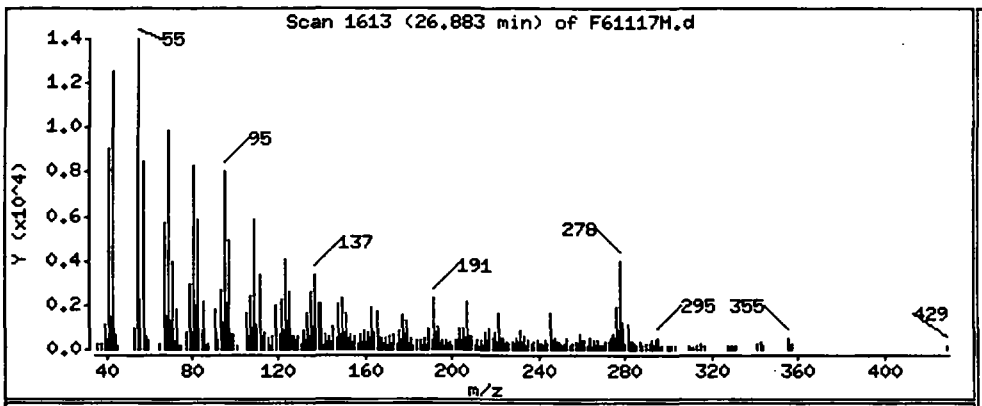
Operator: CM

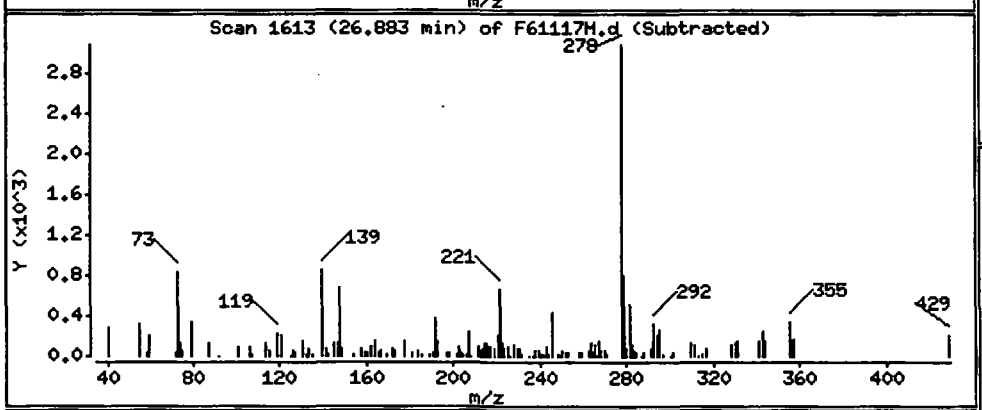
Column phase: RTX-5

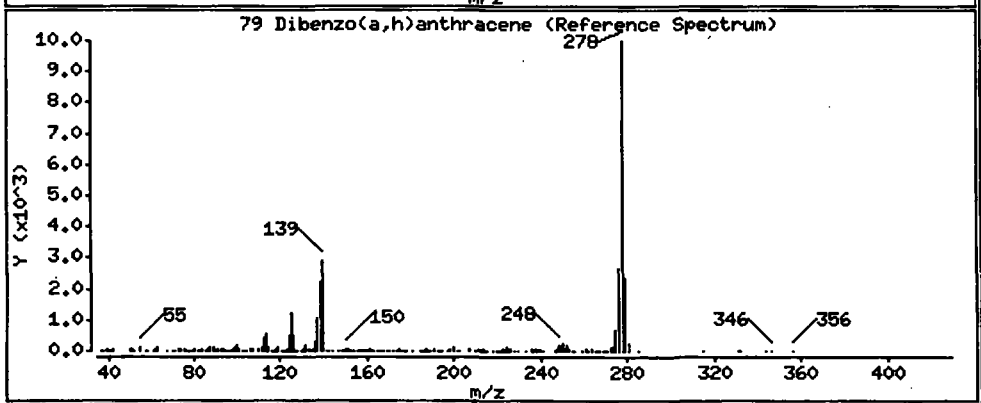
Column diameter: 0.32

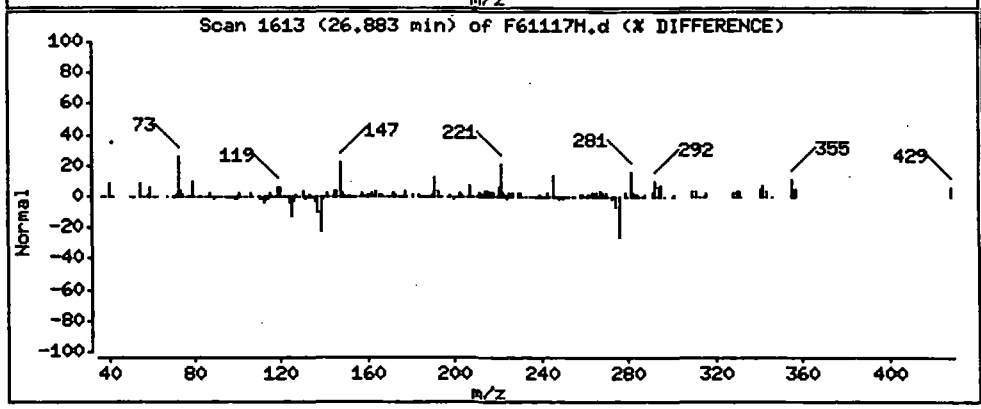
79 Dibenzo(a,h)anthracene

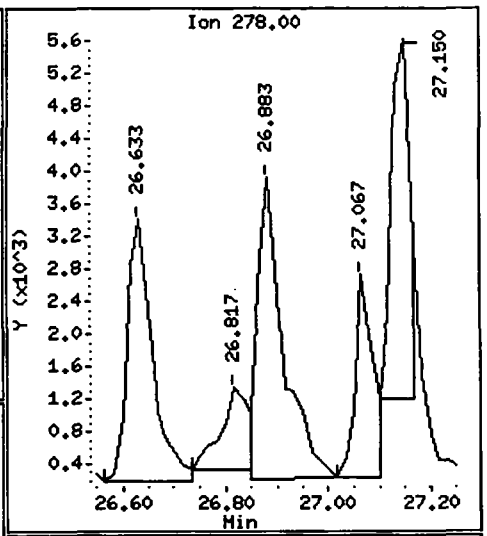
Concentration: 96.32 ug/Kg

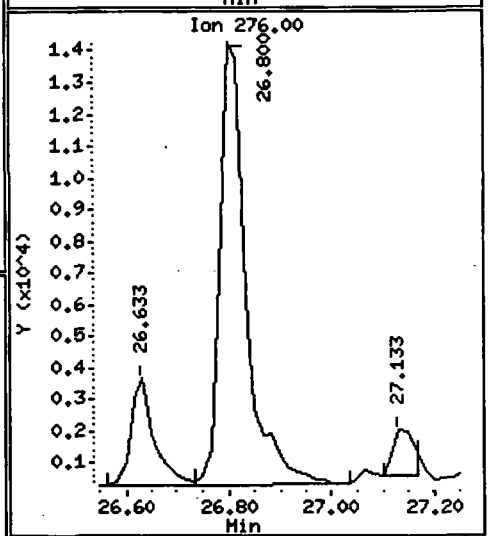


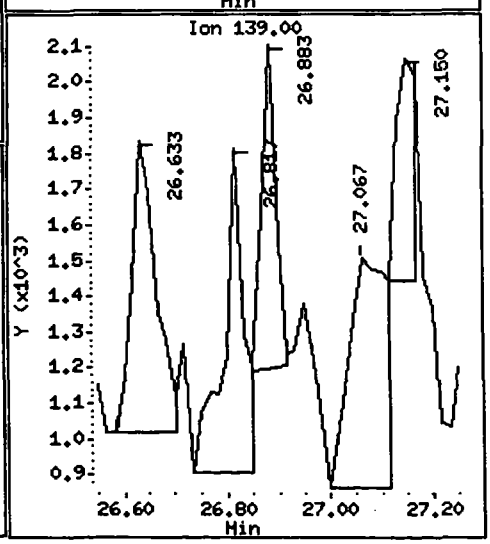












Data File: /var/chem/finn6.i/17NOV97.b/F61117M.d

Date : 18-NOV-97 02:34:00

Client ID: HT1B05

Instrument: finn6.i

Sample Info: U269-E (RETEC # HT1B05)

Volume Injected (uL): 2.0

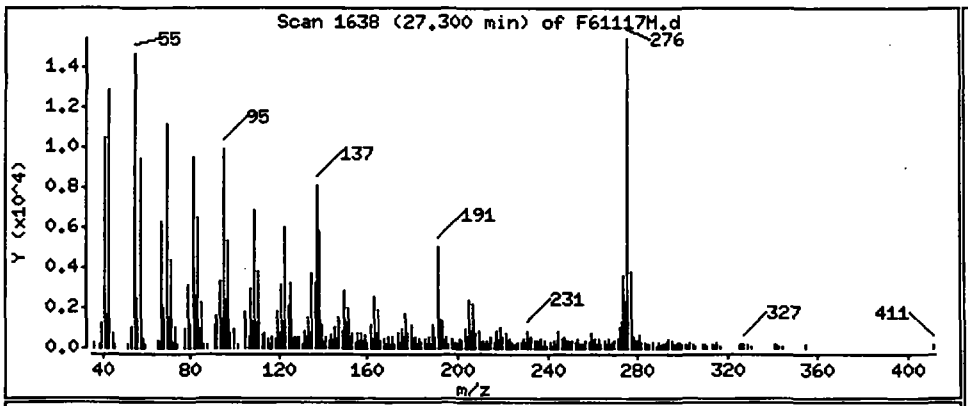
Operator: CH

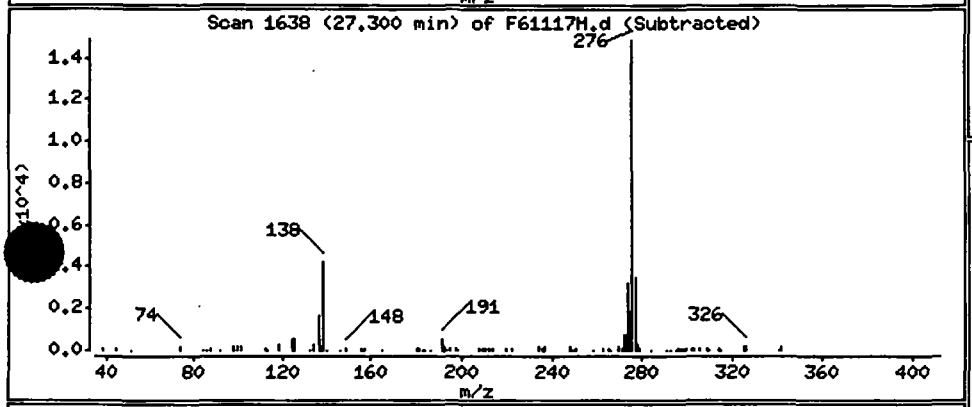
Column phase: RTX-5

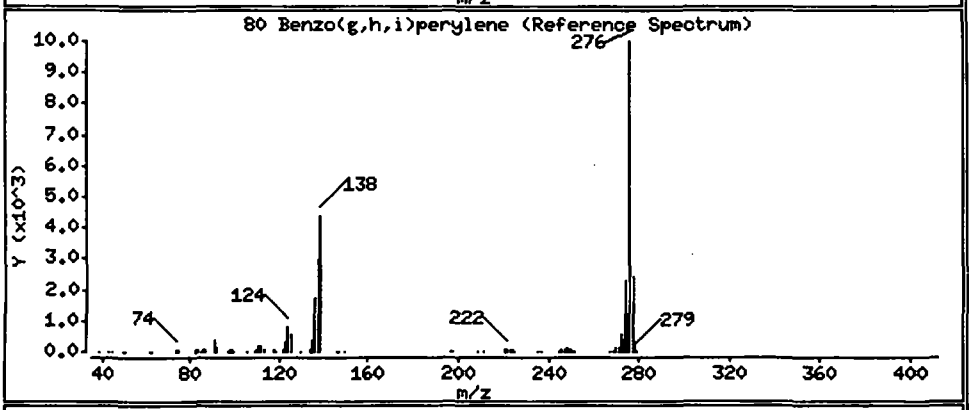
Column diameter: 0.32

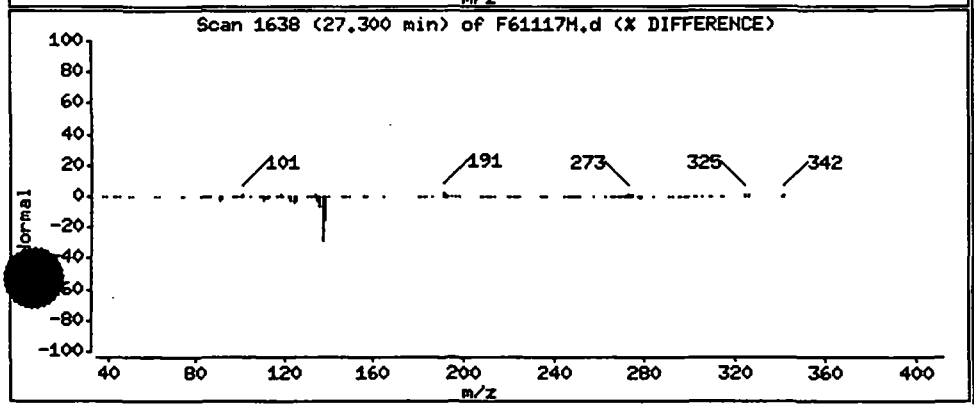
80 Benzo(g,h,i)perylene

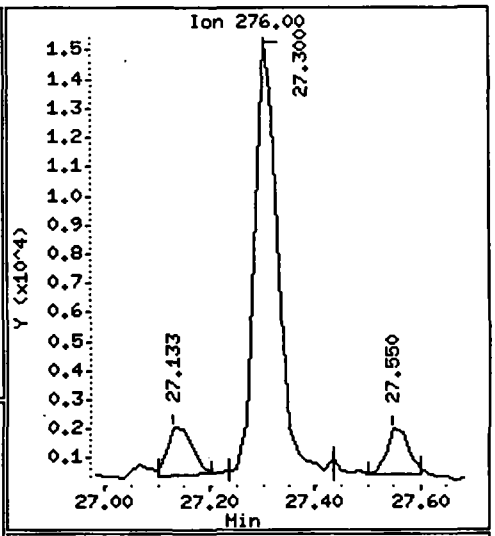
Concentration: 333.67 ug/Kg

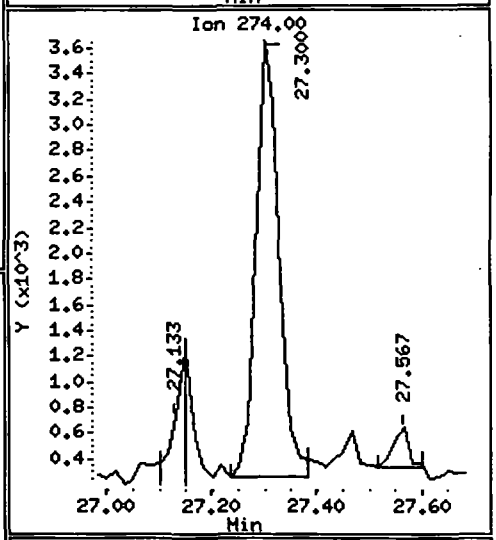


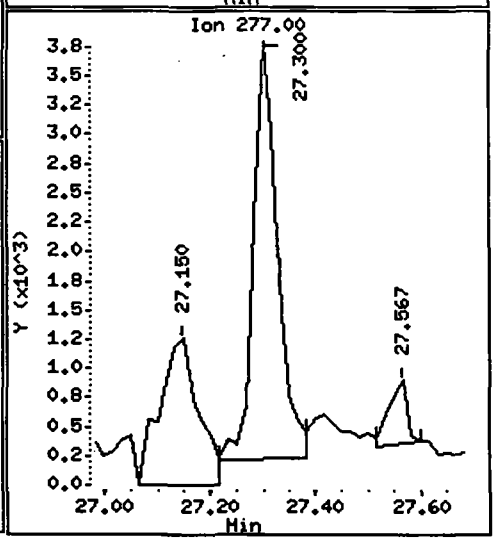












6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC. Contract: 1 2900

Lab Code: U269 Case No.: SDG No.: U269

Instrument ID: FINN6 Calibration Date(s): 11/07/97 11/07/97

Calibration Time(s): 1457 1813

LAB FILE ID: RRF5 =F6051107 RRF10 =F6101107
RRF25 =F6251107 RRF40 =F6401107 RRF80 =F6801107

COMPOUND		RRF5	RRF10	RRF25	RRF40	RRF80	$\overline{RRF}$	%RSD	
Naphthalene	*	1.162	1.125	1.234	1.224	1.119	1.173	4.6*	
2-Methylnaphthalene	*	0.648	0.704	0.757	0.797	0.770	0.735	8.1*	
Acenaphthylene	*	1.786	1.866	1.992	2.046	1.894	1.917	5.4*	
Acenaphthene	*	1.322	1.359	1.419	1.472	1.417	1.398	4.2*	
Dibenzofuran	*	1.581	1.678	1.735	1.769	1.726	1.698	4.3*	
Fluorene	*	1.282	1.333	1.347	1.478	1.399	1.368	5.4*	
Phenanthrene	*	1.189	1.191	1.292	1.395	1.287	1.271	6.7*	
Anthracene	*	1.142	1.161	1.217	1.354	1.254	1.226	6.9*	
Fluoranthene	*	1.113	1.233	1.300	1.481	1.288	1.283	10.4*	
Pyrene	*	1.567	1.518	1.777	1.679	1.563	1.621	6.5*	
Benzo(a)anthracene	*	1.209	1.306	1.375	1.360	1.336	1.317	5.0*	
Chrysene	*	1.182	1.231	1.229	1.231	1.191	1.213	2.0*	
Benzo(b)fluoranthene	*	1.422	1.396	1.524	1.607	1.649	1.520	7.3*	
Benzo(k)fluoranthene	*	1.539	1.428	1.607	1.574	1.478	1.525	4.7*	
Benzo(a)pyrene	*	1.208	1.199	1.286	1.352	1.364	1.282	6.0*	
Indeno(1,2,3-cd)pyrene	*	1.035	0.957	1.131	1.119	1.149	1.078	7.5	
Dibenzo(a,h)anthracene	*	1.015	0.948	1.066	1.102	1.180	1.062	8.2	
Benzo(g,h,i)perylene	*	1.142	1.022	1.143	1.190	1.172	1.134	5.8*	
1-methylnaphthalene									<-
Terphenyl-d14	*	1.144	1.141	1.304	1.289	1.167	1.209	6.7*	
Diphenyl-d10									<-

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-NOV-97 14:57:00
End Cal Date : 07-NOV-97 18:13:00
Quant Method : ISTD
Target Version : 3.30
Integrator : HP RTE
Method file : /var/chem/finn6.i/07NOV97.b/abn.m
Cal Date : 11-Nov-97 12:26:32 charles
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/finn6.i/07NOV97.b/F6051107.d
Level 2: /var/chem/finn6.i/07NOV97.b/F6101107.d
Level 3: /var/chem/finn6.i/07NOV97.b/F6251107.d
Level 4: /var/chem/finn6.i/07NOV97.b/F6401107.d
Level 5: /var/chem/finn6.i/07NOV97.b/F6801107.d

	5	10	25	40	80	___		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD	
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
113 Phenyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
[illegible] Azobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
108 4,5,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
107 4,5-Dichloro-2-Methoxyphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
105 1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
3 Phenol	1.30343	1.51064	1.52034	1.65969	1.54785	1.50839	8.555	
4 Bis(2-Chloroethyl)ether	1.08457	1.15602	1.19130	1.24245	1.29279	1.19343	6.694	
6 2-Chlorophenol	1.21658	1.36553	1.34565	1.39106	1.40044	1.34385	5.531	
7 1,3-Dichlorobenzene	1.41012	1.51719	1.54661	1.56969	1.53210	1.51514	4.080	
9 1,4-Dichlorobenzene	1.57639	1.56549	1.71142	1.74588	1.65582	1.65100	4.841	
11 Benzyl alcohol	0.43392	0.58644	0.63492	0.69412	0.73567	0.61702	18.971	
12 1,2-Dichlorobenzene	1.32616	1.46200	1.51507	1.61102	1.57658	1.49817	7.468	
13 2-Methylphenol	0.91634	1.05055	1.07347	1.12647	1.13042	1.05945	8.213	
14 2,2'-oxybis(1-Chloropropane)	2.56820	2.76334	2.71574	2.95810	2.82169	2.76541	5.167	
15 4-Methylphenol	0.93922	1.07859	1.07784	1.13198	1.21770	1.08907	9.305	
16 N-Nitroso-di-n-propylamine	0.87436	0.94822	0.97224	1.05720	1.01064	0.97253	7.059	
17 Hexachloroethane	0.50485	0.55246	0.60739	0.66049	0.63726	0.59249	10.719	
19 Nitrobenzene	0.37168	0.44436	0.44792	0.44221	0.40181	0.42159	7.972	
20 Isophorone	0.67545	0.68997	0.74434	0.77044	0.74864	0.72577	5.629	
21 2-Nitrophenol	0.14101	0.17764	0.19901	0.20733	0.19914	0.18482	14.528	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-NOV-97 14:57:00
End Cal Date : 07-NOV-97 18:13:00
Quant Method : ISTD
Target Version : 3.30
Integrator : HP RTE
Method file : /var/chem/finn6.i/07NOV97.b/abn.m
Cal Date : 11-Nov-97 12:26:32 charles
Curve Type : Average

Compound	5 Level 1	10 Level 2	25 Level 3	40 Level 4	80 Level 5	___ RRF	% RSD
22 2,4-Dimethyphenol	0.32629	0.35667	0.38064	0.39546	0.37936	0.36768	7.336
23 Bis(2-Chloroethoxy)methane	0.44549	0.45157	0.49015	0.50794	0.48831	0.47669	5.646
24 Benzoic acid	0.09424	0.12412	0.19518	0.21324	0.23088	0.17153	34.543
25 2,4-Dichlorophenol	0.27393	0.31470	0.34901	0.35846	0.35547	0.33031	10.912
26 1,2,4-Trichlorobenzene	0.39318	0.39756	0.43311	0.43207	0.40337	0.41186	4.678
28 Naphthalene	1.16227	1.12542	1.23443	1.22366	1.11864	1.17288	4.606
29 4-Chloroaniline	0.34850	0.39177	0.43801	0.46869	0.48479	0.42635	13.164
30 Hexachlorobutadiene	0.23042	0.23289	0.25881	0.25319	0.24225	0.24351	5.085
31 4-Chloro-3-methylphenol	0.23352	0.28950	0.31997	0.35820	0.36401	0.31304	17.175
32 2-Methylnaphthalene	0.64790	0.70444	0.75664	0.79682	0.77057	0.73527	8.068
33 Hexachlorocyclopentadiene	0.31852	0.36279	0.47102	0.46355	0.47539	0.41825	17.374
34 2,4,6-Trichlorophenol	0.37903	0.39899	0.42903	0.45641	0.46209	0.42511	8.455
35 2,4,5-Trichlorophenol	0.39030	0.39009	0.47536	0.49827	0.48701	0.44821	11.953
37 2-Chloronaphthalene	1.22640	1.18622	1.23123	1.26425	1.25399	1.23242	2.451
38 2-Nitroaniline	0.29009	0.31578	0.34575	0.39659	0.42104	0.35385	15.428
39 Dimethylphthalate	1.36431	1.38255	1.45665	1.51313	1.45805	1.43494	4.246
40 Acenaphthylene	1.78650	1.86645	1.99189	2.04563	1.89433	1.91696	5.362
41 2,6-Dinitrotoluene	0.21523	0.24756	0.28391	0.31075	0.29978	0.27145	14.544
43 3-Nitroaniline	0.17107	0.21550	0.25451	0.29287	0.32750	0.25229	24.480
44 Acenaphthene	1.32252	1.35888	1.41933	1.47180	1.41741	1.39799	4.156
45 2,4-Dinitrophenol	0.01799	0.06131	0.10038	0.13841	0.14501	0.09262	57.770
46 Dibenzofuran	1.58136	1.67805	1.73538	1.76919	1.72572	1.69794	4.291
47 4-Nitrophenol	0.05133	0.08195	0.11780	0.12550	0.15120	0.10556	37.082
48 2,4-Dinitrotoluene	0.24675	0.32169	0.33598	0.40481	0.38548	0.33894	18.253
49 Fluorene	1.28246	1.33284	1.34742	1.47758	1.39924	1.36791	5.417
50 Diethylphthalate	1.38294	1.42599	1.44498	1.56260	1.49470	1.46224	4.717
51 4-Chlorophenyl-phenylether	0.67048	0.69907	0.71071	0.76686	0.71356	0.71214	4.917
52 4-Nitroaniline	0.09930	0.15789	0.19769	0.24301	0.26218	0.19202	34.266
53 4,6-Dinitro-2-methylphenol	0.04990	0.07937	0.10516	0.12544	0.13178	0.09833	34.509
54 N-Nitrosodiphenylamine	0.52001	0.55207	0.57537	0.58235	0.58476	0.56291	4.840
56 4-Bromophenyl-phenylether	0.24092	0.24816	0.27609	0.28859	0.29012	0.26878	8.530
57 Hexachlorobenzene	0.28073	0.30107	0.31661	0.33886	0.32469	0.31239	7.158

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-NOV-97 14:57:00
End Cal Date : 07-NOV-97 18:13:00
Quant Method : ISTD
Target Version : 3.30
Integrator : HP RTE
Method file : /var/chem/finn6.i/07NOV97.b/abn.m
Cal Date : 11-Nov-97 12:26:32 charles
Curve Type : Average

	Compound	5 Level 1	10 Level 2	25 Level 3	40 Level 4	80 Level 5	RRF	% RSD	
58	Pentachlorophenol	0.08396	0.11597	0.15152	0.17336	0.18726	0.14242	29.723	<-
60	Phenanthrene	1.18912	1.19071	1.29254	1.39474	1.28711	1.27084	6.721	
61	Anthracene	1.14245	1.16076	1.21750	1.35370	1.25431	1.22574	6.876	
62	Carbazole	0.76351	0.86032	0.88518	1.00523	1.00224	0.90329	11.330	
63	Di-n-butylphthalate	1.26511	1.30551	1.47667	1.63425	1.34525	1.40536	10.717	
64	Fluoranthene	1.11278	1.23318	1.29990	1.48114	1.28831	1.28306	10.386	
65	Pyrene	1.56690	1.51829	1.77724	1.67884	1.56300	1.62086	6.514	
67	Butylbenzylphthalate	0.60543	0.58957	0.76850	0.76181	0.74308	0.69368	12.754	
68	Benzo(a)anthracene	1.20936	1.30626	1.37533	1.35968	1.33632	1.31739	4.992	
70	3,3'-Dichlorobenzidine	0.30566	0.34193	0.36131	0.39392	0.43600	0.36776	13.532	
[illegible]	Chrysene	1.18154	1.23120	1.22926	1.23147	1.19116	1.21293	2.021	
72	bis(2-Ethylhexyl)phthalate	0.93585	0.95502	1.19528	1.14953	1.13415	1.07396	11.142	
73	Di-n-octylphthalate	1.75894	1.73159	2.28870	2.24401	1.96835	1.99832	13.098	
74	Benzo(b)fluoranthene	1.42183	1.39577	1.52377	1.60675	1.64946	1.51952	7.311	
75	Benzo(k)fluoranthene	1.53930	1.42787	1.60692	1.57430	1.47849	1.52538	4.744	
76	Benzo(a)pyrene	1.20810	1.19883	1.28647	1.35191	1.36394	1.28185	6.043	
78	Indeno(1,2,3-cd)pyrene	1.03470	0.95677	1.13075	1.11914	1.14938	1.07815	7.498	
79	Dibenzo(a,h)anthracene	1.01493	0.94858	1.06578	1.10186	1.17983	1.06220	8.230	
80	Benzo(g,h,i)perylene	1.14258	1.02161	1.14346	1.19044	1.17254	1.13413	5.826	
90	N-Nitrosodimethylamine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
91	Aniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
92	1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
93	Benzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
96	p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
97	Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
98	Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
99	Perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
100	3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
101	Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
102	beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
103	Pyridine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-NOV-97 14:57:00
End Cal Date : 07-NOV-97 18:13:00
Quant Method : ISTD
Target Version : 3.30
Integrator : HP RTE
Method file : /var/chem/finn6.i/07NOV97.b/abn.m
Cal Date : 11-Nov-97 12:26:32 charles
Curve Type : Average

	Compound	5 Level 1	10 Level 2	25 Level 3	40 Level 4	80 Level 5	RRF	% RSD	
$	1 2-Fluorophenol	0.91891	1.06972	1.13285	1.20631	1.12422	1.09040	9.858	
$	2 Phenol-d5	1.36541	1.48595	1.57450	1.66480	1.59107	1.53635	7.472	
$	5 2-Chlorophenol-d4	1.08306	1.28947	1.28123	1.38839	1.33847	1.27612	9.102	
$	10 1,2-Dichlorobenzene-d4	0.82207	0.94972	0.99018	1.05018	0.95183	0.95280	8.778	
$	18 Nitrobenzene-d5	0.38454	0.42081	0.42344	0.45924	0.42490	0.42259	6.261	
$	36 2-Fluorobiphenyl	1.36540	1.41199	1.46942	1.51566	1.37701	1.42790	4.453	
$	55 2,4,6-Tribromophenol	0.13019	0.16354	0.17942	0.19861	0.19595	0.17354	16.156	
$	66 Terphenyl-d14	1.14358	1.14119	1.30434	1.28933	1.16735	1.20916	6.688	
$	85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
$	86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
$	87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
$	88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
$	89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
$	95 D10-1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-

Data File: /var/chem/finn6.i/07NOV97.b/F6DF1107.d

Date : 07-NOV-97 14:32:00

Client ID:

Instrument: finn6.i

Sample Info: ICAL=11/07/97 FINN6 ARI INC 2UL INJ.

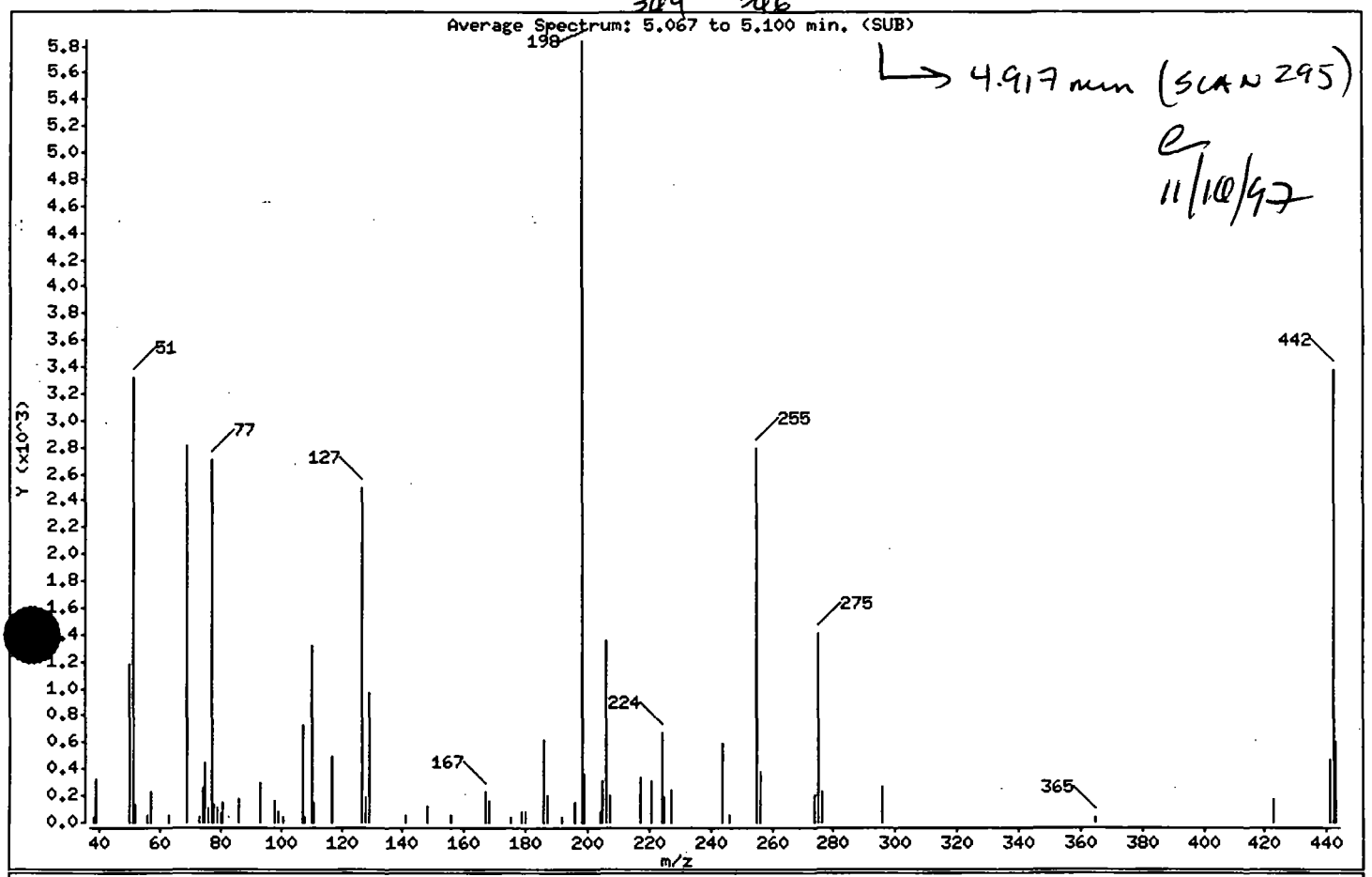
Operator: cm

Column phase:

Column diameter: 2.00

1 dftpp

SCAN 304 SCAN 306



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	56.77
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	47.95
70	Less than 2.00% of mass 69	0.00 (0.00)
127	25.00 - 75.00% of mass 198	42.82
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.16
275	10.00 - 30.00% of mass 198	24.09
365	Greater than 0.75% of mass 198	0.79
441	Present, but less than mass 443	8.16
442	40.00 - 110.00% of mass 198	57.76
443	15.00 - 24.00% of mass 442	10.45 (18.09)

Data File: /var/chem/finn6.i/07NOV97.b/F6DF1107.d

Date : 07-NOV-97 14:32:00

Client ID:

Instrument: finn6.i

Sample Info: ICAL=11/07/97 FINN6 ARI INC 2UL INJ.

Operator: cm

Column phase:

Column diameter: 2.00

Data File: F6DF1107.d
Spectrum: Average Spectrum: 5.067 to 5.100 min. (SUB)
Location of Maximum: 198.00
Number of points: 67

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	44	81.00	144	167.00	231	224.00	672
39.00	322	86.00	180	168.00	159	225.00	183
50.00	1180	93.00	300	175.00	40	227.00	248
51.00	3320	98.00	156	179.00	76	244.00	588
52.00	132	99.00	82	180.00	86	246.00	48
56.00	52	101.00	45	186.00	619	255.00	2794
57.00	229	107.00	722	187.00	203	256.00	379
63.00	54	108.00	47	192.00	40	274.00	206
69.00	2804	110.00	1313	196.00	148	275.00	1409
73.00	40	111.00	148	198.00	5848	276.00	234
74.00	260	117.00	492	199.00	360	296.00	273
75.00	449	127.00	2504	204.00	74	365.00	46
76.00	112	128.00	184	205.00	306	423.00	170
77.00	2703	129.00	972	206.00	1353	441.00	477
78.00	139	141.00	55	207.00	197	442.00	3378
79.00	106	148.00	117	217.00	340	443.00	611
80.00	65	156.00	52	221.00	306		

Data File: /var/chem/finn6.i/07NOV97.b/F6DF1107.d

Date : 07-NOV-97 14:32:00

Client ID:

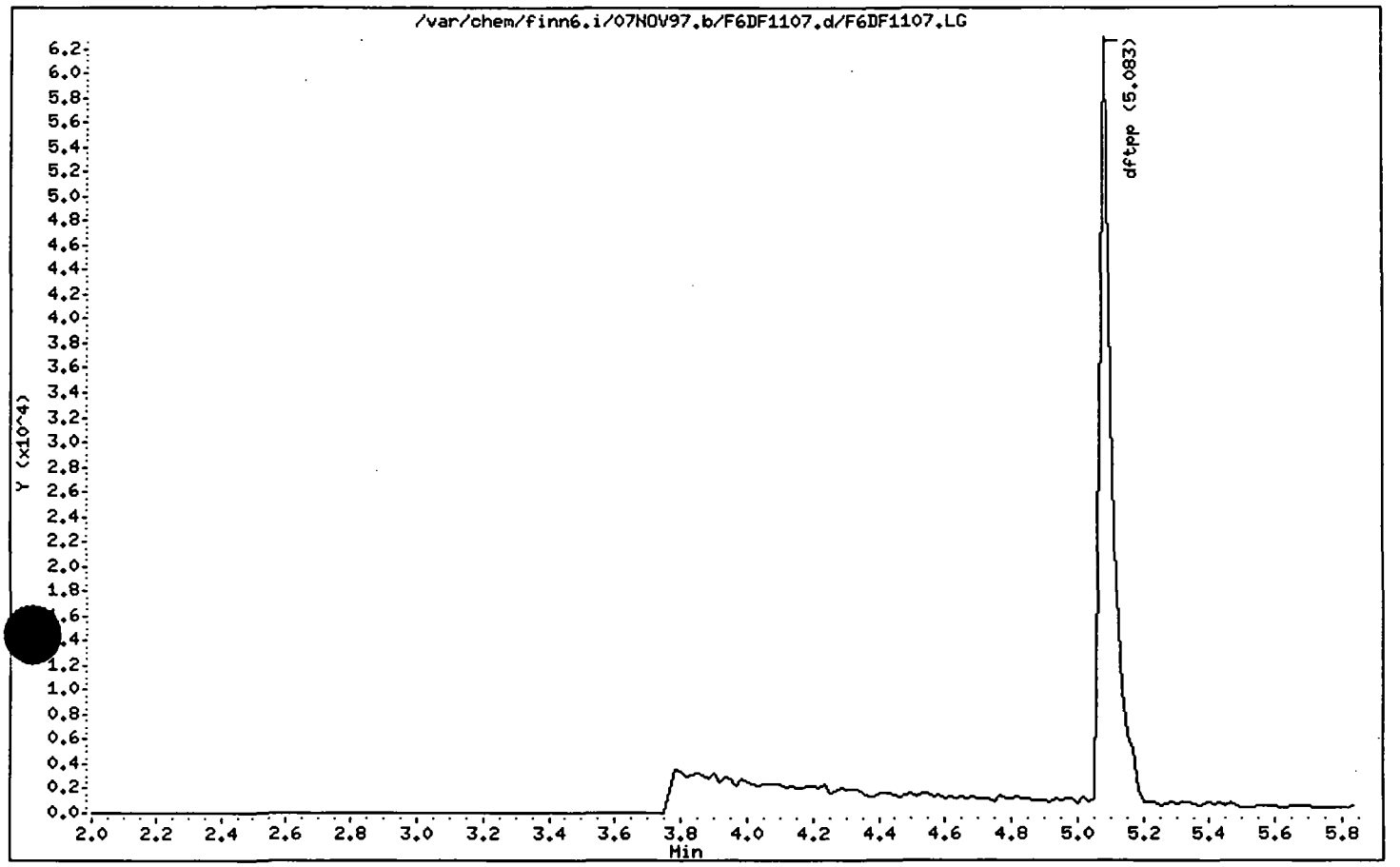
Instrument: finn6.i

Sample Info: ICAL=11/07/97 FINN6 `ARI INC 2UL INJ.

Operator: cm

Column phase:

Column diameter: 2.00



Analytical Resources, Inc.

Semivolatile Report Modified Method 8270

Data file : /var/chem/finn6.i/07NOV97.b/F6051107.d
Lab Smp Id: IC1107 Client Smp ID: SSTD005
Inj Date : 07-NOV-97 16:34:00
Operator : CM Inst ID: finn6.i
Smp Info : ICAL=11/07/97 FINN6 ARI INC 2UL INJ.
Misc Info : ABN 5 NG/UL STD
Comment :
Method : /var/chem/finn6.i/07NOV97.b/abn.m
Meth Date : 11-Nov-97 12:30:36 charles Quant Type: ISTD
Cal Date : 07-NOV-97 14:57:00 Cal File: F6251107.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: af.sub
Target Version: 3.30
Processing Host: cserv2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.100	5.117	(0.599)	12126	5.00000	4.21
$	2 Phenol-d5	99	8.033	8.067	(0.943)	18018	5.00000	4.44
	3 Phenol	94	8.067	8.100	(0.947)	17200	5.00000	4.32(T)
	4 Bis(2-Chloroethyl)ether	93	8.100	8.117	(0.951)	14312	5.00000	4.54
$	5 2-Chlorophenol-d4	132	8.000	8.017	(0.939)	14292	5.00000	4.24
	6 2-Chlorophenol	128	8.050	8.050	(0.945)	16054	5.00000	4.53
	7 1,3-Dichlorobenzene	146	8.383	8.400	(0.984)	18608	5.00000	4.65
*	8 1,4-Dichlorobenzene-d4	152	8.517	8.533	(1.000)	52784	20.0000	
	9 1,4-Dichlorobenzene	146	8.567	8.583	(1.006)	20802	5.00000	4.77
$	10 1,2-Dichlorobenzene-d4	152	9.050	9.067	(1.063)	10848	5.00000	4.31
	11 Benzyl alcohol	108	9.233	9.250	(1.084)	5726	5.00000	3.52
	12 1,2-Dichlorobenzene	146	9.083	9.100	(1.067)	17500	5.00000	4.43
	13 2-Methylphenol	108	9.767	9.783	(1.147)	12092	5.00000	4.32
	14 2,2'-oxybis(1-Chloropropane)	45	9.717	9.717	(1.141)	33890	5.00000	4.64(M)
	15 4-Methylphenol	108	10.233	10.267	(1.202)	12394	5.00000	4.31
	16 N-Nitroso-di-n-propylamine	70	10.133	10.150	(1.190)	11538	5.00000	4.50
	17 Hexachloroethane	117	9.950	9.967	(1.168)	6662	5.00000	4.26
$	18 Nitrobenzene-d5	82	10.300	10.317	(0.837)	15130	5.00000	4.55
	19 Nitrobenzene	77	10.350	10.367	(0.841)	14624	5.00000	4.41
	20 Isophorone	82	11.133	11.150	(0.905)	26576	5.00000	4.65
	21 2-Nitrophenol	139	11.333	11.350	(0.921)	5548	5.00000	3.81
	22 2,4-Dimethyphenol	107	11.750	11.783	(0.955)	12838	5.00000	4.44
	23 Bis(2-Chloroethoxy)methane	93	12.000	12.033	(0.976)	17528	5.00000	4.67
	24 Benzoic acid	122	12.167	12.383	(0.989)	3708	5.00000	2.75(TM)
	25 2,4-Dichlorophenol	162	12.067	12.100	(0.981)	10778	5.00000	4.15
	26 1,2,4-Trichlorobenzene	180	12.233	12.267	(0.995)	15470	5.00000	4.77

11/11/97

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
*	27 Naphthalene-d8	136	12.300	12.317	(1.000)	157382	20.0000	
	28 Naphthalene	128	12.350	12.383	(1.004)	45730	5.00000	4.95
	29 4-Chloroaniline	127	12.800	12.817	(1.041)	13712	5.00000	4.09
	30 Hexachlorobutadiene	225	13.050	13.067	(1.061)	9066	5.00000	4.73
	31 4-Chloro-3-methylphenol	107	14.500	14.517	(1.179)	9188	5.00000	3.73
	32 2-Methylnaphthalene	141	14.483	14.517	(1.177)	25492	5.00000	4.41
	33 Hexachlorocyclopentadiene	237	15.250	15.267	(0.862)	7012	5.00000	3.81
	34 2,4,6-Trichlorophenol	196	15.567	15.600	(0.880)	8344	5.00000	4.46
	35 2,4,5-Trichlorophenol	196	15.667	15.683	(0.886)	8592	5.00000	4.35
$	36 2-Fluorobiphenyl	172	15.800	15.833	(0.893)	30058	5.00000	4.78
	37 2-Chloronaphthalene	162	15.933	15.967	(0.901)	26998	5.00000	4.98
	38 2-Nitroaniline	65	16.533	16.567	(0.935)	6386	5.00000	4.10
	39 Dimethylphthalate	163	17.333	17.383	(0.980)	30034	5.00000	4.75
	40 Acenaphthylene	152	17.183	17.217	(0.972)	39328	5.00000	4.66
	41 2,6-Dinitrotoluene	165	17.483	17.517	(0.989)	4738	5.00000	3.96
*	42 Acenaphthene-d10	164	17.683	17.717	(1.000)	88056	20.0000	
	43 3-Nitroaniline	138	17.833	17.867	(1.008)	3766	5.00000	3.39
	44 Acenaphthene	153	17.767	17.800	(1.005)	29114	5.00000	4.73
	45 2,4-Dinitrophenol	184	18.167	18.183	(1.027)	396	5.00000	0.97(M)
	46 Dibenzofuran	168	18.283	18.317	(1.034)	34812	5.00000	4.66
	47 4-Nitrophenol	109	18.633	18.650	(1.054)	1130	5.00000	2.43
	48 2,4-Dinitrotoluene	165	18.633	18.667	(1.054)	5432	5.00000	3.64
	49 Fluorene	166	19.317	19.350	(1.092)	28232	5.00000	4.69
	50 Diethylphthalate	149	19.550	19.583	(1.106)	30444	5.00000	4.73
	51 4-Chlorophenyl-phenylether	204	19.500	19.533	(1.103)	14760	5.00000	4.71
	52 4-Nitroaniline	138	19.700	19.767	(1.114)	2186	5.00000	2.59
	53 4,6-Dinitro-2-methylphenol	198	19.817	19.867	(0.895)	1702	5.00000	2.54
	54 N-Nitrosodiphenylamine	169	19.933	19.967	(0.901)	17738	5.00000	4.62
$	55 2,4,6-Tribromophenol	330	20.150	20.183	(1.139)	2866	5.00000	3.75(T)
	56 4-Bromophenyl-phenylether	248	20.950	20.983	(0.947)	8218	5.00000	4.48
	57 Hexachlorobenzene	284	21.250	21.283	(0.960)	9576	5.00000	4.49
	58 Pentachlorophenol	266	21.883	21.917	(0.989)	2864	5.00000	2.95
*	59 Phenanthrene-d10	188	22.133	22.167	(1.000)	136444	20.0000	
	60 Phenanthrene	178	22.200	22.233	(1.003)	40562	5.00000	4.68
	61 Anthracene	178	22.333	22.367	(1.009)	38970	5.00000	4.66
	62 Carbazole	167	23.000	23.033	(1.039)	26044	5.00000	4.23
	63 Di-n-butylphthalate	149	24.583	24.617	(1.111)	43154	5.00000	4.50
	64 Fluoranthene	202	25.833	25.883	(1.167)	37958	5.00000	4.34
	65 Pyrene	202	26.483	26.517	(0.875)	39872	5.00000	4.83
$	66 Terphenyl-d14	244	27.283	27.317	(0.901)	29100	5.00000	4.73
	67 Butylbenzylphthalate	149	29.117	29.150	(0.961)	15406	5.00000	4.36
	68 Benzo(a)anthracene	228	30.233	30.267	(0.998)	30774	5.00000	4.59
*	69 Chrysene-d12	240	30.283	30.317	(1.000)	101786	20.0000	
	70 3,3'-Dichlorobenzidine	252	30.450	30.467	(1.006)	7778	5.00000	4.16
	71 Chrysene	228	30.367	30.400	(1.003)	30066	5.00000	4.87
	72 bis(2-Ethylhexyl)phthalate	149	31.117	31.133	(1.028)	23814	5.00000	4.36
	73 Di-n-octylphthalate	149	32.900	32.933	(0.957)	36294	5.00000	4.40

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	33.367	33.400	(0.971)	29338	5.00000	4.68
75	Benzo(k)fluoranthene	252	33.433	33.483	(0.973)	31762	5.00000	5.05
76	Benzo(a)pyrene	252	34.200	34.233	(0.995)	24928	5.00000	4.71
* 77	Perylene-d12	264	34.367	34.400	(1.000)	82536	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	36.950	36.983	(1.075)	21350	5.00000	4.80
79	Dibenzo(a,h)anthracene	278	37.033	37.083	(1.078)	20942	5.00000	4.78
80	Benzo(g,h,i)perylene	276	37.500	37.550	(1.091)	23576	5.00000	5.04

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

Semivolatile Report Modified Method 8270

Data file : /var/chem/finn6.i/07NOV97.b/F6101107.d
Lab Smp Id: IC1107 Client Smp ID: SSTD010
Inj Date : 07-NOV-97 18:13:00
Operator : CM Inst ID: finn6.i
Smp Info : ICAL=11/07/97 FINN6 ARI INC 2UL INJ.
Misc Info : ABN 10 NG/UL STD
Comment :
Method : /var/chem/finn6.i/07NOV97.b/abn.m
Meth Date : 11-Nov-97 12:30:45 charles Quant Type: ISTD
Cal Date : 07-NOV-97 14:57:00 Cal File: F6251107.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: af.sub
Target Version: 3.30
Processing Host: cserv2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.117	5.117	(0.600)	31360	10.0000	9.81
$	2 Phenol-d5	99	8.050	8.067	(0.943)	43562	10.0000	9.67
	3 Phenol	94	8.083	8.100	(0.947)	44286	10.0000	10.01
	4 Bis(2-Chloroethyl)ether	93	8.117	8.117	(0.951)	33890	10.0000	9.69
$	5 2-Chlorophenol-d4	132	8.017	8.017	(0.939)	37802	10.0000	10.10
	6 2-Chlorophenol	128	8.067	8.050	(0.945)	40032	10.0000	10.16
	7 1,3-Dichlorobenzene	146	8.400	8.400	(0.984)	44478	10.0000	10.01
*	8 1,4-Dichlorobenzene-d4	152	8.533	8.533	(1.000)	58632	20.0000	
	9 1,4-Dichlorobenzene	146	8.583	8.583	(1.006)	45894	10.0000	9.48
$	10 1,2-Dichlorobenzene-d4	152	9.067	9.067	(1.062)	27842	10.0000	9.97
	11 Benzyl alcohol	108	9.233	9.250	(1.082)	17192	10.0000	9.50
	12 1,2-Dichlorobenzene	146	9.100	9.100	(1.066)	42860	10.0000	9.76
	13 2-Methylphenol	108	9.783	9.783	(1.146)	30798	10.0000	9.92
	14 2,2'-oxybis(1-Chloropropane)	45	9.733	9.717	(1.141)	81010	10.0000	9.99(T)
	15 4-Methylphenol	108	10.250	10.267	(1.201)	31620	10.0000	9.90
	16 N-Nitroso-di-n-propylamine	70	10.150	10.150	(1.189)	27798	10.0000	9.75
	17 Hexachloroethane	117	9.983	9.967	(1.170)	16196	10.0000	9.32
$	18 Nitrobenzene-d5	82	10.317	10.317	(0.838)	39784	10.0000	9.96
	19 Nitrobenzene	77	10.367	10.367	(0.842)	42010	10.0000	10.54
	20 Isophorone	82	11.133	11.150	(0.904)	65230	10.0000	9.51
	21 2-Nitrophenol	139	11.350	11.350	(0.921)	16794	10.0000	9.61
	22 2,4-Dimethyphenol	107	11.783	11.783	(0.957)	33720	10.0000	9.70
	23 Bis(2-Chloroethoxy)methane	93	12.017	12.033	(0.976)	42692	10.0000	9.47
	24 Benzoic acid	122	12.267	12.383	(0.996)	11734	10.0000	7.24(T)
	25 2,4-Dichlorophenol	162	12.100	12.100	(0.982)	29752	10.0000	9.53
	26 1,2,4-Trichlorobenzene	180	12.267	12.267	(0.996)	37586	10.0000	9.65

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
*	27 Naphthalene-d8	136	12.317	12.317	(1.000)	189082	20.0000	
	28 Naphthalene	128	12.383	12.383	(1.005)	106398	10.0000	9.60
	29 4-Chloroaniline	127	12.817	12.817	(1.041)	37038	10.0000	9.19
	30 Hexachlorobutadiene	225	13.067	13.067	(1.061)	22018	10.0000	9.56
	31 4-Chloro-3-methylphenol	107	14.517	14.517	(1.179)	27370	10.0000	9.25
	32 2-Methylnaphthalene	141	14.517	14.517	(1.179)	66598	10.0000	9.58
	33 Hexachlorocyclopentadiene	237	15.267	15.267	(0.862)	19646	10.0000	8.67
	34 2,4,6-Trichlorophenol	196	15.600	15.600	(0.881)	21606	10.0000	9.39
	35 2,4,5-Trichlorophenol	196	15.683	15.683	(0.885)	21124	10.0000	8.70
$	36 2-Fluorobiphenyl	172	15.833	15.833	(0.894)	76462	10.0000	9.89
	37 2-Chloronaphthalene	162	15.950	15.967	(0.900)	64236	10.0000	9.63
	38 2-Nitroaniline	65	16.567	16.567	(0.935)	17100	10.0000	8.92
	39 Dimethylphthalate	163	17.367	17.383	(0.980)	74868	10.0000	9.63
	40 Acenaphthylene	152	17.217	17.217	(0.972)	101072	10.0000	9.74
	41 2,6-Dinitrotoluene	165	17.500	17.517	(0.988)	13406	10.0000	9.12
*	42 Acenaphthene-d10	164	17.717	17.717	(1.000)	108304	20.0000	
	43 3-Nitroaniline	138	17.850	17.867	(1.008)	11670	10.0000	8.54
	44 Acenaphthene	153	17.800	17.800	(1.005)	73586	10.0000	9.72
	45 2,4-Dinitrophenol	184	18.183	18.183	(1.026)	3320	10.0000	6.62
	46 Dibenzofuran	168	18.300	18.317	(1.033)	90870	10.0000	9.88
	47 4-Nitrophenol	109	18.650	18.650	(1.053)	4438	10.0000	7.76(M)
	48 2,4-Dinitrotoluene	165	18.650	18.667	(1.053)	17420	10.0000	9.49
	49 Fluorene	166	19.350	19.350	(1.092)	72176	10.0000	9.74
	50 Diethylphthalate	149	19.567	19.583	(1.104)	77220	10.0000	9.75
	51 4-Chlorophenyl-phenylether	204	19.533	19.533	(1.103)	37856	10.0000	9.82
	52 4-Nitroaniline	138	19.733	19.767	(1.114)	8550	10.0000	8.22
	53 4,6-Dinitro-2-methylphenol	198	19.850	19.867	(0.895)	6766	10.0000	8.07
	54 N-Nitrosodiphenylamine	169	19.967	19.967	(0.901)	47060	10.0000	9.81
$	55 2,4,6-Tribromophenol	330	20.167	20.183	(1.138)	8856	10.0000	9.42(T)
	56 4-Bromophenyl-phenylether	248	20.983	20.983	(0.947)	21154	10.0000	9.23
	57 Hexachlorobenzene	284	21.267	21.283	(0.959)	25664	10.0000	9.64
	58 Pentachlorophenol	266	21.917	21.917	(0.989)	9886	10.0000	8.14
*	59 Phenanthrene-d10	188	22.167	22.167	(1.000)	170486	20.0000	
	60 Phenanthrene	178	22.217	22.233	(1.002)	101500	10.0000	9.37
	61 Anthracene	178	22.350	22.367	(1.008)	98947	10.0000	9.47
	62 Carbazole	167	23.017	23.033	(1.038)	73336	10.0000	9.52
	63 Di-n-butylphthalate	149	24.617	24.617	(1.111)	111286	10.0000	9.29
	64 Fluoranthene	202	25.867	25.883	(1.167)	105120	10.0000	9.61
	65 Pyrene	202	26.500	26.517	(0.874)	106364	10.0000	9.37
$	66 Terphenyl-d14	244	27.317	27.317	(0.901)	79946	10.0000	9.44
	67 Butylbenzylphthalate	149	29.150	29.150	(0.962)	41302	10.0000	8.50
	68 Benzo(a)anthracene	228	30.267	30.267	(0.998)	91510	10.0000	9.92
*	69 Chrysene-d12	240	30.317	30.317	(1.000)	140110	20.0000	
	70 3,3'-Dichlorobenzidine	252	30.467	30.467	(1.005)	23954	10.0000	9.30
	71 Chrysene	228	30.383	30.400	(1.002)	86252	10.0000	10.15
	72 bis(2-Ethylhexyl)phthalate	149	31.133	31.133	(1.027)	66904	10.0000	8.89
	73 Di-n-octylphthalate	149	32.933	32.933	(0.957)	101426	10.0000	8.67

e 11/11/97

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	33.400	33.400	(0.971)	81756	10.0000	9.19
75	Benzo(k)fluoranthene	252	33.467	33.483	(0.973)	83636	10.0000	9.36
76	Benzo(a)pyrene	252	34.233	34.233	(0.995)	70220	10.0000	9.35
* 77	Perylene-d12	264	34.400	34.400	(1.000)	117148	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	36.967	36.983	(1.075)	56042	10.0000	8.87
79	Dibenzo(a,h)anthracene	278	37.067	37.083	(1.078)	55562	10.0000	8.93
80	Benzo(g,h,i)perylene	276	37.533	37.550	(1.091)	59840	10.0000	9.01

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

Semivolatile Report Modified Method 8270

Data file : /var/chem/finn6.i/07NOV97.b/F6251107.d
Lab Smp Id: IC1107 Client Smp ID: SSTD025
Inj Date : 07-NOV-97 14:57:00
Operator : CM Inst ID: finn6.i
Smp Info : ICAL=11/07/97 FINN6 ARI INC 2UL INJ.
Misc Info : ABN 25 NG/UL STD
Comment :
Method : /var/chem/finn6.i/07NOV97.b/abn.m
Meth Date : 11-Nov-97 12:30:28 charles Quant Type: ISTD
Cal Date : 07-NOV-97 14:57:00 Cal File: F6251107.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: af.sub
Target Version: 3.30
Processing Host: cserv2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.117	5.117	(0.600)	75626	25.0000	25.97
$	2 Phenol-d5	99	8.067	8.067	(0.945)	105110	25.0000	25.62
	3 Phenol	94	8.100	8.100	(0.949)	101494	25.0000	25.20
	4 Bis(2-Chloroethyl)ether	93	8.117	8.117	(0.951)	79528	25.0000	24.96
$	5 2-Chlorophenol-d4	132	8.017	8.017	(0.939)	85532	25.0000	25.10
	6 2-Chlorophenol	128	8.050	8.050	(0.943)	89832	25.0000	25.03
	7 1,3-Dichlorobenzene	146	8.400	8.400	(0.984)	103248	25.0000	25.52
*	8 1,4-Dichlorobenzene-d4	152	8.533	8.533	(1.000)	53406	20.0000	
	9 1,4-Dichlorobenzene	146	8.583	8.583	(1.006)	114250	25.0000	25.91
$	10 1,2-Dichlorobenzene-d4	152	9.067	9.067	(1.062)	66102	25.0000	25.98
	11 Benzyl alcohol	108	9.250	9.250	(1.084)	42386	25.0000	25.73
	12 1,2-Dichlorobenzene	146	9.100	9.100	(1.066)	101142	25.0000	25.28
	13 2-Methylphenol	108	9.783	9.783	(1.146)	71662	25.0000	25.33
	14 2,2'-oxybis(1-Chloropropane)	45	9.717	9.717	(1.139)	181296	25.0000	24.55(M)
	15 4-Methylphenol	108	10.267	10.267	(1.203)	71954	25.0000	24.74
	16 N-Nitroso-di-n-propylamine	70	10.150	10.150	(1.189)	64904	25.0000	24.99
	17 Hexachloroethane	117	9.967	9.967	(1.168)	40548	25.0000	25.63
$	18 Nitrobenzene-d5	82	10.317	10.317	(0.838)	87538	25.0000	25.05
	19 Nitrobenzene	77	10.367	10.367	(0.842)	92598	25.0000	26.56
	20 Isophorone	82	11.150	11.150	(0.905)	153878	25.0000	25.64
	21 2-Nitrophenol	139	11.350	11.350	(0.921)	41142	25.0000	26.92
	22 2,4-Dimethyphenol	107	11.783	11.783	(0.957)	78690	25.0000	25.88
	23 Bis(2-Chloroethoxy)methane	93	12.033	12.033	(0.977)	101328	25.0000	25.71
	24 Benzoic acid	122	12.383	12.383	(1.005)	40350	25.0000	28.45
	25 2,4-Dichlorophenol	162	12.100	12.100	(0.982)	72150	25.0000	26.41
	26 1,2,4-Trichlorobenzene	180	12.267	12.267	(0.996)	89536	25.0000	26.29

11/11/97

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
*	27 Naphthalene-d8	136	12.317	12.317	(1.000)	165384	20.0000	
	28 Naphthalene	128	12.383	12.383	(1.005)	255194	25.0000	26.31
	29 4-Chloroaniline	127	12.817	12.817	(1.041)	90550	25.0000	25.68
	30 Hexachlorobutadiene	225	13.067	13.067	(1.061)	53504	25.0000	26.57
	31 4-Chloro-3-methylphenol	107	14.517	14.517	(1.179)	66148	25.0000	25.55
	32 2-Methylnaphthalene	141	14.517	14.517	(1.179)	156420	25.0000	25.73
	33 Hexachlorocyclopentadiene	237	15.267	15.267	(0.862)	55780	25.0000	28.15
	34 2,4,6-Trichlorophenol	196	15.600	15.600	(0.881)	50808	25.0000	25.23
	35 2,4,5-Trichlorophenol	196	15.683	15.683	(0.885)	56294	25.0000	26.51
$	36 2-Fluorobiphenyl	172	15.833	15.833	(0.894)	174016	25.0000	25.73
	37 2-Chloronaphthalene	162	15.967	15.967	(0.901)	145808	25.0000	24.98
	38 2-Nitroaniline	65	16.567	16.567	(0.935)	40946	25.0000	24.43
	39 Dimethylphthalate	163	17.383	17.383	(0.981)	172504	25.0000	25.38
	40 Acenaphthylene	152	17.217	17.217	(0.972)	235890	25.0000	25.98
	41 2,6-Dinitrotoluene	165	17.517	17.517	(0.989)	33622	25.0000	26.15
*	42 Acenaphthene-d10	164	17.717	17.717	(1.000)	94740	20.0000	
	43 3-Nitroaniline	138	17.867	17.867	(1.008)	30140	25.0000	25.22
	44 Acenaphthene	153	17.800	17.800	(1.005)	168084	25.0000	25.38
	45 2,4-Dinitrophenol	184	18.183	18.183	(1.026)	11888	25.0000	27.10
	46 Dibenzofuran	168	18.317	18.317	(1.034)	205512	25.0000	25.55
	47 4-Nitrophenol	109	18.650	18.650	(1.053)	13950	25.0000	27.90
	48 2,4-Dinitrotoluene	165	18.667	18.667	(1.054)	39788	25.0000	24.78
	49 Fluorene	166	19.350	19.350	(1.092)	159568	25.0000	24.63
	50 Diethylphthalate	149	19.583	19.583	(1.105)	171122	25.0000	24.70
	51 4-Chlorophenyl-phenylether	204	19.533	19.533	(1.103)	84166	25.0000	24.95
	52 4-Nitroaniline	138	19.767	19.767	(1.116)	23412	25.0000	25.74
	53 4,6-Dinitro-2-methylphenol	198	19.867	19.867	(0.896)	18710	25.0000	26.74
	54 N-Nitrosodiphenylamine	169	19.967	19.967	(0.901)	102374	25.0000	25.55
$	55 2,4,6-Tribromophenol	330	20.183	20.183	(1.139)	21248	25.0000	25.85(T)
	56 4-Bromophenyl-phenylether	248	20.983	20.983	(0.947)	49124	25.0000	25.68
	57 Hexachlorobenzene	284	21.283	21.283	(0.960)	56334	25.0000	25.34
	58 Pentachlorophenol	266	21.917	21.917	(0.989)	26960	25.0000	26.60
*	59 Phenanthrene-d10	188	22.167	22.167	(1.000)	142342	20.0000	
	60 Phenanthrene	178	22.233	22.233	(1.003)	229978	25.0000	25.43
	61 Anthracene	178	22.367	22.367	(1.009)	216626	25.0000	24.83
	62 Carbazole	167	23.033	23.033	(1.039)	157498	25.0000	24.50
	63 Di-n-butylphthalate	149	24.617	24.617	(1.111)	262740	25.0000	26.27
	64 Fluoranthene	202	25.883	25.883	(1.168)	231288	25.0000	25.33
	65 Pyrene	202	26.517	26.517	(0.875)	236600	25.0000	27.41
$	66 Terphenyl-d14	244	27.317	27.317	(0.901)	173644	25.0000	26.97
	67 Butylbenzylphthalate	149	29.150	29.150	(0.962)	102308	25.0000	27.70
	68 Benzo(a)anthracene	228	30.267	30.267	(0.998)	183094	25.0000	26.10
*	69 Chrysene-d12	240	30.317	30.317	(1.000)	106502	20.0000	
	70 3,3'-Dichlorobenzidine	252	30.467	30.467	(1.005)	48100	25.0000	24.56
	71 Chrysene	228	30.400	30.400	(1.003)	163648	25.0000	25.34
	72 bis(2-Ethylhexyl)phthalate	149	31.133	31.133	(1.027)	159124	25.0000	27.82
	73 Di-n-octylphthalate	149	32.933	32.933	(0.957)	243798	25.0000	28.63

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	33.400	33.400	(0.971)	162316	25.0000	25.07
75	Benzo(k)fluoranthene	252	33.483	33.483	(0.973)	171173	25.0000	26.34
76	Benzo(a)pyrene	252	34.233	34.233	(0.995)	137038	25.0000	25.09
* 77	Perylene-d12	264	34.400	34.400	(1.000)	85218	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	36.983	36.983	(1.075)	120450	25.0000	26.22
79	Dibenzo(a,h)anthracene	278	37.083	37.083	(1.078)	113530	25.0000	25.08
80	Benzo(g,h,i)perylene	276	37.550	37.550	(1.092)	121804	25.0000	25.21

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

Semivolatile Report Modified Method 8270

Data file : /var/chem/finn6.i/07NOV97.b/F6401107.d
Lab Smp Id: IC1107 Client Smp ID: SSTD040
Inj Date : 07-NOV-97 17:24:00
Operator : CM Inst ID: finn6.i
Smp Info : ICAL=11/07/97 FINN6 ARI INC 2UL INJ.
Misc Info : ABN 40 NG/UL STD
Comment :
Method : /var/chem/finn6.i/07NOV97.b/abn.m
Meth Date : 11-Nov-97 12:30:40 charles Quant Type: ISTD
Cal Date : 07-NOV-97 14:57:00 Cal File: F6251107.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: af.sub
Target Version: 3.30
Processing Host: cserv2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.117	5.117	(0.600)	118218	40.0000	44.25
$	2 Phenol-d5	99	8.083	8.067	(0.947)	163150	40.0000	43.34
	3 Phenol	94	8.117	8.100	(0.951)	162650	40.0000	44.01
	4 Bis(2-Chloroethyl)ether	93	8.133	8.117	(0.953)	121760	40.0000	41.64
$	5 2-Chlorophenol-d4	132	8.017	8.017	(0.939)	136062	40.0000	43.52
	6 2-Chlorophenol	128	8.067	8.050	(0.945)	136324	40.0000	41.41
	7 1,3-Dichlorobenzene	146	8.400	8.400	(0.984)	153830	40.0000	41.44
*	8 1,4-Dichlorobenzene-d4	152	8.533	8.533	(1.000)	49000	20.0000	
	9 1,4-Dichlorobenzene	146	8.583	8.583	(1.006)	171096	40.0000	42.30
$	10 1,2-Dichlorobenzene-d4	152	9.067	9.067	(1.062)	102918	40.0000	44.09
	11 Benzyl alcohol	108	9.250	9.250	(1.084)	68024	40.0000	45.00
	12 1,2-Dichlorobenzene	146	9.117	9.100	(1.068)	157880	40.0000	43.01
	13 2-Methylphenol	108	9.800	9.783	(1.148)	110394	40.0000	42.53
	14 2,2'-oxybis(1-Chloropropane)	45	9.733	9.717	(1.141)	289894	40.0000	42.79(M)
	15 4-Methylphenol	108	10.267	10.267	(1.203)	110934	40.0000	41.58
	16 N-Nitroso-di-n-propylamine	70	10.167	10.150	(1.191)	103606	40.0000	43.48
	17 Hexachloroethane	117	9.983	9.967	(1.170)	64728	40.0000	44.59
$	18 Nitrobenzene-d5	82	10.333	10.317	(0.838)	147308	40.0000	43.47
	19 Nitrobenzene	77	10.383	10.367	(0.842)	141846	40.0000	41.96
	20 Isophorone	82	11.150	11.150	(0.904)	247132	40.0000	42.46
	21 2-Nitrophenol	139	11.350	11.350	(0.920)	66504	40.0000	44.87
	22 2,4-Dimethyphenol	107	11.800	11.783	(0.957)	126850	40.0000	43.02
	23 Bis(2-Chloroethoxy)methane	93	12.033	12.033	(0.976)	162930	40.0000	42.62
	24 Benzoic acid	122	12.517	12.383	(1.015)	68401	40.0000	49.73(TM)
	25 2,4-Dichlorophenol	162	12.117	12.100	(0.982)	114982	40.0000	43.41
	26 1,2,4-Trichlorobenzene	180	12.267	12.267	(0.995)	138594	40.0000	41.96

11/11/97

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
*	27 Naphthalene-d8	136	12.333	12.317	(1.000)	160384	20.0000	
	28 Naphthalene	128	12.383	12.383	(1.004)	392512	40.0000	41.73
	29 4-Chloroaniline	127	12.817	12.817	(1.039)	150342	40.0000	43.97
	30 Hexachlorobutadiene	225	13.067	13.067	(1.059)	81214	40.0000	41.59
	31 4-Chloro-3-methylphenol	107	14.533	14.517	(1.178)	114898	40.0000	45.77
	32 2-Methylnaphthalene	141	14.517	14.517	(1.177)	255594	40.0000	43.35
	33 Hexachlorocyclopentadiene	237	15.267	15.267	(0.862)	87044	40.0000	44.33
	34 2,4,6-Trichlorophenol	196	15.600	15.600	(0.881)	85702	40.0000	42.94
	35 2,4,5-Trichlorophenol	196	15.700	15.683	(0.886)	93564	40.0000	44.47
$	36 2-Fluorobiphenyl	172	15.850	15.833	(0.895)	284604	40.0000	42.46
	37 2-Chloronaphthalene	162	15.967	15.967	(0.901)	237396	40.0000	41.03
	38 2-Nitroaniline	65	16.583	16.567	(0.936)	74470	40.0000	44.83
	39 Dimethylphthalate	163	17.383	17.383	(0.981)	284130	40.0000	42.18
	40 Acenaphthylene	152	17.217	17.217	(0.972)	384120	40.0000	42.68
	41 2,6-Dinitrotoluene	165	17.533	17.517	(0.990)	58352	40.0000	45.79
*	42 Acenaphthene-d10	164	17.717	17.717	(1.000)	93888	20.0000	
	43 3-Nitroaniline	138	17.883	17.867	(1.009)	54994	40.0000	46.43
	44 Acenaphthene	153	17.817	17.800	(1.006)	276368	40.0000	42.11
	45 2,4-Dinitrophenol	184	18.183	18.183	(1.026)	25990	40.0000	59.78
	46 Dibenzofuran	168	18.317	18.317	(1.034)	332212	40.0000	41.68
	47 4-Nitrophenol	109	18.667	18.650	(1.054)	23566	40.0000	47.56
	48 2,4-Dinitrotoluene	165	18.683	18.667	(1.055)	76014	40.0000	47.77
	49 Fluorene	166	19.367	19.350	(1.093)	277454	40.0000	43.21
	50 Diethylphthalate	149	19.600	19.583	(1.106)	293418	40.0000	42.75
	51 4-Chlorophenyl-phenylether	204	19.533	19.533	(1.103)	143998	40.0000	43.07
	52 4-Nitroaniline	138	19.800	19.767	(1.118)	45632	40.0000	50.62
	53 4,6-Dinitro-2-methylphenol	198	19.883	19.867	(0.897)	37534	40.0000	51.03
	54 N-Nitrosodiphenylamine	169	19.983	19.967	(0.901)	174250	40.0000	41.38
$	55 2,4,6-Tribromophenol	330	20.183	20.183	(1.139)	37294	40.0000	45.78(T)
	56 4-Bromophenyl-phenylether	248	20.983	20.983	(0.947)	86352	40.0000	42.95
	57 Hexachlorobenzene	284	21.283	21.283	(0.960)	101394	40.0000	43.39
	58 Pentachlorophenol	266	21.933	21.917	(0.989)	51874	40.0000	48.69
*	59 Phenanthrene-d10	188	22.167	22.167	(1.000)	149610	20.0000	
	60 Phenanthrene	178	22.250	22.233	(1.004)	417334	40.0000	43.90
	61 Anthracene	178	22.383	22.367	(1.010)	405053	40.0000	44.18
	62 Carbazole	167	23.033	23.033	(1.039)	300784	40.0000	44.51
	63 Di-n-butylphthalate	149	24.633	24.617	(1.111)	489000	40.0000	46.51
	64 Fluoranthene	202	25.883	25.883	(1.168)	443188	40.0000	46.18
	65 Pyrene	202	26.533	26.517	(0.875)	450212	40.0000	41.43
$	66 Terphenyl-d14	244	27.333	27.317	(0.901)	345756	40.0000	42.65
	67 Butylbenzylphthalate	149	29.167	29.150	(0.962)	204292	40.0000	43.93
	68 Benzo(a)anthracene	228	30.283	30.267	(0.998)	364624	40.0000	41.28
*	69 Chrysene-d12	240	30.333	30.317	(1.000)	134084	20.0000	
	70 3,3'-Dichlorobenzidine	252	30.483	30.467	(1.005)	105638	40.0000	42.85
	71 Chrysene	228	30.417	30.400	(1.003)	330242	40.0000	40.61
	72 bis(2-Ethylhexyl)phthalate	149	31.150	31.133	(1.027)	308268	40.0000	42.81
	73 Di-n-octylphthalate	149	32.950	32.933	(0.958)	484814	40.0000	44.92

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	33.417	33.400	(0.971)	347136	40.0000	42.30
75	Benzo(k)fluoranthene	252	33.500	33.483	(0.974)	340125	40.0000	41.28
76	Benzo(a)pyrene	252	34.250	34.233	(0.996)	292078	40.0000	42.19
* 77	Perylene-d12	264	34.400	34.400	(1.000)	108024	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	37.000	36.983	(1.076)	241788	40.0000	41.52
79	Dibenzo(a,h)anthracene	278	37.100	37.083	(1.078)	238054	40.0000	41.49
80	Benzo(g,h,i)perylene	276	37.567	37.550	(1.092)	257192	40.0000	41.99

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

Semivolatile Report Modified Method 8270

Data file : /var/chem/finn6.i/07NOV97.b/F6801107.d
Lab Smp Id: IC1107 Client Smp ID: SSTD080
Inj Date : 07-NOV-97 15:54:00
Operator : CM Inst ID: finn6.i
Smp Info : ICAL=11/07/97 FINN6 ARI INC 2UL INJ.
Misc Info : ABN 80 NG/UL STD
Comment :
Method : /var/chem/finn6.i/07NOV97.b/abn.m
Meth Date : 11-Nov-97 12:30:32 charles Quant Type: ISTD
Cal Date : 07-NOV-97 14:57:00 Cal File: F6251107.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: af.sub
Target Version: 3.30
Processing Host: cserv2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.117	5.117	(0.598)	238074	80.0000	82.48(A)
$	2 Phenol-d5	99	8.117	8.067	(0.949)	336938	80.0000	82.85(TA)
	3 Phenol	94	8.150	8.100	(0.953)	327786	80.0000	82.09(TA)
	4 Bis(2-Chloroethyl)ether	93	8.150	8.117	(0.953)	273772	80.0000	86.66(A)
$	5 2-Chlorophenol-d4	132	8.033	8.017	(0.940)	283446	80.0000	83.91(A)
	6 2-Chlorophenol	128	8.083	8.050	(0.945)	296568	80.0000	83.37(A)
	7 1,3-Dichlorobenzene	146	8.417	8.400	(0.984)	324450	80.0000	80.90(A)
*	8 1,4-Dichlorobenzene-d4	152	8.550	8.533	(1.000)	52942	20.0000	
	9 1,4-Dichlorobenzene	146	8.600	8.583	(1.006)	350650	80.0000	80.23(A)
$	10 1,2-Dichlorobenzene-d4	152	9.083	9.067	(1.062)	201568	80.0000	79.92
	11 Benzyl alcohol	108	9.283	9.250	(1.086)	155792	80.0000	95.38(A)
	12 1,2-Dichlorobenzene	146	9.117	9.100	(1.066)	333870	80.0000	84.19(A)
	13 2-Methylphenol	108	9.817	9.783	(1.148)	239386	80.0000	85.36(A)
	14 2,2'-oxybis(1-Chloropropane)	45	9.733	9.717	(1.138)	597544	80.0000	81.63(TA)
	15 4-Methylphenol	108	10.300	10.267	(1.205)	257870	80.0000	89.45(TA)
	16 N-Nitroso-di-n-propylamine	70	10.217	10.150	(1.195)	214022	80.0000	83.14(TA)
	17 Hexachloroethane	117	9.983	9.967	(1.168)	134952	80.0000	86.05(A)
$	18 Nitrobenzene-d5	82	10.350	10.317	(0.838)	298946	80.0000	80.44(TA)
	19 Nitrobenzene	77	10.417	10.367	(0.843)	282701	80.0000	76.25(T)
	20 Isophorone	82	11.200	11.150	(0.907)	526722	80.0000	82.52(TA)
	21 2-Nitrophenol	139	11.367	11.350	(0.920)	140108	80.0000	86.20(A)
	22 2,4-Dimethyphenol	107	11.833	11.783	(0.958)	266910	80.0000	82.54(TA)
	23 Bis(2-Chloroethoxy)methane	93	12.067	12.033	(0.977)	343564	80.0000	81.95(TA)
	24 Benzoic acid	122	12.700	12.383	(1.028)	162441	80.0000	107.68(TAM)
	25 2,4-Dichlorophenol	162	12.150	12.100	(0.984)	250100	80.0000	86.09(TA)
	26 1,2,4-Trichlorobenzene	180	12.283	12.267	(0.995)	283802	80.0000	78.35

11/11/97

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
*	27 Naphthalene-d8	136	12.350	12.317	(1.000)	175894	20.0000	
	28 Naphthalene	128	12.400	12.383	(1.004)	787046	80.0000	76.30
	29 4-Chloroaniline	127	12.850	12.817	(1.040)	341088	80.0000	90.97(A)
	30 Hexachlorobutadiene	225	13.083	13.067	(1.059)	170442	80.0000	79.59
	31 4-Chloro-3-methylphenol	107	14.550	14.517	(1.178)	256110	80.0000	93.03(A)
	32 2-Methylnaphthalene	141	14.533	14.517	(1.177)	542156	80.0000	83.84(A)
	33 Hexachlorocyclopentadiene	237	15.283	15.267	(0.863)	192806	80.0000	90.93(A)
	34 2,4,6-Trichlorophenol	196	15.617	15.600	(0.881)	187412	80.0000	86.96(A)
	35 2,4,5-Trichlorophenol	196	15.717	15.683	(0.887)	197520	80.0000	86.93(A)
$	36 2-Fluorobiphenyl	172	15.867	15.833	(0.896)	558482	80.0000	77.15
	37 2-Chloronaphthalene	162	15.983	15.967	(0.902)	508588	80.0000	81.40(A)
	38 2-Nitroaniline	65	16.617	16.567	(0.938)	170762	80.0000	95.19(A)
	39 Dimethylphthalate	163	17.417	17.383	(0.983)	591350	80.0000	81.29(A)
	40 Acenaphthylene	152	17.233	17.217	(0.973)	768294	80.0000	79.06
	41 2,6-Dinitrotoluene	165	17.567	17.517	(0.992)	121584	80.0000	88.35(A)
*	42 Acenaphthene-d10	164	17.717	17.717	(1.000)	101394	20.0000	
	43 3-Nitroaniline	138	17.917	17.867	(1.011)	132826	80.0000	103.85(A)
	44 Acenaphthene	153	17.833	17.800	(1.007)	574868	80.0000	81.11(A)
	45 2,4-Dinitrophenol	184	18.217	18.183	(1.028)	58812	80.0000	125.25(A)
	46 Dibenzofuran	168	18.350	18.317	(1.036)	699912	80.0000	81.31(A)
	47 4-Nitrophenol	109	18.717	18.650	(1.056)	61324	80.0000	114.59(A)
	48 2,4-Dinitrotoluene	165	18.717	18.667	(1.056)	156342	80.0000	90.98(A)
	49 Fluorene	166	19.383	19.350	(1.094)	567498	80.0000	81.83(A)
	50 Diethylphthalate	149	19.633	19.583	(1.108)	606214	80.0000	81.78(A)
	51 4-Chlorophenyl-phenylether	204	19.550	19.533	(1.103)	289404	80.0000	80.16(A)
	52 4-Nitroaniline	138	19.867	19.767	(1.121)	106334	80.0000	109.23(TA)
	53 4,6-Dinitro-2-methylphenol	198	19.950	19.867	(0.899)	82184	80.0000	107.21(A)
	54 N-Nitrosodiphenylamine	169	20.017	19.967	(0.902)	364690	80.0000	83.11(A)
$	55 2,4,6-Tribromophenol	330	20.217	20.183	(1.141)	79472	80.0000	90.33(TA)
	56 4-Bromophenyl-phenylether	248	21.000	20.983	(0.947)	180934	80.0000	86.35(A)
	57 Hexachlorobenzene	284	21.317	21.283	(0.961)	202494	80.0000	83.15(A)
	58 Pentachlorophenol	266	21.967	21.917	(0.990)	116784	80.0000	105.19(A)
*	59 Phenanthrene-d10	188	22.183	22.167	(1.000)	155914	20.0000	
	60 Phenanthrene	178	22.267	22.233	(1.004)	802712	80.0000	81.02(A)
	61 Anthracene	178	22.400	22.367	(1.010)	782261	80.0000	81.86(A)
	62 Carbazole	167	23.067	23.033	(1.040)	625050	80.0000	88.76(A)
	63 Di-n-butylphthalate	149	24.650	24.617	(1.111)	838974	80.0000	76.58
	64 Fluoranthene	202	25.917	25.883	(1.168)	803462	80.0000	80.33(A)
	65 Pyrene	202	26.550	26.517	(0.875)	854626	80.0000	77.14
$	66 Terphenyl-d14	244	27.350	27.317	(0.901)	638290	80.0000	77.23
	67 Butylbenzylphthalate	149	29.183	29.150	(0.962)	406306	80.0000	85.70(A)
	68 Benzo(a)anthracene	228	30.317	30.267	(0.999)	730678	80.0000	81.15(A)
*	69 Chrysene-d12	240	30.350	30.317	(1.000)	136696	20.0000	
	70 3,3'-Dichlorobenzidine	252	30.500	30.467	(1.005)	238396	80.0000	94.84(A)
	71 Chrysene	228	30.450	30.400	(1.003)	651308	80.0000	78.56
	72 bis(2-Ethylhexyl)phthalate	149	31.150	31.133	(1.026)	620134	80.0000	84.48(A)
	73 Di-n-octylphthalate	149	32.967	32.933	(0.958)	817368	80.0000	78.80

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	33.450	33.400	(0.972)	684950	80.0000	86.84(A)
75	Benzo(k)fluoranthene	252	33.533	33.483	(0.974)	613952	80.0000	77.54
76	Benzo(a)pyrene	252	34.283	34.233	(0.996)	566384	80.0000	85.12(A)
* 77	Perylene-d12	264	34.417	34.400	(1.000)	103814	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	37.033	36.983	(1.076)	477286	80.0000	85.29(A)
79	Dibenzo(a,h)anthracene	278	37.133	37.083	(1.079)	489932	80.0000	88.86(A)
80	Benzo(g,h,i)perylene	276	37.617	37.550	(1.093)	486904	80.0000	82.71(A)

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn6.i
Lab File ID: F6051107.d
Lab Smp Id: IC1107
Analysis Type: SV
Quant Type: ISTD
Operator: CM
Method File: /var/chem/finn6.i/07NOV97.b/abn.m
Misc Info: ABN 5 NG/UL STD

Calibration Date: 11/07/97
Calibration Time: 1457
Client Smp ID: SSTD005
Level:
Sample Type:

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53406	26703	106812	52784	-1.16
27 Naphthalene-d8	165384	82692	330768	157382	-4.84
42 Acenaphthene-d10	94740	47370	189480	88056	-7.06
59 Phenanthrene-d10	142342	71171	284684	136444	-4.14
69 Chrysene-d12	106502	53251	213004	101786	-4.43
77 Perylene-d12	85218	42609	170436	82536	-3.15

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.53	8.03	9.03	8.52	-0.20
27 Naphthalene-d8	12.32	11.82	12.82	12.30	-0.14
42 Acenaphthene-d10	17.72	17.22	18.22	17.68	-0.19
59 Phenanthrene-d10	22.17	21.67	22.67	22.13	-0.15
69 Chrysene-d12	30.32	29.82	30.82	30.28	-0.11
77 Perylene-d12	34.40	33.90	34.90	34.37	-0.10

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn6.i
Lab File ID: F6101107.d
Lab Smp Id: IC1107
Analysis Type: SV
Quant Type: ISTD
Operator: CM
Method File: /var/chem/finn6.i/07NOV97.b/abn.m
Misc Info: ABN 10 NG/UL STD

Calibration Date: 11/07/97
Calibration Time: 1457
Client Smp ID: SSTD010
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53406	26703	106812	58632	9.79
27 Naphthalene-d8	165384	82692	330768	189082	14.33
42 Acenaphthene-d10	94740	47370	189480	108304	14.32
59 Phenanthrene-d10	142342	71171	284684	170486	19.77
69 Chrysene-d12	106502	53251	213004	140110	31.56
77 Perylene-d12	85218	42609	170436	117148	37.47

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.53	8.03	9.03	8.53	0.00
27 Naphthalene-d8	12.32	11.82	12.82	12.32	0.00
42 Acenaphthene-d10	17.72	17.22	18.22	17.72	0.00
59 Phenanthrene-d10	22.17	21.67	22.67	22.17	0.00
69 Chrysene-d12	30.32	29.82	30.82	30.32	0.00
77 Perylene-d12	34.40	33.90	34.90	34.40	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn6.i
Lab File ID: F6251107.d
Lab Smp Id: IC1107
Analysis Type: SV
Quant Type: ISTD
Operator: CM
Method File: /var/chem/finn6.i/07NOV97.b/abn.m
Misc Info: ABN 25 NG/UL STD

Calibration Date: 11/07/97
Calibration Time: 1457
Client Smp ID: SSTD025
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53406	26703	106812	53406	0.00
27 Naphthalene-d8	165384	82692	330768	165384	0.00
42 Acenaphthene-d10	94740	47370	189480	94740	0.00
59 Phenanthrene-d10	142342	71171	284684	142342	0.00
69 Chrysene-d12	106502	53251	213004	106502	0.00
77 Perylene-d12	85218	42609	170436	85218	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.53	8.03	9.03	8.53	0.00
27 Naphthalene-d8	12.32	11.82	12.82	12.32	0.00
42 Acenaphthene-d10	17.72	17.22	18.22	17.72	0.00
59 Phenanthrene-d10	22.17	21.67	22.67	22.17	0.00
69 Chrysene-d12	30.32	29.82	30.82	30.32	0.00
77 Perylene-d12	34.40	33.90	34.90	34.40	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn6.i
Lab File ID: F6401107.d
Lab Smp Id: IC1107
Analysis Type: SV
Quant Type: ISTD
Operator: CM
Method File: /var/chem/finn6.i/07NOV97.b/abn.m
Misc Info: ABN 40 NG/UL STD

Calibration Date: 11/07/97
Calibration Time: 1457
Client Smp ID: SSTD040
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53406	26703	106812	49000	-8.25
27 Naphthalene-d8	165384	82692	330768	160384	-3.02
42 Acenaphthene-d10	94740	47370	189480	93888	-0.90
59 Phenanthrene-d10	142342	71171	284684	149610	5.11
69 Chrysene-d12	106502	53251	213004	134084	25.90
77 Perylene-d12	85218	42609	170436	108024	26.76

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.53	8.03	9.03	8.53	0.00
27 Naphthalene-d8	12.32	11.82	12.82	12.33	0.14
42 Acenaphthene-d10	17.72	17.22	18.22	17.72	0.00
59 Phenanthrene-d10	22.17	21.67	22.67	22.17	0.00
69 Chrysene-d12	30.32	29.82	30.82	30.33	0.05
77 Perylene-d12	34.40	33.90	34.90	34.40	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn6.i
Lab File ID: F6801107.d
Lab Smp Id: IC1107
Analysis Type: SV
Quant Type: ISTD
Operator: CM
Method File: /var/chem/finn6.i/07NOV97.b/abn.m
Misc Info: ABN 80 NG/UL STD

Calibration Date: 11/07/97
Calibration Time: 1457
Client Smp ID: SSTD080
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53406	26703	106812	52942	-0.87
27 Naphthalene-d8	165384	82692	330768	175894	6.35
42 Acenaphthene-d10	94740	47370	189480	101394	7.02
59 Phenanthrene-d10	142342	71171	284684	155914	9.53
69 Chrysene-d12	106502	53251	213004	136696	28.35
77 Perylene-d12	85218	42609	170436	103814	21.82

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.53	8.03	9.03	8.55	0.20
27 Naphthalene-d8	12.32	11.82	12.82	12.35	0.27
42 Acenaphthene-d10	17.72	17.22	18.22	17.72	0.00
59 Phenanthrene-d10	22.17	21.67	22.67	22.18	0.08
69 Chrysene-d12	30.32	29.82	30.82	30.35	0.11
77 Perylene-d12	34.40	33.90	34.90	34.42	0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/finn6.i/07NOV97.b/F6051107.d

Date : 07-NOV-97 16:34:00

Client ID: SSTD005

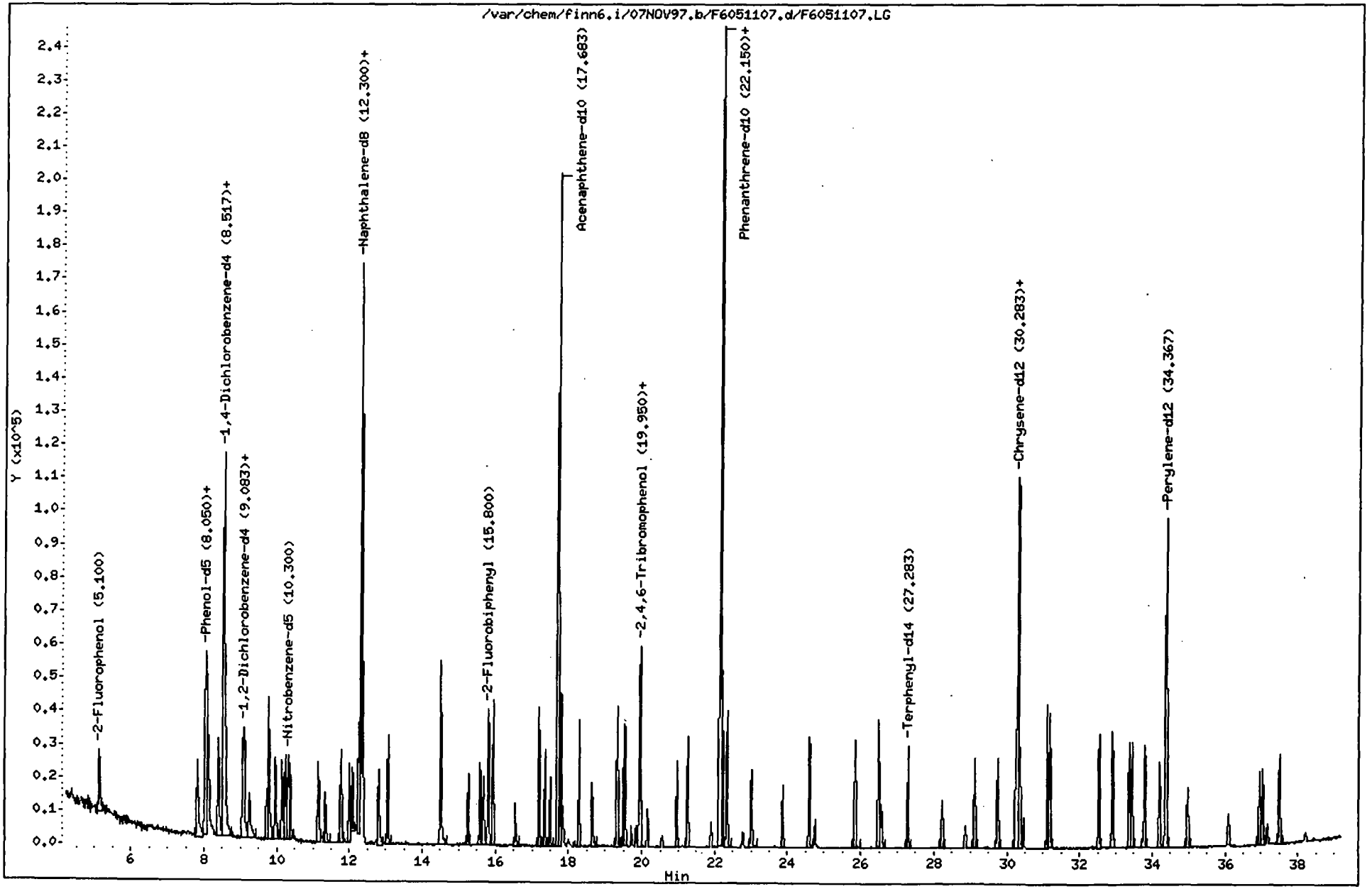
Sample Info: ICAL=11/07/97 FINN6 ARI INC 2UL INJ.

Column phase: RTX-5

Instrument: finn6.i

Operator: CH

Column diameter: 0.32



Data File: /var/chem/finn6.i/07NOV97.b/F6101107.d

Date : 07-NOV-97 18:13:00

Client ID: SSTD010

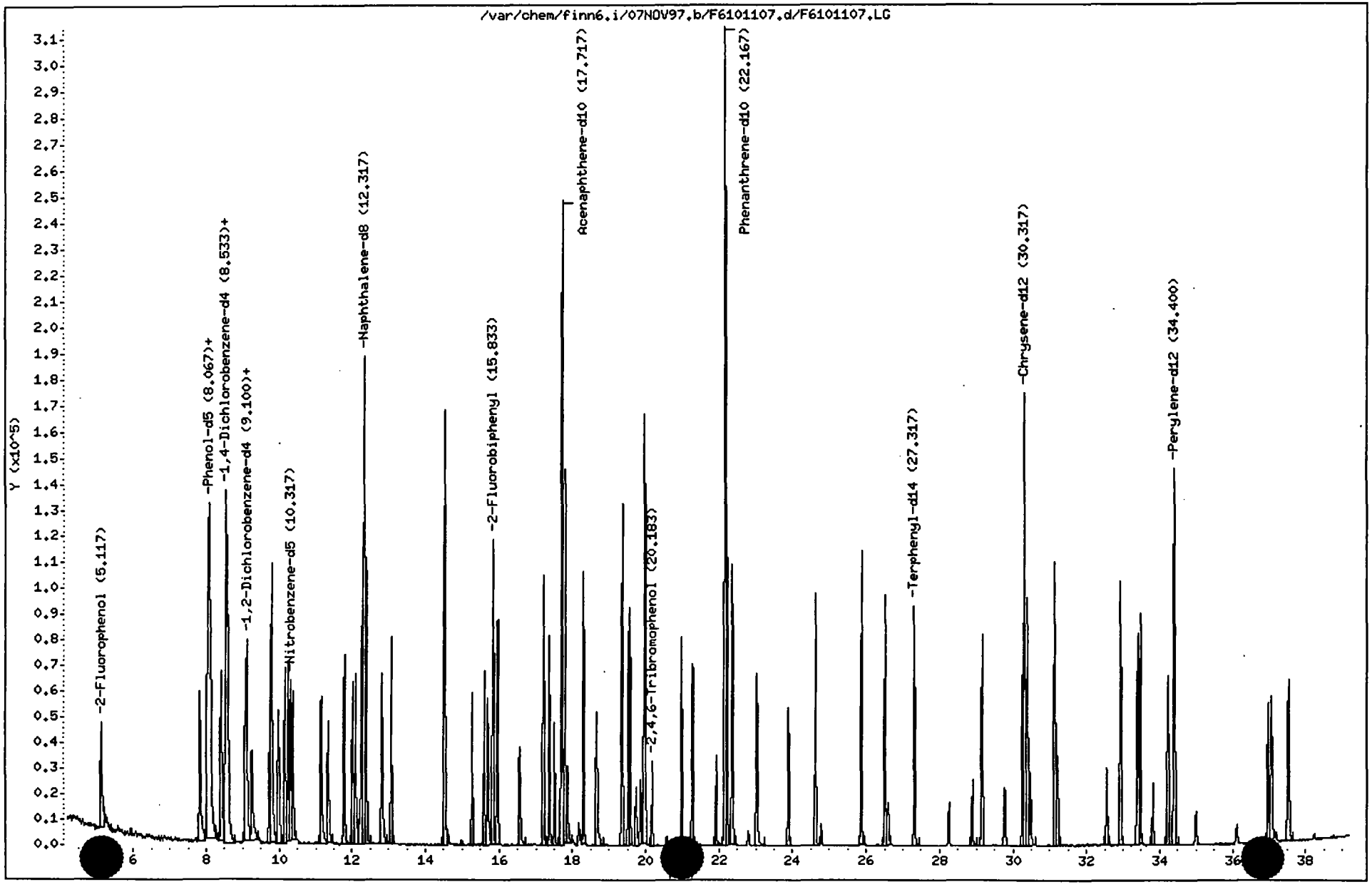
Sample Info: ICAL=11/07/97 FINN6 ARI INC 2UL INJ.

Column phase: RTX-5

Instrument: finn6.i

Operator: CM

Column diameter: 0.32

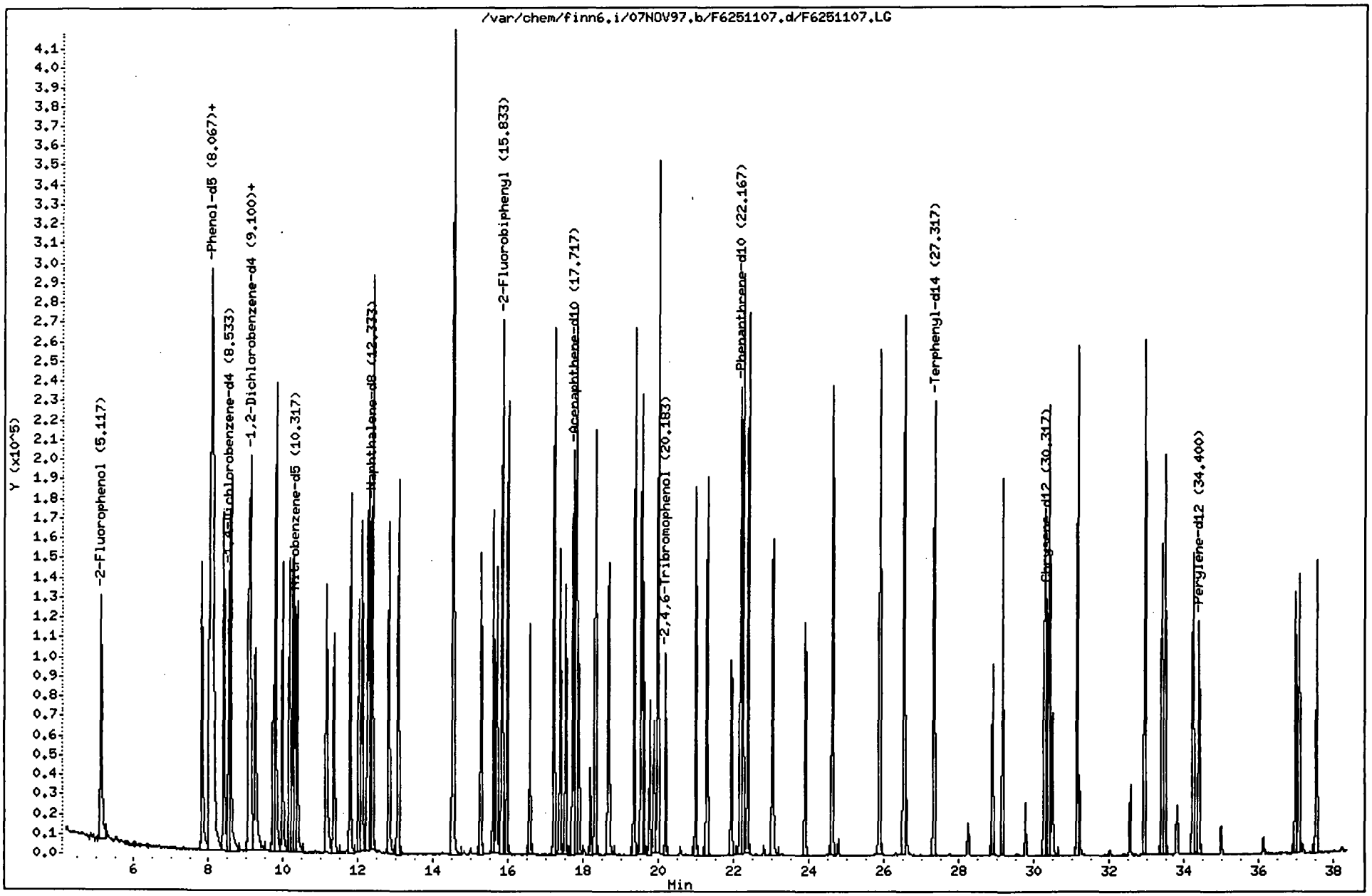


Data File: /var/chem/finn6.i/07NOV97.b/F6251107.d
Date : 07-NOV-97 14:57:00
Client ID: SSTD025
Sample Info: ICAL=11/07/97 FINN6 ARI INC 2UL INJ.

Column phase: RTX-5

Instrument: finn6.i

Operator: CM
Column diameter: 0.32



Data File: /var/chem/finn6.i/07NOV97.b/F6401107.d

Date : 07-NOV-97 17:24:00

Client ID: SSTD040

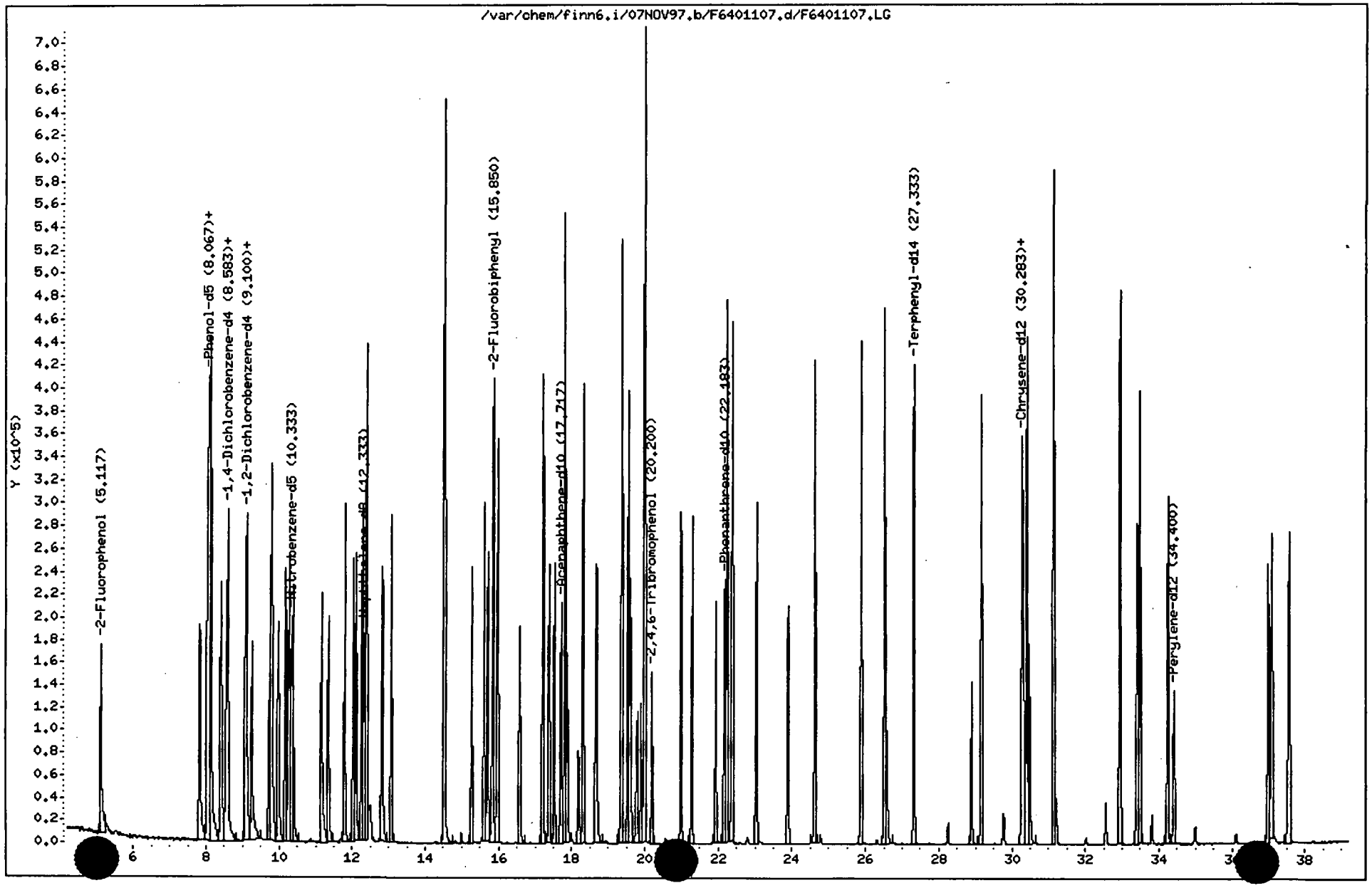
Sample Info: ICAL=11/07/97 FINN6 ARI INC 2UL INJ.

Column phase: RTX-5

Instrument: finn6.i

Operator: CM

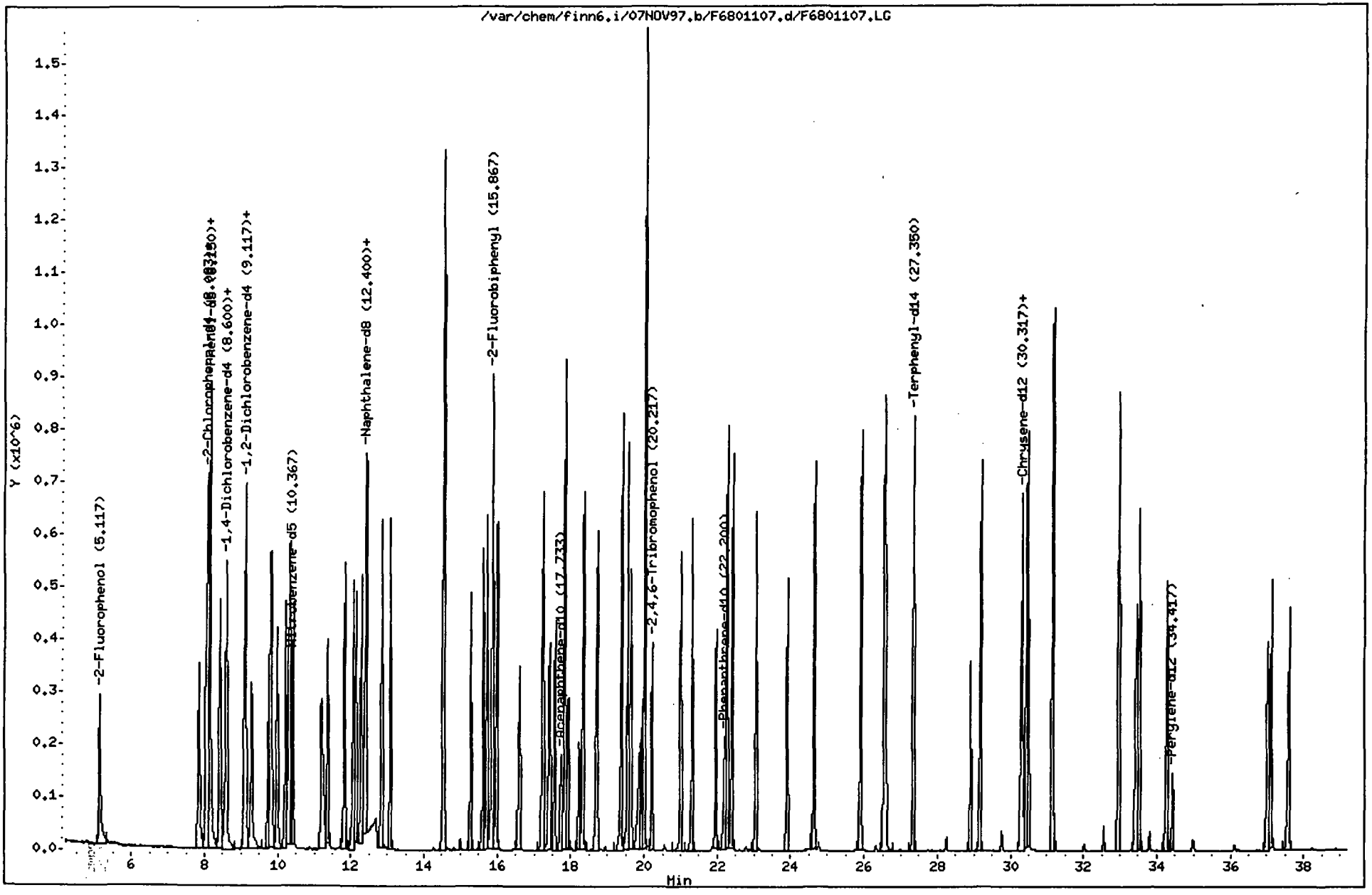
Column diameter: 0.32



Data File: /var/chem/finn6.i/07NOV97.b/F6801107.d
Date : 07-NOV-97 15:54:00
Client ID: SSTD080
Sample Info: ICAL=11/07/97 FINN6 ARI INC 2UL INJ.

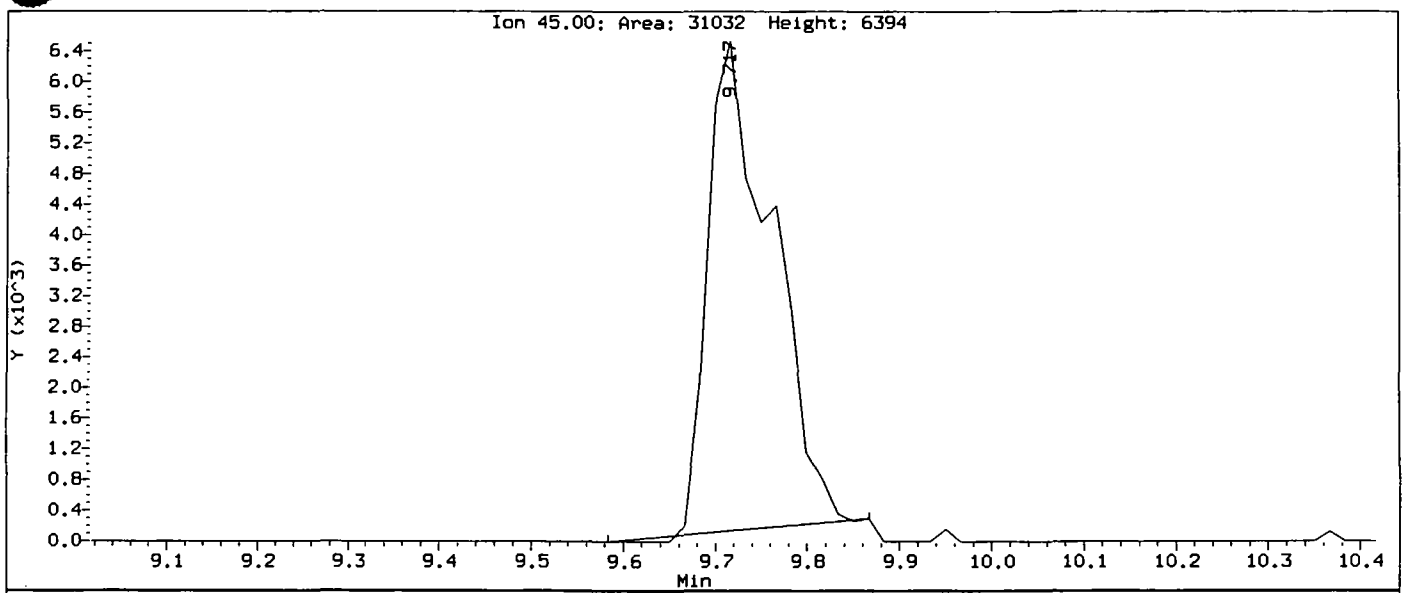
Instrument: finn6.i
Operator: CM
Column diameter: 0.32

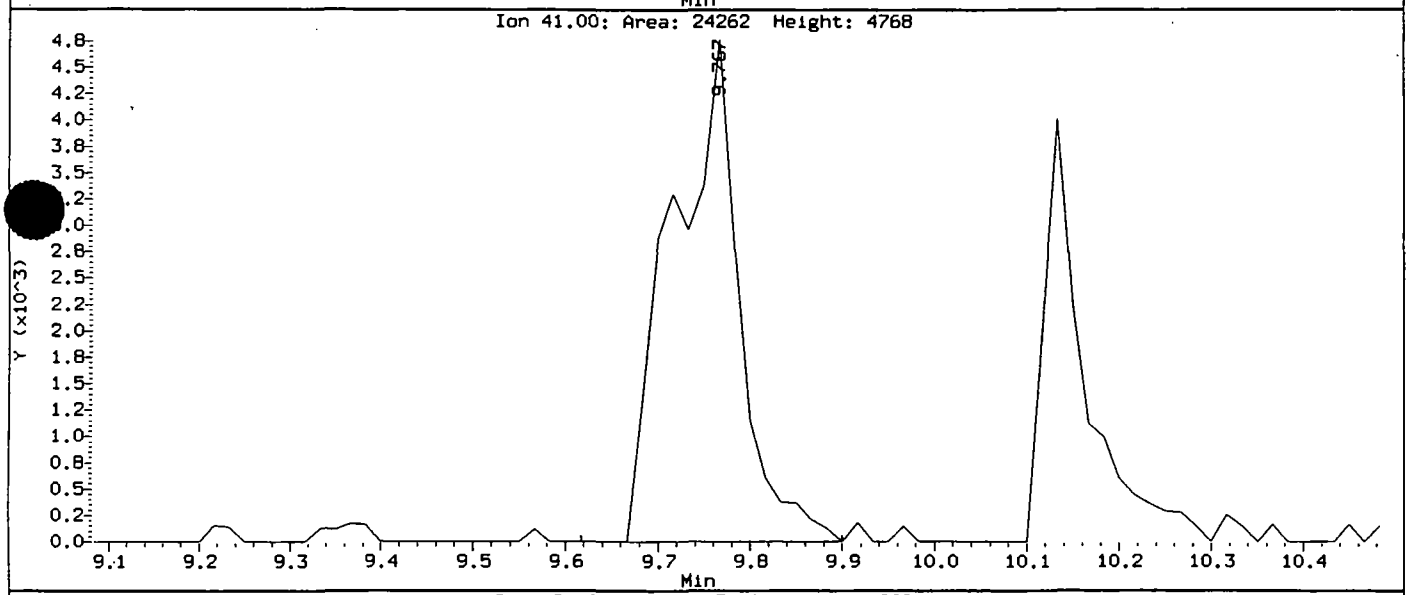
Column phase: RTX-5

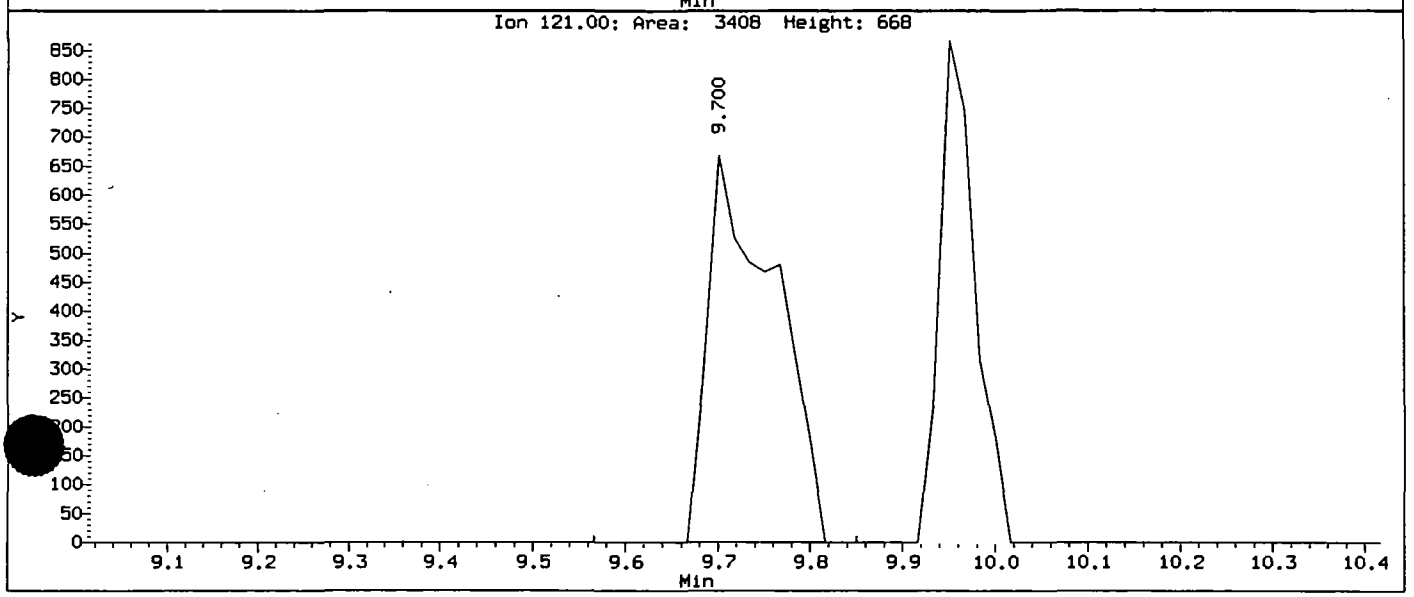


Data File: /var/chem/finn6.i/07NOV97.b/F6051107.d/F6051107.LG
Injection Date: 07-NOV-97 16:34:00
Instrument: finn6.i
Client Sample ID: SSTD005

[redacted]ound: 2,2'-oxybis(1-Chloropropane)
[redacted]umber: 108-60-1

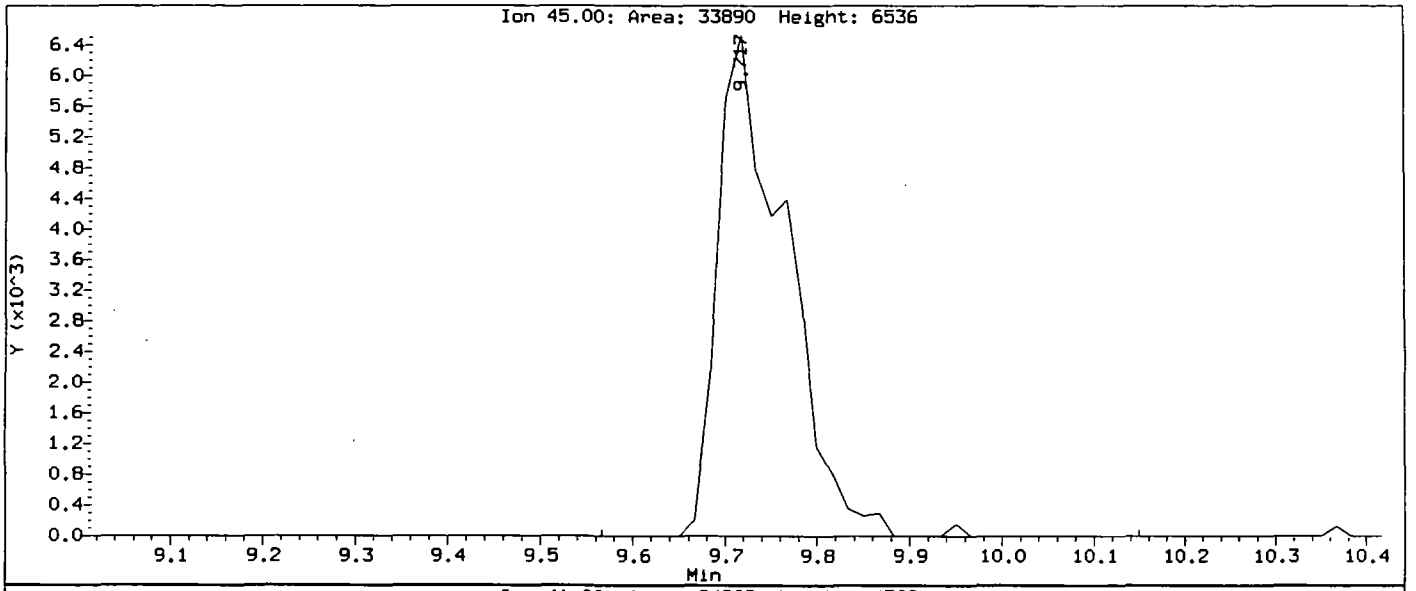


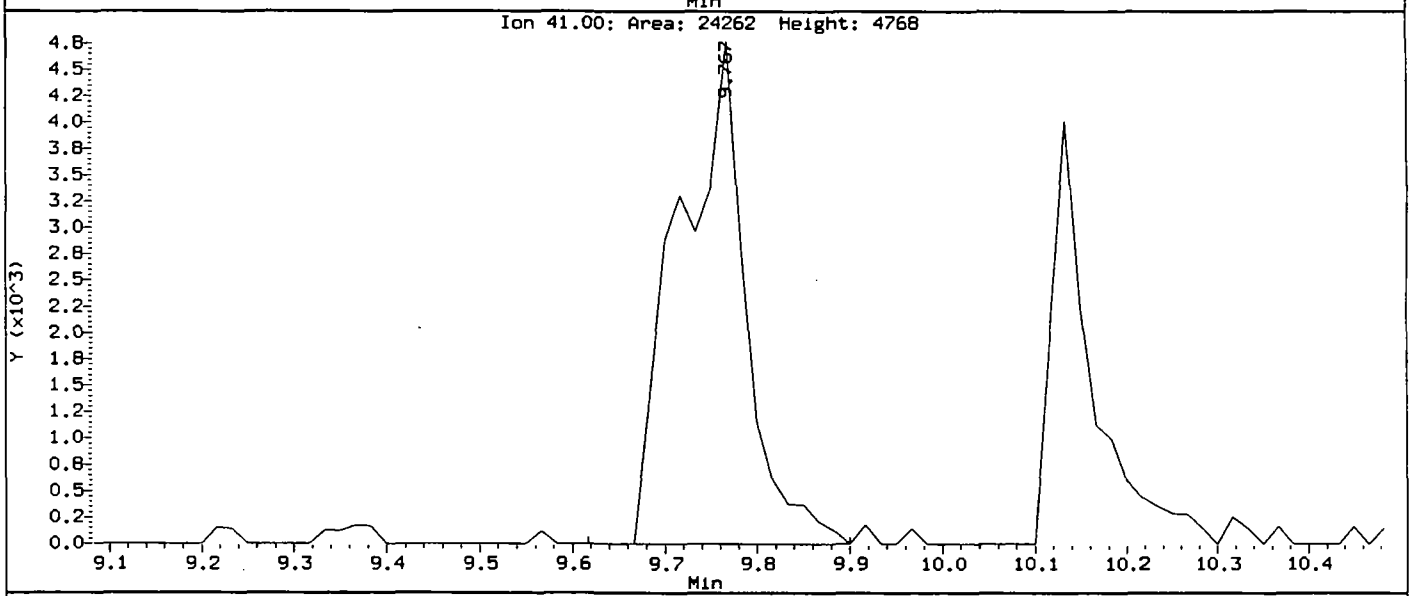


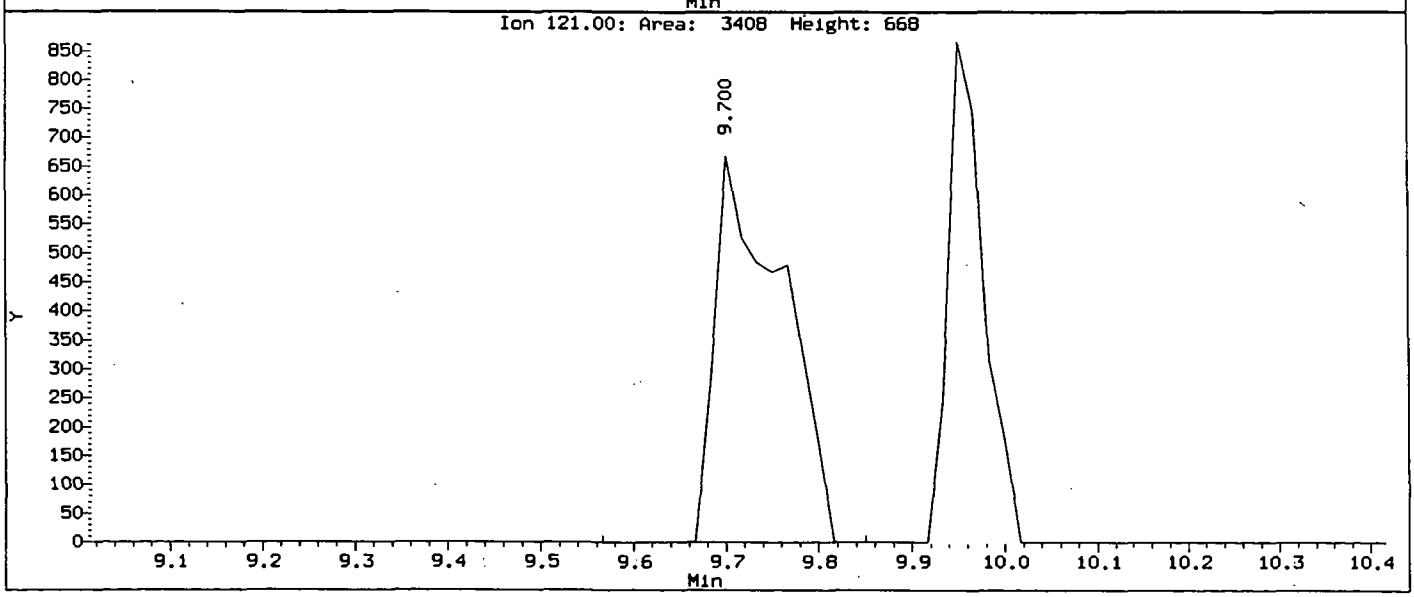


Data File: /var/chem/finn6.i/07NOV97.b/F6051107.d/F6051107.LG
Injection Date: 07-NOV-97 16:34:00
Instrument: finn6.i
Client Sample ID: SSTD005

Compound: 2,2'-oxybis(1-Chloropropane)
CAS Number: 108-60-1

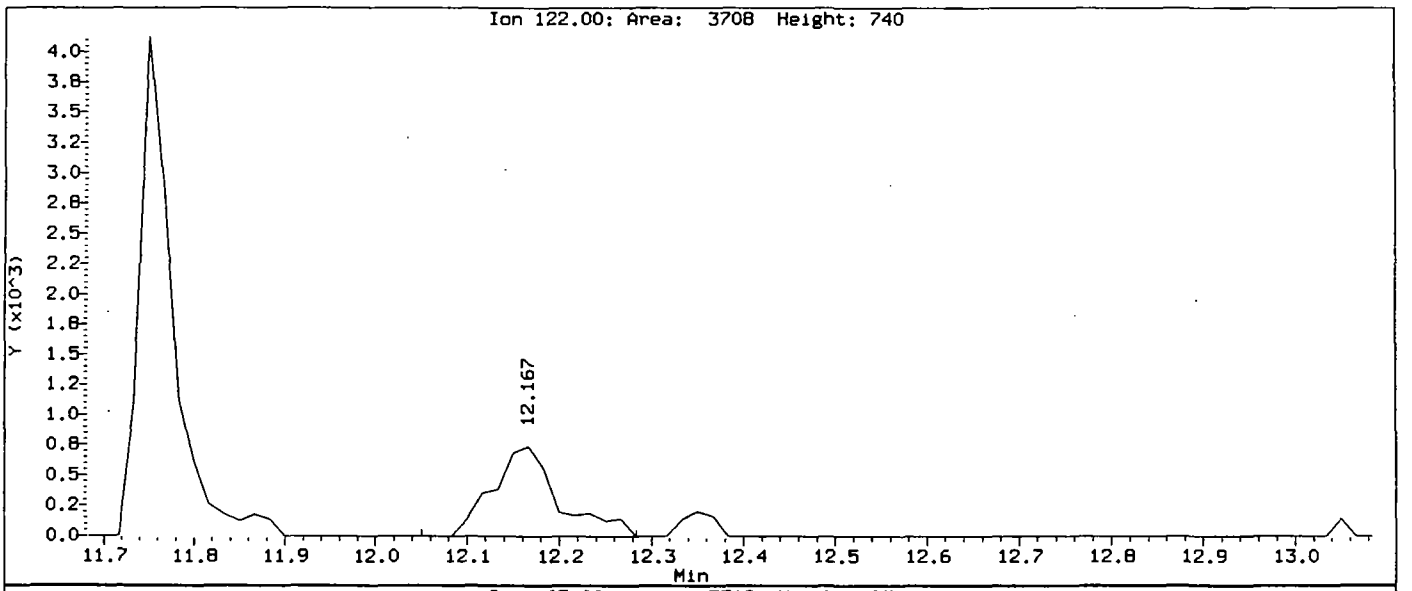


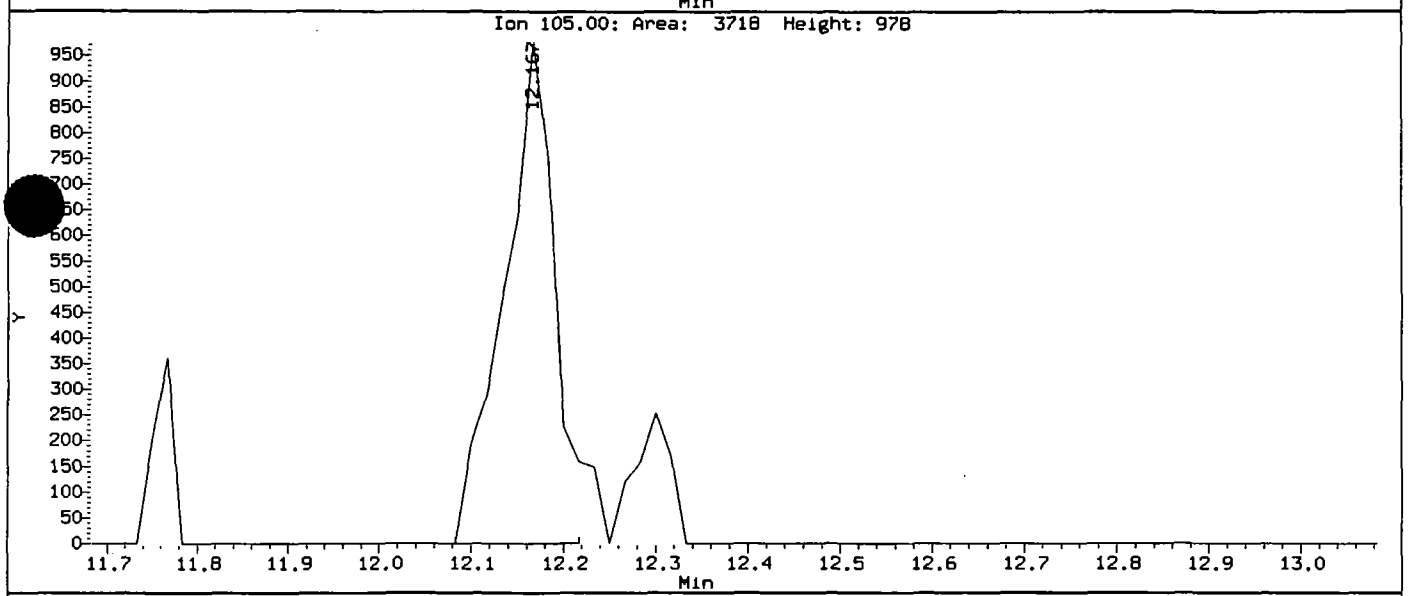


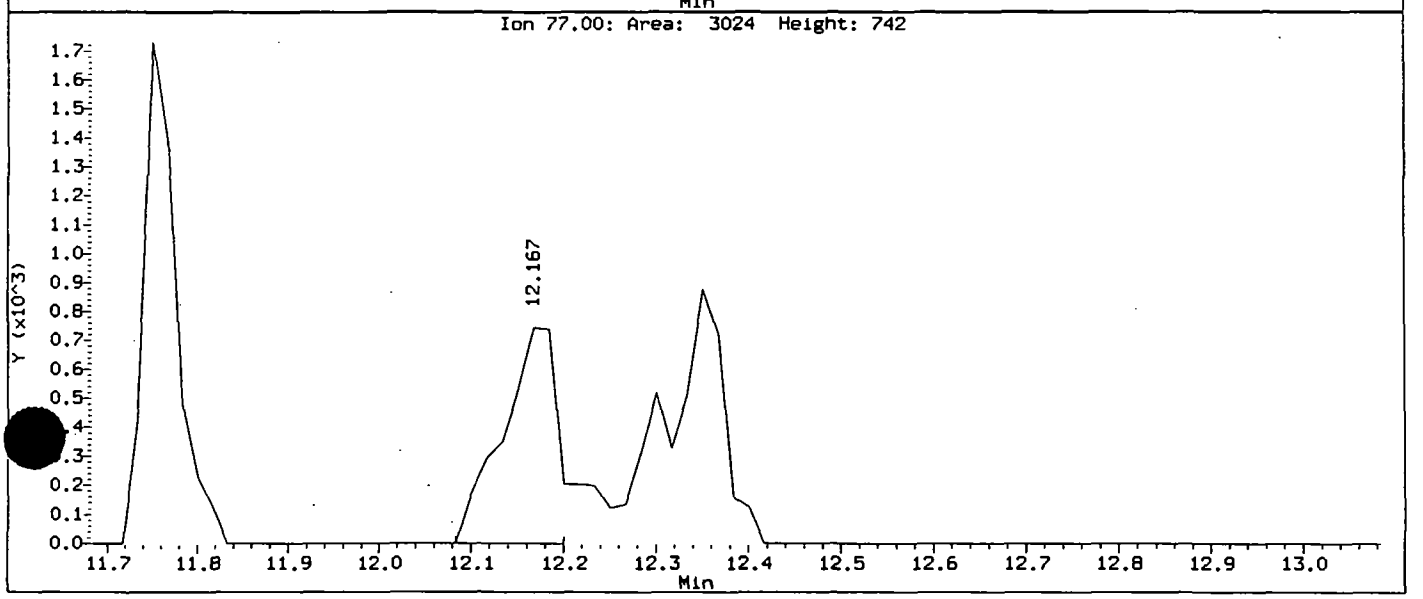


Data File: /var/chem/finn6.i/07NOV97.b/F6051107.d/F6051107.LG
Injection Date: 07-NOV-97 16:34:00
Instrument: finn6.i
Client Sample ID: SSTD005

[redacted]und: Benzoic acid
[redacted]umber: 65-85-0

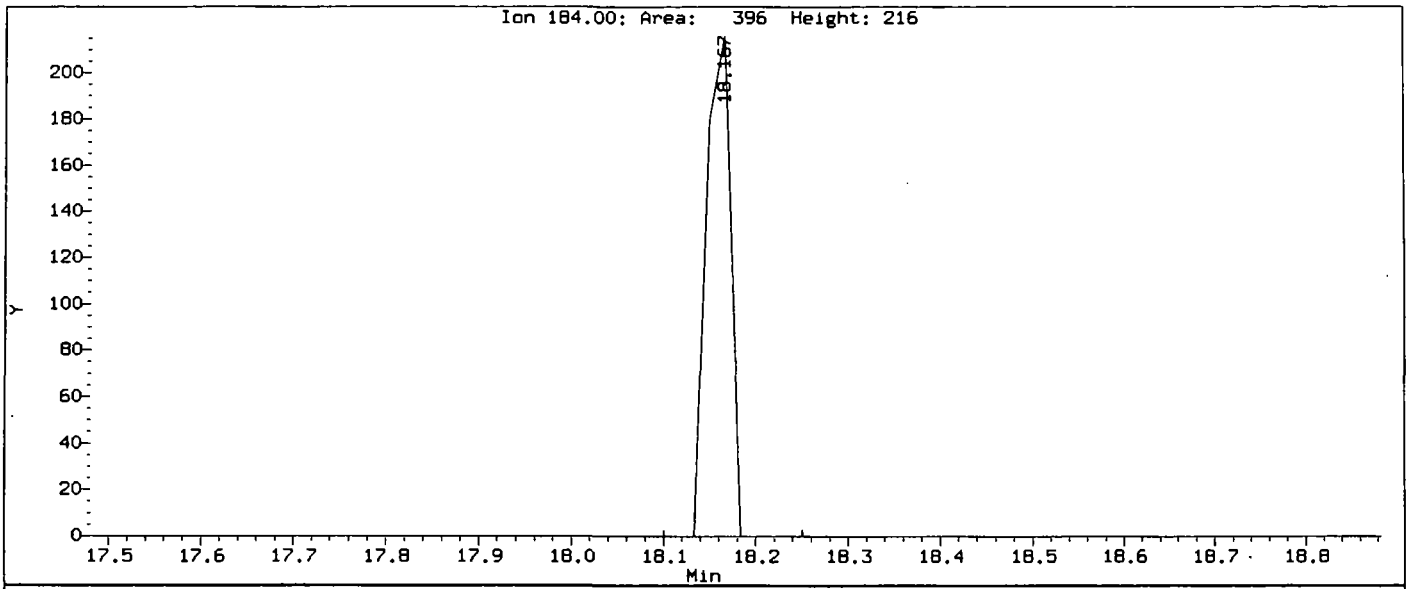


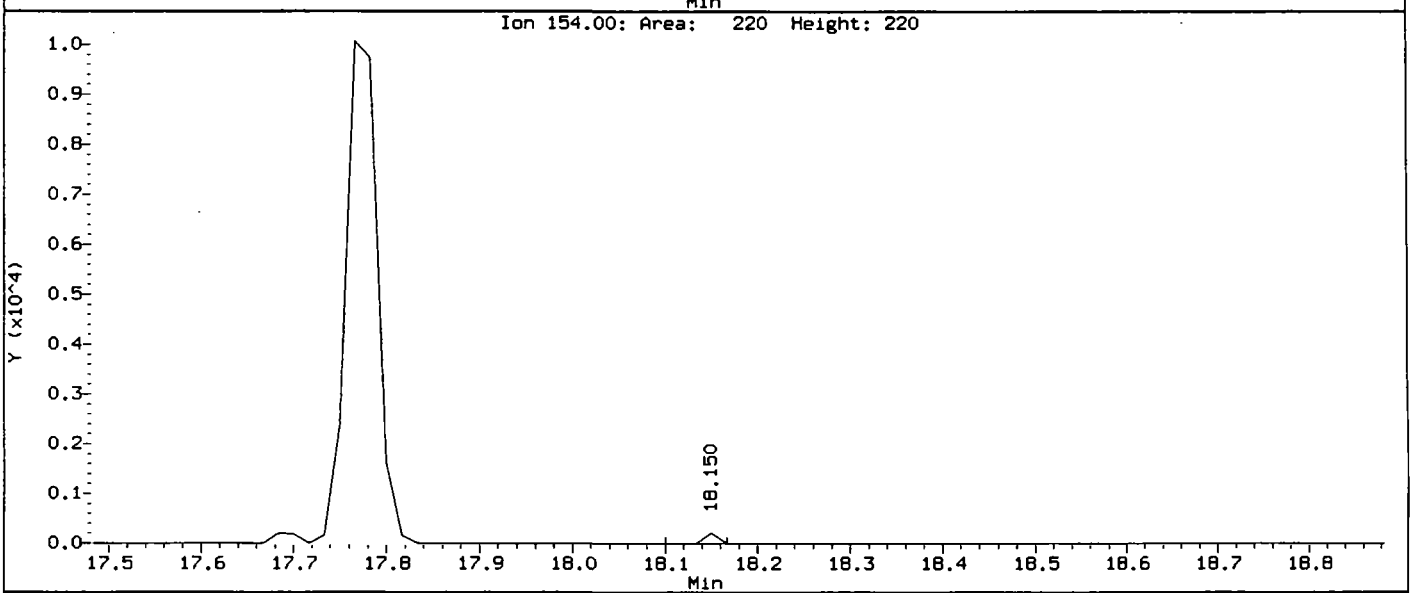


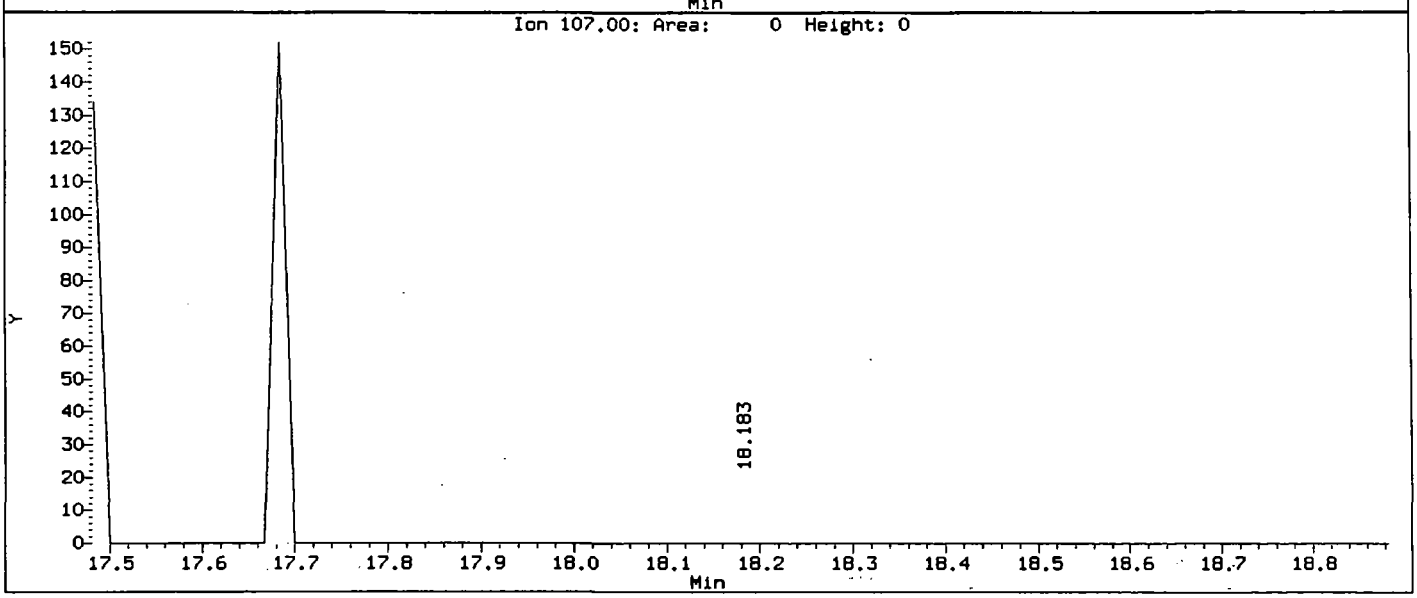


Data File: /var/chem/finn6.i/07NOV97.b/F6051107.d/F6051107.LG
Injection Date: 07-NOV-97 16:34:00
Instrument: finn6.i
Client Sample ID: SSTD005

Compound: 2,4-Dinitrophenol
CAS Number: 51-28-5

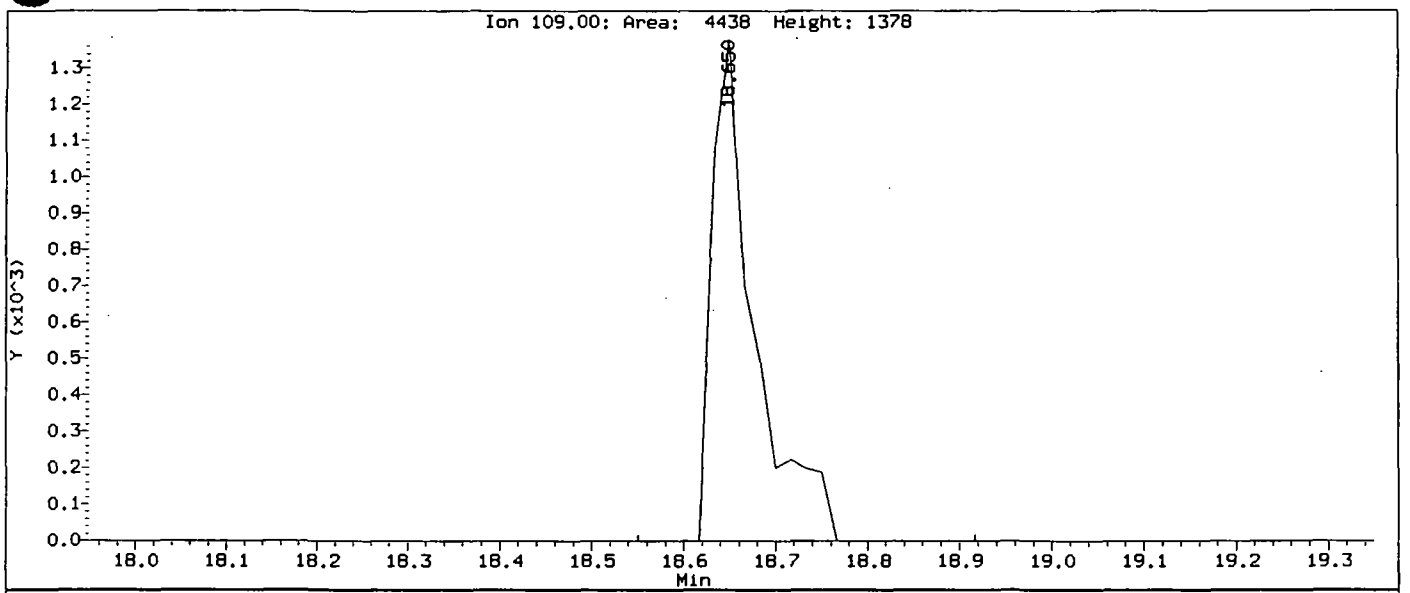


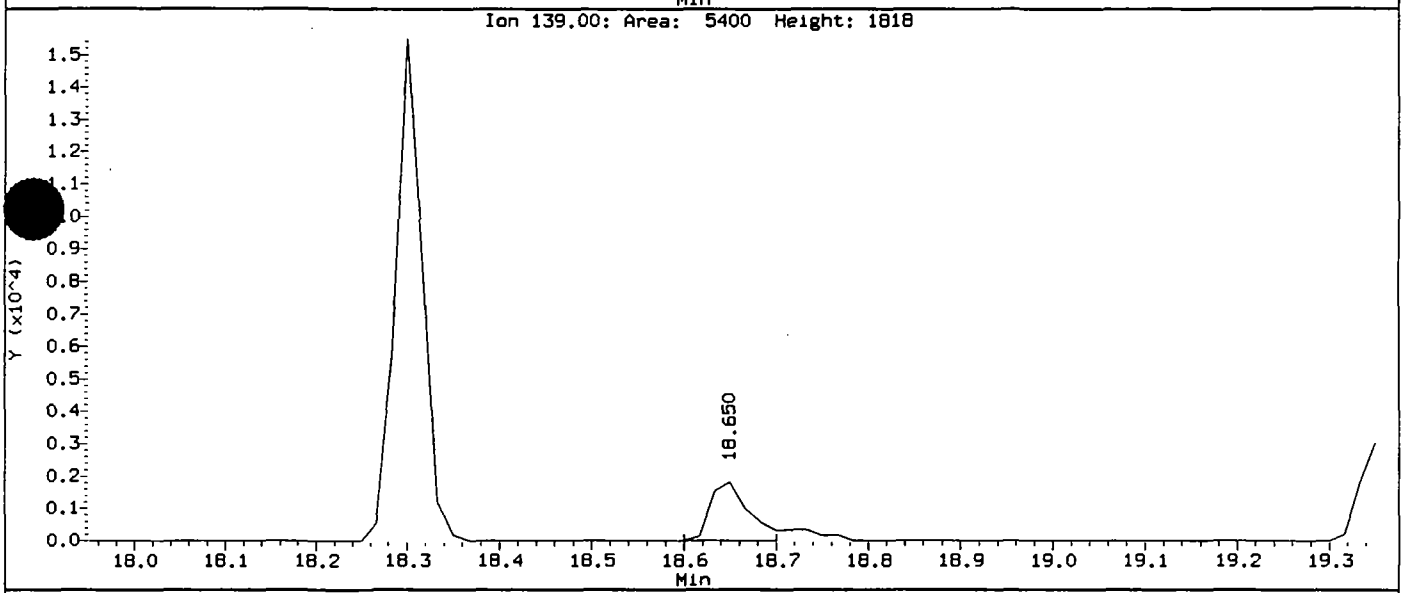


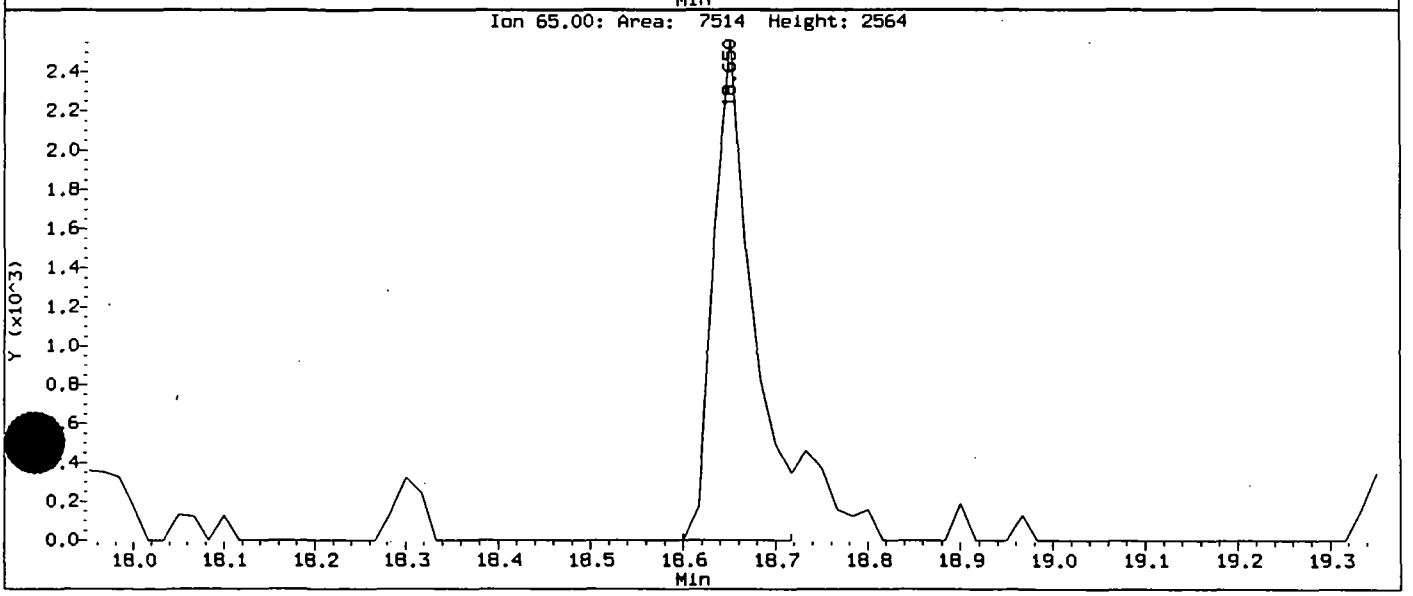


Data File: /var/chem/finn6.i/07NOV97.b/F6101107.d/F6101107.LG
Injection Date: 07-NOV-97 18:13:00
Instrument: finn6.i
Client Sample ID: SSTD010

[redacted]und: 4-Nitrophenol
[redacted]umber: 100-02-7

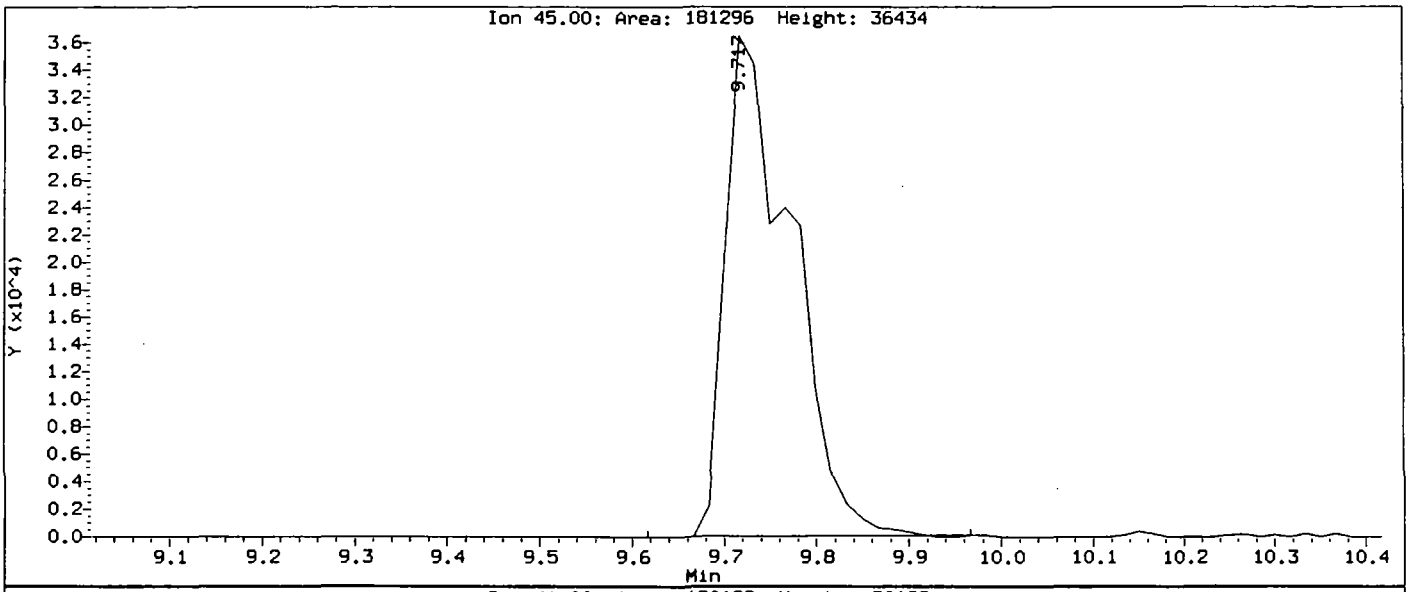


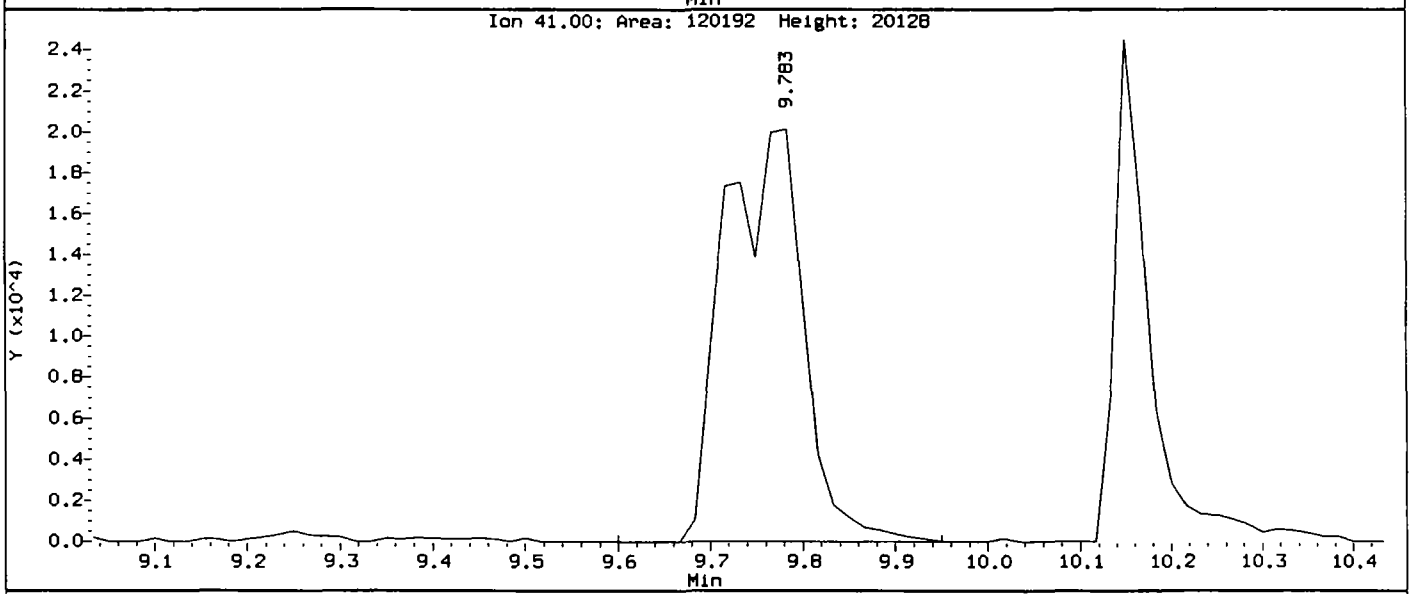


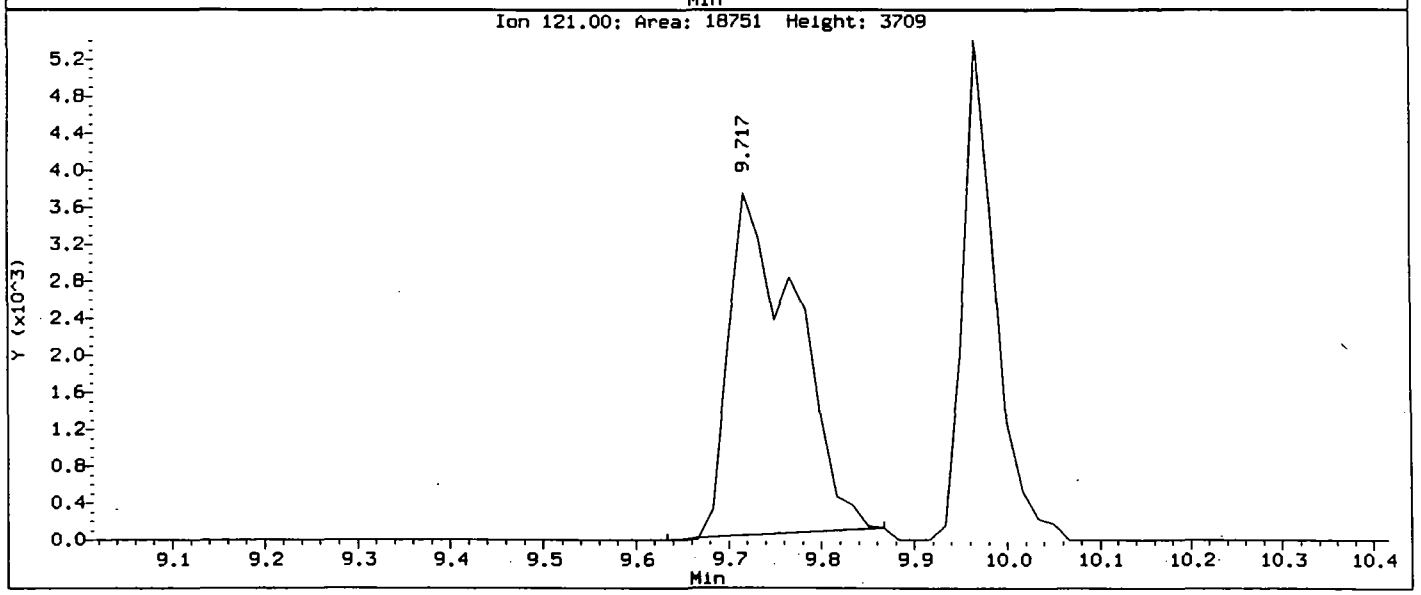


Data File: /var/chem/finn6.i/07NOV97.b/F6251107.d/F6251107.LG
Injection Date: 07-NOV-97 14:57:00
Instrument: finn6.i
Client Sample ID: SSTD025

Compound: 2,2'-oxybis(1-Chloropropane)
CAS Number: 108-60-1

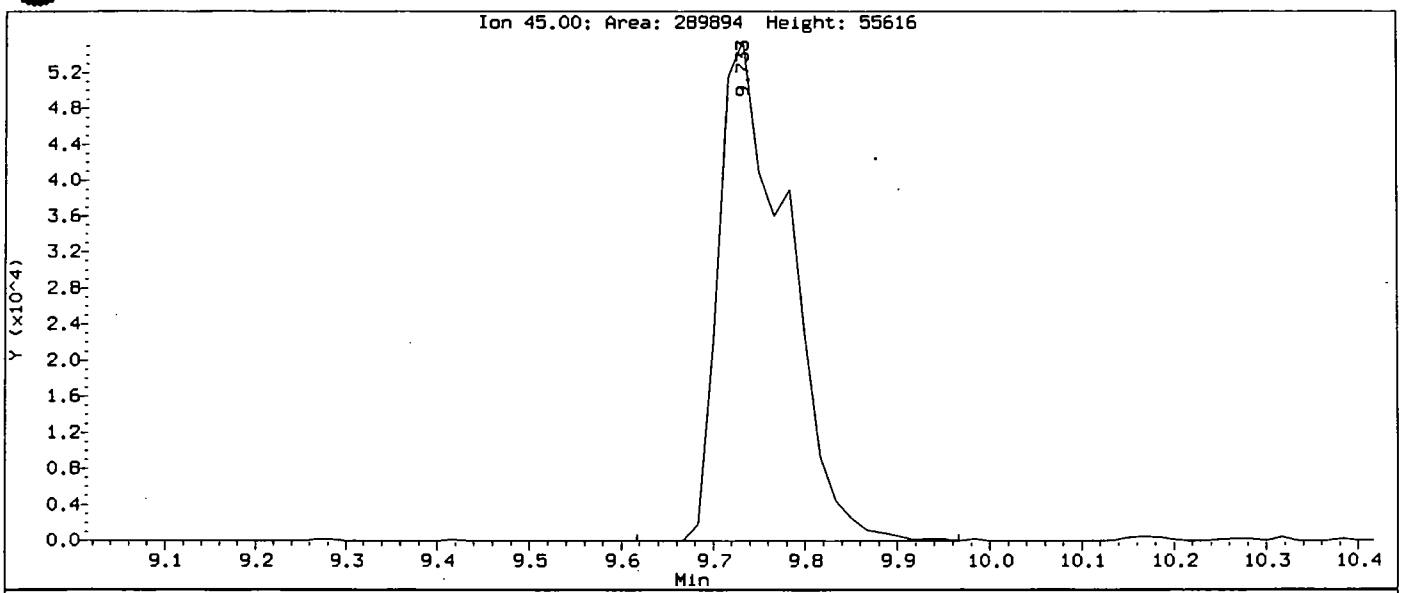


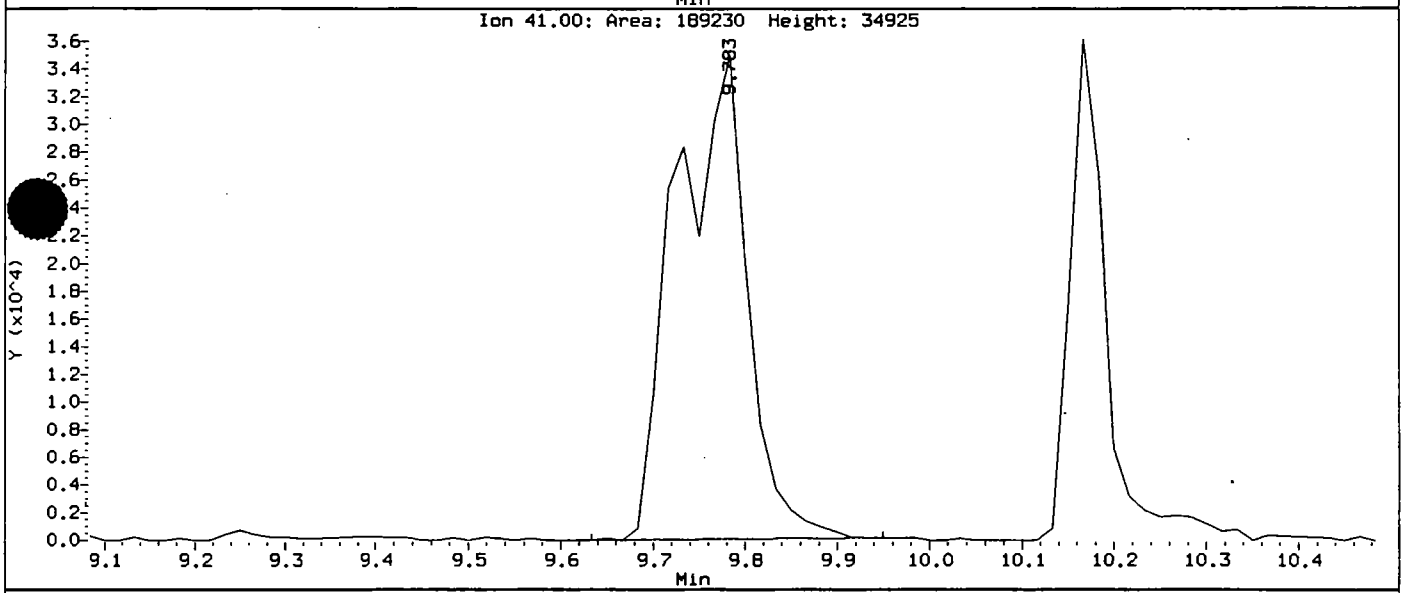


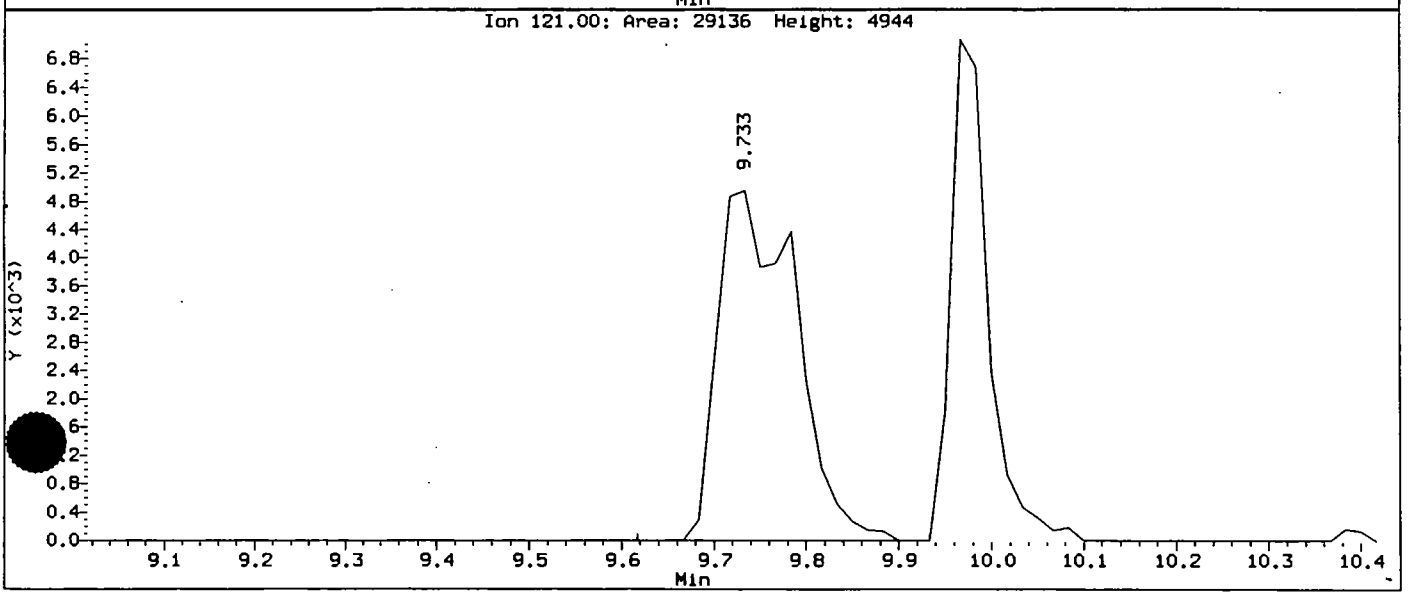


Data File: /var/chem/finn6.i/07NOV97.b/F6401107.d/F6401107.LG
Injection Date: 07-NOV-97 17:24:00
Instrument: finn6.i
Client Sample ID: SSTD040

[redacted]und: 2,2'-oxybis(1-Chloropropane)
[redacted]umber: 108-60-1

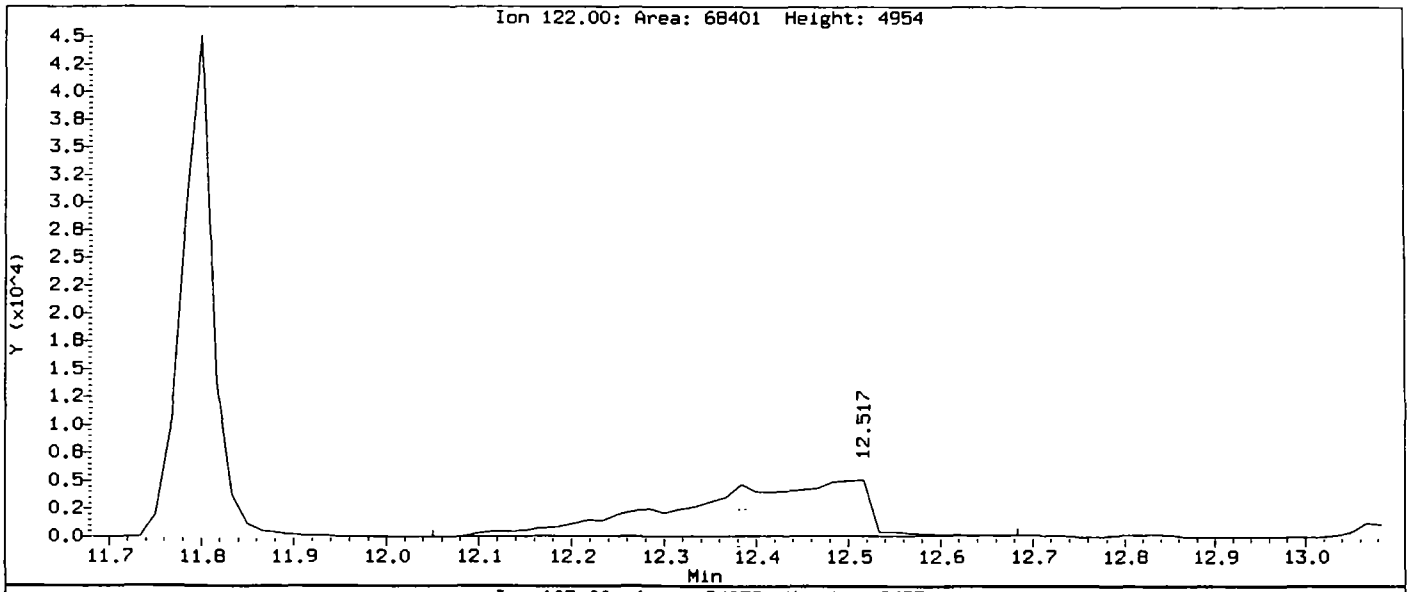


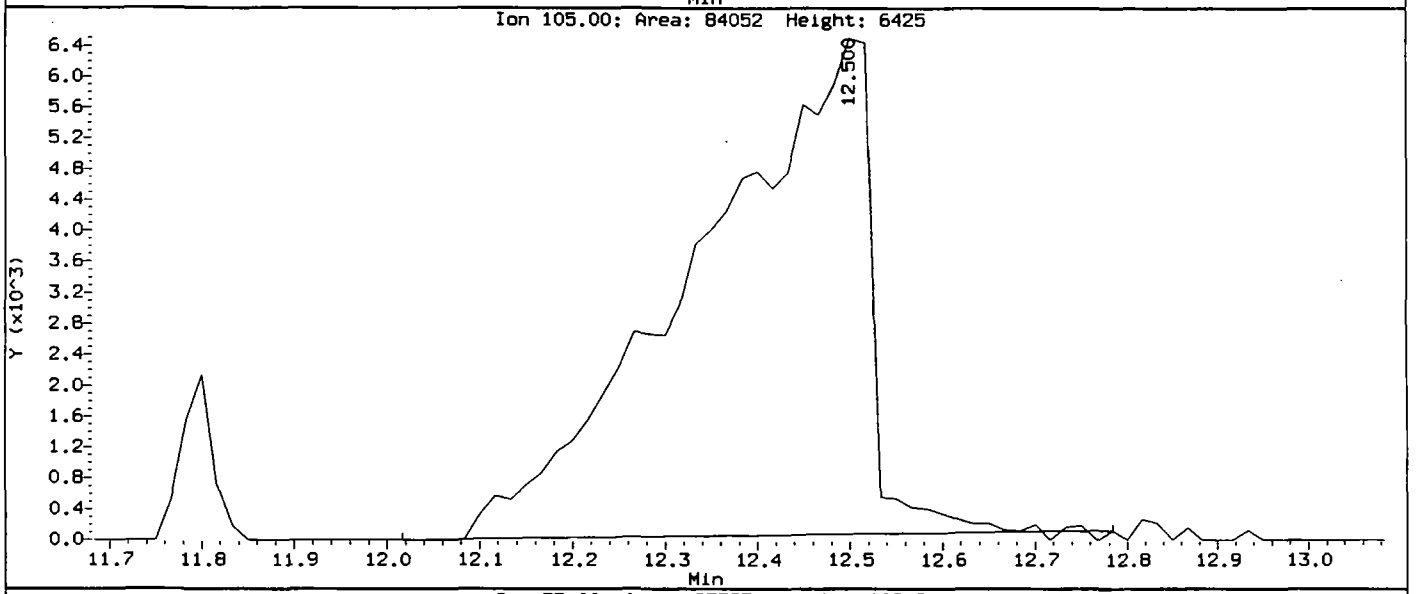


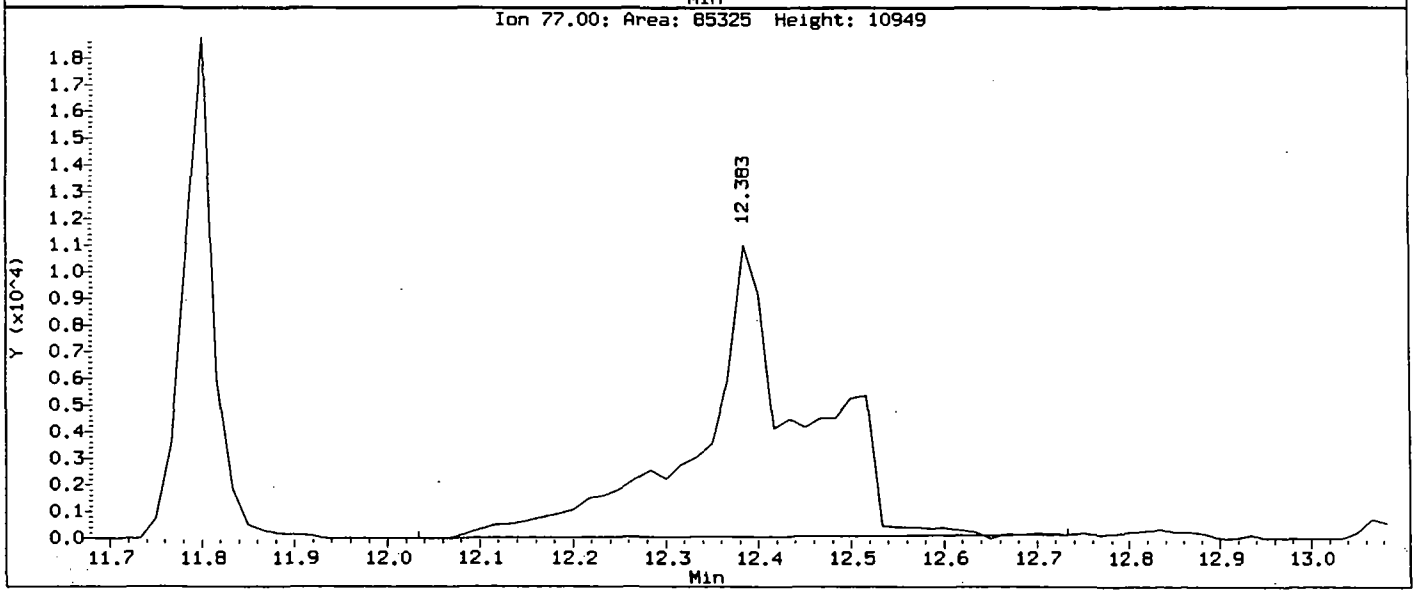


Data File: /var/chem/finn6.i/07NOV97.b/F6401107.d/F6401107.LG
Injection Date: 07-NOV-97 17:24:00
Instrument: finn6.i
Client Sample ID: SSTD040

Compound: Benzoic acid
CAS Number: 65-85-0

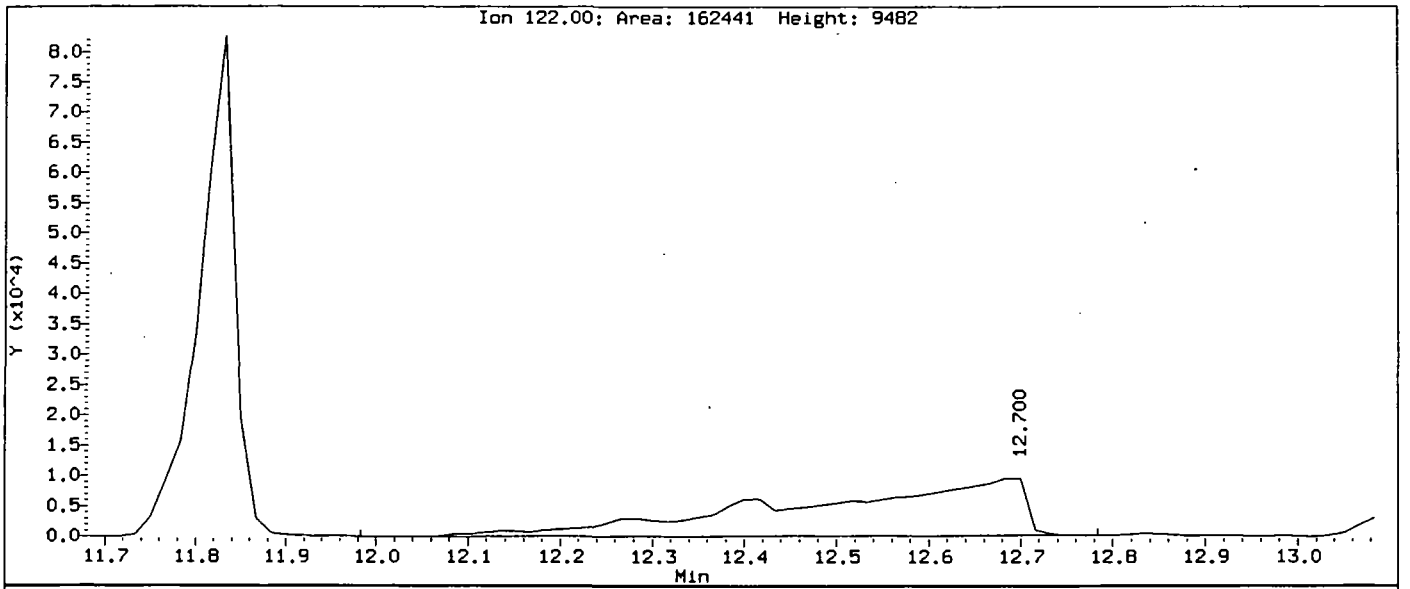


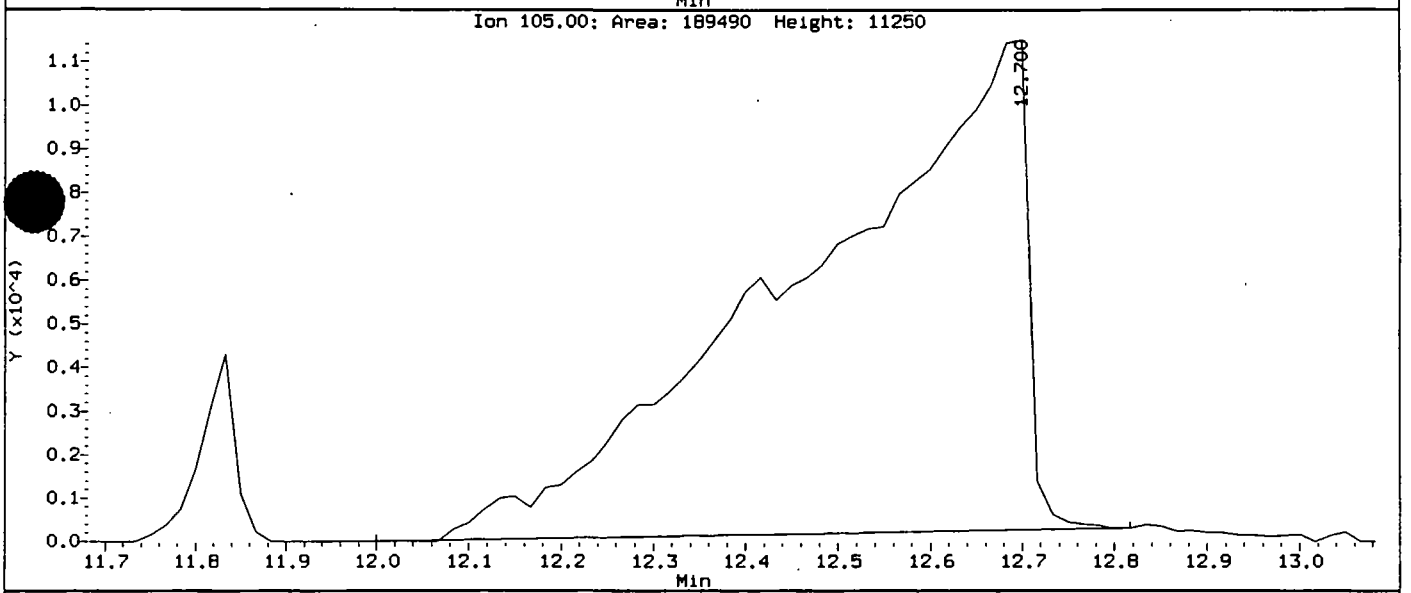


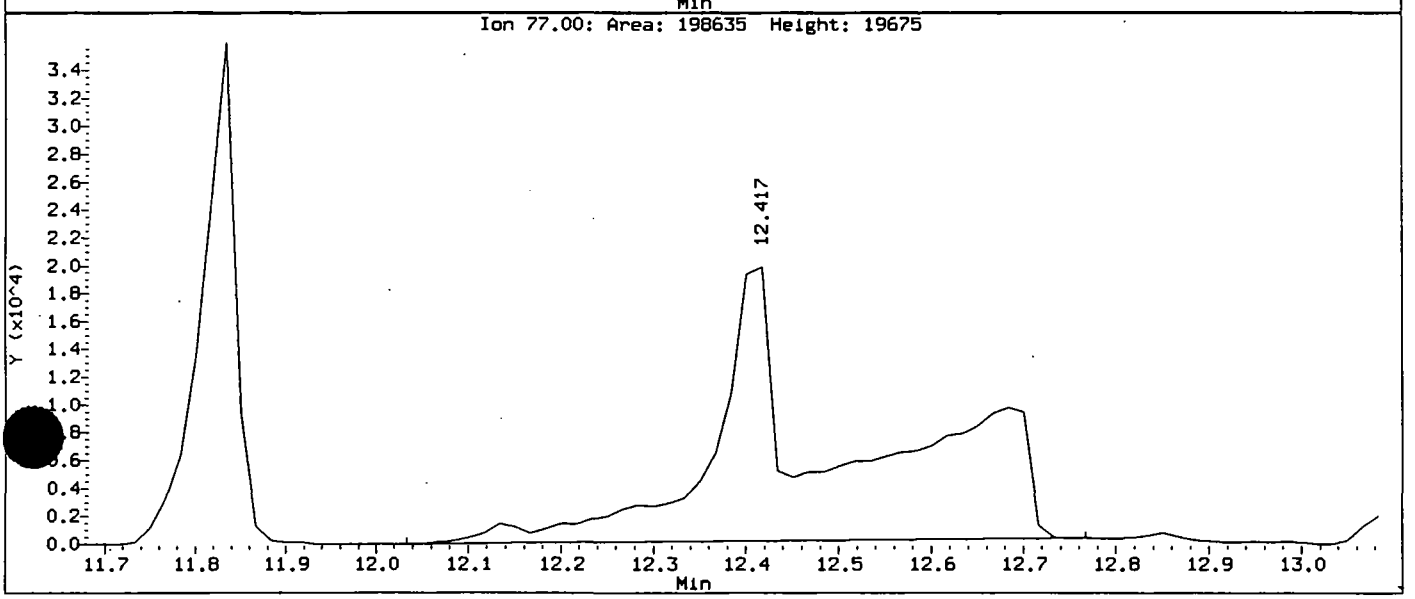


Data File: /var/chem/finn6.i/07NOV97.b/F6801107.d/F6801107.LG
Injection Date: 07-NOV-97 15:54:00
Instrument: finn6.i
Client Sample ID: SSTD080

[redacted]und: Benzoic acid
[redacted]umber: 65-85-0







7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC. Contract: 1 2900

Lab Code: U269 Case No.: SDG No.: U269

Instrument ID: FINN6 Calibration Date: 11/17/97 Time: 1838

Lab File ID: F251117A Init. Calib. Date(s): 11/07/97 11/07/97

Init. Calib. Times: 1457 1813

COMPOUND	RRF	RRF25	MIN RRF	%D	MAX %D	
Naphthalene	1.173	1.148	0.700	2.1	25.0	
2-Methylnaphthalene	0.735	0.664	0.400	9.6	25.0	
Acenaphthylene	1.917	1.947	0.900	-1.6	25.0	
Acenaphthene	1.398	1.340	0.900	4.1	25.0	
Dibenzofuran	1.698	1.689	0.800	0.5	25.0	
Fluorene	1.368	1.312	0.900	4.1	25.0	
Phenanthrene	1.271	1.158	0.700	8.9	25.0	
Anthracene	1.226	1.119	0.700	8.7	25.0	
Fluoranthene	1.283	1.203	0.600	6.2	25.0	
Pyrene	1.621	1.379	0.600	14.9	25.0	
Benzo(a)anthracene	1.317	1.230	0.800	6.6	25.0	
Chrysene	1.213	1.091	0.700	10.0	25.0	
Benzo(b)fluoranthene	1.520	1.454	0.700	4.3	25.0	
Benzo(k)fluoranthene	1.525	1.392	0.700	8.7	25.0	
Benzo(a)pyrene	1.282	1.176	0.700	8.3	25.0	
Indeno(1,2,3-cd)pyrene	1.078	1.121	0.500	-4.0	25.0	
Dibenzo(a,h)anthracene	1.062	1.027	0.400	3.3	25.0	
Benzo(g,h,i)perylene	1.134	1.148	0.500	-1.2	25.0	
1-methylnaphthalene		0.664			25.0	<-
Terphenyl-d14	1.209	0.933	0.500	22.8	25.0	
Diphenyl-d10		1.406			25.0	<-

All other compounds must meet a minimum RRF of 0.010.

Data File: /var/chem/finn6.i/17NOV97.b/tune.b/F251117A.d

Date : 17-NOV-97 18:38:00

Client ID:

Instrument: finn6.i

Sample Info: ICAL=11/07/97 FINN6 ARI INC 2UL INJ.

Operator: cm

Column phase:

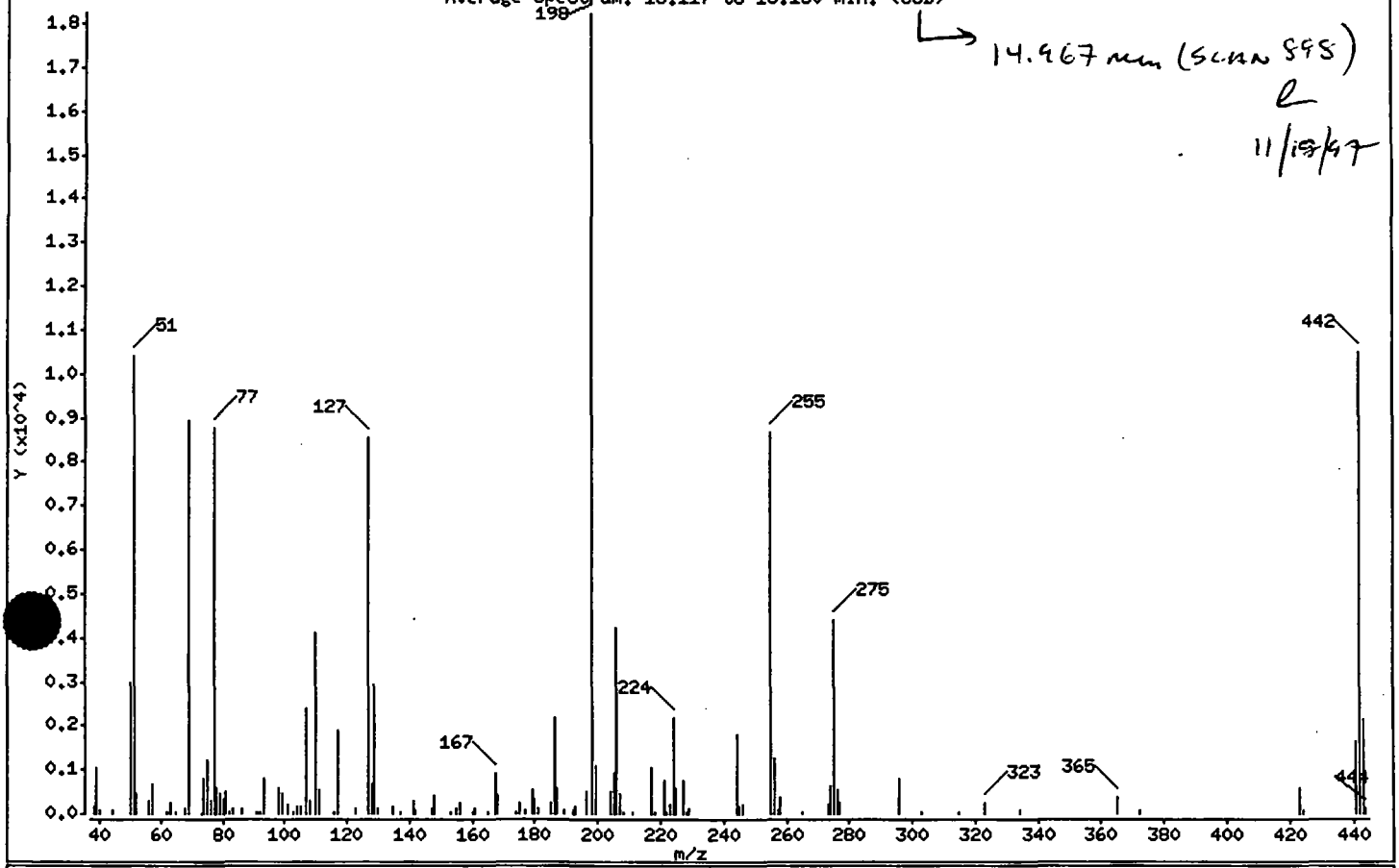
Column diameter: 2.00

1 dftpp

SCAN 907 SCAN 909

Average Spectrum: 15.117 to 15.150 min. (SUB)

14.967 min (SCAN 895)
11/18/97



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	57.07
68	Less than 2.00% of mass 69	0.72 (1.48)
69	Mass 69 relative abundance	48.98
70	Less than 2.00% of mass 69	0.00 (0.00)
127	25.00 - 75.00% of mass 198	46.81
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.07
275	10.00 - 30.00% of mass 198	24.17
365	Greater than 0.75% of mass 198	1.98
441	Present, but less than mass 443	9.02
442	40.00 - 110.00% of mass 198	57.53
443	15.00 - 24.00% of mass 442	11.66 (20.27)

Data File: /var/chem/finn6.i/17NOV97.b/tune.b/F251117A.d

Date : 17-NOV-97 18:38:00

Client ID:

Instrument: finn6.i

Sample Info: ICAL=11/07/97 FINN6 ARI INC 2UL INJ.

Operator: cm

Column phase:

Column diameter: 2.00

Data File: F251117A.d
Spectrum: Average Spectrum: 15.117 to 15.150 min. (SUB)
Location of Maximum: 198.00
Number of points: 117

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	155	99.00	454	174.00	62	229.00	138
39.00	1046	101.00	191	175.00	240	244.00	1794
40.00	100	103.00	50	177.00	99	245.00	158
44.00	104	104.00	161	179.00	561	246.00	195
50.00	3000	105.00	147	180.00	330	265.00	8669
51.00	10421	107.00	2376	181.00	143	256.00	1267
52.00	466	108.00	281	185.00	236	257.00	68
56.00	278	110.00	4129	186.00	2175	258.00	390
57.00	684	111.00	536	187.00	608	265.00	56
62.00	52	116.00	52	189.00	64	273.00	200
63.00	270	117.00	1876	192.00	68	274.00	622
65.00	54	123.00	123	193.00	156	275.00	4414
68.00	132	127.00	8548	196.00	496	276.00	528
69.00	8944	128.00	664	198.00	18256	277.00	238
73.00	18	129.00	2956	199.00	1108	296.00	805
74.00	808	130.00	144	204.00	522	303.00	47
75.00	1209	135.00	180	205.00	936	315.00	62
76.00	308	137.00	40	206.00	4232	323.00	266
77.00	8772	141.00	286	207.00	465	334.00	95
78.00	578	142.00	80	208.00	47	365.00	361
79.00	455	147.00	143	211.00	62	372.00	72
80.00	330	148.00	406	217.00	1034	423.00	584
81.00	500	153.00	49	218.00	47	424.00	80
82.00	45	155.00	143	221.00	758	441.00	1648
83.00	130	156.00	254	222.00	44	442.00	10506
86.00	110	160.00	62	223.00	198	443.00	2130
91.00	46	161.00	126	224.00	2199	444.00	130
92.00	58	165.00	41	225.00	571		
93.00	815	167.00	937	227.00	772		
98.00	607	168.00	426	228.00	42		

Data File: /var/chem/finn6.i/17NOV97.b/tune.b/F251117A.d

Date : 17-NOV-97 18:38:00

Client ID:

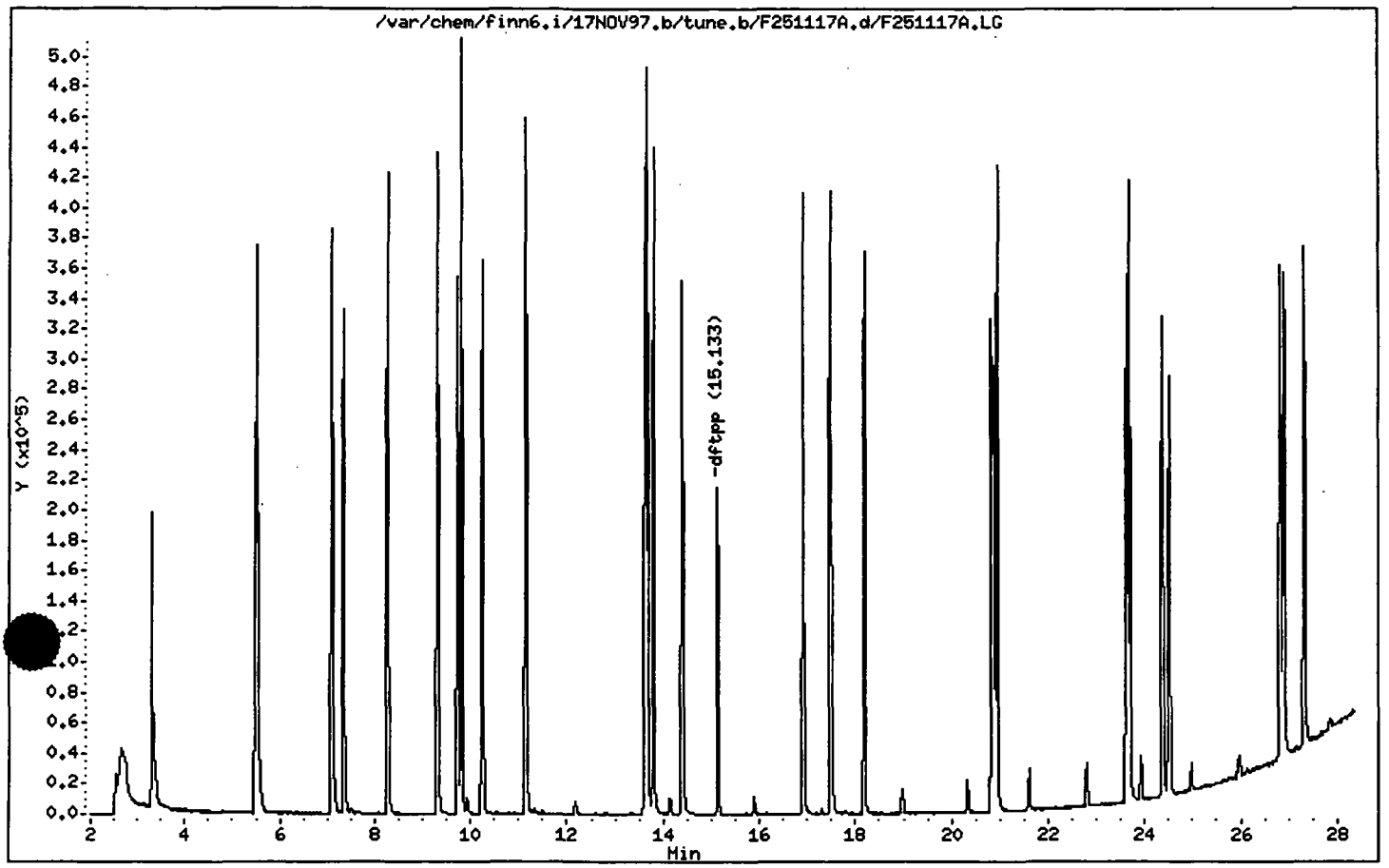
Instrument: finn6.i

Sample Info: ICAL=11/07/97 FINN6 ARI INC 2UL INJ.

Operator: cm

Column phase:

Column diameter: 2.00



Analytical Resources, Inc.

Semivolatile Report Modified Method 8270

Data file : /var/chem/finn6.i/17NOV97.b/F251117A.d
Lab Smp Id: CC1117 Client Smp ID: SSTD025
Inj Date : 17-NOV-97 18:38:00
Operator : CM Inst ID: finn6.i
Smp Info : ICAL=11/07/97 FINN6 ARI INC 2UL INJ.
Misc Info : PNA 25 NG/UL STD
Comment :
Method : /var/chem/finn6.i/17NOV97.b/abn.m
Meth Date : 18-Nov-97 13:39:09 Quant Type: ISTD
Cal Date : 17-NOV-97 18:38:00 Cal File: F251117A.LG
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna.sub
Target Version: 3.30
Processing Host: cserv2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
*	27 Naphthalene-d8	136	5.483	5.483	(1.000)	248492	20.0000	
	28 Naphthalene	128	5.517	5.517	(1.006)	356738	25.0000	24.48
	32 2-Methylnaphthalene	141	7.100	7.100	(1.295)	206112	25.0000	22.56
	40 Acenaphthylene	152	9.317	9.317	(0.957)	349932	25.0000	25.40
*	42 Acenaphthene-d10	164	9.733	9.733	(1.000)	143752	20.0000	
	44 Acenaphthene	153	9.817	9.817	(1.009)	240726	25.0000	23.96
	46 Dibenzofuran	168	10.250	10.250	(1.053)	303544	25.0000	24.87
	49 Fluorene	166	11.150	11.150	(1.146)	235832	25.0000	23.99
*	59 Phenanthrene-d10	188	13.617	13.617	(1.000)	241858	20.0000	
	60 Phenanthrene	178	13.683	13.683	(1.005)	350200	25.0000	22.79
	61 Anthracene	178	13.800	13.800	(1.013)	338328	25.0000	22.82
	64 Fluoranthene	202	16.917	16.917	(1.242)	363624	25.0000	23.44
	65 Pyrene	202	17.483	17.483	(0.837)	375838	25.0000	21.28
$	66 Terphenyl-d14	244	18.200	18.200	(0.872)	254208	25.0000	19.29
	68 Benzo(a)anthracene	228	20.833	20.833	(0.998)	335098	25.0000	23.34
*	69 Chrysene-d12	240	20.883	20.883	(1.000)	217962	20.0000	
	71 Chrysene	228	20.950	20.950	(1.003)	297325	25.0000	22.49
	74 Benzo(b)fluoranthene	252	23.633	23.633	(0.964)	354418	25.0000	23.92
	75 Benzo(k)fluoranthene	252	23.700	23.700	(0.967)	339440	25.0000	22.82
	76 Benzo(a)pyrene	252	24.367	24.367	(0.994)	286748	25.0000	22.94
*	77 Perylene-d12	264	24.517	24.517	(1.000)	195044	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	26.833	26.833	(1.094)	273372	25.0000	26.00
	79 Dibenzo(a,h)anthracene	278	26.900	26.900	(1.097)	250410	25.0000	24.17
	80 Benzo(g,h,i)perylene	276	27.333	27.333	(1.115)	279768	25.0000	25.29
$	89 Diphenyl-d10	164	8.267	8.267	(0.849)	252698	25.0000	
	105 1-methylnaphthalene	141	7.100	7.100	(1.295)	206112	25.0000	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: finn6.i
Lab File ID: F251117A.d
Analysis Type:
Lab Sample ID: CC1117
Quant Type: ISTD

Injection Date: 17-NOV-97 18:38:00
Init. Calibration Date(s): 11/07/97 11/07/97
Init. Calibration Times: 14:57:00 18:13:00
Method File: /var/chem/finn6.i/17NOV97.b/abn.m

	COMPOUND	RRF	RF25	MIN RRF	%D	MAX %D	
	28 Naphthalene	1.173	1.148	0.700	2.1	25.0	
	32 2-Methylnaphthalene	0.735	0.664	0.400	9.8	25.0	
	40 Acenaphthylene	1.917	1.947	0.900	-1.6	25.0	
	44 Acenaphthene	1.398	1.340	0.900	4.2	25.0	
	46 Dibenzofuran	1.698	1.689	0.800	0.5	25.0	
	49 Fluorene	1.368	1.312	0.900	4.1	25.0	
	60 Phenanthrene	1.271	1.158	0.700	8.9	25.0	
	61 Anthracene	1.226	1.119	0.700	8.7	25.0	
	64 Fluoranthene	1.283	1.203	0.600	6.3	25.0	
	65 Pyrene	1.621	1.379	0.600	14.9	25.0	
$	66 Terphenyl-d14	1.209	0.933	0.500	22.8	25.0	
	68 Benzo(a)anthracene	1.317	1.230	0.800	6.6	25.0	
	71 Chrysene	1.213	1.091	0.700	10.0	25.0	
	74 Benzo(b)fluoranthene	1.520	1.454	0.700	4.3	25.0	
	75 Benzo(k)fluoranthene	1.525	1.392	0.700	8.7	25.0	
	76 Benzo(a)pyrene	1.282	1.176	0.700	8.2	25.0	
	78 Indeno(1,2,3-cd)pyrene	1.078	1.121	0.500	-4.0	25.0	
	79 Dibenzo(a,h)anthracene	1.062	1.027	0.400	3.3	25.0	
	80 Benzo(g,h,i)perylene	1.134	1.148	0.500	-1.2	25.0	
$	89 Diphenyl-d10	++++	1.406	0.010	++++	25.0	<-
	105 1-methylnaphthalene	++++	0.664	0.010	++++	25.0	<-

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn6.i
Lab File ID: F251117A.d
Lab Smp Id: CC1117
Analysis Type: SV
Quant Type: ISTD
Operator: CM
Method File: /var/chem/finn6.i/17NOV97.b/abn.m
Misc Info: PNA 25 NG/UL STD

Calibration Date: 11/14/97
Calibration Time: 1800
Client Smp ID: SSTD025
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
27 Naphthalene-d8	270816	135408	541632	248492	-8.24
42 Acenaphthene-d10	164890	82445	329780	143752	-12.82
59 Phenanthrene-d10	273994	136997	547988	241858	-11.73
69 Chrysene-d12	246404	123202	492808	217962	-11.54
77 Perylene-d12	218416	109208	436832	195044	-10.70

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
27 Naphthalene-d8	5.52	5.02	6.02	5.48	-0.60
42 Acenaphthene-d10	9.73	9.23	10.23	9.73	0.00
59 Phenanthrene-d10	13.63	13.13	14.13	13.62	-0.12
69 Chrysene-d12	20.88	20.38	21.38	20.88	0.00
77 Perylene-d12	24.52	24.02	25.02	24.52	0.00

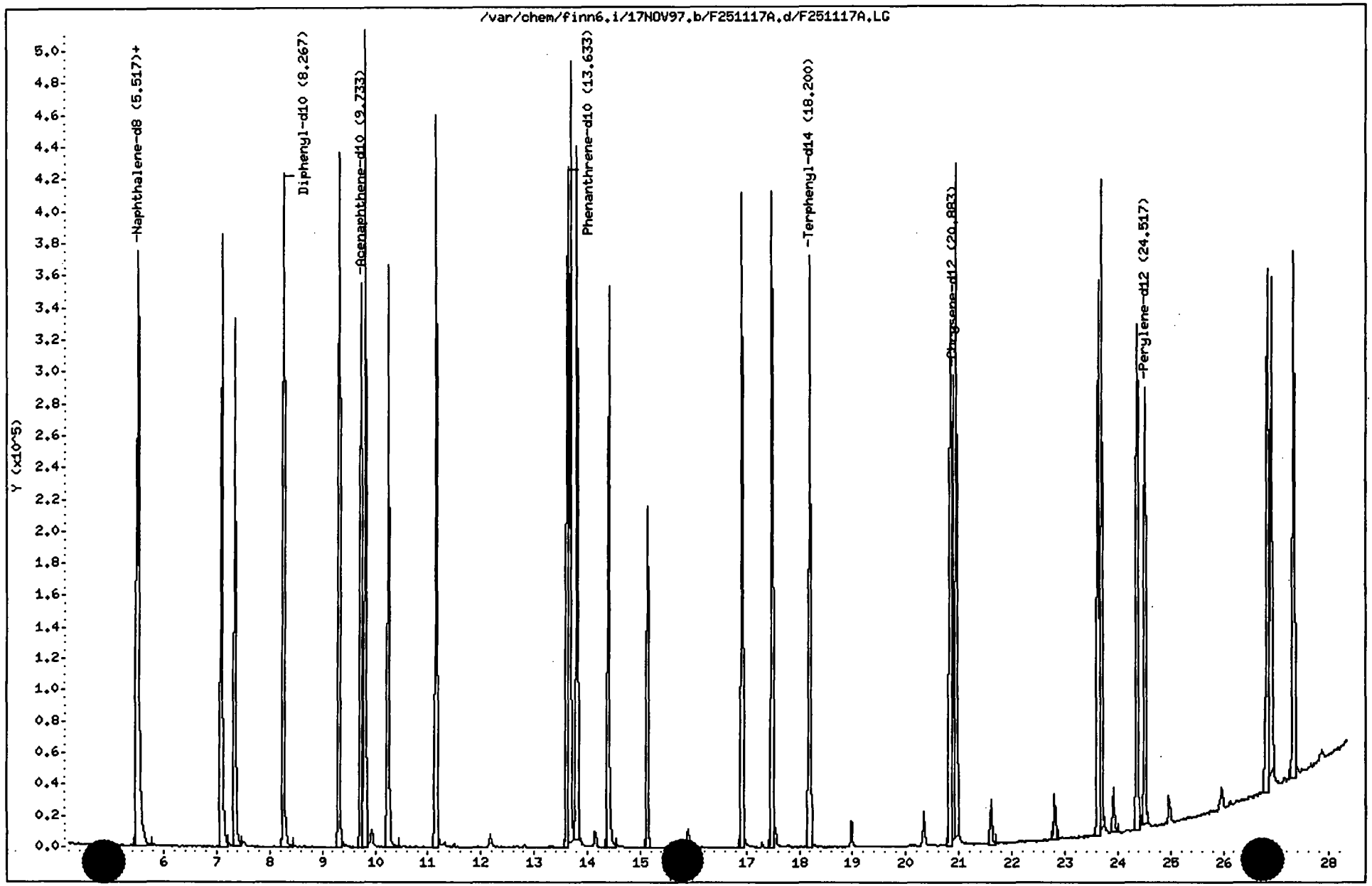
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/finn6.i/17NOV97.b/F251117A.d
Date : 17-NOV-97 18:38:00
Client ID: SSTD025
Sample Info: ICAL=11/07/97 FINN6 ARI INC 2UL INJ.

Column phase: RTX-5

Instrument: finn6.i

Operator: CM
Column diameter: 0.32



ANALYTICAL
RESOURCES
INCORPORATED

ORGANICS ANALYSIS DATA SHEET **Sample No: Method Blank**
PNAs by GC/MS

Lab Sample ID: 111797MB
LIMS ID: 97-20171
Matrix: Soil
Data Release Authorized: MW
Reported: 11/19/97

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900
Date Sampled: NA
Date Received: NA

Date extracted: 11/04/97 8:30
Date analyzed: 11/17/97
Instrument: finn6
GPC Cleanup: NO
Alumina: 1:1

Sample Amount: 7.50 g-dry-wt
Final Extract Volume: 0.5 mL
Conc/Dilution Factor: 1:1
Moisture: NA
pH: NA

CAS Number	Analyte	ug/kg
91-20-3	Naphthalene	67 U
91-57-6	2-Methylnaphthalene	67 U
208-96-8	Acenaphthylene	67 U
83-32-9	Acenaphthene	67 U
86-73-7	Fluorene	67 U
85-01-8	Phenanthrene	67 U
120-12-7	Anthracene	67 U
206-44-0	Fluoranthene	67 U
129-00-0	Pyrene	67 U
56-55-3	Benzo(a)anthracene	67 U
218-01-9	Chrysene	67 U
205-99-2	Benzo(b)fluoranthene	67 U
207-08-9	Benzo(k)fluoranthene	67 U
50-32-8	Benzo(a)pyrene	67 U
193-39-5	Indeno(1,2,3-cd)pyrene	67 U
53-70-3	Dibenz(a,h)anthracene	67 U
191-24-2	Benzo(g,h,i)perylene	67 U
132-64-9	Dibenzofuran	67 U

Base/Neutral Surrogate Recovery	
d14-p-Terphenyl	101%
d10-Diphenyl	60.3%

Analytical Resources, Inc.

Semivolatile Report Modified Method 8270

Data file : /var/chem/finn6.i/17NOV97.b/F61117H.d
Lab Smp Id: U269MBS Client Smp ID: U269MBS
Inj Date : 17-NOV-97 23:42:00
Operator : CM Inst ID: finn6.i
Smp Info : U269(II)-MB(SOIL) 11/04/97
Misc Info : 97-20171
Comment :
Method : /var/chem/finn6.i/17NOV97.b/abn.m
Meth Date : 18-Nov-97 13:56:47 charles Quant Type: ISTD
Cal Date : 17-NOV-97 18:38:00 Cal File: F251117A.LG
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna.sub
Target Version: 3.30
Processing Host: cserv2

Concentration Formula: Vt/(Ws * (100 - M)/100)

Name	Value	Description
Vt	500.000	Volume of final extract (uL)
Ws	7.500	Weight of sample extracted (g)
M	0.000	% Moisture

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/Kg)
*	27 Naphthalene-d8	136	5.467	5.483	(1.000)	293132	20.0000	
	28 Naphthalene	128.00	Compound Not Detected.					
	32 2-Methylnaphthalene	141.00	Compound Not Detected.					
	40 Acenaphthylene	152.00	Compound Not Detected.					
*	42 Acenaphthene-d10	164	9.717	9.733	(1.000)	166558	20.0000	
	44 Acenaphthene	153.00	Compound Not Detected.					
	46 Dibenzofuran	168.00	Compound Not Detected.					
	49 Fluorene	166.00	Compound Not Detected.					
*	59 Phenanthrene-d10	188	13.600	13.617	(1.000)	253342	20.0000	
	60 Phenanthrene	178.00	Compound Not Detected.					
	61 Anthracene	178.00	Compound Not Detected.					
	64 Fluoranthene	202.00	Compound Not Detected.					
	65 Pyrene	202.00	Compound Not Detected.					
$	66 Terphenyl-d14	244	18.167	18.200	(0.871)	270500	25.2749	1685.00
	68 Benzo(a)anthracene	228.00	Compound Not Detected.					
*	69 Chrysene-d12	240	20.850	20.883	(1.000)	229408	20.0000	
	71 Chrysene	228.00	Compound Not Detected.					

11/18/97

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/Kg)
74	Benzo(b)fluoranthene	252.00	Compound Not Detected.					
75	Benzo(k)fluoranthene	252.00	Compound Not Detected.					
76	Benzo(a)pyrene	252.00	Compound Not Detected.					
* 77	Perylene-d12	264	24.483	24.517	(1.000)	205958	20.0000	
78	Indeno(1,2,3-cd)pyrene	276.00	Compound Not Detected.					
79	Dibenzo(a,h)anthracene	278.00	Compound Not Detected.					
80	Benzo(g,h,i)perylene	276.00	Compound Not Detected.					
$ 89	Diphenyl-d10	164	8.250	8.267	(0.849)	176572	15.0768	1005.12
105	1-methylnaphthalene	141.00	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn6.i
Lab File ID: F61117H.d
Lab Smp Id: U269MBS
Analysis Type: SV
Quant Type: ISTD
Operator: CM
Method File: /var/chem/finn6.i/17NOV97.b/abn.m
Misc Info: 97-20171

Calibration Date: 11/17/97
Calibration Time: 1838
Client Smp ID: U269MBS
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
27 Naphthalene-d8	248492	124246	496984	293132	17.96
42 Acenaphthene-d10	143752	71876	287504	166558	15.86
59 Phenanthrene-d10	241858	120929	483716	253342	4.75
69 Chrysene-d12	217962	108981	435924	229408	5.25
77 Perylene-d12	195044	97522	390088	205958	5.60

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
27 Naphthalene-d8	5.48	4.98	5.98	5.47	-0.30
42 Acenaphthene-d10	9.73	9.23	10.23	9.72	-0.17
59 Phenanthrene-d10	13.62	13.12	14.12	13.60	-0.12
69 Chrysene-d12	20.88	20.38	21.38	20.85	-0.16
77 Perylene-d12	24.52	24.02	25.02	24.48	-0.14

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: U269
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: U269MBS Client Smp ID: U269MBS
Level: LOW Operator: CM
Data Type: MS DATA SampleType: BLANK
SpikeList File: SINSB.spk Quant Type: ISTD
Method File: /var/chem/finn6.i/17NOV97.b/abn.m
Misc Info: 97-20171

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 66 Terphenyl-d14	1666.67	1685.00	101.10	43-122
$ 89 Diphenyl-d10	1666.67	1005.12	60.31	43-122

Data File: /var/chem/finn6.i/17NOV97.b/F61117H.d

Date : 17-NOV-97 23:42:00

Client ID: U269MBS

Sample Info: U269(II)-MB(SOIL) 11/04/97

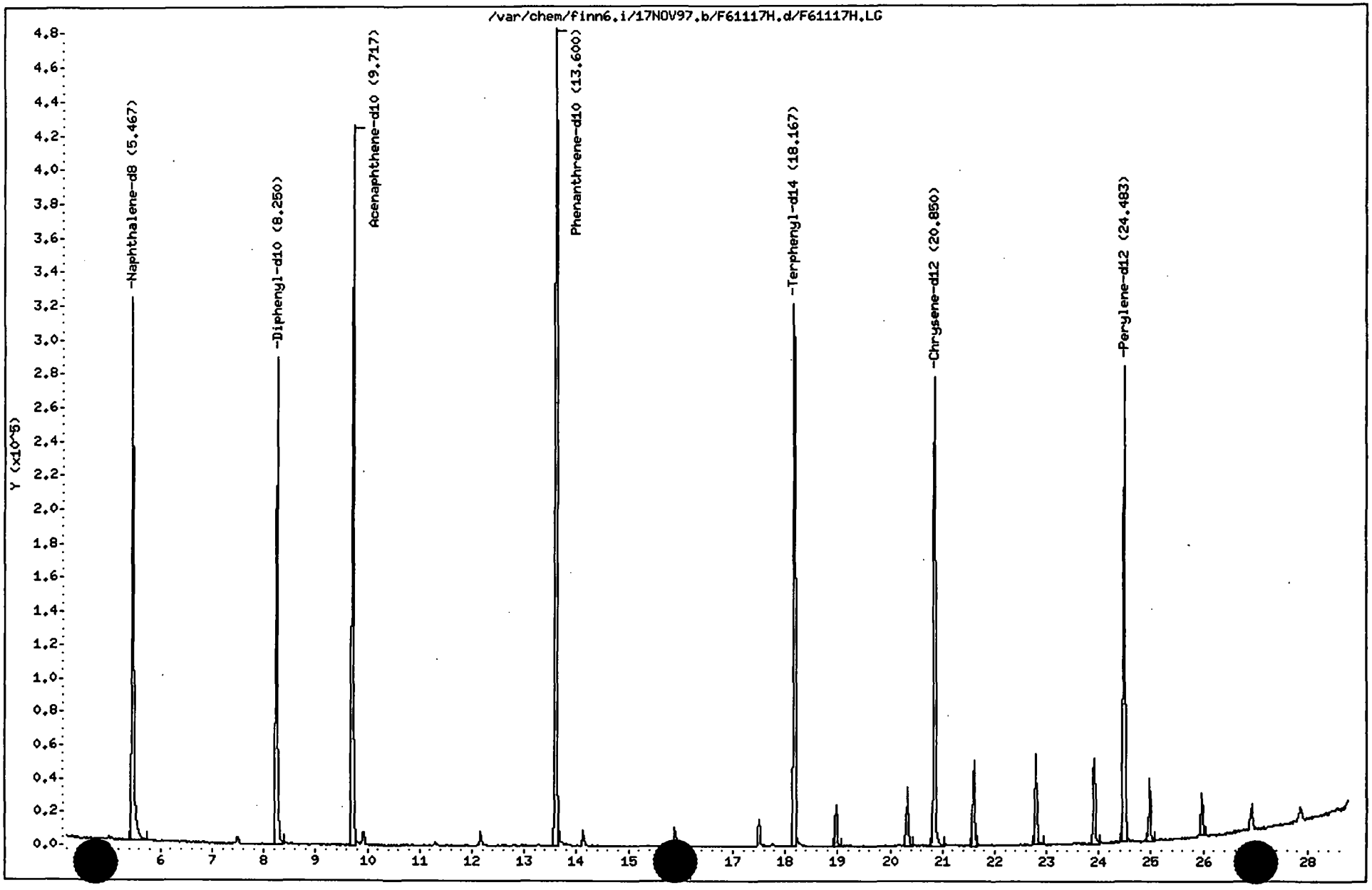
Volume Injected (uL): 2.0

Column phase: RTX-5

Instrument: finn6.i

Operator: CM

Column diameter: 0.32



Analytical Resources, Inc.

Semivolatile Report Modified Method 8270

Data file : /var/chem/finn6.i/17NOV97.b/F61117I.d
Lab Smp Id: U269SBS Client Smp ID: U269SBS
Inj Date : 18-NOV-97 00:17:00
Operator : CM Inst ID: finn6.i
Smp Info : U269(II)-SB(SOIL) 11/04/97
Misc Info : 97-20171
Comment :
Method : /var/chem/finn6.i/17NOV97.b/abn.m
Meth Date : 18-Nov-97 13:56:47 charles Quant Type: ISTD
Cal Date : 17-NOV-97 18:38:00 Cal File: F251117A.LG
Als bottle: 1 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna.sub
Target Version: 3.30
Processing Host: cserv2

Concentration Formula: Vt/(Ws * (100 - M)/100)

Name	Value	Description
Vt	500.000	Volume of final extract (uL)
Ws	7.500	Weight of sample extracted (g)
M	0.000	% Moisture

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)
*	27 Naphthalene-d8	136	5.467	5.483	(1.000)	249946	20.0000	
	28 Naphthalene	128	5.517	5.517	(1.009)	234988	16.3720	1091.47 S
	32 2-Methylnaphthalene	141.00	Compound Not Detected.					
	40 Acenaphthylene	152.00	Compound Not Detected.					
*	42 Acenaphthene-d10	164	9.717	9.733	(1.000)	136194	20.0000	
	44 Acenaphthene	153	9.800	9.817	(1.009)	150678	16.5167	1101.11 S
	46 Dibenzofuran	168.00	Compound Not Detected.					
	49 Fluorene	166.00	Compound Not Detected.					
*	59 Phenanthrene-d10	188	13.600	13.617	(1.000)	204016	20.0000	
	60 Phenanthrene	178.00	Compound Not Detected.					
	61 Anthracene	178.00	Compound Not Detected.					
	64 Fluoranthene	202	16.900	16.917	(1.243)	285970	23.3080	1553.86 S
	65 Pyrene	202.00	Compound Not Detected.					
$	66 Terphenyl-d14	244	18.167	18.200	(0.871)	222752	28.8562	1923.75
	68 Benzo(a)anthracene	228	20.817	20.833	(0.998)	242634	23.8444	1589.63 S
*	69 Chrysene-d12	240	20.850	20.883	(1.000)	165468	20.0000	

11/15/97

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)
	71 Chrysene	228	20.817	20.950	(0.998)	242634	~~26.8737~~	~~1791.58~~ RT
	74 Benzo(b)fluoranthene	252.00	Compound Not Detected.					
	75 Benzo(k)fluoranthene	252.00	Compound Not Detected.					
	76 Benzo(a)pyrene	252.00	Compound Not Detected.					
*	77 Perylene-d12	264	24.483	24.517	(1.000)	156722	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276.00	Compound Not Detected.					
	79 Dibenzo(a,h)anthracene	278.00	Compound Not Detected.					
	80 Benzo(g,h,i)perylene	276.00	Compound Not Detected.					
$	89 Diphenyl-d10	164	8.250	8.267	(0.849)	137628	14.3715	958.10
	105 1-methylnaphthalene	141.00	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn6.i
Lab File ID: F61117I.d
Lab Smp Id: U269SBS
Analysis Type: SV
Quant Type: ISTD
Operator: CM
Method File: /var/chem/finn6.i/17NOV97.b/abn.m
Misc Info: 97-20171

Calibration Date: 11/17/97
Calibration Time: 1838
Client Smp ID: U269SBS
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
27 Naphthalene-d8	248492	124246	496984	249946	0.59
42 Acenaphthene-d10	143752	71876	287504	136194	-5.26
59 Phenanthrene-d10	241858	120929	483716	204016	-15.65
69 Chrysene-d12	217962	108981	435924	165468	-24.08
77 Perylene-d12	195044	97522	390088	156722	-19.65

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
27 Naphthalene-d8	5.48	4.98	5.98	5.47	-0.30
42 Acenaphthene-d10	9.73	9.23	10.23	9.72	-0.17
59 Phenanthrene-d10	13.62	13.12	14.12	13.60	-0.12
69 Chrysene-d12	20.88	20.38	21.38	20.85	-0.16
77 Perylene-d12	24.52	24.02	25.02	24.48	-0.14

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

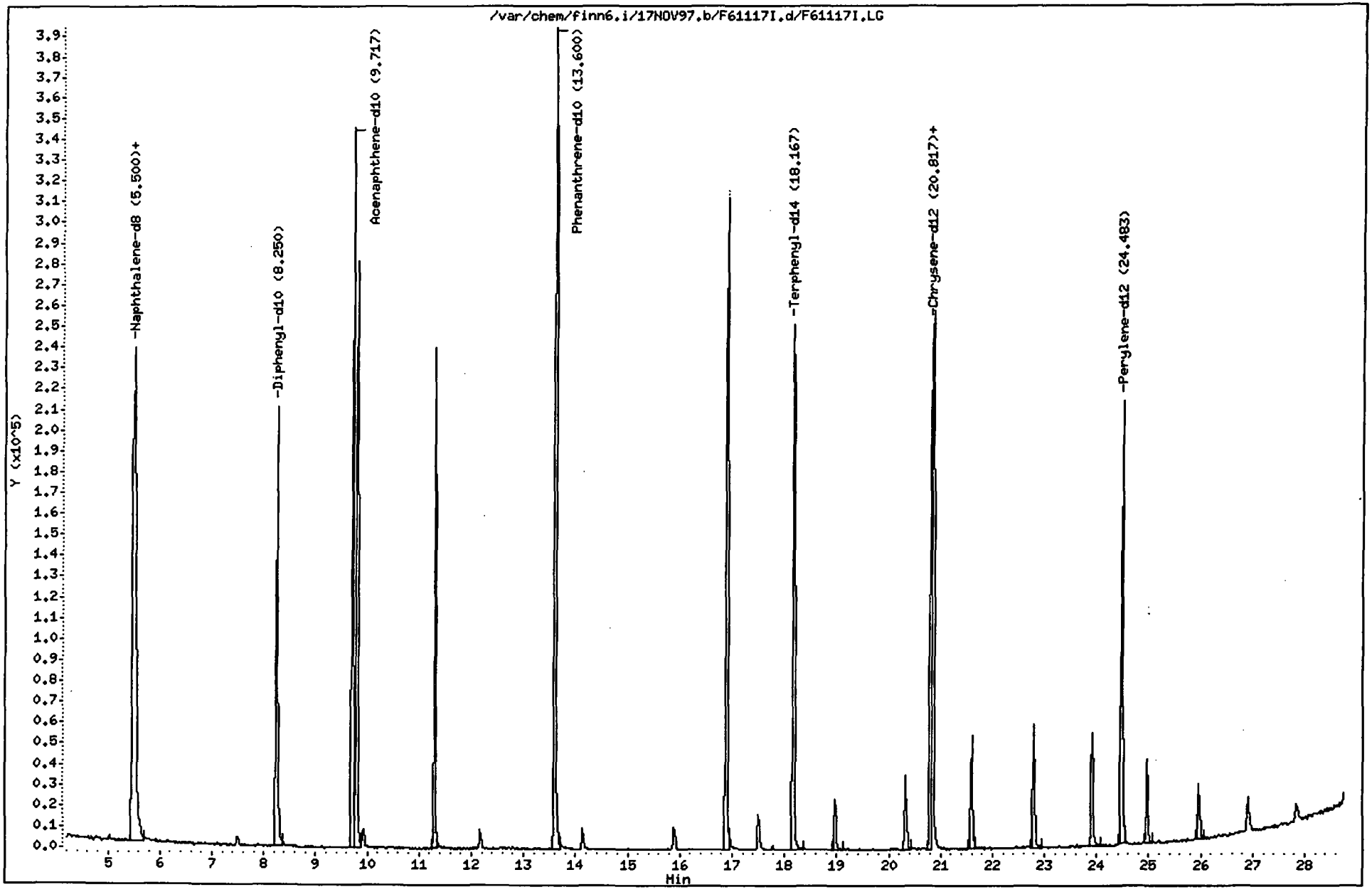
Client Name: Client SDG: U269
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: U269SBS Client Smp ID: U269SBS
Level: LOW Operator: CM
Data Type: MS DATA SampleType: METHSPIKE
SpikeList File: pnasp.spk Quant Type: ISTD
Method File: /var/chem/finn6.i/17NOV97.b/abn.m
Misc Info: 97-20171

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
28 Naphthalene	1666.67	1091.47	65.49	28-142
44 Acenaphthene	1666.67	1101.11	66.07	28-142
64 Fluoranthene	1666.67	1553.86	93.23	28-142
68 Benzo(a)anthracene	1666.67	1589.63	95.38	28-142

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
66 Terphenyl-d14	1666.67	1923.75	115.42	43-122
$ 89 Diphenyl-d10	1666.67	958.10	57.49	43-122

Data File: /var/chem/finn6.i/17NOV97.b/F61117I.d
Date : 18-NOV-97 00:17:00
Client ID: U269SBS
Sample Info: U269(II)-SB(SOIL) 11/04/97
Volume Injected (uL): 2.0
Column phase: RTX-5

Instrument: finn6.i
Operator: CM
Column diameter: 0.32



WTPH-HCID

QA-2877
ctL-2879
BLD # HD1029A-05 (1st 20)
HD1003B-05 (last 2) U269

1 of 2

ANALYTICAL RESOURCES INCORPORATED

TPH 8015d - HCID Gas - HCID Diesel - SOIL

ARI Job No: U280 / U269

Client Name: Smith, Bayliss

Client ~~Project~~: Retec

ARI Lab ID	Client Sample ID	Amount Extracted (10g)	Vol. Solv. Added	Final Total Vol. (10ml)	Aliquot Vol. for Analysis	Comments 1:30 pm
U280 mb	10/29	10.00g	9.9ml	10ml	1:10	
sb	10/29	10.00	8.9ml			
A	checked	10.06	9.9ml			
Ams		10.07	8.9ml			
Amsd		10.04	8.9ml			
B		10.00	9.9ml			
C		10.04				
D		10.09				
E		10.05				
F		10.02				
G		10.02				
H		10.09				
I		10.03				
J		10.00				
K		10.				
Analyst/ Date:			fm 10/29/97			fm 10/25/97 4pm

Surr. Amt:	100ul	Added By:	fm GSA /Spk Witness
Conc.:	1500 ug/ml	ID:	599-2
Spike Amt:	1000ul	Added By:	fm GSA /Spk Witness
Conc.:	5000 ug/ml	ID:	599-1

Ext. Storage Location: _____

3013F

Rev. 2
02/15/94

ANALYTICAL RESOURCES INCORPORATED

2 of 2

TPH 8015d - HCID Gas - HCID Diesel - SOIL

ARI Job No: U280/U269 Client Name: _____

Client Project: _____

ARI Lab ID	Client Sample ID	Amount Extracted (10g)	Vol. Solv. Added	Final Total Vol. (10 ml)	Aliquot Vol. for Analysis	Comments
U280 L	Checked	10.08	9.9 ml	10 ml	1:10	
M		10.07				
N		10.03				
O		10.05				
P		10.09				
Q		10.09				
R		10.07				
S		10.02				
T		10.06				
U280 MS	10 g	10.00 g	9.9 ml			
MSD	10 g	10.00	8.9 ml			
U269 A	Checked	10.03	9.9 ml			
B		10.00				
U280 U269 U		10.00				
			Analyst/			
			Date: 10/29/97			10/29/97

Surr. Amt:	100 ul	Added By:	/Sick Witness
Conc.:	1500 ug/ml	ID:	599-2
Spike Amt:	1000 ul	Added By:	/Sick Witness
Conc.:	5000 ug/ml	ID:	599-1

Ext. Storage Location: _____

3013F

Rev. 2
02/15/94

Worklist No: 6128

Total Solids
extts.wlf: 11/ 7/97

Data Analyst: Redy Manuel
Date Entered: 11/ 6/97
Comments:

Analyzed by: RM
Date Analyzed: 11/ 7/97

** Use appropriate worklist to enter SRM Total Solids (see your SOPs) **

Sample	Client ID/Client	Tare	Wet Wt	Final Wt	%Solids	pH
1.	U380A 97-20957 Pex-1	1.08	10.50	8.98	83.9	Not Requested
2.	U380B 97-20958 Pex-2	1.07	10.57	9.04	83.9	Not Requested
3.	U380C 97-20959 Pex-3	1.08	10.56	8.92	82.7	Not Requested
4.	U354C 97-20817 STKPL 3	1.08	10.71	7.77	69.5	Not Requested
5.	U354L 97-20826 STKPL 12	1.08	10.52	6.57	58.2	Not Requested
6.	U354AH 97-20848 STKPL 34	1.07	10.31	7.68	71.5	Not Requested
7.	U269A 97-20923 HI1B01	1.09	10.40	9.60	91.4	Not Requested
8.	U269B 97-20924 HI1B02	1.08	10.67	9.11	83.7	Not Requested

Analyst/Date: _____

Data Entered/Distributed By: _____

TOTAL DIESEL HYDROCARBONS COMPOUND SUMMARY

Matrix: Soil

QC Report No: U269

LIMS ID	Lab ID	Client ID	MeArach	TOT OUT
97-20167MB	103097MB	Method Blank	74%	0
97-20167LC	103097LC	Lab Control	66%	0
97-20167	U269A	HI1B01	90%	0
97-20168	U269B	HI1B02	64%	0

	Control QC LIMITS	Sample QC LIMITS
(MeArach) = Methylarachidate	(47-150)	(33-160)

\# Column to be used to flag recovery values

* Values outside of required QC limits

D System Monitoring Compound diluted out

ANALYTICAL
RESOURCES
INCORPORATED

TOTAL PETROLEUM HYDROCARBONS
WA HCID Method by GC/FID

Lab Sample ID: U269SB
LIMS ID: 97-20167
Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900

Data Release Authorized:
Reported: 11/03/97

LABORATORY CONTROL SAMPLE RECOVERY REPORT
Date extracted: 10/29/97
Date analyzed: 10/30/97

CONSTITUENT	SPIKE VALUE	SPIKE ADDED	% RECOVERY
LABORATORY CONTROL SAMPLE			
Diesel Range	491	500	98.2%

HCID Surrogate Recovery

Spike Blank	Methylarachidate	66.0%

Values reported in parts per million (mg/kg)

HCID SPIKE CONTROL LIMITS

Percent Recovery 50-150%
Duplicate RPD <50%

Advisory QA Limits

FORM-III

ANALYTICAL
RESOURCES
INCORPORATED

TPHD METHOD BLANK SUMMARY

ARI Job No: U269

Client: Remediation Technologies, Inc.

Lab Sample ID: U280MBS2 10/29
Matrix: Soil

Project: 1 2900

Report: 11/04/97 MAC: CSP

Date Analyzed (1): 10/30/97
Time Analyzed (1): 02:42
Instrument ID (1): Daffy1A
GC Column ID (1): DB624M

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS,MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed
Spike Blank	U280SBS2 10/29	1029A018	10/30/97
HI1B01	U269A 10X	1029A048	10/30/97
HI1B02	U269B	1029A023	10/31/97

Comments:

FORM IV HCID

TOTAL PETROLEUM HYDROCARBONS
WA HCID Method by GC/FID

ANALYTICAL RESOURCES INCORPORATED

QC Report No: U269-Remediation Technologies, Inc.
Matrix: Soil Project: 1 2900

Date Received: 10/27/97

Data Release Authorized:
Reported: 11/03/97

Lab ID	Client Sample ID	Date Analyzed	Dilution Factor	Gas Range	Diesel Range	Oil Range	Surrogate Recovery
97-20167-1030MB	Method Blank	10/30/97	1:1	20 U	25 U	50 U	74.0%
97-20167-U269A	HI1B01	10/30/97	1:10	200 U	250 U	**1900**	90.0%
97-20168-U269B	HI1B02	10/30/97	1:1	**41**	**130**	**390**	64.0%

Values reported in ppm (mg/kg) on a dry weight basis.

Surrogate is Methyl Arachidate.
Gas value based on total peaks in the range from Toluene to C12.
Diesel value based on the total peaks in the range from C12 to C24.
Oil value based on the total peaks in the range from C24 to C38.

Data Qualifiers

U	Compound not detected at the given detection limit.
X	Value detected above linear range of instrument. Dilution required.
J	Indicates an estimated value below the calculated detection limit.
S	No value reported due to saturation of the detector. Dilution required.
E	Indicates a value above the linear range of the detector. Dilution required.
D	Indicates the surrogate was not detected because of dilution of the extract.
C	Indicates a probable value which cannot be confirmed due to matrix interference.
NR	Indicates no recovery due to matrix interference and/or dilution.

FORM-1 HCID

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: U280 MBs2 10/29 Injection Date: 10/30/97 02:42:43

[redacted]MPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A020.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT29A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	0.000	0	0
C22	0.0	0.000	0	0
[redacted]R	74.1	5.300	23	184
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	
GAS(TOL-C12)	0	0	Macro: 971006-1
DIESEL(C12-C24)	0	0	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	184.147049		

ANALYTICAL RESOURCES NWTPH-D REPORT

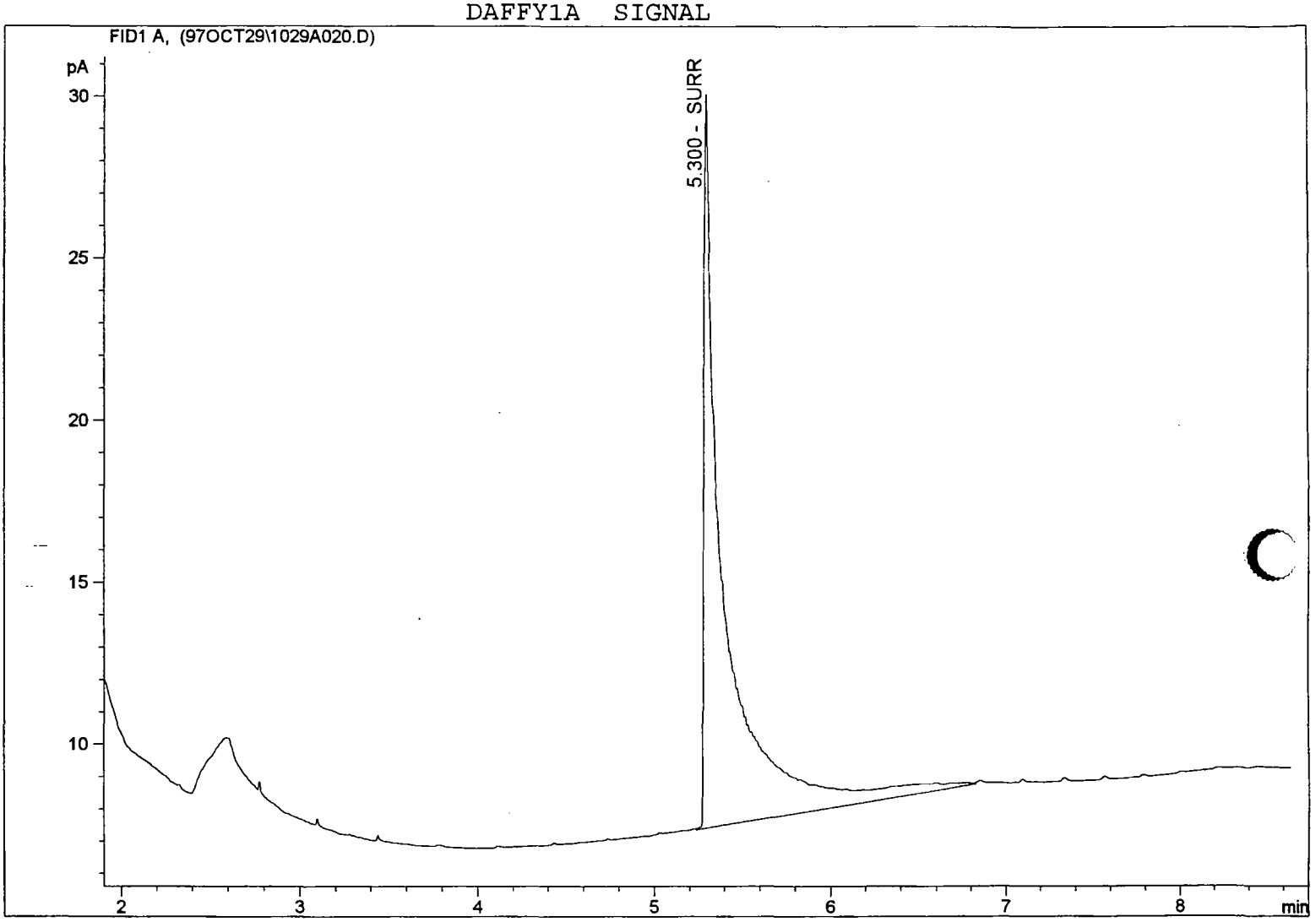
SAMPLE NAME: U280 MBs2 10/29 Injection Date: 10/30/97 02:42:43

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A020.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: U269 A 10x Injection Date: 10/30/97 11:43:46

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A048.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT29A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	0.000	0	0
C22	0.0	0.000	0	0
[illegible]R	9.1	5.296	1	4
C24	0.0	5.485	10	28
C26	0.0	5.817	16	171
C28	0.0	6.135	24	105
C30	0.0	6.523	24	71
C32	0.0	6.808	18	71
C34	0.0	7.169	12	42
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	185	13	Surrogate Subtracted
M.OIL(C24-C38)	2216	180	
SURROGATE	4.146129		

ANALYTICAL RESOURCES NWTPH-D REPORT

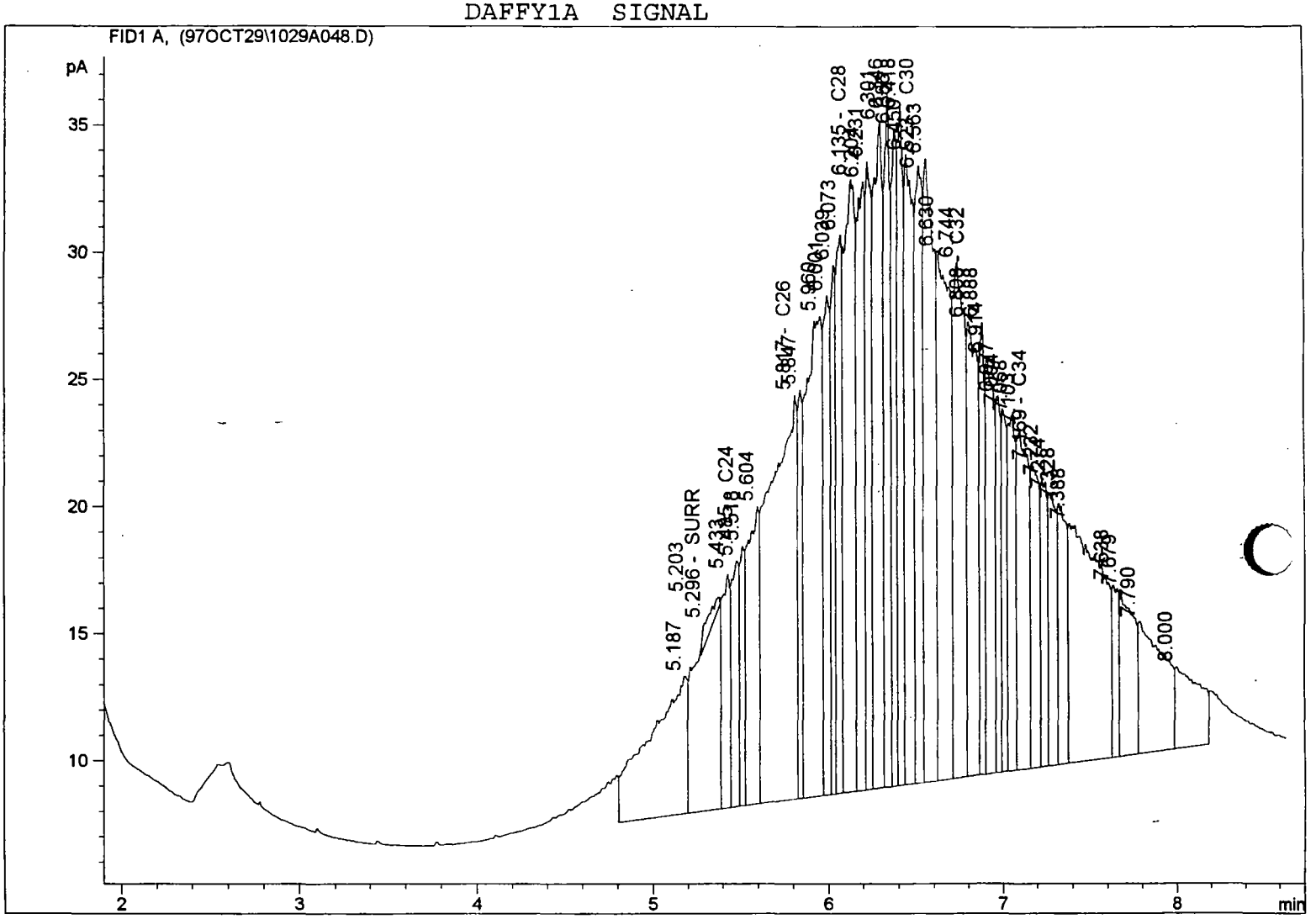
SAMPLE NAME: U269 A 10x Injection Date: 10/30/97 11:43:46

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A048.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: U269 B Injection Date: 10/31/97 01:33:56

MPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A023.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT30A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.778	4	6
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	4.334	11	33
C20	0.0	4.739	19	116
C22	0.0	5.102	29	67
R	64.5	5.273	146	157
C24	0.0	5.474	33	83
C26	0.0	5.809	38	68
C28	0.0	6.166	42	165
C30	0.0	6.494	37	80
C32	0.0	6.830	34	41
C34	0.0	7.194	20	23
C36	0.0	7.499	13	57
C38	0.0	7.908	4	12
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	79	35	
DIESEL(C12-C24)	1660	109	Surrogate Subtracted
M.OIL(C24-C38)	4050	329	
SURROGATE	157	45256	

ANALYTICAL RESOURCES NWTPH-D REPORT

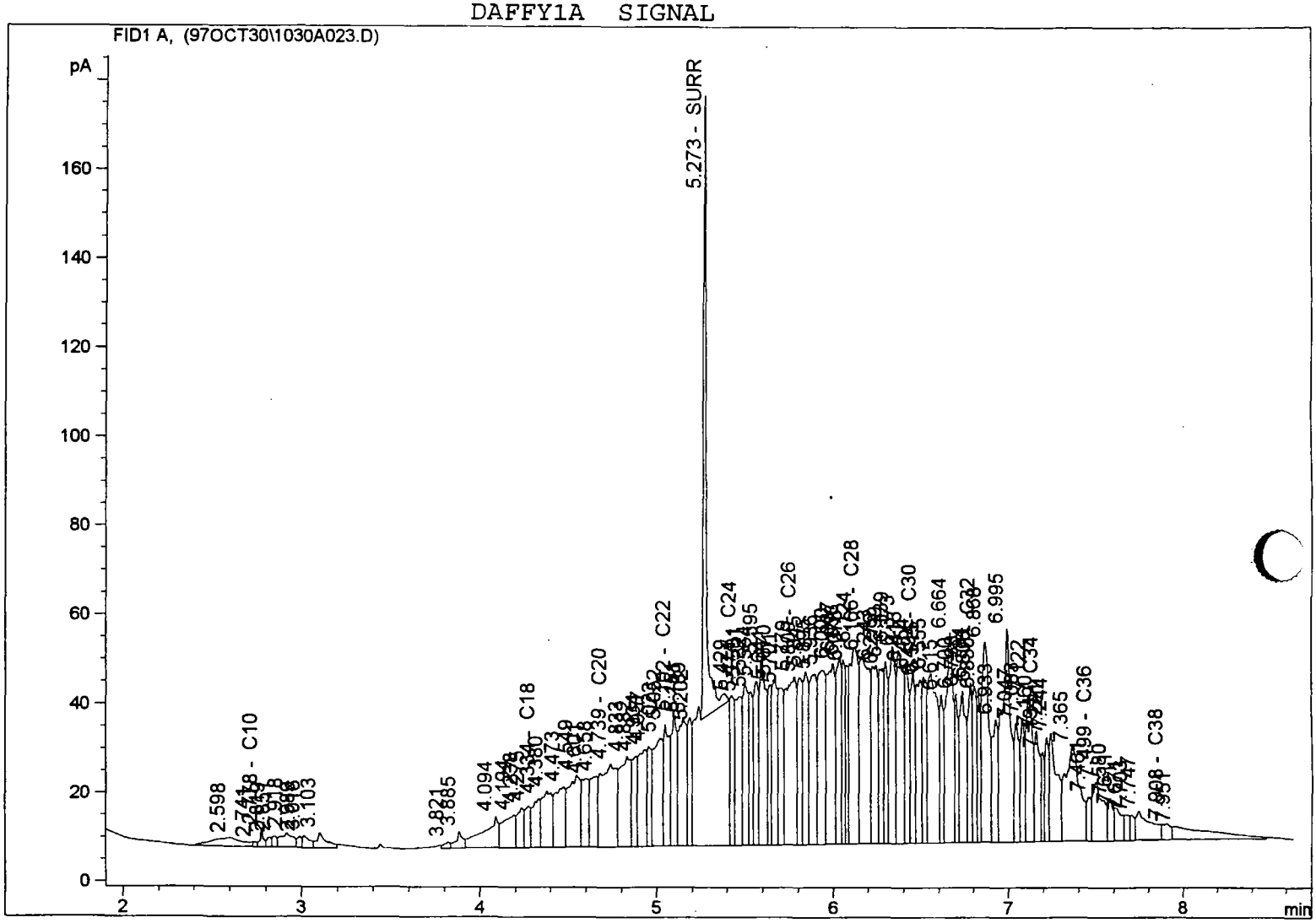
SAMPLE NAME: U269 B Injection Date: 10/31/97 01:33:56

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A023.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



8D
DIESEL ANALYTICAL SEQUENCE

ARI Job No: U269
Client: Remediation Technologies, Inc.
Project: 1 2900

GC Column: **DB-5M**
ID: 0.32mm

Instrument ID: Daffy1A
Report: Mac CSP 11/04/97
Init. Calib. Date(s): 08/05/97

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT INFORMATION
SURR: 5.282

Client Sample ID	ARI Sample ID	Date Analyzed	Time Analyzed	SURR RT #
Gasoline 250 #1	Gasoline 250 #1	10/29/97	21:18	5.286
Diesel 250 #1	Diesel 250 #1	10/29/97	21:37	5.279
Motor Oil 500 #1	Motor Oil 500 #1	10/29/97	21:57	5.277
Gasoline 250 #2	Gasoline 250 #2	10/30/97	00:48	5.292
Diesel 250 #2	Diesel 250 #2	10/30/97	01:07	5.280
Motor Oil 500 #2	Motor Oil 500 #2	10/30/97	01:26	5.277
Spike Blank	U280SBS2 10/29	10/30/97	02:04	5.279
Method Blank	U280MBS2 10/29	10/30/97	02:42	5.300
Diesel 250 #3	Diesel 250 #3	10/30/97	04:54	5.278
Motor Oil 500 #3	Motor Oil 500 #3	10/30/97	05:13	5.277
Diesel 250 #4	Diesel 250 #4	10/30/97	08:46	5.280
Motor Oil 500 #4	Motor Oil 500 #4	10/30/97	09:06	5.277
HI1B01	U269A 10X	10/30/97	11:43	5.296
Gasoline 250 #3	Gasoline 250 #3	10/30/97	12:23	5.281
Diesel 250 #5	Diesel 250 #5	10/30/97	12:43	5.277
Motor Oil 500 #5	Motor Oil 500 #5	10/30/97	13:02	5.276

SURROGATE

QC Limit
(±0.05 minutes)

\# Column used to flag retention time values with an asterisk
* Values outside of QC limits

ANALYTICAL
RESOURCES
INCORPORATED

8D
DIESEL ANALYTICAL SEQUENCE

ARI Job No: U269
Client: Remediation Technologies, Inc.
Project: 1 2900

GC Column: **DB-5M**
ID: 0.32mm

Instrument ID: Daffy1A
Report: Mac CSP 11/04/97
Init. Calib. Date(s): 08/05/97

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT INFORMATION
SURR: 5.283

Client Sample ID	ARI Sample ID	Date Analyzed	Time Analyzed	SURR RT #
Gasoline 250 #1	Gasoline 250 #1	10/30/97	19:03	5.311
Diesel 250 #1	Diesel 250 #1	10/30/97	19:23	5.282
Motor Oil 500 #1	Motor Oil 500 #1	10/30/97	19:43	5.277
Gasoline 250 #2	Gasoline 250 #2	10/30/97	23:18	5.294
Diesel 250 #2	Diesel 250 #2	10/30/97	23:37	5.280
Motor Oil 500 #2	Motor Oil 500 #2	10/30/97	23:57	5.276
HI1B02	U269B	10/31/97	01:33	5.273
Gasoline 250 #3	Gasoline 250 #3	10/31/97	02:12	5.284
Diesel 250 #3	Diesel 250 #3	10/31/97	02:31	5.277
Motor Oil 500 #3	Motor Oil 500 #3	10/31/97	02:50	5.274

SURROGATE

QC Limit
(±0.05 minutes)

Column used to flag retention time values with an asterisk
* Values outside of QC limits

FORM VIII TPHD

GASOLINE LINEARITY CHECK

ARI Job Number: U269

Client: Remediation Technologies, Inc.
Project: 1 2900

Instrument: Daffy1A

Date Analyzed: 10/06/96

Time Analyzed: 12:26-13:43

Report: 11/03/97 MAC:CSP

Compound	Calibration Factor Conc: 50	Calibration Factor Conc: 100	Calibration Factor Conc: 250	Calibration Factor Conc: 1000	Calibration Factor Conc: 2500	Calibration Factor Average	%RSD
Gasoline	2.10	2.13	2.39	2.55	2.30	2.29	8.14

FORM VI TPHG

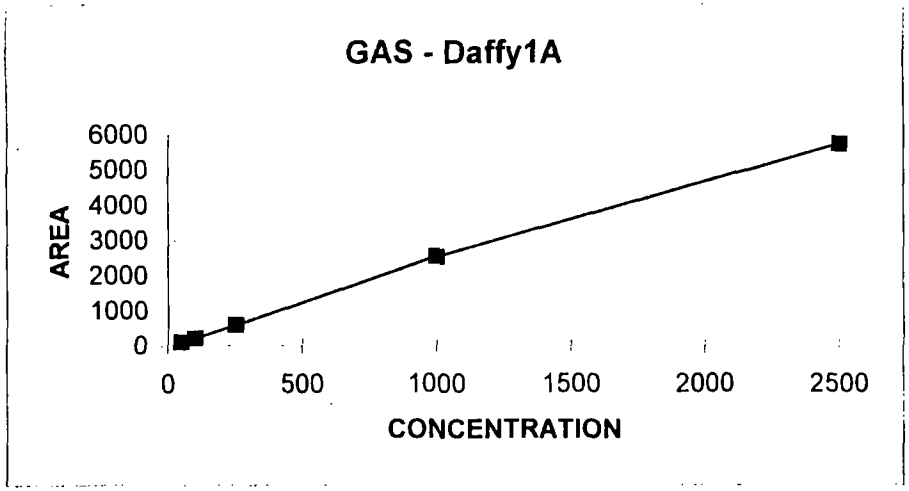
NW GAS CURVE (C7-C12)

Instrument: Daffy1A
Date: 10/06/97

RTX-1 COLUMN

GASOLINE	105.00	2.10	213.00	2.13	597.00	2.39	2551.00	2.55	5741.00	2.30	8.14

Average: 2.29



ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: GAS 25 Injection Date: 10/06/97 12:07:06

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT06\1006A004.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT06A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	2.119	1	2
C8	0.0	0.000	0	0
C10	0.0	2.786	1	2
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	0.000	0	0
[redacted]	0.0	0.000	0	0
[redacted]RR	0.0	0.000	0	0
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	6.868	0	26
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	48	21	
DIESEL(C12-C24)	4	1	Surrogate Subtracted
M.OIL(C24-C38)	27	3	
SURROGATE		0	

ANALYTICAL RESOURCES NWTPH-D REPORT

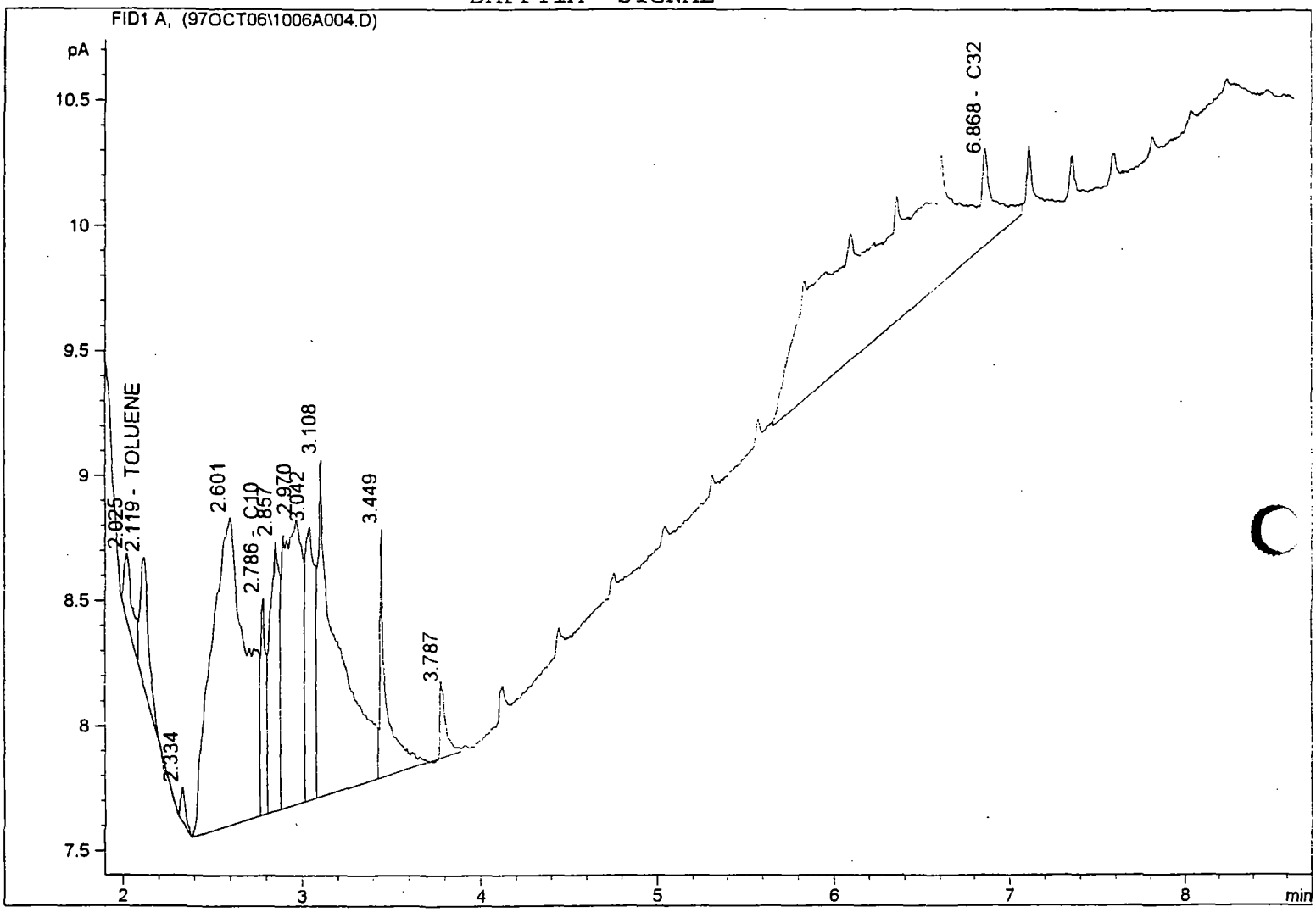
SAMPLE NAME: GAS 25 Injection Date: 10/06/97 12:07:06

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT06\1006A004.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: GAS 50 Injection Date: 10/06/97 12:26:03

PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT06\1006A005.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT06A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	2.117	1	4
C8	0.0	2.258	0	0
C10	0.0	2.782	3	2
C12	0.0	3.172	1	14
C14	0.0	0.000	0	0
C16	0.0	3.908	0	0
C18	0.0	0.000	0	0
C20	0.0	0.000	0	0
	0.0	0.000	0	0
RR	0.0	0.000	0	0
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	105	46	
DIESEL(C12-C24)	23	2	Surrogate Subtracted
M.OIL(C24-C38)	61	5	
SURROGATE		0	

ANALYTICAL RESOURCES NWTPH-D REPORT

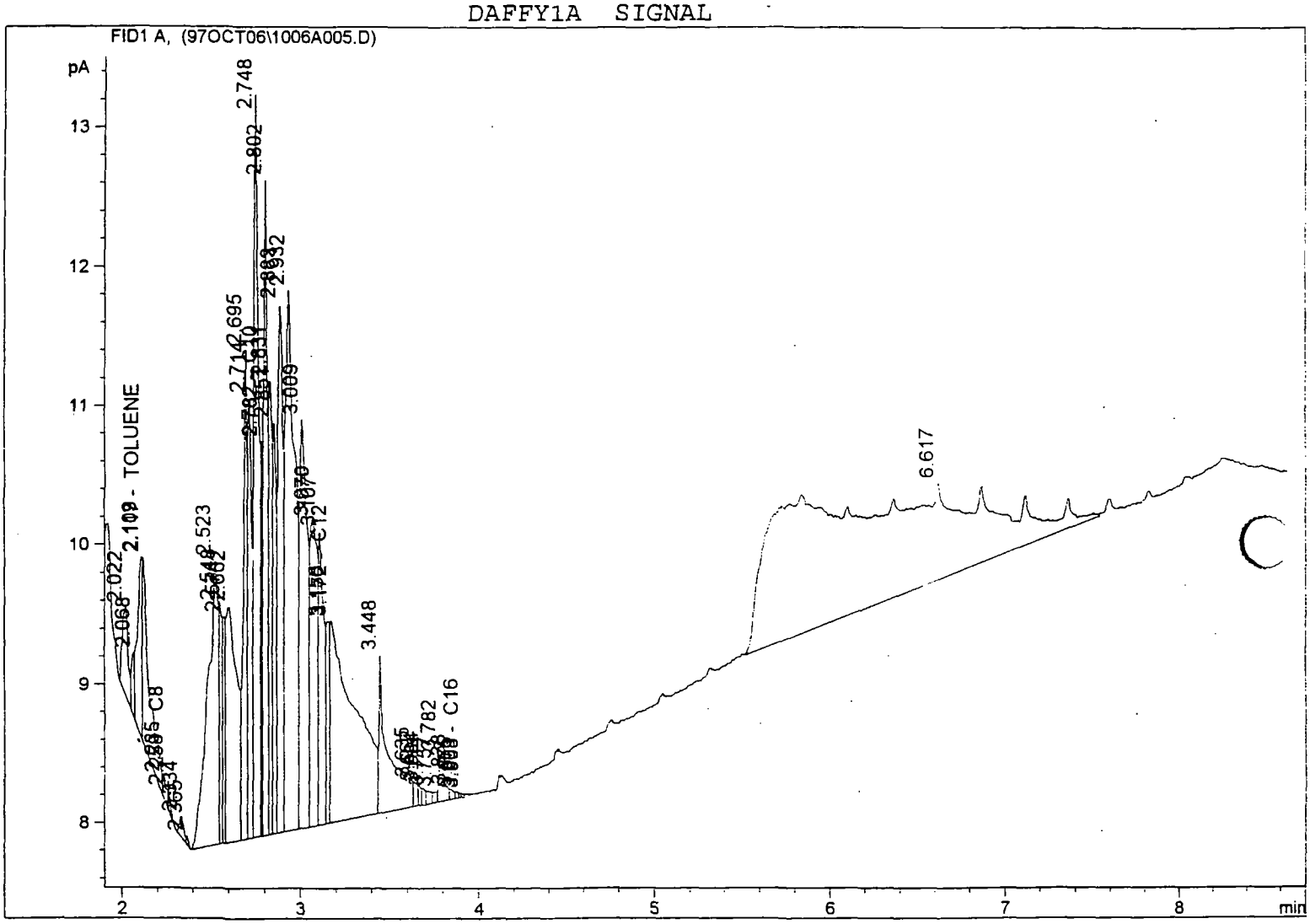
SAMPLE NAME: GAS 50 Injection Date: 10/06/97 12:26:03

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT06\1006A005.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: GAS 100 Injection Date: 10/06/97 12:45:13

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT06\1006A006.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT06A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	2.117	3	10
C8	0.0	2.258	0	1
C10	0.0	2.797	11	12
C12	0.0	3.216	2	5
C14	0.0	0.000	0	0
C16	0.0	3.979	0	0
C18	0.0	0.000	0	0
C20	0.0	0.000	0	0
[redacted]	0.0	0.000	0	0
[redacted]RR	0.0	0.000	0	0
C24	0.0	5.486	3	72
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	
GAS(TOL-C12)	213	93	Macro: 971006-1
DIESEL(C12-C24)	114	8	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE		0	

ANALYTICAL RESOURCES NWTPH-D REPORT

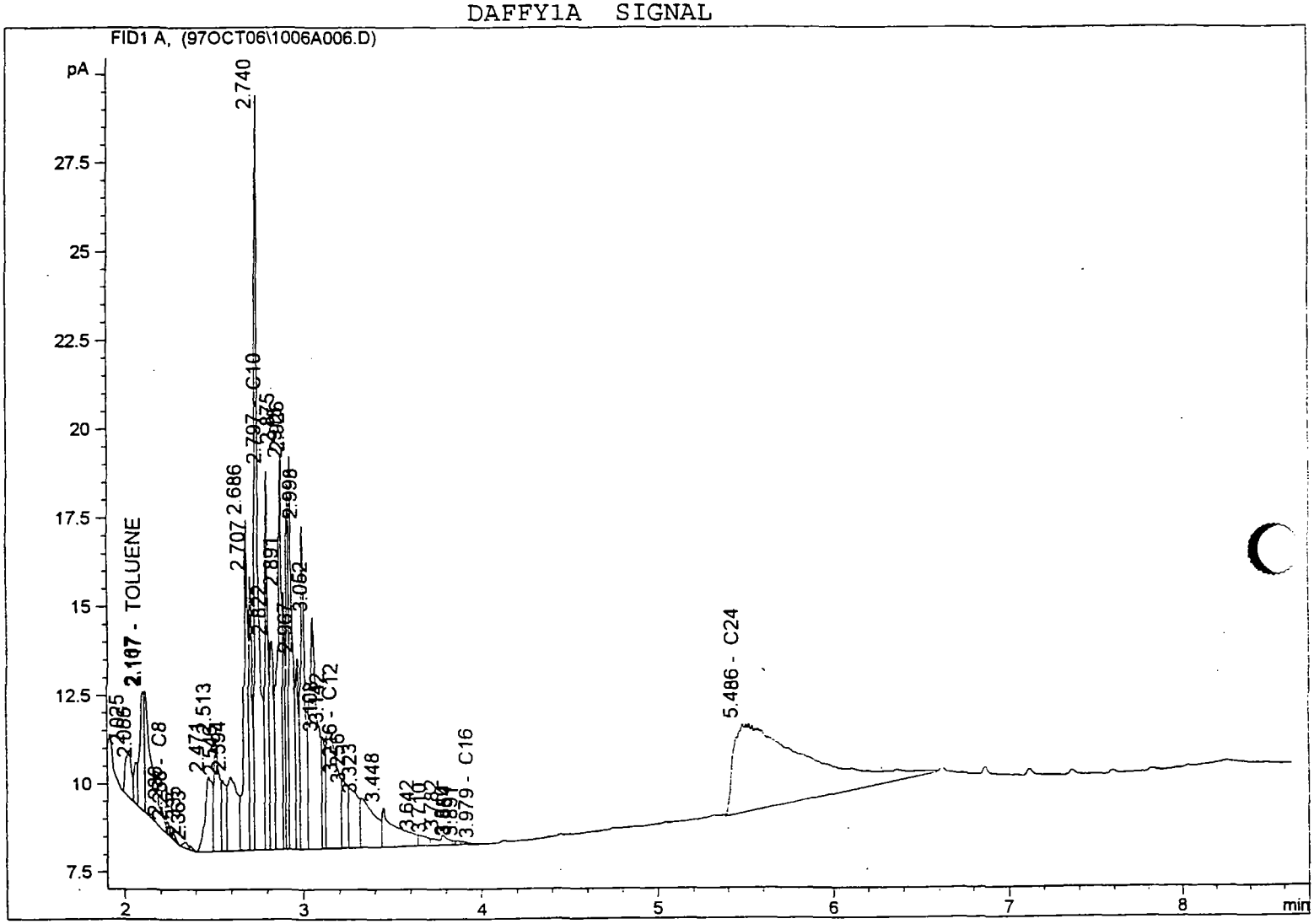
SAMPLE NAME: GAS 100 Injection Date: 10/06/97 12:45:13

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT06\1006A006.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: GAS 250 Injection Date: 10/06/97 13:04:27

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT06\1006A007.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT06A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	2.121	16	67
C8	0.0	0.000	0	0
C10	0.0	2.794	32	54
C12	0.0	3.217	5	41
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	0.000	0	0
[redacted]	0.0	0.000	0	0
[redacted]R	84.0	5.296	35	212
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	597	261	
DIESEL(C12-C24)	105	7	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	211.573563		

ANALYTICAL RESOURCES NWTPH-D REPORT

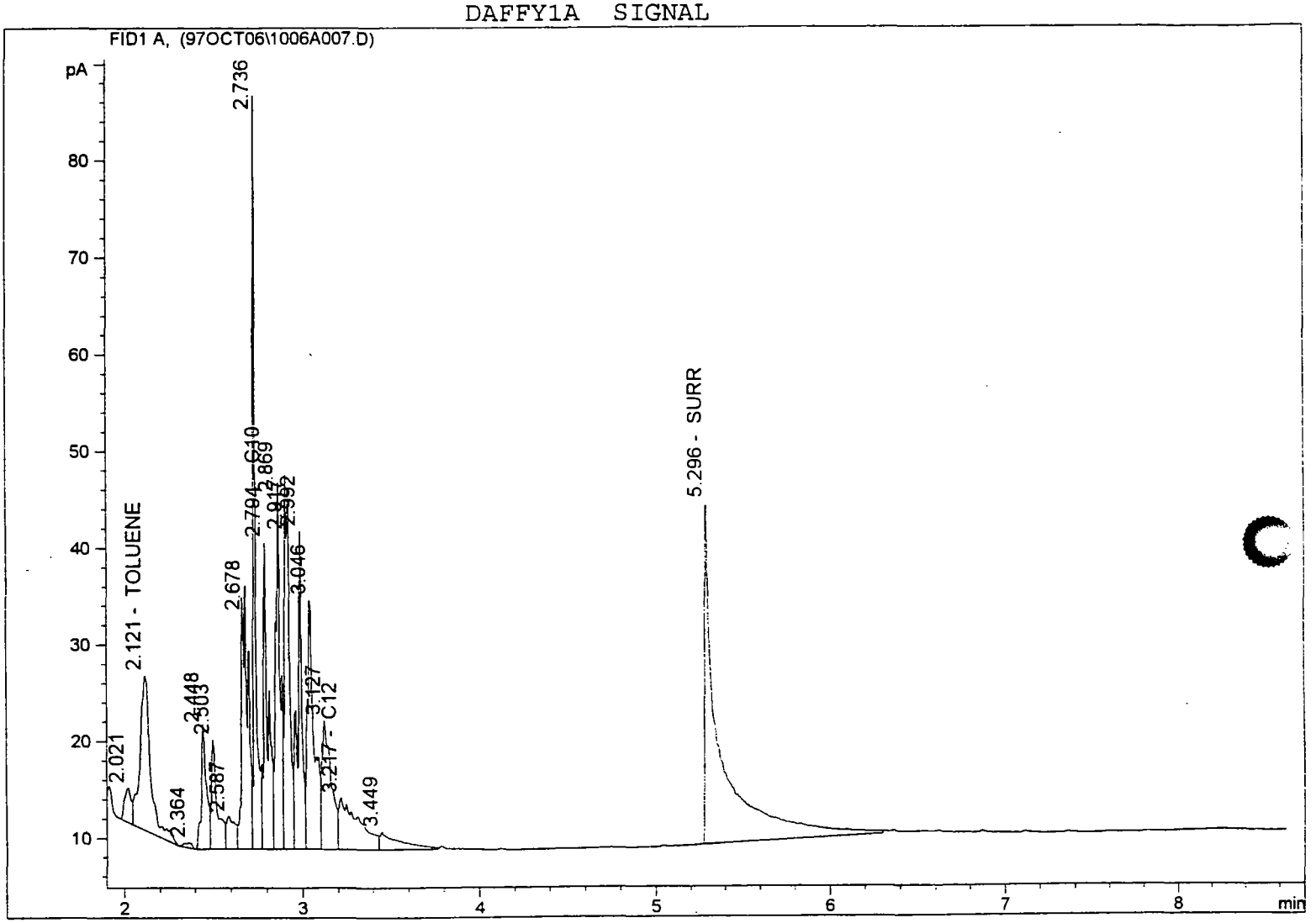
SAMPLE NAME: GAS 250 Injection Date: 10/06/97 13:04:27

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT06\1006A007.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: GAS 1000 Injection Date: 10/06/97 13:23:49

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT06\1006A008.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT06A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	2.118	148	340
C8	0.0	2.258	8	22
C10	0.0	2.792	121	128
C12	0.0	3.169	22	31
C14	0.0	3.597	2	9
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	0.000	0	0
[redacted]2	0.0	0.000	0	0
[redacted]RR	323.9	5.290	932	876
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	2551	1114	
DIESEL(C12-C24)	300	20	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	876.250061		

ANALYTICAL RESOURCES NWTPH-D REPORT

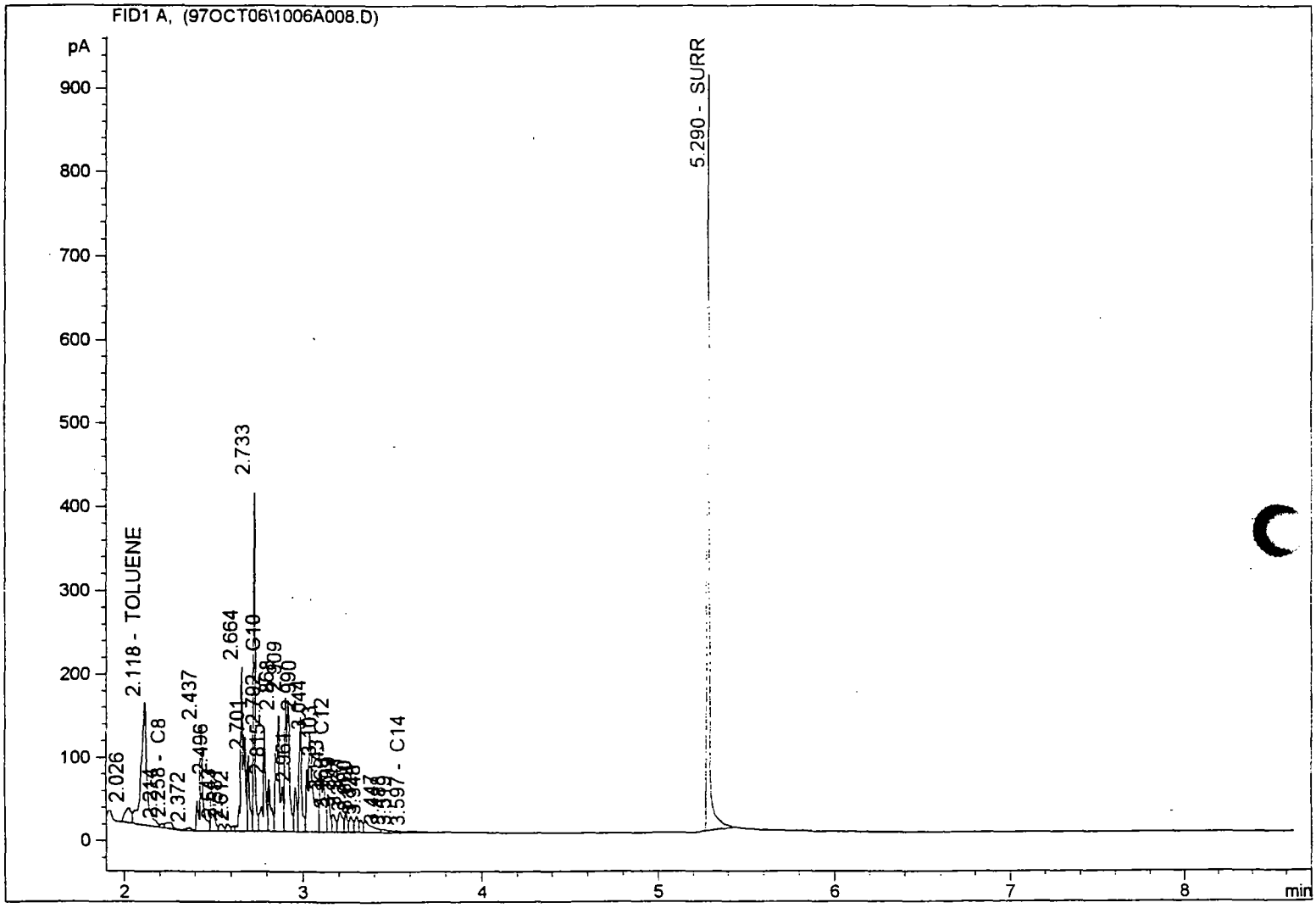
SAMPLE NAME: GAS 1000 Injection Date: 10/06/97 13:23:49

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT06\1006A008.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: GAS 2500 Injection Date: 10/06/97 13:43:11

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT06\1006A009.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT06A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	2.116	436	883
C8	0.0	2.259	25	74
C10	0.0	2.792	273	403
C12	0.0	3.206	62	240
C14	0.0	3.560	9	40
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	0.000	0	0
[redacted]	0.0	0.000	0	0
[redacted]R	908.6	5.300	2084	2496
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	5741	2507	
DIESEL(C12-C24)	550	36	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	2496.491943		

ANALYTICAL RESOURCES NWTPH-D REPORT

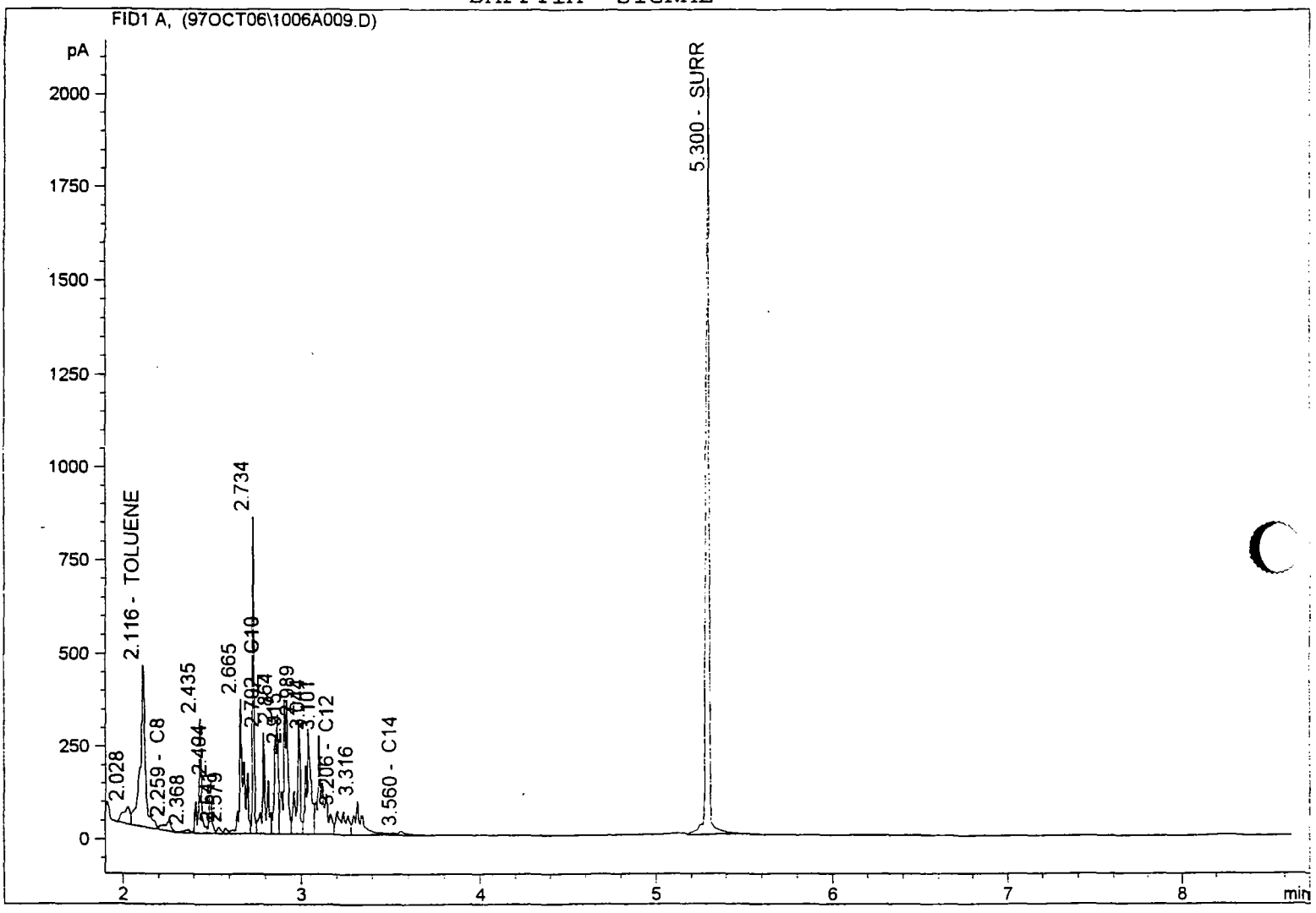
SAMPLE NAME: GAS 2500 Injection Date: 10/06/97 13:43:11

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT06\1006A009.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL
RESOURCES
INCORPORATED

DIESEL LINEARITY CHECK

ARI Job Number: U269

Client: Remediation Technologies, Inc.
Project: 1 2900

Instrument: Daffy1A

Date Analyzed: 08/05/97

Time Analyzed: 20:23-22:01

Report: 11/03/97 MAC:CSP

Compound	Calibration Factor Conc: 50	Calibration Factor Conc: 100	Calibration Factor Conc: 200	Calibration Factor Conc: 2000	Calibration Factor Conc: 5000	Calibration Factor Average	%RSD
Diesel	13.96	15.37	15.46	15.90	16.04	15.35	5.38

FORM VI TPHD

NW DIESEL CURVE (C12-C24)

Instrument: Daffy1A
Date: 08/05/97

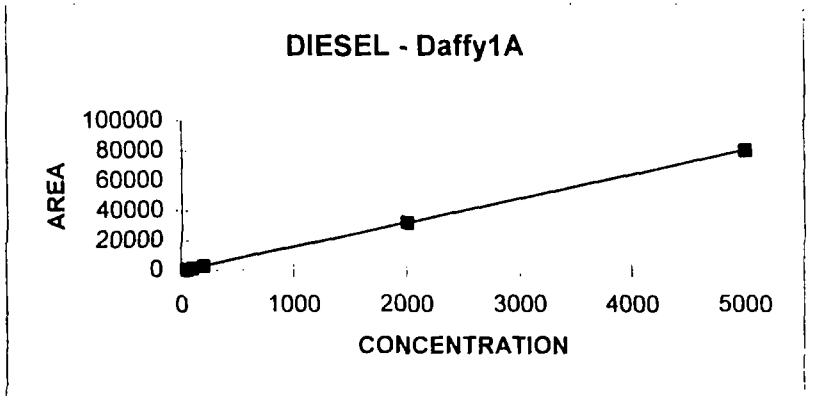
RTX-1 COLUMN

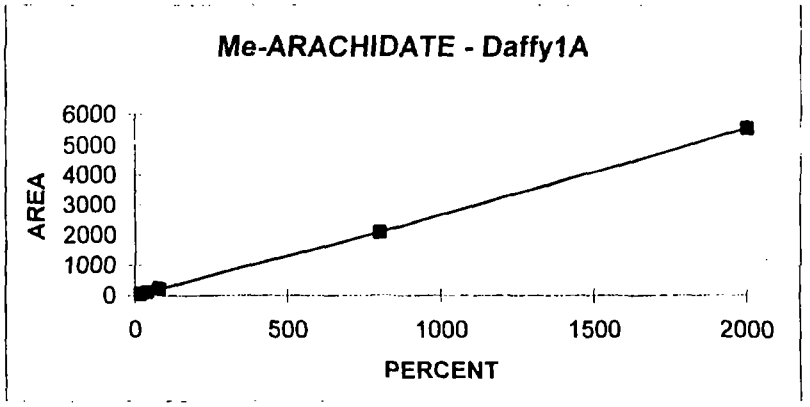
Surrogate Area	49.68	2.48	108.83	2.72	224.32	2.80	2100.92	2.63	5557.31	2.78	4.86
DIESEL	698.00	13.96	1537.00	15.37	3091.00	15.46	31807.00	15.90	80213.00	16.04	5.38

DIESEL RF AVE= 15.35

SURROGATE IS ALREADY SUBTRACTED IN MACRO

ENTER AREAS DIRECTLY FROM REPORT





ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: DIESEL ~~12.5~~ 25 (AHB) Injection Date: 08/06/97 13:30:37

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG05\0805A054.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97AUG05A.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:07/02/97,DIESEL:07/02/97,M.OIL:07/31/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.780	6	8
C12	0.0	3.177	15	14
C14	0.0	3.558	15	17
C16	0.0	3.939	11	17
C18	0.0	4.329	8	11
C20	0.0	4.717	5	10
[illegible]	0.0	5.097	2	5
[illegible]R	17.4	5.308	20	27
C24	0.0	5.468	1	4
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

Macro: 970804-1

	AREA	CONC	
GAS(TOL-C12)	80	22	
DIESEL(C12-C24)	393	26	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	27.125019		

ANALYTICAL RESOURCES TPH REPORT

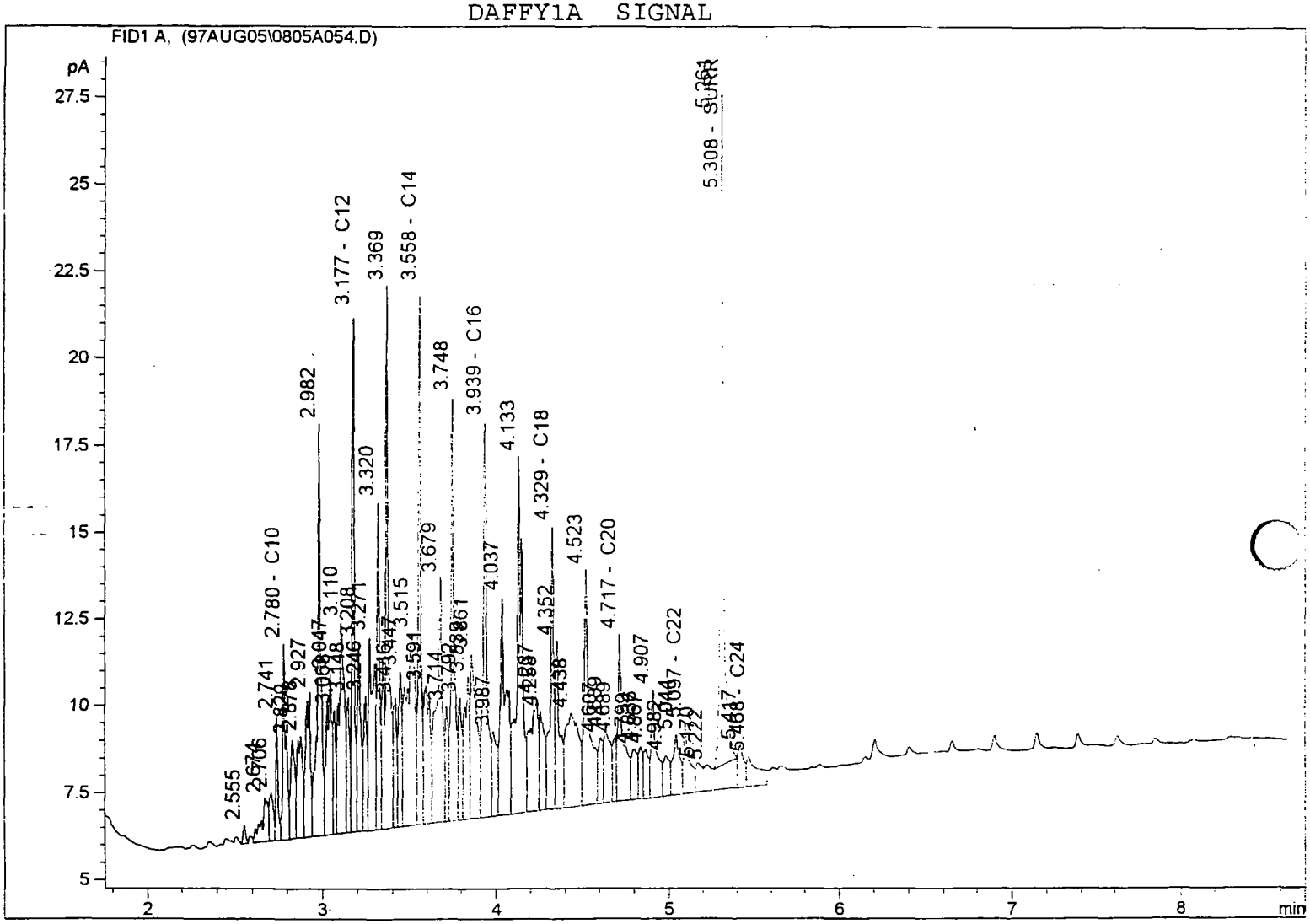
SAMPLE NAME: DIESEL 12.5 Injection Date: 08/06/97 13:30:37

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG05\0805A054.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: DIESEL 25 50 Injection Date: 08/05/97 20:23:27

PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG05\0805A002.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97AUG05A.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:07/02/97,DIESEL:07/02/97,M.OIL:07/31/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.780	11	12
C12	0.0	3.177	29	24
C14	0.0	3.557	31	32
C16	0.0	3.937	23	33
C18	0.0	4.327	16	21
C20	0.0	4.713	9	17
	0.0	5.086	4	7
SURR	27.2	5.289	39	50
C24	0.0	5.440	1	6
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

Macro: 970804-1

	AREA	CONC	
GAS(TOL-C12)	139	38	
DIESEL(C12-C24)	698	45	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	49.677956		

ANALYTICAL RESOURCES TPH REPORT

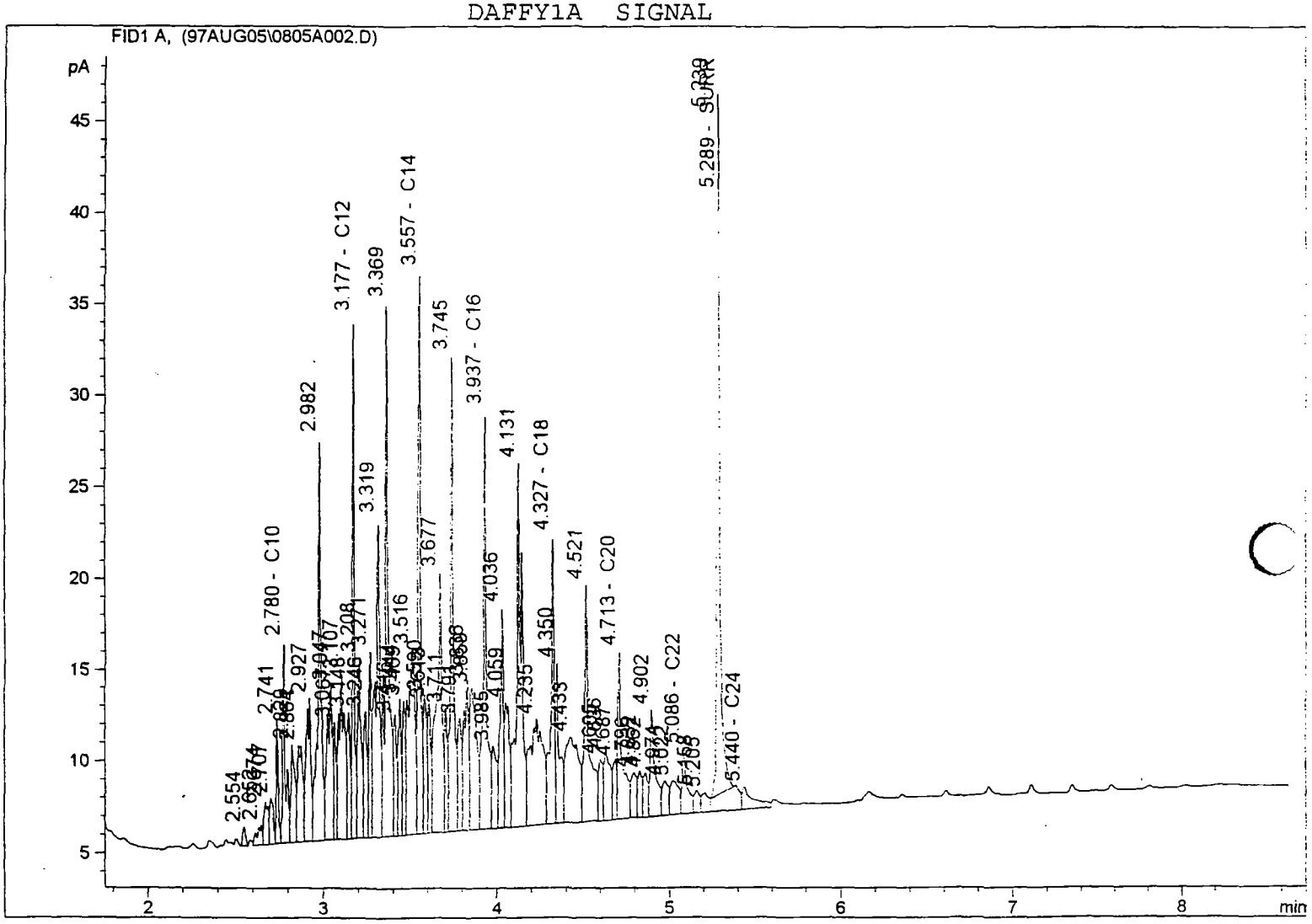
SAMPLE NAME: DIESEL 25 Injection Date: 08/05/97 20:23:27

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG05\0805A002.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: DIESEL ~~50~~ 100 (2/3) Injection Date: 08/05/97 20:43:21

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG05\0805A003.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97AUG05A.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:07/02/97,DIESEL:07/02/97,M.OIL:07/31/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.779	21	23
C12	0.0	3.176	54	44
C14	0.0	3.556	73	74
C16	0.0	3.936	51	71
C18	0.0	4.326	36	46
C20	0.0	4.712	22	37
[illegible]	0.0	5.085	9	17
[illegible]R	53.5	5.289	106	109
C24	0.0	5.442	3	12
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

Macro: 970804-1

	AREA	CONC
GAS(TOL-C12)	240	66
DIESEL(C12-C24)	1537	99
M.OIL(C24-C38)	12	1
SURROGATE	108.830048	

Surrogate Subtracted

ANALYTICAL RESOURCES TPH REPORT

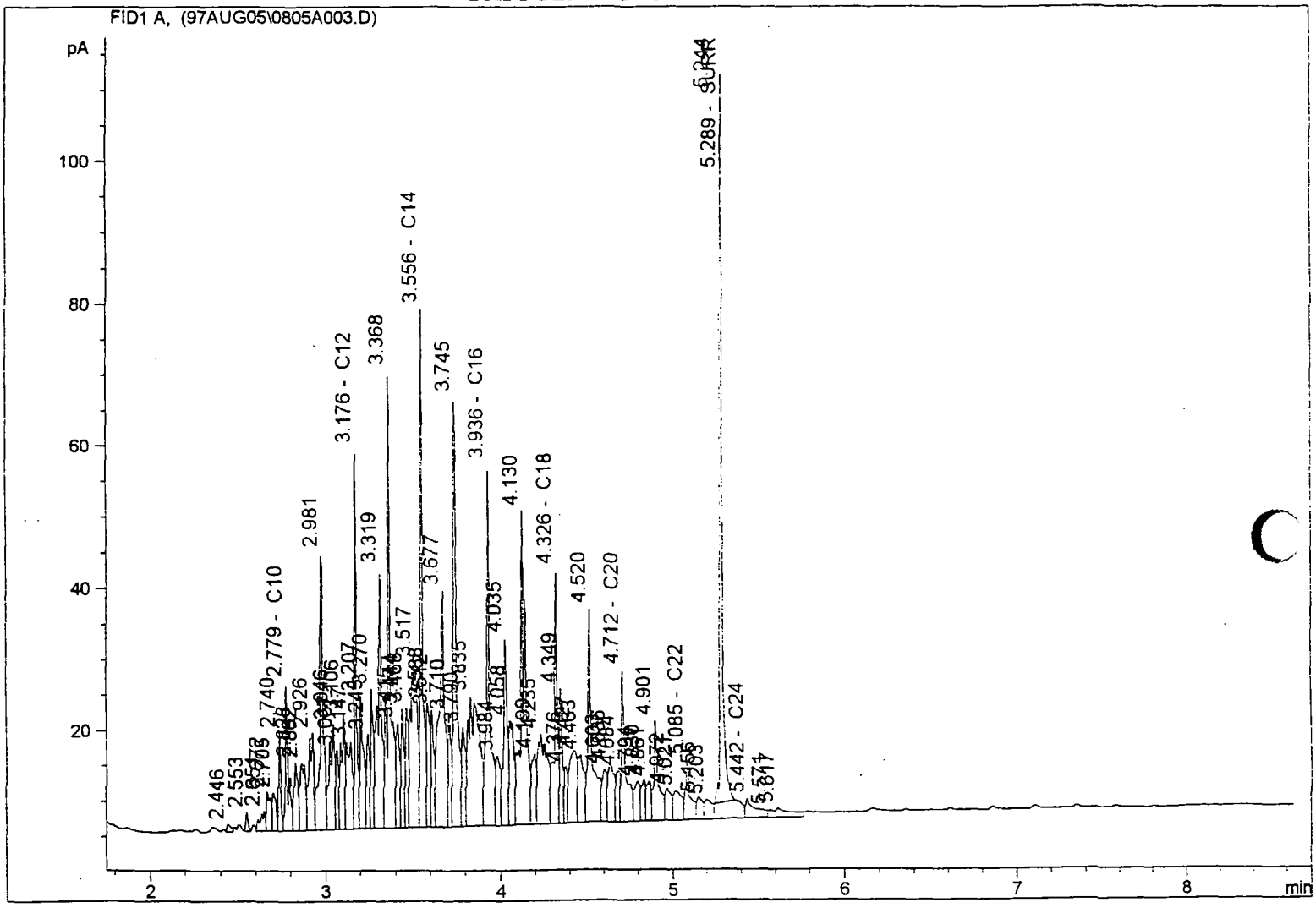
SAMPLE NAME: DIESEL 50 Injection Date: 08/05/97 20:43:21

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG05\0805A003.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: DIESEL ~~100~~ 200 Injection Date: 08/05/97 21:03:01

[illegible]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG05\0805A004.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97AUG05A.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:07/02/97,DIESEL:07/02/97,M.OIL:07/31/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.779	45	33
C12	0.0	3.176	115	91
C14	0.0	3.557	151	150
C16	0.0	3.936	106	144
C18	0.0	4.326	75	92
C20	0.0	4.713	44	54
[illegible]	0.0	5.085	17	31
[illegible]R	104.8	5.289	259	224
C24	0.0	5.440	5	11
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

Macro: 970804-1

	AREA	CONC
GAS(TOL-C12)	520	142
DIESEL(C12-C24)	3091	199
M.OIL(C24-C38)	20	2
SURROGATE	224.322418	

Surrogate Subtracted

ANALYTICAL RESOURCES TPH REPORT

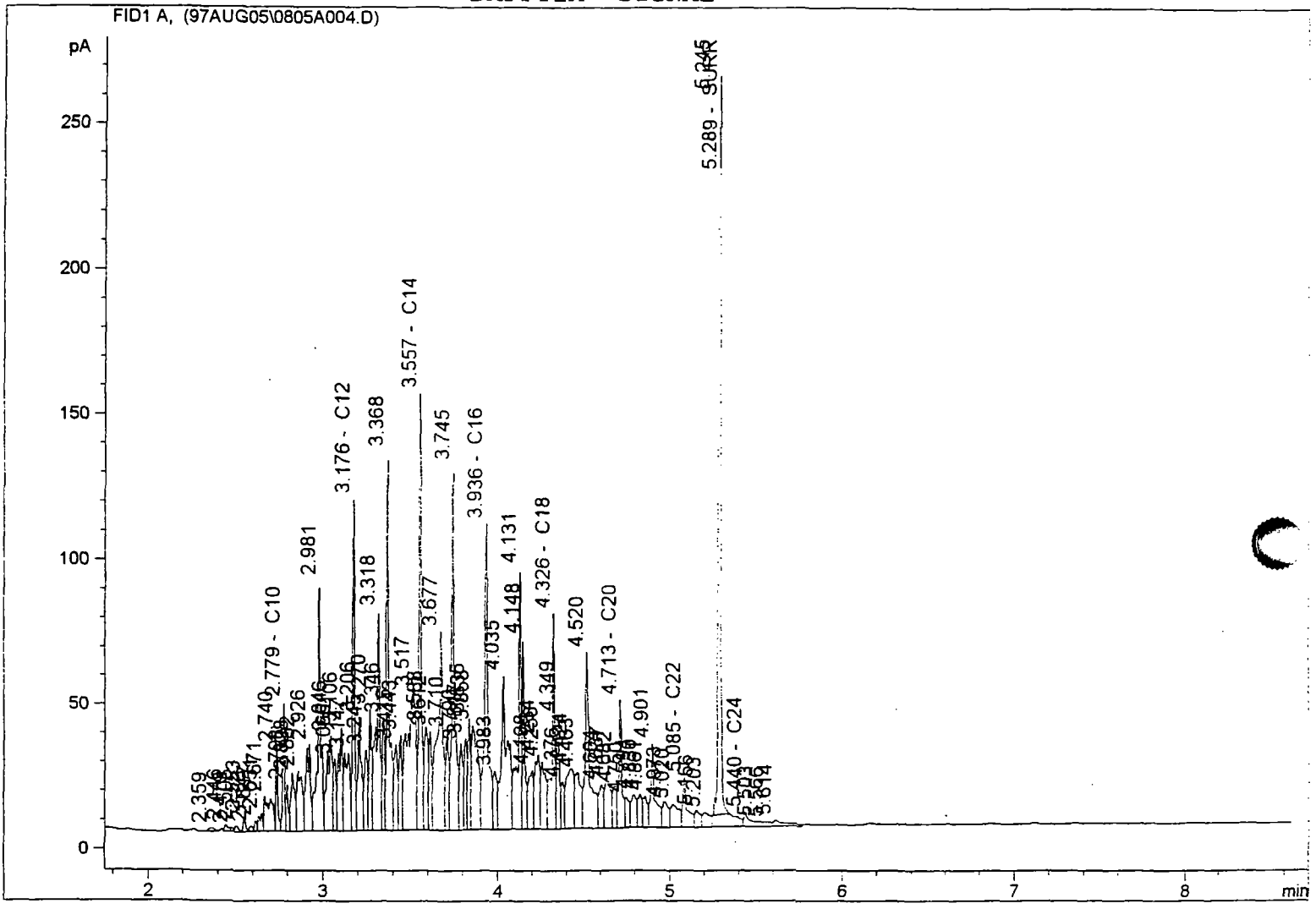
SAMPLE NAME: DIESEL 100 Injection Date: 08/05/97 21:03:01

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG05\0805A004.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: DIESEL ~~1000~~ 2000 Injection Date: 08/05/97 21:42:19

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG05\0805A006.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97AUG05A.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:07/02/97,DIESEL:07/02/97,M.OIL:07/31/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	2.120	10	20
C8	0.0	2.255	17	38
C10	0.0	2.778	327	389
C12	0.0	3.180	1198	1082
C14	0.0	3.562	1402	1606
C16	0.0	3.942	937	1449
C18	0.0	4.332	658	913
C20	0.0	4.717	399	661
[illegible]	0.0	5.088	161	299
[illegible]R	939.0	5.306	1966	2101
C24	0.0	5.446	43	85
C26	0.0	5.795	8	16
C28	0.0	6.151	2	3
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

Macro: 970804-1

	AREA	CONC	
GAS(TOL-C12)	5190	1411	
DIESEL(C12-C24)	31807	2041	Surrogate Subtracted
M.OIL(C24-C38)	178	14	
SURROGATE	2100.921875		

ANALYTICAL RESOURCES TPH REPORT

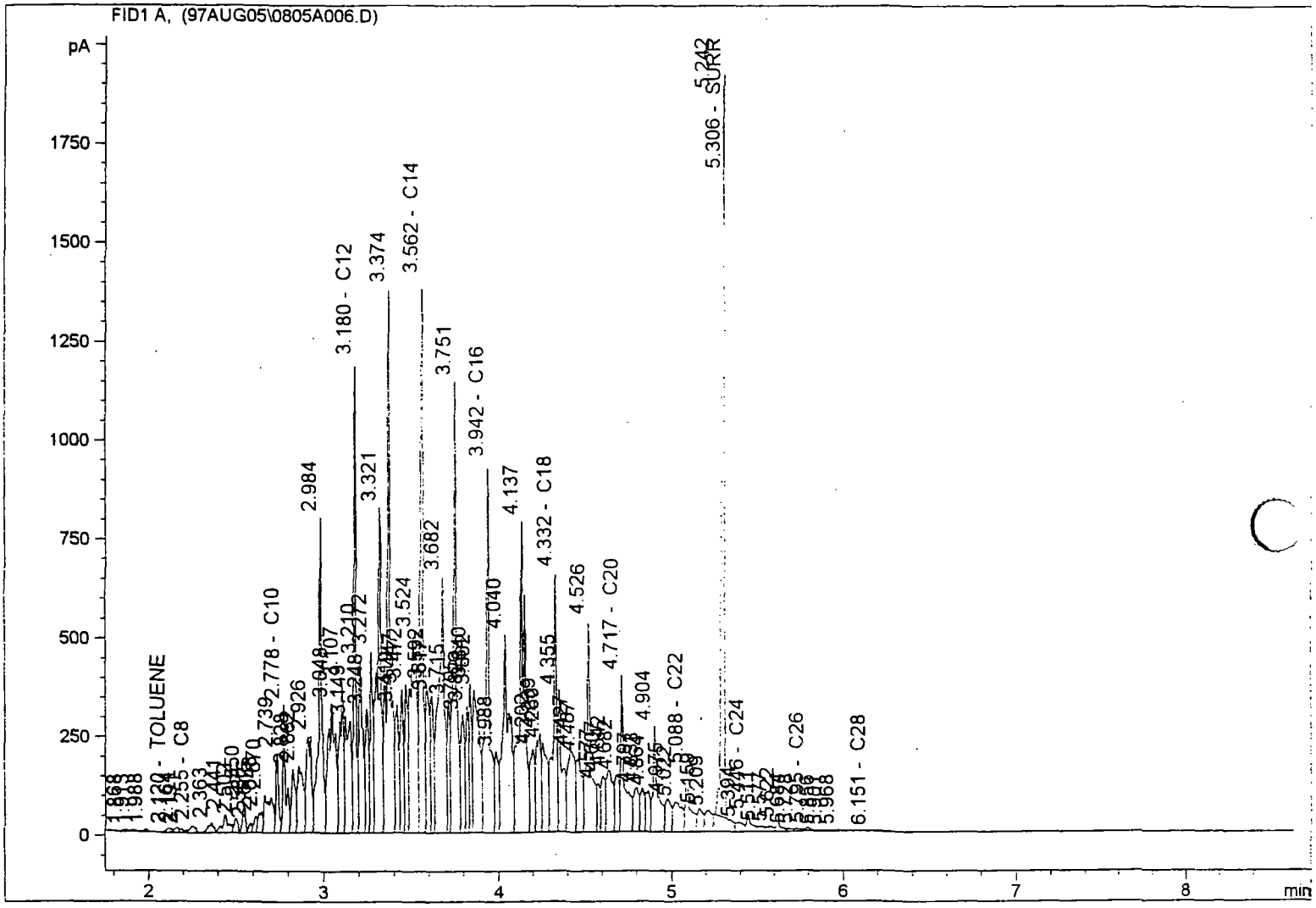
SAMPLE NAME: DIESEL 1000 Injection Date: 08/05/97 21:42:19

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG05\0805A006.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: DIESEL ~~2500~~ 5000 (4713) Injection Date: 08/05/97 22:01:49

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG05\0805A007.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97AUG05A.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:07/02/97,DIESEL:07/02/97,M.OIL:07/31/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	2.280	39	83
C10	0.0	2.785	757	1533
C12	0.0	3.187	2556	5411
C14	0.0	3.571	3027	6583
C16	0.0	3.950	2093	4468
C18	0.0	4.340	1515	3810
C20	0.0	4.723	954	2311
[redacted]	0.0	5.091	388	776
[redacted]R	2475.3	5.319	3743	5557
C24	0.0	5.447	114	341
C26	0.0	5.792	24	96
C28	0.0	6.146	8	25
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

Macro: 970804-1

	AREA	CONC	
GAS(TOL-C12)	15941	4332	
DIESEL(C12-C24)	80213	5146	Surrogate Subtracted
M.OIL(C24-C38)	472	38	
SURROGATE	5557.311035		

ANALYTICAL RESOURCES TPH REPORT

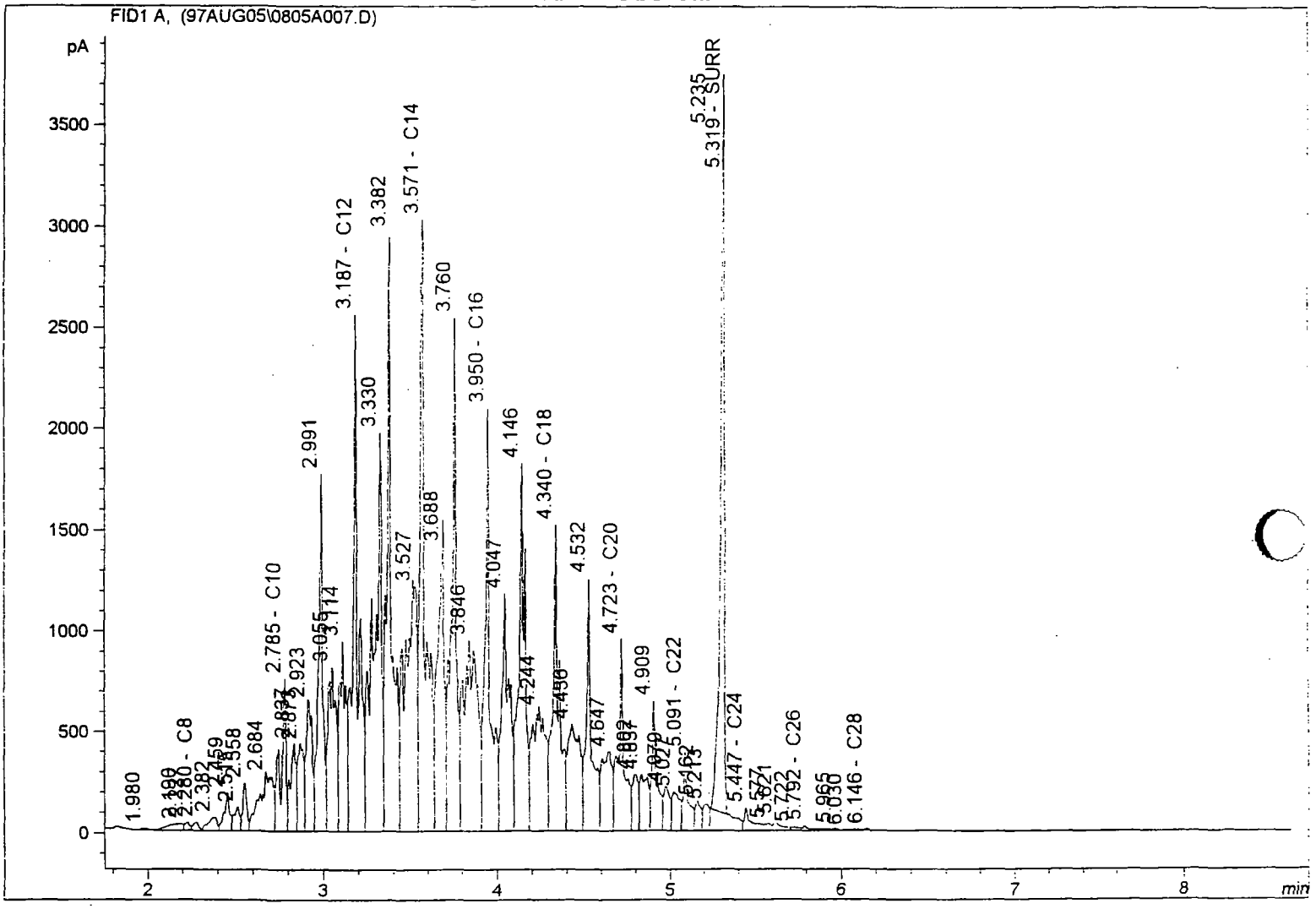
SAMPLE NAME: DIESEL 2500 Injection Date: 08/05/97 22:01:49

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG05\0805A007.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL
RESOURCES
INCORPORATED

MOTOR OIL LINEARITY CHECK

ARI Job Number: U269

Client: Remediation Technologies, Inc.
Project: 1 2900

Instrument: Daffy1A

Date Analyzed: 08/21/96

Time Analyzed: 18:24-19:43

Report: 11/03/97 MAC:CSP

Compound	Calibration Factor Conc: 100	Calibration Factor Conc: 250	Calibration Factor Conc: 500	Calibration Factor Conc: 2500	Calibration Factor Conc: 5000	Calibration Factor Average	%RSD
Motor Oil	13.98	12.78	12.84	11.57	10.44	12.32	10.99

FORM VI M.O.

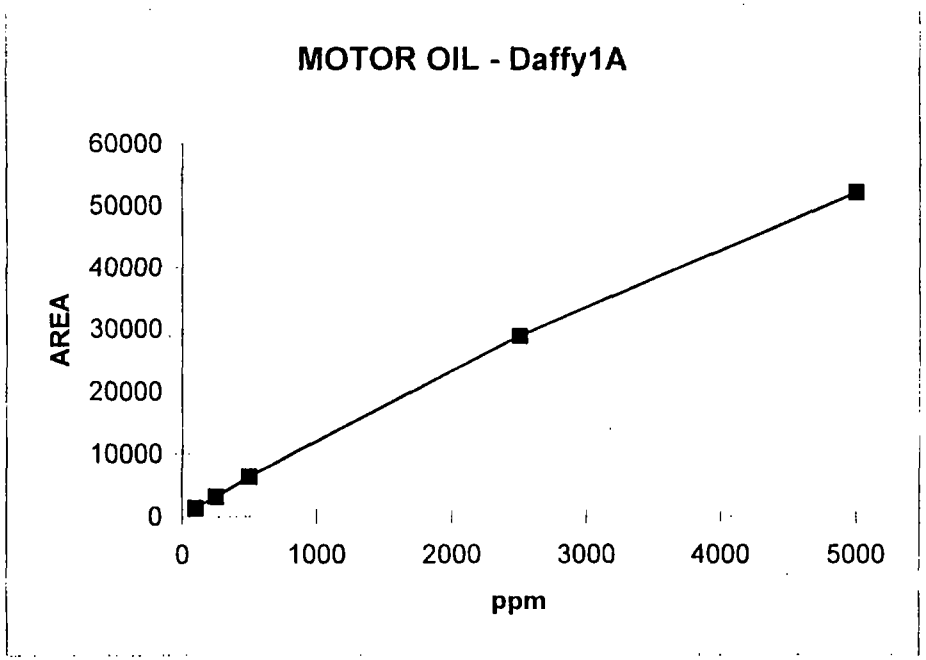
NW MOTOR OIL CURVE (C24-C38)

Instrument: Daffy1A
Date: 08/21/97

RTX-1 COLUMN

COMPOUND	100ppm	RF 1:5	250ppm	RF 1:2	500ppm	RF 1:1	2500ppm	RF 5:1	5000ppm	RF 10:1	%RSD
MOTOR OIL	1398.00	13.98	3195.00	12.78	6418.00	12.84	28915.00	11.57	52193.00	10.44	11.00

AVERAGE 12.32



ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: M. OIL 50 Injection Date: 08/21/97 18:05:08

PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG21\0821A003.D

INSTRUMENT: DAFFY1A Operator: PK

Method: C:\HPCHEM\1\METHODS\97AUG21A.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04/97,DIESEL:08/05/97,M.OIL:07/31/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	0.000	0	0
	0.0	5.043	2	15
SURR	14.5	5.296	17	19
C24	0.0	5.422	4	5
C26	0.0	5.823	6	29
C28	0.0	6.166	8	24
C30	0.0	6.506	7	33
C32	0.0	6.868	6	19
C34	0.0	7.195	4	32
C36	0.0	7.586	2	20
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

Macro: 970821-1

	AREA	CONC	
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	88	6	Surrogate Subtracted
M.OIL(C24-C38)	717	59	
SURROGATE	18.925406		

ANALYTICAL RESOURCES TPH REPORT

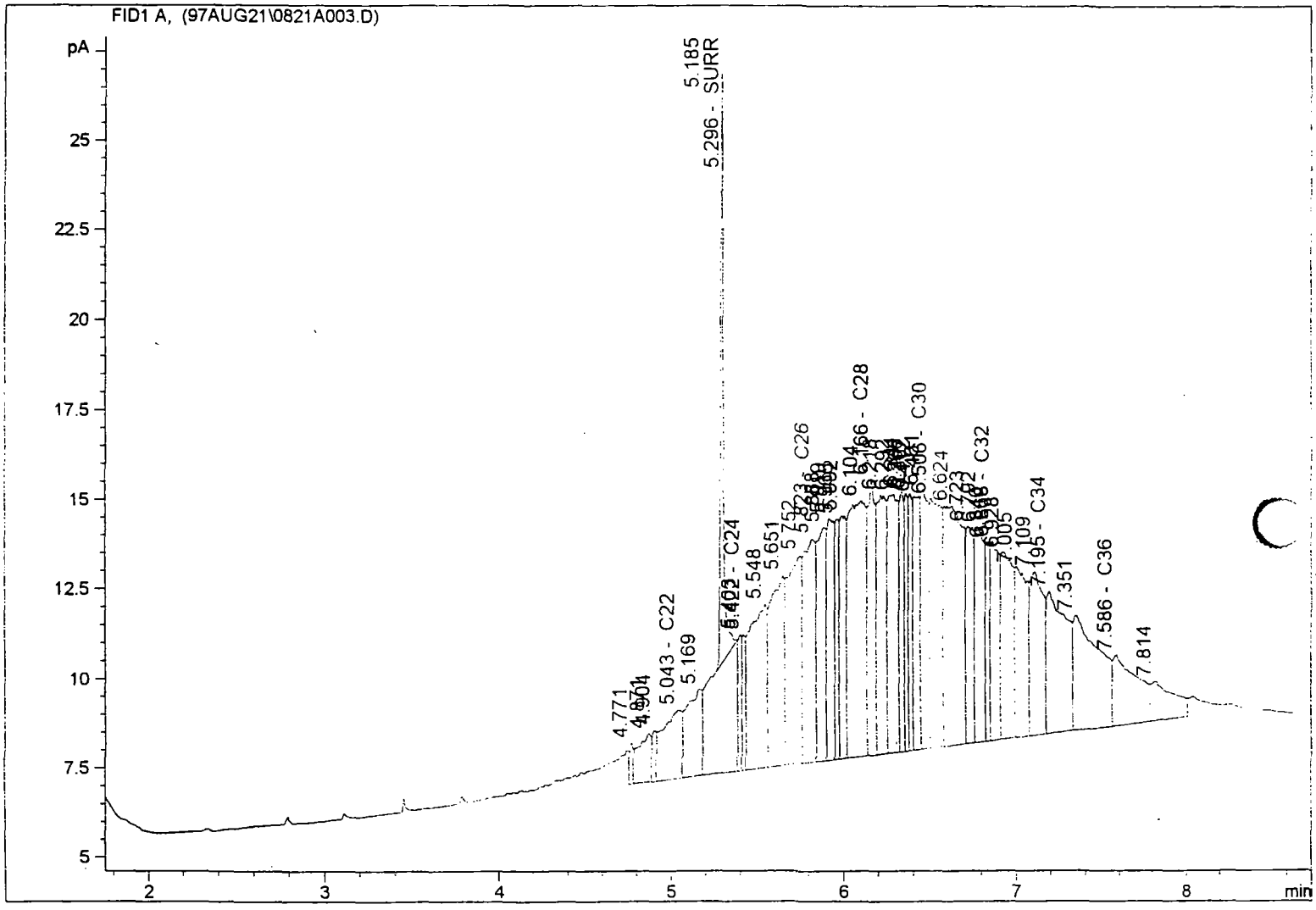
SAMPLE NAME: M. OIL 50 Injection Date: 08/21/97 18:05:08

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG21\0821A003.D

INSTRUMENT: DAFFY1A Operator: PK

DAFFY1A SIGNAL



ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: M. OIL 100 Injection Date: 08/21/97 18:24:54

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG21\0821A004.D

INSTRUMENT: DAFFY1A Operator: PK

Method: C:\HPCHEM\1\METHODS\97AUG21A.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04/97,DIESEL:08/05/97,M.OIL:07/31/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	4.743	2	8
[redacted]	0.0	5.113	4	12
[redacted]RR	21.8	5.292	40	39
C24	0.0	5.400	7	17
C26	0.0	5.821	12	113
C28	0.0	6.156	14	54
C30	0.0	6.500	13	36
C32	0.0	6.860	11	32
C34	0.0	7.190	8	48
C36	0.0	7.580	4	42
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

Macro: 970821-1

	AREA	CONC	
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	176	12	Surrogate Subtracted
M.OIL(C24-C38)	1398	114	
SURROGATE	39.345184		

147

ANALYTICAL RESOURCES TPH REPORT

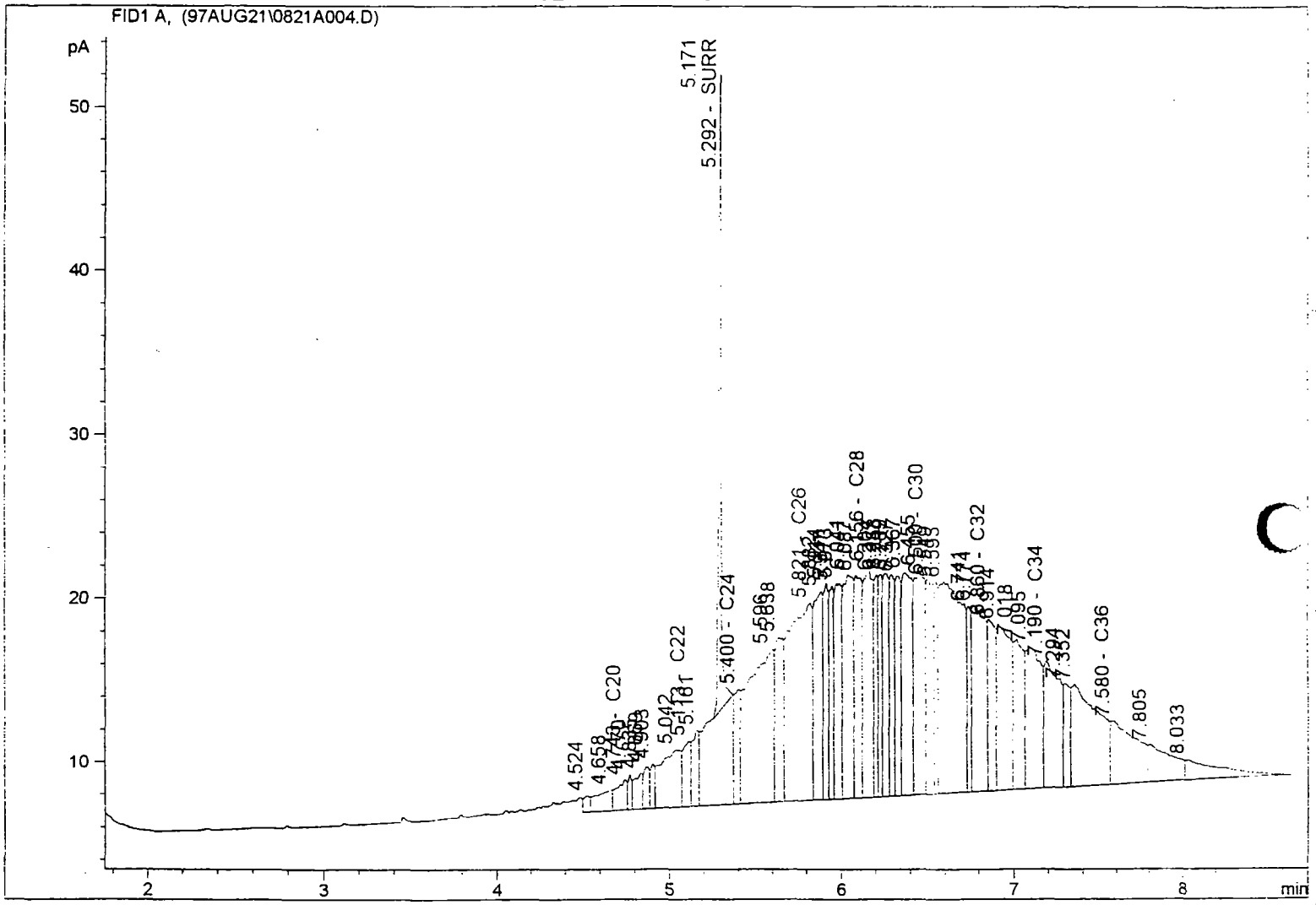
SAMPLE NAME: M. OIL 100 Injection Date: 08/21/97 18:24:54

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG21\0821A004.D

INSTRUMENT: DAFFY1A Operator: PK

DAFFY1A SIGNAL



ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: M. OIL 250 Injection Date: 08/21/97 18:44:31

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG21\0821A005.D

INSTRUMENT: DAFFY1A Operator: PK

Method: C:\HPCHEM\1\METHODS\97AUG21A.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04/97,DIESEL:08/05/97,M.OIL:07/31/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	4.329	2	5
C20	0.0	4.742	4	15
[redacted]	0.0	5.109	9	29
[redacted]R	43.2	5.292	114	99
C24	0.0	5.473	18	59
C26	0.0	5.821	29	116
C28	0.0	6.158	33	111
C30	0.0	6.494	31	68
C32	0.0	6.882	23	34
C34	0.0	7.192	18	82
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

Macro: 970821-1

	AREA	CONC	
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	496	33	Surrogate Subtracted
M.OIL(C24-C38)	3195	260	
SURROGATE	98.667488		

ANALYTICAL RESOURCES TPH REPORT

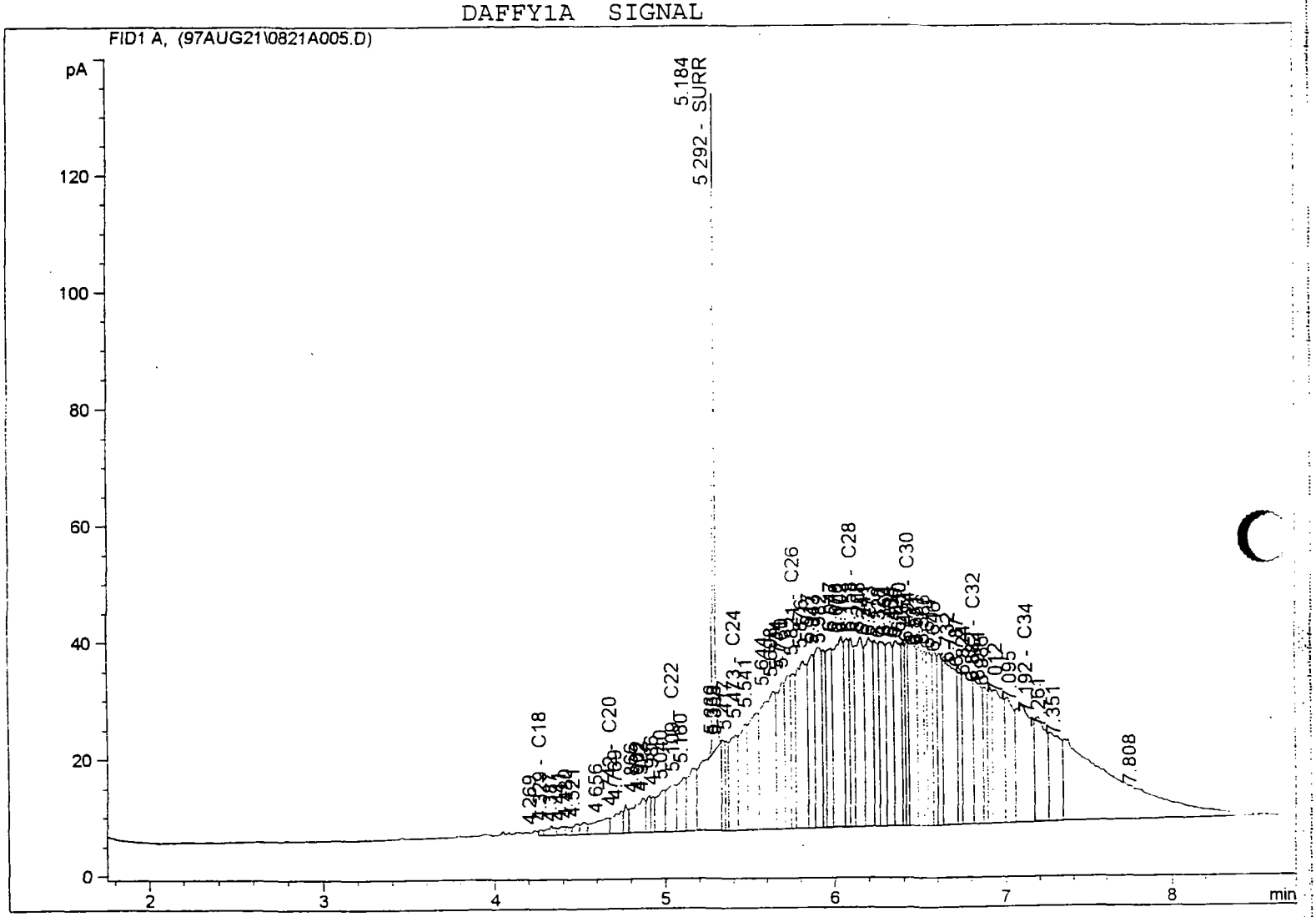
SAMPLE NAME: M. OIL 250 Injection Date: 08/21/97 18:44:31

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG21\0821A005.D

INSTRUMENT: DAFFY1A Operator: PK

DAFFY1A SIGNAL



ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: M. OIL 500 Injection Date: 08/21/97 19:04:01

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG21\0821A006.D

INSTRUMENT: DAFFY1A Operator: PK

Method: C:\HPCHEM\1\METHODS\97AUG21A.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04/97,DIESEL:08/05/97,M.OIL:07/31/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	4.328	3	9
C20	0.0	4.712	7	19
[redacted]	0.0	5.110	18	56
[redacted]RR	79.3	5.292	235	199
C24	0.0	0.000	0	0
C26	0.0	5.812	55	263
C28	0.0	6.150	63	198
C30	0.0	6.514	58	77
C32	0.0	6.867	45	85
C34	0.0	7.191	35	135
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	8.172	2	21

DAFFY1A RANGES

Macro: 970821-1

	AREA	CONC	
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	672	44	Surrogate Subtracted
M.OIL(C24-C38)	6418	521	
SURROGATE	198.567535		

ANALYTICAL RESOURCES TPH REPORT

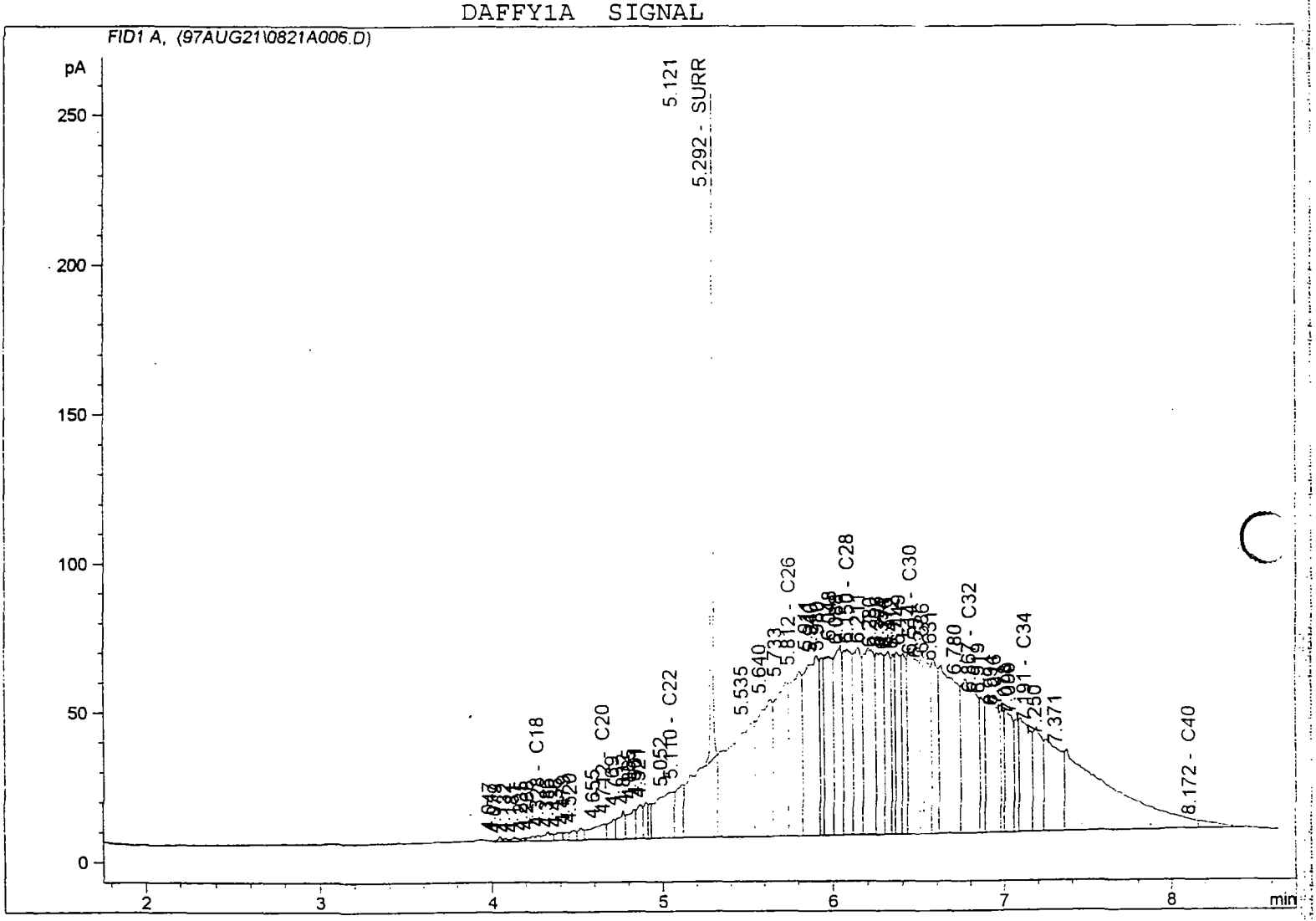
SAMPLE NAME: M. OIL 500 Injection Date: 08/21/97 19:04:01

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG21\0821A006.D

INSTRUMENT: DAFFY1A Operator: PK

DAFFY1A SIGNAL



ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: M. OIL 2500 Injection Date: 08/21/97 19:23:54

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG21\0821A007.D

INSTRUMENT: DAFFY1A Operator: PK

Method: C:\HPCHEM\1\METHODS\97AUG21A.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04/97,DIESEL:08/05/97,M.OIL:07/31/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	3.936	4	12
C18	0.0	4.327	16	37
C20	0.0	4.713	38	106
[redacted]	0.0	5.111	93	276
[redacted]R	392.5	5.299	1149	1067
C24	0.0	5.420	163	977
C26	0.0	5.816	289	1415
C28	0.0	6.155	299	1018
C30	0.0	6.509	273	543
C32	0.0	6.826	210	896
C34	0.0	7.195	138	1331
C36	0.0	7.502	76	736
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

Macro: 970821-1

	AREA	CONC	
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	4520	295	Surrogate Subtracted
M.OIL(C24-C38)	28915	2347	
SURROGATE	1066.578857		

ANALYTICAL RESOURCES TPH REPORT

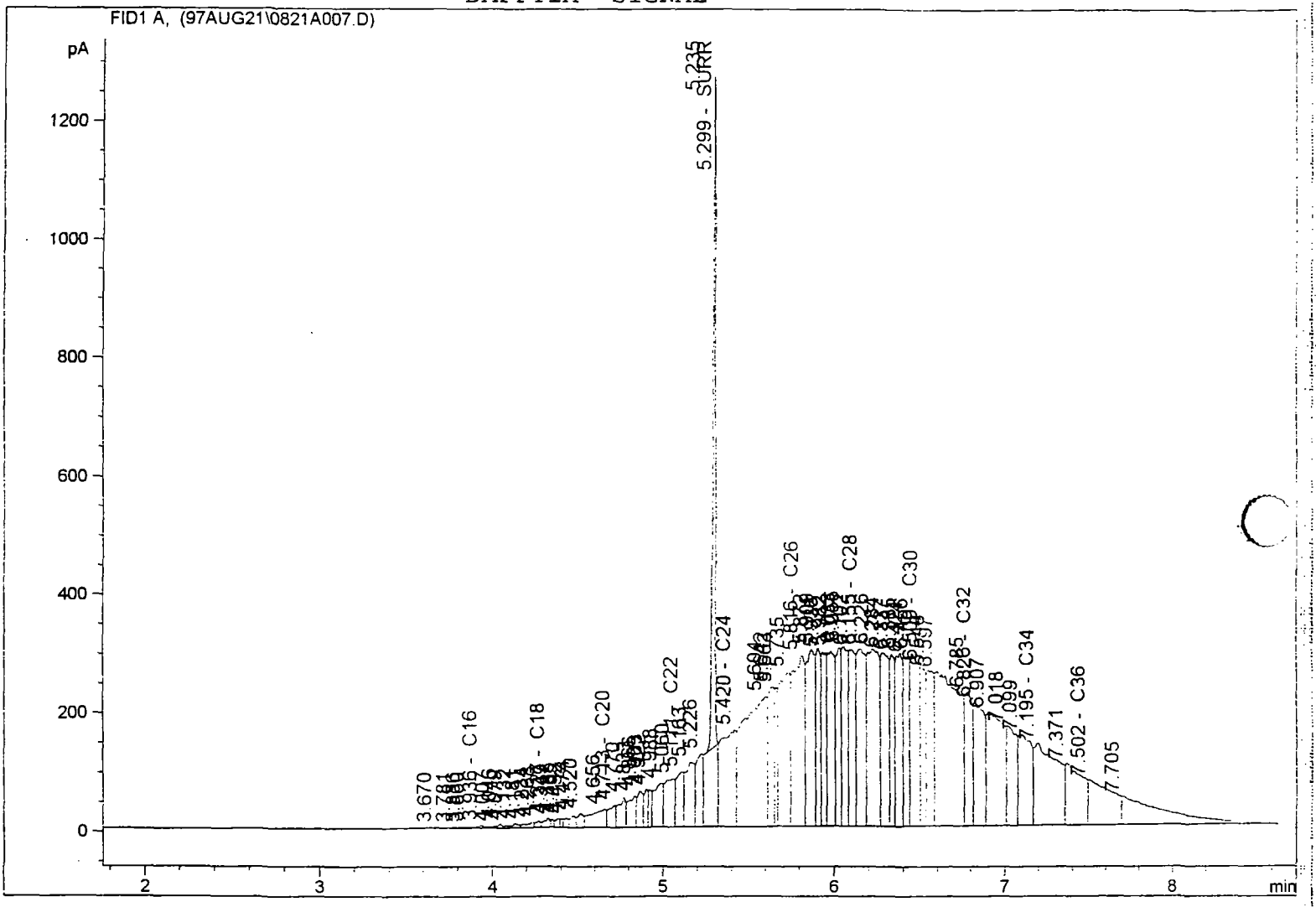
SAMPLE NAME: M. OIL 2500 Injection Date: 08/21/97 19:23:54

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG21\0821A007.D

INSTRUMENT: DAFFY1A Operator: PK

DAFFY1A SIGNAL



ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: M. OIL 5000 Injection Date: 08/21/97 19:43:29

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG21\0821A008.D

INSTRUMENT: DAFFY1A Operator: PK

Method: C:\HPCHEM\1\METHODS\97AUG21A.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04/97,DIESEL:08/05/97,M.OIL:07/31/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	3.555	2	3
C16	0.0	3.936	8	24
C18	0.0	4.328	34	78
C20	0.0	4.744	79	339
[redacted]	0.0	5.114	183	553
[redacted]R	782.8	5.312	1902	2148
C24	0.0	5.487	355	2292
C26	0.0	5.838	569	2605
C28	0.0	6.185	591	2151
C30	0.0	6.519	512	1364
C32	0.0	0.000	0	0
C34	0.0	7.212	240	2178
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

Macro: 970821-1

	AREA	CONC	
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	10262	669	Surrogate Subtracted
M.OIL(C24-C38)	52193	4237	
SURROGATE	2148.126221		

ANALYTICAL RESOURCES TPH REPORT

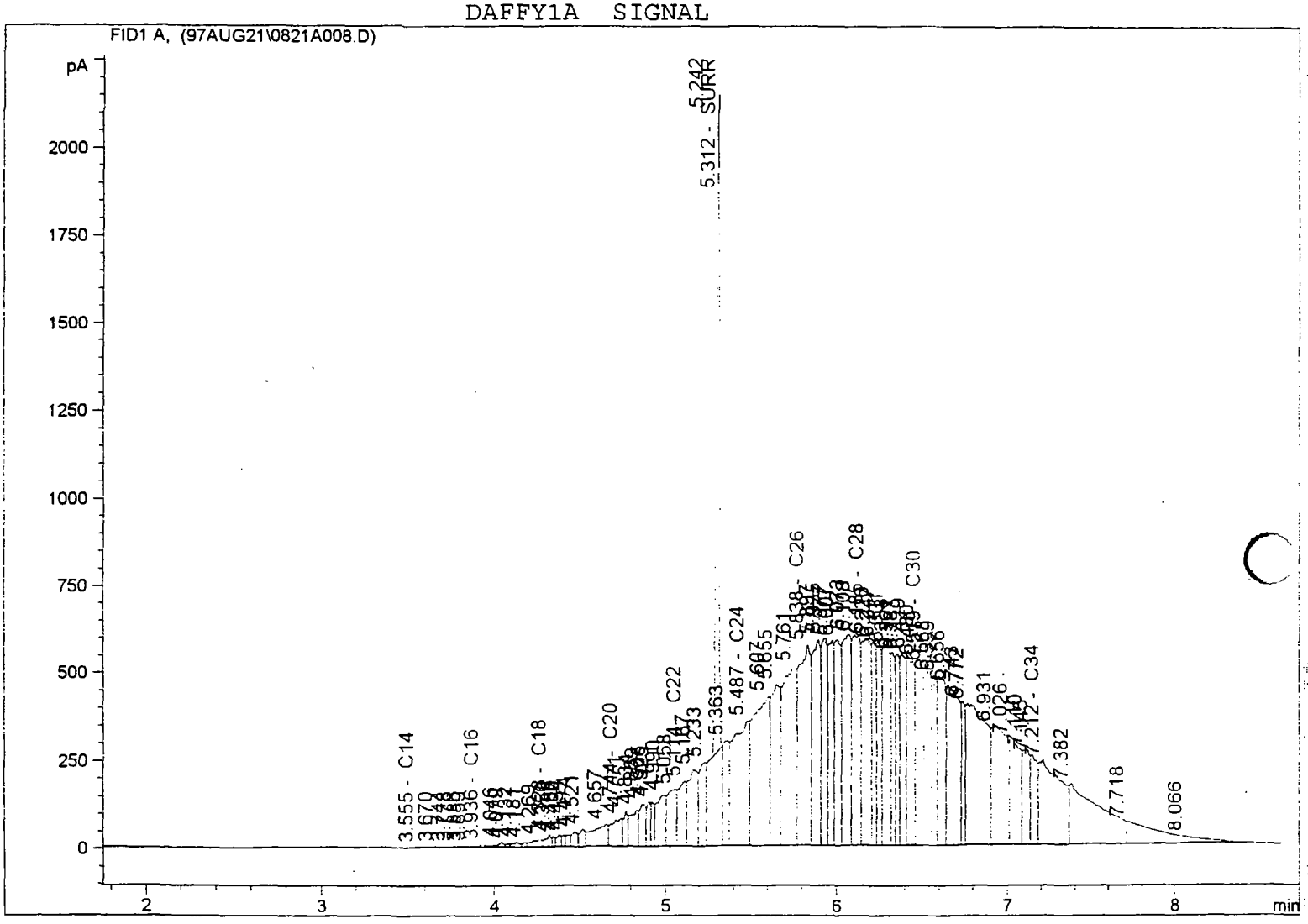
SAMPLE NAME: M. OIL 5000 Injection Date: 08/21/97 19:43:29

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG21\0821A008.D

INSTRUMENT: DAFFY1A Operator: PK

DAFFY1A SIGNAL



ANALYTICAL
RESOURCES
INCORPORATED

7A
GASOLINE CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : GAS STD #1

Date Analyzed: 10/29/97

LAB Sample No.: GAS STD #1

Time Analyzed: 21:18

Instrument: Daffy1A

Compound	GASOLINE STD #1 CAL. FACTOR	CURVE CAL FACTOR	%D
Gasoline (250 ppm)	2.40	2.29	4.8

Date Analyzed: 10/29/97
Time Analyzed: 21:18

STD #1	0601	250

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: GAS 250 #1 Injection Date: 10/29/97 21:18:52

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A003.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT29A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.765	15	15
C12	0.0	3.214	6	12
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	0.000	0	0
[redacted]	0.0	0.000	0	0
SURR	76.1	5.286	41	190
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	
GAS(TOL-C12)	601	263	Macro: 971006-1
DIESEL(C12-C24)	90	6	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	189.653214		

ANALYTICAL RESOURCES NWTPH-D REPORT

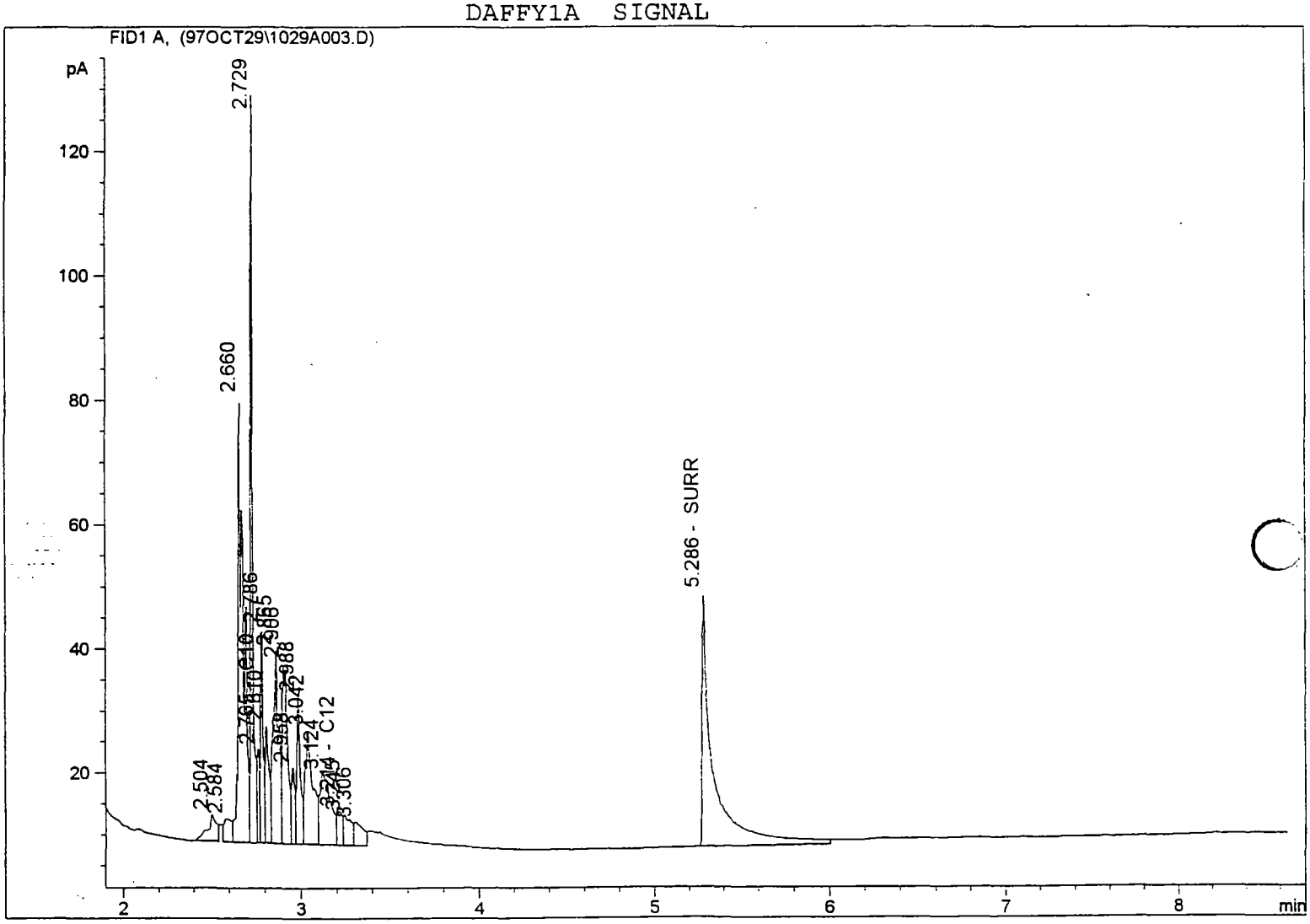
SAMPLE NAME: GAS 250 #1 Injection Date: 10/29/97 21:18:52

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A003.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



7A
DIESEL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : DIESEL STD #1

Date Analyzed: 10/29/97

LAB Sample No.: DIESEL STD #1

Time Analyzed: 21:37

Instrument: Daffy1A

Compound	DIESEL STD #1 CAL FACTOR	CURVE CAL FACTOR	%D
Diesel (250 ppm)	14.74	15.35	3.9

Date Analyzed: 10/29/97
Time Analyzed: 21:37

STD #1	3686	250

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 250 #1 Injection Date: 10/29/97 21:37:57

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A004.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT29A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.771	18	32
C12	0.0	3.168	57	69
C14	0.0	3.547	104	194
C16	0.0	3.924	98	190
C18	0.0	4.336	51	67
C20	0.0	4.702	40	97
[redacted]	0.0	5.078	12	28
[redacted]R	65.3	5.279	70	160
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	434	190	
DIESEL(C12-C24)	3686	241	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	159.682693		

ANALYTICAL RESOURCES NWTPH-D REPORT

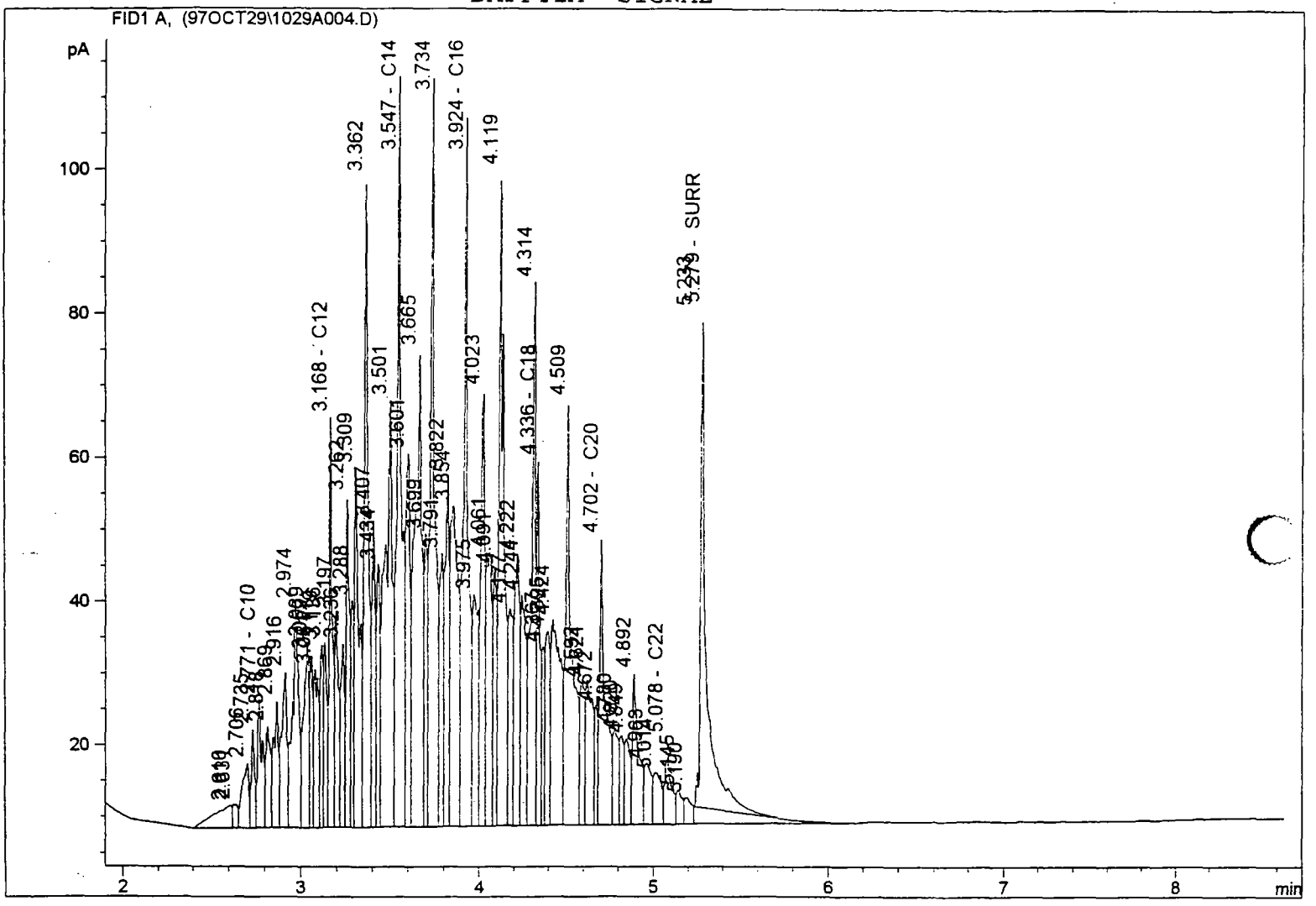
SAMPLE NAME: DIESEL 250 #1 Injection Date: 10/29/97 21:37:57

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A004.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



7A
MOTOR OIL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : MOTOR OIL STD #1

Date Analyzed: 10/29/97

LAB Sample No.: MOTOR OIL STD #1

Time Analyzed: 21:57

Instrument: Daffy1A

Compound	MOTOR OIL STD #1 CAL. FACTOR	CURVE CAL FACTOR	%D
Motor Oil (500 ppm)	11.72	12.32	4.9

Date Analyzed: 10/29/97
Time Analyzed: 21:57

STD #1	5859	500

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: M. OIL 500 #1 Injection Date: 10/29/97 21:57:16

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A005.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT29A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	4.729	5	21
[redacted]	0.0	0.000	0	0
[redacted]R	59.9	5.277	112	145
C24	0.0	0.000	0	0
C26	0.0	5.779	48	168
C28	0.0	6.133	57	173
C30	0.0	6.482	57	113
C32	0.0	6.862	46	81
C34	0.0	7.174	36	137
C36	0.0	0.000	0	0
C38	0.0	7.834	8	140
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	742	49	Surrogate Subtracted
M.OIL(C24-C38)	5859	476	
SURROGATE	144.857208		

ANALYTICAL RESOURCES NWTPH-D REPORT

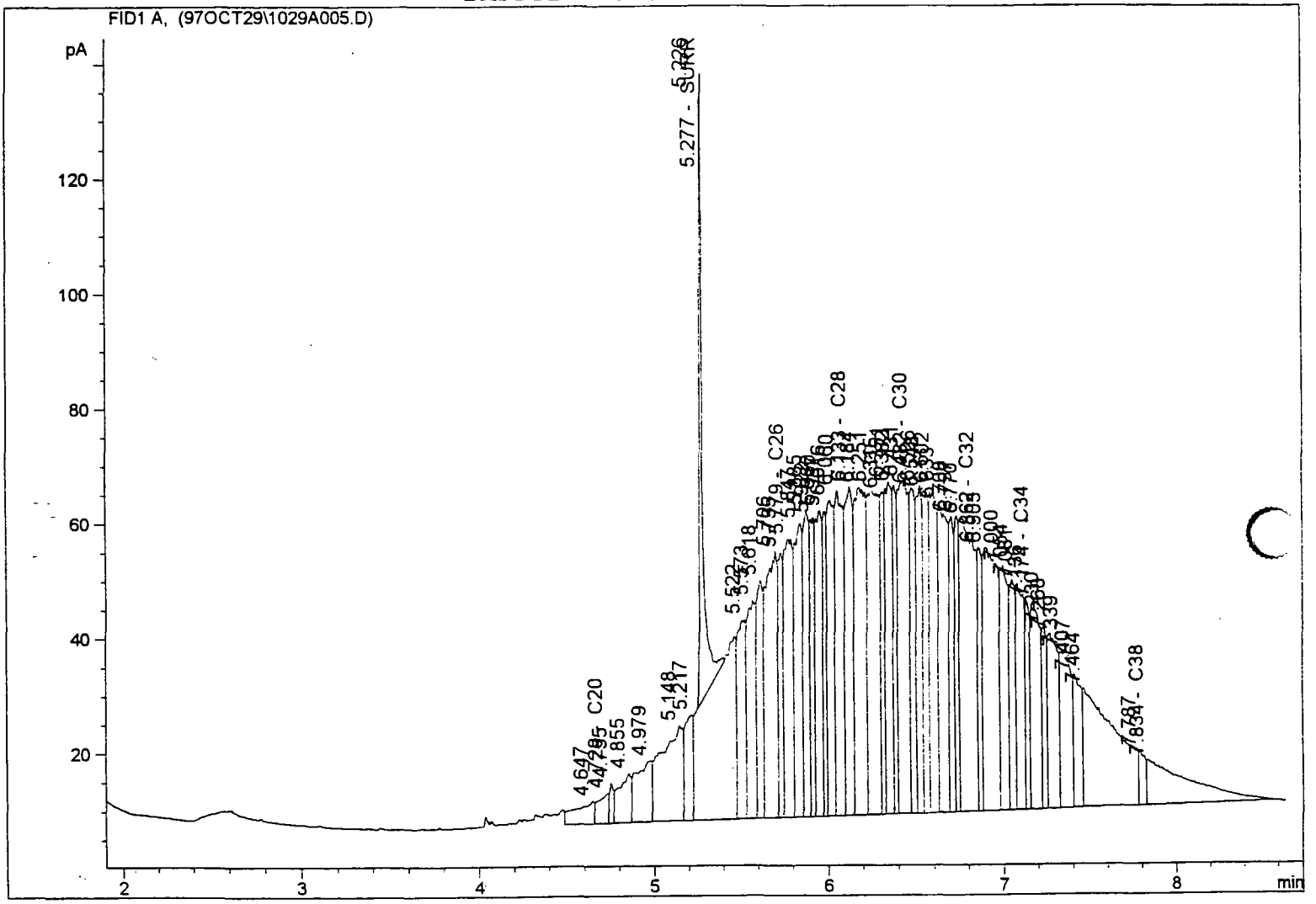
SAMPLE NAME: M. OIL 500 #1 Injection Date: 10/29/97 21:57:16

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A005.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



7A
GASOLINE CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : GAS STD #2

Date Analyzed: 10/30/97

LAB Sample No.: GAS STD #2

Time Analyzed: 00:48

Instrument: Daffy1A

Compound	GASOLINE STD #2 CAL. FACTOR	CURVE CAL FACTOR	%D
Gasoline (250 ppm)	2.46	2.29	7.2

Date Analyzed: 10/30/97
Time Analyzed: 00:48

STD #2	0615	250

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: GAS 250 #2 Injection Date: 10/30/97 00:48:43

PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A014.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT29A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.787	36	51
C12	0.0	3.216	5	12
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	0.000	0	0
C[illegible]	0.0	0.000	0	0
[illegible]R	71.3	5.292	31	176
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	
GAS(TOL-C12)	615	269	Macro: 971006-1
DIESEL(C12-C24)	92	6	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	176.33461		

ANALYTICAL RESOURCES NWTPH-D REPORT

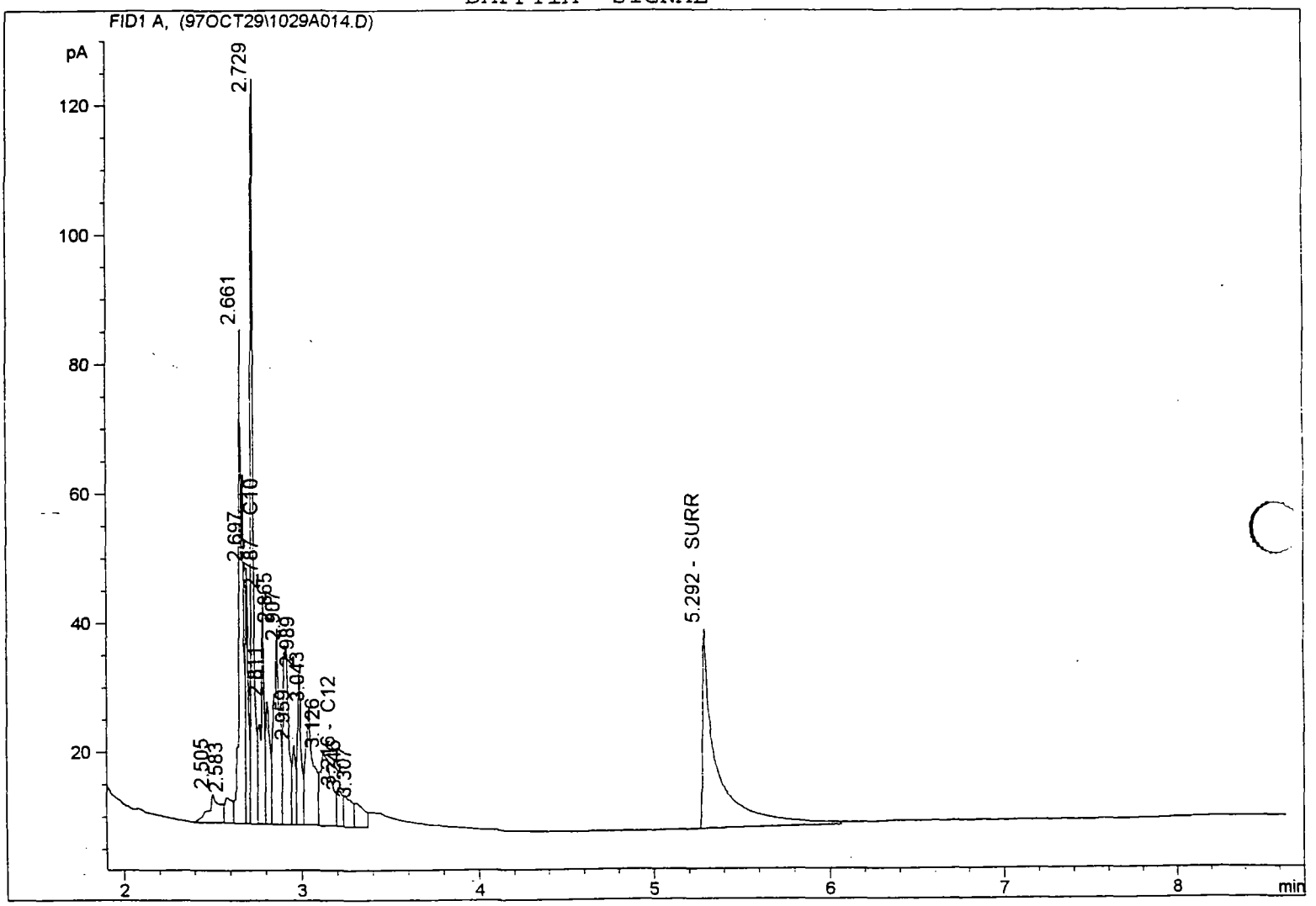
SAMPLE NAME: GAS 250 #2 Injection Date: 10/30/97 00:48:43

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A014.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL
RESOURCES
INCORPORATED

7 A
DIESEL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : DIESEL STD #2

Date Analyzed: 10/30/97

LAB Sample No.: DIESEL STD #2

Time Analyzed: 01:07

Instrument: Daffy1A

Compound	DIESEL STD #2 CAL. FACTOR	CURVE CAL FACTOR	%D
Diesel (250 ppm)	14.72	15.35	4.1

FORM VII TPHD

ANALYTICAL
RESOURCES
INCORPORATED

Date Analyzed: 10/30/97
Time Analyzed: 01:07

STD #2	3679	250

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 250 #2 Injection Date: 10/30/97 01:07:53

PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A015.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT29A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.772	16	31
C12	0.0	3.168	55	68
C14	0.0	3.548	101	192
C16	0.0	3.925	97	188
C18	0.0	4.336	51	91
C20	0.0	4.702	38	95
[illegible]	0.0	5.080	11	28
[illegible]RR	62.4	5.280	57	152
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	397	174	
DIESEL(C12-C24)	3679	240	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	151.844727		

ANALYTICAL RESOURCES NWTPH-D REPORT

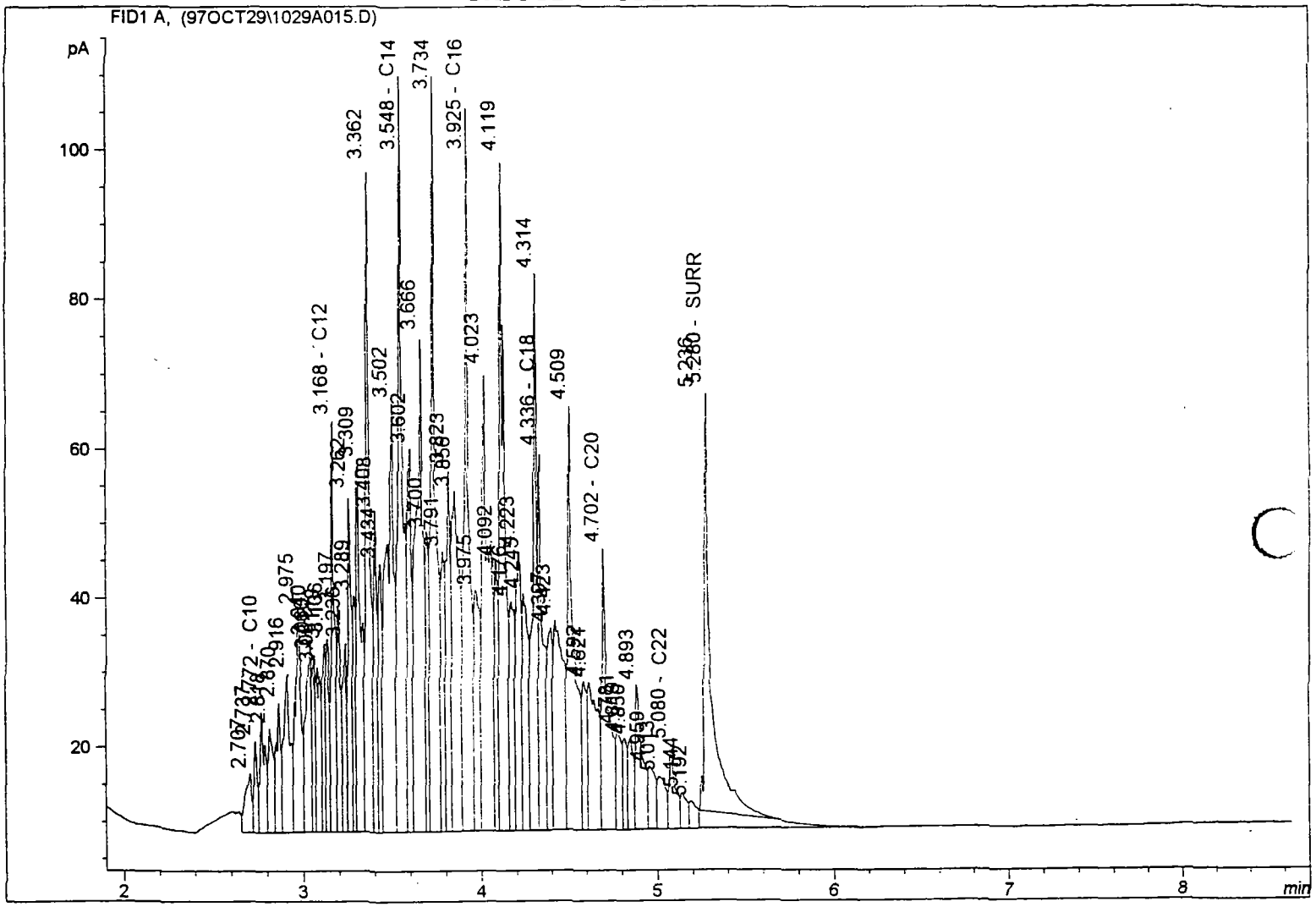
SAMPLE NAME: DIESEL 250 #2 Injection Date: 10/30/97 01:07:53

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A015.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



7 A
MOTOR OIL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : MOTOR OIL STD #2

Date Analyzed: 10/30/97

LAB Sample No.: MOTOR OIL STD #2

Time Analyzed: 01:26

Instrument: Daffy1A

Compound	MOTOR OIL STD #2 CAL. FACTOR	CURVE CAL FACTOR	%D
Motor Oil (500 ppm)	11.73	12.32	4.8

7A
MOTOR OIL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : MOTOR OIL STD #2

Date Analyzed: 10/30/97

LAB Sample No.: MOTOR OIL STD #2

Time Analyzed: 01:26

Instrument: Daffy1A

Compound	MOTOR OIL STD #2 CAL FACTOR	CURVE CAL FACTOR	%D
Motor Oil (500 ppm)	11.73	12.32	4.8

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: M. OIL 500 #2 Injection Date: 10/30/97 01:26:52

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A016.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT29A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	4.757	7	32
[redacted]	0.0	5.046	12	97
[redacted]RR	58.5	5.277	105	141
C24	0.0	5.459	31	117
C26	0.0	5.778	48	241
C28	0.0	6.130	57	237
C30	0.0	6.495	57	105
C32	0.0	6.838	47	65
C34	0.0	7.170	36	150
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	720	47	Surrogate Subtracted
M.OIL(C24-C38)	5863	476	
SURROGATE	141.066193		

ANALYTICAL RESOURCES NWTPH-D REPORT

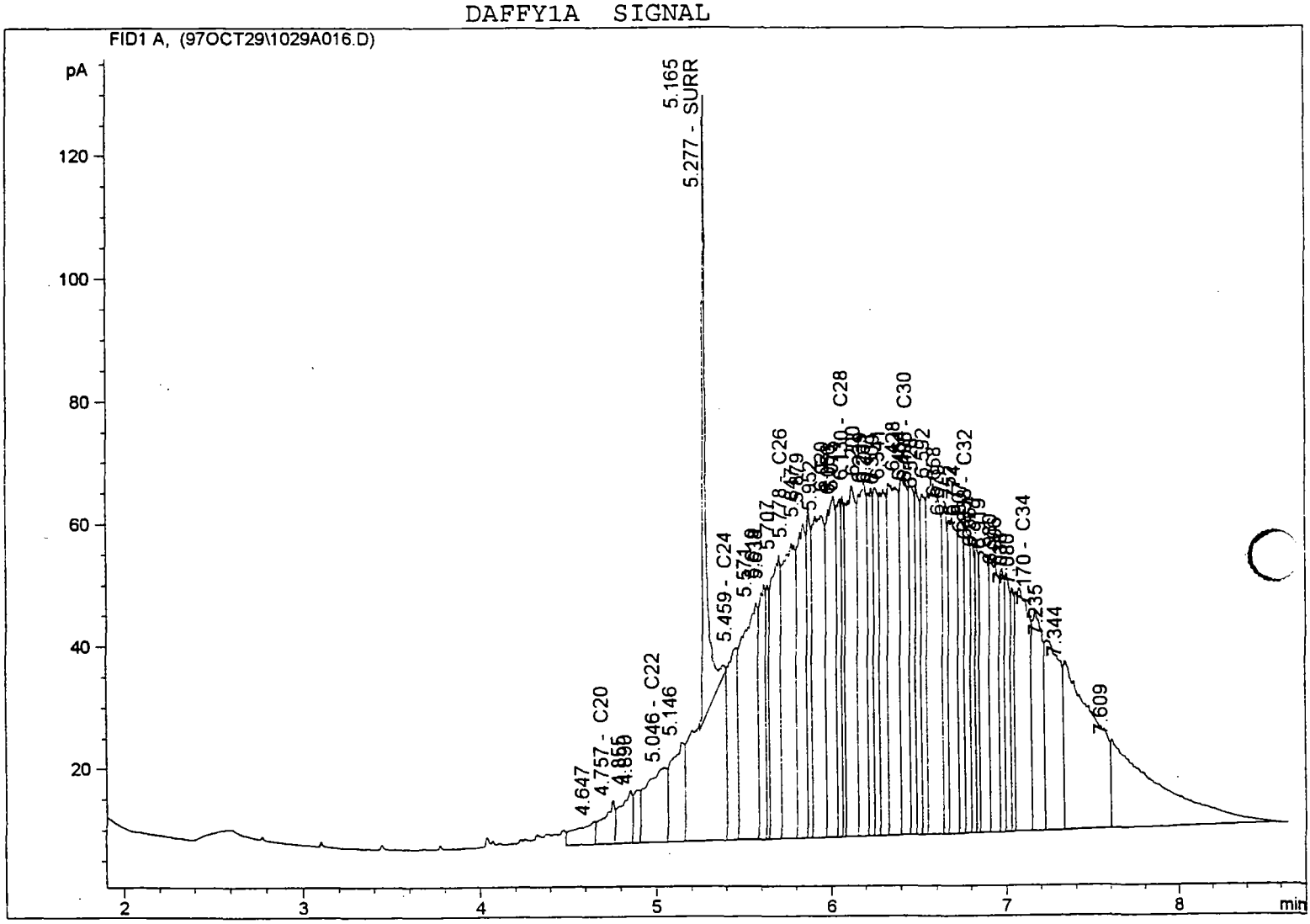
SAMPLE NAME: M. OIL 500 #2 Injection Date: 10/30/97 01:26:52

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A016.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



7A
DIESEL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : DIESEL STD #3

Date Analyzed: 10/30/97

LAB Sample No.: DIESEL STD #3

Time Analyzed: 04:54

Instrument: Daffy1A

Compound	DIESEL STD #3 CAL FACTOR	CURVE CAL FACTOR	%D
Diesel (250 ppm)	15.01	15.35	2.2

Date Analyzed: 10/30/97
Time Analyzed: 04:54

STD #3	3752	250

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 250 #3 Injection Date: 10/30/97 04:54:48

PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A027.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT29A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.772	17	32
C12	0.0	3.168	57	70
C14	0.0	3.547	104	197
C16	0.0	3.924	100	196
C18	0.0	4.337	52	93
C20	0.0	4.702	40	98
[illegible]	0.0	5.078	12	29
[illegible]R	66.1	5.278	68	162
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	468	205	
DIESEL(C12-C24)	3752	245	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	161.970947		

ANALYTICAL RESOURCES NWTPH-D REPORT

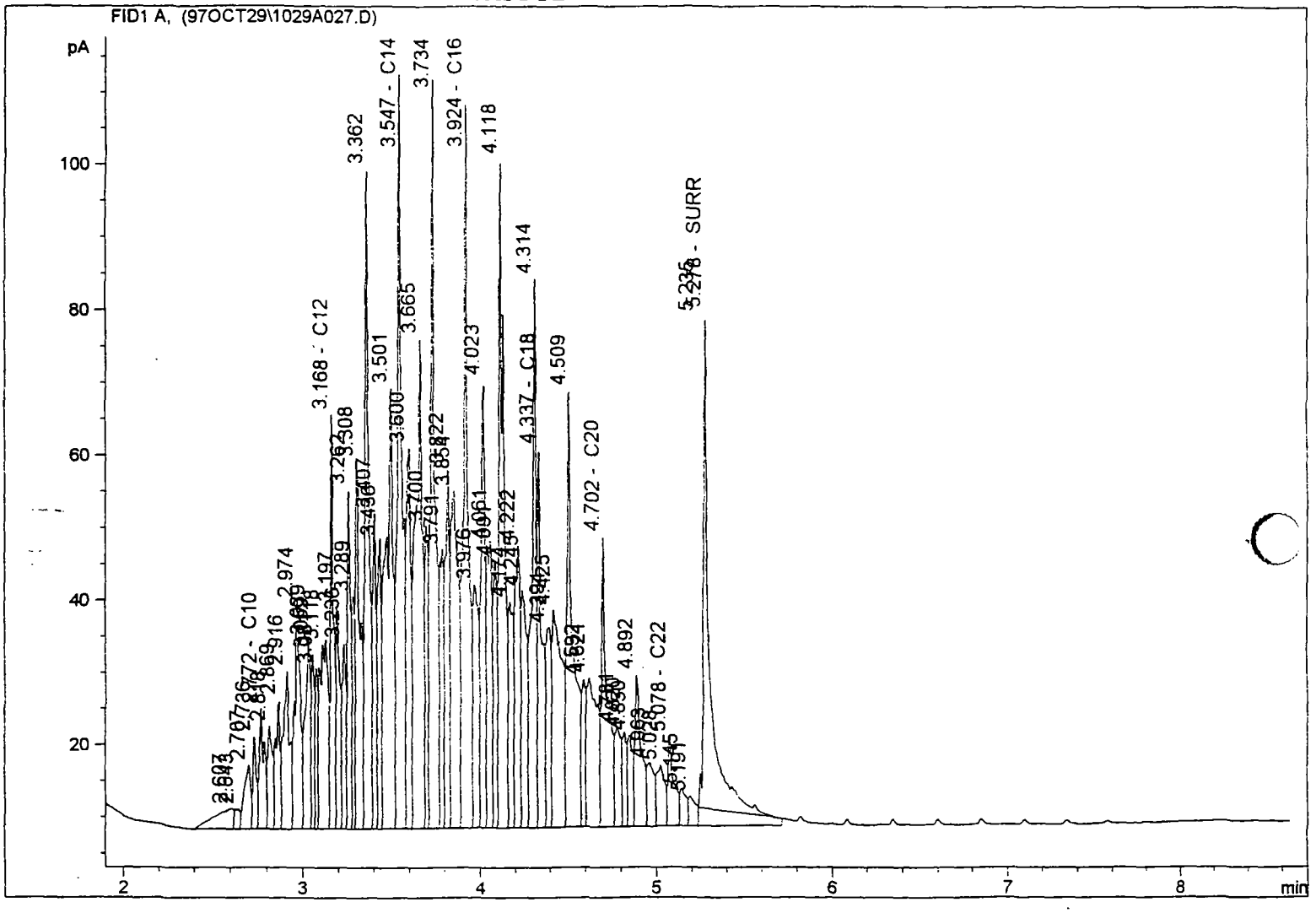
SAMPLE NAME: DIESEL 250 #3 Injection Date: 10/30/97 04:54:48

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A027.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



7A
MOTOR OIL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : MOTOR OIL STD #3

Date Analyzed: 10/30/97

LAB Sample No.: MOTOR OIL STD #3

Time Analyzed: 05:13

Instrument: Daffy1A

Compound	MOTOR OIL STD #3 CAL. FACTOR	CURVE CAL FACTOR	%D
Motor Oil (500 ppm)	11.62	12.32	5.7

Date Analyzed: 10/30/97
Time Analyzed: 05:13

STD #3	5811	500

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: M. OIL 500 #3 Injection Date: 10/30/97 05:13:36

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A028.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT29A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	4.756	7	31
[redacted]	0.0	5.043	12	43
[redacted]R	62.2	5.277	110	151
C24	0.0	0.000	0	0
C26	0.0	5.780	50	152
C28	0.0	6.132	58	228
C30	0.0	6.460	59	150
C32	0.0	6.833	47	103
C34	0.0	7.176	36	124
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	8.173	3	26

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	834	55	Surrogate Subtracted
M.OIL(C24-C38)	5811	472	
SURROGATE	151.289917		

ANALYTICAL RESOURCES NWTPH-D REPORT

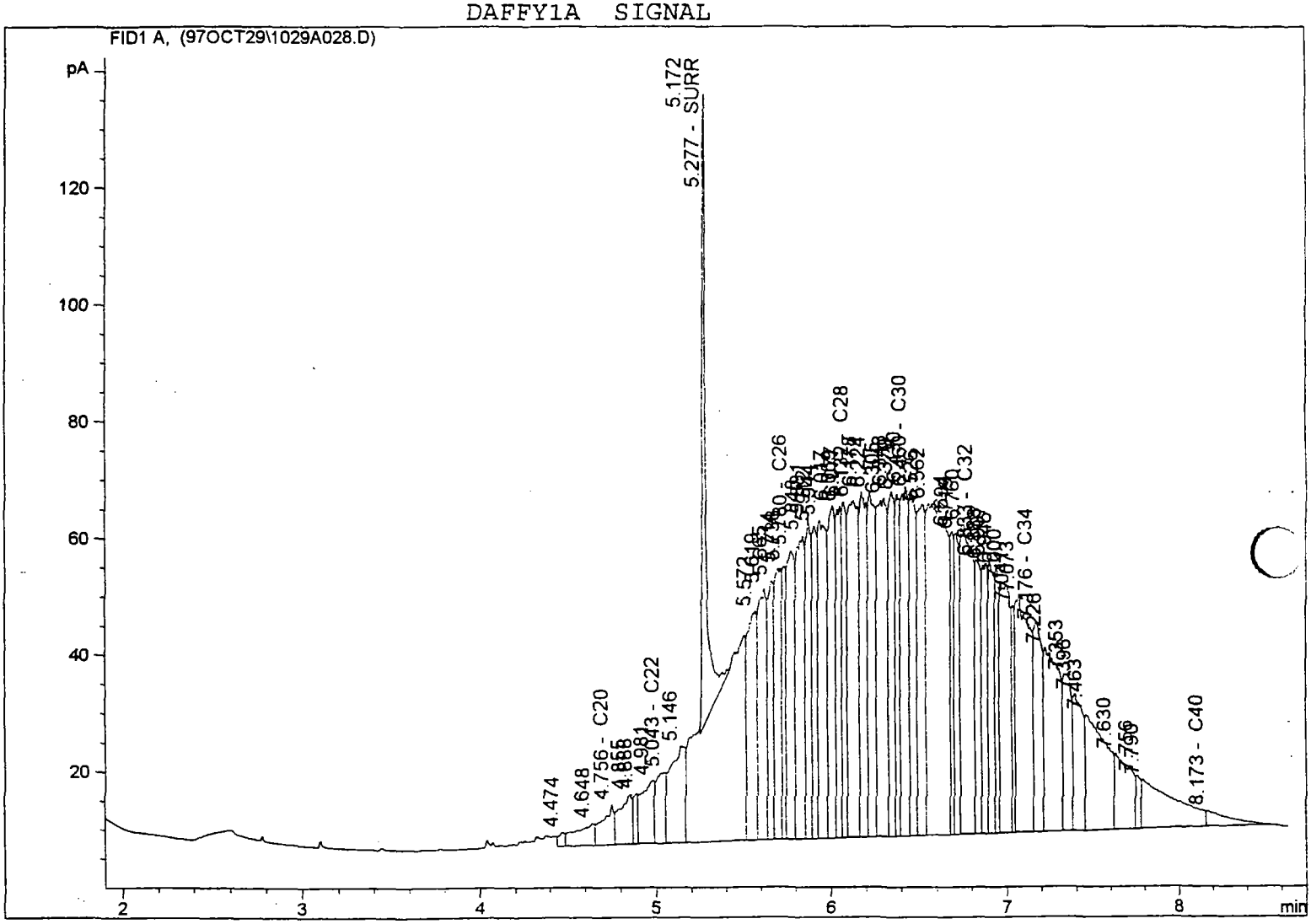
SAMPLE NAME: M. OIL 500 #3 Injection Date: 10/30/97 05:13:36

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A028.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



7A
DIESEL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : DIESEL STD #4

Date Analyzed: 10/30/97

LAB Sample No.: DIESEL STD #4

Time Analyzed: 08:46

Instrument: Daffy1A

Compound	DIESEL STD #4 CAL. FACTOR	CURVE CAL FACTOR	%D
Diesel (250 ppm)	14.97	15.35	2.4

Date Analyzed: 10/30/97
Time Analyzed: 08:46

STD #4	3743	250

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 250 #4 Injection Date: 10/30/97 08:46:46

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A039.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT29A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.771	18	20
C12	0.0	3.168	58	116
C14	0.0	3.547	104	199
C16	0.0	3.925	100	195
C18	0.0	4.336	52	92
C20	0.0	4.701	40	116
[redacted]	0.0	5.078	12	29
SURR	65.2	5.280	65	159
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	471	206	
DIESEL(C12-C24)	3743	244	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	159.468048		

ANALYTICAL RESOURCES NWTPH-D REPORT

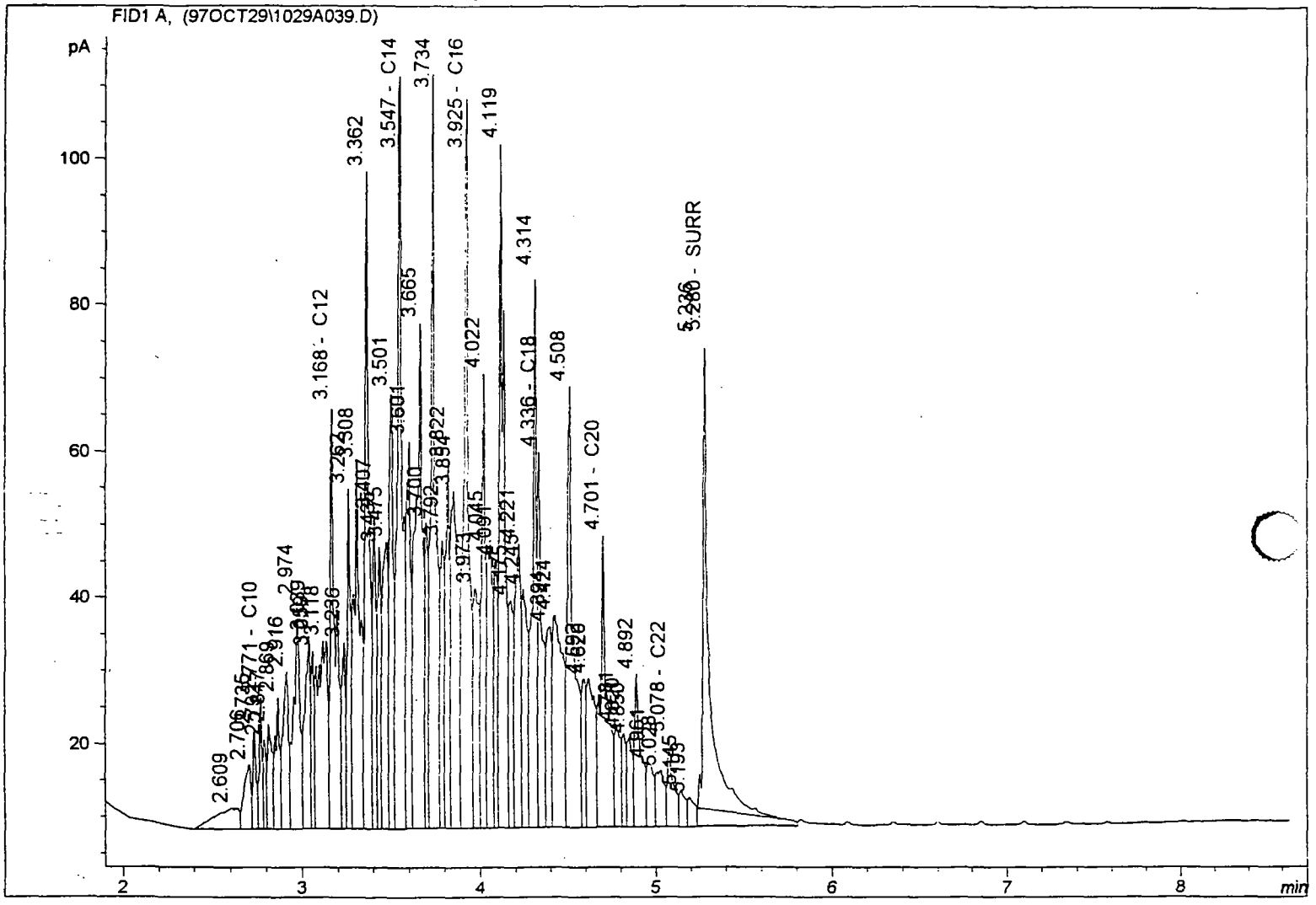
SAMPLE NAME: DIESEL 250 #4 Injection Date: 10/30/97 08:46:46

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A039.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



7A
MOTOR OIL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : MOTOR OIL STD #4

Date Analyzed: 10/30/97

LAB Sample No.: MOTOR OIL STD #4

Time Analyzed: 09:06

Instrument: Daffy1A

Compound	MOTOR OIL STD #4 CAL FACTOR	CURVE CAL FACTOR	%D
Motor Oil (500 ppm)	12.38	12.32	0.4

Date Analyzed: 10/30/97
Time Analyzed: 09:06

STD #4	6188	500

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: M. OIL 500 #4 Injection Date: 10/30/97 09:06:17

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A040.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT29A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	4.380	2	5
C20	0.0	4.732	6	23
[redacted]	0.0	0.000	0	0
[redacted]R	63.9	5.277	125	156
C24	0.0	5.511	37	223
C26	0.0	5.783	53	136
C28	0.0	6.133	61	186
C30	0.0	6.476	61	130
C32	0.0	6.810	51	224
C34	0.0	7.172	37	262
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	680	45	Surrogate Subtracted
M.OIL(C24-C38)	6188	503	
SURROGATE	156.017609		

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ANALYTICAL RESOURCES NWTPH-D REPORT

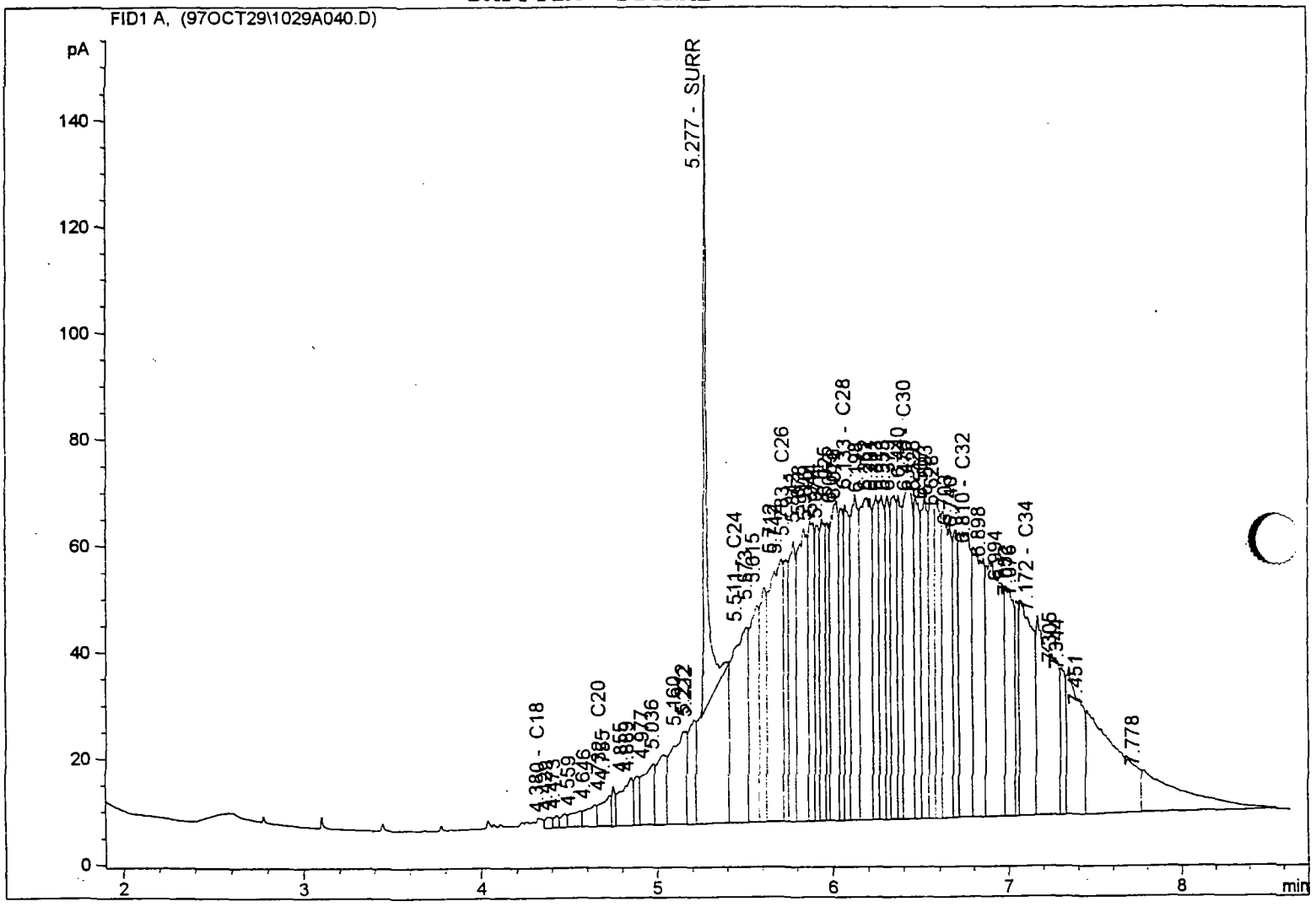
SAMPLE NAME: M. OIL 500 #4 Injection Date: 10/30/97 09:06:17

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A040.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



7 A
GASOLINE CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : GAS STD #3

Date Analyzed: 10/30/97

LAB Sample No.: GAS STD #3

Time Analyzed: 12:23

Instrument: Daffy1A

Compound	GASOLINE STD #3 CAL. FACTOR	CURVE CAL FACTOR	%D
Gasoline (250 ppm)	2.32	2.29	1.3

Date Analyzed: 10/30/97
Time Analyzed: 12:23

STD #3	0581	250

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: GAS 250 #3 Injection Date: 10/30/97 12:23:29

PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A050.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT29A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.766	15	15
C12	0.0	3.213	5	12
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	0.000	0	0
[illegible]	0.0	0.000	0	0
[illegible]R	73.3	5.281	57	182
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	581	254	
DIESEL(C12-C24)	121	8	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	181.924759		

ANALYTICAL RESOURCES NWTPH-D REPORT

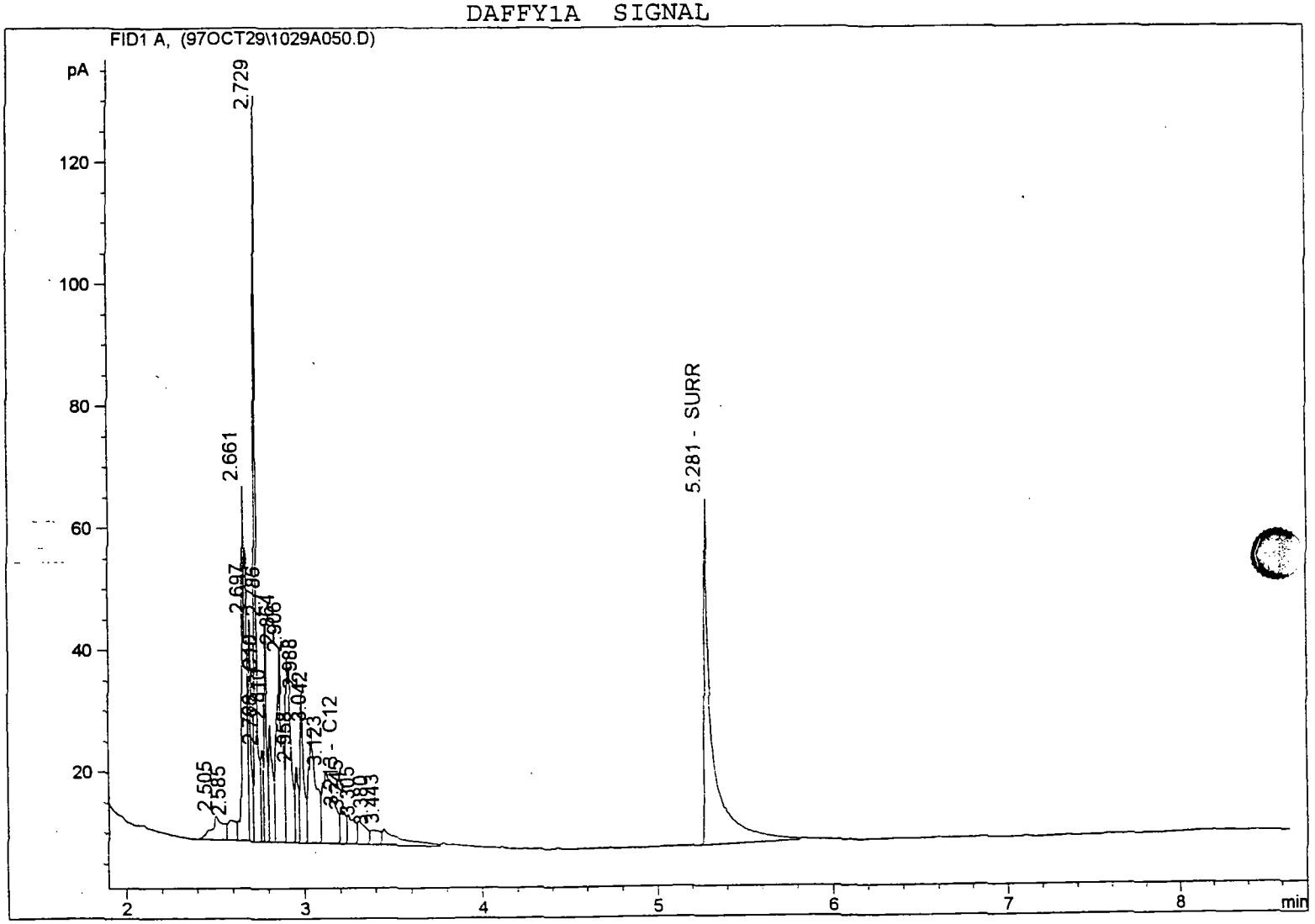
SAMPLE NAME: GAS 250 #3 Injection Date: 10/30/97 12:23:29

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A050.D

INSTRUMENT: DAFFY1A *Operator: AHB*

DAFFY1A SIGNAL



ANALYTICAL
RESOURCES
INCORPORATED

7A
DIESEL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : DIESEL STD #5

Date Analyzed: 10/30/97

LAB Sample No.: DIESEL STD #5

Time Analyzed: 12:43

Instrument: Daffy1A

Compound	DIESEL STD #5 CAL. FACTOR	CURVE CAL FACTOR	%D
Diesel (250 ppm)	15.58	15.35	1.5

FORM VII TPHD

Date Analyzed: 10/30/97
Time Analyzed: 12:43

STD #5	3895	250

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 250 #5 Injection Date: 10/30/97 12:43:03

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A051.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT29A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.771	19	19
C12	0.0	3.167	61	74
C14	0.0	3.547	111	172
C16	0.0	3.924	105	203
C18	0.0	4.335	53	99
C20	0.0	4.700	44	101
[redacted]	0.0	5.076	13	30
[redacted]R	68.2	5.277	91	168
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	441	193	
DIESEL(C12-C24)	3895	254	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	167.818283		

ANALYTICAL RESOURCES NWTPH-D REPORT

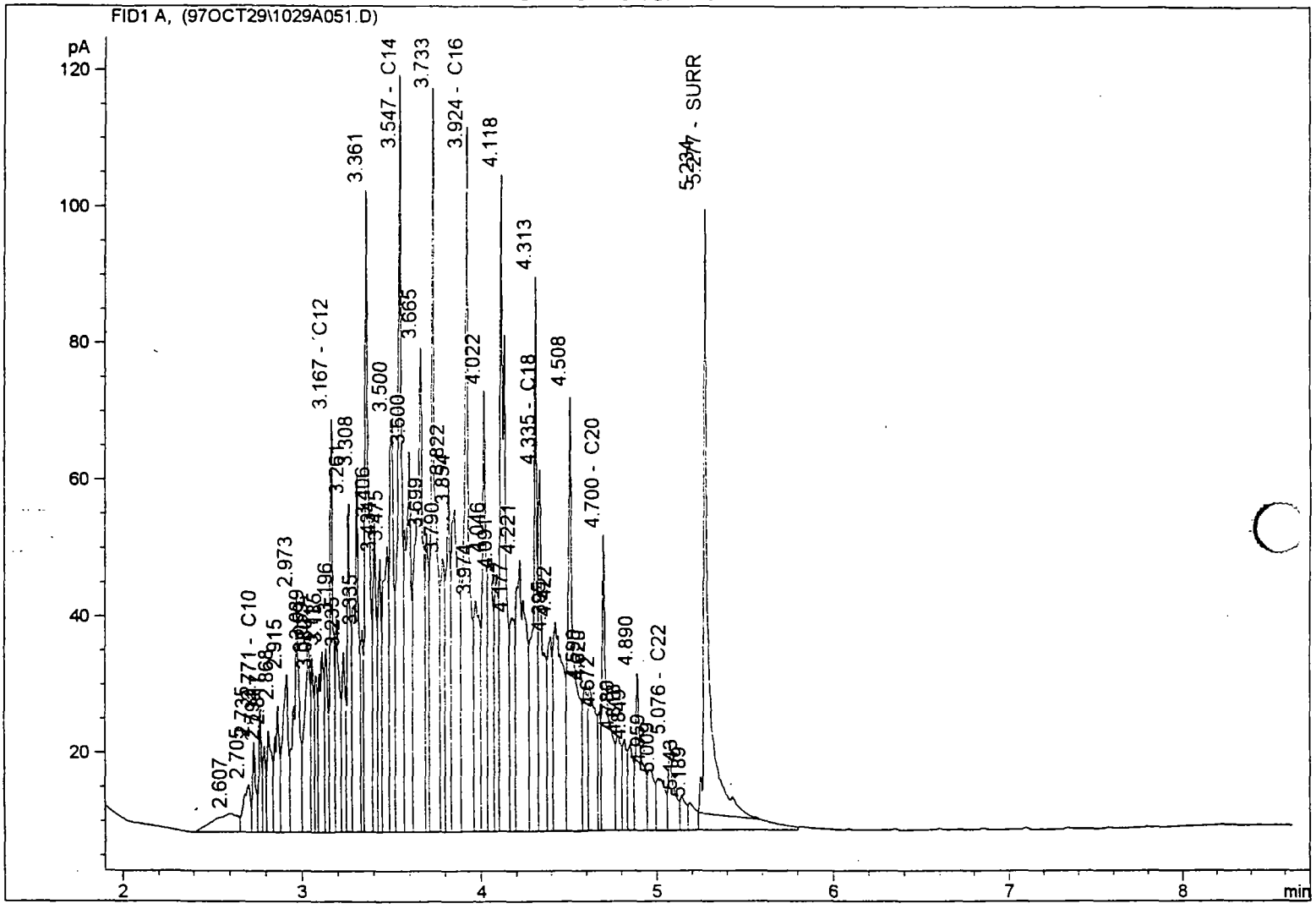
SAMPLE NAME: DIESEL 250 #5 Injection Date: 10/30/97 12:43:03

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A051.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



7A
MOTOR OIL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : MOTOR OIL STD #5

Date Analyzed: 10/30/97

LAB Sample No.: MOTOR OIL STD #5

Time Analyzed: 13:02

Instrument: Daffy1A

Compound	MOTOR OIL STD #5 CAL. FACTOR	CURVE CAL FACTOR	%D
Motor Oil (500 ppm)	12.38	12.32	0.5

Date Analyzed: 10/30/97
Time Analyzed: 13:02

STD #5	6192	500

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: M. OIL 500 #5 Injection Date: 10/30/97 13:02:42

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A052.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT29A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	4.322	2	5
C20	0.0	4.754	8	34
[redacted]	0.0	0.000	0	0
[redacted]R	68.2	5.276	143	168
C24	0.0	0.000	0	0
C26	0.0	5.782	55	518
C28	0.0	6.129	64	157
C30	0.0	6.481	63	143
C32	0.0	6.807	50	281
C34	0.0	7.171	33	275
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	
GAS(TOL-C12)	0	0	Macro: 971006-1
DIESEL(C12-C24)	712	47	Surrogate Subtracted
M.OIL(C24-C38)	6192	503	
SURROGATE	167.752411		

ANALYTICAL RESOURCES NWTPH-D REPORT

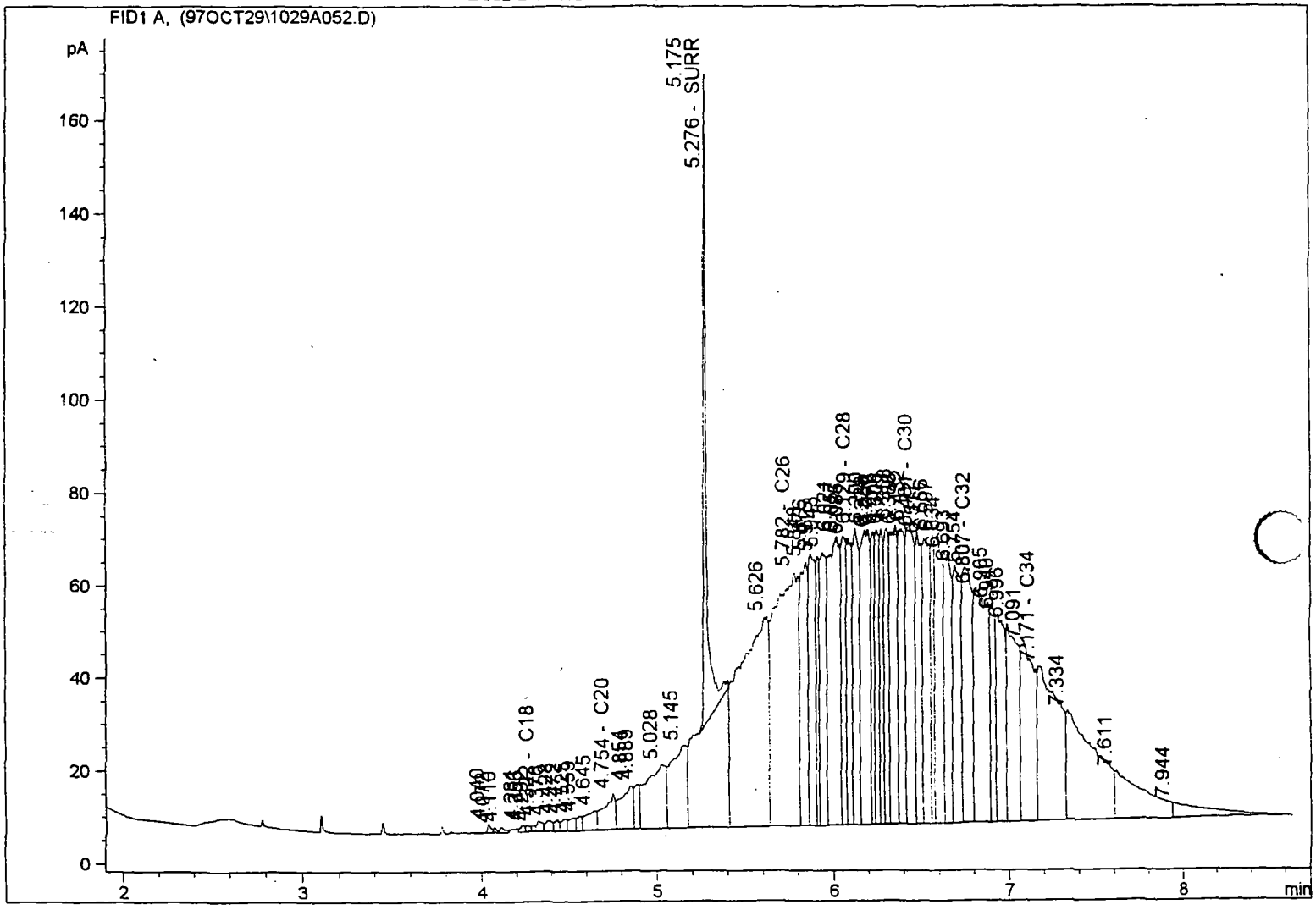
SAMPLE NAME: M. OIL 500 #5 Injection Date: 10/30/97 13:02:42

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A052.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL
RESOURCES
INCORPORATED

7A
GASOLINE CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : GAS STD #1

Date Analyzed: 10/30/97

LAB Sample No.: GAS STD #1

Time Analyzed: 19:03

Instrument: Daffy1A

Compound	GASOLINE STD #1 CAL FACTOR	CURVE CAL FACTOR	%D
Gasoline (250 ppm)	2.07	2.29	9.9

Date Analyzed: 10/30/97
Time Analyzed: 19:03

STD #1	0517	250

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: GAS 250 #1 Injection Date: 10/30/97 19:03:42

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A003.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT30A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.786	32	34
C12	0.0	3.218	5	62
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	0.000	0	0
C22	0.0	0.000	0	0
[redacted]R	70.8	5.311	15	175
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	517	226	
DIESEL(C12-C24)	100	7	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	175.095703		

ANALYTICAL RESOURCES NWTPH-D REPORT

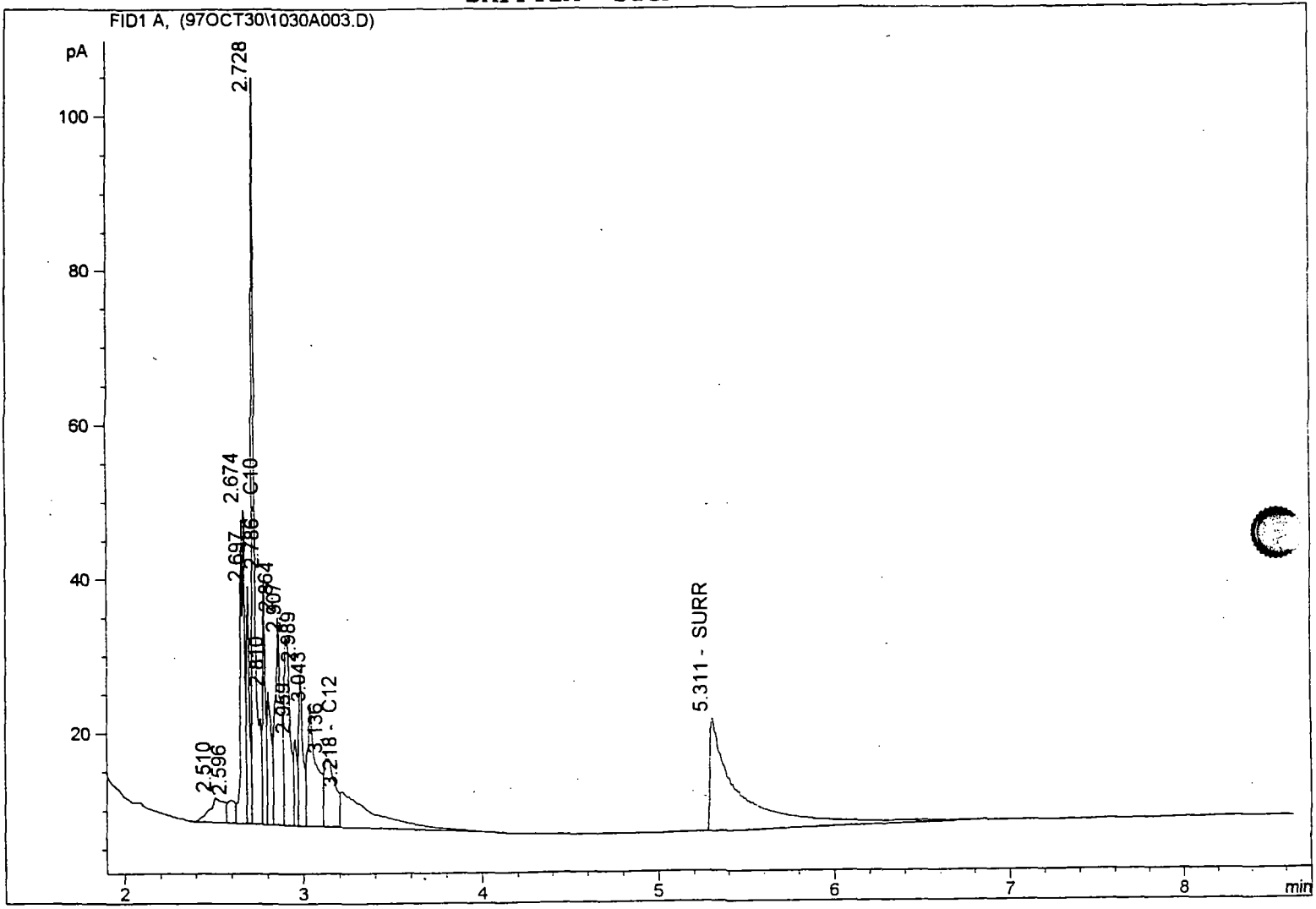
SAMPLE NAME: GAS 250 #1 Injection Date: 10/30/97 19:03:42

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A003.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



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7A
DIESEL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : DIESEL STD #1

Date Analyzed: 10/30/97

LAB Sample No.: DIESEL STD #1

Time Analyzed: 19:23

Instrument: Daffy1A

Compound	DIESEL STD #1 CAL FACTOR	CURVE CAL FACTOR	%D
Diesel (250 ppm)	14.56	15.35	5.1

Date Analyzed: 10/30/97
Time Analyzed: 19:23

STD #1	3640	250

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 250 #1 Injection Date: 10/30/97 19:23:21

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A004.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT30A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.772	12	15
C12	0.0	3.168	50	108
C14	0.0	3.547	95	183
C16	0.0	3.924	92	187
C18	0.0	4.335	50	88
C20	0.0	4.701	34	93
[redacted]	0.0	5.080	10	27
[redacted]R	57.0	5.282	34	137
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	
GAS(TOL-C12)	365	160	Macro: 971006-1
DIESEL(C12-C24)	3640	238	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	136.715973		

ANALYTICAL RESOURCES NWTPH-D REPORT

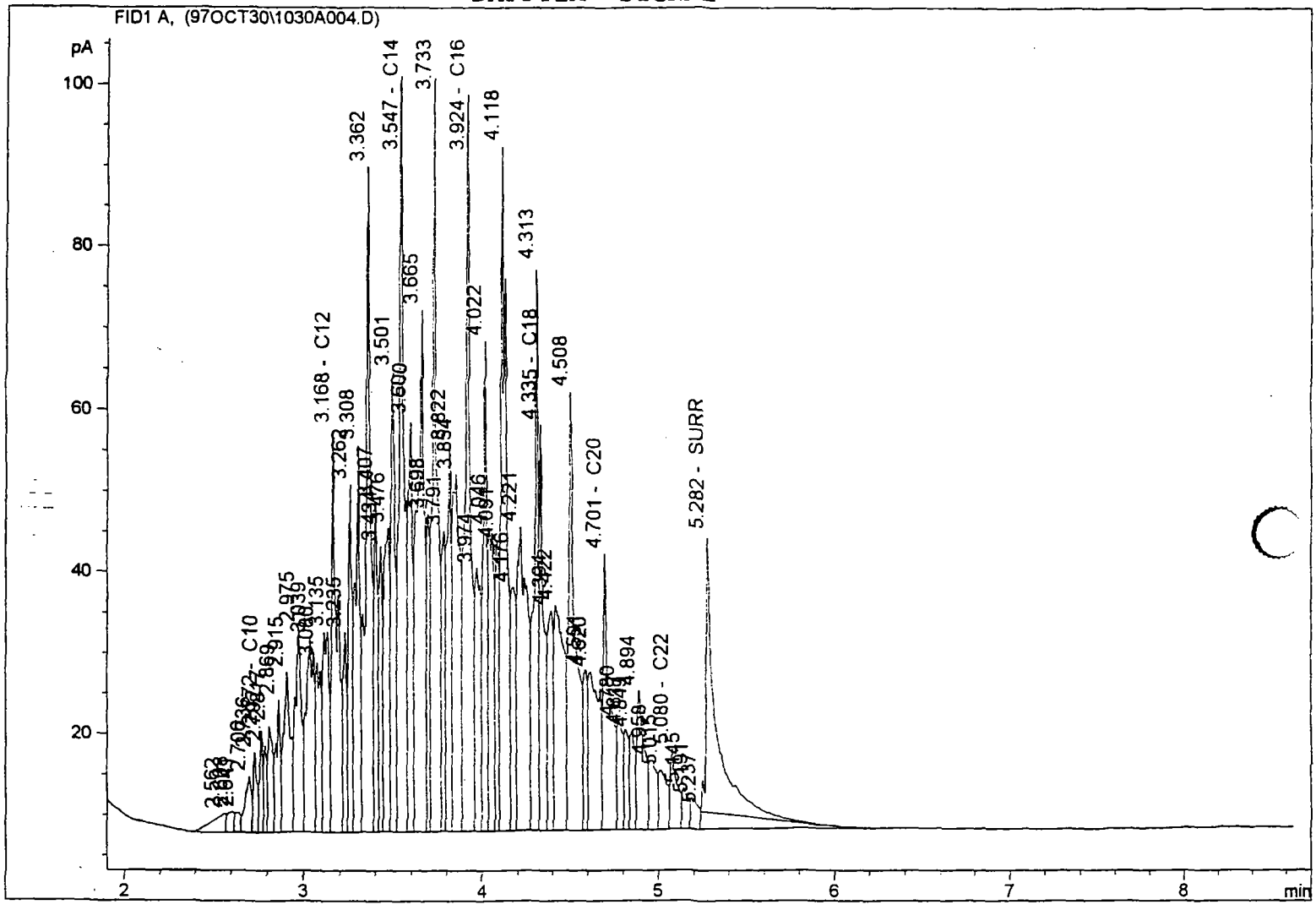
SAMPLE NAME: DIESEL 250 #1 Injection Date: 10/30/97 19:23:21

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A004.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



7A
MOTOR OIL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : MOTOR OIL STD #1

Date Analyzed: 10/30/97

LAB Sample No.: MOTOR OIL STD #1

Time Analyzed: 19:43

Instrument: Daffy1A

Compound	MOTOR OIL STD #1 CAL. FACTOR	CURVE CAL FACTOR	%D
Motor Oil (500 ppm)	12.24	12.32	0.6

Date Analyzed: 10/30/97
Time Analyzed: 19:43

STD #1	6122	500

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: M. OIL 500 #1 Injection Date: 10/30/97 19:43:30

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A005.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT30A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	4.728	5	50
[redacted]	0.0	5.052	12	17
[redacted]R	53.2	5.277	76	126
C24	0.0	0.000	0	0
C26	0.0	5.784	51	98
C28	0.0	6.138	58	207
C30	0.0	6.500	57	246
C32	0.0	6.800	48	246
C34	0.0	7.165	32	206
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	327	22	Surrogate Subtracted
M.OIL(C24-C38)	6122	497	
SURROGATE	126.297989		

ANALYTICAL RESOURCES NWTPH-D REPORT

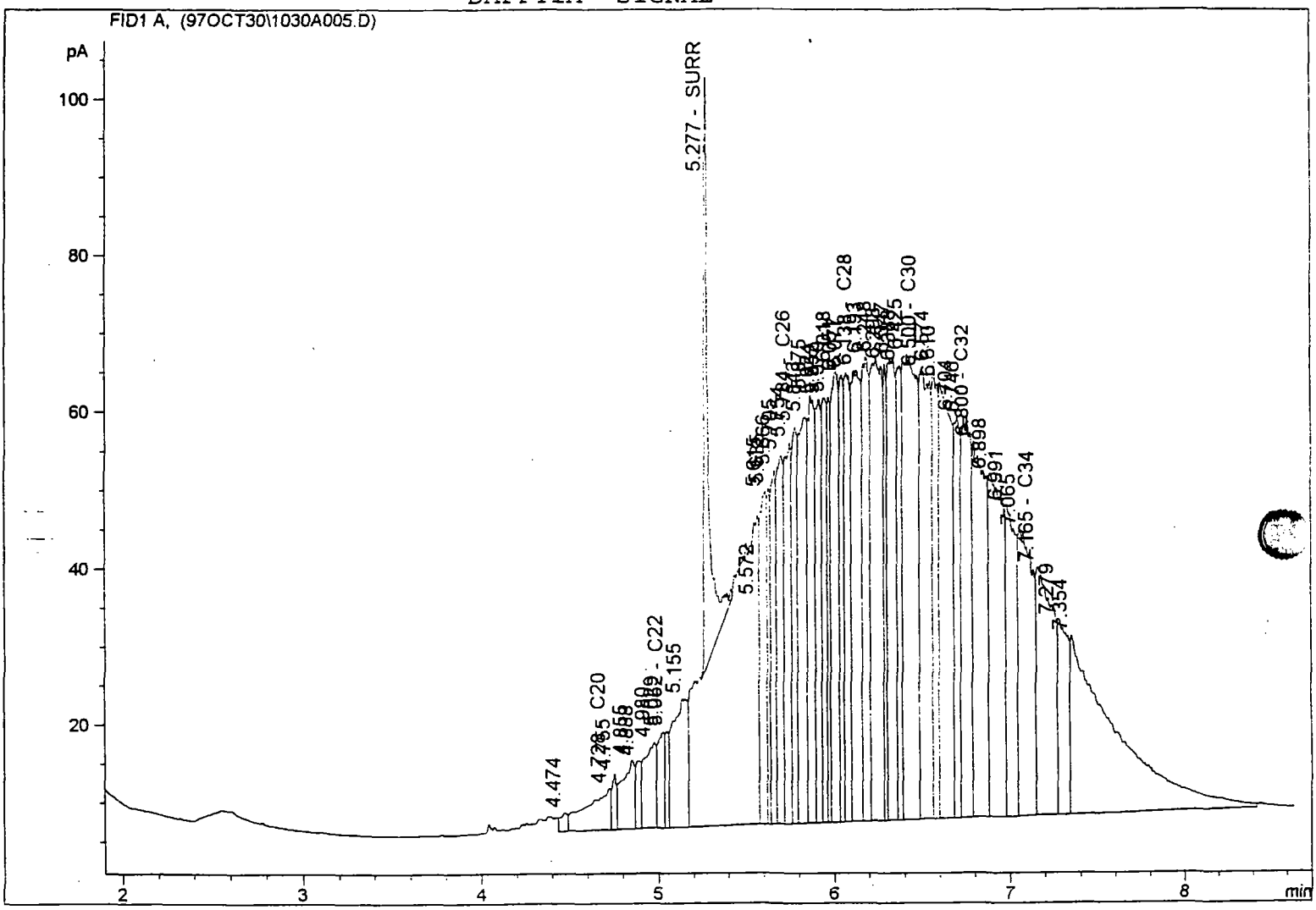
SAMPLE NAME: M. OIL 500 #1 Injection Date: 10/30/97 19:43:30

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A005.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL
RESOURCES
INCORPORATED

7A
GASOLINE CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : GAS STD #2

Date Analyzed: 10/30/97

LAB Sample No.: GAS STD #2

Time Analyzed: 23:18

Instrument: Daffy1A

Compound	GASOLINE STD #2 CAL FACTOR	CURVE CAL FACTOR	%D
Gasoline (250 ppm)	2.32	2.29	1.3

Date Analyzed: 10/30/97
Time Analyzed: 23:18

STD #2	0581	250

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: GAS 250 #2 Injection Date: 10/30/97 23:18:29

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A016.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT30A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.785	34	35
C12	0.0	3.218	5	11
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	0.000	0	0
[redacted]	0.0	0.000	0	0
[redacted]RR	67.7	5.294	24	166
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	581	254	
DIESEL(C12-C24)	83	6	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	166.426178		

ANALYTICAL RESOURCES NWTPH-D REPORT

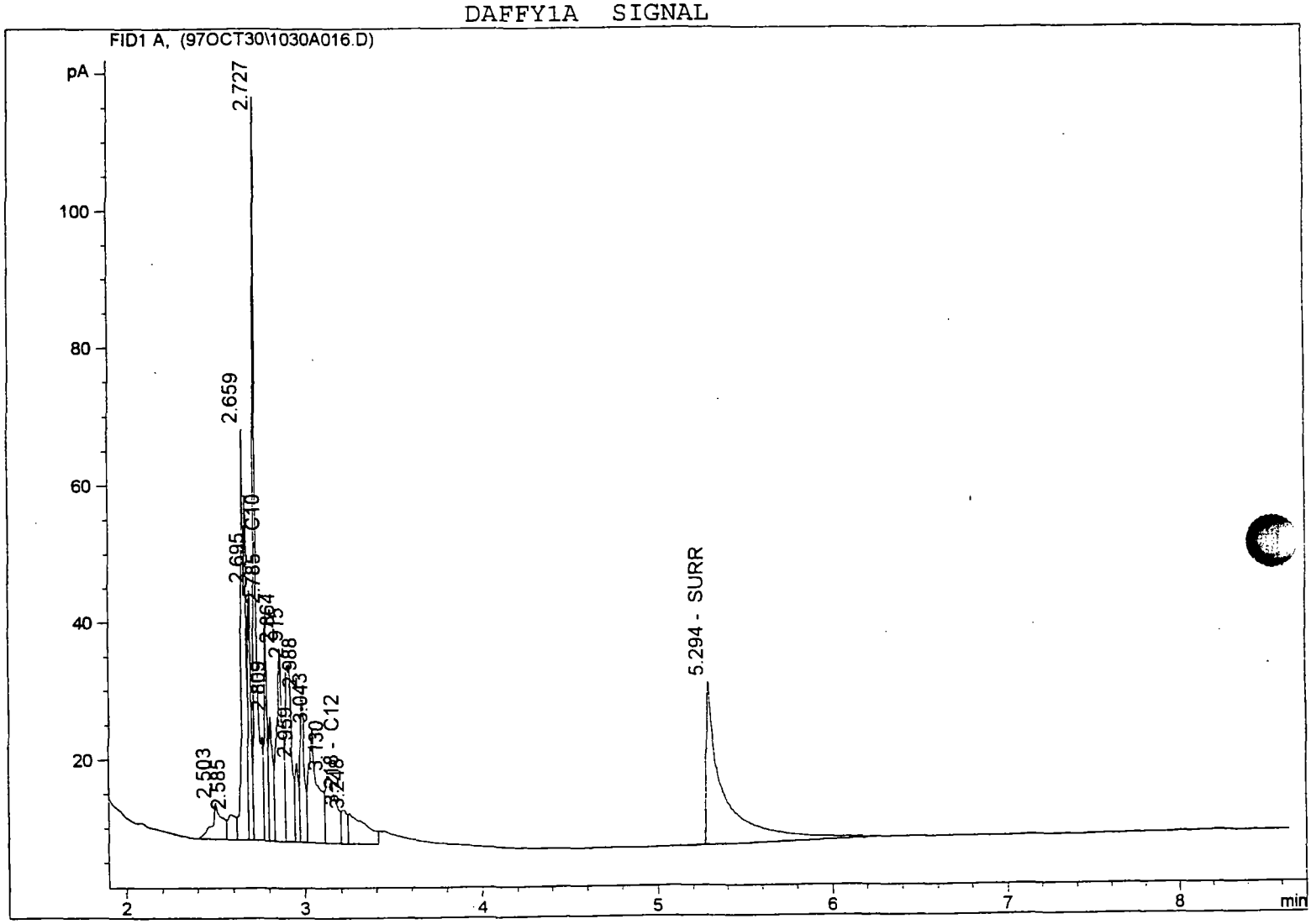
SAMPLE NAME: GAS 250 #2 Injection Date: 10/30/97 23:18:29

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A016.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



224

7A
DIESEL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : DIESEL STD #2

Date Analyzed: 10/30/97

LAB Sample No.: DIESEL STD #2

Time Analyzed: 23:37

Instrument: Daffy1A

Compound	DIESEL STD #2 CAL FACTOR	CURVE CAL FACTOR	%D
Diesel (250 ppm)	14.70	15.35	4.2

Date Analyzed: 10/30/97
Time Analyzed: 23:37

STD #2	3676	250

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 250 #2 Injection Date: 10/30/97 23:37:44

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A017.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT30A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.770	15	18
C12	0.0	3.167	53	67
C14	0.0	3.546	101	193
C16	0.0	3.924	95	191
C18	0.0	4.335	52	68
C20	0.0	4.701	38	97
C22	0.0	5.078	11	28
SURR	61.4	5.280	49	149
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	
GAS(TOL-C12)	450	197	Macro: 971006-1
DIESEL(C12-C24)	3676	240	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	149.015228		

ANALYTICAL RESOURCES NWTPH-D REPORT

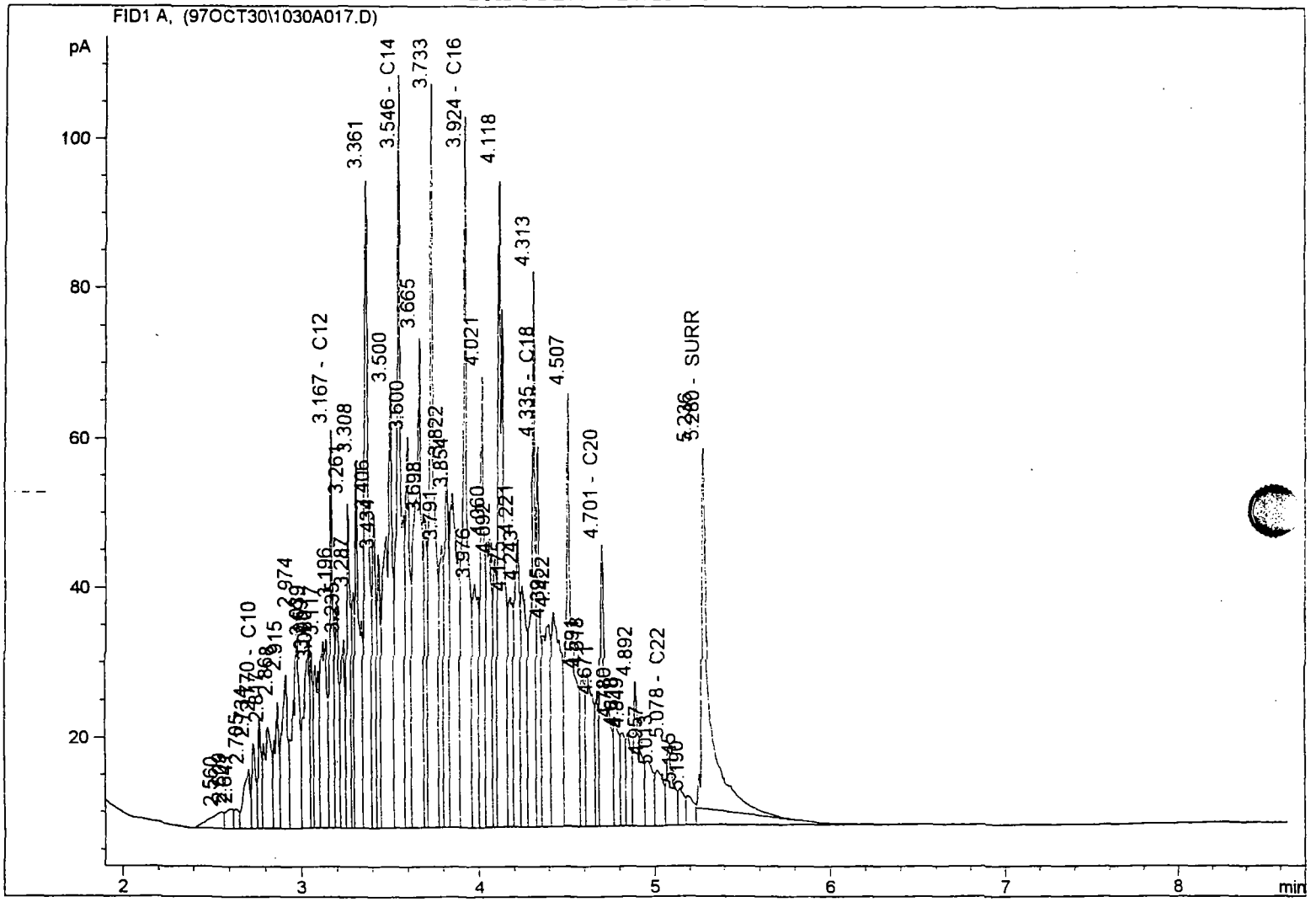
SAMPLE NAME: DIESEL 250 #2 Injection Date: 10/30/97 23:37:44

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A017.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



7A
MOTOR OIL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : MOTOR OIL STD #2

Date Analyzed: 10/30/97

LAB Sample No.: MOTOR OIL STD #2

Time Analyzed: 23:57

Instrument: Daffy1A

Compound	MOTOR OIL STD #2 CAL. FACTOR	CURVE CAL FACTOR	%D
Motor Oil (500 ppm)	11.02	12.32	10.6

Date Analyzed: 10/30/97
Time Analyzed: 23:57

STD #2	5511	500

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: M. OIL 500 #2 Injection Date: 10/30/97 23:57:07

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A018.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT30A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	4.378	2	6
C20	0.0	4.754	7	32
[redacted]	0.0	0.000	0	0
[redacted]R	55.4	5.276	96	132
C24	0.0	0.000	0	0
C26	0.0	5.788	50	139
C28	0.0	6.131	58	195
C30	0.0	6.486	59	120
C32	0.0	6.833	47	113
C34	0.0	7.173	34	149
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	1019	67	Surrogate Subtracted
M.OIL(C24-C38)	5511	448	
SURROGATE	132.347733		

ANALYTICAL RESOURCES NWTPH-D REPORT

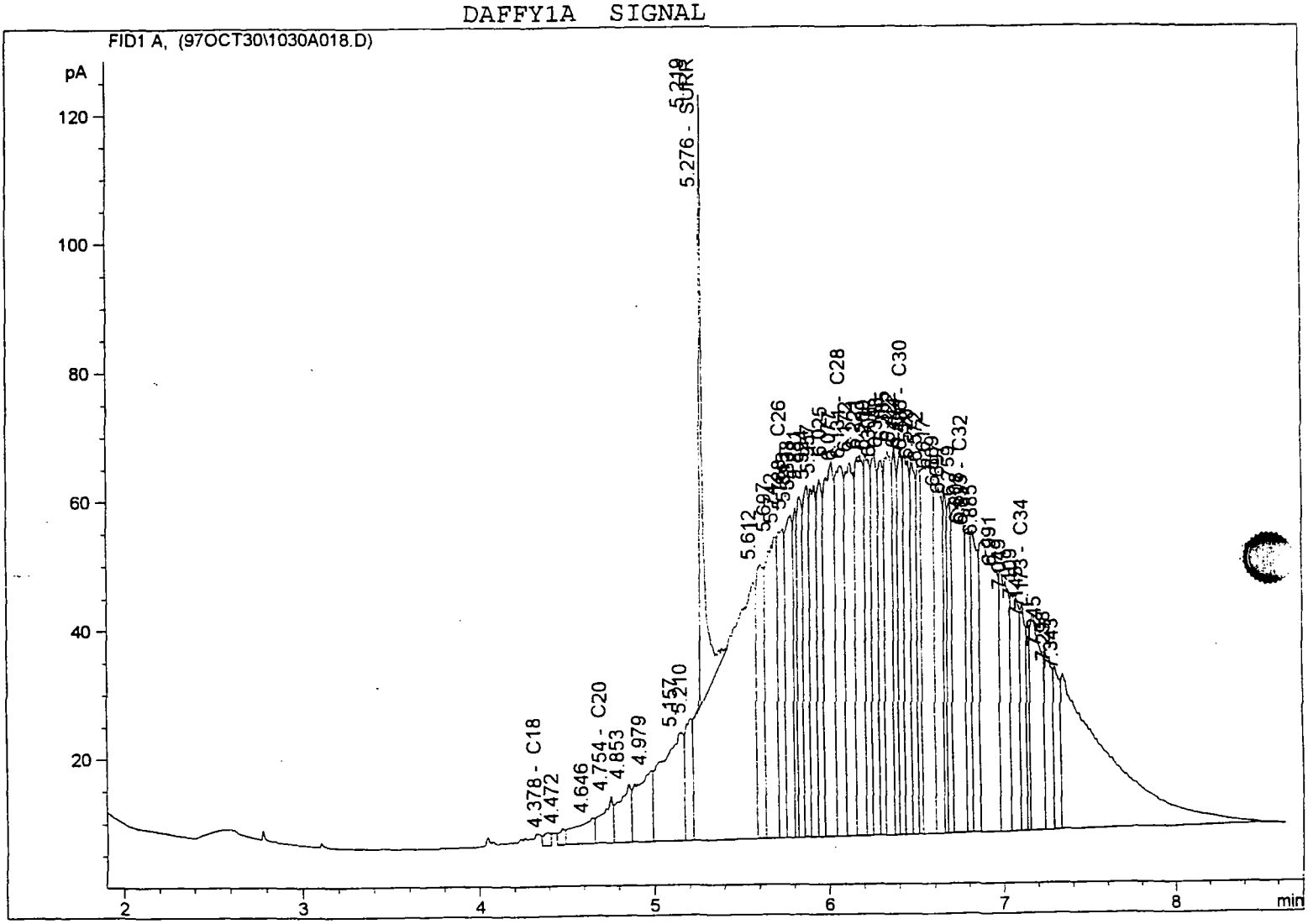
SAMPLE NAME: M. OIL 500 #2 Injection Date: 10/30/97 23:57:07

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A018.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



7A
GASOLINE CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : GAS STD #3

Date Analyzed: 10/31/97

LAB Sample No.: GAS STD #3

Time Analyzed: 02:12

Instrument: Daffy1A

Compound	GASOLINE STD #3 CAL. FACTOR	CURVE CAL FACTOR	%D
Gasoline (250 ppm)	2.40	2.29	4.8

ANALYTICAL
RESOURCES
INCORPORATED

Date Analyzed: 10/31/97
Time Analyzed: 02:12

STD #3	0601	250

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: GAS 250 #3 Injection Date: 10/31/97 02:12:23

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A025.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT30A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.785	34	36
C12	0.0	3.215	5	25
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	0.000	0	0
[redacted]	0.0	0.000	0	0
[redacted]R	76.6	5.284	38	191
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	601	263	
DIESEL(C12-C24)	100	7	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	191.195816		

ANALYTICAL RESOURCES NWTPH-D REPORT

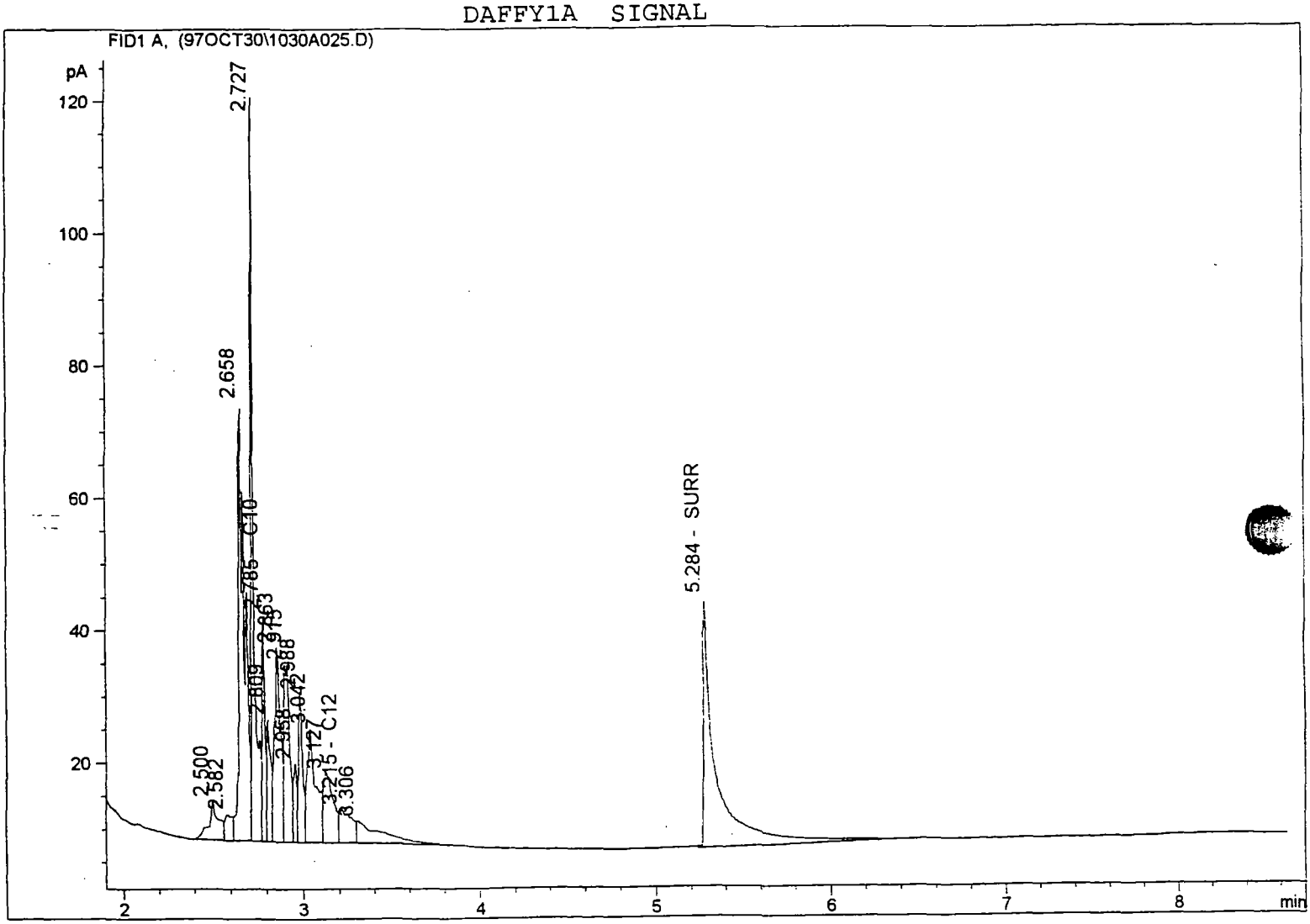
SAMPLE NAME: GAS 250 #3 Injection Date: 10/31/97 02:12:23

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A025.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



7A
DIESEL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : DIESEL STD #3

Date Analyzed: 10/31/97

LAB Sample No.: DIESEL STD #3

Time Analyzed: 02:31

Instrument: Daffy1A

Compound	DIESEL STD #3 CAL. FACTOR	CURVE CAL FACTOR	%D
Diesel (250 ppm)	15.07	15.35	1.8

Date Analyzed: 10/31/97
Time Analyzed: 02:31

STD #3	3768	250

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 250 #3 Injection Date: 10/31/97 02:31:35

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A026.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT30A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.770	17	32
C12	0.0	3.166	55	69
C14	0.0	3.546	103	196
C16	0.0	3.923	98	193
C18	0.0	4.335	53	92
C20	0.0	4.700	40	98
[redacted]2	0.0	5.077	12	29
[redacted]R	63.9	5.277	64	156
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	
GAS(TOL-C12)	426	186	Macro: 971006-1
DIESEL(C12-C24)	3768	246	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	155.997223		

ANALYTICAL RESOURCES NWTPH-D REPORT

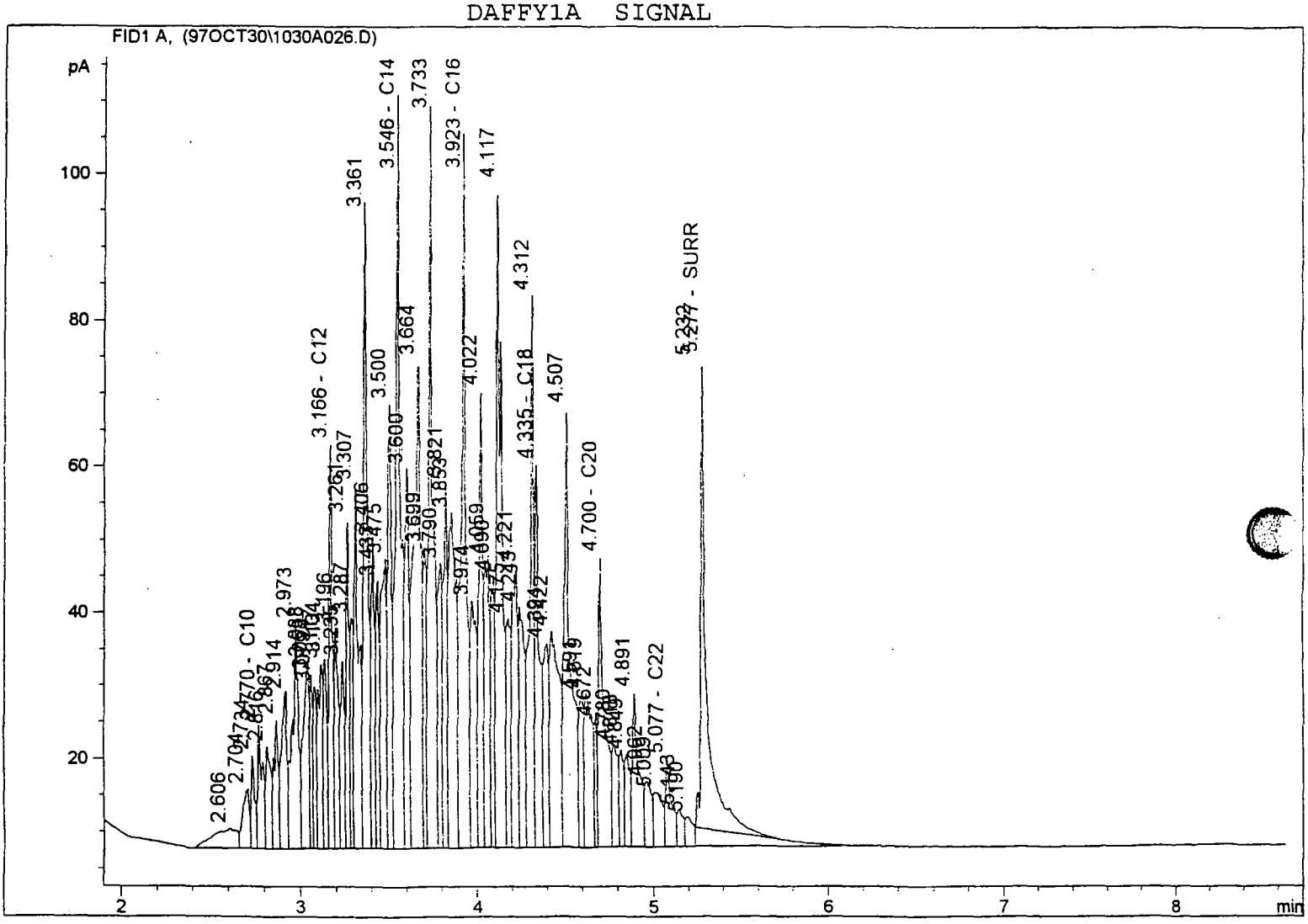
SAMPLE NAME: DIESEL 250 #3 Injection Date: 10/31/97 02:31:35

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A026.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



240

7A
MOTOR OIL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/04/97 MAC: CSP

Client Sample No. : MOTOR OIL STD #3

Date Analyzed: 10/31/97

LAB Sample No.: MOTOR OIL STD #3

Time Analyzed: 02:50

Instrument: Daffy1A

Compound	MOTOR OIL STD #3 CAL. FACTOR	CURVE CAL FACTOR	%D
Motor Oil (500 ppm)	11.44	12.32	7.2

Date Analyzed: 10/31/97
Time Analyzed: 02:50

STD #3	5718	500

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: M. OIL 500 #3 Injection Date: 10/31/97 02:50:40

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A027.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT30A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	4.324	2	8
C20	0.0	4.754	8	38
C22	0.0	0.000	0	0
[redacted]R	62.2	5.274	115	151
C24	0.0	0.000	0	0
C26	0.0	5.813	54	223
C28	0.0	6.129	61	92
C30	0.0	6.520	60	295
C32	0.0	6.849	47	126
C34	0.0	7.170	33	262
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	1152	76	Surrogate Subtracted
M.OIL(C24-C38)	5718	465	
SURROGATE	151.339172		

ANALYTICAL RESOURCES NWTPH-D REPORT

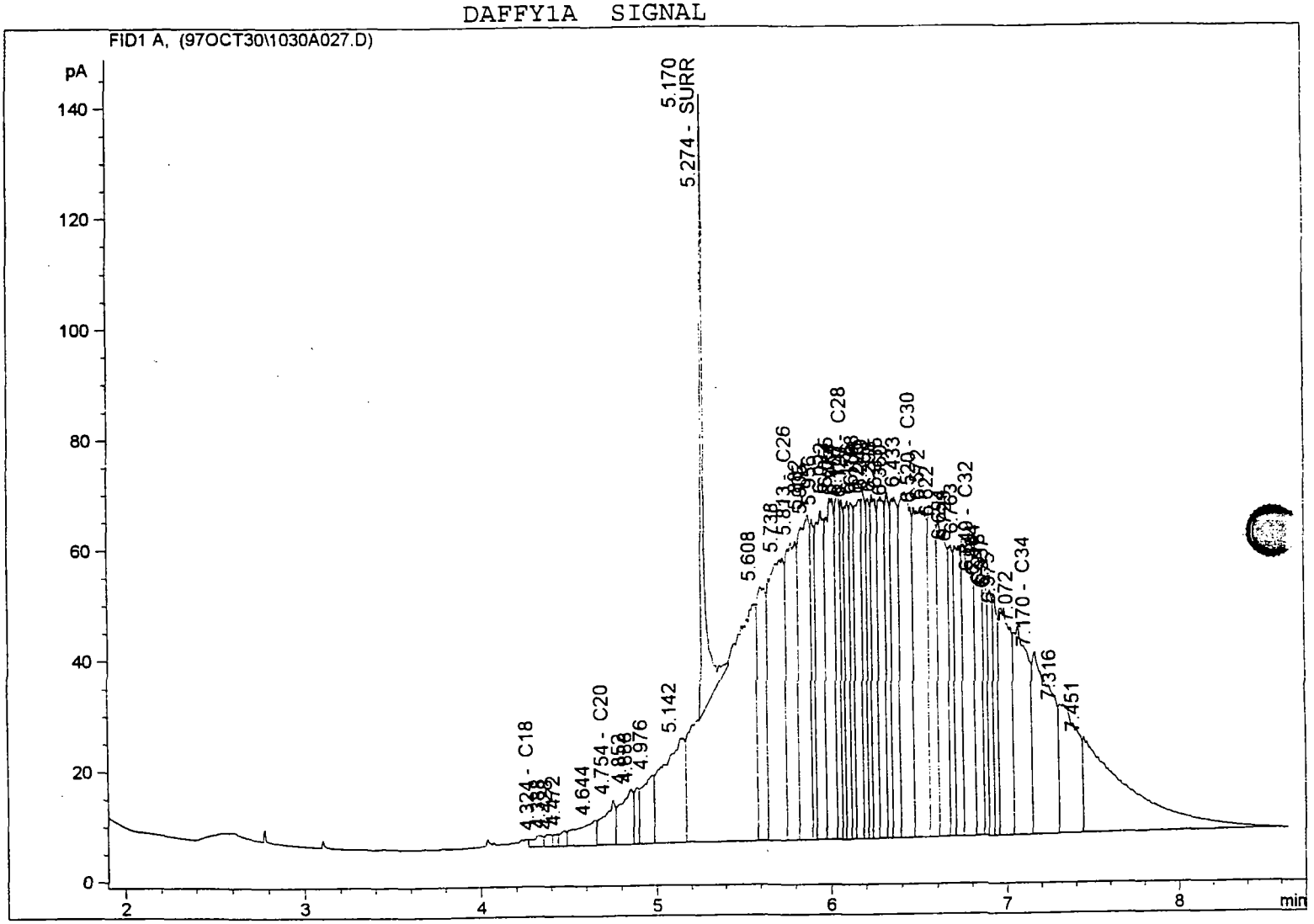
SAMPLE NAME: M. OIL 500 #3 Injection Date: 10/31/97 02:50:40

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT30\1030A027.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: U280 SBs2 10/29 Injection Date: 10/30/97 02:04:42

[redacted]MPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A018.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97OCT29A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.770	44	43
C12	0.0	3.167	131	243
C14	0.0	3.547	227	401
C16	0.0	3.925	219	397
C18	0.0	4.337	101	187
C20	0.0	4.701	92	230
C22	0.0	5.076	26	58
[redacted]R	65.6	5.279	80	161
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	
GAS(TOL-C12)	950	415	Macro: 971006-1
DIESEL(C12-C24)	7535	491	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	160.669235		

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Report Date: 10/30/97 11:31:25 Page 1 of 2

ANALYTICAL RESOURCES NWTPH-D REPORT

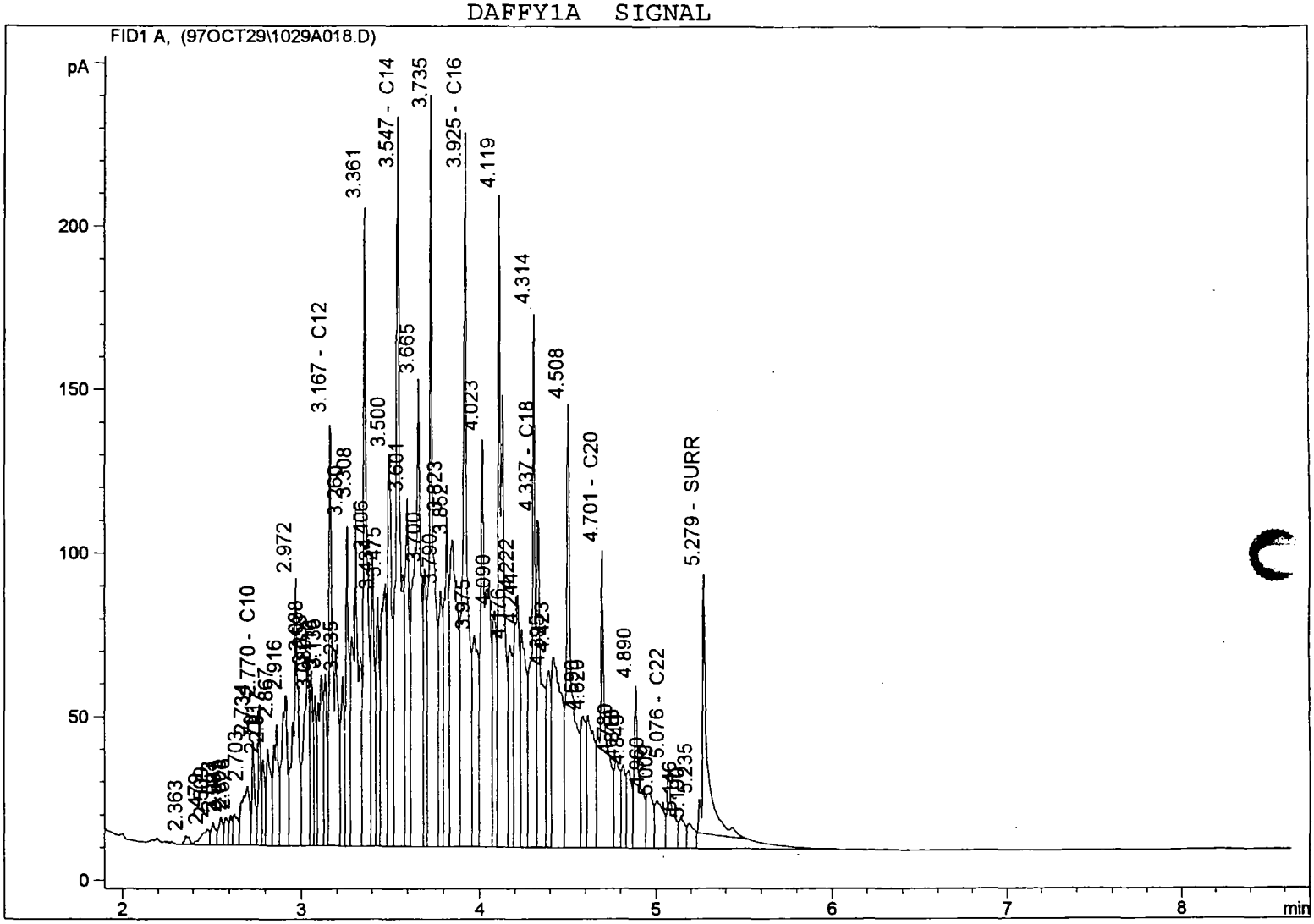
SAMPLE NAME: U280 SBs2 10/29 Injection Date: 10/30/97 02:04:42

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97OCT29\1029A018.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



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Report Date: 10/30/97 11:31:25 Page 2 of 2

WTPH-G

BETX Total Solids
betxts.wlf printed: 11/ 7/97

Worklist No: 5919

Data Analyst: Karin Peeples
Date Entered: 11/ 5/97
Comments:

Analyzed by: KDP
Date Analyzed: 11/ 5/97

Sample No	Client ID/Client	Tare	Wet Wt	Dry Wt	%Solids
97-20924	U269 B HI1B02	1.34	11.25	9.73	84.7

SOIL TPHg SYSTEM MONITORING COMPOUND SUMMARY

Matrix: Soil

QC Report No: U269

LIMS ID	Lab ID	Client ID	TFT	BB	TOT OUT
97-20924MB	110697MB	Method Blank	101%	97%	0
97-20924LC	110697LC	Lab Control	113%	NR	0
97-20924	U269B	HI1B02	100%	95%	0

	MB/LCS QC LIMITS	SAMPLE QC LIMITS
(TFT) = Trifluorotoluene	(58-151)	(30-160)
(BB) = Bromobenzene	(36-160)	(30-160)

Limits Updated - 02/15/97

\# Column to be used to flag recovery values

D System Monitoring Compound diluted out

ANALYTICAL
RESOURCES
INCORPORATED

WATER TPHg SYSTEM MONITORING COMPOUND SUMMARY

Matrix: Water QC Report No: U269

LIMS ID	Lab ID	Client ID	TFT	BB	TOT OUT
97-20925	U269F	Trip Blank	97%	87%	0

	MB/LCS QC LIMITS	SAMPLE QC LIMITS
(TFT) = Trifluorotoluene	(88-137)	(67-133)
(BB) = Bromobenzene	(85-125)	(61-137)

Limits Updated - 02/15/97

\# Column to be used to flag recovery values

* Values outside of required QC limits

D System Monitoring Compound diluted out

ANALYTICAL
RESOURCES
INCORPORATED

TOTAL GASOLINE RANGE HYDROCARBONS
WTPHg Range Toluene to C12 by GC/FID

Lab Sample ID: U269SB
LIMS ID: 97-20924
Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900

Data Release Authorized:
Reported: 11/17/97

LABORATORY CONTROL SAMPLE RECOVERY REPORT
Analyzed 11/06/97

CONSTITUENT	SPIKE FOUND	SPIKE ADDED	% RECOVERY
LABORATORY CONTROL SAMPLE			
Gasoline Range Hydrocarbons	2.70	2.5	108%

TPHg Surrogate Recovery

Trifluorotoluene	113%
Bromobenzene	NR

Values reported in parts per million (mg/kg)

TPHg SPIKE CONTROL LIMITS

Percent Recovery 80.0-120%

Advisory QA Limits

ANALYTICAL
RESOURCES
INCORPORATED

TPHG METHOD BLANK SUMMARY

ARI Job No: U269

Client: Remediation Technologies, Inc.

Lab Sample ID: 1106 MB
Matrix: Soil

Project: 1 2900

Report: 11/25/97 MAC: CSP

Date Analyzed (1): 11/06/97
Time Analyzed (1): 12:24
Instrument ID (1): PID-1
GC Column ID (1): DB624M

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS,MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed
Spike Blank	1106 SB GAS	11065	11/06/97
HI1B02	U269B	110617	11/06/97
Trip Blank	U269F	110618	11/06/97

Comments:

TOTAL GASOLINE RANGE HYDROCARBONS
WTPHg Range Toluene to C12 by GC/FID

QC Report No: U269-Remediation Technologies, Inc.
Matrix: Soil Project: 1 2900

Data Release Authorized: Date Received: 10/27/97
Reported: 11/17/97

Lab ID	Client Sample ID	Date Analyzed	Dilution Factor	Gas Range Hydrocarbons		Gasoline ID	Surr A Rec	Surr B Rec
U269-1106MB	Method Blank	11/06/97	1:1	5.0	U	NO	101.%	97.3%
97-20924-U269B	HI1B02	11/06/97	1:1	5.8	U	NO	100.%	95.1%

Surrogate A is Trifluorotoluene.
Surrogate B is Bromobenzene.
Values reported in ppm (mg/kg) on a dry weight basis.
Quantitation on total peaks in the gasoline range from Toluene to C12.

Data Qualifiers

U	Compound not detected at the given detection limit.
X	Value detected above linear range of instrument. Dilution required.
J	Indicates an estimated value below the calculated detection limit.
S	No value reported due to saturation of the detector. Dilution required.
D	Indicates the surrogate was not detected because of dilution of the extract.
NR	Indicates no recovery due to matrix interference.

FORM-1 TPH-g

ANALYTICAL
RESOURCES
INCORPORATED

TOTAL GASOLINE RANGE HYDROCARBONS
WTPHg Range Toluene to C12 by GC/FID

QC Report No: U269-Remediation Technologies, Inc.
Matrix: Water Project: 1 2900

Data Release Authorized: Date Received: 10/27/97
Reported: 11/17/97

Lab ID	Client Sample ID	Date Analyzed	Dilution Factor	Gas Range	Gas ID	Surr A Rec	Surr B Rec
97-20925-U269F	Trip Blank	11/06/97	1:1	0.25 U	NO	97.2%	87.1%

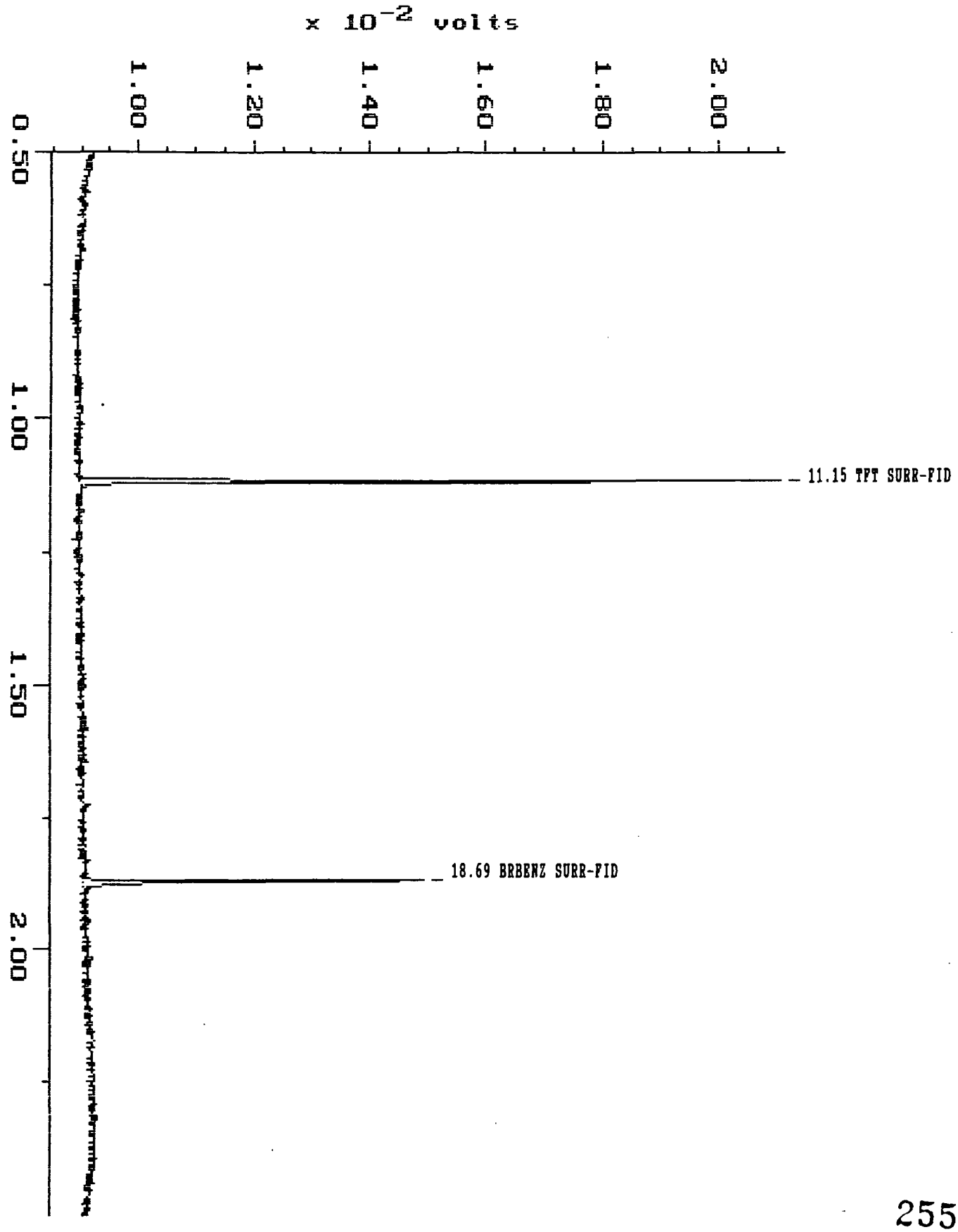
Surrogate A is Trifluorotoluene.
Surrogate B is Bromobenzene.
Values reported in ppm (mg/L).
Quantitation on total peaks in the gasoline range from Toluene to C12.

Data Qualifiers

U	Compound not detected at the given detection limit.
X	Value detected above linear range of instrument. Dilution required.
J	Indicates an estimated value below the calculated detection limit.
S	No value reported due to saturation of the detector. Dilution required.
D	Indicates the surrogate was not detected because of dilution of the extract.
NR	Indicates no recovery due to matrix interference.

FORM-1 TPH-g

Sample: 1106 MB Channel: FID Filename: 11064
Acquired: 06-NOV-97 12:24 Method: C:\MAX\BETXGAS\AK110697 Operator: PK



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MAXIMA 820 CUSTOM REPORT

Printed: 7-NOV-1997 9:18:21

SAMPLE: 1106 MB
#2 in Method: WA GAS/BETX
Acquired: 6-NOV-1997 12:24
Rate: 3.0 points/sec
Duration: 24.998 minutes
Operator: PK

Type: UNKN
Instrument: PID 1
Filename: 11064
Index: Disk

DETECTOR: FID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
11.155	0.597	12053	36694	HGHT	100.65*	TFT SURR-FID
18.690	1.000	5873	17069	HGHT	97.26*	BRBENZ SURR-FID
TOTAL		17927	53763		197.91*	

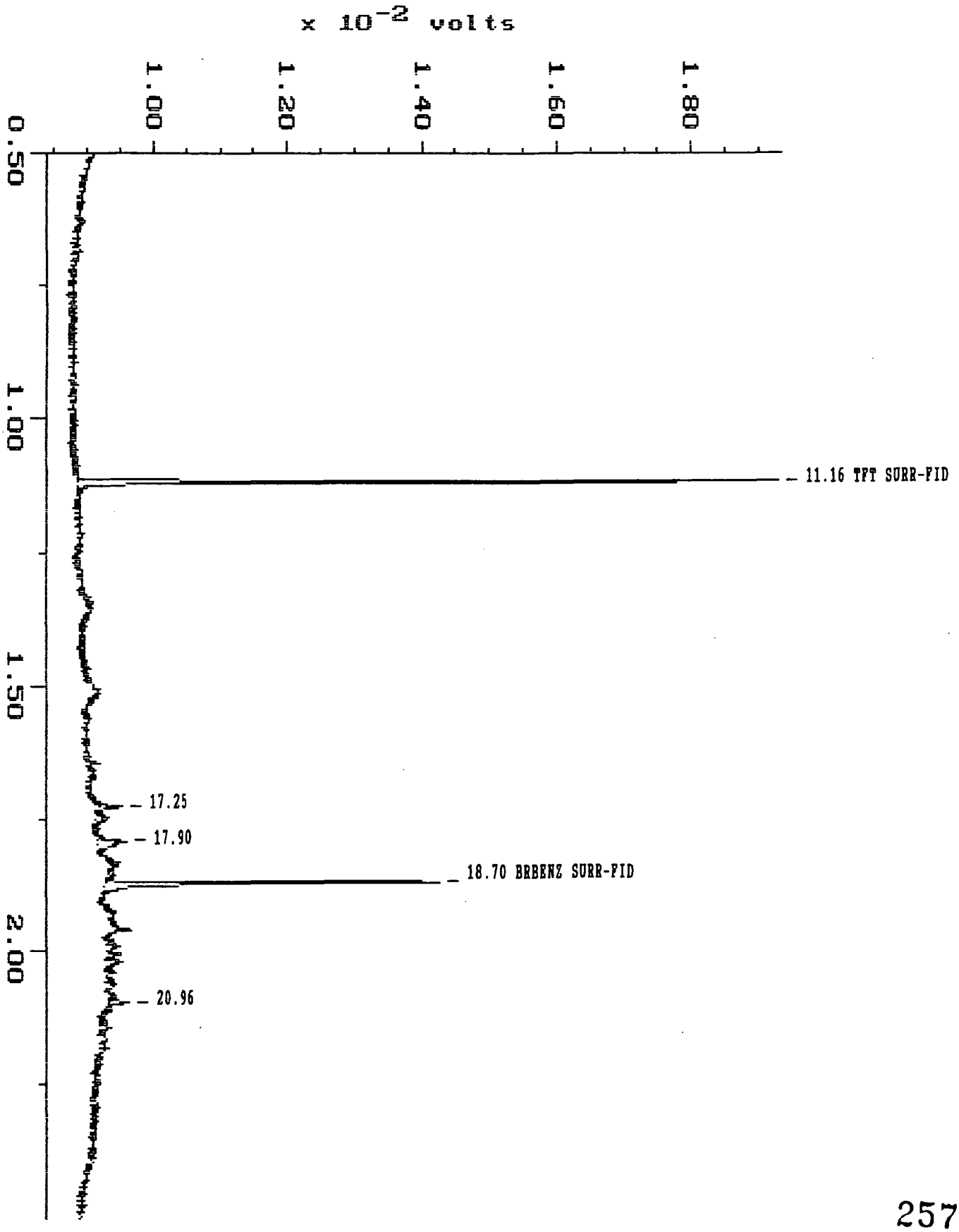
* Result calculation was based on a manually entered response factor.

GROUP SUMMARY: FID

Group Center (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Group Name
22.560	(0.940)	5873	17069	AREA	0.08*	WA GAS
TOTAL		5873	17069		0.08*	

* Result calculation was based on a manually entered response factor.

Sample: U269 B Channel: FID Filename: 110617
Acquired: 06-NOV-97 19:05 Method: C:\MAX\BETXGAS\AK110697 Operator: PK



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MAXIMA 820 CUSTOM REPORT

Printed: 7-NOV-1997 9:19:59

SAMPLE: U269 B
#5 in Method: WA GAS/BETX
Acquired: 6-NOV-1997 19:05
Rate: 3.0 points/sec
Duration: 24.998 minutes
Operator: PK

Type: UNKN
Instrument: PID 1
Filename: 110617
Index: Disk

DETECTOR: FID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
11.160	0.597	10402	31911	HGHT	86.86* ✓	TFT SURR-FID
17.249	0.923	377	2939			
17.903	0.958	427	3492			
18.695	1.000	4979	16642	HGHT	82.44* ✓	BRBENZ SURR-FID
20.956	1.121	315	1070			
TOTAL		16500	56054		169.30*	

* Result calculation was based on a manually entered response factor.

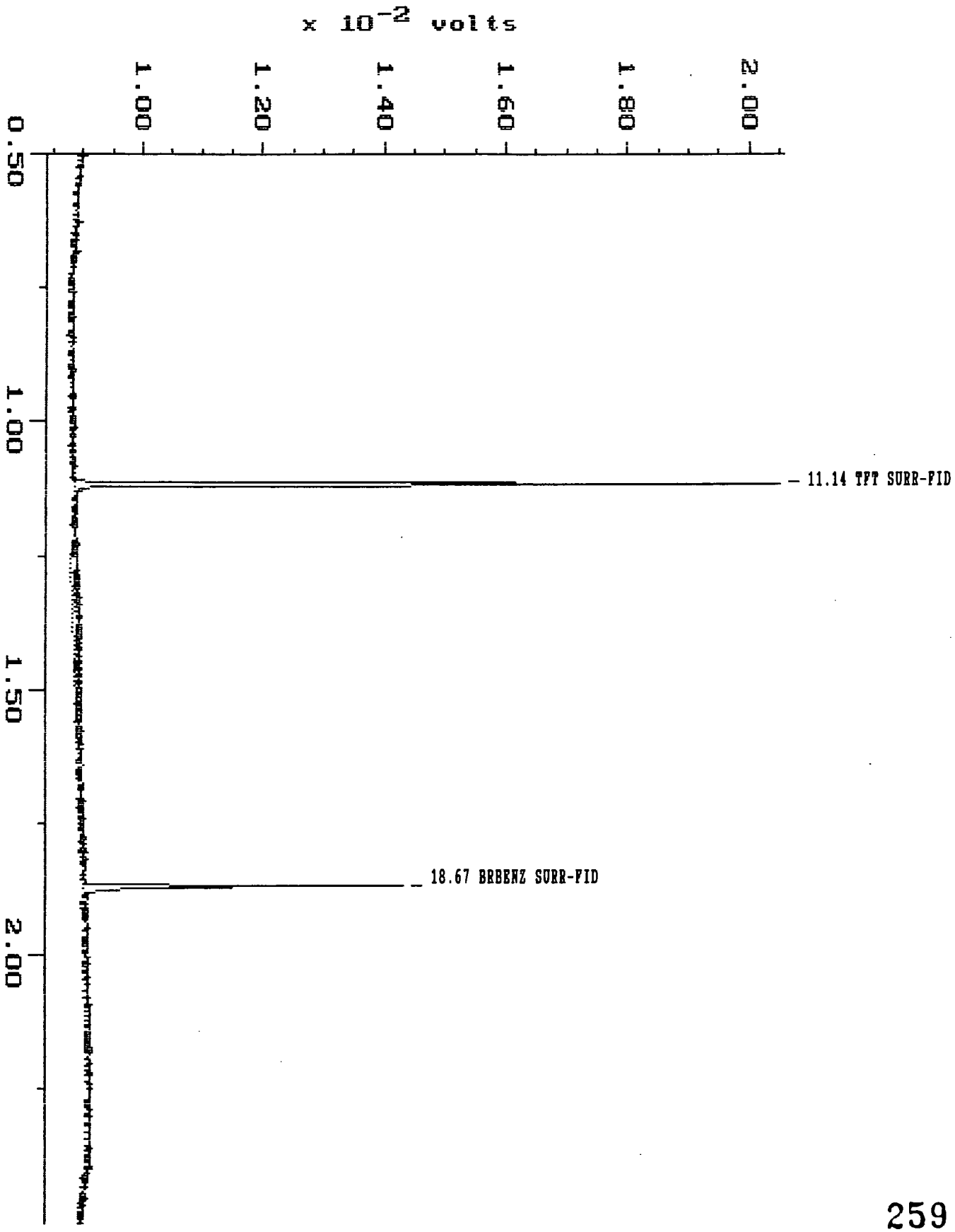
GROUP SUMMARY: FID

Group Center (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Group Name
22.560	(0.939)	6098	24143	AREA	0.07*	WA GAS
TOTAL		6098	24143		0.07*	

* Result calculation was based on a manually entered response factor.

Not Gas

Sample: U269 F Channel: FID Filename: 110618
Acquired: 06-NOV-97 19:35 Method: C:\MAX\BETXGAS\AK110697 Operator: PK



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MAXIMA 820 CUSTOM REPORT

Printed: 7-NOV-1997 9:20:29

SAMPLE: U269 F
#6 in Method: WA GAS/BETX
Acquired: 6-NOV-1997 19:35
Rate: 3.0 points/sec
Duration: 24.998 minutes
Operator: PK

Type: UNKN
Instrument: PID 1
Filename: 110618
Index: Disk

DETECTOR: FID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
11.144	0.597	11635	36422	HGHT	97.15* ✓	TFT SURR-FID
18.673	1.000	5260	30723	HGHT	87.10* ✓	BRBENZ SURR-FID
TOTAL		16895	67145		184.26*	

* Result calculation was based on a manually entered response factor.

GROUP SUMMARY: FID

Group Center (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Group Name
22.560	(0.940)	5260	30723	AREA	0.08*	WA GAS
TOTAL		5260	30723		0.08*	

* Result calculation was based on a manually entered response factor.

Not Gas

ANALYTICAL
RESOURCES
INCORPORATED

8D

TPHG ANALYTICAL SEQUENCE

ARI Job No: U269 Client: Remediation Technologies, Inc.

Project: 1 2900

Report: 11/25/97 MAC: CSP

GC Column: **DB624M** ID: 0.53mm

Instrument ID: PID 1 Init. Calib. Date(s): 07/07/97

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TFL: 11.126 BMZ: 18.677

	Client Sample ID	ARI Sample ID	Date Analyzed	Time Analyzed	TFL RT #	BMZ RT #
01	GAS 0.1 ppm	GAS 0.1 ppm	07/07/97	14:56	11.111	18.651
02	GAS 0.25 ppm	GAS 0.25 ppm	07/07/97	15:27	11.105	18.646
03	GAS 1.0 ppm	GAS 1.0 ppm	07/07/97	15:57	11.111	18.684
04	GAS 2.5 ppm	GAS 2.5 ppm	07/07/97	16:28	11.116	18.695
05	GAS 5.0 ppm	GAS 5.0 ppm	07/07/97	16:59	11.116	18.690
06	GAS 20.0 ppm	GAS 20.0 ppm	07/07/97	17:30	11.199	18.695
07	Gas #1 2.5 ppm	Gas #1 2.5 ppm	11/06/97	10:54	11.221	18.783
08	Method Blank	1106 MB	11/06/97	12:24	11.155	18.690
09	Spike Blank	1106 SB GAS	11/06/97	12:54	11.149	18.723
10	Gas #2 2.5 ppm	Gas #2 2.5 ppm	11/06/97	17:05	11.166	18.739
11	HI1B02	U269B	11/06/97	19:05	11.160	18.695
12	Trip Blank	U269F	11/06/97	19:35	11.144	18.673
13	Gas #3 2.5 ppm	Gas #3 2.5 ppm	11/06/97	20:05	11.149	18.734
14						
15						
16						
17						
18						
19						
20						

(TFL) = Trifluorotoluene
(BMZ) = Bromobenzene

ANALYTICAL
RESOURCES
INCORPORATED

GASOLINE LINEARITY CHECK

ARI Job Number: U269

Client: Remediation Technologies
Project: 1 2900

Instrument: PID-1

Date Analyzed: 07/07/97

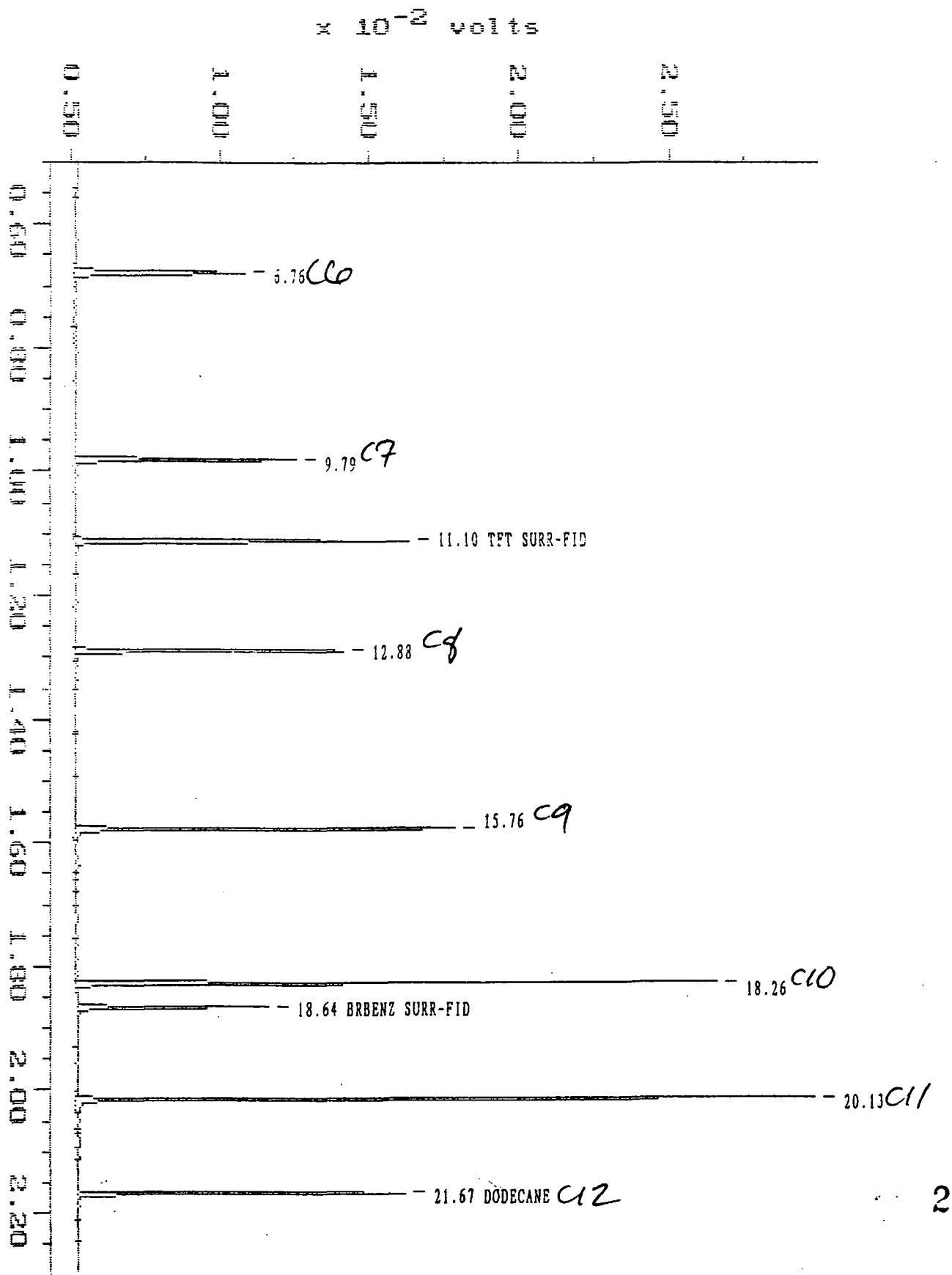
Time Analyzed: 15:27 - 17:30

Report: 11/25/97 MAC: CSP

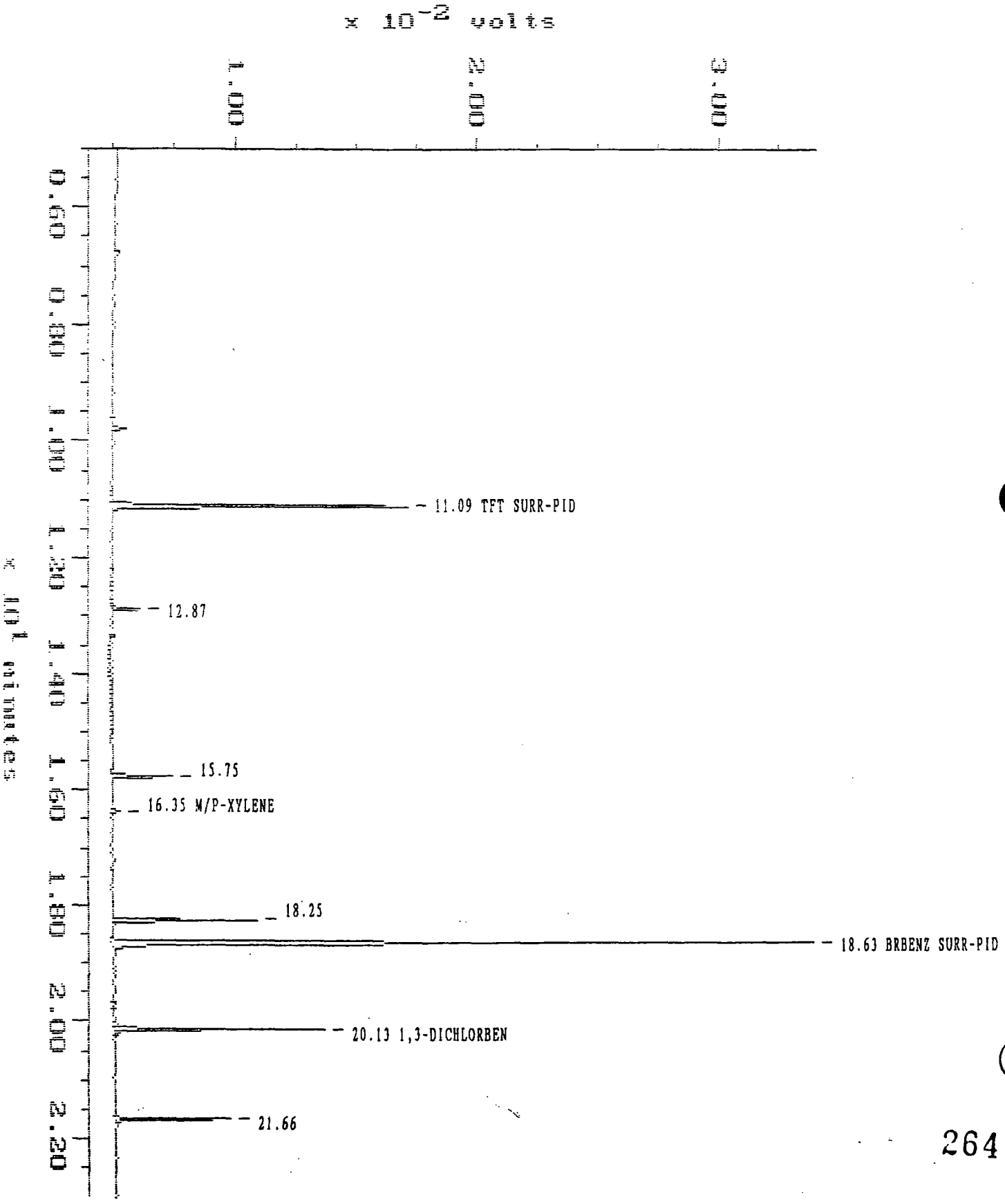
Compound	Calibration Factor Conc: .250	Calibration Factor Conc: 1.000	Calibration Factor Conc: 2.500	Calibration Factor Conc: 5.000	Calibration Factor Conc: 20.000	Calibration Factor Average	%RSD
Gasoline	354228	406729	460023	499608	487506	441619	14

FORM VI TPHG

Sample: RT ST 7/7 Channel: FID Filename: 0707D08
Acquired: 07-JUL-97 14:25 Method: C:\MAX\BETXGAS\070797 Operator: PK



Sample: RT ST 7/7 Channel: PID Filename: 0707D09
Acquired: 07-JUL-97 14:25 Method: C:\MAX\BETXGAS\070797 Operator: PK



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MAXIMA 820 CUSTOM REPORT

Printed: 7-JUL-1997 14:57:47

SAMPLE: RT ST 7/7 Type: UNKN
#8 in Method: WA GAS/BETX Instrument: PID 1
Acquired: 7-JUL-1997 14:25 Filename: 0707D08
Rate: 3.0 points/sec Index: Disk
Duration: 23.002 minutes
Operator: PK

DETECTOR: PID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
6.760	0.363	5727	23301			
9.735	0.525 -	7427	33215			
11.100	0.595	11260	34020	HGHT	91.77*	TFT SURR-PID
12.876	0.691	9015	24303			
15.764	0.846	12779	33108			
18.361	0.989	21386	47945			
18.649	1.000	6420	16456	HGHT	89.55*	BRBENZ SURR-PID
20.121	1.080	24590	50938			
21.565	1.162	11020	24089	HGHT		DODECANE
TOTAL		109674	277375		181.32*	

* Result calculation was based on a manually entered response factor.

GROUP SUMMARY: PID

Group Center (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Group Name
22.559	(0.942)	76195	172535	AREA	0.26*	WA GAS
TOTAL		76195	172535		0.26*	

* Result calculation was based on a manually entered response factor.

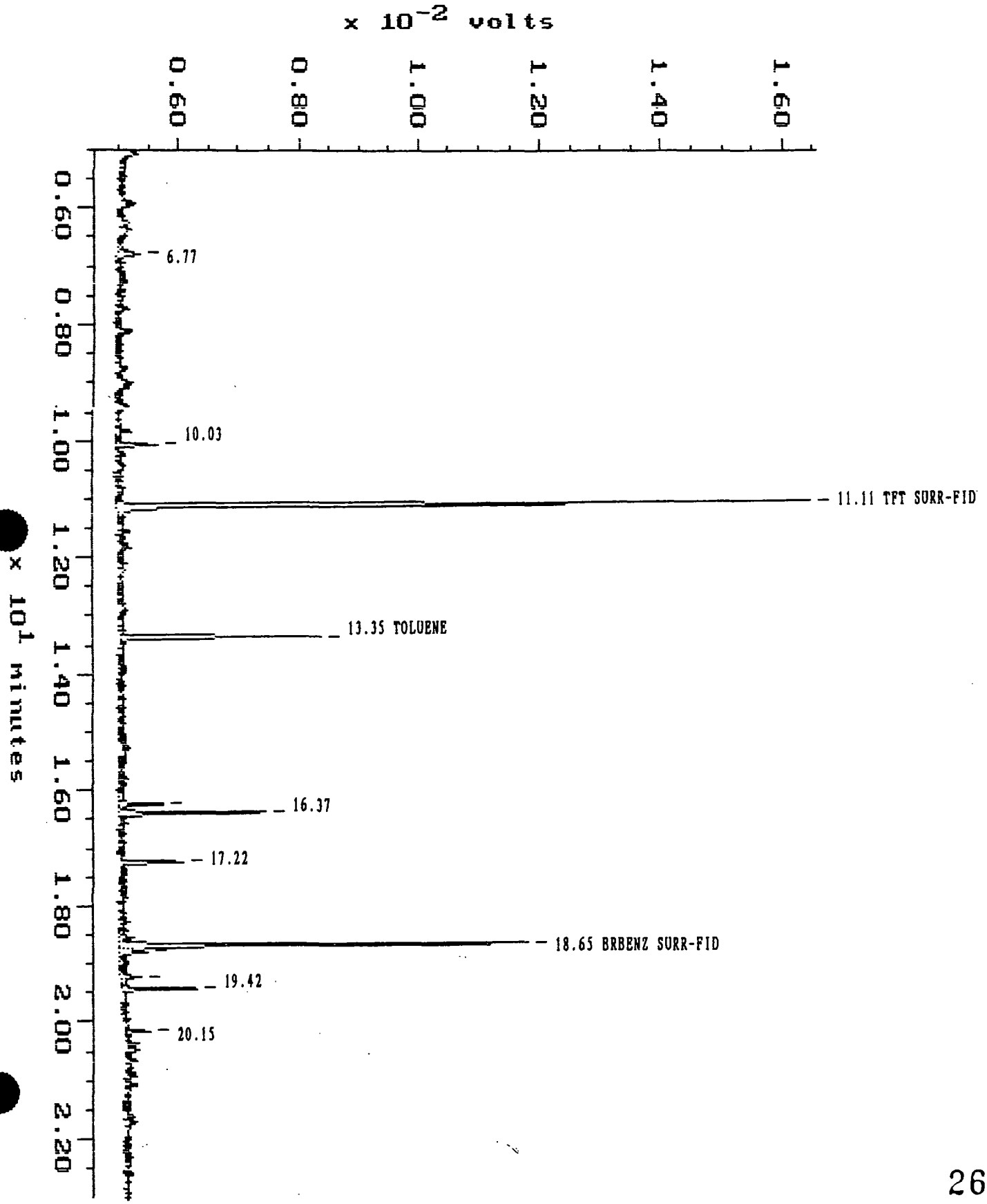
DETECTOR: PID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
11.089	0.595	12052	35640	HGHT	92.32*	TFT SURR-PID
12.865	0.690	1165	1057			

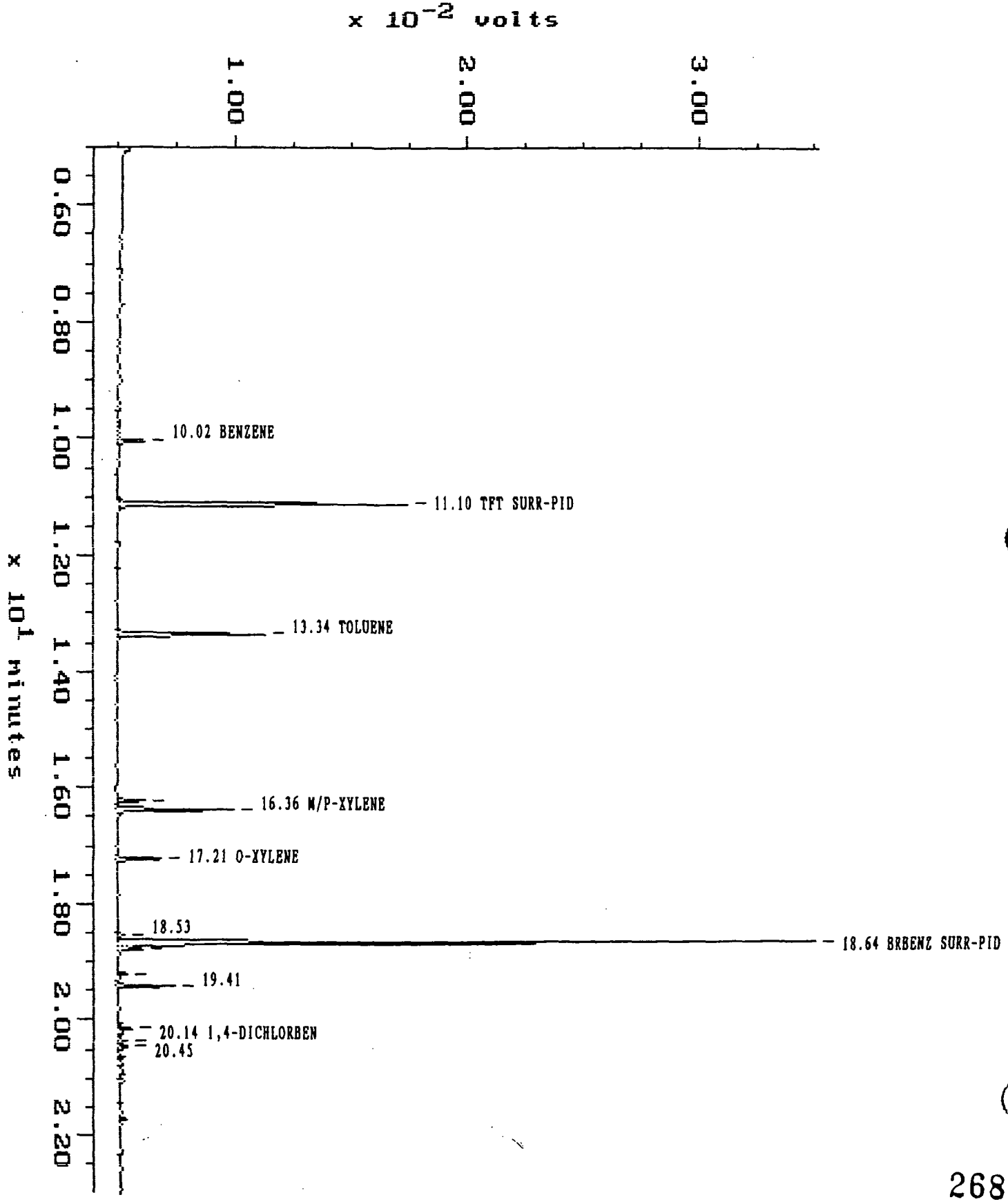
15.753	0.845	3393	7368			
16.352	0.879	349	727	MGHT	0.35%	M/P-XYLENE
18.252	0.979	5301	8190			
18.635	1.000	38704	72590	MGHT	90.71%	BRBENZ SURR-PID
20.125	1.080	8532	16701	MGHT	8.29%	1,3-DICHLOROBEN
21.660	1.162	4507	9546			
TOTAL		63694	151819		101.66%	

* Result calculation was based on a manually entered response factor.

Sample: GAS 0.1 PPM Channel: FID Filename: 0707D09
Acquired: 07-JUL-97 14:56 Method: C:\MAX\BETXGAS\070797 Operator: PK



Sample: GAS 0.1 PPM Channel: PID Filename: 0707D09
Acquired: 07-JUL-97 14:56 Method: C:\MAX\BETXGAS\070797 Operator: PK



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MAXIMA 820 CUSTOM REPORT

Printed: 10-JUL-1997 13:18:22

SAMPLE: GAS 0.1 PPM
#9 in Method: AK GAS/BETX
Acquired: 7-JUL-1997 14:56
Rate: 3.0 points/sec
Duration: 23.002 minutes
Operator: PK

Type: UNKN
Instrument: PID 1
Filename: 0707D09
Index: Disk

DETECTOR: FID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
6.766	0.363	383	2449			
10.027	0.538	692	2444			
11.111	0.596	11467	36008	HGHT	95.18*	TFT SURR-FID
13.349	0.716	3332	9370	AREA		TOLUENE
16.220	0.870	727	2540			
16.369	0.878	2407	6975			
17.221	0.923	1012	2591			
18.651	1.000	6778	20704	HGHT	98.00*	BRBENZ SURR-FID
18.783	1.007	482	2375			
19.207	1.030	324	1795			
19.421	1.041	1215	3081			
20.153	1.081	394	1115			
TOTAL		29213	91446		193.18*	

* Result calculation was based on a manually entered response factor.

GROUP SUMMARY: FID

Group Center (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Group Name
17.515	(0.671)	20020	62377	AREA	0.09*	AK GAS
TOTAL		20020	62377		0.09*	

* Result calculation was based on a manually entered response factor.

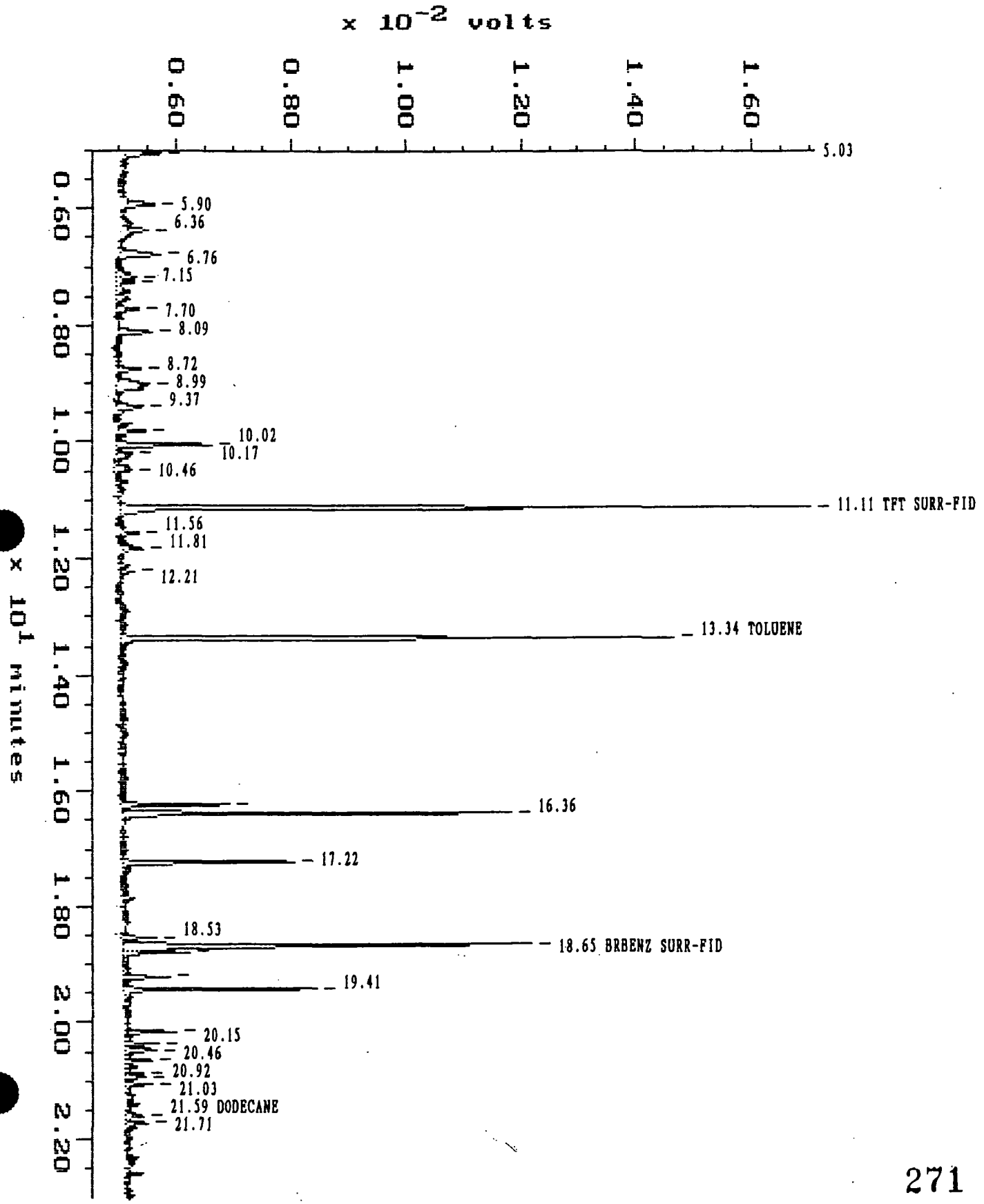
DETECTOR: PID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name

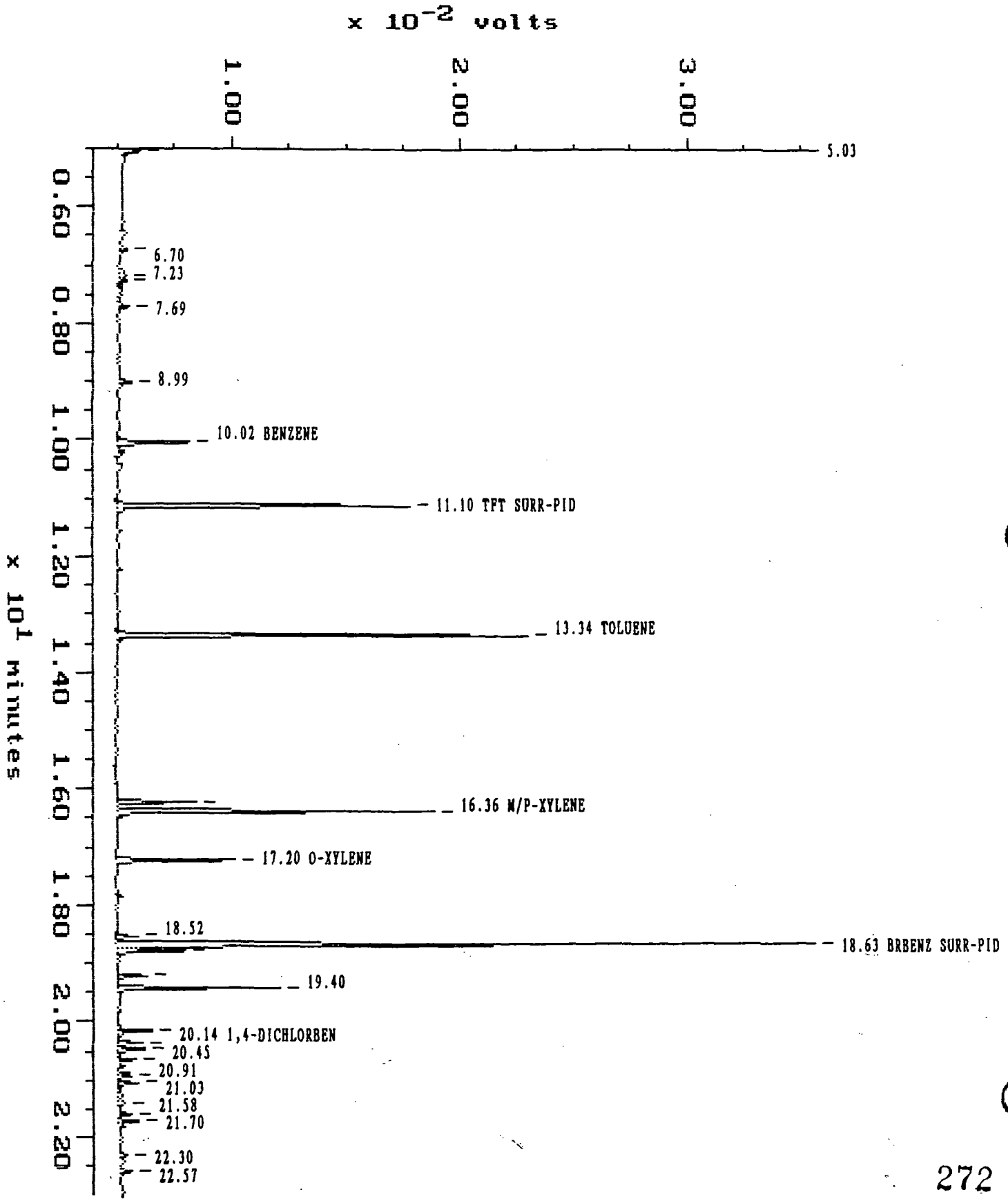
10.022	0.538	1095	2921	HGHT	1.27*	BENZENE
11.100	0.595	12315	35458	HGHT	98.02*	TFT SURR-PID
13.338	0.716	6211	16525	HGHT	6.71*	TOLUENE
16.215	0.870	1245	3195	HGHT	1.46*	ETHYL BENZENE
16.358	0.878	4902	13351	HGHT	5.39*	M/P-XYLENE
17.210	0.923	1836	4666	HGHT	2.09*	O-XYLENE
18.530	0.994	326	769			
18.640	1.000	29984	78070	HGHT	99.85*	BRBENZ SURR-PID
18.772	1.007	1058	2647			
19.207	1.030	400	848			
19.410	1.041	2429	5676			
20.142	1.081	510	1271	HGHT	0.57*	1,4-DICHLORBEN
20.351	1.092	400	855			
20.450	1.097	415	1152			
TOTAL		63127	167404		215.36*	

* Result calculation was based on a manually entered response factor.

Sample: GAS 0.25 PPM Channel: FID Filename: 0707D10
Acquired: 07-JUL-97 15:27 Method: C:\MAX\BETXGAS\070797 Operator: PK



Sample: GAS 0.25 PPM Channel: PID Filename: 0707D10
Acquired: 07-JUL-97 15:27 Method: C:\MAX\BETXGAS\070797 Operator: PK



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MAXIMA 820 CUSTOM REPORT

Printed: 10-JUL-1997 13:18:40

SAMPLE: GAS 0.25 PPM
#10 in Method: AK GAS/BETX
Acquired: 7-JUL-1997 15:27
Rate: 3.0 points/sec
Duration: 23.002 minutes
Operator: PK

Type: UNKN
Instrument: PID 1
Filename: 0707D10
Index: Disk

DETECTOR: FID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
5.033	0.270	611	2142			
5.902	0.317	468	1561			
6.359	0.341	320	1188			
6.760	0.363	680	3465			
7.151	0.383	336	2482			
7.239	0.388	311	3827			
7.695	0.413	406	1861			
8.091	0.434	576	2605			
8.724	0.468	408	1440			
8.988	0.482	575	5135			
9.373	0.503	441	1982			
9.796	0.525	473	2482			
10.022	0.537	1657	5476			
10.170	0.545	275	1702			
10.462	0.561	283	2841			
11.105	0.596	11940	37320	HGHT	99.10*	TFT SURR-FID
11.556	0.620	331	1203			
11.809	0.633	372	2046			
12.205	0.655	229	1112			
13.344	0.716	9584	26829	AREA		TOLUENE
16.215	0.870	1878	5200			
16.363	0.878	6718	18880			
17.216	0.923	2953	8332			
18.530	0.994	596	1618			
18.646	1.000	7103	24869	HGHT	102.71*	BRBENZ SURR-FID
18.778	1.007	1154	3414			
19.201	1.030	788	2620			
19.410	1.041	3350	8622			
20.147	1.081	851	2217			
20.356	1.092	565	1565			
20.461	1.097	548	1932			
20.637	1.107	444	1903			
20.873	1.119	308	869			
20.917	1.122	326	815			

21.033	1.128	463	1248			
21.588	1.158	278	1027	HGHT		DODECANE
21.709	1.164	370	1464			
TOTAL		58974	195295		201.82*	

* Result calculation was based on a manually entered response factor.

GROUP SUMMARY: FID

Group Center (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Group Name
17.515	(0.671)	40429	136219	AREA	0.17*	AK GAS
TOTAL		40429	136219		0.17*	

-37320

* Result calculation was based on a manually entered response factor.

98899

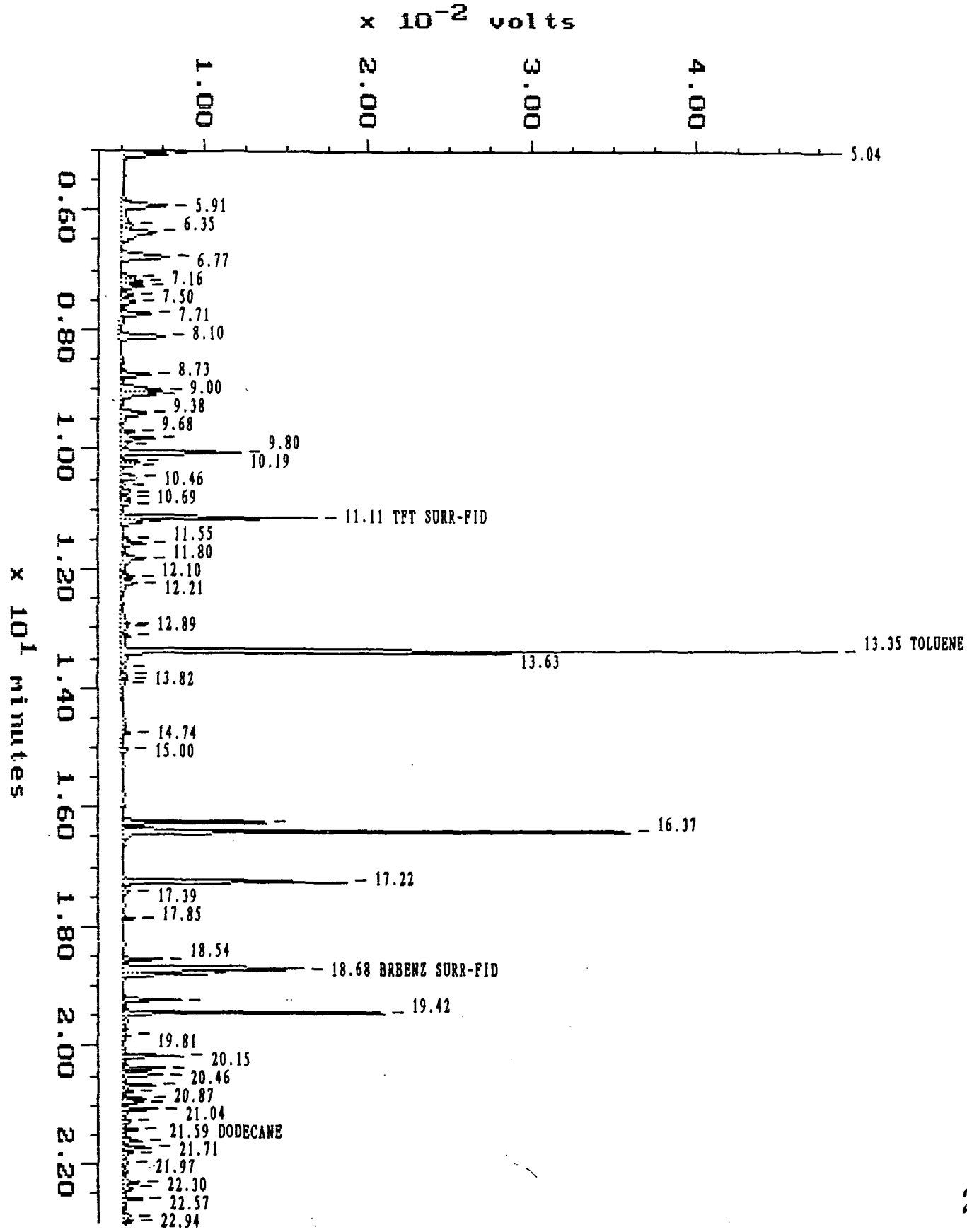
DETECTOR: PID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
5.028	0.270	765	2551			
6.700	*0.360*	*319*	*1217*			
7.151	0.384	318	1810			
7.233	0.388	308	1166			
7.690	0.413	455	1734			
8.993	0.483	456	1510			
10.016	0.537	3062	9544	HGHT	3.55*	BENZENE
11.100	0.596	12818	39464	HGHT	102.03*	TFT SURR-PID
13.338	0.716	17990	48337	HGHT	19.43*	TOLUENE
16.209	0.870	3447	9363	HGHT	4.03*	ETHYL BENZENE
16.358	0.878	13783	37770	HGHT	15.16*	M/P-XYLENE
17.205	0.923	5171	13765	HGHT	5.90*	O-XYLENE
18.519	0.994	984	2135			
18.635	1.000	30606	89806	HGHT	101.92*	BRBENZ SURR-PID
18.767	1.007	2936	6980			
19.196	1.030	1296	2866			
19.405	1.041	7011	15940			
20.142	1.081	1472	3803	HGHT	1.63*	1,4-DICHLORBEN
20.345	1.092	1050	2321			
20.450	1.097	1157	3240			
20.620	1.107	756	1674			
20.912	1.122	579	2409			
21.027	1.128	784	1751			
21.385	1.148	306	1943			

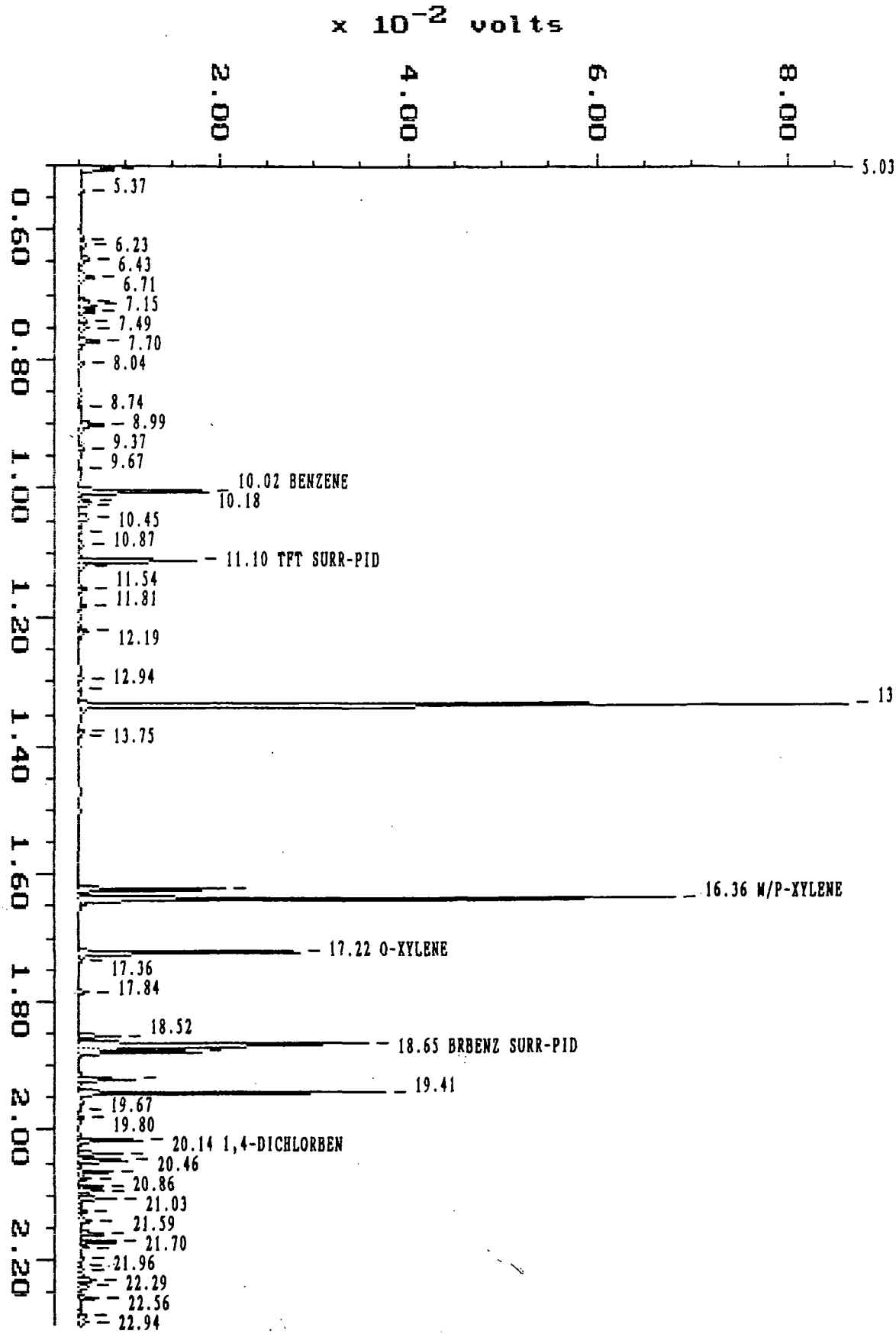
21.583	1.158	514	1574	
21.698	1.164	836	2571	
22.298	1.197	277	625	
22.567	1.211	491	1182	
TOTAL		109947	309051	253.66*

* Result calculation was based on a manually entered response factor.

Sample: GAS 1.0 PPM Channel: FID Filename: 0707D11
Acquired: 07-JUL-97 15:57 Method: C:\MAX\BETXGAS\070797 Operator: PK



Sample: GAS 1.0 PPM Channel: PID Filename: 0707D11
Acquired: 07-JUL-97 15:57 Method: C:\MAX\BETXGAS\070797 Operator: PK



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MAXIMA 820 CUSTOM REPORT

Printed: 10-JUL-1997 13:19:00

SAMPLE: GAS 1.0 PPM
#11 in Method: AK GAS/BETX
Acquired: 7-JUL-1997 15:57
Rate: 3.0 points/sec
Duration: 23.002 minutes
Operator: PK

Type: UNKN
Instrument: PID 1
Filename: 0707D11
Index: Disk

DETECTOR: FID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
5.039	0.270	2584	10697			
5.908	0.316	2652	14836			
6.232	0.334	656	4904			
6.348	0.340	2007	13385			
6.766	0.362	2862	15617			
7.096	0.380	839	3030			
7.162	0.383	1277	4618			
7.244	0.388	1315	4804			
7.387	0.395	703	2954			
7.503	0.402	866	4117			
7.706	0.412	1761	8060			
8.097	0.433	2766	14127			
8.729	0.467	1907	9721			
8.999	0.482	2523	13923			
9.065	0.485	2133	9168			
9.378	0.502	1543	8881			
9.675	0.518	917	3488			
9.796	0.524	2097	7994			
9.890	0.529	399	1442			
10.033	0.537	7278	23912			
10.187	0.545	1136	3868			
10.247	0.548	878	2965			
10.456	0.560	970	5748			
10.588	0.567	251	687			
10.687	0.572	634	2421			
10.792	0.578	629	2284			
10.880	0.582	518	1897			
11.111	0.595	11849	37113	HGHT	98.35*	TFT SURR-FID
11.199	0.599	1256	3689			
11.468	0.614	438	1303			
11.551	0.618	1379	4907			
11.804	0.632	1413	9588			
12.101	0.648	800	2717			
12.211	0.654	966	5393			

12.893	0.690	522	4861			
12.953	0.693	489	2431			
13.102	0.701	507	3235			
13.349	0.714	43488	123134	AREA		TOLUENE
13.630	0.729	286	1243			
13.762	0.737	359	1181			
13.822	0.740	394	1212			
13.905	0.744	263	1920			
14.741	0.789	518	2264			
15.005	0.803	410	1689			
16.226	0.868	8644	23141			
16.374	0.876	30707	86569			
17.221	0.922	13493	35558			
17.386	0.931	387	1458			
17.848	0.955	625	1487			
18.536	0.992	2384	5724			
18.684	1.000	10889	47910	HGHT	157.46*	BRBENZ SURR-FID
18.783	1.005	5040	12346			
19.207	1.028	3480	8948			
19.421	1.039	15690	39382			
19.806	1.060	398	1575			
20.153	1.079	3691	9931			
20.362	1.090	2548	5871			
20.461	1.095	2425	7926			
20.637	1.105	1941	5577			
20.747	1.110	658	1833			
20.873	1.117	1401	3307			
20.923	1.120	1347	3318			
21.038	1.126	2088	5921			
21.253	1.137	461	2087			
21.390	1.145	837	2674			
21.594	1.156	1181	4484	HGHT		DODECANE
21.709	1.162	1673	4969			
21.797	1.167	572	1682			
21.973	1.176	339	1772			
22.303	1.194	952	4796			
22.397	1.199	553	2571			
22.573	1.208	1189	4510			
22.864	1.224	428	1688			
22.941	1.228	535	1824			
		---	---		---	
TOTAL		225995	748265		255.80*	

* Result calculation was based on a manually entered response factor.

GROUP SUMMARY: FID

Group Center (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Group Name
---	---	---	---	---	---	---

17.515	(0.670)	155398	511819	AREA	0.59*	AK GAS
TOTAL		155398	511819		0.59*	

* Result calculation was based on a manually entered response factor.

-37113
474706

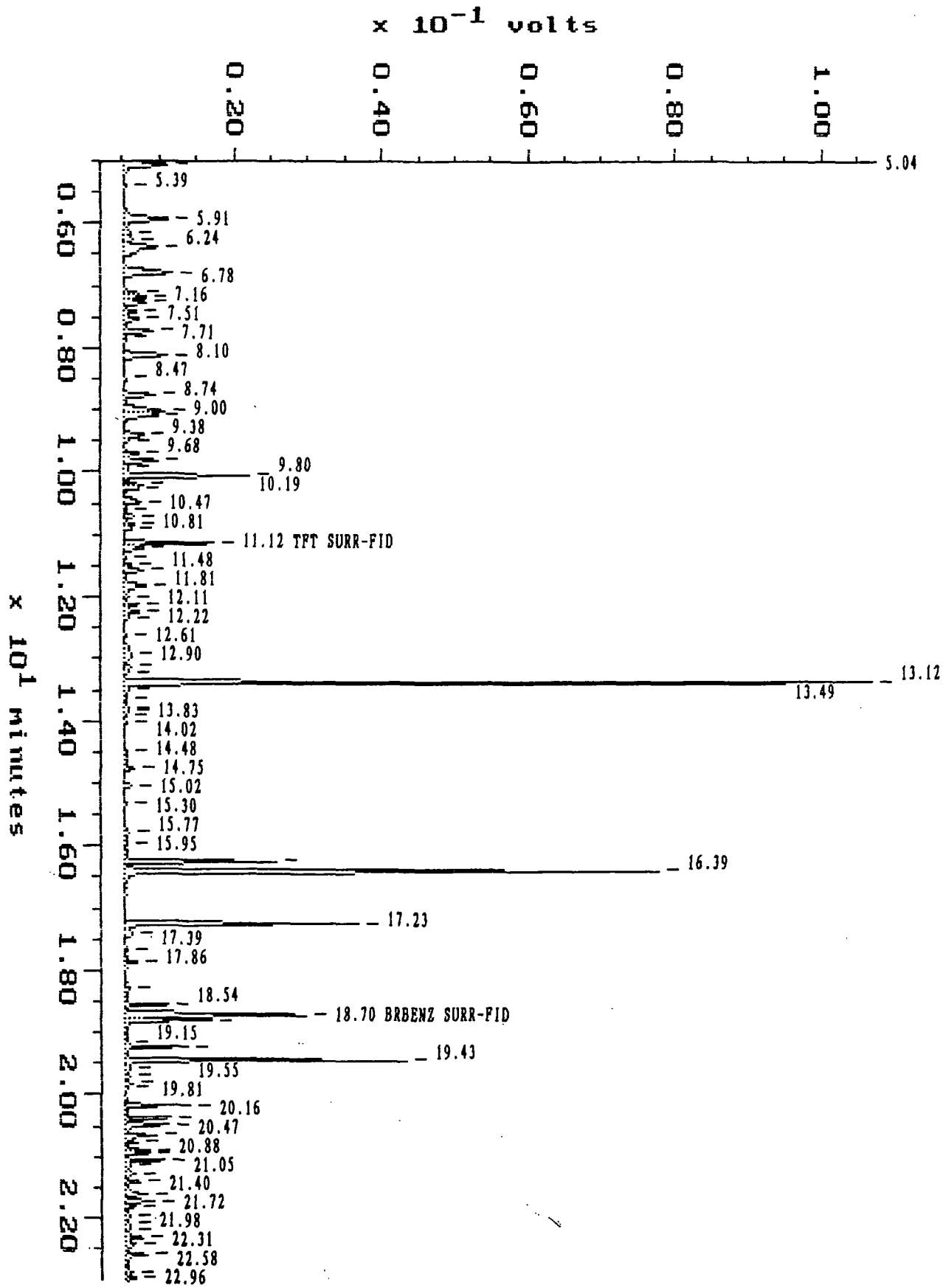
DETECTOR: PID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
5.033	0.270	3396	12910			
5.374	0.288	314	1060			
6.144	0.330	462	2091			
6.232	0.334	627	2468			
6.430	0.345	949	4565			
6.711	0.360	1411	6233			
7.079	0.380	1118	3608			
7.145	0.383	1734	6943			
7.239	0.388	1578	5714			
7.382	0.396	857	3576			
7.492	0.402	876	3161			
7.695	0.413	1982	8104			
8.042	0.431	474	2231			
8.740	0.469	299	970			
8.988	0.482	2469	10913			
9.373	0.503	368	1260			
9.670	0.519	303	891			
10.022	0.537	13670	42641	HGHT	15.86*	BENZENE
10.176	0.546	1179	4006			
10.236	0.549	1021	3076			
10.445	0.560	1038	6906			
10.665	0.572	269	880			
10.874	0.583	446	1895			
11.100	0.595	12448	37799	HGHT	99.09*	TFT SURR-PID
11.188	0.600	873	2572			
11.540	0.619	689	2633			
11.809	0.633	556	2264			
12.194	0.654	934	4502			
12.942	0.694	347	868			
13.096	0.702	269	679			
13.344	0.716	81033	217264	HGHT	87.52*	TOLUENE
13.751	0.737	379	956			
13.817	0.741	304	844			
16.215	0.870	15375	40708	HGHT	17.99*	ETHYL BENZENE
16.363	0.878	62873	171605	HGHT	69.16*	M/P-XYLENE
17.216	0.923	23491	61245	HGHT	26.78*	O-XYLENE
17.359	0.931	250	764			

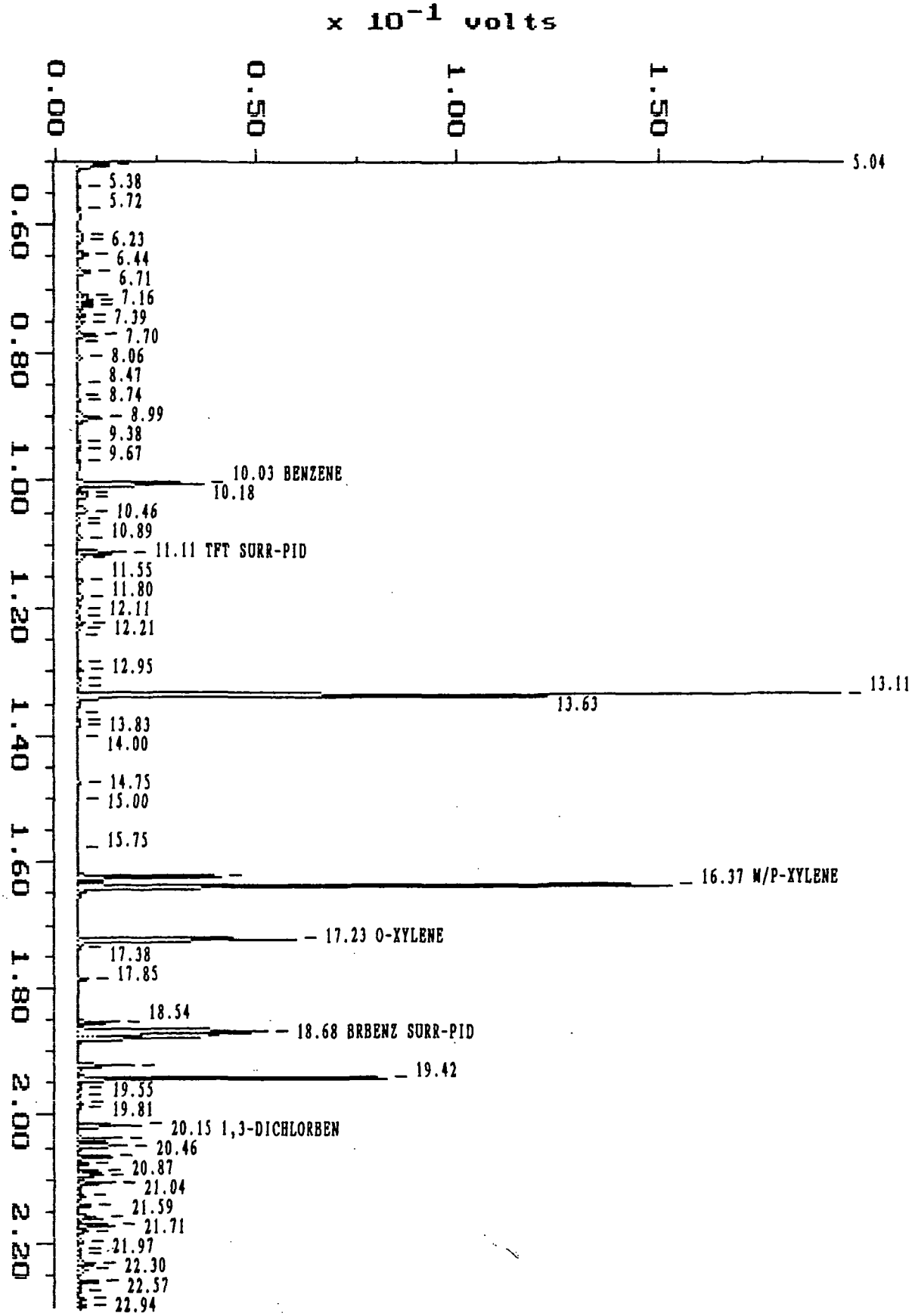
17.843	0.957	994	2792			
18.525	0.994	4352	9939			
18.646	1.000	30709	129642	HGHT	102.26*	BRBENZ SURR-PID
18.772	1.007	12821	30792			
19.201	1.030	5865	13375			
19.410	1.041	32203	71536			
19.674	1.055	258	500			
19.801	1.062	550	944			
20.142	1.080	6613	15736	HGHT	7.34*	1,4-DICHLORBEN
20.351	1.091	4682	10001			
20.455	1.097	5132	14858			
20.631	1.106	3566	8612			
20.741	1.112	1107	2519	HGHT	1.43*	1,2-DICHLORBEN
20.862	1.119	2414	5104			
20.917	1.122	2441	5485			
21.033	1.128	3685	8637			
21.242	1.139	717	2585			
21.379	1.147	1285	3102			
21.588	1.158	2408	7040			
21.698	1.164	3675	9381			
21.792	1.169	999	2145			
21.962	1.178	400	1373			
22.078	1.184	310	799			
22.138	1.187	380	919			
22.292	1.196	1739	5597			
22.391	1.201	933	3467			
22.562	1.210	2013	5006			
22.842	1.225	679	2400			
22.936	1.230	858	2985			
TOTAL		370449	1058082		427.42*	

* Result calculation was based on a manually entered response factor.

Sample: GAS 2.5 PPM Channel: FID Filename: 0707D12
Acquired: 07-JUL-97 16:28 Method: C:\MAX\BETXGAS\070797 Operator: PK



Sample: GAS 2.5 PPM Channel: PID Filename: 0707D12
Acquired: 07-JUL-97 16:28 Method: C:\MAX\BETXGAS\070797 Operator: PK



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MAXIMA 820 CUSTOM REPORT

Printed: 10-JUL-1997 13:19:22

SAMPLE: GAS 2.5 PPM
#12 in Method: AK GAS/BETX
Acquired: 7-JUL-1997 16:28
Rate: 3.0 points/sec
Duration: 23.002 minutes
Operator: PK

Type: UNKN
Instrument: PID 1
Filename: 0707D12
Index: Disk

DETECTOR: FID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
5.044	0.270	5858	26766			
5.385	0.288	380	1360			
5.913	0.316	5926	34203			
6.155	0.329	943	6112			
6.238	0.334	1410	5997			
6.359	0.340	4532	31004			
6.777	0.362	6459	35893			
7.096	0.380	2017	6296			
7.162	0.383	2996	12199			
7.250	0.388	3053	11592			
7.398	0.396	1784	7339			
7.514	0.402	2034	10129			
7.706	0.412	4093	16165			
7.827	0.419	490	2001			
8.102	0.433	6070	27631			
8.471	0.453	457	3441			
8.740	0.468	4282	18210			
9.004	0.482	5729	30488			
9.065	0.485	4840	20302			
9.384	0.502	2876	14425			
9.483	0.507	720	2379			
9.681	0.518	2101	7923			
9.802	0.524	4739	18360			
9.895	0.529	849	3108			
10.038	0.537	16917	55222			
10.187	0.545	2599	8719			
10.247	0.548	2100	7019			
10.467	0.560	2275	13166			
10.583	0.566	621	2082			
10.687	0.572	1423	5569			
10.814	0.578	1440	5337			
10.891	0.583	1171	4390			
11.116	0.595	12118	39201	HGHT	100.58*	TFT SURR-FID
11.204	0.599	2807	10288			

11.358	0.608	439	2096			
11.479	0.614	1232	4071			
11.556	0.618	2736	10772			
11.809	0.632	2934	20573			
11.985	0.641	752	3385			
12.112	0.648	1963	7125			
12.216	0.653	2266	9640			
12.326	0.659	741	3668			
12.607	0.674	377	2215			
12.898	0.690	1154	11827			
13.118	0.702	1038	6246			
13.212	0.707	716	3246			
13.360	0.715	101696	280820	AREA		TOLUENE
13.487	0.721	878	4996			
13.635	0.729	630	2809			
13.773	0.737	828	2799			
13.828	0.740	857	2926			
13.916	0.744	534	1899			
14.020	0.750	374	2280			
14.482	0.775	532	5510			
14.752	0.789	1433	11178			
15.021	0.803	1018	6509			
15.296	0.818	492	4175			
15.775	0.844	726	5500			
15.951	0.853	491	4592			
16.237	0.868	20477	59556			
16.385	0.876	72520	214112			
17.232	0.922	31804	86297			
17.386	0.930	1217	7334			
17.650	0.944	640	2880			
17.859	0.955	1847	9202			
18.277	0.978	792	9029			
18.541	0.992	6084	15239			
18.695	1.000	24636	93194	HGHT	356.24*	BRBENZ SURR-FID
18.794	1.005	11937	32483			
19.146	1.024	508	3280			
19.218	1.028	8541	22530			
19.427	1.039	38003	90060			
19.548	1.046	847	4308			
19.691	1.053	775	4695			
19.812	1.060	1059	3017			
19.889	1.064	632	4743			
20.164	1.079	8893	24968			
20.367	1.089	6204	14572			
20.472	1.095	5969	20473			
20.648	1.104	4531	14097			
20.758	1.110	1677	5087			
20.879	1.117	3503	8350			
20.934	1.120	3289	9225			
21.049	1.126	5250	12974			

21.115	1.129	834	2979			
21.258	1.137	1379	7027			
21.396	1.144	2105	6863			
21.605	1.156	2940	12528	HGHT		DODECANE
21.720	1.162	4142	12967			
21.808	1.167	1486	5395			
21.979	1.176	838	4724			
22.094	1.182	695	2686			
22.171	1.186	744	2671			
22.314	1.194	2274	9544			
22.413	1.199	1517	7504			
22.584	1.208	2989	13068			
22.864	1.223	1139	5187			
22.958	1.228	1323	4800			
TOTAL		530984	1794816		456.82*	

* Result calculation was based on a manually entered response factor.

GROUP SUMMARY: FID

Group Center (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Group Name
17.515	(0.669)	355192	1208140	AREA	1.25*	AK GAS
TOTAL		355192	1208140		1.25*	

* Result calculation was based on a manually entered response factor.

- 39201

1168939

DETECTOR: PID

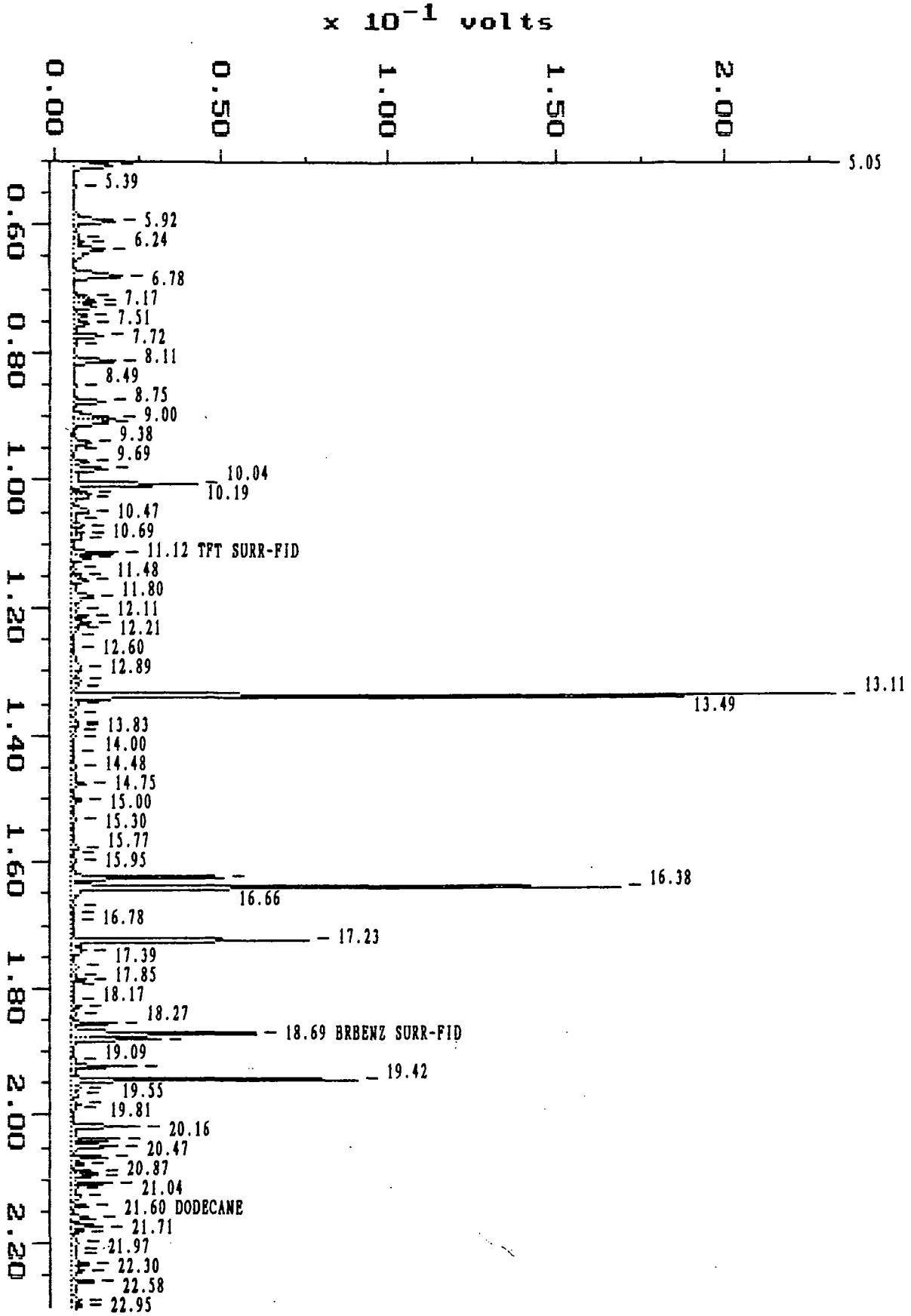
Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
5.039	0.270	7596	31201			
5.380	0.288	748	2281			
5.715	0.306	291	660			
6.144	0.329	1018	5880			
6.232	0.334	1386	6004			
6.441	0.345	2420	13408			
6.711	0.359	3283	14606			
7.090	0.379	2468	7973			
7.156	0.383	4035	15344			
7.244	0.388	3651	13735			
7.387	0.395	1966	7833			
7.497	0.401	1868	7066			
7.701	0.412	4635	17664			

7.816	0.418	431	1634			
8.058	0.431	1072	4838			
8.471	0.453	399	1057			
8.636	0.462	268	585			
8.740	0.468	685	2511			
8.993	0.481	5899	28501			
9.378	0.502	891	3912			
9.477	0.507	568	2183			
9.670	0.518	696	1786			
10.027	0.537	31515	99559	HGHT	36.56#	BENZENE
10.181	0.545	2710	9244			
10.242	0.548	2405	7368			
10.462	0.560	2409	13763			
10.572	0.566	617	1735			
10.671	0.571	618	2220			
10.885	0.583	957	3095			
11.111	0.595	12527	38121	HGHT	99.72#	TFT SURR-PID
11.193	0.599	1790	6248			
11.545	0.618	1253	4321			
11.804	0.632	1065	5835			
11.985	0.641	587	2624			
12.112	0.648	647	2312			
12.211	0.654	2202	7803			
12.321	0.659	648	1922			
12.420	0.665	268	882			
12.832	0.687	574	3435			
12.953	0.693	1109	4905			
13.107	0.702	813	3023			
13.206	0.707	491	1546			
13.355	0.715	188473	511806	HGHT	203.55#	TOLUENE
13.630	0.729	409	1261			
13.762	0.737	770	2432			
13.828	0.740	786	2212			
14.004	0.749	454	1191			
14.746	0.789	472	2252			
15.005	0.803	416	1354			
15.747	0.843	281	1358			
16.226	0.868	35846	94295	HGHT	41.94#	ETHYL BENZENE
16.374	0.876	147022	403847	HGHT	161.72#	M/P-XYLENE
17.227	0.922	54462	143086	HGHT	62.09#	O-XYLENE
17.375	0.930	796	2930			
17.848	0.955	2373	5452			
18.536	0.992	10194	23568			
18.684	1.000	46795	207227	HGHT	155.83#	BRBENZ SURR-PID
18.783	1.005	30479	70818			
19.207	1.028	13875	33438			
19.421	1.039	76299	169587			
19.548	1.046	676	2592			
19.680	1.053	499	926			
19.806	1.060	1374	2955			

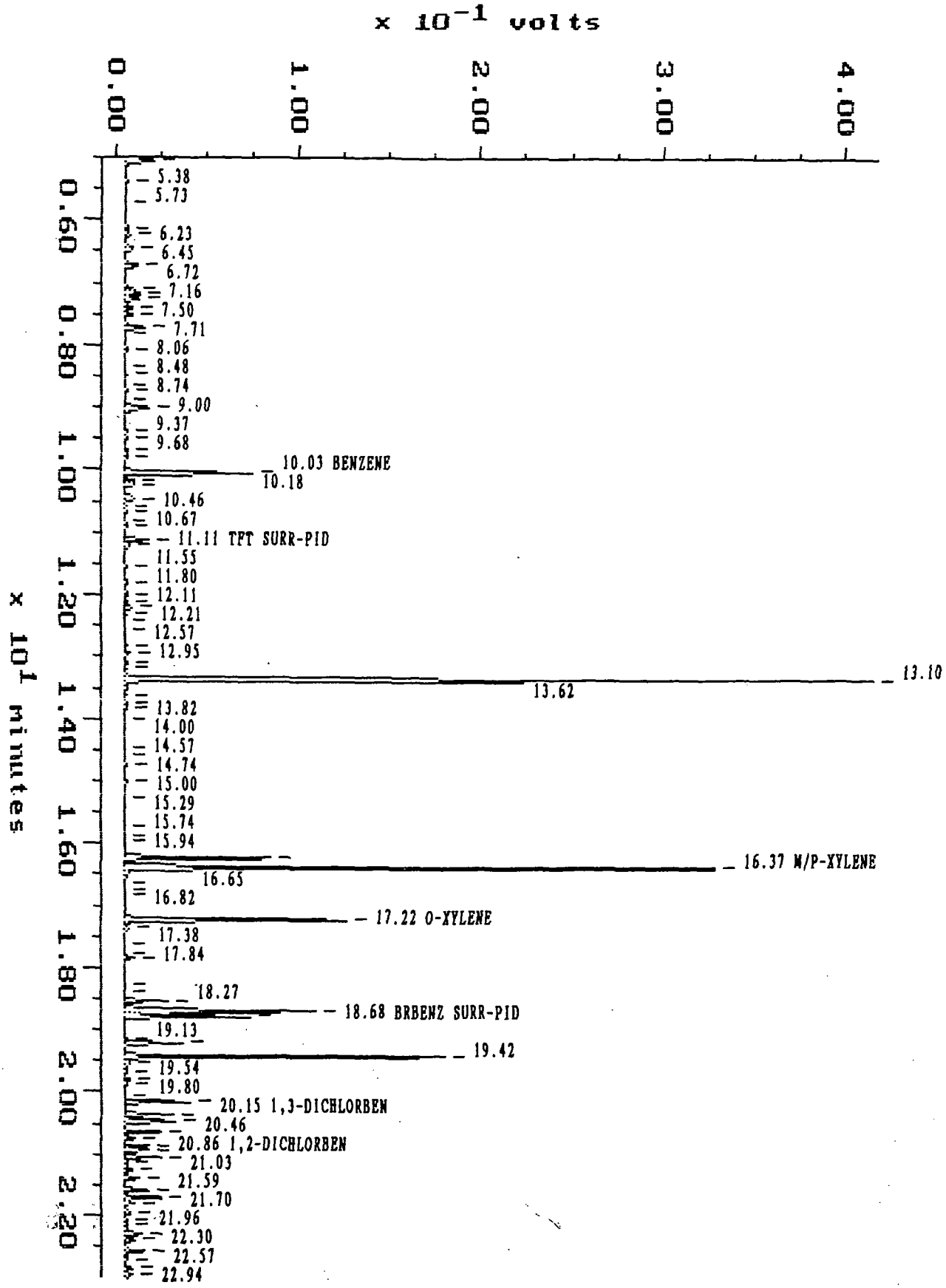
19.878	1.064	603	1530			
20.153	1.079	15930	36935	HGHT	17.20*	1,3-DICHLORBEN
20.356	1.089	11154	24131	HGHT	12.38*	1,4-DICHLORBEN
20.461	1.095	12327	35950			
20.637	1.105	8528	20911			
20.747	1.110	2461	5675	HGHT	3.17*	1,2-DICHLORBEN
20.868	1.117	5725	12146			
20.923	1.120	6077	14148			
21.038	1.126	8934	22219			
21.253	1.137	1732	7020			
21.390	1.145	3291	8110			
21.594	1.156	5880	18779			
21.709	1.162	9008	23189			
21.797	1.167	2503	6858			
21.973	1.176	1077	4224			
22.089	1.182	733	1868			
22.149	1.185	786	2126			
22.303	1.194	4160	13600			
22.397	1.199	2187	8241			
22.573	1.208	4951	14382			
22.716	1.216	556	1350			
22.853	1.223	1618	5716			
22.941	1.228	1906	6557			
TOTAL		836357	2390875		794.16*	

* Result calculation was based on a manually entered response factor.

Sample: GAS 5.0 PPM Channel: FID Filename: 0707D13
Acquired: 07-JUL-97 16:59 Method: C:\MAX\BETXGAS\070797 Operator: PK



Sample: GAS 5.0 PPM Channel: PID Filename: 0707D13
Acquired: 07-JUL-97 16:59 Method: C:\MAX\BETXGAS\070797 Operator: PK



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MAXIMA 820 CUSTOM REPORT

Printed: 10-JUL-1997 13:19:47

SAMPLE: GAS 5.0 PPM
#13 in Method: AK GAS/BETX
Acquired: 7-JUL-1997 16:59
Rate: 3.0 points/sec
Duration: 23.002 minutes
Operator: PK

Type: UNKN
Instrument: PID 1
Filename: 0707D13
Index: Disk

DETECTOR: FID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
5.050	0.270	12061	57309			
5.391	0.288	832	3364			
5.919	0.317	12569	73501			
6.161	0.330	2009	13213			
6.243	0.334	2906	11404			
6.359	0.340	9441	64686			
6.777	0.363	14754	83971			
7.107	0.380	4570	16178			
7.167	0.383	6842	25675			
7.261	0.388	6855	27282			
7.398	0.396	3781	16473			
7.514	0.402	4480	21916			
7.717	0.413	9031	35897			
7.838	0.419	1035	4297			
8.108	0.434	13010	61475			
8.487	0.454	892	5459			
8.746	0.468	9675	41053			
9.004	0.482	12465	65665			
9.070	0.485	10692	44393			
9.384	0.502	5117	25072			
9.488	0.508	1375	5433			
9.686	0.518	4542	16624			
9.807	0.525	10823	42657			
10.038	0.537	37228	128171			
10.187	0.545	5730	20496			
10.247	0.548	4727	15137			
10.473	0.560	5076	29247			
10.588	0.567	1351	3939			
10.693	0.572	3159	12449			
10.814	0.579	2925	10816			
10.891	0.583	2506	8370			
11.116	0.595	13329	43519	HGHT	110.63*	TFT SURR-FID
11.204	0.599	5724	21178			
11.364	0.608	756	2996			

11.479	0.614	2719	10304			
11.556	0.618	4614	17533			
11.804	0.632	6288	42190			
11.980	0.641	1519	7483			
12.112	0.648	4579	16397			
12.211	0.653	5155	22492			
12.321	0.659	1550	4902			
12.420	0.665	605	2152			
12.601	0.674	701	4203			
12.893	0.690	2834	25932			
13.113	0.702	2308	13911			
13.206	0.707	1515	5411			
13.360	0.715	227195	626044	AREA		TOLUENE
13.487	0.722	1802	10152			
13.635	0.730	1360	5832			
13.767	0.737	1646	5884			
13.828	0.740	1830	5543			
13.910	0.744	1280	4050			
14.004	0.749	760	4111			
14.251	0.763	597	4840			
14.482	0.775	1039	4803			
14.746	0.789	4009	24191			
15.005	0.803	2820	15146			
15.296	0.818	1265	7421			
15.769	0.844	1945	11426			
15.857	0.848	725	3572			
15.951	0.853	956	3198			
16.226	0.868	45620	132789			
16.380	0.876	163471	458495			
16.660	0.891	875	4088			
16.776	0.898	558	2427			
16.886	0.903	533	5758			
17.227	0.922	70831	189960			
17.386	0.930	3966	19946			
17.645	0.944	1937	7958			
17.782	0.951	1008	3731			
17.854	0.955	3852	10717			
17.942	0.960	476	3045			
18.173	0.972	592	4243			
18.272	0.978	2350	8702			
18.393	0.984	829	4460	HGHT		DECANE
18.536	0.992	13793	33599			
18.690	1.000	55018	189863	HGHT	795.56*	BRBENZ SURR-FID
18.789	1.005	26735	68862			
19.091	1.021	741	3710			
19.212	1.028	19137	49722			
19.421	1.039	85449	205230			
19.548	1.046	2269	10576			
19.652	1.051	1758	10095			
19.812	1.060	2195	5537			

19.883	1.064	1414	4538			
20.158	1.079	20244	58355			
20.362	1.089	14474	32443			
20.466	1.095	13528	44563			
20.642	1.104	10180	28839			
20.752	1.110	3516	9726			
20.873	1.117	7763	17465			
20.928	1.120	7368	18379			
21.044	1.126	11702	29456			
21.115	1.130	1581	4819			
21.253	1.137	2870	13562			
21.396	1.145	4467	12947			
21.599	1.156	6551	25335	HGHT		DODECANE
21.715	1.162	9222	27889			
21.803	1.167	3011	8903			
21.973	1.176	1635	9924			
22.089	1.182	1326	4086			
22.149	1.185	1348	4682			
22.303	1.193	5030	18987			
22.408	1.199	2981	13923			
22.578	1.208	6467	22114			
22.864	1.223	2226	11910			
22.952	1.228	2667	9617			
		1171447	3835411		906.19*	
TOTAL						

* Result calculation was based on a manually entered response factor.

GROUP SUMMARY: FID

Group Center (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Group Name
17.515	(0.670)	782135	2597816	AREA	2.63*	AK GAS
TOTAL		782135	2597816		2.63*	

* Result calculation was based on a manually entered response factor.

~~43514~~ 2554297

DETECTOR: PID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
5.044	0.270	15580	67305			
5.380	0.288	1660	5379			
5.726	0.306	662	1732			
6.150	0.329	2186	12472			

6.232	0.334	2966	12738			
6.447	0.345	4741	26841			
6.722	0.360	7249	33005			
7.096	0.380	5547	18652			
7.162	0.383	9077	35030			
7.250	0.388	8154	31518			
7.393	0.396	4296	18983			
7.503	0.402	4418	17669			
7.706	0.412	10390	41310			
7.827	0.419	1007	4105			
8.064	0.432	2316	11170			
8.355	0.447	274	827			
8.476	0.454	1019	3155			
8.641	0.462	600	1536			
8.740	0.468	1677	7060			
8.883	0.475	730	2111			
8.999	0.482	13208	64409			
9.373	0.502	1654	7903			
9.494	0.508	1300	4842			
9.675	0.518	1906	6346			
9.807	0.525	1911	12188			
10.033	0.537	69708	224384	HGHT	80.86#	BENZENE
10.181	0.545	6280	21514			
10.242	0.548	5710	18433			
10.462	0.560	5575	32549			
10.577	0.566	1510	4598			
10.671	0.571	1335	5071			
10.808	0.578	850	2358			
10.880	0.582	2475	9593			
11.111	0.595	13201	40372	HGHT	105.08#	TFT SURR-PID
11.193	0.599	3696	13457			
11.545	0.618	2032	6935			
11.798	0.631	2131	14836			
11.980	0.641	1376	6495			
12.106	0.648	1566	5450			
12.205	0.653	4827	17521			
12.315	0.659	1406	4203			
12.414	0.664	546	1744			
12.574	0.673	358	1029			
12.832	0.687	1206	8668			
12.948	0.693	2578	12261			
13.102	0.701	2007	8010			
13.195	0.706	1435	4792			
13.349	0.714	409813	1134398	HGHT	442.60#	TOLUENE
13.619	0.729	1152	4825			
13.751	0.736	1852	6589			
13.822	0.740	1881	7059			
13.998	0.749	1008	2779			
14.477	0.775	491	1921			
14.570	0.780	263	652			

14.741	0.789	886	877			
15.005	0.803	1189	3878			
15.285	0.818	606	1593			
15.742	0.843	665	3155			
15.874	0.850	410	1560			
15.940	0.853	650	2011			
16.220	0.868	79089	209228	HGHT	92.53*	ETHYL BENZENE
16.369	0.876	322638	892171	HGHT	354.90*	M/P-XYLENE
16.655	0.891	301	636			
16.765	0.897	351	820			
16.820	0.900	404	890			
17.216	0.921	120905	315454	HGHT	137.83*	O-XYLENE
17.375	0.930	2818	9956			
17.639	0.944	722	2375			
17.771	0.951	594	1699			
17.843	0.955	5461	12796			
18.266	0.978	857	3416			
18.376	0.984	528	2108			
18.525	0.991	23468	54113			
18.684	1.000	103471	377873	HGHT	344.56*	BRBENZ SURR-PID
18.778	1.005	68229	159334			
19.130	1.024	1285	4992			
19.201	1.028	31701	75151			
19.416	1.039	174444	385023			
19.537	1.046	2793	13915			
19.680	1.053	1718	7001			
19.801	1.060	3292	7342			
19.872	1.064	1576	3906			
20.048	1.073	492	1146			
20.147	1.078	36090	84148	HGHT	38.98*	1,3-DICHLORBEN
20.351	1.089	26067	55350	HGHT	28.93*	1,4-DICHLORBEN
20.455	1.095	27961	82232			
20.631	1.104	19342	46354			
20.741	1.110	5644	13030			
20.862	1.117	13122	27410	HGHT	16.93*	1,2-DICHLORBEN
20.917	1.120	13772	32145			
21.033	1.126	20445	46189			
21.115	1.130	1651	4659			
21.247	1.137	4049	16710			
21.385	1.145	7492	18650			
21.588	1.155	13576	43043			
21.704	1.162	20518	52772			
21.797	1.167	5685	15793			
21.962	1.175	2512	9878			
22.078	1.182	1812	4833			
22.149	1.185	1847	5090			
22.298	1.193	9736	31149			
22.397	1.199	5137	20728			
22.567	1.208	11343	33870			
22.710	1.215	1191	2987			

22.848	1.223	3548	12941	
22.941	1.228	4185	14871	
TOTAL		1861068	5300032	1643.21*

* Result calculation was based on a manually entered response factor.

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MAXIMA 820 CUSTOM REPORT

Printed: 10-JUL-1997 13:20:12

SAMPLE: GAS 20 PPM
#14 in Method: AK GAS/BETX
Acquired: 7-JUL-1997 17:30
Rate: 3.0 points/sec
Duration: 23.002 minutes
Operator: PK

Type: UNKN
Instrument: PID 1
Filename: 0707D14
Index: Disk

DETECTOR: FID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
5.044	0.270	42220	185723			
5.391	0.288	2932	11475			
5.732	0.307	1938	5909			
5.913	0.316	42856	242844			
6.150	0.329	7211	47525			
6.238	0.334	10300	42790			
6.353	0.340	31914	209311			
6.777	0.362	61020	340206			
7.101	0.380	18348	62310			
7.167	0.383	27924	108090			
7.255	0.388	27496	106017			
7.398	0.396	13819	60113			
7.514	0.402	17698	81187			
7.712	0.412	35020	140292			
7.827	0.419	3788	15692			
8.097	0.433	44551	208125			
8.361	0.447	720	3166			
8.482	0.454	3288	19322			
8.740	0.468	38720	163402			
9.004	0.482	47458	240598			
9.070	0.485	40709	158497			
9.373	0.501	13801	68072			
9.483	0.507	4310	17032			
9.686	0.518	15471	57994			
9.802	0.524	46828	178442			
10.038	0.537	142493	485133			
10.187	0.545	22107	76143			
10.247	0.548	18308	60862			
10.467	0.560	19356	108866			
10.583	0.566	5161	16312			
10.687	0.572	12917	49005			
10.808	0.578	10459	37631			
10.885	0.582	8650	32739			
11.116	0.595	15796	53030			

11.199	0.599	17039	65252	HGHT	141.42*	TFT SURR-FID
11.358	0.608	2041	8102			
11.474	0.614	10191	38186			
11.551	0.618	10671	41413			
11.804	0.631	30902	150111			
11.892	0.636	9616	31900			
11.980	0.641	5693	26183			
12.106	0.648	25918	88090			
12.216	0.653	19729	89146			
12.321	0.659	5814	18098			
12.420	0.664	2238	8344			
12.596	0.674	2204	14074			
12.893	0.690	17504	118544			
13.113	0.701	9772	58220			
13.206	0.706	6523	23859			
13.377	0.716	795254	2379086			
13.481	0.721	8181	37965	AREA		TOLUENE
13.641	0.730	6739	26073			
13.767	0.736	4878	18694			
13.828	0.740	6916	22345			
13.910	0.744	8343	25749			
14.004	0.749	3699	15303			
14.114	0.755	1285	4579			
14.251	0.762	2175	11911			
14.378	0.769	1569	9966			
14.477	0.774	4887	22662			
14.631	0.783	5812	32225			
14.752	0.789	27597	101187			
14.840	0.794	1557	5386			
15.005	0.803	19884	77550			
15.197	0.813	2239	15111			
15.291	0.818	7842	32531			
15.450	0.826	2180	8815			
15.538	0.831	1482	5440			
15.775	0.844	13355	67254			
15.885	0.850	4164	21814			
15.956	0.853	5217	16278			
16.231	0.868	173788	527292			
16.396	0.877	581354	1756497			
16.666	0.891	5066	22634			
16.770	0.897	2905	13672			
16.880	0.903	3052	15871			
17.001	0.909	2672	16623			
17.232	0.922	268768	728029			
17.386	0.930	21266	103200			
17.529	0.938	2226	10351			
17.645	0.944	11308	44218			
17.777	0.951	5121	19543			
17.848	0.955	15174	43014			
17.931	0.959	2636	17365			

18.178	0.972	3042	20287			
18.272	0.977	12993	49765			
18.387	0.984	5280	27379	HGHT		DECANE
18.536	0.991	54365	133131			
18.695	1.000	204884	676658	HGHT	2962.62*	BRBENZ SURR-FID
18.789	1.005	106309	265302			
19.086	1.021	3065	15742			
19.212	1.028	73078	189065			
19.427	1.039	324878	783139			
19.542	1.045	8588	43360			
19.652	1.051	6706	35323			
19.812	1.060	8555	22508			
19.878	1.063	5153	21501			
20.048	1.072	2339	11260			
20.153	1.078	78130	203199			
20.362	1.089	56058	124226			
20.466	1.095	51710	171778			
20.637	1.104	39251	101843			
20.747	1.110	13430	34994			
20.868	1.116	29425	64402			
20.923	1.119	28738	70155			
21.038	1.125	44914	106823			
21.115	1.129	4547	14357			
21.253	1.137	9998	47503			
21.390	1.144	16962	46270			
21.594	1.155	25138	93585			
21.709	1.161	35568	100325	HGHT		DODECANE
21.797	1.166	11562	36411			
21.968	1.175	6605	30360			
22.083	1.181	5181	15235			
22.149	1.185	5011	15427			
22.298	1.193	19416	70622			
22.402	1.198	11194	52222			
22.573	1.207	24671	77729			
22.853	1.222	8535	41696			
22.941	1.227	10196	36848			
TOTAL		4417509	14600040		3104.05*	

* Result calculation was based on a manually entered response factor.

GROUP SUMMARY: FID

Group Center (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Group Name
17.515	(0.669)	2938698	10074085	AREA	9.53*	AK GAS
TOTAL		2938698	10074085		9.53*	

-05252
10008833

* Result calculation was based on a manually entered response factor.

DETECTOR: PID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
5.039	0.270	55006	223709			
5.380	0.288	6389	23225			
5.726	0.306	3786	13899			
5.825	0.312	3214	30576			
6.144	0.329	8278	52889			
6.232	0.333	11011	48318			
6.436	0.344	14304	81565			
6.716	0.359	28183	128590			
7.090	0.379	22031	76700			
7.162	0.383	36354	137504			
7.244	0.388	31916	121350			
7.387	0.395	15565	67581			
7.497	0.401	17439	66903			
7.706	0.412	39788	160310			
7.816	0.418	3884	15584			
7.948	0.425	643	2117			
8.064	0.431	8748	44811			
8.355	0.447	797	2916			
8.465	0.453	4797	23399			
8.641	0.462	3004	9860			
8.740	0.468	7260	32578			
8.878	0.475	3447	12499			
8.999	0.481	51409	240928			
9.142	0.489	2783	12012			
9.362	0.501	4436	19973			
9.488	0.508	4744	17848			
9.675	0.518	7202	23836			
9.802	0.524	7456	47454			
10.033	0.537	260007	843907	HGHT	301.61*	BENZENE
10.181	0.545	24015	80392			
10.242	0.548	21852	74153			
10.462	0.560	21199	119630			
10.577	0.566	5543	16749			
10.665	0.571	4904	18218			
10.803	0.578	2753	8030			
10.880	0.582	8820	33206			
11.105	0.594	13768	44006	HGHT	109.59*	TFT SURR-PID
11.193	0.599	11175	41973			
11.419	0.611	1673	8227			
11.545	0.618	5588	27381			
11.798	0.631	8818	69088			

11.980	0.641	5909	28353			
12.106	0.648	8171	30124			
12.205	0.653	19231	71144			
12.315	0.659	5578	18420			
12.414	0.664	2426	8975			
12.574	0.673	2042	11146			
12.744	0.682	3174	10479			
12.838	0.687	4630	20437			
12.948	0.693	9722	51222			
13.113	0.702	8357	32559			
13.201	0.706	6377	19755			
13.377	0.716	981184	3617346	HGHT	1059.68*	TOLUENE
13.470	0.721	8018	36490			
13.624	0.729	4638	16338			
13.745	0.735	5672	18795			
13.822	0.740	6693	20649			
13.905	0.744	2565	6821			
13.998	0.749	3897	10604			
14.097	0.754	465	1066			
14.180	0.759	721	1761			
14.356	0.768	877	4423			
14.471	0.774	2565	10338			
14.741	0.789	9764	66056			
15.005	0.803	8151	29126			
15.285	0.818	3699	8550			
15.439	0.826	1265	4308			
15.533	0.831	627	1566			
15.747	0.843	4861	25663			
15.879	0.850	3354	14807			
15.945	0.853	4813	13451			
16.226	0.868	293198	832078	HGHT	343.04*	ETHYL BENZENE
16.391	0.877	980890	3211060	HGHT	1078.98*	M/P-XYLENE
16.528	0.884	4429	17164			
16.660	0.891	2301	6331			
16.765	0.897	2170	6125			
16.820	0.900	2623	13826			
16.985	0.909	1971	9029			
17.221	0.921	451413	1196646	HGHT	514.61*	O-XYLENE
17.375	0.930	15582	60543			
17.524	0.938	1598	7764			
17.634	0.943	5118	21085			
17.771	0.951	4020	14873			
17.843	0.955	21486	61081			
17.969	0.961	1861	6482			
18.162	0.972	2263	17755			
18.261	0.977	5458	16902			
18.376	0.983	4530	31784			
18.525	0.991	92740	212148			
18.690	1.000	369895	1217873	HGHT	1231.75*	BRBENZ SURR-PID
18.783	1.005	264711	601754			

18.937	1.013	1480	5463			
19.020	1.018	1614	5421			
19.130	1.024	5573	20123			
19.201	1.027	121190	286147			
19.421	1.039	647853	1450568			
19.537	1.045	11257	55651			
19.674	1.053	6945	30480			
19.801	1.059	12974	30526			
19.872	1.063	6037	19695			
20.043	1.072	2831	9230			
20.147	1.078	139919	324416	HGHT	151.11*	1,3-DICHLORBEN
20.351	1.089	103847	214961	HGHT	115.27*	1,4-DICHLORBEN
20.455	1.094	109973	318467			
20.631	1.104	74561	179521			
20.741	1.110	22601	50363			
20.862	1.116	51653	109718	HGHT	66.63*	1,2-DICHLORBEN
20.917	1.119	54986	120543			
21.033	1.125	79433	194100			
21.242	1.137	15623	65275			
21.379	1.144	28723	71979			
21.583	1.155	52630	167897			
21.698	1.161	79877	202039			
21.792	1.166	23142	61953			
21.957	1.175	11125	42398			
22.072	1.181	7854	20830			
22.144	1.185	7512	21023			
22.292	1.193	38385	123507			
22.391	1.198	20317	82999			
22.562	1.207	44311	131998			
22.842	1.222	14437	62528			
22.930	1.227	16911	63008			
TOTAL		6267267	19439792		4972.28*	

* Result calculation was based on a manually entered response factor.

7A
GASOLINE CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Technologies
Project: 1 2900

Report: 11/25/97 Mac: CSP

Client Sample No. : GAS STD #1

Date Analyzed: 11/06/97

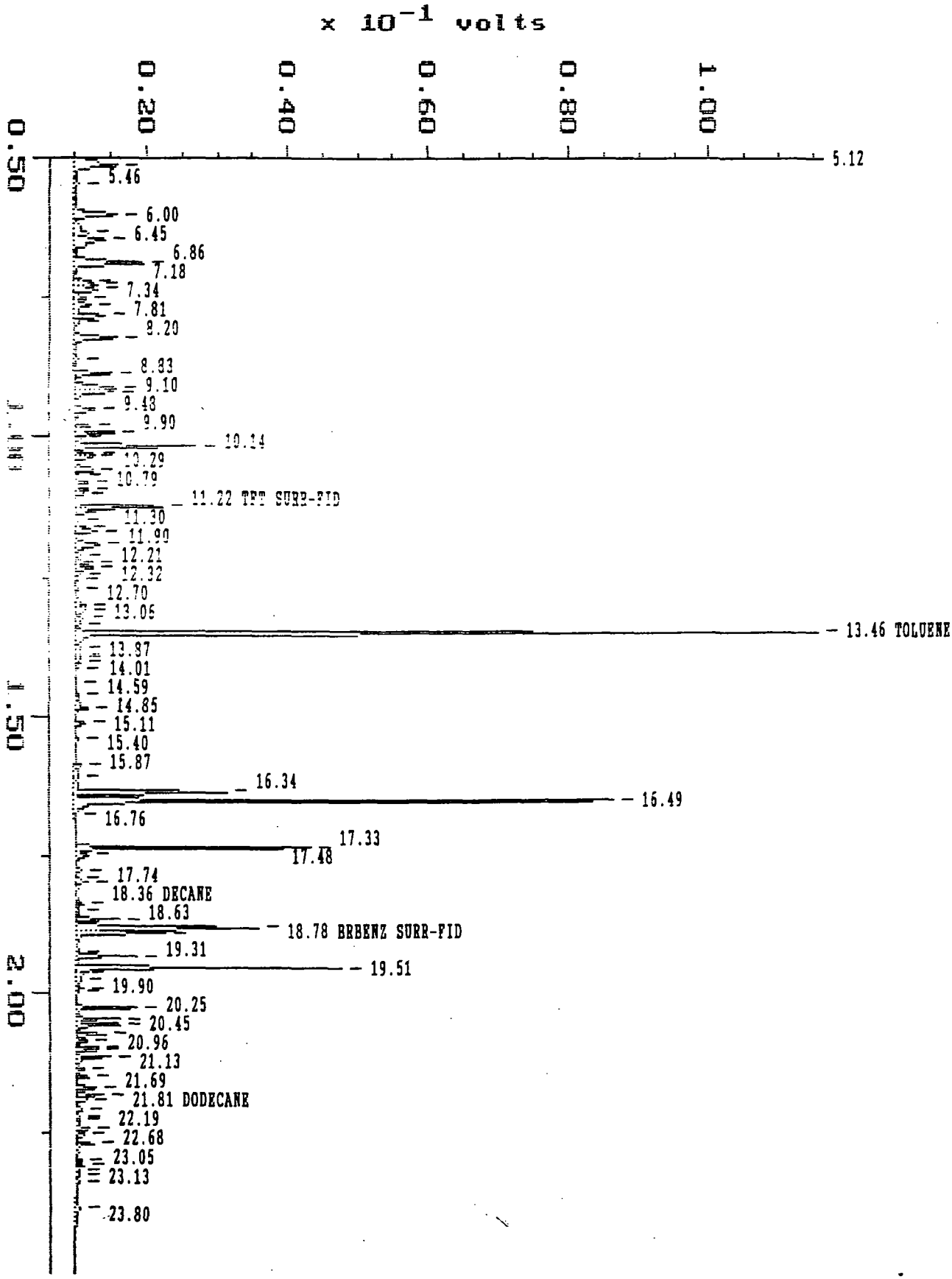
LAB Sample No.: GAS STD #1

Time Analyzed: 10:54

Instrument: PID-1

Compound	GAS#1 CAL FACTOR	CURVE CAL FACTOR	%D
Gasoline (2.5 ppm)	466608	441619	5.7

Sample: GAS #1 Channel: FID Filename: 11061
Acquired: 06-NOV-97 10:54 Method: C:\MAX\BETXGAS\AK110697 Operator: PK



MAXIMA (c)1990 Dynamic Solutions, Division of Millipore

MAXIMA 820 CUSTOM REPORT

Printed: 7-NOV-1997 9:17:49

SAMPLE: GAS #1 Type: UNKN
#1 in Method: WA GAS/BETX Instrument: PID 1
Acquired: 6-NOV-1997 10:54 Filename: 11061
Rate: 3.0 points/sec Index: Disk
Duration: 24.998 minutes
Operator: PK

DETECTOR: FID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
5.121	0.273	5916	41781			
5.457	0.291	434	2965			
5.996	0.319	5942	35174			
6.320	0.336	2044	15374			
6.447	0.343	4335	29983			
6.859	0.365	9595	52808			
7.184	0.382	2185	7222			
7.255	0.386	3268	13741			
7.343	0.391	3288	12938			
7.492	0.399	1747	7770			
7.602	0.405	2108	10828			
7.805	0.416	4222	17461			
7.910	0.421	467	1544			
8.196	0.436	6033	28221			
8.581	0.457	403	3411			
8.834	0.470	5110	21095			
9.103	0.485	5790	30744			
9.164	0.488	5478	20890			
9.477	0.505	2896	15951			
9.785	0.521	2183	7953			
9.901	0.527	5596	22278			
10.000	0.532	814	2766			
10.143	0.540	17032	58789			
10.286	0.548	2748	10440			
10.341	0.551	2371	7371			
10.566	0.563	2499	14489			
10.682	0.569	666	2096			
10.786	0.574	1745	6726			
10.907	0.581	1778	6320			
10.990	0.585	1193	4657			
11.221	0.597	12392	40023	HGHT	103.48* ✓	TFT SURR-FID
11.303	0.602	2812	10719			
11.457	0.610	448	1671			
11.578	0.616	1327	4527			

11.655	0.621	3200	12183			
11.903	0.634	3520	23823			
12.090	0.644	751	3318			
12.211	0.650	2374	8244			
12.321	0.656	2566	10977			
12.431	0.662	711	1985			
12.519	0.666	272	826			
12.700	0.676	283	1208			
12.992	0.692	1562	9822			
13.058	0.695	1609	7339			
13.212	0.703	1144	4558			
13.311	0.709	724	2982			
13.465	0.717	105546	308751	AREA		TOLUENE
13.734	0.731	826	3578			
13.872	0.739	927	3490			
13.932	0.742	953	3240			
14.015	0.746	644	2077			
14.125	0.752	333	1916			
14.367	0.765	285	2164			
14.587	0.777	525	2277			
14.851	0.791	1902	12127			
15.109	0.804	1342	5737			
15.401	0.820	560	5076			
15.874	0.845	914	5726			
16.050	0.854	493	3825			
16.341	0.870	21512	65173			
16.490	0.878	76343	230355			
16.765	0.893	353	882			
17.331	0.923	33145	91136			
17.480	0.931	1724	7484			
17.744	0.945	720	2347			
17.876	0.952	336	1041			
17.953	0.956	1685	5327			
18.360	0.977	891	3807	HGHT		DECANE
18.475	0.984	253	1128			
18.635	0.992	5935	14751			
18.783	1.000	25590	95347	HGHT	423.77*	BRBENZ SURR-FID
18.882	1.005	12583	32881		NA	
19.234	1.024	368	846			
19.306	1.028	8343	20093			
19.515	1.039	37475	92592			
19.625	1.045	827	3761			
19.740	1.051	544	2588			
19.900	1.059	854	2063			
19.966	1.063	479	1160			
20.246	1.078	8705	25703			
20.450	1.089	6139	14707			
20.554	1.094	6136	21161			
20.736	1.104	4160	12001			
20.840	1.110	1586	4465			

20.961	1.116	3242	7377		
21.016	1.119	2999	8589		
21.132	1.125	4891	14758		
21.346	1.136	1222	5794		
21.489	1.144	1801	4712		
21.693	1.155	2639	9526		
21.808	1.161	3807	12018	HGHT	DODECANE
21.891	1.165	1361	3754		
22.067	1.175	707	3873		
22.188	1.181	455	1432		
22.237	1.184	455	1207		
22.402	1.193	1747	6821		
22.507	1.198	1136	4565		
22.677	1.207	2380	8167		
22.958	1.222	768	2638		
23.051	1.227	953	3015		
23.128	1.231	499	1447		
23.216	1.236	439	1168		
23.337	1.242	620	1744		
23.805	1.267	671	6789		
		550318	1880170		527.25*

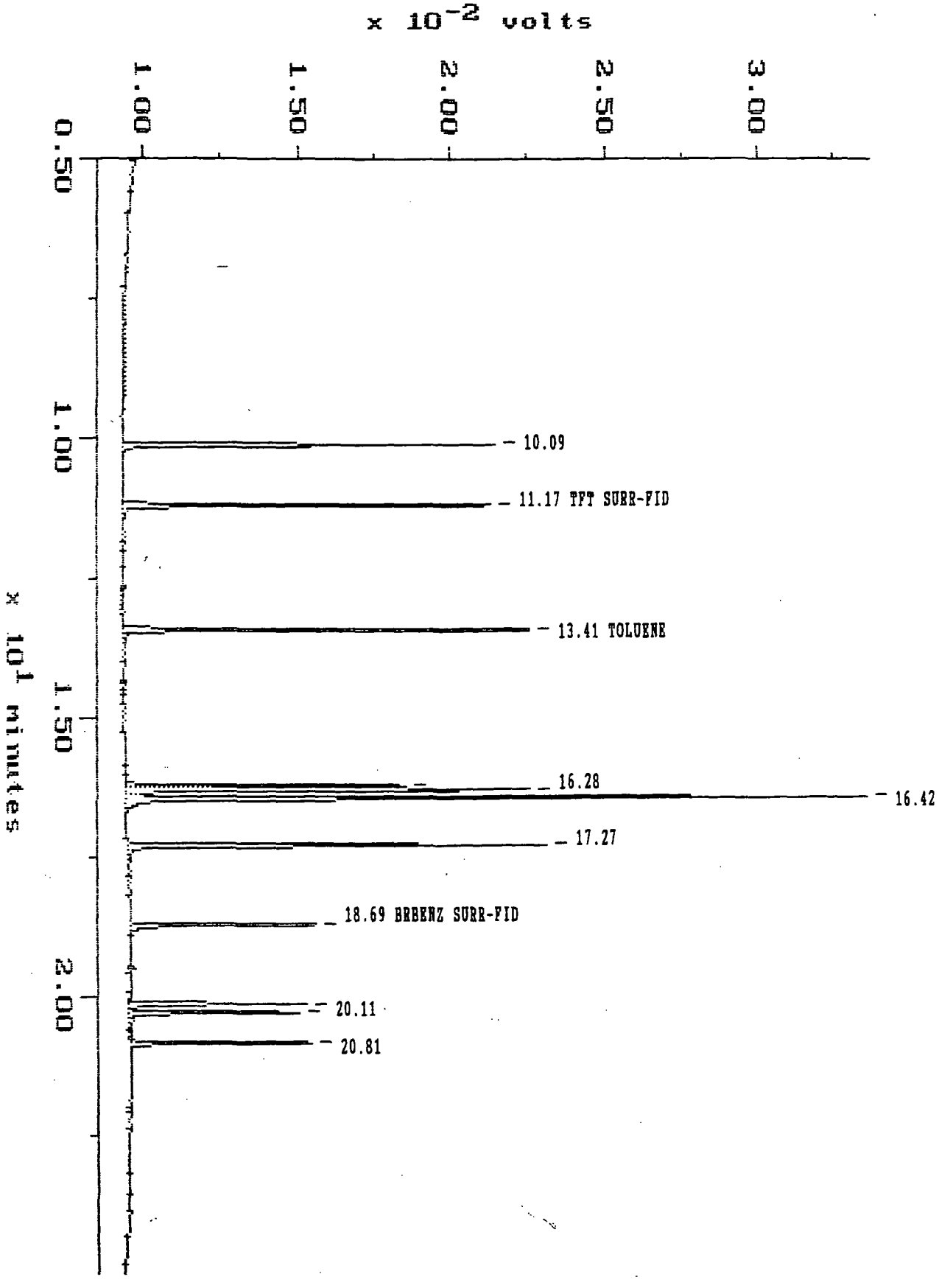
* Result calculation was based on a manually entered response factor.

GROUP SUMMARY: FID

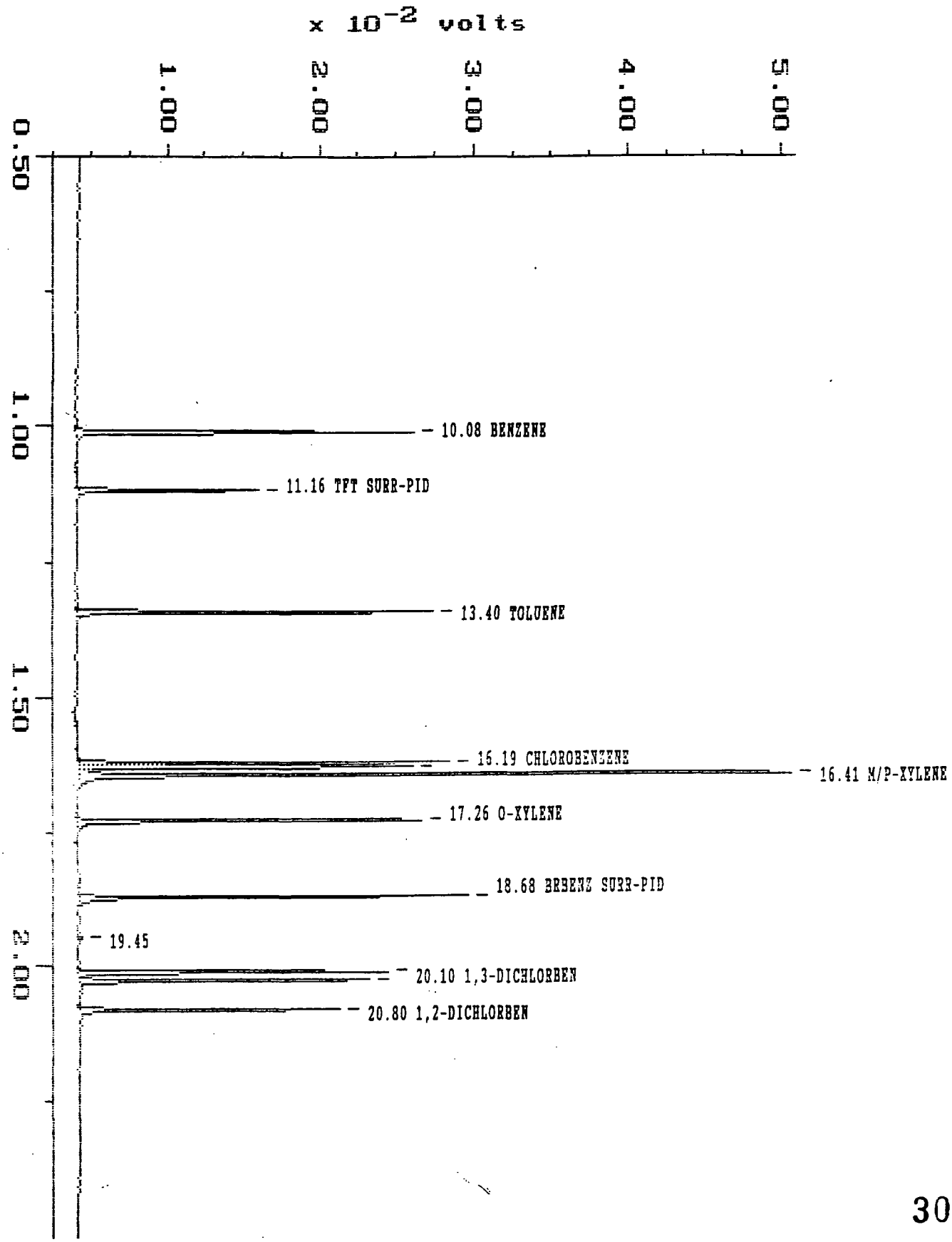
Group Center (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Group Name
22.560	(0.935)	389458	1166520	AREA	2.21*	WA GAS
TOTAL		389458	1166520		2.21*	

* Result calculation was based on a manually entered response factor.

Sample: BETX #1 Channel: FID Filename: 11062
Acquired: 06-NOV-97 11:24 Method: C:\MAX\BETXGAS\AK110697 Operator: PK



Sample: BETX #1 Channel: PID Filename: 11062
Acquired: 06-NOV-97 11:24 Method: C:\MAX\BETXGAS\AK110697 Operator: PK



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MAXIMA 820 CUSTOM REPORT

Printed: 6-NOV-1997 11:49:48

SAMPLE: BETX #1
#2 in Method: WA GAS/BETX
Acquired: 6-NOV-1997 11:24
Rate: 3.0 points/sec
Duration: 24.998 minutes
Operator: PK

Type: UNKN
Instrument: PID 1
Filename: 11062
Index: 2

DETECTOR: PID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
10.088	0.540	12061	16616			
11.166	0.597	11931	36578	HGHT	99.62*	TFT SURR-FID
13.410	0.717	13136	37800	AREA		TOLUENE
16.204	0.867	9076	24191			
16.275	0.871	13072	36990			
16.418	0.878	24067	72742			
17.271	0.924	13581	37491			
18.690	1.000	5970	16264	HGHT	98.86*	BRBENZ SURR-FID
20.109	1.076	5664	15355			
20.263	1.084	5466	15583			
20.807	1.113	5808	14752			
TOTAL		119829	324362		198.48*	

* Result calculation was based on a manually entered response factor.

GROUP SUMMARY: FID

Group Center (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Group Name
17.565	(0.672)	96923	262408	AREA	0.11*	ak GAS
TOTAL		96923	262408		0.11*	

* Result calculation was based on a manually entered response factor.

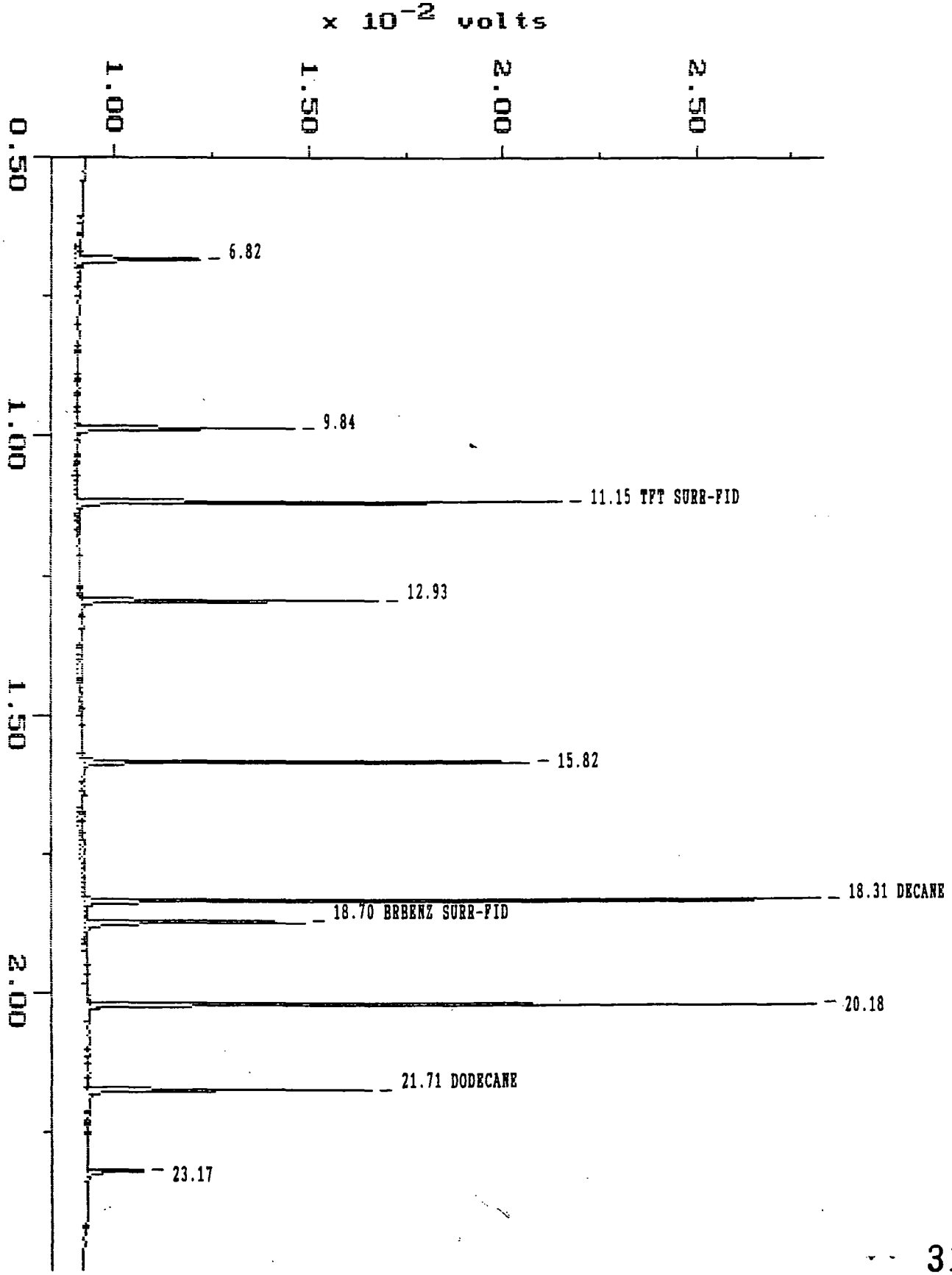
DETECTOR: PID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name

10.082	0.540	22029	68257	HGHT	25.55*✓	BENZENE
11.160	0.597	11904	35228	HGHT	95.23*✓	TFT SURR-PID
13.399	0.717	23252	63288	HGHT	25.58*✓	TOLUENE
16.193	0.867	24132	59422	HGHT	25.58*	CHLOROBENZENE
16.264	0.870	21652	59954	HGHT	25.55*✓	ETHYL BENZENE
16.413	0.878	46200	130805	HGHT	51.74*✓	M/P-XYLENE
17.260	0.924	22397	53877	HGHT	25.76*✓	O-XYLENE
18.684	1.000	25404	67226	HGHT	96.79*✓	BRBENZ SURR-PID
19.449	1.041	300	628			
20.098	1.076	20154	52836	HGHT	25.60*	1,3-DICHLORBEN
20.252	1.084	18804	49866	HGHT	25.39*	1,4-DICHLORBEN
20.796	1.113	17007	42571	HGHT	25.51*	1,2-DICHLORBEN
TOTAL		253235	688957		448.28*	

* Result calculation was based on a manually entered response factor.

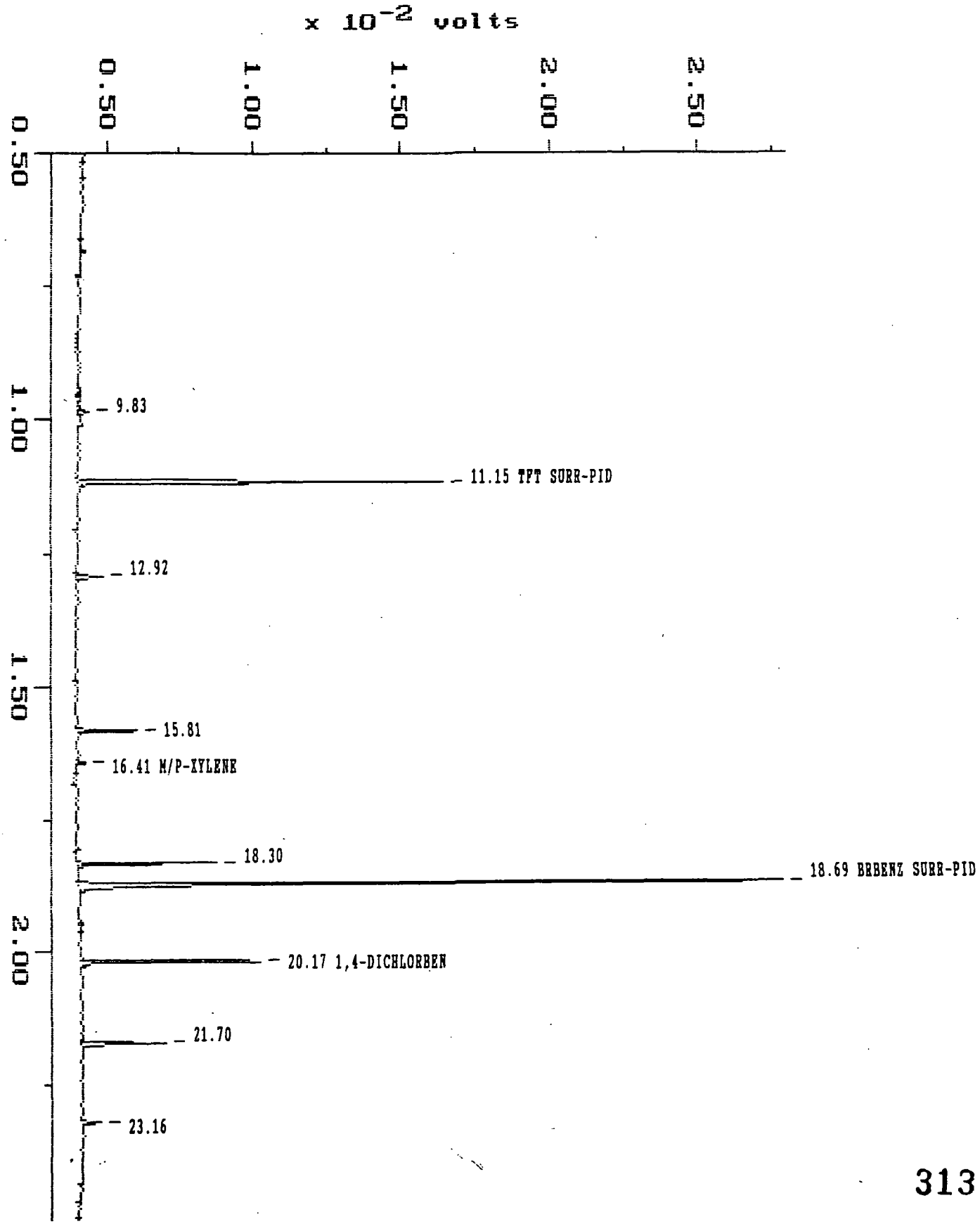
Sample: RT STD Channel: FID Filename: 11063
Acquired: 06-NOV-97 11:54 Method: C:\MAX\BETXGAS\AK110697 Operator: PK



Sample: RT STD
Acquired: 06-NOV-97 11:54

Channel: PID
Method: C:\MAX\BETXGAS\AK110697

Filename: 11063
Operator: PK



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MAXIMA 820 CUSTOM REPORT

Printed: 6-NOV-1997 12:19:55

SAMPLE: RT STD
#3 in Method: WA GAS/BETX
Acquired: 6-NOV-1997 11:54
Rate: 3.0 points/sec
Duration: 24.998 minutes
Operator: PK

Type: UNKN
Instrument: PID 1
Filename: 11063
Index: 3

DETECTOR: FID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
6.815	0.364	3149	13892			
9.840	0.526	5623	17348			
11.155	0.596	12480	40252	HGHT	104.21*	TFT SURR-FID
12.931	0.691	7652	20664			
15.819	0.846	11422	29917			
18.310	0.979	18946	46088	HGHT		DECANE
18.701	1.000	5629	15888	HGHT	93.22*	BRBENZ SURR-FID
20.180	1.079	18693	39150			
21.715	1.161	7281	17611	HGHT		DODECANE
23.172	1.239	1424	4325			
TOTAL		92306	245135		197.43*	

* Result calculation was based on a manually entered response factor.

GROUP SUMMARY: FID

Group Center (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Group Name
17.565	(0.672)	59279	168160	AREA	0.20*	ak GAS
TOTAL		59279	168160		0.20*	

* Result calculation was based on a manually entered response factor.

DETECTOR: PID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
9.835	0.526	369	999			

11.149	0.597	12331	36794	HGHT	98.65*	TFT SURR-PID
12.920	0.691	901	2184			
15.813	0.846	2030	5085			
16.407	0.878	312	860	HGHT	0.35*	M/P-XYLENE
18.299	0.979	4762	10648			
18.690	1.000	23761	67357	HGHT	90.53*	BRBENZ SURR-PID
20.175	1.079	6032	12281	HGHT	8.14*	1,4-DICHLORBEN
21.704	1.161	2815	6166			
23.161	1.239	646	1575			
TOTAL		53960	143951		197.67*	

* Result calculation was based on a manually entered response factor.

ANALYTICAL
RESOURCES
INCORPORATED

7 A
GASOLINE CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Technologies
Project: 1 2900

Report: 11/25/97 Mac: CSP

Client Sample No. : GAS STD #2

Date Analyzed: 11/06/97

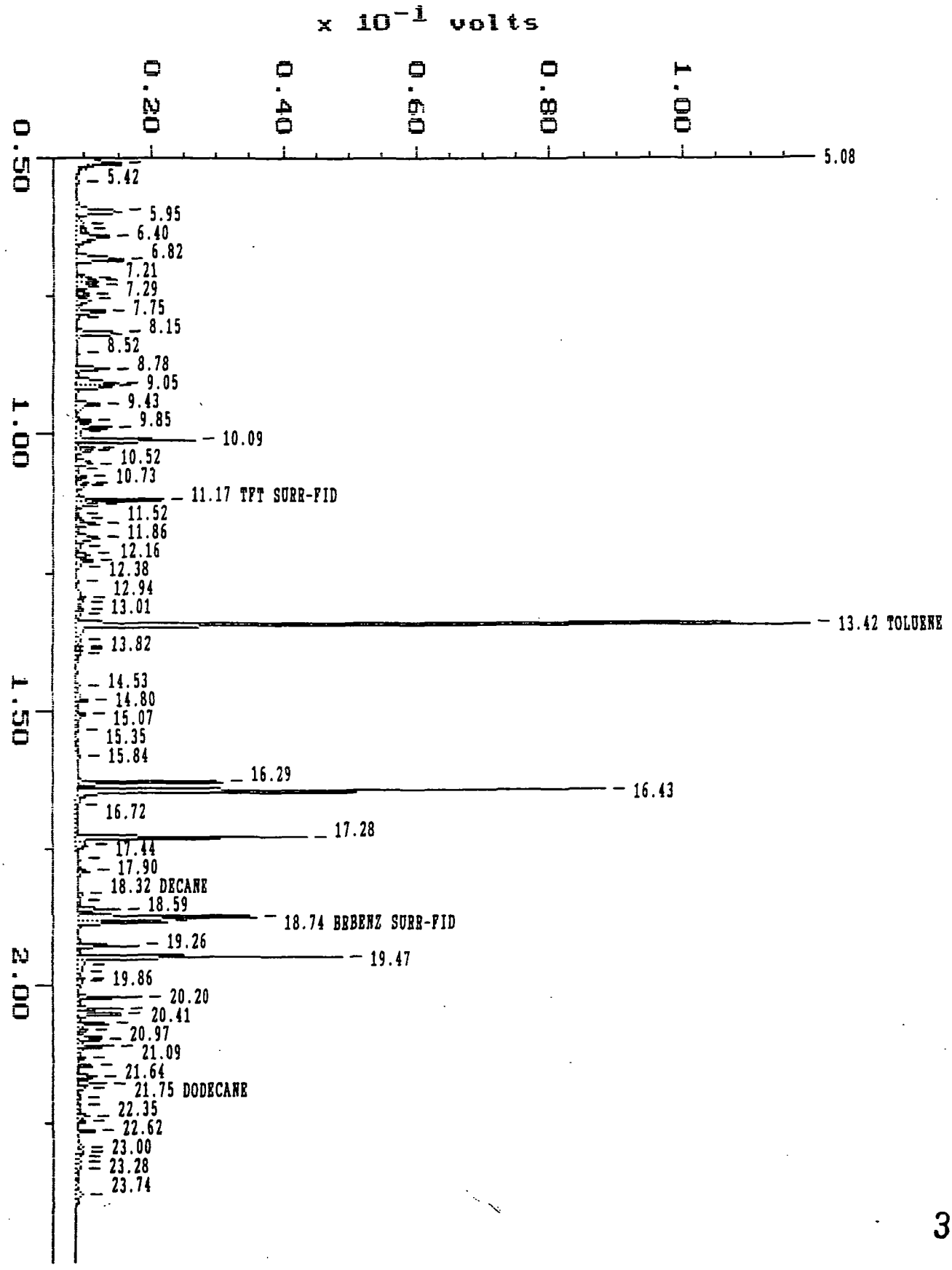
LAB Sample No.: GAS STD #2

Time Analyzed: 17:05

Instrument: PID-1

Compound	GAS#2 CAL FACTOR	CURVE CAL FACTOR	%D
Gasoline (2.5 ppm)	474620	441619	7.5

Sample: GAS #2 Channel: FID Filename: 110613
Acquired: 06-NOV-97 17:05 Method: C:\MAX\BETXGAS\AK110697 Operator: PK



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MAXIMA 820 CUSTOM REPORT

Printed: 7-NOV-1997 9:19:26

SAMPLE: GAS #2

#4 in Method: WA GAS/BETX
Acquired: 6-NOV-1997 17:05
Rate: 3.0 points/sec
Duration: 24.998 minutes
Operator: PK

Type: UNKN
Instrument: PID 1
Filename: 110613
Index: Disk

DETECTOR: FID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
5.077	0.271	4545	8782			
5.424	0.289	405	1817			
5.946	0.317	6892	40047			
6.183	0.330	1057	6417			
6.276	0.335	1578	6873			
6.397	0.341	5153	35569			
6.815	0.364	7271	40827			
7.134	0.381	2187	7427			
7.206	0.385	3285	12759			
7.294	0.389	3399	13045			
7.437	0.397	1981	8247			
7.552	0.403	2240	11579			
7.750	0.414	4536	17946			
7.860	0.419	530	2143			
8.146	0.435	6835	31358			
8.520	0.455	410	2398			
8.784	0.469	4900	20359			
9.048	0.483	6338	35088			
9.109	0.486	5484	21553			
9.428	0.503	3809	21148			
9.730	0.519	2345	8653			
9.851	0.526	5330	20765			
9.950	0.531	955	3224			
10.088	0.538	18119	59724			
10.236	0.546	2805	10578			
10.291	0.549	2246	6475			
10.517	0.561	2427	14041			
10.638	0.568	580	1575			
10.731	0.573	1637	5761			
10.858	0.579	1655	5912			
10.935	0.584	1248	4274			
11.166	0.596	13069	41622	HGHT	109.12* ✓	TFT SURR-FID
11.254	0.601	3163	11193			
11.402	0.608	440	1596			

11.523	0.615	1259	4070			
11.606	0.619	3665	13892			
11.859	0.633	3663	23998			
12.029	0.642	767	3522			
12.161	0.649	2214	7880			
12.266	0.655	2534	10778			
12.381	0.661	714	3006			
12.645	0.675	288	1173			
12.942	0.691	711	1559			
13.008	0.694	786	2881			
13.162	0.702	927	3349			
13.250	0.707	547	1828			
13.415	0.716	109816	312403	AREA		TOLUENE
13.690	0.731	644	2596			
13.822	0.738	809	2751			
13.888	0.741	828	2463			
13.965	0.745	499	1960			
14.532	0.775	410	1276			
14.801	0.790	1571	8891			
15.065	0.804	1251	6675			
15.351	0.819	376	917			
15.835	0.845	564	2317			
16.286	0.869	22030	60818			
16.435	0.877	79193	229069			
16.721	0.892	286	777			
17.282	0.922	34737	95612			
17.436	0.930	1521	8220			
17.694	0.944	633	2015			
17.903	0.955	1982	8330			
18.321	0.978	883	4100	HGHT		DECANE
18.431	0.984	394	1831			
18.585	0.992	6344	15801			
18.739	1.000	26798	98843	HGHT	443.77*	BRBENZ SURR-FID
18.833	1.005	13245	34417		NP	
19.256	1.028	9022	24483			
19.471	1.039	39853	97440			
19.597	1.046	1072	6931			
19.735	1.053	610	1959			
19.856	1.060	1077	3277			
19.922	1.063	679	3226			
20.202	1.078	9552	25113			
20.406	1.089	6594	15196			
20.510	1.095	6382	20634			
20.686	1.104	4639	13615			
20.796	1.110	1650	4725			
20.967	1.119	3721	19036			
21.088	1.125	5275	13037			
21.154	1.129	704	2006			
21.297	1.136	1213	5043			
21.440	1.144	2046	5982			

21.638	1.155	2900	10665			
21.753	1.161	4187	12100	HGHT		DODECANE
21.847	1.166	1351	3690			
22.012	1.175	640	3026			
22.133	1.181	481	1514			
22.347	1.193	2011	8527			
22.452	1.198	1283	5476			
22.622	1.207	2709	8749			
22.903	1.222	878	3128			
22.996	1.227	1028	3595			
23.073	1.231	527	1386			
23.161	1.236	377	1122			
23.277	1.242	708	2476			
23.739	1.267	1061	4358			
TOTAL		566075	1852309		552.89*	

* Result calculation was based on a manually entered response factor.

GROUP SUMMARY: FID

Group Center (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Group Name
22.560	(0.937)	406089	1186550	AREA	2.14*	WA GAS
TOTAL		406089	1186550		2.14*	

* Result calculation was based on a manually entered response factor.

ANALYTICAL
RESOURCES
INCORPORATED

7A
GASOLINE CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Technologies
Project: 1 2900

Report: 11/25/97 Mac: CSP

Client Sample No. : GAS STD #3

Date Analyzed: 11/06/97

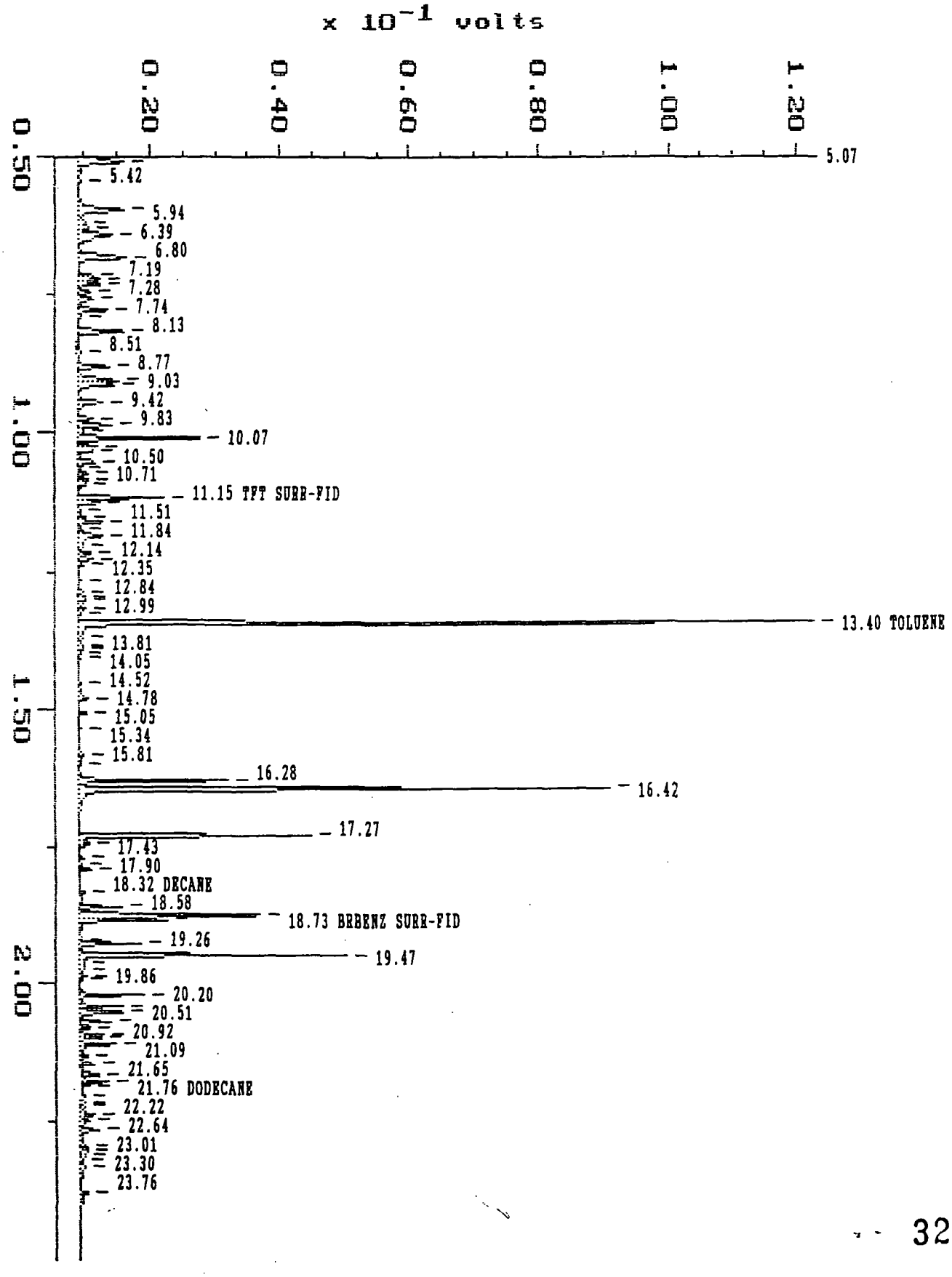
LAB Sample No.: GAS STD #3

Time Analyzed: 20:05

Instrument: PID-1

Compound	GAS#3 CAL FACTOR	CURVE CAL FACTOR	%D
Gasoline (2.5 ppm)	474744	441619	7.5

Sample: GAS #3 Channel: FID Filename: 110619
Acquired: 06-NOV-97 20:05 Method: C:\MAX\BETXGAS\AX110697 Operator: PK



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MAXIMA 820 CUSTOM REPORT

Printed: 7-NOV-1997 9:21:00

SAMPLE: GAS #3
#7 in Method: WA GAS/BETX
Acquired: 6-NOV-1997 20:05
Rate: 3.0 points/sec
Duration: 24.998 minutes
Operator: PK

Type: UNKN
Instrument: PID 1
Filename: 110619
Index: Disk

DETECTOR: PID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
5.066	0.270	6858	35309			
5.418	0.289	332	968			
5.935	0.317	6715	38475			
6.172	0.329	1071	6539			
6.265	0.334	1583	6710			
6.386	0.341	5107	35874			
6.799	0.363	7280	41482			
7.123	0.380	2266	7385			
7.189	0.384	3401	13182			
7.283	0.389	3462	13630			
7.426	0.396	2003	8486			
7.541	0.403	2277	11579			
7.739	0.413	4596	18403			
7.855	0.419	551	2226			
8.130	0.434	6938	32815			
8.515	0.455	442	2764			
8.768	0.468	4851	20414			
9.032	0.482	6486	35735			
9.098	0.486	5439	21646			
9.417	0.503	3757	20913			
9.714	0.519	2342	8481			
9.835	0.525	5285	21031			
9.934	0.530	969	3227			
10.071	0.538	18668	61638			
10.220	0.546	2854	10063			
10.280	0.549	2240	7374			
10.500	0.560	2466	14361			
10.621	0.567	584	1738			
10.715	0.572	1640	5848			
10.847	0.579	1634	5871			
10.918	0.583	1232	4318			
11.149	0.595	13238	42112	HGHT	110.54* ✓	TFT SURR-FID
11.237	0.600	3239	11213			
11.397	0.608	400	1379			

11.507	0.614	1249	3979			
11.589	0.619	3549	13353			
11.699	0.624	356	1150			
11.842	0.632	3622	21624			
12.013	0.641	673	2906			
12.145	0.648	1993	6927			
12.249	0.654	2414	9942			
12.354	0.659	645	1878			
12.640	0.675	336	1562			
12.838	0.685	767	4260			
12.931	0.690	1201	3883			
12.986	0.693	1218	5593			
13.151	0.702	1071	4874			
13.245	0.707	663	2055			
13.399	0.715	113487	323898	AREA		TOLUENE
13.674	0.730	692	3061			
13.811	0.737	864	2849			
13.866	0.740	907	2952			
13.949	0.745	529	1408			
14.053	0.750	279	1318			
14.521	0.775	354	1249			
14.785	0.789	1492	8375			
15.049	0.803	1068	4552			
15.340	0.819	383	1472			
15.808	0.844	533	1658			
15.989	0.853	256	1106			
16.275	0.869	22810	64139			
16.424	0.877	81440	237715			
17.271	0.922	35376	95505			
17.430	0.930	1339	6306			
17.689	0.944	537	1882			
17.821	0.951	283	791			
17.898	0.955	1834	5951			
18.316	0.978	639	2630	HGHT		DECANE
18.580	0.992	6352	15366			
18.734	1.000	27331	100693	HGHT	452.60*	BRBENZ SURR-PID
18.833	1.005	13385	34110			
19.179	1.024	330	1264		NA	
19.256	1.028	9271	22547			
19.471	1.039	40788	99345			
19.603	1.046	745	3739			
19.735	1.053	546	2589			
19.861	1.060	912	2124			
19.927	1.064	472	1220			
20.202	1.078	9652	25060			
20.411	1.090	6480	14870			
20.510	1.095	6479	20849			
20.692	1.105	4573	12127			
20.802	1.110	1507	3541			
20.923	1.117	3459	7644			

20.978	1.120	3222	8204			
21.093	1.126	5247	13960			
21.308	1.137	1083	4116			
21.445	1.145	1883	4466			
21.649	1.156	2725	8977			
21.764	1.162	4010	11224	HGHT		DODECANE
21.858	1.167	1203	3098			
22.034	1.176	563	2244			
22.144	1.182	432	1143			
22.215	1.186	469	1339			
22.364	1.194	2025	7699			
22.463	1.199	1279	5383			
22.639	1.208	2698	9297			
22.925	1.224	927	3340			
23.013	1.228	1136	4055			
23.090	1.233	643	1843			
23.178	1.237	432	1542			
23.299	1.244	792	3861			
23.761	1.268	1126	4220			
TOTAL		531243	1893100		563.14*	

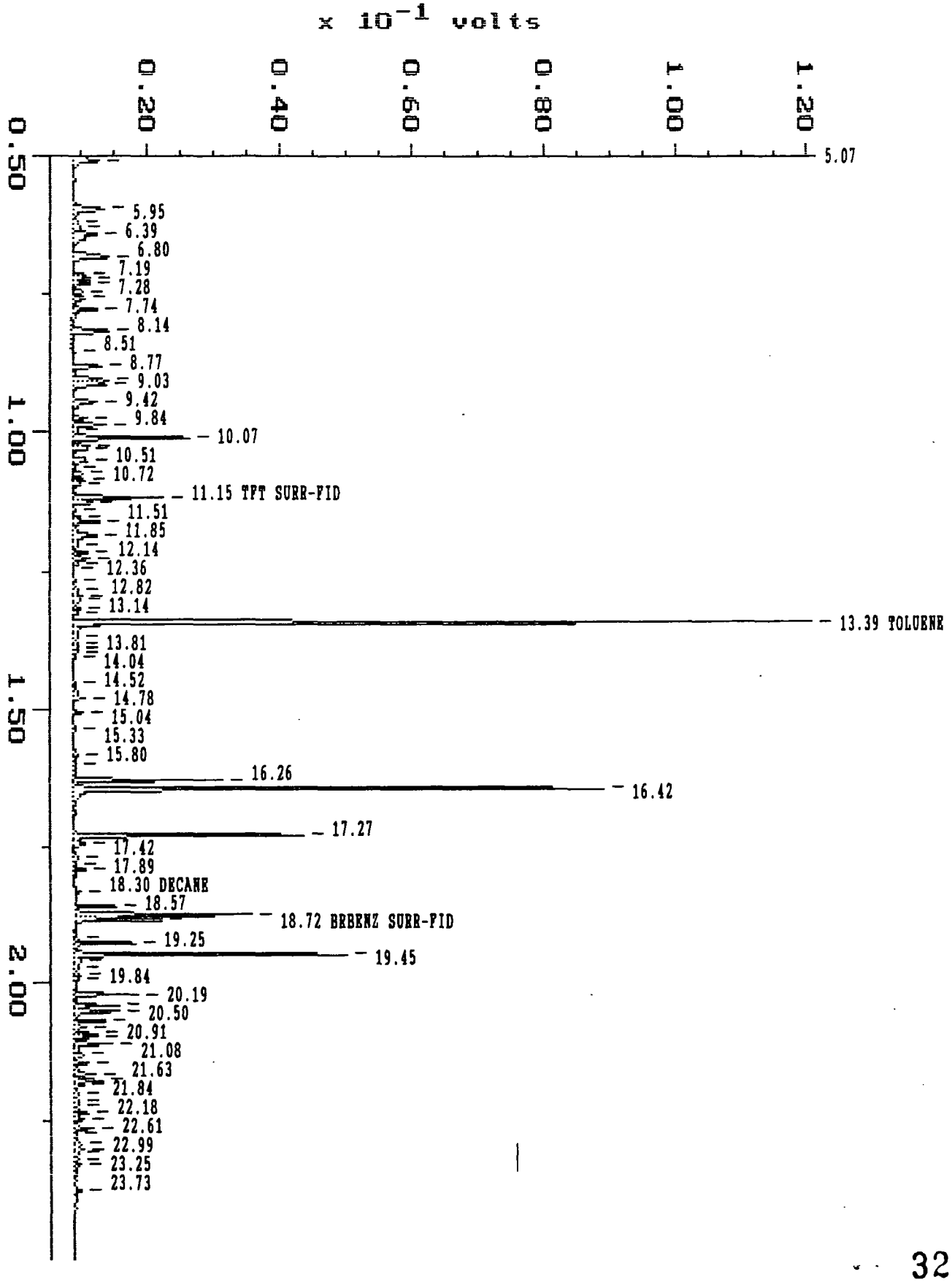
Result calculation was based on a manually entered response factor.

GROUP SUMMARY: FID

Group Center (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Group Name
22.560	(0.937)	415556	1136860	AREA	2.21*	NA GAS
TOTAL		415556	1136860		2.21*	

* Result calculation was based on a manually entered response factor.

Sample: 1106 SB GAS Channel: FID Filename: 11065
Acquired: 06-NOV-97 12:54 Method: C:\MAX\BETXGAS\AK110697 Operator: PR



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MAXIMA 820 CUSTOM REPORT

Printed: 7-NOV-1997 9:18:51

SAMPLE: 1106 SB GAS
#3 in Method: WA GAS/BETX
Acquired: 6-NOV-1997 12:54
Rate: 3.0 points/sec
Duration: 24.998 minutes
Operator: PK

Type: UNKN
Instrument: PID 1
Filename: 11065
Index: Disk

DETECTOR: FID

Retention Time (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Component Name
5.072	0.271	3903	19071			
5.946	0.318	4672	26453			
6.183	0.330	716	4016			
6.271	0.335	997	4272			
6.392	0.341	3604	25753			
6.804	0.363	5613	31689			
7.129	0.381	1806	6694			
7.195	0.384	2700	10053			
7.283	0.389	2754	10770			
7.431	0.397	1647	7139			
7.547	0.403	1891	9881			
7.739	0.413	3776	16733			
8.135	0.435	5588	26208			
8.515	0.455	294	1827			
8.773	0.469	4363	16686			
9.032	0.482	5512	29181			
9.103	0.486	5041	20143			
9.422	0.503	3664	19544			
9.719	0.519	2159	7666			
9.840	0.526	5076	19417			
9.934	0.531	865	3285			
10.071	0.538	17542	56952			
10.225	0.546	2645	9374			
10.280	0.549	2206	6691			
10.506	0.561	2345	13519			
10.621	0.567	578	1558			
10.720	0.573	1636	6141			
10.841	0.579	1724	5874			
10.924	0.583	1214	4768			
11.149	0.595	13518	43032	HGHT	112.87* ✓	TFT SURR-FID
11.243	0.600	3134	11236			
11.397	0.609	476	1993			
11.512	0.615	1270	4005			
11.595	0.619	3871	14878			

11.848	0.633	3851	25563			
12.024	0.642	724	3416			
12.139	0.648	2243	7977			
12.249	0.654	2494	10903			
12.359	0.660	750	2141			
12.453	0.665	257	939			
12.645	0.675	388	2014			
12.821	0.685	796	4781			
12.926	0.690	1368	4357			
12.992	0.694	1198	5542			
13.140	0.702	1230	4454			
13.239	0.707	732	2939			
13.393	0.715	111766	310381	AREA		TOLUENE
13.509	0.722	1133	5142			
13.674	0.730	713	2858			
13.806	0.737	895	3208			
13.861	0.740	896	3010			
13.943	0.745	583	1630			
14.037	0.750	306	1065			
14.515	0.775	473	3600			
14.785	0.790	1782	10452			
15.043	0.803	1220	4037			
15.335	0.819	436	1972			
15.802	0.844	663	1873			
15.978	0.853	262	1167			
16.264	0.869	22400	63356			
16.418	0.877	80075	235925			
17.265	0.922	34714	94821			
17.419	0.930	1758	8078			
17.678	0.944	768	3042			
17.821	0.952	364	1153			
17.887	0.955	1821	5684			
18.305	0.978	789	1917	HGHT		DECANE
18.569	0.992	6194	14883			
18.723	1.000	26485	99310	HGHT	438.60*	BRBENZ SURR-FID
18.822	1.005	13054	33973			
19.174	1.024	517	2111		NR	
19.245	1.028	9074	22622			
19.454	1.039	40823	99154			
19.570	1.045	1034	4882			
19.685	1.051	780	3862			
19.845	1.060	1000	2486			
19.911	1.063	618	1639			
20.191	1.078	9508	24758			
20.395	1.089	6601	15341			
20.499	1.095	6531	21005			
20.675	1.104	4652	12823			
20.785	1.110	1606	4131			
20.906	1.117	3587	8002			
20.961	1.120	3361	8680			

21.077	1.126	5408	13342			
21.143	1.129	748	2209			
21.286	1.137	1306	5647			
21.429	1.145	2019	5457			
21.632	1.155	2937	10884			
21.748	1.162	4277	12705	HGHT		DODECANE
21.836	1.166	1440	3886			
22.001	1.175	712	3759			
22.122	1.182	487	1350			
22.182	1.185	607	1714			
22.342	1.193	2109	7851			
22.441	1.199	1317	5773			
22.611	1.208	2805	8254			
22.710	1.213	282	1320			
22.892	1.223	921	3301			
22.985	1.228	1160	4224			
23.057	1.231	636	1789			
23.150	1.236	463	1510			
23.255	1.242	784	3018			
23.728	1.267	963	3071			
TOTAL		565454	1816625		551.47*	

* Result calculation was based on a manually entered response factor.

GROUP SUMMARY: FID

Group Center (minutes)	Relative Time	Peak Height	Peak Area	Base	Solution Conc (ng/ml)	Group Name
22.560	(0.938)	415940	1194275	AREA	2.18*	WA GAS
TOTAL		415940	1194275		2.18*	

* Result calculation was based on a manually entered response factor.

WTPH-D+Oil

6416
6417
810# TD-1106A-01
QC- ms/msd/dup
U354 Chrome

ANALYTICAL
RESOURCES
INCORPORATED

TPH 8015d - HCID Gas - HCID Diesel - SOIL

ARI Job No: U380/U354/U269 II WTP4d - Microtip? Client Name: Dames & Moore

Client Project: [redacted]

ARI Lab ID	Client Sample ID	Amount Extracted (10 g)	Vol. Solv. Added	Final Total Vol. (2.0 ml)	Aliquot Vol. for Analysis	Comments 2 pm
U380 mbs	11/06	10.00		2.0 ml	1:2	
SB	11/06	10.00				
A	Checked	10.05				
B		10.01				
C		10.09				
U354 C		10.02		2.0 ml	1:2	
Cms		10.04				
Cmsd		10.01				
L		10.08				
AH		10.00				
AH dup		10.06				
U269 II A		10.06		5.0 ml	1:5	
B		10.04		10.0 ml	1:10	
		Analyst/ Date:	[signature] 11/06/97	[signature] 11-10-97		

Surr. Amt: 200 uL Added By: [signature] /Spk Witness [signature]

Conc.: 150 ug/ml ID: 582-6

Spike Amt: 200 uL Added By: [signature] /Spk Witness [signature]

Conc.: 1500 ug/ml ID: 599-1

Ext. Storage Location: _____

3013F Rev. 2 02/15/94

Worklist No: 6128

Total Solids
extts.wlf: 11/ 7/97

Data Analyst: Redy Manuel
Date Entered: 11/ 6/97
Comments:

Analyzed by: RM
Date Analyzed: 11/ 7/97

** Use appropriate worklist to enter SRM Total Solids (see your SOPs) **

Sample	Client ID/Client	Tare	Wet Wt	Final Wt	%Solids	pH
1.	U380A 97-20957 Pex-1	1.08	10.50	8.98	83.9	Not Requested
2.	U380B 97-20958 Pex-2	1.07	10.57	9.04	83.9	Not Requested
3.	U380C 97-20959 Pex-3	1.08	10.56	8.92	82.7	Not Requested
4.	U354C 97-20817 STKPL 3	1.08	10.71	7.77	69.5	Not Reques
5.	U354L 97-20826 STKPL 12	1.08	10.52	6.57	58.2	Not Requested
6.	U354AH 97-20848 STKPL 34	1.07	10.31	7.68	71.5	Not Requested
7.	U269A 97-20923 HI1B01	1.09	10.40	9.60	91.4	Not Requested
8.	U269B 97-20924 HI1B02	1.08	10.67	9.11	83.7	Not Requested

Analyst/Date: _____

Data Entered/Distributed By: _____

TOTAL DIESEL HYDROCARBONS COMPOUND SUMMARY

Matrix: Soil

QC Report No: U269

LIMS ID	Lab ID	Client ID	MeArach	TOT OUT
97-20923MB	111097MB	Method Blank	66%	0
97-20923LC	111097LC	Lab Control	66%	0
97-20923	U269A	HI1B01	NR	0
97-20924	U269B	HI1B02	32% *	1

	Control QC LIMITS	Sample QC LIMITS
(MeArach) = Methylarachidate	(50-150)	(41-158)

\# Column to be used to flag recovery values

* Values outside of required QC limits

D System Monitoring Compound diluted out

ANALYTICAL
RESOURCES
INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS
WA TPHd Range C12 to C24 by GC/FID

Lab Sample ID: U269SB
LIMS ID: 97-20923
Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project:
1 2900

Data Release Authorized:
Reported: 11/14/97

LABORATORY CONTROL SAMPLE RECOVERY REPORT
Date extracted: 11/06/97
Date analyzed: 11/10/97

CONSTITUENT	SPIKE FOUND	SPIKE ADDED	% RECOVERY
Diesel Range Hydrocarbons	72.6	100	72.6%

TPHd Surrogate Recovery

Methylarachidate	66.5%

Values reported in ppm (mg/kg) on a dry weight basis.

ANALYTICAL
RESOURCES
INCORPORATED

TPHD METHOD BLANK SUMMARY

ARI Job No: U269

Client: Remediation Technologies, Inc.

Lab Sample ID: U380MBS11/6
Matrix: Soil

Project: 1 2900

Report: 11/25/97 MAC: CSP

Date Analyzed (1): 11/10/97
Time Analyzed (1): 22:09
Instrument ID (1): Daffy1A
GC Column ID (1): DB624M

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS,MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed
Spike Blank	U380SBS 11/6	1110A008	11/10/97
HI1B01	U269A 20X	1112B008	11/13/97
HI1B02	U269B	1112B007	11/13/97

Comments:

FORM IV TPHD

ANALYTICAL
RESOURCES
INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS
WA TPHd Range C12 to C24 by GC/FID
and Motor Oil

LIMS ID: 97-20923 QC Report No: U269-Remediation Technologies, Inc.
Matrix: Soil Project: 1 2900

Data Release Authorized: Date Received: 10/27/97
Reported: 11/14/97

Lab ID	Sample ID	Date Analyzed	Dilution Factor	Diesel Range	*HC ID	Motor Oil Range	Surrogate Recovery
U269MB	Method Blank	11/10/97	1:1	5.0 U	---	10 U	65.6%
U269A	**HI1B01**	11/13/97	1:20	**580**	M.OIL	**2,700**	NR
U269B	**HI1B02**	11/13/97	1:1	**210**	NO	**720**	31.7%

Values reported in ppm (mg/kg) on a dry weight basis.

Surrogate is Methyl-Arachidate.

* ID indicates, in the opinion of the analyst, the petroleum product with the best pattern match. 'NO' indicates that there was not a good match for any of the requested products.
Diesel quantitation on total peaks in the range from C12 to C24.
Motor Oil quantitation on total peaks in the range from C24 to C38.

Data Qualifiers

U	Compound not detected at the given detection limit.
J	Indicates an estimated value below the calculated detection limit.
S	No value reported due to saturation of the detector. Dilution required.
D	Indicates the surrogate was not detected because of dilution of the extract.
E	Indicates a value above the linear range of the detector. Dilution required.
NR	Indicates no recovery due to matrix interference.
B	Indicates compound also detected in the method blank.

FORM-1 WA TPHD

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: U380 MBS 11/6 Injection Date: 11/10/97 22:09:33

[redacted]MPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV10\1110A009.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97NOV10A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	0.000	0	0
C22	0.0	0.000	0	0
[redacted]R	65.6	5.261	128	161
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	0	0	Surrogate Subtracted
M.OIL(C24-C38)	0	0	
SURROGATE	160.709152		

NO

ANALYTICAL RESOURCES NWTPH-D REPORT

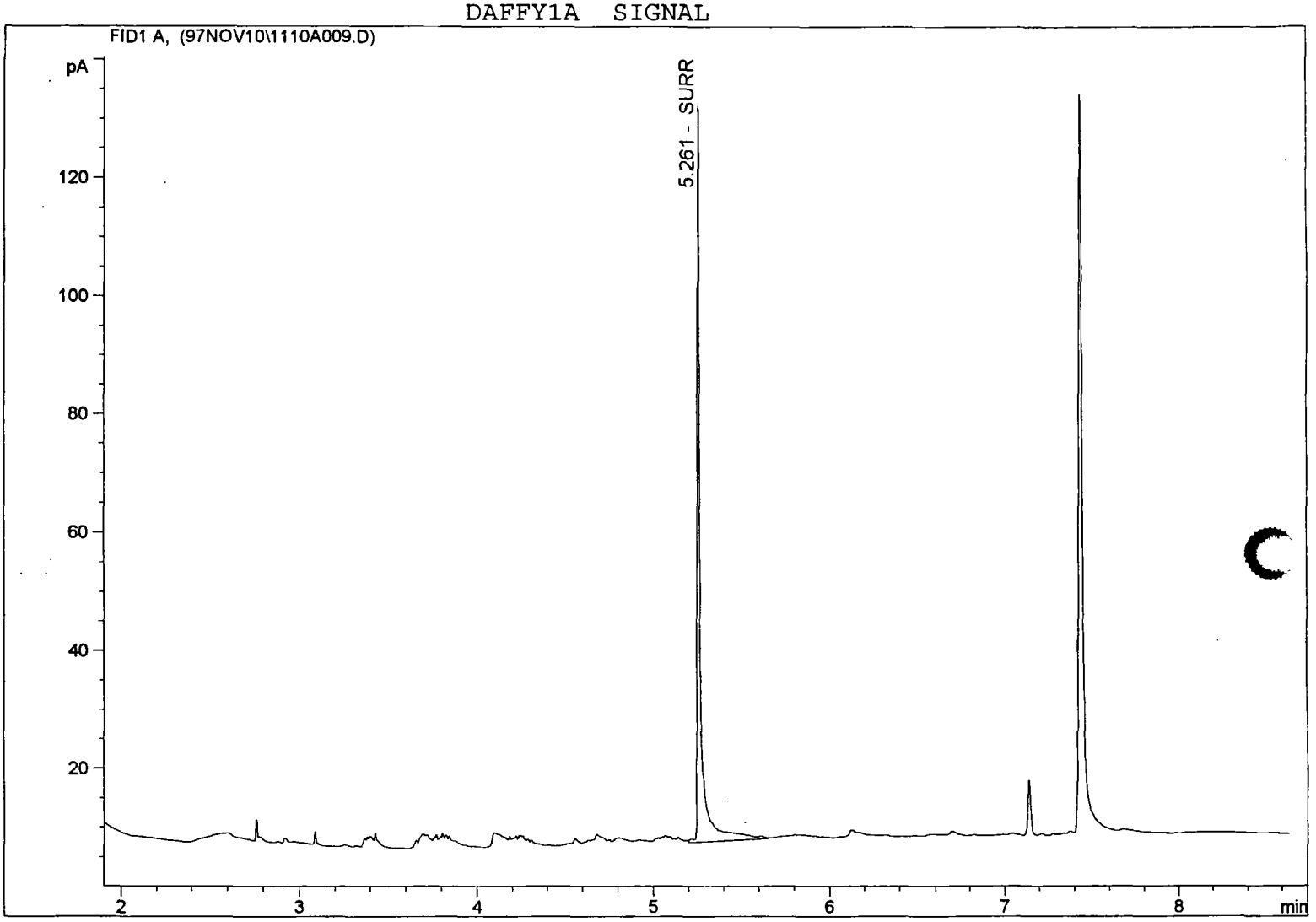
SAMPLE NAME: U380 MBS 11/6 Injection Date: 11/10/97 22:09:33

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV10\1110A009.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



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Report Date: 11/11/97 16:26:13 Page 2 of 2

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: U269 A 20x Injection Date: 11/13/97 01:26:42

MPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV12\1112B008.D

INSTRUMENT: TAZZ1B Operator: AHB

Method: C:\HPCHEM\1\METHODS\97NOV12B.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06, DIESEL:11/11, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	2.485	3	59
C10	0.0	2.712	4	15
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	3.830	3	14
C18	0.0	4.296	5	21
C20	0.0	4.643	35	128
C22	0.0	5.019	12	57
SURR	27.8	5.306	4	4
C24	0.0	5.366	16	144
[illegible]	0.0	5.734	25	45
C28	0.0	6.083	36	112
C30	0.0	6.431	35	90
C32	0.0	6.784	27	110
C34	0.0	0.000	0	0
C36	0.0	7.433	15	106
C38	0.0	7.803	8	40
C40	0.0	8.114	5	67

TAZZ1B RANGES

	AREA	CONC	Macro: 971111-1
GAS(TOL-C12)	78	16	
DIESEL(C12-C24)	942	53	Surrogate Subtracted
OIL(C24-C38)	3501	246	
SURROGATE	3.753539		

M.OIL
- LUBE OIL?

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Report Date: 11/13/97 13:51:23 Page 1 of 2

ANALYTICAL RESOURCES NWTPH-D REPORT

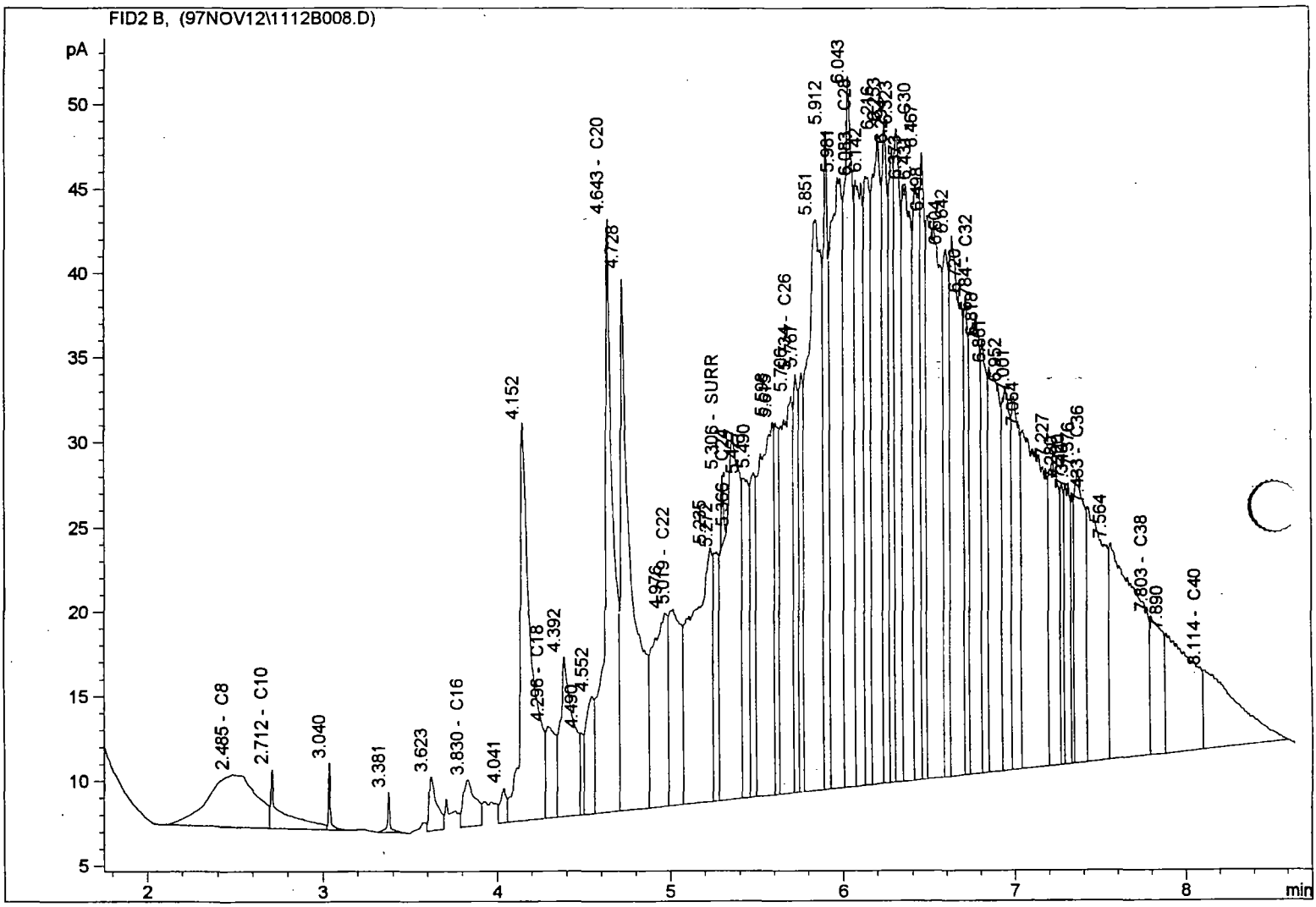
SAMPLE NAME: U269 A 20x Injection Date: 11/13/97 01:26:42

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV12\1112B008.D

INSTRUMENT: TAZZ1B Operator: AHB

TAZZ1B SIGNAL



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Report Date: 11/13/97 13:51:23 Page 2 of 2

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: U269 B Injection Date: 11/13/97 01:07:52

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV12\1112B007.D

INSTRUMENT: TAZZ1B Operator: AHB

Method: C:\HPCHEM\1\METHODS\97NOV12B.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06, DIESEL:11/11, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.713	12	40
C12	0.0	3.115	4	6
C14	0.0	3.490	3	7
C16	0.0	3.867	8	19
C18	0.0	4.253	20	37
C20	0.0	4.662	29	41
C22	0.0	5.009	46	63
SURR	31.7	5.208	16	16
C24	0.0	5.402	53	238
[illegible]	0.0	5.700	58	231
C28	0.0	6.079	64	203
C30	0.0	6.427	59	96
C32	0.0	6.774	80	247
C34	0.0	7.125	53	182
C36	0.0	7.483	30	120
C38	0.0	7.801	12	40
C40	0.0	8.109	6	22

TAZZ1B RANGES

	AREA	CONC	Macro: 971111-1
GAS(TOL-C12)	281	56	
DIESEL(C12-C24)	3228	180	Surrogate Subtracted
OIL(C24-C38)	8672	609	
SURROGATE	15.764835		

NO

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ANALYTICAL RESOURCES NWTPH-D REPORT

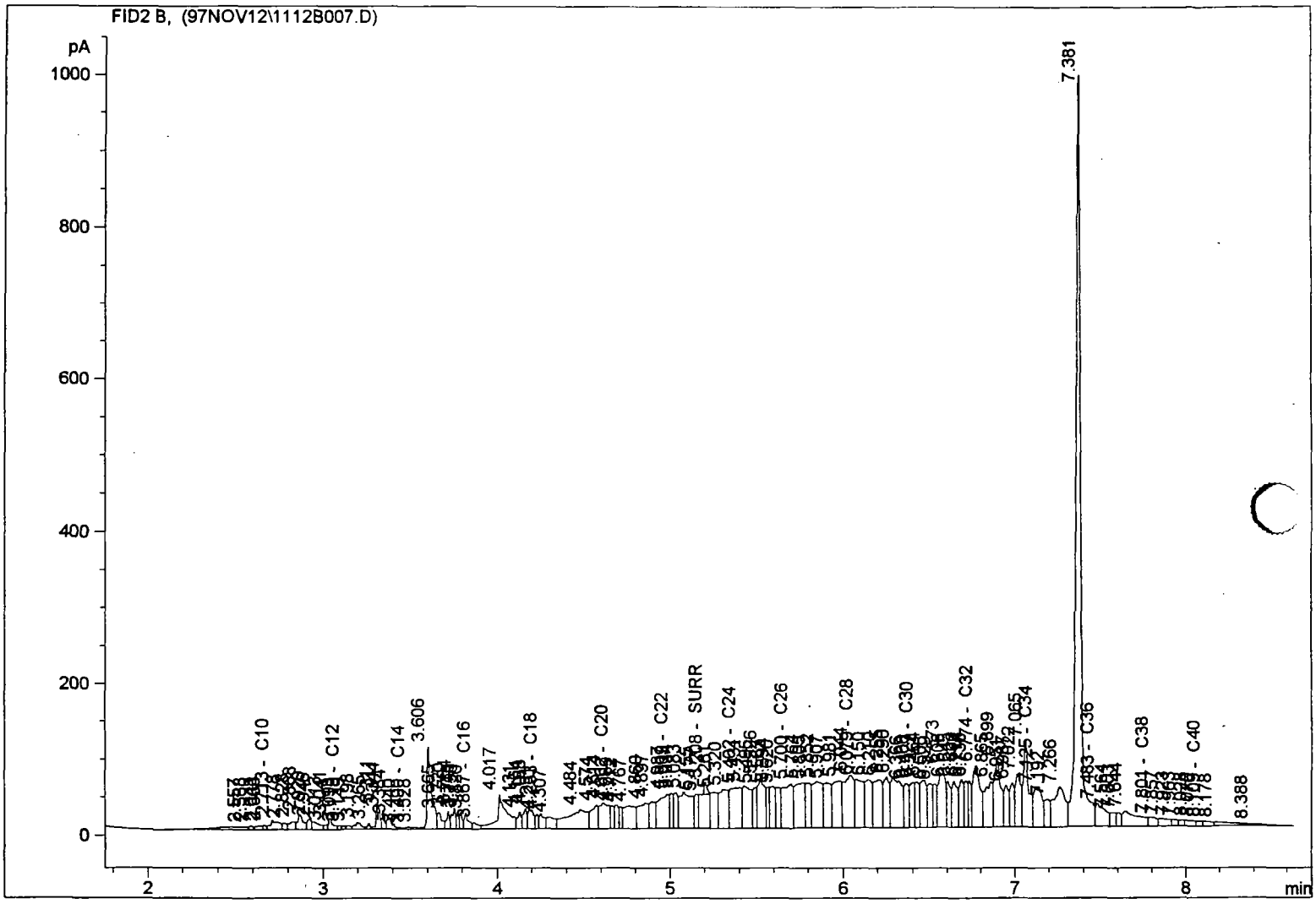
SAMPLE NAME: U269 B Injection Date: 11/13/97 01:07:52

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV12\1112B007.D

INSTRUMENT: TAZZ1B Operator: AHB

TAZZ1B SIGNAL



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8D
DIESEL ANALYTICAL SEQUENCE

ARI Job No: U269
Client: Remediation Technologies, Inc.
Project: 1 2900

GC Column: **DB-5M**
ID: 0.32mm

Instrument ID: TAZZ1B
Report: Mac CSP 11/25/97
Init. Calib. Date(s): 11/11/97

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT INFORMATION
SURR: 5.227

Client Sample ID	ARI Sample ID	Date Analyzed	Time Analyzed	SURR RT #
Diesel 250 #1	Diesel 250 #1	11/10/97	20:52	5.210
Motor Oil 500 #1	Motor Oil 500 #1	11/10/97	21:11	5.210
Spike Blank	U380SBS 11/6	11/10/97	21:50	5.260
Method Blank	U380MBS11/6	11/10/97	22:09	5.261
Diesel 250 #2	Diesel 250 #2	11/11/97	00:42	5.211
Motor Oil 500 #2	Motor Oil 500 #2	11/11/97	01:01	5.211

SURROGATE

QC Limit
(±0.05 minutes)

Column used to flag retention time values with an asterisk
* Values outside of QC limits

ANALYTICAL
RESOURCES
INCORPORATED

8D
DIESEL ANALYTICAL SEQUENCE

ARI Job No: U269
Client: Remediation Technologies, Inc.
Project: 1 2900

GC Column: **DB-5M**
ID: 0.32mm

Instrument ID: TAZZ1B
Report: Mac CSP 11/25/97
Init. Calib. Date(s): 11/11/97

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT INFORMATION
SURR: 5.225

Client Sample ID	ARI Sample ID	Date Analyzed	Time Analyzed	SURR RT #
Diesel 250 #1	Diesel 250 #1	11/12/97	23:53	5.212
Motor Oil 500 #1	Motor Oil 500 #1	11/13/97	00:12	5.209
HI1B02	U269B	11/13/97	01:07	5.208
HI1B01	U269A 20X	11/13/97	01:26	5.306
Diesel 250 #2	Diesel 250 #2	11/13/97	03:36	5.208
Motor Oil 500 #2	Motor Oil 500 #2	11/13/97	03:55	5.207

SURROGATE — QC Limit (±0.05 minutes)

\# Column used to flag retention time values with an asterisk
* Values outside of QC limits

ANALYTICAL
RESOURCES
INCORPORATED

DIESEL LINEARITY CHECK

ARI Job Number: U269

Client: Remediation Technologies, Inc.
Project: 1 2900

Instrument: Tazz1B

Date Analyzed: 11/11/97

Time Analyzed: 00:55-02:30

Report: 11/25/97 MAC:CSP

Compound	Calibration Factor Conc: 50	Calibration Factor Conc: 100	Calibration Factor Conc: 200	Calibration Factor Conc: 2000	Calibration Factor Conc: 5000	Calibration Factor Average	%RSD
Diesel	19.90	17.56	18.01	16.82	17.81	18.02	6.35

FORM VI TPHD

NW DIESEL CURVE (C12-C24)

Instrument: Tazz1B
Date: 11/11/97

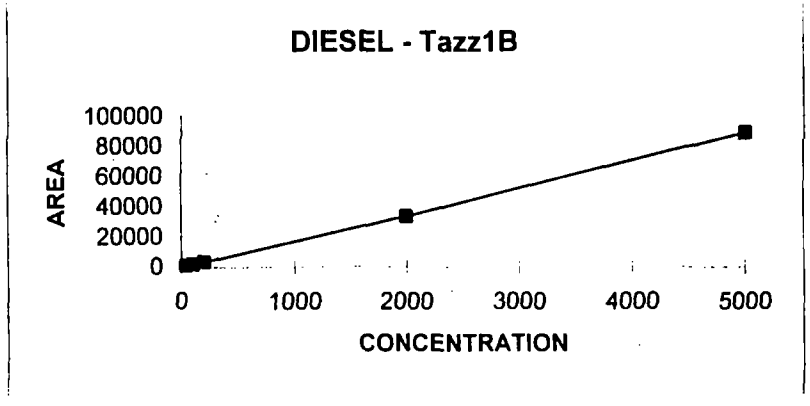
RTX-1 COLUMN

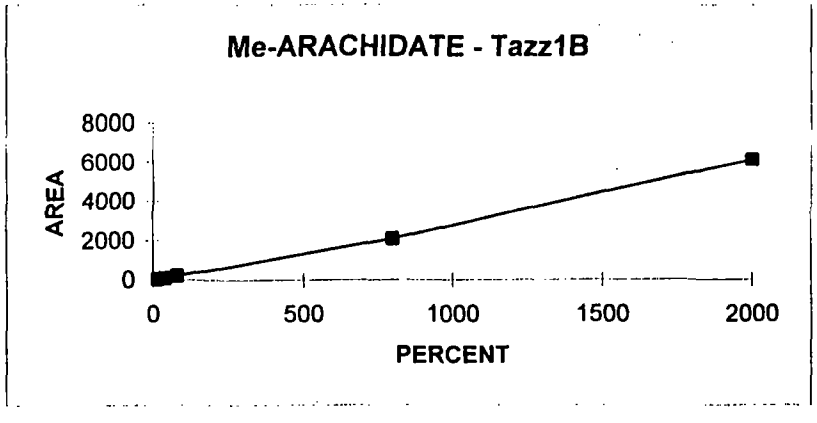
COMPOUND	50ppm	RF1:5	100ppm	RF1:2.5	200ppm	RF1:1.25	2000ppm	RF 8:1	5000ppm	RF 20:1	%RSD
Surrogate Area	43.75	2.73	95.06	2.38	216.28	2.70	2090.89	2.61	6149.04	3.07	9.32
DIESEL	796.00	19.90	1756.00	17.56	3601.00	18.01	33647.00	16.82	89060.00	17.81	6.34

DIESEL RF AVE= 18.02

SURROGATE IS ALREADY SUBTRACTED IN MACRO

ENTER AREAS DIRECTLY FROM REPORT





ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 50 Injection Date: 11/12/97 00:55:18

PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV11\1111B018.D

INSTRUMENT: TAZZ1B Operator: SAW

Method: C:\HPCHEM\1\METHODS\97NOV11B.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:08/05, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.712	15	18
C12	0.0	3.082	9	27
C14	0.0	3.501	15	58
C16	0.0	3.875	11	47
C18	0.0	4.276	9	35
C20	0.0	4.665	4	24
C22	0.0	5.035	1	10
SURR	11.5	5.272	4	44
	0.0	0.000	0	0
	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

TAZZ1B RANGES

	AREA	CONC	Macro: 971111-1
GAS(TOL-C12)	233	47	
DIESEL(C12-C24)	796	43	Surrogate Subtracted
OIL(C24-C38)	0	0	
SURROGATE	43.750771		

ANALYTICAL RESOURCES NWTPH-D REPORT

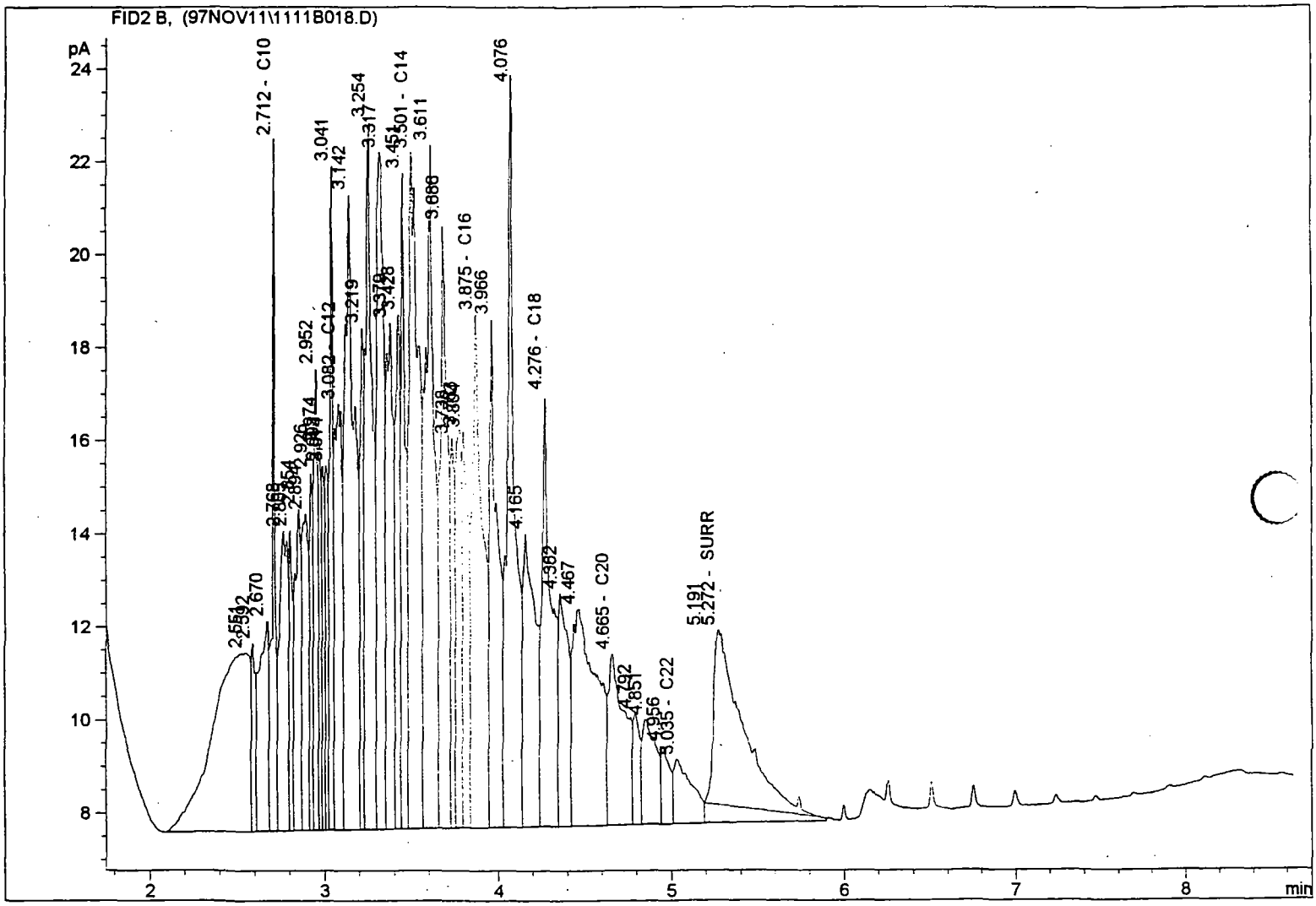
SAMPLE NAME: DIESEL 50 Injection Date: 11/12/97 00:55:18

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV11\1111B018.D

INSTRUMENT: TAZZ1B Operator: SAW

TAZZ1B SIGNAL



ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 100 Injection Date: 11/12/97 01:14:25

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV11\1111B019.D

INSTRUMENT: TAZZ1B Operator: SAW

Method: C:\HPCHEM\1\METHODS\97NOV11B.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:08/05, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.713	16	26
C12	0.0	3.112	34	44
C14	0.0	3.493	46	105
C16	0.0	3.868	34	83
C18	0.0	4.273	22	72
C20	0.0	4.646	10	37
C22	0.0	5.018	5	13
SURR	28.0	5.222	18	95
[redacted]	0.0	0.000	0	0
[redacted]	0.0	5.741	1	3
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

TAZZ1B RANGES

	AREA	CONC	Macro: 971111-1
GAS(TOL-C12)	391	78	
DIESEL(C12-C24)	1756	95	Surrogate Subtracted
OIL(C24-C38)	4	1	
SURROGATE	95.059105		

ANALYTICAL RESOURCES NWTPH-D REPORT

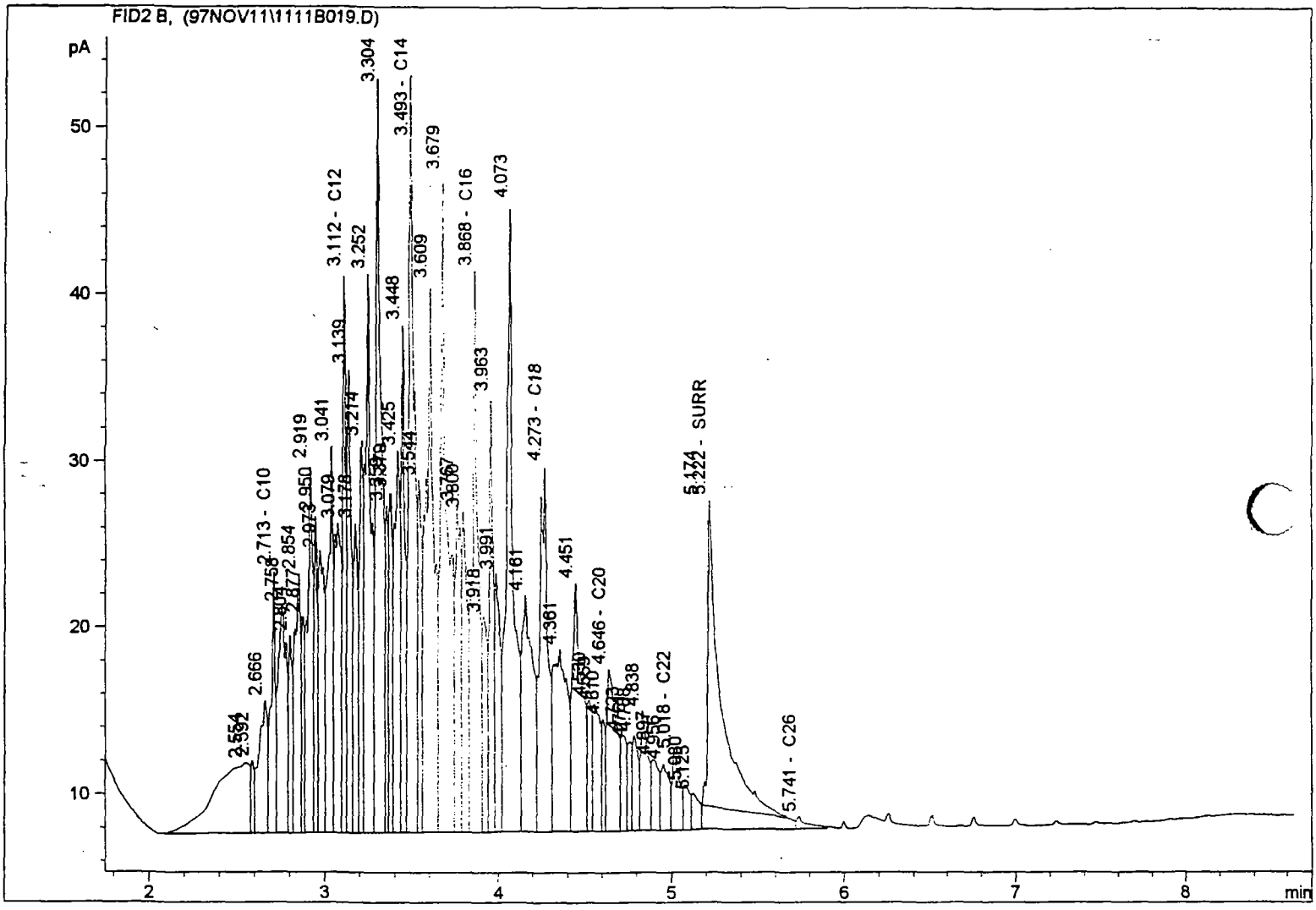
SAMPLE NAME: DIESEL 100 Injection Date: 11/12/97 01:14:25

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV11\1111B019.D

INSTRUMENT: TAZZ1B Operator: SAW

TAZZ1B SIGNAL



ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 200 Injection Date: 11/12/97 01:33:23

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV11\1111B020.D

INSTRUMENT: TAZZ1B Operator: SAW

Method: C:\HPCHEM\1\METHODS\97NOV11B.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:08/05, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.707	30	55
C12	0.0	3.108	101	109
C14	0.0	3.490	128	234
C16	0.0	3.864	85	171
C18	0.0	4.252	55	155
C20	0.0	4.639	27	44
C22	0.0	5.012	12	31
SURR	67.0	5.210	105	216
[redacted]	0.0	0.000	0	0
[redacted]	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

TAZZ1B RANGES

	AREA	CONC	Macro: 971111-1
GAS(TOL-C12)	800	160	
DIESEL(C12-C24)	3601	195	Surrogate Subtracted
OIL(C24-C38)	0	0	
SURROGATE	216.275909		

[redacted]

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Report Date: 11/12/97 18:23:05 Page 1 of 2

ANALYTICAL RESOURCES NWTPH-D REPORT

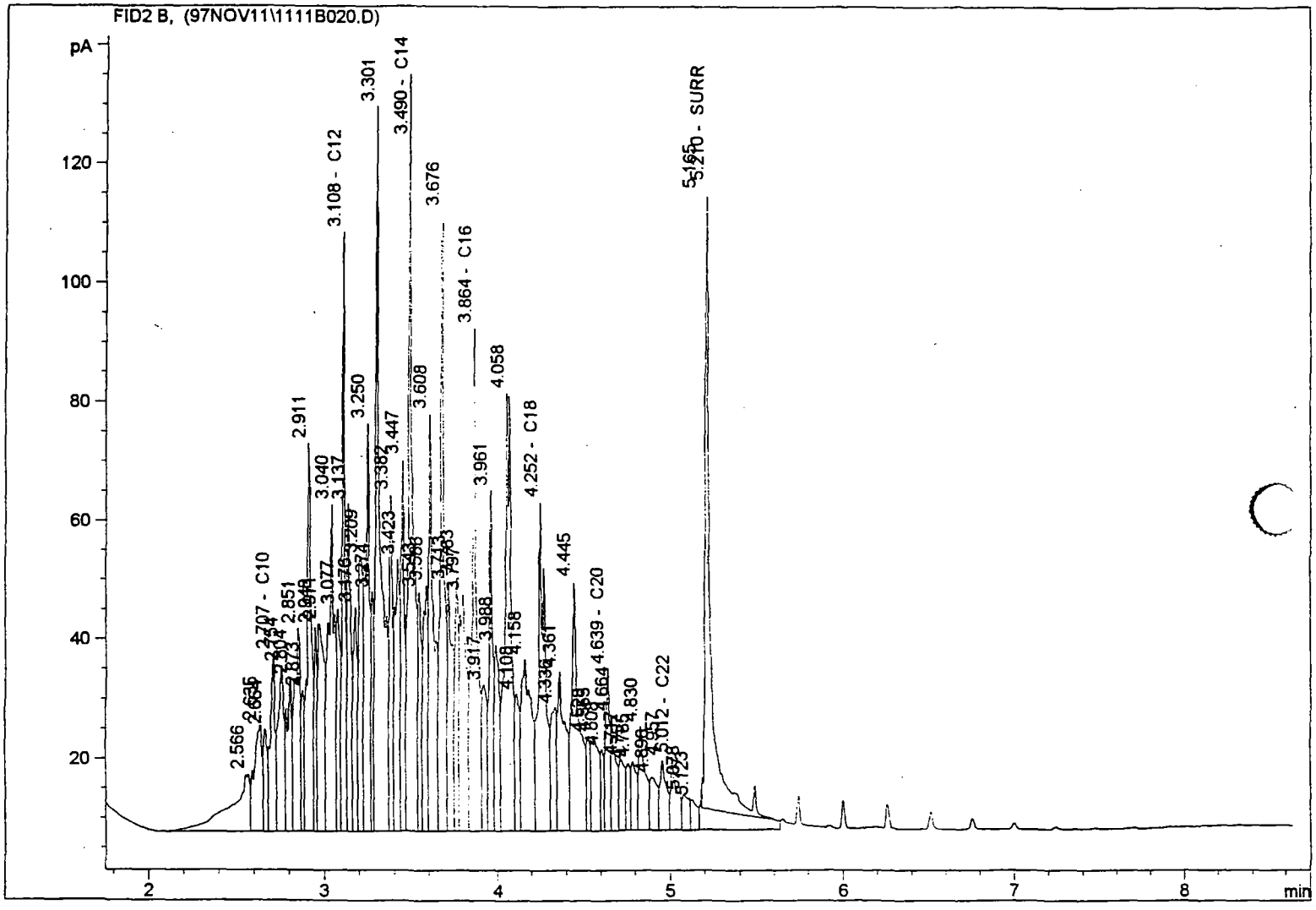
SAMPLE NAME: DIESEL 200 Injection Date: 11/12/97 01:33:23

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV11\1111B020.D

INSTRUMENT: TAZZ1B Operator: SAW

TAZZ1B SIGNAL



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ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 500 Injection Date: 11/12/97 01:52:45

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV11\1111B021.D

INSTRUMENT: TAZZ1B Operator: SAW

Method: C:\HPCHEM\1\METHODS\97NOV11B.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:08/05, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.700	123	163
C12	0.0	3.106	332	304
C14	0.0	3.489	389	450
C16	0.0	3.864	257	432
C18	0.0	4.250	175	254
C20	0.0	4.635	97	217
C22	0.0	5.008	37	86
SURR	176.7	5.209	533	557
[redacted]	0.0	5.365	12	57
[redacted]	0.0	5.741	2	15
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

TAZZ1B RANGES

	AREA	CONC	Macro: 971111-1
GAS(TOL-C12)	1890	377	
DIESEL(C12-C24)	9195	497	Surrogate Subtracted
OIL(C24-C38)	67	5	
SURROGATE	556.938538		

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Report Date: 11/12/97 18:23:49 Page 1 of 2

ANALYTICAL RESOURCES NWTPH-D REPORT

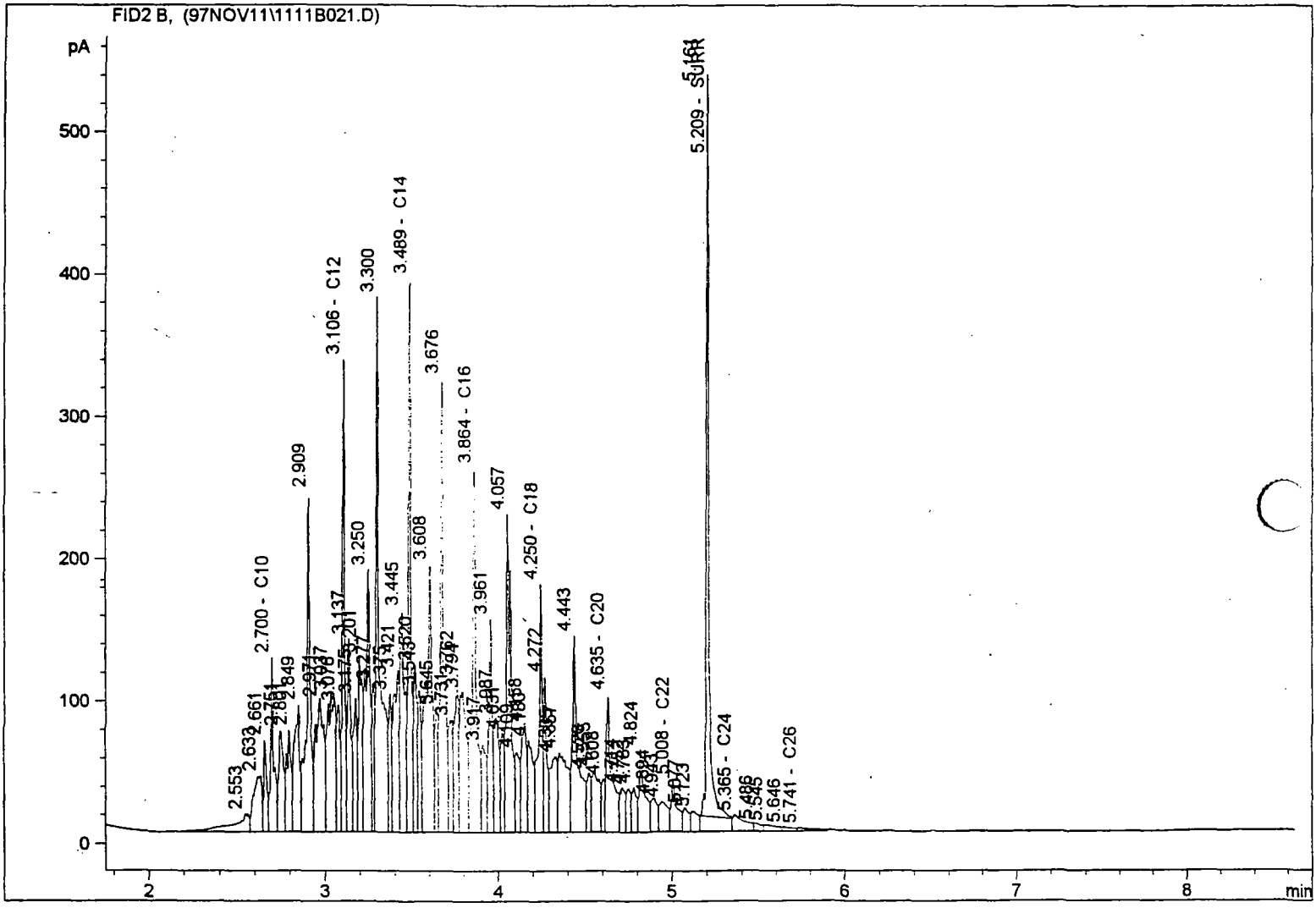
SAMPLE NAME: DIESEL 500 Injection Date: 11/12/97 01:52:45

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV11\1111B021.D

INSTRUMENT: TAZZ1B Operator: SAW

TAZZ1B SIGNAL



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ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 2000 Injection Date: 11/12/97 02:11:56

PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV11\1111B022.D

INSTRUMENT: TAZZ1B Operator: SAW

Method: C:\HPCHEM\1\METHODS\97NOV11B.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:08/05, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	2.461	83	82
C10	0.0	2.699	574	637
C12	0.0	3.108	1295	1201
C14	0.0	3.492	1411	1693
C16	0.0	3.867	959	1543
C18	0.0	4.253	644	924
C20	0.0	4.635	381	721
C22	0.0	5.005	151	314
SURR	670.4	5.218	1981	2091
C24	0.0	5.360	39	197
[redacted]	0.0	5.710	7	57
C28	0.0	6.078	3	16
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

TAZZ1B RANGES

	AREA	CONC	Macro: 971111-1
GAS(TOL-C12)	7331	1461	
DIESEL(C12-C24)	33647	1817	Surrogate Subtracted
OIL(C24-C38)	209	15	
SURROGATE	2090.890381		

ANALYTICAL RESOURCES NWTPH-D REPORT

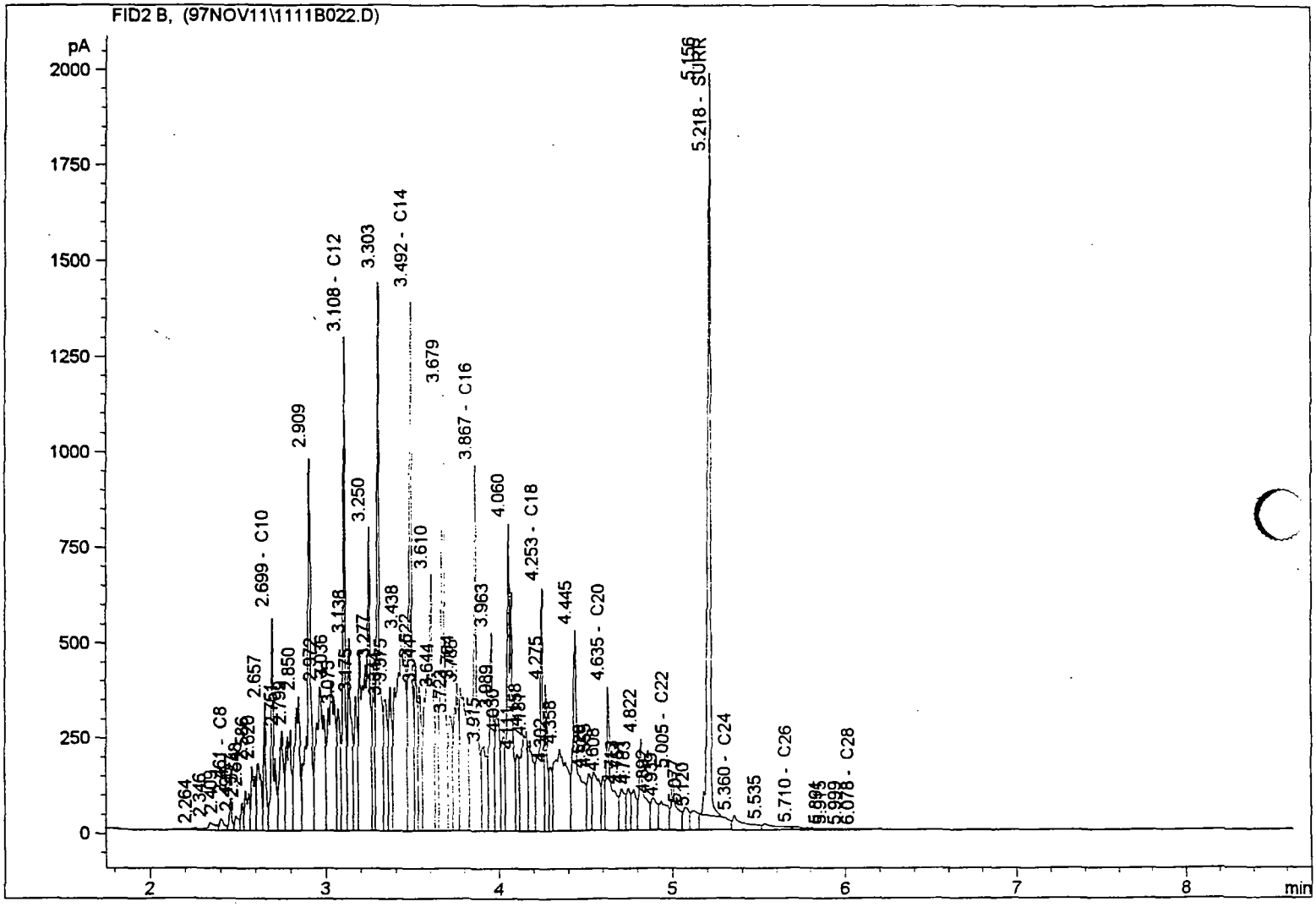
SAMPLE NAME: DIESEL 2000 Injection Date: 11/12/97 02:11:56

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV11\1111B022.D

INSTRUMENT: TAZZ1B Operator: SAW

TAZZ1B SIGNAL



ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 5000 Injection Date: 11/12/97 02:30:58

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV11\1111B023.D

INSTRUMENT: TAZZ1B Operator: SAW

Method: C:\HPCHEM\1\METHODS\97NOV11B.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:08/05, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	2.113	30	155
C8	0.0	2.472	324	475
C10	0.0	2.708	694	2199
C12	0.0	3.115	2850	6150
C14	0.0	3.499	3403	7195
C16	0.0	3.875	2246	5003
C18	0.0	4.260	1689	4117
C20	0.0	4.641	1040	2470
C22	0.0	5.009	432	848
SURR	1976.7	5.236	4159	6149
[redacted]	0.0	5.362	115	498
[redacted]	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

TAZZ1B RANGES

	AREA	CONC	Macro: 971111-1
GAS(TOL-C12)	19350	3855	
DIESEL(C12-C24)	89060	4809	Surrogate Subtracted
OIL(C24-C38)	0	0	
SURROGATE	6149.035645		

[redacted]

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ANALYTICAL RESOURCES NWTPH-D REPORT

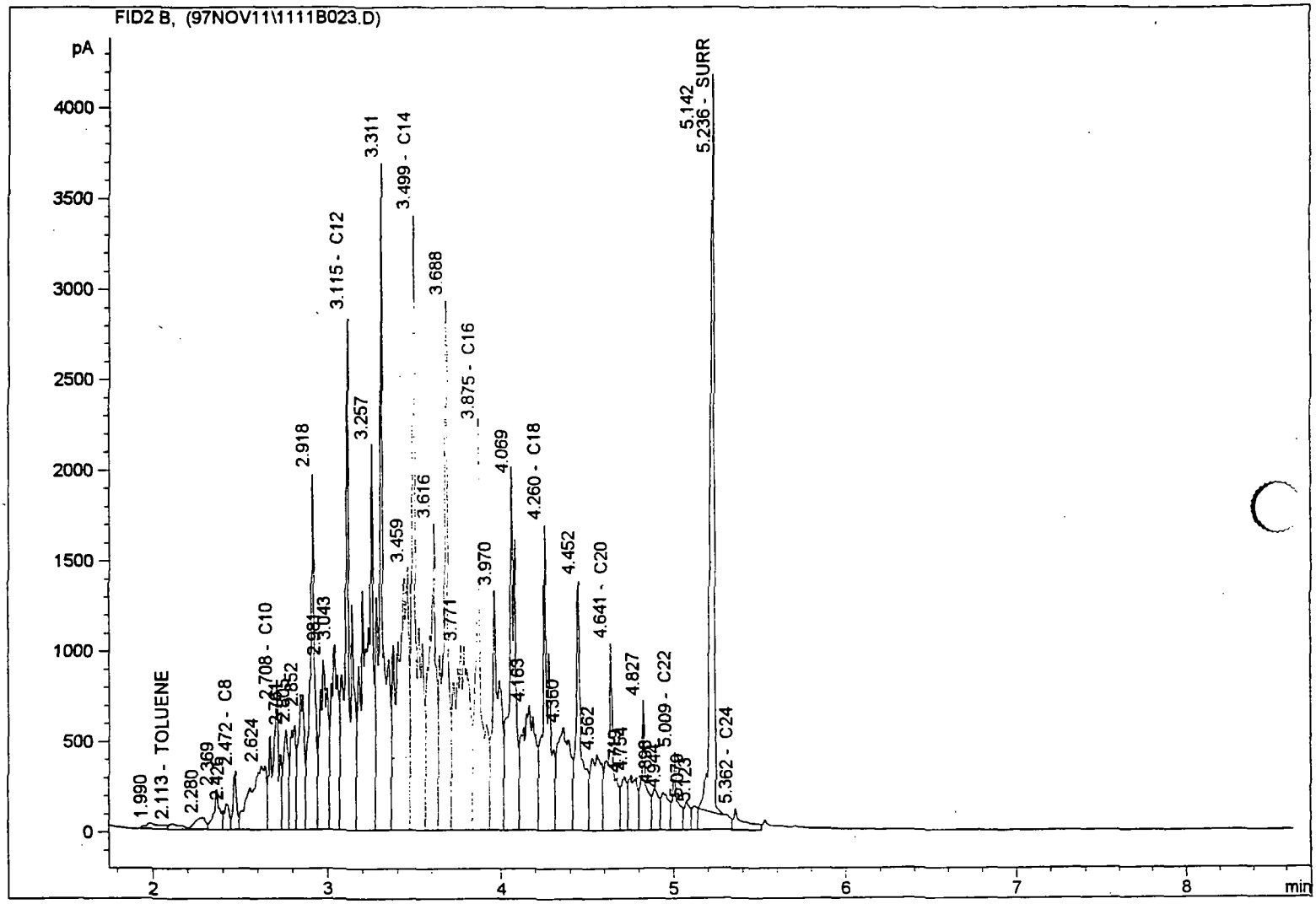
SAMPLE NAME: DIESEL 5000 Injection Date: 11/12/97 02:30:58

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV11\1111B023.D

INSTRUMENT: TAZZ1B Operator: SAW

TAZZ1B SIGNAL



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ANALYTICAL
RESOURCES
INCORPORATED

MOTOR OIL LINEARITY CHECK

ARI Job Number: U269

Client: Remediation Technologies, Inc.
Project: 1 2900

Instrument: Tazz1B

Date Analyzed: 08/05/96

Time Analyzed: 00:07-01:44

Report: 11/25/97 MAC:CSP

Compound	Calibration Factor Conc: 100	Calibration Factor Conc: 250	Calibration Factor Conc: 500	Calibration Factor Conc: 2500	Calibration Factor Conc: 5000	Calibration Factor Average	%RSD
Motor Oil	14.17	14.59	15.97	14.78	11.81	14.26	10.70

FORM VI M.O.

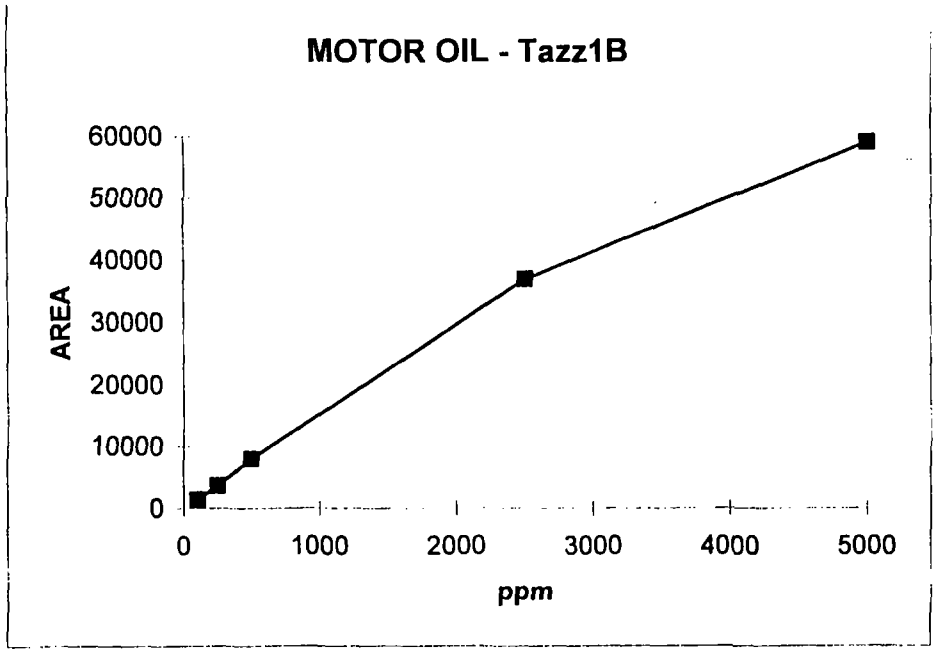
NW MOTOR OIL CURVE (C24-C38)

Instrument: Tazz1B
Date: 08/04/97

RTX-1 COLUMN

COMPOUND	100ppm	RF 5:1	250ppm	RF 2:1	500ppm	RF 1:1	2500ppm	RF 1:5	5000ppm	RF 1:10	%RSD
MOTOR OIL	1417.00	14.17	3647.00	14.59	7983.00	15.97	36945.00	14.78	59035.00	11.81	10.70

AVERAGE 14.26



ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: M. OIL 50 Injection Date: 08/05/97 00:07:13

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG04\0804B014.D

INSTRUMENT: TAZZ1B Operator: AHB

Method: C:\HPCHEM\1\METHODS\97AUG04B.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:07/02, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	4.645	1	3
C22	0.0	5.018	2	4
SURR	19.9	5.220	35	29
[redacted]	0.0	5.397	4	11
[redacted]	0.0	5.725	6	50
C28	0.0	6.070	7	48
C30	0.0	6.415	6	15
C32	0.0	6.754	5	17
C34	0.0	7.108	3	29
C36	0.0	7.448	1	8
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

TAZZ1B RANGES

	AREA	CONC	Macro: 970804-1
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	105	6	Surrogate Subtracted
OIL(C24-C38)	595	42	
SURROGATE	28.617508		

ANALYTICAL RESOURCES TPH REPORT

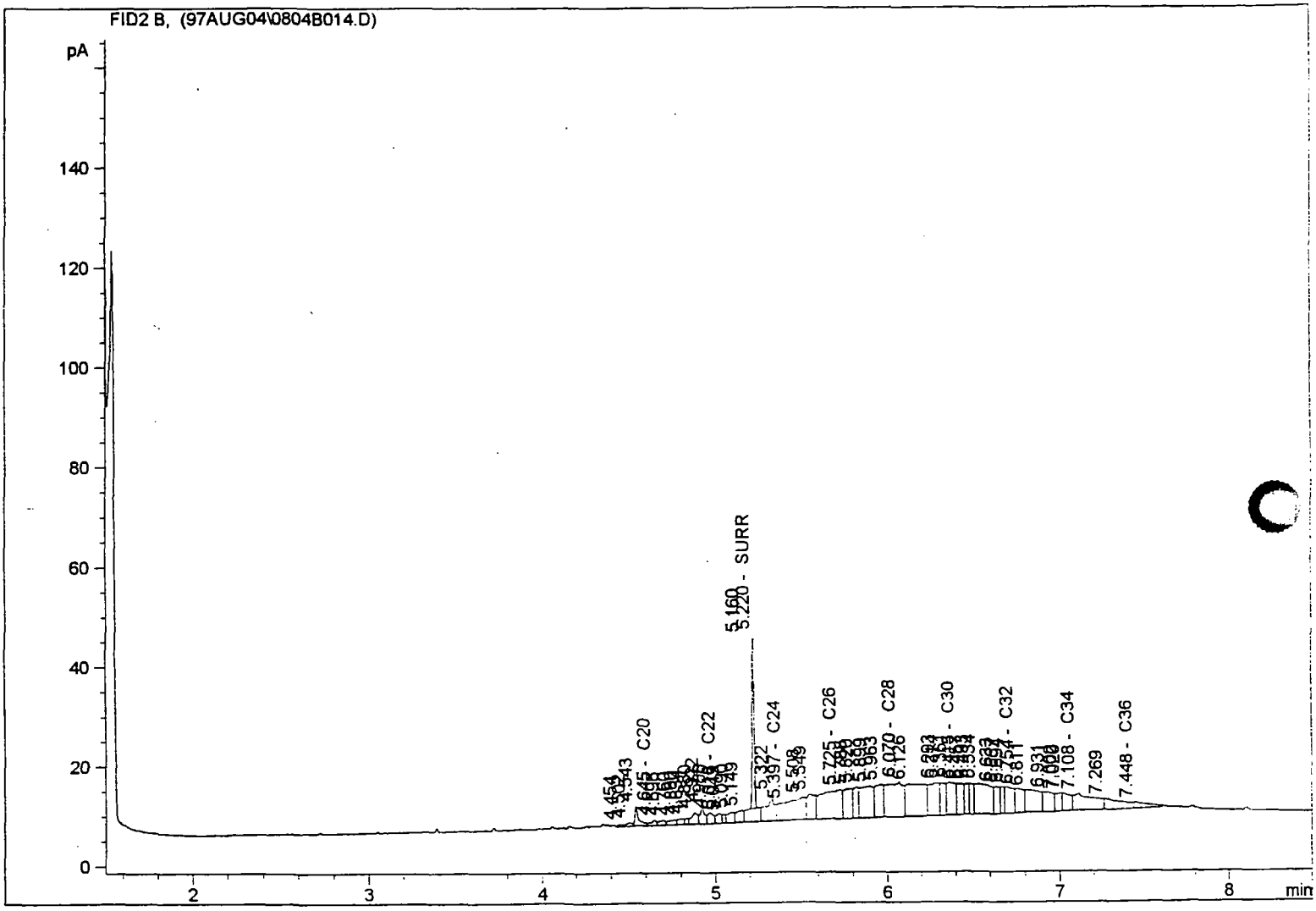
SAMPLE NAME: M. OIL 50 Injection Date: 08/05/97 00:07:13

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG04\0804B014.D

INSTRUMENT: TAZZ1B Operator: AHB

TAZZ1B SIGNAL



ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: M. OIL 100 Injection Date: 08/05/97 00:26:48

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG04\0804B015.D

INSTRUMENT: TAZZ1B Operator: AHB

Method: C:\HPCHEM\1\METHODS\97AUG04B.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:07/02, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	4.262	1	2
C20	0.0	4.647	2	4
C22	0.0	5.043	4	11
SURR	27.5	5.221	62	51
[redacted]	0.0	0.000	0	0
[redacted]	0.0	5.733	12	114
C28	0.0	6.070	14	55
C30	0.0	6.467	13	33
C32	0.0	6.802	11	13
C34	0.0	7.107	8	58
C36	0.0	7.489	4	47
C38	0.0	7.781	2	20
C40	0.0	8.103	1	2

TAZZ1B RANGES

	AREA	CONC	Macro: 970804-1
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	194	11	Surrogate Subtracted
OIL(C24-C38)	1417	100	
SURROGATE	51.228542		

[redacted]

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ANALYTICAL RESOURCES TPH REPORT

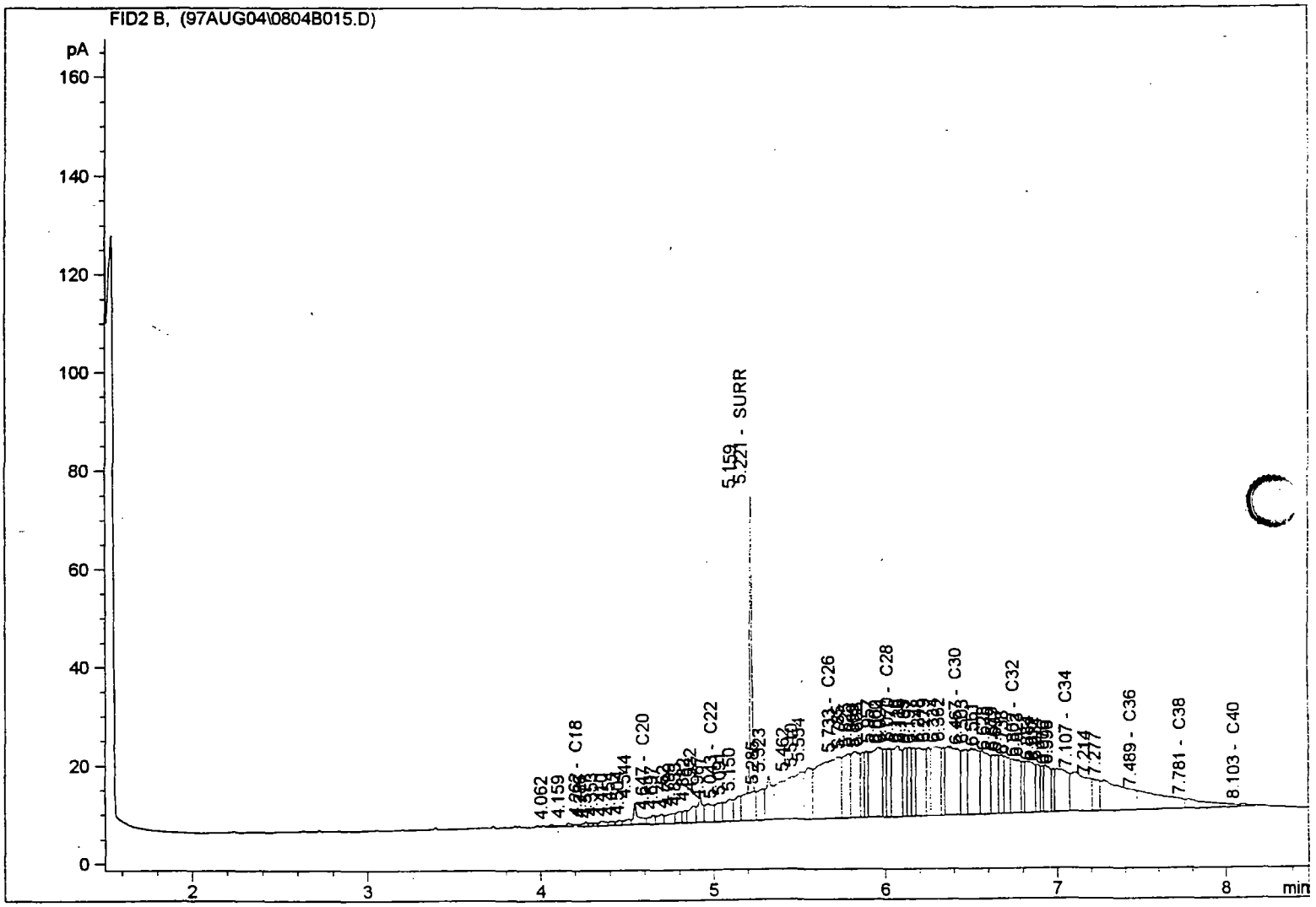
SAMPLE NAME: M. OIL 100 Injection Date: 08/05/97 00:26:48

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG04\0804B015.D

INSTRUMENT: TAZZ1B Operator: AHB

TAZZ1B SIGNAL



ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: M. OIL 250 Injection Date: 08/05/97 00:46:27

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG04\0804B016.D

INSTRUMENT: TAZZ1B Operator: AHB

Method: C:\HPCHEM\1\METHODS\97AUG04B.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:07/02, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	3.876	1	1
C18	0.0	4.261	2	5
C20	0.0	4.647	4	10
C22	0.0	0.000	0	0
SURR	51.7	5.221	143	123
[redacted]	0.0	0.000	0	0
[redacted]	0.0	5.729	33	107
C28	0.0	6.070	38	118
C30	0.0	6.457	35	85
C32	0.0	6.815	27	32
C34	0.0	7.105	21	76
C36	0.0	0.000	0	0
C38	0.0	7.777	6	22
C40	0.0	8.096	3	36

TAZZ1B RANGES

	AREA	CONC	Macro: 970804-1
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	481	26	Surrogate Subtracted
OIL(C24-C38)	3647	256	
SURROGATE	122.589348		

[redacted]

ANALYTICAL RESOURCES TPH REPORT

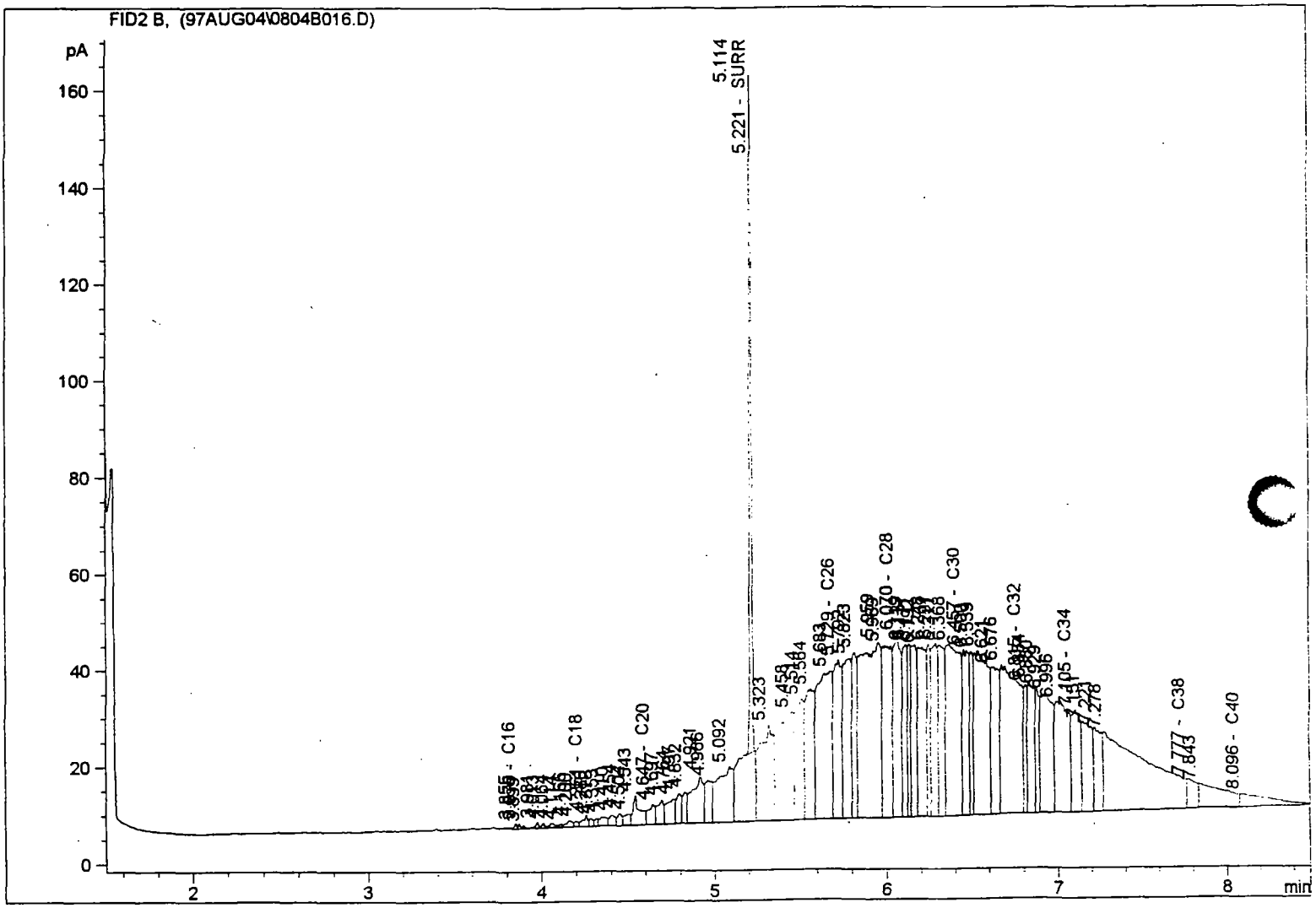
SAMPLE NAME: M. OIL 250 Injection Date: 08/05/97 00:46:27

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG04\0804B016.D

INSTRUMENT: TAZZ1B Operator: AHB

TAZZ1B SIGNAL



ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: M. OIL 500 Injection Date: 08/05/97 01:05:56

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG04\0804B017.D

INSTRUMENT: TAZZ1B Operator: AHB

Method: C:\HPCHEM\1\METHODS\97AUG04B.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:07/02, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	3.877	2	2
C18	0.0	4.261	5	10
C20	0.0	4.648	8	23
C22	0.0	5.045	20	69
SURR	95.0	5.225	281	250
[redacted]	0.0	0.000	0	0
[redacted]	0.0	5.741	67	308
C28	0.0	6.080	76	374
C30	0.0	6.371	76	455
C32	0.0	0.000	0	0
C34	0.0	7.114	47	253
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	8.101	5	57

TAZZ1B RANGES

	AREA	CONC	Macro: 970804-1
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	966	51	Surrogate Subtracted
OIL(C24-C38)	7983	560	
SURROGATE	250.059	708	

ANALYTICAL RESOURCES TPH REPORT

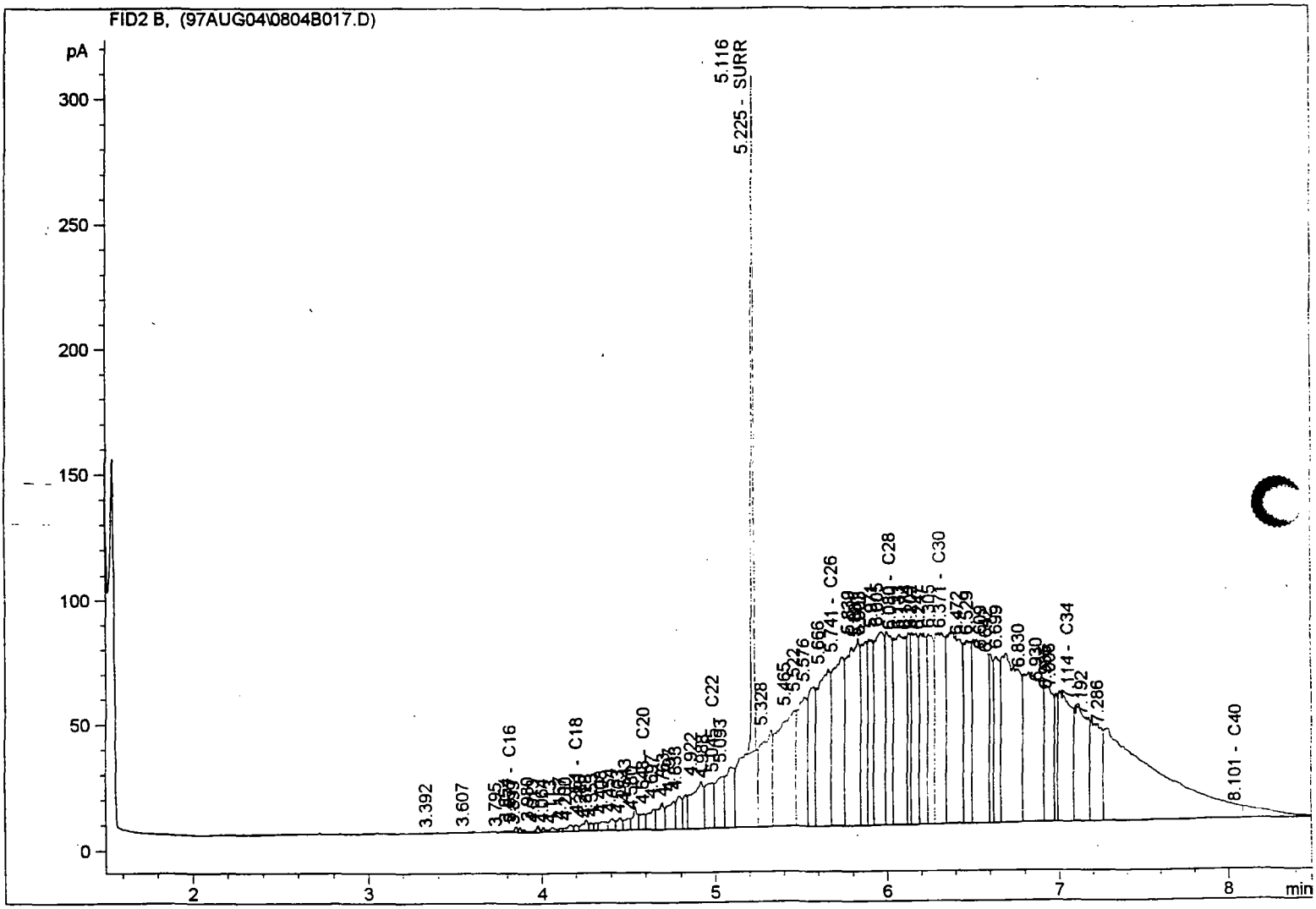
SAMPLE NAME: M. OIL 500 Injection Date: 08/05/97 01:05:56

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG04\0804B017.D

INSTRUMENT: TAZZ1B Operator: AHB

TAZZ1B SIGNAL



ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: M. OIL 2500 Injection Date: 08/05/97 01:25:18

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG04\0804B018.D

INSTRUMENT: TAZZ1B Operator: AHB

Method: C:\HPCHEM\1\METHODS\97AUG04B.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:07/02, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	3.876	8	8
C18	0.0	4.262	21	48
C20	0.0	4.649	41	114
C22	0.0	4.996	92	355
SURR	439.6	5.231	1197	1267
[redacted]	0.0	5.330	189	402
[redacted]	0.0	5.743	350	1669
C28	0.0	6.083	378	1311
C30	0.0	6.435	356	1115
C32	0.0	6.814	266	516
C34	0.0	7.108	186	1563
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

TAZZ1B RANGES

	AREA	CONC	Macro: 970804-1
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	4920	260	Surrogate Subtracted
OIL(C24-C38)	36945	2591	
SURROGATE	1266.522339		

ANALYTICAL RESOURCES TPH REPORT

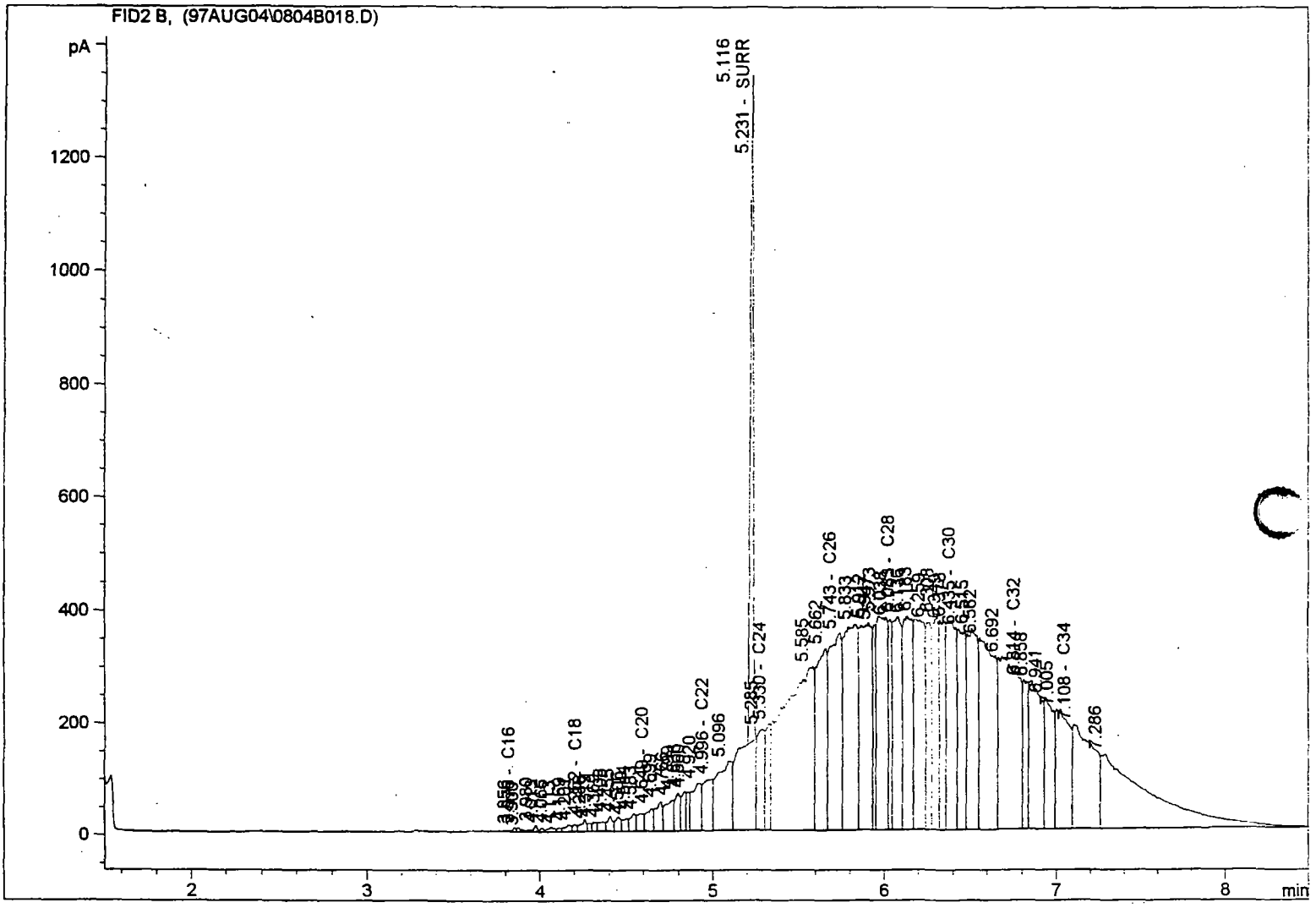
SAMPLE NAME: M. OIL 2500 Injection Date: 08/05/97 01:25:18

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG04\0804B018.D

INSTRUMENT: TAZZ1B Operator: AHB

TAZZ1B SIGNAL



ANALYTICAL RESOURCES TPH REPORT

SAMPLE NAME: M. OIL 5000 Injection Date: 08/05/97 01:44:48

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG04\0804B019.D

INSTRUMENT: TAZZ1B Operator: AHB

Method: C:\HPCHEM\1\METHODS\97AUG04B.M

Column: DB-5, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:07/02, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	4.263	38	88
C20	0.0	4.651	78	221
C22	0.0	5.049	201	1358
SURR	844.1	5.243	1943	2460
C24	0.0	0.000	0	0
[redacted]	0.0	5.752	664	3210
C28	0.0	6.075	685	820
C30	0.0	6.395	616	5389
C32	0.0	0.000	0	0
C34	0.0	7.120	204	1704
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

TAZZ1B RANGES

	AREA	CONC	Macro: 970804-1
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	8782	463	Surrogate Subtracted
OIL(C24-C38)	59035	4140	
SURROGATE	2459.624512		

ANALYTICAL RESOURCES TPH REPORT

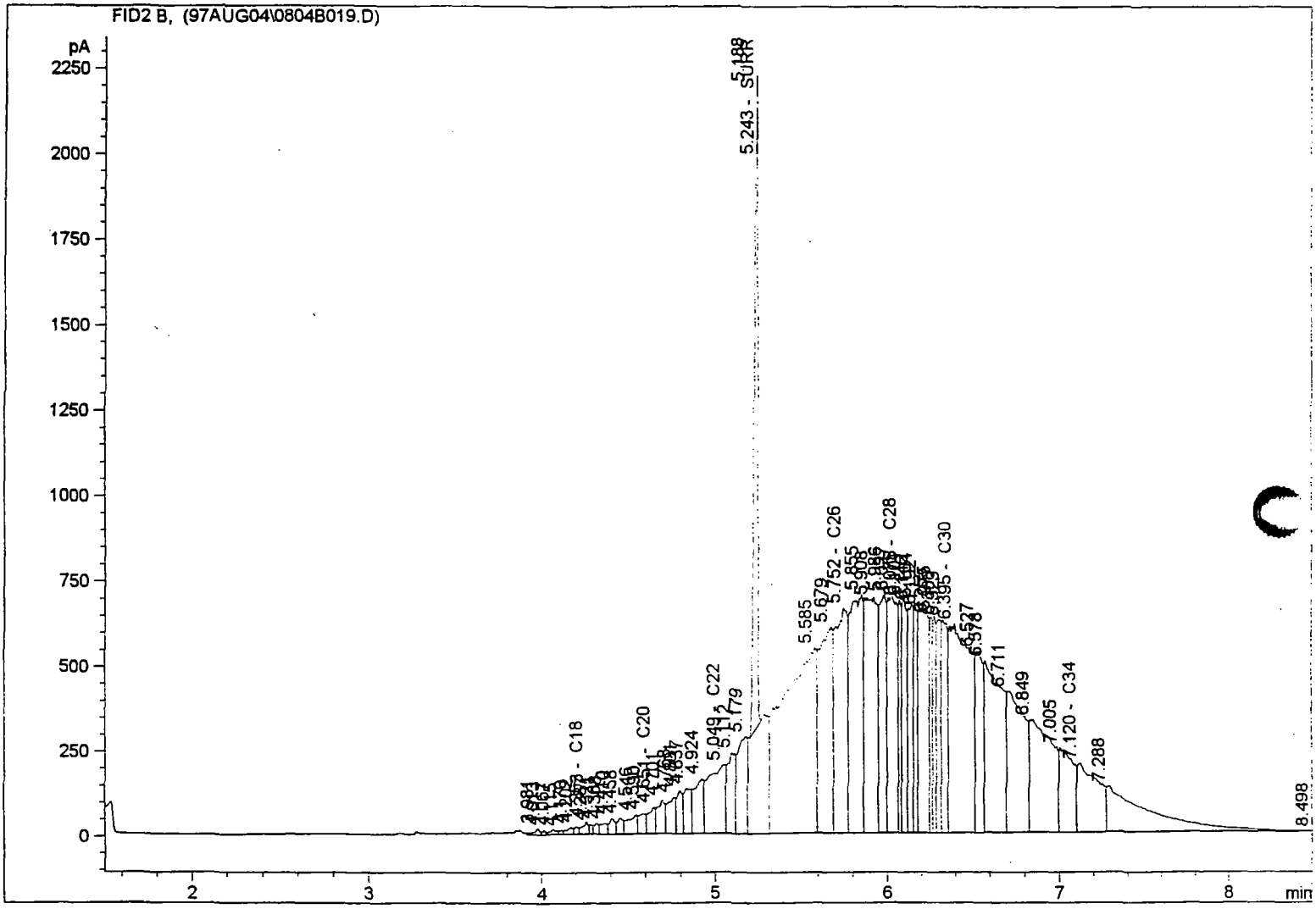
SAMPLE NAME: M. OIL 5000 Injection Date: 08/05/97 01:44:48

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97AUG04\0804B019.D

INSTRUMENT: TAZZ1B Operator: AHB

TAZZ1B SIGNAL



ANALYTICAL
RESOURCES
INCORPORATED

7A
DIESEL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/25/97 MAC: CSP

Client Sample No. : DIESEL STD #1

Date Analyzed: 11/10/97

LAB Sample No.: DIESEL STD #1

Time Analyzed: 20:52

Instrument: Tazz1B

Compound	DIESEL STD #1 CAL. FACTOR	CURVE CAL FACTOR	%D
Diesel (250 ppm)	18.31	18.02	1.6

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 250 #1 Injection Date: 11/10/97 20:52:15

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV10\1110B005.D

INSTRUMENT: TAZZ1B Operator: AHB

Method: C:\HPCHEM\1\METHODS\97NOV10B.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:08/05, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.665	10	14
C12	0.0	3.112	54	127
C14	0.0	3.491	116	232
C16	0.0	3.866	115	242
C18	0.0	4.252	88	137
C20	0.0	4.638	43	118
C22	0.0	5.014	14	36
SURR	65.2	5.210	93	211
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

TAZZ1B RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	479	96	
DIESEL(C12-C24)	4578	248	Surrogate Subtracted
OIL(C24-C38)	0	0	
SURROGATE	210.535782		

ANALYTICAL RESOURCES NWTPH-D REPORT

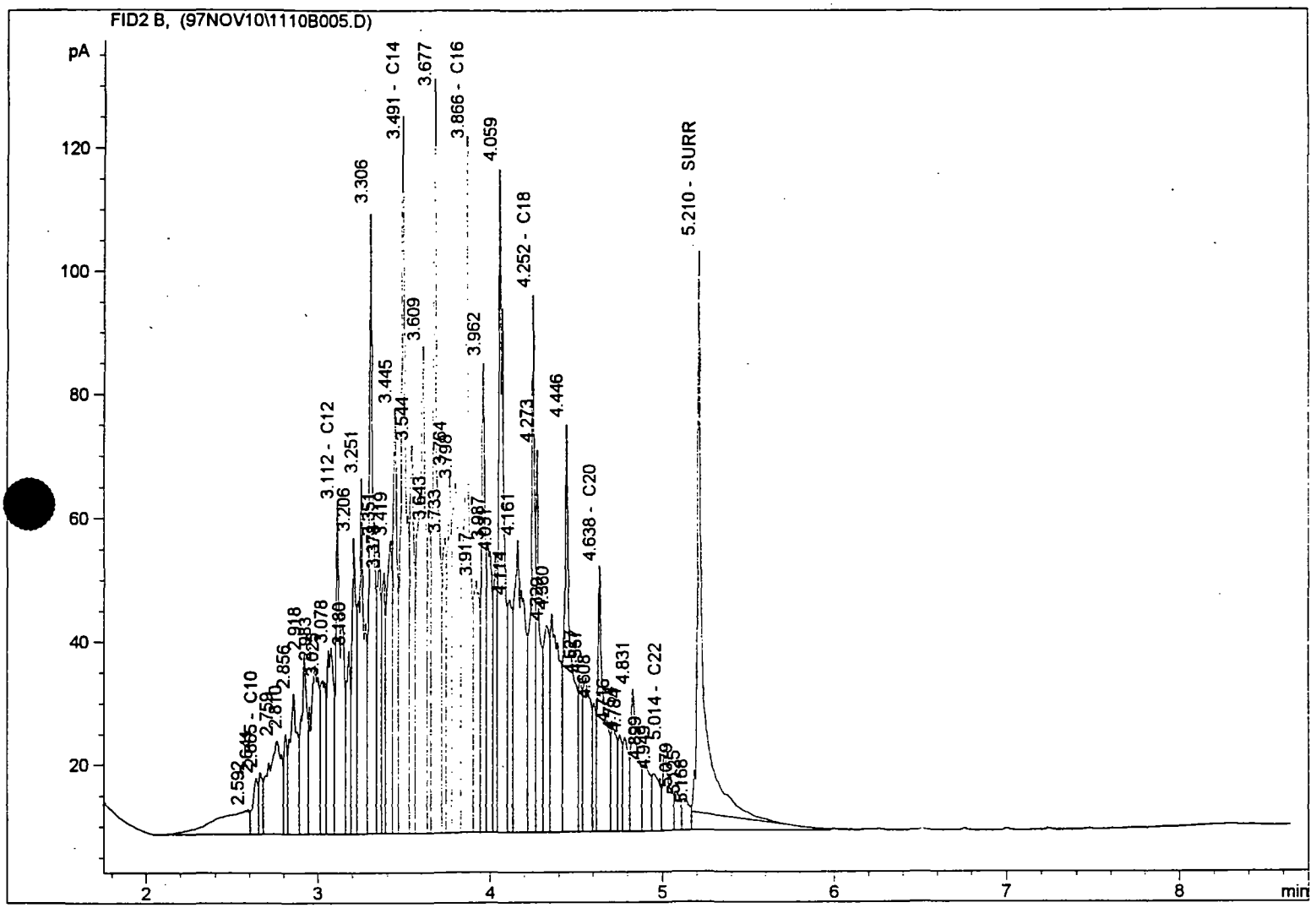
SAMPLE NAME: DIESEL 250 #1 Injection Date: 11/10/97 20:52:15

PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV10\1110B005.D

INSTRUMENT: TAZZ1B Operator: AHB

TAZZ1B SIGNAL



ANALYTICAL
RESOURCES
INCORPORATED

7A
MOTOR OIL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/25/97 MAC: CSP

Client Sample No. : MOTOR OIL STD #1

Date Analyzed: 11/10/97

LAB Sample No.: MOTOR OIL STD #1

Time Analyzed: 21:11

Instrument: Tazz1B

Compound	MOTOR OIL STD #1 CAL. FACTOR	CURVE CAL FACTOR	%D
Motor Oil (500 ppm)	14.64	14.26	2.7

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: M. OIL 500 #1 Injection Date: 11/10/97 21:11:37

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV10\1110B006.D

INSTRUMENT: TAZZ1B Operator: AHB

Method: C:\HPCHEM\1\METHODS\97NOV10B.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:08/05, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	4.662	7	11
C22	0.0	5.029	18	30
SURR	52.5	5.210	117	171
[redacted]	0.0	5.392	41	51
[redacted]	0.0	5.727	61	50
C28	0.0	6.068	68	37
C30	0.0	6.429	69	56
C32	0.0	6.775	60	69
C34	0.0	7.106	43	13
C36	0.0	7.454	24	25
C38	0.0	7.822	7	43
C40	0.0	0.000	0	0

TAZZ1B RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	1017	55	Surrogate Subtracted
OIL(C24-C38)	7321	514	
SURROGATE	171.076279		

ANALYTICAL RESOURCES NWTPH-D REPORT

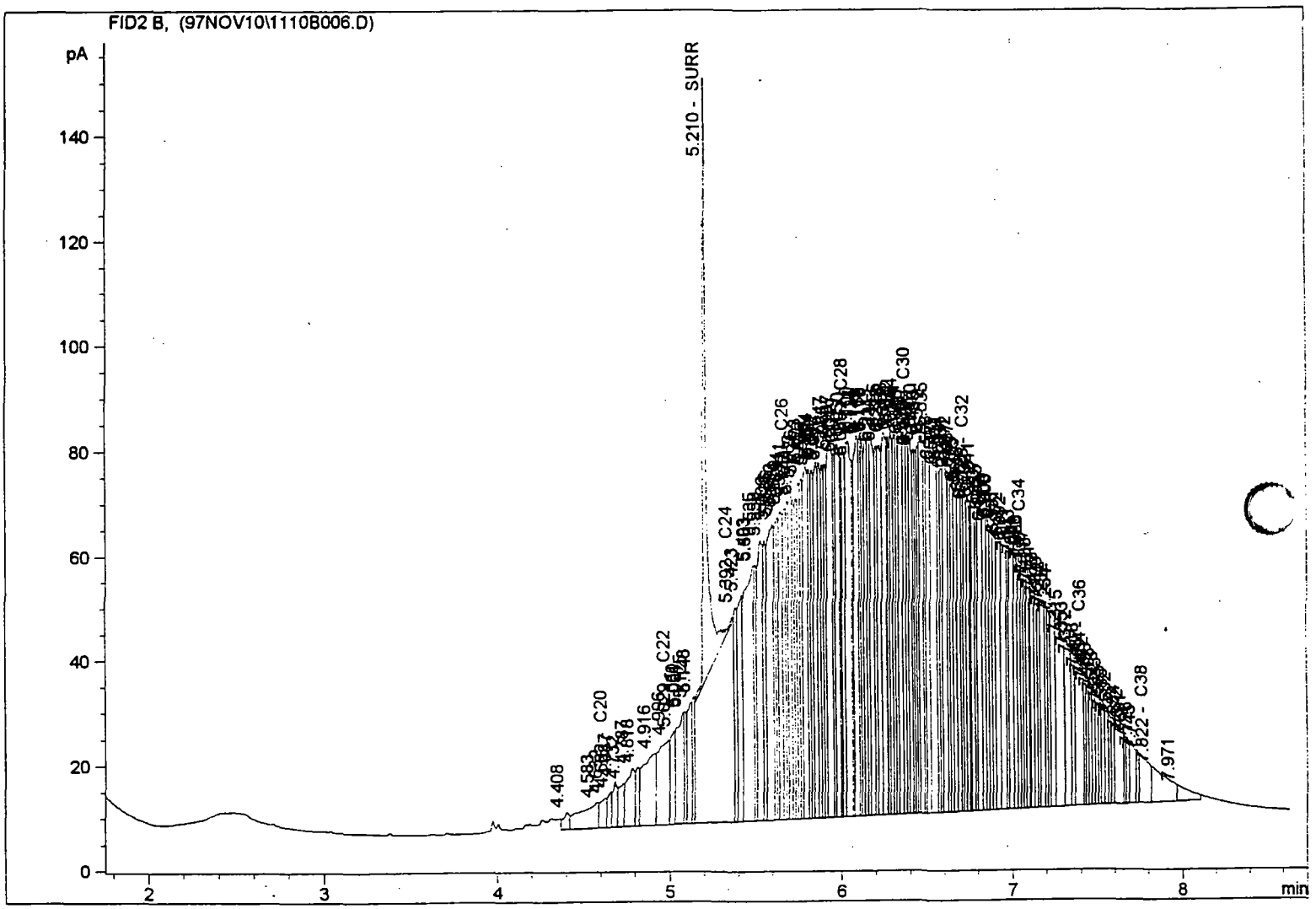
SAMPLE NAME: M. OIL 500 #1 Injection Date: 11/10/97 21:11:37

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV10\1110B006.D

INSTRUMENT: TAZZ1B Operator: AHB

TAZZ1B SIGNAL



ANALYTICAL
RESOURCES
INCORPORATED

7A
DIESEL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/25/97 MAC: CSP

Client Sample No. : DIESEL STD #2

Date Analyzed: 11/11/97

LAB Sample No.: DIESEL STD #2

Time Analyzed: 00:42

Instrument: Tazz1B

Compound	DIESEL STD #2 CAL. FACTOR	CURVE CAL FACTOR	%D
Diesel (250 ppm)	17.46	18.02	3.1

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 250 #2 Injection Date: 11/11/97 00:42:38

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV10\1110B017.D

INSTRUMENT: TAZZ1B Operator: AHB

Method: C:\HPCHEM\1\METHODS\97NOV10B.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:08/05, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.715	11	13
C12	0.0	3.111	50	68
C14	0.0	3.491	108	184
C16	0.0	3.865	109	232
C18	0.0	4.251	82	130
C20	0.0	4.638	40	112
C22	0.0	5.014	14	34
SURR	60.7	5.211	90	197
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

TAZZ1B RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	457	91	
DIESEL(C12-C24)	4364	236	Surrogate Subtracted
OIL(C24-C38)	0	0	
SURROGATE	196.675751		

ANALYTICAL RESOURCES NWTPH-D REPORT

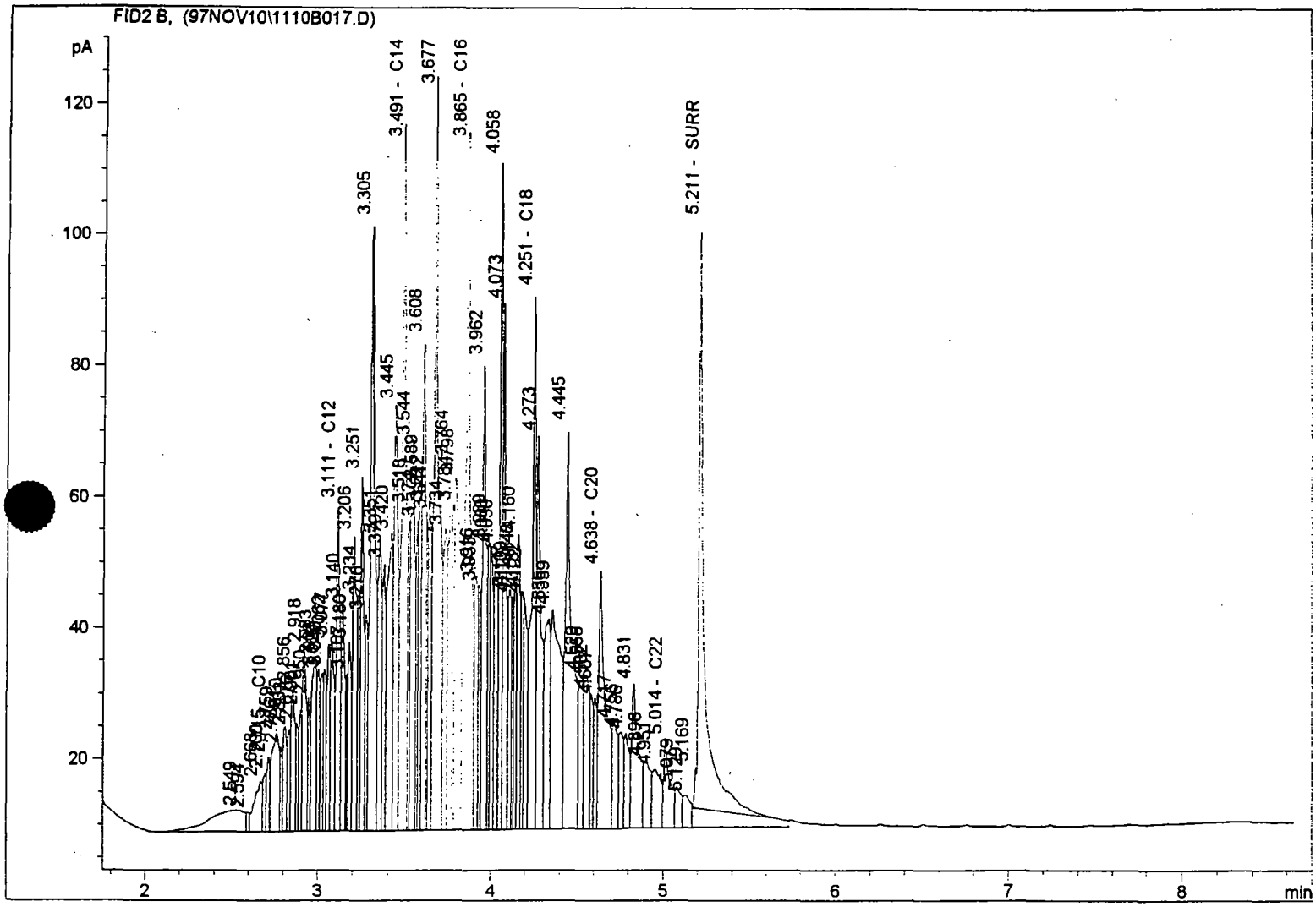
SAMPLE NAME: DIESEL 250 #2 Injection Date: 11/11/97 00:42:38

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV10\1110B017.D

INSTRUMENT: TAZZ1B Operator: AHB

TAZZ1B SIGNAL



ANALYTICAL
RESOURCES
INCORPORATED

7A
MOTOR OIL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/25/97 MAC: CSP

Client Sample No. : MOTOR OIL STD #2

Date Analyzed: 11/11/97

LAB Sample No.: MOTOR OIL STD #2

Time Analyzed: 01:01

Instrument: Tazz1B

Compound	MOTOR OIL STD #2 CAL. FACTOR	CURVE CAL FACTOR	%D
Motor Oil (500 ppm)	13.25	14.26	7.1

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: M. OIL 500 #2 Injection Date: 11/11/97 01:01:52

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV10\1110B018.D

INSTRUMENT: TAZZ1B Operator: AHB

Method: C:\HPCHEM\1\METHODS\97NOV10B.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:08/05, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	0.000	0	0
C20	0.0	4.661	7	24
C22	0.0	5.035	18	47
SURR	51.7	5.211	114	169
C24	0.0	5.380	39	52
[redacted]	0.0	5.718	62	98
C28	0.0	6.072	67	58
C30	0.0	6.431	64	49
C32	0.0	6.772	51	57
C34	0.0	7.103	35	34
C36	0.0	7.453	17	17
C38	0.0	7.750	7	39
C40	0.0	0.000	0	0

TAZZ1B RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	0	0	
DIESEL(C12-C24)	1014	55	Surrogate Subtracted
OIL(C24-C38)	6625	465	
SURROGATE	168.765808		

ANALYTICAL RESOURCES NWTPH-D REPORT

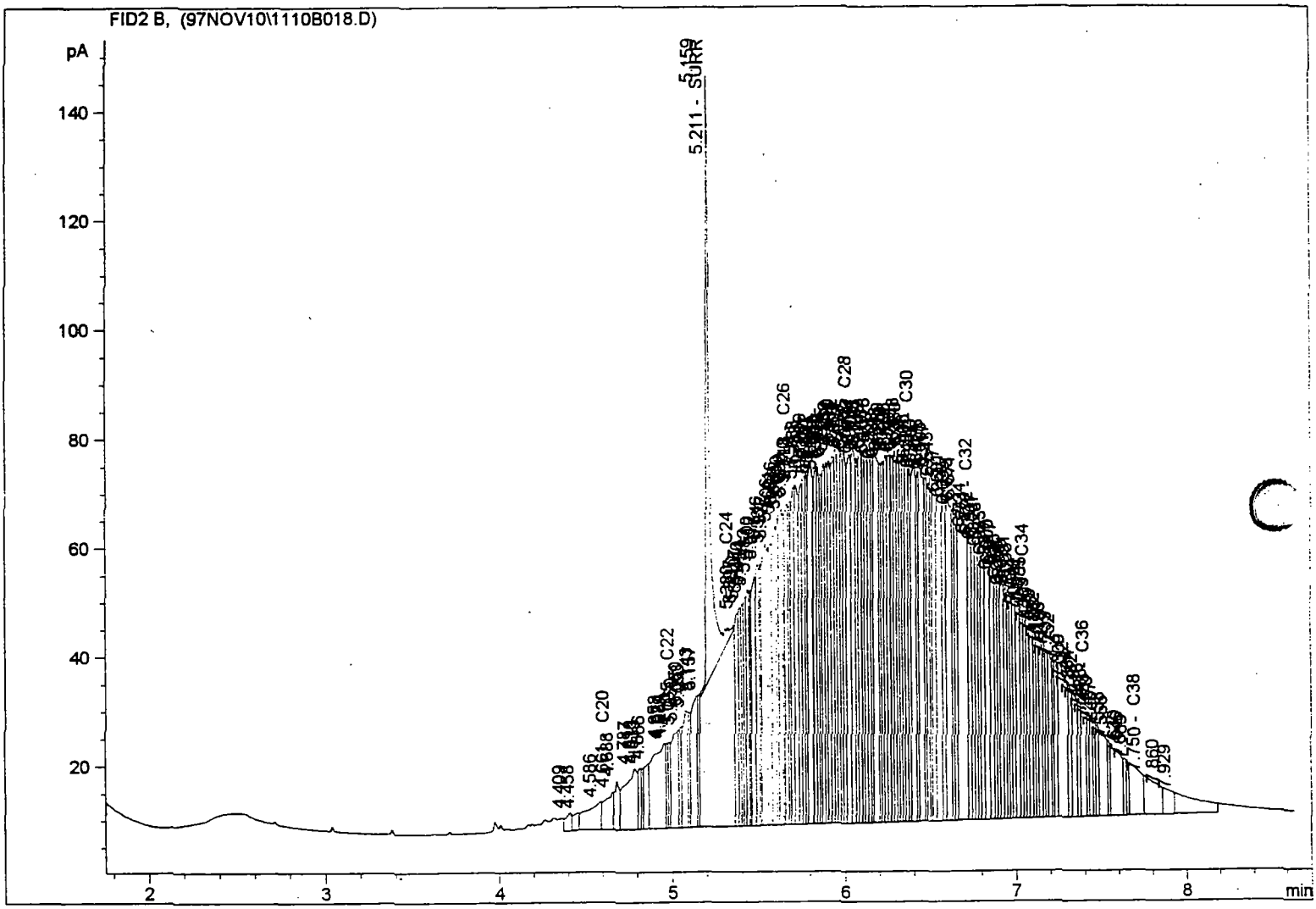
SAMPLE NAME: M. OIL 500 #2 Injection Date: 11/11/97 01:01:52

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV10\1110B018.D

INSTRUMENT: TAZZ1B Operator: AHB

TAZZ1B SIGNAL



ANALYTICAL
RESOURCES
INCORPORATED

7 A
DIESEL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/25/97 MAC: CSP

Client Sample No. : DIESEL STD #1

Date Analyzed: 11/12/97

LAB Sample No.: DIESEL STD #1

Time Analyzed: 23:53

Instrument: Tazz1B

Compound	DIESEL STD #1 CAL. FACTOR	CURVE CAL FACTOR	%D
Diesel (250 ppm)	18.78	18.02	4.2

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 250 #1 Injection Date: 11/12/97 23:53:37

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV12\1112B003.D

INSTRUMENT: TAZZ1B Operator: AHB

Method: C:\HPCHEM\1\METHODS\97NOV12B.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:~~08/05~~ 11/11, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.713	13	30
C12	0.0	3.111	54	73
C14	0.0	3.490	116	236
C16	0.0	3.864	114	248
C18	0.0	4.250	85	136
C20	0.0	4.637	40	121
C22	0.0	5.014	14	37
SURR	84.8	5.212	60	178
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

TAZZ1B RANGES

	AREA	CONC	Macro: 971111-1
GAS(TOL-C12)	507	101	
DIESEL(C12-C24)	4695	261	Surrogate Subtracted
OIL(C24-C38)	0	0	
SURROGATE	178.415131		

386

ANALYTICAL RESOURCES NWTPH-D REPORT

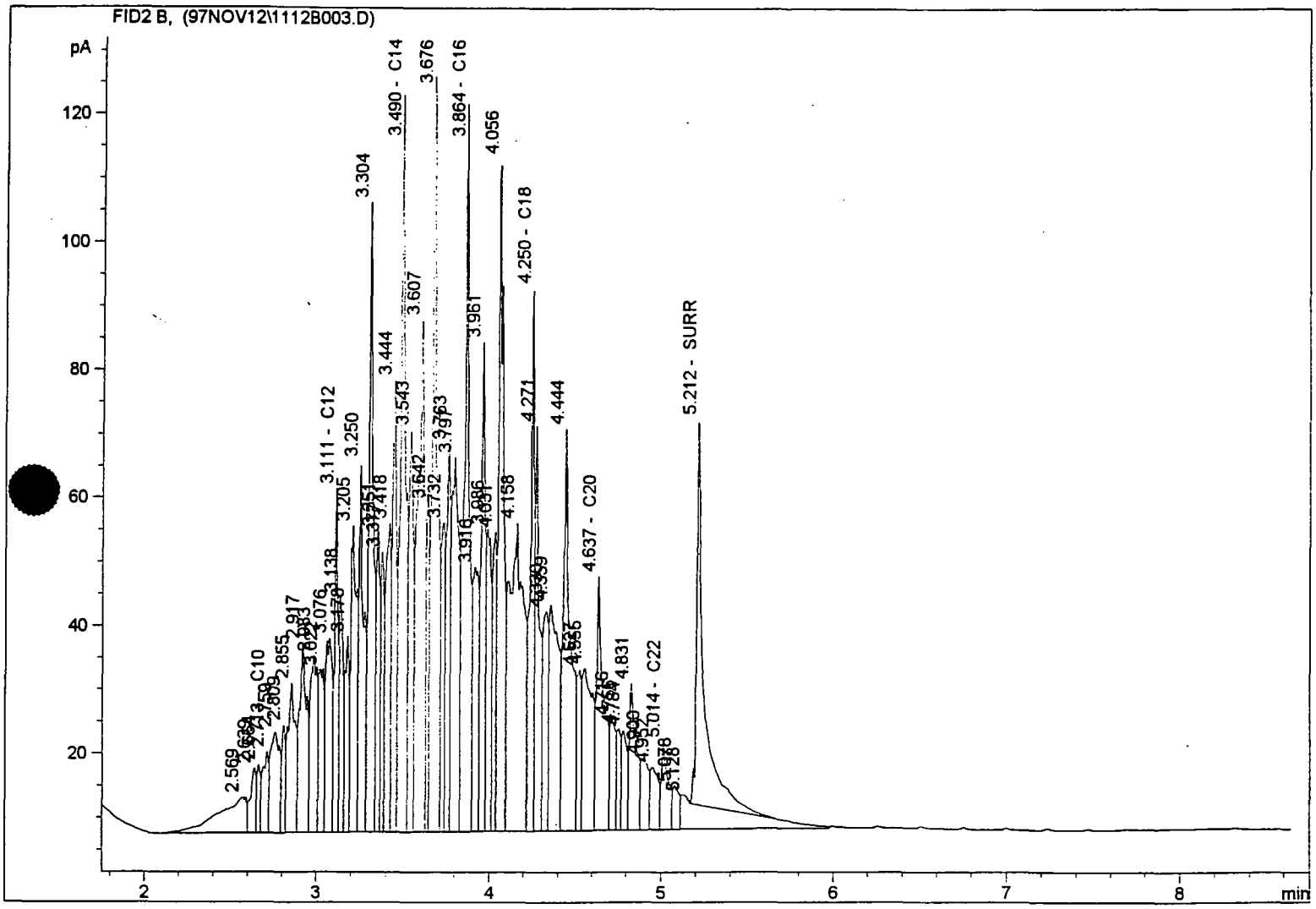
SAMPLE NAME: DIESEL 250 #1 Injection Date: 11/12/97 23:53:37

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV12\1112B003.D

INSTRUMENT: TAZZ1B Operator: AHB

TAZZ1B SIGNAL



ANALYTICAL
RESOURCES
INCORPORATED

7A
MOTOR OIL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/25/97 MAC: CSP

Client Sample No. : MOTOR OIL STD #1

Date Analyzed: 11/13/97

LAB Sample No.: MOTOR OIL STD #1

Time Analyzed: 00:12

Instrument: Tazz1B

Compound	MOTOR OIL STD #1 CAL. FACTOR	CURVE CAL FACTOR	%D
Motor Oil (500 ppm)	14.47	14.26	1.5

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: M. OIL 500 #1 Injection Date: 11/13/97 00:12:04

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV12\1112B004.D

INSTRUMENT: TAZZ1B Operator: AHB

Method: C:\HPCHEM\1\METHODS\97NOV12B.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:~~08/05~~ 11/11, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	2.478	3	64
C10	0.0	0.000	0	0
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	4.267	3	11
C20	0.0	4.662	8	77
C22	0.0	0.000	0	0
SURR	71.5	5.209	92	138
[redacted]	0.0	0.000	0	0
[redacted]	0.0	5.706	61	227
C28	0.0	6.054	68	111
C30	0.0	6.398	65	215
C32	0.0	6.802	55	339
C34	0.0	7.076	44	168
C36	0.0	7.506	21	446
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

TAZZ1B RANGES

	AREA	CONC	Macro: 971111-1
GAS(TOL-C12)	65	13	
DIESEL(C12-C24)	878	49	Surrogate Subtracted
OIL(C24-C38)	7236	508	
SURROGATE	137.554428		

ANALYTICAL RESOURCES NWTPH-D REPORT

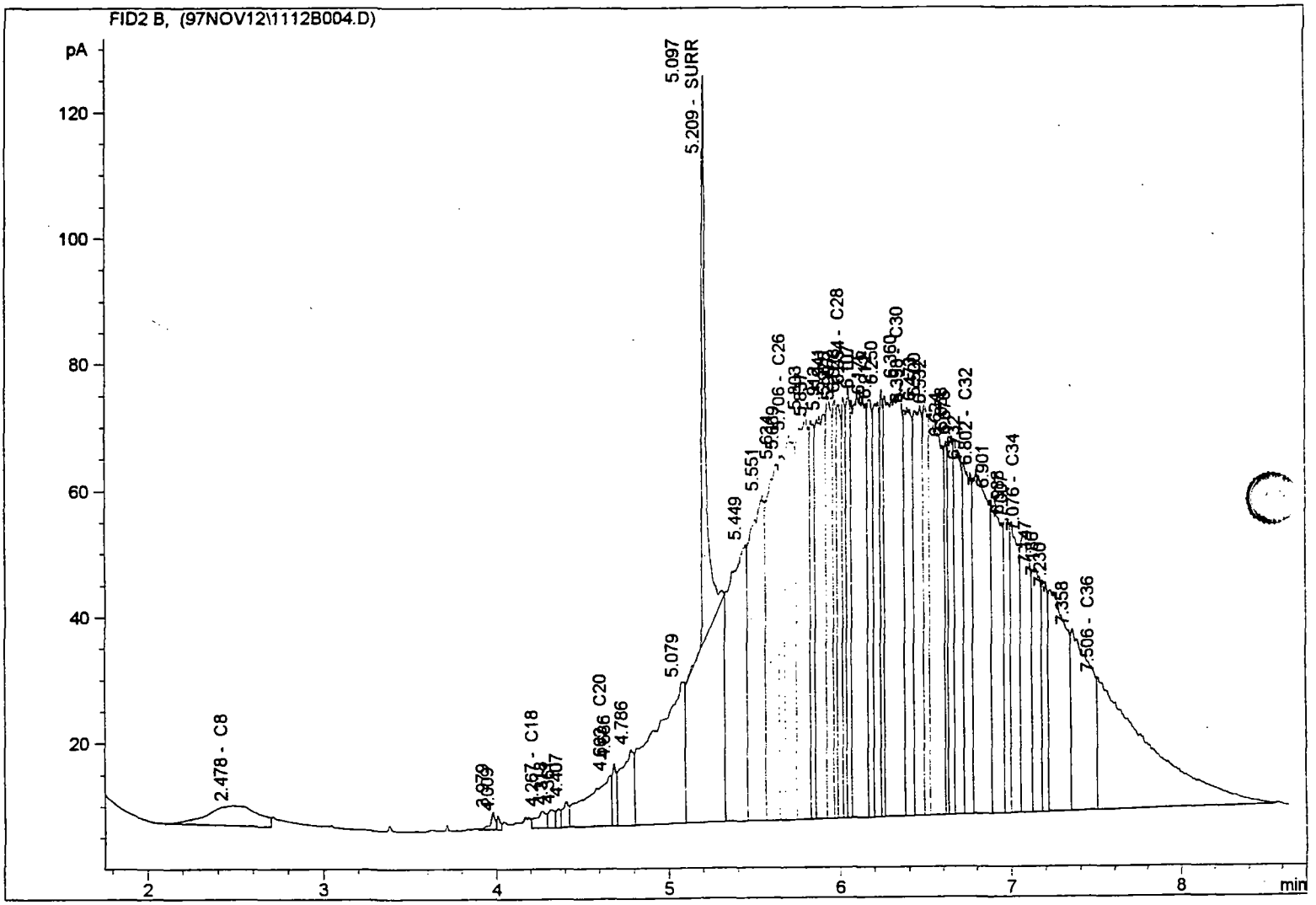
SAMPLE NAME: M. OIL 500 #1 Injection Date: 11/13/97 00:12:04

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV12\1112B004.D

INSTRUMENT: TAZZ1B Operator: AHB

TAZZ1B SIGNAL



7 A
DIESEL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/25/97 MAC: CSP

Client Sample No. : DIESEL STD #2

Date Analyzed: 11/13/97

LAB Sample No.: DIESEL STD #2

Time Analyzed: 03:36

Instrument: Tazz1B

Compound	DIESEL STD #2 CAL. FACTOR	CURVE CAL FACTOR	%D
Diesel (250 ppm)	19.24	18.02	6.8

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: DIESEL 250 #2 Injection Date: 11/13/97 03:36:49

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV12\1112B015.D

INSTRUMENT: TAZZ1B Operator: AHB

Method: C:\HPCHEM\1\METHODS\97NOV12B.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL:~~08/05~~ 11/11, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.708	14	19
C12	0.0	3.108	62	79
C14	0.0	3.488	125	244
C16	0.0	3.863	122	252
C18	0.0	4.249	91	257
C20	0.0	4.635	45	121
C22	0.0	5.010	15	39
SURR	90.0	5.208	97	194
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

TAZZ1B RANGES

	AREA	CONC	Macro: 971111-1
GAS(TOL-C12)	455	91	
DIESEL(C12-C24)	4810	267	Surrogate Subtracted
OIL(C24-C38)	0	0	
SURROGATE	194.39798		

ANALYTICAL RESOURCES NWTPH-D REPORT

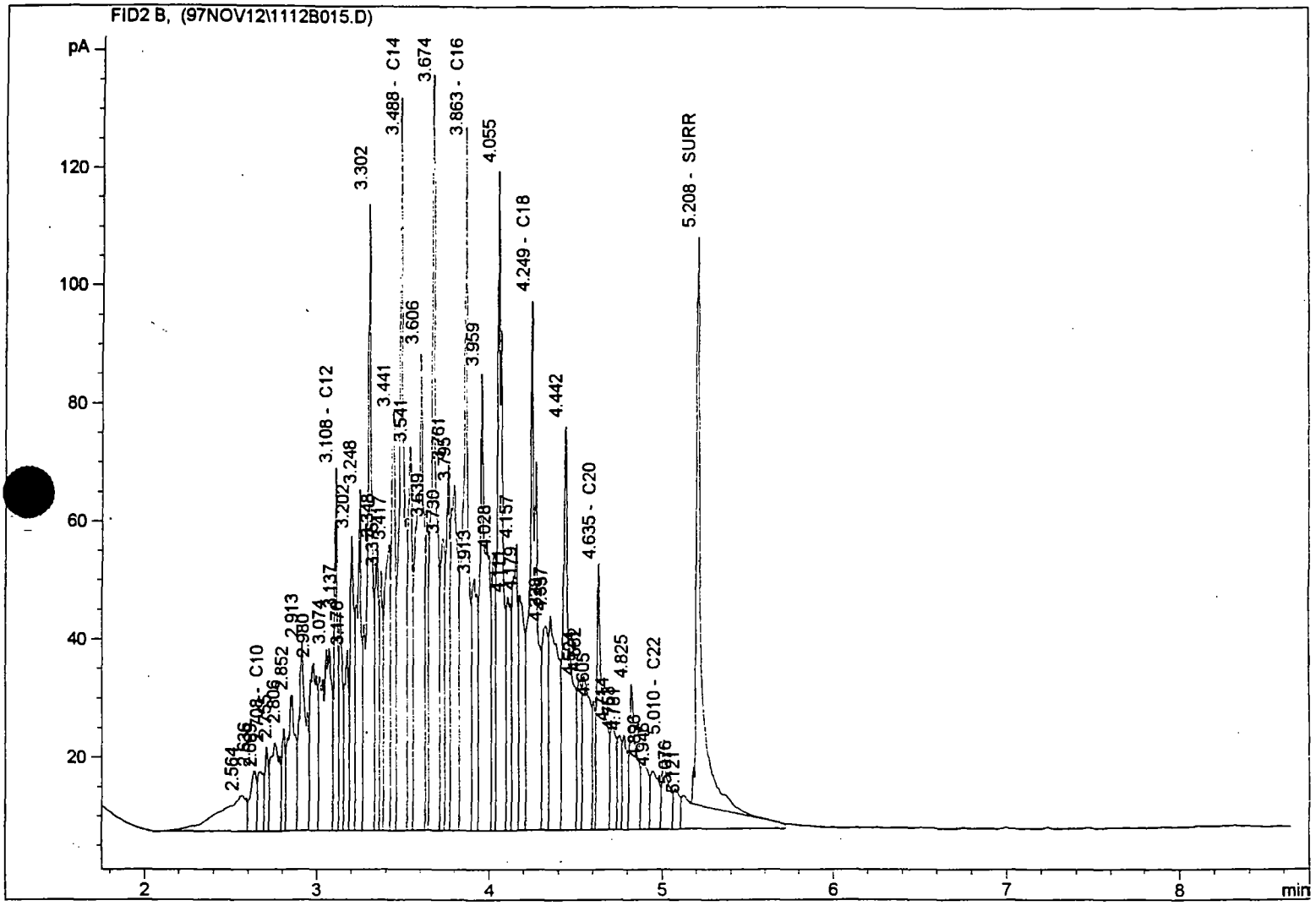
SAMPLE NAME: DIESEL 250 #2 Injection Date: 11/13/97 03:36:49

PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV12\1112B015.D

INSTRUMENT: TAZZ1B Operator: AHB

TAZZ1B SIGNAL



ANALYTICAL
RESOURCES
INCORPORATED

7A
MOTOR OIL CALIBRATION VERIFICATION

ARI Job Number: U269

Client: Remediation Tech., Inc.
Project: 1 2900

Report: 11/25/97 MAC: CSP

Client Sample No. : MOTOR OIL STD #2

Date Analyzed: 11/13/97

LAB Sample No.: MOTOR OIL STD #2

Time Analyzed: 03:55

Instrument: Tazz1B

Compound	MOTOR OIL STD #2 CAL. FACTOR	CURVE CAL FACTOR	%D
Motor Oil (500 ppm)	14.11	14.26	1.1

ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: M. OIL 500 #2 Injection Date: 11/13/97 03:55:18

[redacted]PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV12\1112B016.D

INSTRUMENT: TAZZ1B Operator: AHB

Method: C:\HPCHEM\1\METHODS\97NOV12B.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:08/04, DIESEL: ~~08/05~~ 11/11, M.OIL:08/04/97

TAZZ1B RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	2.487	3	67
C10	0.0	2.712	2	18
C12	0.0	0.000	0	0
C14	0.0	0.000	0	0
C16	0.0	0.000	0	0
C18	0.0	4.263	2	9
C20	0.0	4.684	10	47
C22	0.0	0.000	0	0
SURR	72.9	5.207	115	142
[redacted]	0.0	0.000	0	0
[redacted]	0.0	5.708	60	182
C28	0.0	6.046	69	320
C30	0.0	6.404	67	88
C32	0.0	6.775	54	65
C34	0.0	7.083	41	290
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	8.131	3	30

TAZZ1B RANGES

	AREA	CONC	Macro: 971111-1
GAS(TOL-C12)	86	17	
DIESEL(C12-C24)	896	50	Surrogate Subtracted
OIL(C24-C38)	7055	495	
SURROGATE	142.063858		

395

ANALYTICAL RESOURCES NWTPH-D REPORT

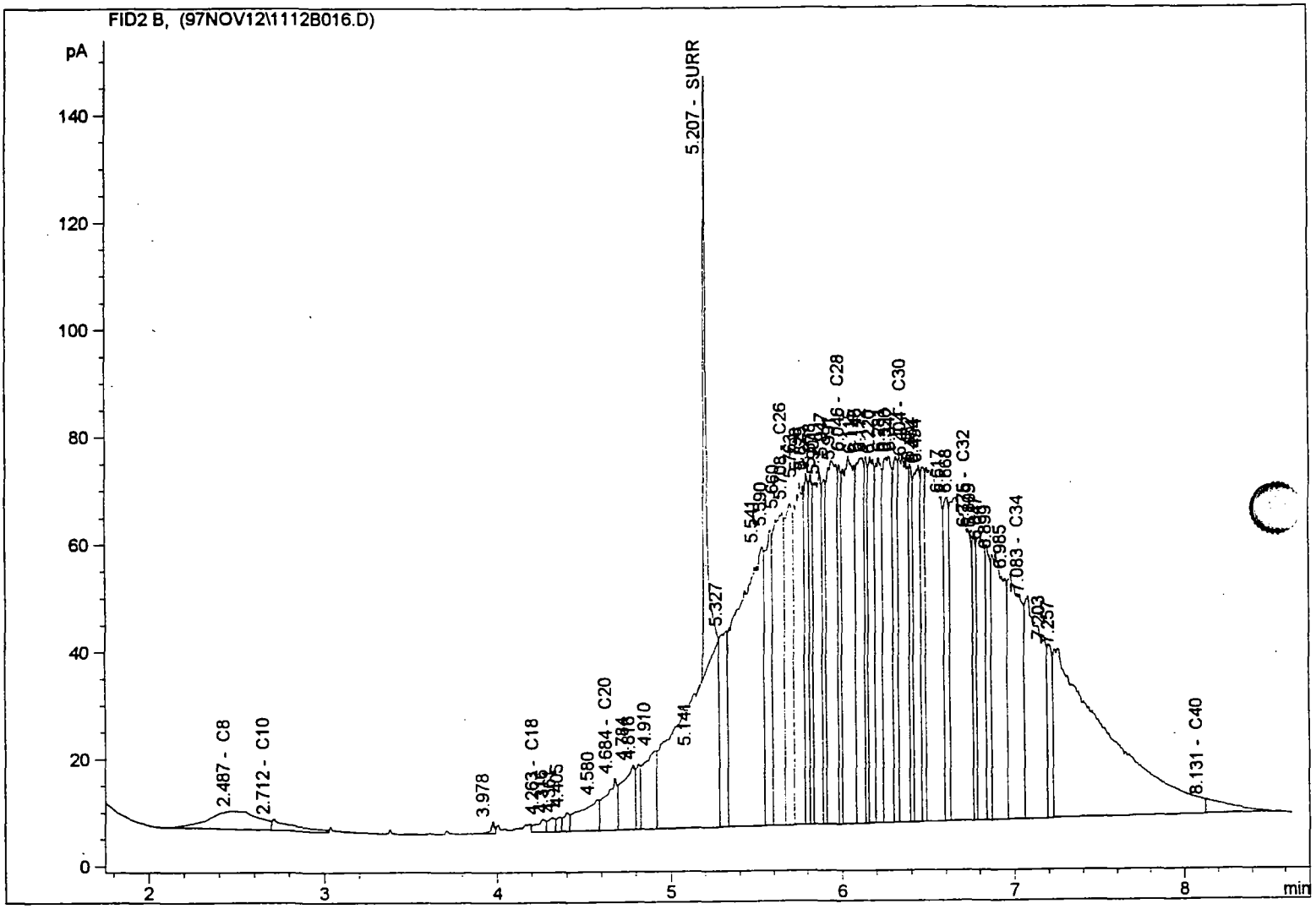
SAMPLE NAME: M. OIL 500 #2 Injection Date: 11/13/97 03:55:18

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV12\1112B016.D

INSTRUMENT: TAZZ1B Operator: AHB

TAZZ1B SIGNAL



ANALYTICAL RESOURCES NWTPH-D REPORT

SAMPLE NAME: U380 SBS 11/6 Injection Date: 11/10/97 21:50:18

PLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV10\1110A008.D

INSTRUMENT: DAFFY1A Operator: AHB

Method: C:\HPCHEM\1\METHODS\97NOV10A.M

Column: RTX-1, 15m, 0.25mm ID, 0.1um phase

Calibration Date: GAS:10/06/97,DIESEL:08/05/97,M.OIL:08/21/97

DAFFY1A RESULTS

Compound Name	Amount	Meas. Ret.	Height	Area
TOLUENE	0.0	0.000	0	0
C8	0.0	0.000	0	0
C10	0.0	2.753	32	48
C12	0.0	3.183	34	52
C14	0.0	3.587	75	172
C16	0.0	3.959	47	111
C18	0.0	4.322	76	90
C20	0.0	4.685	80	150
C22	0.0	5.059	27	54
TER	66.5	5.260	165	163
C24	0.0	0.000	0	0
C26	0.0	0.000	0	0
C28	0.0	0.000	0	0
C30	0.0	0.000	0	0
C32	0.0	0.000	0	0
C34	0.0	0.000	0	0
C36	0.0	0.000	0	0
C38	0.0	0.000	0	0
C40	0.0	0.000	0	0

DAFFY1A RANGES

	AREA	CONC	Macro: 971006-1
GAS(TOL-C12)	530	232	
DIESEL(C12-C24)	5562	363	Surrogate Subtracted
M.OIL(C24-C38)	9	1	
SURROGATE	163.050903		

LCS

397

ANALYTICAL RESOURCES NWTPH-D REPORT

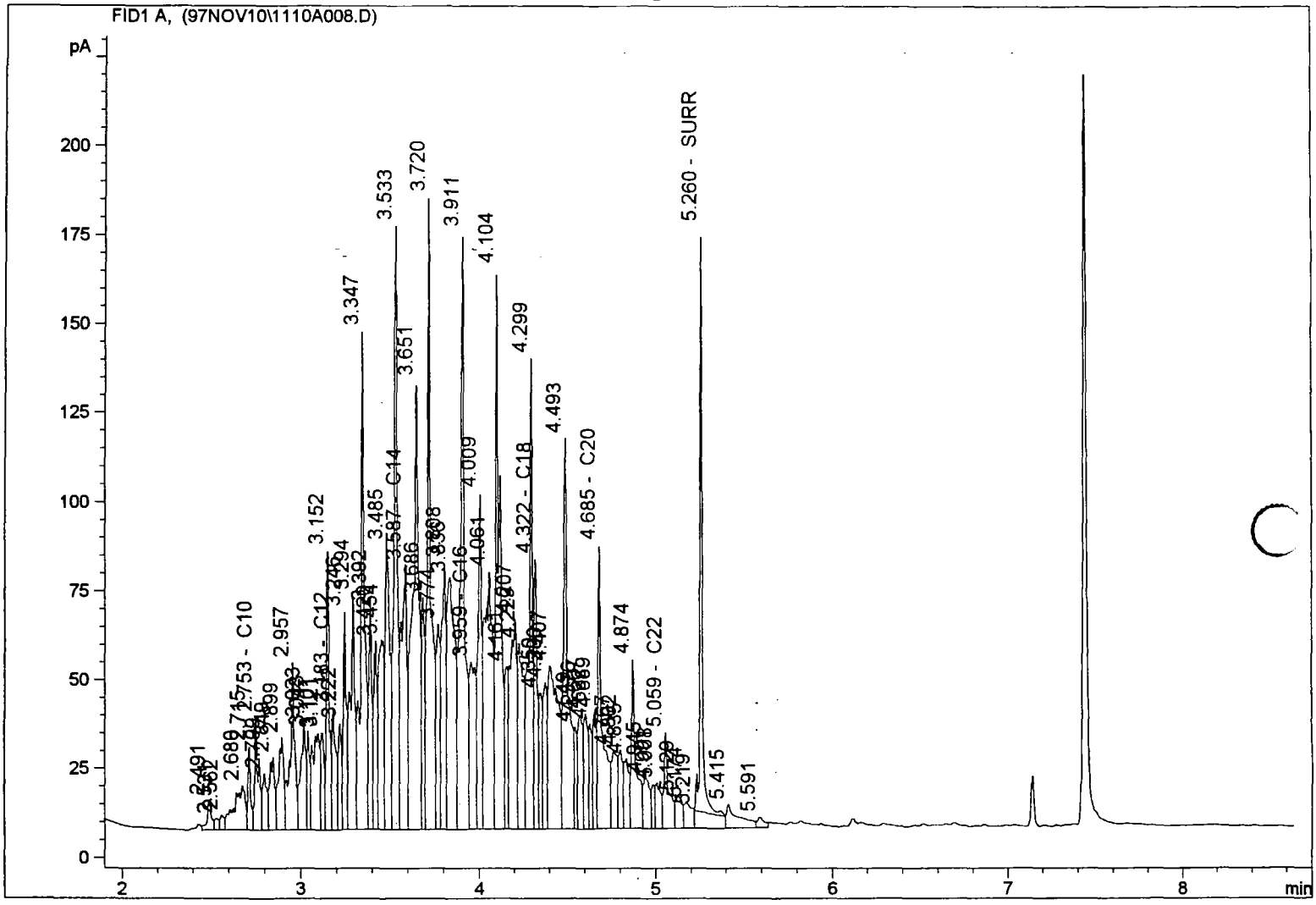
SAMPLE NAME: U380 SBS 11/6 Injection Date: 11/10/97 21:50:18

SAMPLE INFO:

DATA FILE: C:\HPCHEM\1\DATA\97NOV10\1110A008.D

INSTRUMENT: DAFFY1A Operator: AHB

DAFFY1A SIGNAL



METALS

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL
RESOURCES
INCORPORATED

CLIENT: Remediation Tech.

PROJECT: 1 2900

SDG: U269

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
HI1B03	U269C	97-20169	
HI1B03	U269Ct	97-20169	
PBW	U269MB1	97-20169	
LCSW	U269MB1SPK	97-20169	
HI1B04	U269D	97-20170	
HI1B04	U269Dt	97-20170	
PBS	U269MB2	97-20170	
LCSS	U269MB2SPK	97-20170	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Paul Jay Kuhn

Date: 11/7/97 Title: Inorganic Lab Manager

ANALYTICAL
RESOURCES
INCORPORATED

INORGANICS ANALYSIS DATA SHEET **Sample No: HI1B03**
TOTAL METALS

Lab Sample ID: U269C
LIMS ID: 97-20169
Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900

Date Sampled: 10/27/97
Date Received: 10/27/97

Data Release Authorized:
Reported: 11/07/97

Percent Total Solids: 87.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry
3050	10/31/97	6010	11/04/97	**7440-38-2**	**Arsenic**	6	**41**

U Analyte undetected at given RL

RL Reporting Limit

FORM-I

ANALYTICAL
RESOURCES
INCORPORATED

INORGANICS ANALYSIS DATA SHEET **Sample No: HI1B04**
TOTAL METALS

Lab Sample ID: U269D
LIMS ID: 97-20170
Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900

Date Sampled: 10/27/97
Date Received: 10/27/97

Data Release Authorized:
Reported: 11/07/97

Percent Total Solids: 84.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry
3050	10/31/97	6010	11/04/97	**7439-92-1**	**Lead**	5	**4,520**

U Analyte undetected at given RL

RL Reporting Limit

FORM-I

ANALYTICAL
RESOURCES
INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample No: **Method Blank**

Lab Sample ID: U269MB
LIMS ID: 97-20170
Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900

Date Sampled: NA
Date Received: NA

Data Release Authorized:
Reported: 11/07/97

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry
3050	10/31/97	6010	11/04/97	7440-38-2	Arsenic	5	5 U
3050	10/31/97	6010	11/04/97	7439-92-1	Lead	2	2 U

U Analyte undetected at given RL

RL Reporting Limit

FORM-I

ANALYTICAL
RESOURCES
INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Lab Sample ID: U269LCS
LIMS ID: 97-20170
Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900

Data Release Authorized:
Reported: 11/07/97

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike mg/kg-dry	Spike Added	% Recovery	Q
Arsenic	6010	395	400	98.8%	
Lead	6010	97	100	97.0%	

'Q' codes: N = control limit not met

Control Limits: 80-120%

FORM-VII

ANALYTICAL
RESOURCES
INCORPORATED

INORGANICS ANALYSIS DATA SHEET Sample No: HI1B03
TCLP METALS

Lab Sample ID: U269C
LIMS ID: 97-20169
Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900

Date Sampled: 10/27/97
Date Received: 10/27/97

Data Release Authorized:
Reported: 11/07/97

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L
1311	10/31/97	6010	11/04/97	7440-38-2	Arsenic	0.05	0.05 U

U Analyte undetected at given RL

RL Reporting Limits

FORM-I

ANALYTICAL
RESOURCES
INCORPORATED

INORGANICS ANALYSIS DATA SHEET Sample No: HI1B04
TCLP METALS

Lab Sample ID: U269D
LIMS ID: 97-20170
Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900

Date Sampled: 10/27/97
Date Received: 10/27/97

Data Release Authorized:
Reported: 11/07/97

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L
1311	10/31/97	6010	11/04/97	**7439-92-1**	**Lead**	0.02	**13.4**

U Analyte undetected at given RL

RL Reporting Limits

FORM-I

INORGANICS ANALYSIS DATA SHEET Sample No: Method Blank
TCLP METALS

Lab Sample ID: U269MB
LIMS ID: 97-20169
Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900

Date Sampled: NA
Date Received: NA

Data Release Authorized:
Reported: 11/07/97

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L
1311	10/31/97	6010	11/04/97	7440-38-2	Arsenic	0.05	0.05 U
1311	10/31/97	6010	11/04/97	7439-92-1	Lead	0.02	0.02 U

U Analyte undetected at given RL

RL Reporting Limits

FORM-I

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Remediation Tech.

PROJECT: 1 2900

SDG: U269

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	ICP	IP110511	1000.0	995.32	**99.5**	2000.0	1943.50	**97.2**	1964.12	**98.2**	2022.57	**101.1**	2022.50	**101.1**	2049.13	**102.5**
Lead	PB	ICP	IP110511	1000.0	985.52	**98.6**	2000.0	1946.39	**97.3**	1973.35	**98.7**	2017.35	**100.9**	1992.09	**99.6**	1997.26	**99.9**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Remediation Tech.

PROJECT: 1 2900

SDG: U269

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Arsenic	AS	ICP	IP110511	2000.0	1977.87	**98.9**	2026.78	**101.3**	2042.59	**102.1**	1996.06	**99.8**	2039.03	**102.0**	2039.71	**102.0**
Lead	PB	ICP	IP110511	2000.0	1949.08	**97.5**	1990.69	**99.5**	1997.53	**99.9**	1954.00	**97.7**	1993.41	**99.7**	2012.58	**100.6**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Blanks

ANALYTICAL
RESOURCES
INCORPORATED

CLIENT: Remediation Tech.

PROJECT: 1 2900

SDG: U269

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Arsenic	AS	ICP	IP110511	10.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Lead	PB	ICP	IP110511	3.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Remediation Tech.

PROJECT: 1 2900

SDG: U269

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Arsenic	AS	ICP	IP110511	10.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Lead	PB	ICP	IP110511	3.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Remediation Tech.

ICS SOURCE: I.V.

PROJECT: 1 2900

RUNID: IP110511

SDG: U269

ICP INSTRUMENT ID: TJA ICP 61

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	500000	500000	504738	510840.3	102.2	520245	520247.6	104.0	519336	521970.8	104.4
Antimony			-60	-25.0		-29	-13.8		-36	-33.6	
Arsenic			-34	-28.0		-40	-21.7		-25	-40.6	
Barium		500	3	470.6	94.1	4	485.4	97.1	4	487.8	97.6
Beryllium		500	0	446.4	89.3	0	454.0	90.8	0	455.5	91.1
Boron			20	19.1		25	22.2		29	25.8	
Cadmium		1000	1	910.7	91.1	2	929.4	92.9	1	928.7	92.9
Calcium	500000	500000	475511	477212.4	95.4	480621	479727.8	95.9	472624	474895.8	95.0
Chromium		500	-1	442.6	88.5	-1	448.2	89.6	-2	445.3	89.1
Cobalt		500	0	439.2	87.8	0	444.3	88.9	1	442.5	88.5
Copper		500	2	476.6	95.3	3	472.4	94.5	2	475.4	95.1
Iron	200000	200000	184302	186196.8	93.1	189206	189659.6	94.8	188265	189694.1	94.8
Lead		1000	-58	835.5	83.5	-48	863.0	86.3	-42	865.5	86.5
Magnesium	500000	500000	506831	512488.4	102.5	516042	516746.5	103.3	512362	515680.0	103.1
Manganese		500	0	446.0	89.2	0	448.8	89.8	0	446.2	89.2
Molybdenum			-2	-4.0		-3	-1.5		-3	-4.3	
Nickel		1000	-4	875.4	87.5	-5	895.7	89.6	-5	890.1	89.0
Potassium			-142	-289.2		-162	19.6		-184	4.9	
Selenium			40	55.0		68	28.7		65	45.9	
Silicon			73	79.4		68	70.5		71	75.7	
Silver		1000	1	944.6	94.5	1	955.4	95.5	1	953.8	95.4
Sodium			14	-4.3		20	0.9		8	-8.4	
Strontium			28	28.1		29	28.4		28	28.5	
Thallium			100	99.3		97	105.1		97	86.7	
Tin			-5	1.9		-2	4.4		3	4.8	
Titanium			1	0.5		1	0.4		0	0.7	
Vanadium		500	6	457.7	91.5	6	460.0	92.0	5	458.0	91.6
Zinc		1000	5	899.4	89.9	4	913.6	91.4	6	914.4	91.4

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Remediation Tech.

PROJECT: 1 2900

SDG: U269

ICS SOURCE: I.V.

RUNID: IP110511

ICP INSTRUMENT ID: TJA ICP 61

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA4	ICSAB4	%R	ICSA5	ICSAB5	%R	ICSA6	ICSAB6	%R
Aluminum	500000	500000	526986	531329.0	106						
Antimony			-27	-18.6							
Arsenic			-16	-59.0							
Barium		500	4	500.1	100						
Beryllium		500	0	460.9	92						
Boron			30	27.0							
Cadmium		1000	2	939.6	94						
Calcium	500000	500000	469491	471150.6	94						
Chromium		500	-1	449.3	90						
Cobalt		500	1	446.8	89						
Copper		500	2	488.6	98						
Iron	200000	200000	190073	191315.8	96						
Lead		1000	-41	858.8	86						
Magnesium	500000	500000	520153	524183.3	105						
Manganese		500	-1	448.7	90						
Molybdenum			-4	-2.8							
Nickel		1000	-2	903.9	90						
Potassium			127	-53.9							
Selenium			26	44.3							
Silicon			70	73.9							
Silver		1000	1	963.3	96						
Sodium			10	-7.8							
Strontium			29	29.0							
Thallium			115	70.9							
Tin			-1	-1.9							
Titanium			-1	-1.2							
Vanadium		500	6	463.3	93						
Zinc		1000	6	928.2	93						

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Remediation Tech.

PROJECT: 1 2900

ANALYSIS METHOD: ICP

SDG: U269

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Arsenic	HI1B03L	U269Ct-L	Soil	IP110511	50.00	U	250.00	U		

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Remediation Tech.

PROJECT: 1 2900 ANALYSIS METHOD: ICP

SDG: U269 UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Lead	HI1B04L	U269D-L	Soil	IP110511	19279.33		19769.80		2.5	

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Remediation Tech.

IDL DATE: 10/15/97

PROJECT: 1 2900

LR DATE: 10/15/97

SDG: U269

UNITS: ug/L

					GFA			ICP	
ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	BACK-GROUND	CRDL	IDL	INTEG. TIME (s)	LINEAR RANGE (ug/L)
Arsenic	AS	ICP	TJA ICP 61	197.20		10	50.0		
Lead	PB	ICP	TJA ICP 61	220.35		3	20.0		

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Remediation Tech.

PROJECT: 1 2900

IEC DATE: 10/10/97

SDG: U269

ICP INTRUMENT ID: TJA ICP 61

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0093100	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0001250	0.0000000	0.0000000	0.0064660	0.0000000	-0.0013600
Arsenic	197.20	0.0006500	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0076680	0.0000000	0.0000000	0.0006640
Barium	455.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000044	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000090	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0070020	0.0000000	0.0040600	0.0000000	0.0000000	0.0002840	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0006670	0.0000000	0.0001450
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	-0.0000200	0.0009090	0.0000000	0.0000000	-0.0003940	0.0000000	0.0002870	0.0000000	0.0000494
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000130	-0.0000100	0.0000000	-0.0001300
Iron	259.94	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000540	0.0000000	0.0000000
Lead	220.35	0.0012150	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0334700	-0.0019500	-0.0000300	0.0001730
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0018540	-0.0010310	0.0000000	0.0002790
Manganese	257.61	0.0000060	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0003130	0.0000228	0.0000000	0.0001590
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000940
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0006880	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.02	0.0001170	0.0000000	0.0000000	0.0000000	0.0001340	0.0000000	-0.0011100	0.0000000	0.0000000	-0.0010600
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000130	0.0000000	-0.0001600
Sodium	589.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	-0.0002800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0063350	0.0007010	0.0000000	0.0019980
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0002780	0.0000000	0.0001900
Zinc	213.86	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000190	-0.0000700	0.0000220	0.0024580	0.0000812

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Remediation Tech.

PROJECT: 1 2900

IEC DATE: 10/10/97

SDG: U269

ICP INTRUMENT ID: TJA ICP 61

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0015000	0.0107870	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0165600	0.0000000
Antimony	206.84	0.0000910	0.0000000	0.0025600	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	197.20	0.0000000	0.0000000	0.0031380	0.0000000	0.0113230	0.0008600	0.0000000	0.0000000	0.0052830	0.0000000
Barium	455.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0049100	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.0002400	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0003410	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	-0.0027660	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0003730	0.0000000
Cobalt	228.62	0.0000000	0.0000000	0.0001180	0.0005040	0.0000000	0.0000000	0.0017500	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0003160	0.0000000	0.0000000	0.0000000	-0.0008500	0.0000000	-0.0001400	0.0000000
Iron	259.94	0.0000000	-0.0079630	0.0004810	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.35	0.0000000	0.0000000	-0.0005870	0.0000000	0.0000000	-0.0016500	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	-0.0062080	-0.0113700	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000180	0.0000000	-0.0002200	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0001800	0.0000000
Molybdenum	202.03	0.0000020	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000350
Nickel	231.60	0.0000000	0.0000000	-0.0001900	0.0000000	0.0000000	0.0000000	0.0000000	0.0006580	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.02	0.0002430	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0001600	0.0000570	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0045100	0.0000000
Sodium	589.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0001660	-0.0113100	-0.0012500	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0037260	0.0000000
Vanadium	292.40	-0.0000010	-0.0001200	-0.0110800	0.0000000	0.0000000	0.0000000	0.0004600	0.0000000	0.0000000	0.0000000
Zinc	213.86	0.0000000	0.0000000	-0.0000700	0.0033520	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Remediation Tech.

PROJECT: 1 2900

SDG: U269

ANALYSIS METHOD: ICP

ARI PREP CODE: LEN

PREPDATE: 10/31/97

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
HI1B03	U269Ct	0.000	100.0	100.0
HI1B04	U269Dt	0.000	100.0	100.0
PBW	U269MB1	0.000	100.0	100.0
LCSW	U269MB1SPK	0.000	100.0	100.0

Preparation Log

ANALYTICAL
RESOURCES
INCORPORATED

CLIENT: Remediation Tech.

PROJECT: 1 2900

SDG: U269

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 10/31/97

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
HI1B03	U269C	1.015	0.0	100.0
HI1B04	U269D	1.012	0.0	100.0
PBS	U269MB2	1.000	0.0	100.0
LCSS	U269MB2SPK	1.000	0.0	100.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Remediation Tech.

PROJECT: 1 2900 INSTRUMENT ID: TJA ICP 61 START DATE: 11/4/97

SDG: U269 RUNID: IP110511 METHOD: ICP END DATE: 11/4/97

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	0910				X																	X									
S2	S2	1.00	0915																														
S5	S5	1.00	0920																														
S4	S4	1.00	0926																														
S3	S3	1.00	0931				X																	X									
S5	S5	1.00	0937																														
ICV	ICV	1.00	0951				X																	X									
ICB	ICB	1.00	0958				X																	X									
CCV	CCV1	1.00	1003				X																	X									
CCB	CCB1	1.00	1009				X																	X									
CRI	CRII	1.00	1014				X																	X									
ICSA	ICSAI	1.00	1019				X																	X									
ICSAB	ICSABI	1.00	1024				X																	X									
PBW	U269MB1	1.00	1034				X																	X									
HI1B03L	U269Ct-L	5.00	1039				X																	X									
HI1B03	U269Ct	1.00	1043				X																										
HI1B04	U269Dt	1.00	1048																					X									
HI1B04L	U269D-L	10.00	1100				X																	X									
HI1B04	U269D	2.00	1105																					X									
HI1B03	U269C	1.00	1110				X																										
CCV	CCV2	1.00	1116				X																	X									
CCB	CCB2	1.00	1123				X																	X									
ZZZZZZ	T914APPOST	1.00	1135																														
ZZZZZZ	T914DPOST	1.00	1141																														
ZZZZZZ	T914AG	2.00	1146																														
ZZZZZZ	T914AH	2.00	1151																														
ZZZZZZ	T914AI	2.00	1156																														
ZZZZZZ	T914AJ	2.00	1201																														
ZZZZZZ	T914AK	2.00	1207																														
ZZZZZZ	T914AL	2.00	1212																														
ZZZZZZ	T914AY	2.00	1217																														
ZZZZZZ	T914AX	1.00	1222																														
CCV	CCV3	1.00	1229				X																	X									
CCB	CCB3	1.00	1240				X																	X									
PBS	U269MB2	1.00	1249				X																	X									

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Remediation Tech.

PROJECT: 1 2900 INSTRUMENT ID: TJA ICP 61 START DATE: 11/4/97

SDG: U269 RUNID: IP110511 METHOD: ICP END DATE: 11/4/97

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	T971MB1	1.00	1254																														
ZZZZZZ	T971B	1.00	1259																														
ZZZZZZ	T971C	1.00	1304																														
ZZZZZZ	T971D	1.00	1310																														
LCSW	U269MB1SPK	1.00	1315																														
LCSS	U269MB2SPK	1.00	1320				X																	X									
CRI	CRIF	1.00	1327				X																	X									
ICSA	ICSAF	1.00	1332				X																	X									
ICSAB	ICSABF	1.00	1337				X																	X									
CCV	CCV4	1.00	1346				X																	X									
CCB	CCB4	1.00	1356				X																	X									
ZZZZZZ	T971A-L	5.00	1402																														
ZZZZZZ	T971A	1.00	1407																														
ZZZZZZ	T971ADUP	1.00	1412																														
ZZZZZZ	T971ASPK	1.00	1417																														
ZZZZZZ	T971E	1.00	1423																														
ZZZZZZ	T971F	1.00	1428																														
ZZZZZZ	T971G	1.00	1433																														
ZZZZZZ	T971H	1.00	1438																														
ZZZZZZ	T971I	1.00	1443																														
ZZZZZZ	T971REF1	1.00	1449																														
CCV	CCV5	1.00	1456				X																	X									
CCB	CCB5	1.00	1506				X																	X									
ZZZZZZ	T971U-L	5.00	1514																														
ZZZZZZ	T971U	1.00	1520																														
ZZZZZZ	T971UDUP	1.00	1525																														
ZZZZZZ	T971USPK	1.00	1530																														
ZZZZZZ	T971J	1.00	1537																														
ZZZZZZ	T971K	1.00	1542																														
ZZZZZZ	T971L	1.00	1547																														
ZZZZZZ	T971M	1.00	1553																														
ZZZZZZ	T971N	1.00	1558																														
ZZZZZZ	T971O	1.00	1603																														
CCV	CCV6	1.00	1612				X																	X									
CCB	CCB6	1.00	1619				X																	X									

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Remediation Tech.

PROJECT: 1 2900 INSTRUMENT ID: TJA ICP 61 START DATE: 11/4/97

SDG: U269 RUNID: IP110511 METHOD: ICP END DATE: 11/4/97

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	T971P	1.00	1624																														
ZZZZZZ	T971Q	1.00	1629																														
ZZZZZZ	T971R	1.00	1635																														
ZZZZZZ	T971S	1.00	1640																														
ZZZZZZ	T971T	1.00	1645																														
ZZZZZZ	T971APOST	1.00	1650																														
ZZZZZZ	T971UPOST	1.00	1655																														
CRI	CRIF1	1.00	1704				X																	X									
ICSA	ICSAF1	1.00	1710				X																	X									
ICSAB	ICSABF1	1.00	1715				X																	X									
CCV	CCV7	1.00	1726				X																	X									
CCB	CCB7	1.00	1733				X																	X									
ZZZZZZ	U075MB2	1.00	1746																														
ZZZZZZ	U100MB3	1.00	1751																														
ZZZZZZ	U075X-L	5.00	1755																														
ZZZZZZ	U075X	1.00	1800																														
ZZZZZZ	U100T-L	5.00	1805																														
ZZZZZZ	U100T	1.00	1809																														
ZZZZZZ	U100AI	1.00	1814																														
LCSW	U269MB1SPK	1.00	1818				X																	X									
ZZZZZZ	U100REF3	1.00	1823																														
ZZZZZZ	U075REF2	1.00	1828																														
CCV	CCV8	1.00	1832				X																	X									
CCB	CCB8	1.00	1838				X																	X									
ZZZZZZ	U264MB3	1.00	1843																														
ZZZZZZ	U264X	1.00	1848																														
ZZZZZZ	U264Y	1.00	1853																														
ZZZZZZ	U264Z	1.00	1858																														
ZZZZZZ	U264AA	1.00	1903																														
ZZZZZZ	U264AB	1.00	1908																														
CCV	CCV9	1.00	1942				X																	X									
CCB	CCB9	1.00	1949				X																	X									
ZZZZZZ	U264X	2.00	1954																														
ZZZZZZ	U264Y	2.00	1959																														
ZZZZZZ	U264Z	2.00	2004																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Remediation Tech.

PROJECT: 1 2900 | INSTRUMENT ID: TJA ICP 61 | START DATE: 11/4/97

SDG: U269 | RUNID: IP110511 | METHOD: ICP | END DATE: 11/4/97

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	U264AA	2.00	2009																														
ZZZZZZ	U264AB	2.00	2014																														
ZZZZZZ	U264W-L	10.00	2021																														
ZZZZZZ	U264W	2.00	2026																														
ZZZZZZ	U264WDUP	2.00	2031																														
ZZZZZZ	U264WSPK	2.00	2036																														
CCV	CCV10	1.00	2044				X																	X									
CCB	CCB10	1.00	2051				X																	X									
ZZZZZZ	U264MB1	1.00	2056																														
ZZZZZZ	U264B	1.00	2100																														
ZZZZZZ	U264C	1.00	2105																														
ZZZZZZ	U264A-L	5.00	2110																														
ZZZZZZ	U264A	1.00	2114																														
ZZZZZZ	U264ADUP	1.00	2119																														
ZZZZZZ	U264ASPK	1.00	2124																														
CRI	CRIF2	1.00	2130				X																	X									
ICSA	ICSAF2	1.00	2134				X																	X									
ICSAB	ICSABF2	1.00	2139				X																	X									
CCV	CCV11	1.00	2145				X																	X									
CCB	CCB11	1.00	2151				X																	X									

U269

CALCULATED DATA FROM FILE: IP971104

[redacted]	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINLVOL	%SOLIDS
U[redacted]	MB1	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	AL	LEN	I		0.0620700	0.0620700	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	B	LEN	I		0.0229400	0.0229400	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	BA	LEN	I		0.1067500	0.1067500	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	CA	LEN	I		0.0966900	0.0966900	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	K	LEN	I	U	0.5000000	0.5000000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	MG	LEN	I		0.0621900	0.0621900	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	MN	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	NA	LEN	I		1555.9478700	1555.9478700	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	SI	LEN	I	U	0.0600000	0.0600000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	SR	LEN	I		0.0069100	0.0069100	mg/L	1.00	0.0000	100.00	100.00	100.00
U[redacted]	MB1	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	100.00
U[redacted]	MB1	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1	ZN	LEN	I		0.0497400	0.0497400	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	Ct	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	AL	LEN	I		0.1832100	0.1832100	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	B	LEN	I		0.0653000	0.0653000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	BA	LEN	I		0.9117400	0.9117400	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	CA	LEN	I		146.5275100	146.5275100	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	CD	LEN	I		0.2333500	0.2333500	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	CO	LEN	I		0.0034000	0.0034000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	CU	LEN	I		0.0690400	0.0690400	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	FE	LEN	I		0.0608900	0.0608900	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	K	LEN	I		8.5824900	8.5824900	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	MG	LEN	I		7.0105200	7.0105200	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	MN	LEN	I		0.7522300	0.7522300	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	NA	LEN	I		1517.2864900	1517.2864900	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	NI	LEN	I		0.0245200	0.0245200	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	PB	LEN	I		0.9973200	0.9973200	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U[redacted]	Ct	SI	LEN	I		6.5905200	6.5905200	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	Ct	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	SR	LEN	I		0.7933300	0.7933300	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U269	Ct	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Ct	ZN	LEN	I		4.4061200	4.4061200	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	AL	LEN	I		0.4022800	0.4022800	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	B	LEN	I		0.0605100	0.0605100	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	BA	LEN	I		1.4283200	1.4283200	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	CA	LEN	I		82.1994300	82.1994300	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	CD	LEN	I		0.0410700	0.0410700	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	CO	LEN	I		0.0648700	0.0648700	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	CR	LEN	I		0.0059100	0.0059100	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	CU	LEN	I		0.3559600	0.3559600	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	FE	LEN	I		0.2038700	0.2038700	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	K	LEN	I		3.0266600	3.0266600	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	MG	LEN	I		3.5119300	3.5119300	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	MN	LEN	I		1.9127800	1.9127800	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	NA	LEN	I		1490.5305100	1490.5305100	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	NI	LEN	I		0.0851200	0.0851200	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	PB	LEN	I		13.3765300	13.3765300	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	SI	LEN	I		7.4403400	7.4403400	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	SR	LEN	I		0.2266000	0.2266000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	TI	LEN	I		0.0111800	0.0111800	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	Dt	ZN	LEN	I		11.4898200	11.4898200	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	D	AG	SWC	I		0.0097700	2.2923306	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	AL	SWC	I		48.0349400	11270.4157025	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	AS	SWC	I		0.2000800	46.9446776	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	B	SWC	I		0.0858600	20.1452920	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	BA	SWC	I		1.6684600	391.4699963	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	BE	SWC	I	U	0.0010000	0.2346295	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	CA	SWC	I		44.6248100	10470.2984816	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	CD	SWC	I		0.0208400	4.8896795	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	CO	SWC	I		0.0954100	22.3860041	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	CR	SWC	I		0.7723400	181.2137761	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	CU	SWC	I		1.6647800	390.6065596	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	FE	SWC	I		301.1255100	70652.9388053	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	K	SWC	I		3.2790900	769.3713665	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	MG	SWC	I		26.2289300	6154.0816858	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	MN	SWC	I		3.9984400	938.1521235	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	MO	SWC	I		0.1642000	38.5261699	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	NA	SWC	I		3.0574100	717.3586908	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	NI	SWC	I		0.6523500	153.0605781	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	PB	SWC	I		19.2793300	4523.5002597	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	SB	SWC	I	U	0.0500000	11.7314768	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	SE	SWC	I		0.0999100	23.4418370	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	SI	SWC	I		5.4599900	1281.0749224	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	SN	SWC	I		0.0699500	16.4123361	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U269	D	SR	SWC	I		0.3001200	70.4170165	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	TI	SWC	I		3.9874200	935.5665060	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
[redacted]	D	TL	SWC	I		0.0630300	14.7886997	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	V	SWC	I		0.2227400	52.2613829	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	D	ZN	SWC	I		7.8156900	1833.7917212	mg/kg-dry	2.00	1.0120	0.00	100.00	84.23
U269	C	AG	SWC	I		0.0118200	1.3393123	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	AL	SWC	I		137.4834500	15578.1109692	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	AS	SWC	I		0.3602400	40.8184308	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	B	SWC	I		0.1298500	14.7131725	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	BA	SWC	I		8.2477600	934.5453618	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	BE	SWC	I		0.0022900	0.2594776	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	CA	SWC	I		101.8305500	11538.3168516	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	CD	SWC	I		0.1608300	18.2234850	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	CO	SWC	I		0.0810700	9.1859599	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	CR	SWC	I		1.1954000	135.4495676	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	CU	SWC	I		1.8180400	206.0002776	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	FE	SWC	I		412.1522800	46700.5588966	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	K	SWC	I		7.2002700	815.8553271	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	MG	SWC	I		54.5526000	6181.3000507	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	MN	SWC	I		9.7830000	1108.5018569	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	MO	SWC	I		0.0679300	7.6970797	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	NA	SWC	I		5.6446400	639.5884617	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	NI	SWC	I		0.5002600	56.6839557	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	PB	SWC	I		7.6536200	867.2239581	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	SB	SWC	I	U	0.0500000	5.6654495	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	SE	SWC	I		0.1195600	13.5472229	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	SI	SWC	I		11.3081600	1281.3161972	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
[redacted]	C	SN	SWC	I		0.1023000	11.5915098	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
[redacted]	C	SR	SWC	I		0.4407200	49.9375384	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	TI	SWC	I		8.9626900	1015.5533586	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	TL	SWC	I		0.1035800	11.7365453	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	V	SWC	I		0.5768000	65.3566259	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
U269	C	ZN	SWC	I		6.3737400	722.2020469	mg/kg-dry	1.00	1.0150	0.00	100.00	86.95
T914	AG	AG	SWC	I		0.0083800	1.3774503	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	AL	SWC	I		206.0601900	33870.8441436	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	AS	SWC	I	U	0.0500000	8.2186773	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	B	SWC	I		0.0513200	8.4356504	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	BA	SWC	I		1.0013500	164.5954504	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	BE	SWC	I		0.0041600	0.6837940	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	CA	SWC	I		44.4941700	7313.6645044	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	CD	SWC	I		0.0022900	0.3764154	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	CO	SWC	I		0.1211900	19.9204301	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	CR	SWC	I		0.1752300	28.8031765	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	CU	SWC	I		0.1984000	32.6117115	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	FE	SWC	I		314.5458900	51703.0233555	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	K	SWC	I		5.7396300	943.4433365	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	MG	SWC	I		34.3899600	5652.7996760	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	MN	SWC	I		3.8023000	624.9975344	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	MO	SWC	I	U	0.0050000	0.8218677	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	NA	SWC	I		5.6431400	927.5829330	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	NI	SWC	I		0.1513600	24.8795799	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	PB	SWC	I		0.1162200	19.1034935	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
[redacted]	AG	SB	SWC	I	U	0.0500000	8.2186773	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
[redacted]	AG	SE	SWC	I		0.1008700	16.5803596	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	SI	SWC	I		17.2388700	2833.6141929	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
T914	AG	SN	SWC	I		0.0117100	1.9248142	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	SR	SWC	I		0.4892600	80.4214012	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	TI	SWC	I		17.1328000	2816.1790909	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	TL	SWC	I	U	0.0500000	8.2186773	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	V	SWC	I		0.7968300	130.9777728	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AG	ZN	SWC	I		0.7064400	116.1200479	mg/kg-dry	2.00	2.1520	0.00	100.00	56.54
T914	AH	AG	SWC	I		0.0079800	1.3200745	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	AL	SWC	I		211.5953500	35002.7092130	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	AS	SWC	I	U	0.0500000	8.2711433	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	B	SWC	I		0.0477600	7.9005961	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	BA	SWC	I		1.0104700	167.1548433	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	BE	SWC	I		0.0044500	0.7361318	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	CA	SWC	I		45.9803500	7606.2012731	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	CD	SWC	I		0.0022500	0.3722014	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	CO	SWC	I		0.1227200	20.3006941	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	CR	SWC	I		0.1796100	29.7116009	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	CU	SWC	I		0.2062900	34.1250830	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	FE	SWC	I		320.2373600	52974.5818668	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	K	SWC	I		5.8646200	970.1422479	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	MG	SWC	I		35.1263600	5810.7031406	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	MN	SWC	I		3.8551800	637.7349242	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	MO	SWC	I	U	0.0050000	0.8271143	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	NA	SWC	I		5.8922100	974.7062648	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	NI	SWC	I		0.1490100	24.6496613	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	PB	SWC	I		0.1000400	16.5489035	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	SB	SWC	I	U	0.0500000	8.2711433	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	SE	SWC	I		0.0677300	11.2040907	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	SI	SWC	I		17.2846800	2859.2813022	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	SN	SWC	I		0.0254500	4.2100119	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	SR	SWC	I		0.5086500	84.1423408	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	TI	SWC	I		17.1747900	2841.1029834	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	TL	SWC	I	U	0.0500000	8.2711433	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	V	SWC	I		0.7993200	132.2258052	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AH	ZN	SWC	I		0.7088000	117.2517274	mg/kg-dry	2.00	2.1410	0.00	100.00	56.47
T914	AI	AG	SWC	I		0.0074400	1.3285714	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	AL	SWC	I		173.1488800	30919.4428571	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	AS	SWC	I	U	0.0500000	8.9285714	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	B	SWC	I		0.0413300	7.3803571	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	BA	SWC	I		0.8425300	150.4517857	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	BE	SWC	I		0.0035900	0.6410714	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	CA	SWC	I		41.0120600	7323.5821429	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	CD	SWC	I		0.0020700	0.3696429	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	CO	SWC	I		0.1030000	18.3928571	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	CR	SWC	I		0.1534700	27.4053571	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	CU	SWC	I		0.1775800	31.7107143	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	FE	SWC	I		290.9002600	51946.4750000	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	K	SWC	I		4.7054200	840.2535714	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	MG	SWC	I		30.7983000	5499.6964286	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	MN	SWC	I		3.3117400	591.3821429	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	MO	SWC	I	U	0.0050000	0.8928571	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	NA	SWC	I		4.6241600	825.7428571	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	NI	SWC	I		0.1237700	22.1017857	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	PB	SWC	I		0.0965500	17.2410714	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	SB	SWC	I	U	0.0500000	8.9285714	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	SE	SWC	I		0.0870700	15.5482143	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
T914	AI	SI	SWC	I		17.5330300	3130.8982143	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	SN	SWC	I		0.0206500	3.6875000	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
[redacted]	AI	SR	SWC	I		0.4381700	78.2446429	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	TI	SWC	I		15.3389800	2739.1035714	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	TL	SWC	I	U	0.0500000	8.9285714	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	V	SWC	I		0.7014200	125.2535714	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AI	ZN	SWC	I		0.6332400	113.0785714	mg/kg-dry	2.00	2.0000	0.00	100.00	56.00
T914	AJ	AG	SWC	I		0.0098800	1.7042722	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	AL	SWC	I		183.9536100	31731.4801846	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	AS	SWC	I	U	0.0500000	8.6248593	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	B	SWC	I		0.0520800	8.9836535	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	BA	SWC	I		1.0456200	180.3665082	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	BE	SWC	I		0.0049600	0.8555860	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	CA	SWC	I		41.8202100	7213.8685668	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	CD	SWC	I		0.0033900	0.5847655	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	CO	SWC	I		0.1384500	23.8822355	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	CR	SWC	I		0.1547000	26.6853148	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	CU	SWC	I		0.1879600	32.4225712	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	FE	SWC	I		374.1197800	64534.6094905	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	K	SWC	I		5.1563500	889.4558680	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	MG	SWC	I		32.0583500	5529.9751811	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	MN	SWC	I		5.2693400	908.9463251	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	MO	SWC	I	U	0.0050000	0.8624859	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	NA	SWC	I		4.4243100	763.1810275	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	NI	SWC	I		0.1278500	22.0537653	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	PB	SWC	I		0.1376700	23.7476877	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	SB	SWC	I	U	0.0500000	8.6248593	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
[redacted]	AJ	SE	SWC	I		0.0965700	16.6580533	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
[redacted]	AJ	SI	SWC	I		19.7616500	3408.8290270	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	SN	SWC	I		0.0230600	3.9777851	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	SR	SWC	I		0.4148800	71.5656328	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	TI	SWC	I		19.4524900	3355.4997968	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	TL	SWC	I	U	0.0500000	8.6248593	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	V	SWC	I		0.8820700	152.1545934	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AJ	ZN	SWC	I		0.6941500	119.7389221	mg/kg-dry	2.00	2.0660	0.00	100.00	56.12
T914	AK	AG	SWC	I		0.0082700	1.5876901	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	AL	SWC	I		159.5934100	30639.0423944	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	AS	SWC	I	U	0.0500000	9.5990938	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	B	SWC	I		0.0447700	8.5950286	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	BA	SWC	I		0.7994000	153.4703124	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	BE	SWC	I		0.0036600	0.7026537	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	CA	SWC	I		31.1093600	5972.4333223	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	CD	SWC	I		0.0020400	0.3916430	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	CO	SWC	I		0.1108000	21.2715920	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	CR	SWC	I		0.1178000	22.6154651	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	CU	SWC	I		0.1529100	29.3559488	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	FE	SWC	I		304.9945600	58553.4280764	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	K	SWC	I		4.2569300	817.2534113	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	MG	SWC	I		22.4606700	4312.0415833	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	MN	SWC	I		3.1524600	605.2151877	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	MO	SWC	I	U	0.0050000	0.9599094	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	NA	SWC	I		2.9320800	562.9062217	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
[redacted]	AK	NI	SWC	I		0.1072500	20.5900563	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
[redacted]	AK	PB	SWC	I		0.1415600	27.1769545	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	SB	SWC	I	U	0.0500000	9.5990938	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
T914	AK	SE	SWC	I		0.0755200	14.4984713	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	SI	SWC	I		15.7636700	3026.3389536	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	SN	SWC	I		0.0148300	2.8470912	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	SR	SWC	I		0.2807900	53.9065912	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	TI	SWC	I		16.6897400	3204.1276104	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	TL	SWC	I	U	0.0500000	9.5990938	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	V	SWC	I		0.7642900	146.7298287	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AK	ZN	SWC	I		0.6474900	124.3063455	mg/kg-dry	2.00	2.0940	0.00	100.00	49.75
T914	AL	AG	SWC	I		0.0061400	0.9688319	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	AL	SWC	I		161.8622700	25540.2807624	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	AS	SWC	I	U	0.0500000	7.8895102	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	B	SWC	I		0.0343300	5.4169377	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	BA	SWC	I		0.9432000	148.8277213	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	BE	SWC	I		0.0034700	0.5475320	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	CA	SWC	I		44.4046500	7006.6188257	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	CD	SWC	I	U	0.0020000	0.3155804	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	CO	SWC	I		0.0973300	15.3577207	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	CR	SWC	I		0.1576800	24.8803595	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	CU	SWC	I		0.1610200	25.4073788	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	FE	SWC	I		262.1093700	41358.2912204	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	K	SWC	I		5.8793200	927.6991080	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	MG	SWC	I		33.6110600	5303.4960471	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	MN	SWC	I		3.0875300	487.1819916	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	MO	SWC	I	U	0.0050000	0.7889510	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	NA	SWC	I		5.8117200	917.0324901	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	NI	SWC	I		0.1555300	24.5411106	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	PB	SWC	I		0.1558100	24.5852918	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	SB	SWC	I	U	0.0500000	7.8895102	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	SE	SWC	I		0.0671300	10.5924565	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	SI	SWC	I		17.2651900	2724.2778692	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	SN	SWC	I		0.0167800	2.6477196	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	SR	SWC	I		0.5514200	87.0086748	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	TI	SWC	I		11.4829200	1811.8923006	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	TL	SWC	I	U	0.0500000	7.8895102	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	V	SWC	I		0.5649200	89.1388426	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AL	ZN	SWC	I		0.6337800	100.0042761	mg/kg-dry	2.00	2.0180	0.00	100.00	62.81
T914	AY	AG	SWC	I		0.0083500	1.5227119	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	AL	SWC	I		210.2677400	38344.5732873	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	AS	SWC	I	U	0.0500000	9.1180352	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	B	SWC	I		0.0510000	9.3003960	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	BA	SWC	I		0.9830700	179.2733382	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	BE	SWC	I		0.0040000	0.7294428	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	CA	SWC	I		41.5181300	7571.2754536	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	CD	SWC	I		0.0029900	0.5452585	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	CO	SWC	I		0.1167600	21.2924359	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	CR	SWC	I		0.1886300	34.3986998	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	CU	SWC	I		0.2154300	39.2859667	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	FE	SWC	I		296.9948700	54160.1938494	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	K	SWC	I		5.9160800	1078.8605191	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	MG	SWC	I		33.4125200	6093.1307002	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	MN	SWC	I		3.9752700	724.9330394	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	MO	SWC	I	U	0.0050000	0.9118035	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	NA	SWC	I		5.1273100	935.0198659	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	NI	SWC	I		0.1496200	27.2848087	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	PB	SWC	I		0.1342900	24.4892191	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
T914	AY	SB	SWC	I	U	0.0500000	9.1180352	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	SE	SWC	I		0.0917200	16.7261239	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T[redacted]	AY	SI	SWC	I		18.2405200	3326.3540852	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	SN	SWC	I		0.0172900	3.1530166	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	SR	SWC	I		0.4541700	82.8227614	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	TI	SWC	I		16.2977500	2972.0691785	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	TL	SWC	I	U	0.0500000	9.1180352	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	V	SWC	I		0.7468200	136.1906216	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AY	ZN	SWC	I		0.7916000	144.3567340	mg/kg-dry	2.00	2.0990	0.00	100.00	52.25
T914	AX	AG	SWC	I		0.0125600	1.2301916	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	AL	SWC	I		382.3757300	37451.8628783	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	AS	SWC	I	U	0.0500000	4.8972594	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	B	SWC	I		0.0707000	6.9247248	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	BA	SWC	I		1.7142900	167.9064569	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	BE	SWC	I		0.0066800	0.6542739	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	CA	SWC	I		75.6134700	7405.9755576	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	CD	SWC	I		0.0055300	0.5416369	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	CO	SWC	I		0.1856700	18.1854831	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	CR	SWC	I		0.3776500	36.9890004	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	CU	SWC	I		0.4713900	46.1703823	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	FE	SWC	I		450.3769200	44112.2522379	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	K	SWC	I		11.6459100	1140.6608479	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	MG	SWC	I		64.9163600	6358.2451043	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	MN	SWC	I		6.9547800	681.1872367	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	MO	SWC	I	U	0.0050000	0.4897259	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	NA	SWC	I		9.7442700	954.4043600	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	NI	SWC	I		0.3062200	29.9927756	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T[redacted]	AX	PB	SWC	I		0.2541300	24.8908107	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T[redacted]	AX	SB	SWC	I	U	0.0500000	4.8972594	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	SE	SWC	I		0.1249900	12.2421691	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	SI	SWC	I		35.0740800	3435.3373702	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	SN	SWC	I		0.0294700	2.8864447	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	SR	SWC	I		0.8803100	86.2221287	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	TI	SWC	I		22.6035900	2213.9128789	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	TL	SWC	I		0.0519100	5.0843347	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	V	SWC	I		1.1195200	109.6515972	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
T914	AX	ZN	SWC	I		1.3678400	133.9733464	mg/kg-dry	1.00	2.1760	0.00	100.00	46.92
U269	MB2	AG	SWC	I	U	0.0030000	0.3000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	AL	SWC	I		0.0423400	4.2340000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	AS	SWC	I	U	0.0500000	5.0000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	B	SWC	I		0.0603100	6.0310000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	BA	SWC	I	U	0.0010000	0.1000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	BE	SWC	I	U	0.0010000	0.1000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	CA	SWC	I		0.0289800	2.8980000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	CD	SWC	I	U	0.0020000	0.2000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	CO	SWC	I	U	0.0030000	0.3000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	CR	SWC	I	U	0.0050000	0.5000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	CU	SWC	I	U	0.0020000	0.2000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	FE	SWC	I	U	0.0200000	2.0000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	K	SWC	I	U	0.5000000	50.0000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	MG	SWC	I	U	0.0200000	2.0000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	MN	SWC	I	U	0.0010000	0.1000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U[redacted]	MB2	MO	SWC	I	U	0.0050000	0.5000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U[redacted]	MB2	NA	SWC	I		0.0755500	7.5550000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	NI	SWC	I	U	0.0100000	1.0000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U269	MB2	PB	SWC	I	U	0.0200000	2.0000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	SB	SWC	I	U	0.0500000	5.0000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	SE	SWC	I	U	0.0500000	5.0000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	SI	SWC	I		0.2543100	25.4310000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	SN	SWC	I	U	0.0100000	1.0000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	SR	SWC	I	U	0.0010000	0.1000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	TI	SWC	I	U	0.0050000	0.5000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	TL	SWC	I	U	0.0500000	5.0000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	V	SWC	I	U	0.0030000	0.3000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2	ZN	SWC	I		0.0044000	0.4400000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
T971	MB1	AG	SWC	I	U	0.0030000	0.1500000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	AL	SWC	I		0.0293900	1.4695000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	AS	SWC	I	U	0.0500000	2.5000000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	B	SWC	I		0.0682800	3.4140000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	BA	SWC	I	U	0.0010000	0.0500000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	BE	SWC	I	U	0.0010000	0.0500000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	CA	SWC	I		0.0245000	1.2250000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	CD	SWC	I	U	0.0020000	0.1000000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	CO	SWC	I	U	0.0030000	0.1500000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	CR	SWC	I	U	0.0050000	0.2500000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	CU	SWC	I	U	0.0020000	0.1000000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	FE	SWC	I	U	0.0200000	1.0000000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	K	SWC	I	U	0.5000000	25.0000000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	MG	SWC	I	U	0.0200000	1.0000000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	MN	SWC	I	U	0.0010000	0.0500000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	MO	SWC	I	U	0.0050000	0.2500000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	NA	SWC	I		0.1160600	5.8030000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	NI	SWC	I	U	0.0100000	0.5000000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	PB	SWC	I	U	0.0200000	1.0000000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	SB	SWC	I	U	0.0500000	2.5000000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	SE	SWC	I	U	0.0500000	2.5000000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	SI	SWC	I		0.2796000	13.9800000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	SN	SWC	I		0.0125000	0.6250000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	SR	SWC	I	U	0.0010000	0.0500000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	TI	SWC	I	U	0.0050000	0.2500000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	TL	SWC	I	U	0.0500000	2.5000000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	V	SWC	I	U	0.0030000	0.1500000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	MB1	ZN	SWC	I		0.0069100	0.3455000	mg/kg-dry	1.00	2.0000	0.00	100.00	100.00
T971	B	AG	SWC	I		0.0107000	1.0544548	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	AL	SWC	I		420.3025200	41419.6272867	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	AS	SWC	I	U	0.0500000	4.9273589	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	B	SWC	I		0.1430500	14.0971738	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	BA	SWC	I		1.8049900	177.8766710	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	BE	SWC	I		0.0067900	0.6691353	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	CA	SWC	I		90.6118600	8929.5431037	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	CD	SWC	I		0.0035500	0.3498425	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	CO	SWC	I		0.1824400	17.9789472	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	CR	SWC	I		0.3730600	36.7640103	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	CU	SWC	I		0.4495800	44.3048403	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	FE	SWC	I		427.0510500	42084.6758744	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	K	SWC	I		13.9643100	1376.1433444	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	MG	SWC	I		73.6918200	7262.1209087	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	MN	SWC	I		6.7336400	663.5812202	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	MO	SWC	I	U	0.0050000	0.4927359	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	NA	SWC	I		13.0377300	1284.8315001	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
T971	B	NI	SWC	I		0.2993500	29.5000978	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	PB	SWC	I		0.0878100	8.6534277	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
[redacted]	B	SB	SWC	I	U	0.0500000	4.9273589	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	SE	SWC	I		0.1177400	11.6029447	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	SI	SWC	I		35.4077000	3489.3289174	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	SN	SWC	I		0.0250100	2.4646649	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	SR	SWC	I		1.1220600	110.5758466	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	TI	SWC	I		20.6753600	2037.4983838	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	TL	SWC	I		0.0833000	8.2089799	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	V	SWC	I		1.0585000	104.3121880	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	B	ZN	SWC	I		0.9955200	98.1056867	mg/kg-dry	1.00	2.0360	0.00	100.00	49.84
T971	C	AG	SWC	I		0.0115300	1.2222974	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	AL	SWC	I		377.0350900	39969.5591757	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	AS	SWC	I	U	0.0500000	5.3005092	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	B	SWC	I		0.1593600	16.8937829	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	BA	SWC	I		1.6506100	174.9814694	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	BE	SWC	I		0.0061700	0.6540828	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	CA	SWC	I		80.9589700	8582.4752869	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	CD	SWC	I		0.0040900	0.4335817	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	CO	SWC	I		0.1730900	18.3493027	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	CR	SWC	I		0.3503300	37.1385477	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	CU	SWC	I		0.4021400	42.6309353	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	FE	SWC	I		416.9386200	44199.7397238	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	K	SWC	I		13.0036200	1378.5161458	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	MG	SWC	I		65.7660100	6971.8668054	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	MN	SWC	I		6.5401600	693.3235634	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	MO	SWC	I	U	0.0050000	0.5300509	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
[redacted]	C	NA	SWC	I		11.2012700	1187.4486911	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	NI	SWC	I		0.2818700	29.8810905	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	PB	SWC	I		0.1301900	13.8014658	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	SB	SWC	I	U	0.0500000	5.3005092	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	SE	SWC	I		0.1296100	13.7399799	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	SI	SWC	I		33.7711000	3580.0805169	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	SN	SWC	I		0.0250800	2.6587354	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	SR	SWC	I		0.9570100	101.4528060	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	TI	SWC	I		20.8813000	2213.6304502	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	TL	SWC	I	U	0.0500000	5.3005092	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	V	SWC	I		1.0005900	106.0727298	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
T971	C	ZN	SWC	I		1.2336600	130.7805233	mg/kg-dry	1.00	2.0260	0.00	100.00	46.56
U269	MB2SPK	AG	SWC	I		0.0979400	9.7940000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	AL	SWC	I		4.0778100	407.7810000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	AS	SWC	I		3.9478500	394.7850000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	B	SWC	I		0.0394000	3.9400000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	BA	SWC	I		3.9344800	393.4480000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	BE	SWC	I		0.0959900	9.5990000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	CA	SWC	I		0.0202600	2.0260000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	CD	SWC	I		0.0952800	9.5280000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	CO	SWC	I		0.9830200	98.3020000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	CR	SWC	I		0.3913500	39.1350000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	CU	SWC	I		0.4805400	48.0540000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	FE	SWC	I		1.9815300	198.1530000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	K	SWC	I	U	0.5000000	50.0000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
[redacted]	MB2SPK	MG	SWC	I	U	0.0200000	2.0000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
[redacted]	MB2SPK	MN	SWC	I		0.9764800	97.6480000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	MO	SWC	I	U	0.0050000	0.5000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U269	MB2SPK	NA	SWC	I		0.2575000	25.7500000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	NI	SWC	I		1.0108000	101.0800000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	PB	SWC	I		0.9702500	97.0250000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	SB	SWC	I	U	0.0500000	5.0000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	SE	SWC	I		4.0575700	405.7570000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	SI	SWC	I		0.1961200	19.6120000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	SN	SWC	I		0.0115800	1.1580000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	SR	SWC	I	U	0.0010000	0.1000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	TI	SWC	I	U	0.0050000	0.5000000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	TL	SWC	I		3.9688300	396.8830000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	V	SWC	I		0.9593500	95.9350000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
U269	MB2SPK	ZN	SWC	I		0.9701600	97.0160000	mg/kg-dry	1.00	1.0000	0.00	100.00	100.00
T971	A	AG	SWC	I		0.0103600	1.0895152	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	AL	SWC	I		432.2149900	45454.1333011	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	AS	SWC	I	U	0.0500000	5.2582782	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	B	SWC	I		0.1760300	18.5122943	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	BA	SWC	I		1.7107100	179.9077824	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	BE	SWC	I		0.0070000	0.7361589	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	CA	SWC	I		81.0638500	8525.1255256	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	CD	SWC	I		0.0034000	0.3575629	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	CO	SWC	I		0.1814500	19.0822916	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	CR	SWC	I		0.3601600	37.8764296	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	CU	SWC	I		0.4351400	45.7617436	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	FE	SWC	I		420.6178800	44234.5166843	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	K	SWC	I		13.3320200	1402.0694059	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	MG	SWC	I		74.7830200	7864.5984947	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	MN	SWC	I		6.8341200	718.7140860	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	MO	SWC	I	U	0.0050000	0.5258278	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	NA	SWC	I		10.5350900	1107.9286843	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	NI	SWC	I		0.2987700	31.4203156	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	PB	SWC	I		0.0850900	8.9485379	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	SB	SWC	I	U	0.0500000	5.2582782	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	SE	SWC	I		0.1318400	13.8650280	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	SI	SWC	I		37.4100400	3934.2479653	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	SN	SWC	I		0.0271500	2.8552451	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	SR	SWC	I		0.9450200	99.3835615	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	TI	SWC	I		20.3900500	2144.3311134	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	TL	SWC	I		0.0923600	9.7130915	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	V	SWC	I		1.0281400	108.1249232	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	A	ZN	SWC	I		0.8608300	90.5296727	mg/kg-dry	1.00	2.0180	0.00	100.00	47.12
T971	ADUP	AG	SWC	I		0.0107500	1.1333379	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	AL	SWC	I		413.7846000	43623.9780982	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	AS	SWC	I	U	0.0500000	5.2713390	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	B	SWC	I		0.1206000	12.7144697	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	BA	SWC	I		1.6439900	173.3205725	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	BE	SWC	I		0.0066300	0.6989796	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	CA	SWC	I		79.0007000	8328.7894391	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	CD	SWC	I		0.0031300	0.3299858	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	CO	SWC	I		0.1792100	18.8935333	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	CR	SWC	I		0.3451400	36.3869989	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	CU	SWC	I		0.4266400	44.9792815	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	FE	SWC	I		406.1927100	42823.5895794	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	K	SWC	I		12.8492200	1354.6518934	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	MG	SWC	I		72.9696800	7692.9584188	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	MN	SWC	I		6.7066100	707.0562987	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
T971	ADUP	MO	SWC	I	U	0.0050000	0.5271339	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	NA	SWC	I		9.8265400	1035.9804733	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
[redacted]	ADUP	NI	SWC	I		0.2829400	29.8294532	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	PB	SWC	I		0.0941800	9.9290942	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	SB	SWC	I	U	0.0500000	5.2713390	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	SE	SWC	I		0.1281500	13.5104419	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	SI	SWC	I		34.3509600	3621.5111116	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	SN	SWC	I		0.0256900	2.7084140	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	SR	SWC	I		0.9129700	96.2514876	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	TI	SWC	I		18.8056200	1982.6159673	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	TL	SWC	I		0.0698500	7.3640606	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	V	SWC	I		0.9774600	103.0504606	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ADUP	ZN	SWC	I		0.8359300	88.1294084	mg/kg-dry	1.00	2.0130	0.00	100.00	47.12
T971	ASPK	AG	SWC	I		0.1061000	11.1746789	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	AL	SWC	I		475.6604000	50097.5704289	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	AS	SWC	I		3.7903000	399.2025008	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	B	SWC	I		0.2031200	21.3930327	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	BA	SWC	I		5.6501400	595.0848265	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	BE	SWC	I		0.1036400	10.9155864	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	CA	SWC	I		108.8700000	11466.4211959	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	CD	SWC	I		0.0964600	10.1593735	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	CO	SWC	I		1.1202800	117.9902851	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	CR	SWC	I		0.7349600	77.4075588	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	CU	SWC	I		0.9186200	96.7510227	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	FE	SWC	I		407.0756200	42874.0747450	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	K	SWC	I		35.0553800	3692.1075802	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	MG	SWC	I		96.0550000	10116.7179937	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
[redacted]	ASPK	MN	SWC	I		7.5668400	796.9557689	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
[redacted]	ASPK	MO	SWC	I	U	0.0050000	0.5266107	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	NA	SWC	I		34.3647400	3619.3678987	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	NI	SWC	I		1.2480300	131.4451883	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	PB	SWC	I		1.0336500	108.8662282	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	SB	SWC	I		0.0790400	8.3246618	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	SE	SWC	I		4.1188000	433.8008232	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	SI	SWC	I		32.0284100	3373.3006273	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	SN	SWC	I		0.0188600	1.9863755	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	SR	SWC	I		1.0380100	109.3254328	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	TI	SWC	I		23.2570900	2449.4864493	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	TL	SWC	I		3.9120500	412.0254711	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	V	SWC	I		1.9233000	202.5660686	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	ASPK	ZN	SWC	I		1.7841100	187.9062801	mg/kg-dry	1.00	2.0150	0.00	100.00	47.12
T971	E	AG	SWC	I		0.0115000	1.3968119	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	AL	SWC	I		341.9082900	41528.8325057	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	AS	SWC	I	U	0.0500000	6.0730953	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	B	SWC	I		0.1518400	18.4427758	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	BA	SWC	I		1.5528100	188.6072619	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	BE	SWC	I		0.0056900	0.6911182	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	CA	SWC	I		71.8644200	8728.7894110	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	CD	SWC	I		0.0046000	0.5587248	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	CO	SWC	I		0.1444800	17.5488161	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	CR	SWC	I		0.3332300	40.4747509	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	CU	SWC	I		0.4388900	53.3084158	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
[redacted]	E	FE	SWC	I		365.9955700	44454.5194396	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
[redacted]	E	K	SWC	I		11.5454300	1402.3299309	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	MG	SWC	I		61.7152200	7496.0482369	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
T971	E	MN	SWC	I		4.3867500	532.8230152	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	MO	SWC	I	U	0.0050000	0.6073095	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	NA	SWC	I		9.6439000	1171.3664732	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	NI	SWC	I		0.2451900	29.7812447	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	PB	SWC	I		0.1453200	17.6508441	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	SB	SWC	I	U	0.0500000	6.0730953	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	SE	SWC	I		0.1285500	15.6139280	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	SI	SWC	I		34.2405000	4158.9163849	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	SN	SWC	I		0.0211200	2.5652755	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	SR	SWC	I		0.7452900	90.5243438	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	TI	SWC	I		17.4902400	2124.3978830	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	TL	SWC	I		0.0831700	10.1019867	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	V	SWC	I		0.8630300	104.8252685	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	E	ZN	SWC	I		1.1346900	137.8216099	mg/kg-dry	1.00	2.0110	0.00	100.00	40.94
T971	F	AG	SWC	I		0.0111500	1.0724433	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	AL	SWC	I		433.6896600	41713.6836071	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	AS	SWC	I	U	0.0500000	4.8091628	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	B	SWC	I		0.1805100	17.3620395	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	BA	SWC	I		1.7981000	172.9471127	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	BE	SWC	I		0.0067200	0.6463515	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	CA	SWC	I		93.3299100	8976.7746292	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	CD	SWC	I		0.0036300	0.3491452	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	CO	SWC	I		0.1790400	17.2206502	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	CR	SWC	I		0.3934400	37.8423403	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	CU	SWC	I		0.4152200	39.9372116	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	FE	SWC	I		431.5587100	41508.7218977	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	K	SWC	I		14.6480700	1408.8990672	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	MG	SWC	I		73.5645700	7075.6798713	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	MN	SWC	I		5.9809900	575.2710925	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	MO	SWC	I	U	0.0050000	0.4809163	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	NA	SWC	I		15.4504900	1486.0784355	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	NI	SWC	I		0.2929300	28.1749612	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	PB	SWC	I		0.1160300	11.1601432	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	SB	SWC	I	U	0.0500000	4.8091628	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	SE	SWC	I		0.1322600	12.7211974	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	SI	SWC	I		32.4395600	3120.1425051	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	SN	SWC	I		0.0307400	2.9566733	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	SR	SWC	I		1.1517900	110.7829125	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	TI	SWC	I		21.1533200	2034.5951935	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	TL	SWC	I		0.0853000	8.2044317	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	V	SWC	I		1.0495000	100.9443272	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	F	ZN	SWC	I		0.9798300	94.2432398	mg/kg-dry	1.00	2.0600	0.00	100.00	50.47
T971	G	AG	SWC	I		0.0117600	1.1634091	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	AL	SWC	I		393.5651200	38935.1403372	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	AS	SWC	I	U	0.0500000	4.9464674	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	B	SWC	I		0.1596100	15.7901131	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	BA	SWC	I		1.7980500	177.8799124	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	BE	SWC	I		0.0062200	0.6153405	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	CA	SWC	I		75.7865900	7497.5178627	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	CD	SWC	I		0.0045200	0.4471606	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	CO	SWC	I		0.1784200	17.6509741	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	CR	SWC	I		0.4504300	44.5607458	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	CU	SWC	I		0.5051400	49.9731704	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	FE	SWC	I		429.2889700	42469.2774913	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	K	SWC	I		13.3124100	1316.9880288	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
T971	G	MG	SWC	I		68.2511900	6752.0456610	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
[redacted]	G	MN	SWC	I		4.8889600	483.6616205	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
[redacted]	G	MO	SWC	I	U	0.0050000	0.4946467	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	NA	SWC	I		40.0462000	3961.7444172	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	NI	SWC	I		0.3896000	38.5428736	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	PB	SWC	I		0.2069900	20.4773855	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	SB	SWC	I	U	0.0500000	4.9464674	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	SE	SWC	I		0.1169400	11.5687978	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	SI	SWC	I		34.8520500	3447.8905493	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	SN	SWC	I		0.0326200	3.2270753	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	SR	SWC	I		0.9226000	91.2722156	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	TI	SWC	I		20.9381700	2071.3994862	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	TL	SWC	I		0.0856900	8.4772557	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	V	SWC	I		1.0071100	99.6327347	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	G	ZN	SWC	I		1.3424200	132.8047340	mg/kg-dry	1.00	2.0160	0.00	100.00	50.14
T971	H	AG	SWC	I		0.0119800	1.1915750	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	AL	SWC	I		397.3577200	39522.6657861	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	AS	SWC	I	U	0.0500000	4.9731846	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	B	SWC	I		0.1492400	14.8439614	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	BA	SWC	I		1.8014700	179.1808568	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	BE	SWC	I		0.0062100	0.6176695	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	CA	SWC	I		84.3312500	8387.8974569	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	CD	SWC	I		0.0042900	0.4266992	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	CO	SWC	I		0.1734500	17.2519773	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	CR	SWC	I		0.3928700	39.0763006	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	CU	SWC	I		0.4503500	44.7934736	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	FE	SWC	I		417.6977800	41545.7632446	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
[redacted]	H	K	SWC	I		13.2290900	1315.8141302	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	MG	SWC	I		69.5315300	6915.8626685	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	MN	SWC	I		5.9696400	593.7624330	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	MO	SWC	I	U	0.0050000	0.4973185	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	NA	SWC	I		16.5328100	1644.4143180	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	NI	SWC	I		0.3067200	30.5075035	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	PB	SWC	I		0.1717100	17.0789105	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	SB	SWC	I	U	0.0500000	4.9731846	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	SE	SWC	I		0.1523300	15.1513042	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	SI	SWC	I		30.3231700	3016.0544345	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	SN	SWC	I		0.0237900	2.3662412	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	SR	SWC	I		1.0763200	107.0547607	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	TI	SWC	I		19.5258300	1942.1111368	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	TL	SWC	I		0.0829300	8.2485240	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	V	SWC	I		0.9821700	97.6902541	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	H	ZN	SWC	I		1.1162400	111.0253513	mg/kg-dry	1.00	2.0270	0.00	100.00	49.60
T971	I	AG	SWC	I		0.0123300	1.2618111	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	AL	SWC	I		417.0854400	42683.1322264	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	AS	SWC	I	U	0.0500000	5.1168332	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	B	SWC	I		0.2099600	21.4866058	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	BA	SWC	I		1.8877100	193.1819426	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	BE	SWC	I		0.0067000	0.6856556	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	CA	SWC	I		75.7421200	7751.1958295	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	CD	SWC	I		0.0039800	0.4072999	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	CO	SWC	I		0.1736600	17.7717849	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
[redacted]	I	CR	SWC	I		0.4186700	42.8452908	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
[redacted]	I	CU	SWC	I		0.5220800	53.4279252	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	FE	SWC	I		432.0407100	44213.6046565	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
T971	I	K	SWC	I		13.8515800	1417.5244782	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	MG	SWC	I		69.5094900	7113.3692719	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	MN	SWC	I		4.4512100	455.5219789	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	MO	SWC	I	U	0.0050000	0.5116833	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	NA	SWC	I		56.2370600	5755.1130723	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	NI	SWC	I		0.3286200	33.6298743	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	PB	SWC	I		0.2068400	21.1673154	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	SB	SWC	I	U	0.0500000	5.1168332	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	SE	SWC	I		0.1225700	12.5434048	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	SI	SWC	I		34.1363700	3493.4022018	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	SN	SWC	I		0.0340100	3.4804699	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	SR	SWC	I		1.1260200	115.2331296	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	TI	SWC	I		21.0343300	2152.5831462	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	TL	SWC	I		0.0690400	7.0653232	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	V	SWC	I		1.0455500	106.9980983	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	I	ZN	SWC	I		1.3275600	135.8580607	mg/kg-dry	1.00	2.0430	0.00	100.00	47.83
T971	REF1	AG	SWC	I		0.5594900	55.6706468	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	AL	SWC	I		57.7725900	5748.5164179	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	AS	SWC	I		1.0496400	104.4417910	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	B	SWC	I		0.7927700	78.8825871	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	BA	SWC	I		0.6303300	62.7194030	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	BE	SWC	I		0.4753100	47.2945274	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	CA	SWC	I		18.4614800	1836.9631841	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	CD	SWC	I		1.0553800	105.0129353	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	CO	SWC	I		1.2009500	119.4975124	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	CR	SWC	I		0.4341300	43.1970149	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	CU	SWC	I		0.6769700	67.3601990	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	FE	SWC	I		83.3304200	8291.5840796	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	K	SWC	I		28.4530900	2831.1532338	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	MG	SWC	I		20.1820500	2008.1641791	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	MN	SWC	I		1.2943100	128.7870647	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	MO	SWC	I		0.5894800	58.6547264	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	NA	SWC	I		2.7655500	275.1791045	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	NI	SWC	I		0.7440000	74.0298507	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	PB	SWC	I		0.4463000	44.4079602	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	SB	SWC	I		0.2762200	27.4845771	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	SE	SWC	I		0.7630900	75.9293532	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	SI	SWC	I		12.3247000	1226.3383085	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	SN	SWC	I		0.7310700	72.7432836	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	SR	SWC	I		1.2332600	122.7124378	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	TI	SWC	I		2.9115900	289.7104478	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	TL	SWC	I		0.8106700	80.6636816	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	V	SWC	I		0.6532700	65.0019900	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	REF1	ZN	SWC	I		0.8550800	85.0825871	mg/kg-dry	1.00	1.0050	0.00	100.00	100.00
T971	U	AG	SWC	I		0.0090900	1.0719086	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	AL	SWC	I		341.9026100	40317.7483647	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	AS	SWC	I	U	0.0500000	5.8960867	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	B	SWC	I		0.0752200	8.8700728	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	BA	SWC	I		1.4705200	173.4062671	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	BE	SWC	I		0.0057900	0.6827668	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	CA	SWC	I		67.6443400	7976.7378155	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	CD	SWC	I		0.0030800	0.3631989	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	CO	SWC	I		0.1513800	17.8509920	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	CR	SWC	I		0.2994700	35.3140214	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	CU	SWC	I		0.5431900	64.0539063	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
T971	U	FE	SWC	I		359.4716700	42389.5223710	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	K	SWC	I		10.7391400	1266.3780021	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T[redacted]	U	MG	SWC	I		59.7330000	7043.8188906	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	MN	SWC	I		6.2817900	740.7595645	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	MO	SWC	I	U	0.0050000	0.5896087	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	NA	SWC	I		8.3405500	983.5321120	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	NI	SWC	I		0.2449100	28.8802117	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	PB	SWC	I		0.1012400	11.9383963	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	SB	SWC	I	U	0.0500000	5.8960867	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	SE	SWC	I		0.1378400	16.2543317	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	SI	SWC	I		34.8851900	4113.7220686	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	SN	SWC	I		0.0260300	3.0695027	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	SR	SWC	I		0.7957200	93.8326816	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	TI	SWC	I		16.3454900	1927.4885112	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	TL	SWC	I		0.0640400	7.5517078	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	V	SWC	I		0.8631600	101.7853232	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	U	ZN	SWC	I		0.8644500	101.9374423	mg/kg-dry	1.00	2.0390	0.00	100.00	41.59
T971	UDUP	AG	SWC	I		0.0106200	1.2560248	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	AL	SWC	I		337.8721900	39960.0614861	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	AS	SWC	I	U	0.0500000	5.9134878	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	B	SWC	I		0.1020400	12.0682459	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	BA	SWC	I		1.4974800	177.1065943	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	BE	SWC	I		0.0057900	0.6847819	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	CA	SWC	I		67.6256500	7998.0691280	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	CD	SWC	I		0.0033500	0.3962037	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	CO	SWC	I		0.1552000	18.3554661	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	CR	SWC	I		0.3011100	35.6122062	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T[redacted]	UDUP	CU	SWC	I		0.5385000	63.6882636	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T[redacted]	UDUP	FE	SWC	I		366.4202800	43336.4371260	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	K	SWC	I		10.6729700	1262.2895582	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	MG	SWC	I		60.6856000	7177.2711075	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	MN	SWC	I		6.4465300	762.4295304	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	MO	SWC	I	U	0.0050000	0.5913488	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	NA	SWC	I		8.0756400	955.1039727	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	NI	SWC	I		0.2435600	28.8057818	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	PB	SWC	I		0.0982400	11.6188208	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	SB	SWC	I	U	0.0500000	5.9134878	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	SE	SWC	I		0.1164300	13.7701477	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	SI	SWC	I		34.7887300	4114.4546103	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	SN	SWC	I		0.0227000	2.6847235	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	SR	SWC	I		0.7977900	94.3544287	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	TI	SWC	I		16.9263100	2001.8705545	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	TL	SWC	I		0.0655400	7.7513998	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	V	SWC	I		0.8868100	104.8828024	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	UDUP	ZN	SWC	I		0.8799600	104.0726545	mg/kg-dry	1.00	2.0330	0.00	100.00	41.59
T971	USPK	AG	SWC	I		0.1053500	12.4291503	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	AL	SWC	I		407.2234400	48044.0564122	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	AS	SWC	I		3.8156700	450.1712002	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	B	SWC	I		0.1040600	12.2769566	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	BA	SWC	I		5.5084500	649.8846985	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	BE	SWC	I		0.1014600	11.9702097	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	CA	SWC	I		98.7322000	11648.3849419	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T[redacted]	USPK	CD	SWC	I		0.0954600	11.2623321	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T[redacted]	USPK	CO	SWC	I		1.0962200	129.3315913	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	CR	SWC	I		0.6933000	81.7952530	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
T971	USPK	CU	SWC	I		1.0267300	121.1331893	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	FE	SWC	I		365.3753000	43106.8298151	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	K	SWC	I		33.4084800	3941.5189307	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	MG	SWC	I		83.5933500	9862.3095544	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	MN	SWC	I		7.2428500	854.5085076	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	MO	SWC	I	U	0.0050000	0.5898980	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	NA	SWC	I		32.8967700	3881.1475922	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	NI	SWC	I		1.2124600	143.0455394	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	PB	SWC	I		1.0407900	122.7919824	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	SB	SWC	I		0.0708000	8.3529553	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	SE	SWC	I		4.0824300	481.6434369	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	SI	SWC	I		29.3483600	3462.5076185	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	SN	SWC	I		0.0262800	3.1005037	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	SR	SWC	I		0.9475200	111.7880256	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	TI	SWC	I		21.2680600	2509.1970993	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	TL	SWC	I		3.8836300	458.1890934	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	V	SWC	I		1.8275100	215.6088891	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	USPK	ZN	SWC	I		1.8185300	214.5494324	mg/kg-dry	1.00	2.0380	0.00	100.00	41.59
T971	J	AG	SWC	I		0.0108300	1.0493118	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	AL	SWC	I		415.9899500	40305.0028825	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	AS	SWC	I	U	0.0500000	4.8444683	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	B	SWC	I		0.1345200	13.0335576	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	BA	SWC	I		1.8136700	175.7253380	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	BE	SWC	I		0.0066000	0.6394698	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	CA	SWC	I		84.9040000	8226.2948053	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	CD	SWC	I		0.0038600	0.3739930	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	CO	SWC	I		0.1829100	17.7220341	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	CR	SWC	I		0.4096700	39.6926669	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	CU	SWC	I		0.4190700	40.6034270	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	FE	SWC	I		426.2110500	41295.3187902	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	K	SWC	I		13.2658500	1285.3198076	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	MG	SWC	I		72.7084400	7044.6747182	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	MN	SWC	I		5.8541000	567.2000426	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	MO	SWC	I	U	0.0050000	0.4844468	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	NA	SWC	I		24.9715400	2419.4767005	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	NI	SWC	I		0.3123100	30.2595182	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	PB	SWC	I		0.2234400	21.6489601	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	SB	SWC	I	U	0.0500000	4.8444683	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	SE	SWC	I		0.1387600	13.4443685	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	SI	SWC	I		32.1606400	3116.0240479	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	SN	SWC	I		0.0277700	2.6906177	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	SR	SWC	I		1.2780000	123.8246109	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	TI	SWC	I		19.8216000	1920.5022745	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	TL	SWC	I		0.0756900	7.3335562	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	V	SWC	I		1.0127100	98.1208307	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	J	ZN	SWC	I		1.0242800	99.2418407	mg/kg-dry	1.00	2.0750	0.00	100.00	49.74
T971	K	AG	SWC	I		0.0107700	1.1744481	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	AL	SWC	I		391.1475500	42653.8982243	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	AS	SWC	I	U	0.0500000	5.4524051	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	B	SWC	I		0.0985700	10.7488715	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	BA	SWC	I		1.6764800	182.8169633	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	BE	SWC	I		0.0064400	0.7022698	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	CA	SWC	I		76.0598200	8294.1790668	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	CD	SWC	I		0.0035100	0.3827588	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	CO	SWC	I		0.1642500	17.9111509	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51

JOB	SAMP	ELEMENT	PREPCODE	I		RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
T971	K	CR	SWC	I		0.3759100	40.9922723	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	CU	SWC	I		0.4057600	44.2473582	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	FE	SWC	I		409.2258300	44625.3003594	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	K	SWC	I		13.2290900	1442.6071657	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	MG	SWC	I		66.4378800	7244.9247650	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	MN	SWC	I		6.2617500	682.8319574	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	MO	SWC	I	U	0.0050000	0.5452405	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	NA	SWC	I		10.5704700	1152.6896987	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	NI	SWC	I		0.2770900	30.2161388	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	PB	SWC	I		0.1143200	12.4663791	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	SB	SWC	I	U	0.0500000	5.4524051	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	SE	SWC	I		0.1204100	13.1304821	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	SI	SWC	I		35.1823700	3836.5706989	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	SN	SWC	I		0.0342200	3.7316261	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	SR	SWC	I		0.9418900	102.7113175	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	TI	SWC	I		21.1898800	2310.7162116	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	TL	SWC	I		0.1348400	14.7040462	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	V	SWC	I		1.0193700	111.1603645	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	K	ZN	SWC	I		0.9792000	106.7799022	mg/kg-dry	1.00	2.0150	0.00	100.00	45.51
T971	M	AG	SWC	I		0.0097100	0.6937276	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	AL	SWC	I		296.8685600	21209.6723491	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	AS	SWC	I	U	0.0500000	3.5722328	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	B	SWC	I		0.1655000	11.8240907	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	BA	SWC	I		1.1430400	81.6641004	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	BE	SWC	I		0.0057100	0.4079490	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	CA	SWC	I		75.2805300	5378.3916207	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	CD	SWC	I		0.0026400	0.1886139	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	CO	SWC	I		0.1418400	10.1337101	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	CR	SWC	I		0.3152200	22.5207847	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	CU	SWC	I		0.2766000	19.7615920	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	FE	SWC	I		361.0950600	25798.3125915	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	K	SWC	I		10.7195300	765.8531406	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	MG	SWC	I		54.2382700	3875.0345792	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	MN	SWC	I		3.6489500	260.6979800	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	MO	SWC	I	U	0.0050000	0.3572233	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	NA	SWC	I		32.3117700	2308.5033145	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	NI	SWC	I		0.2752000	19.6615695	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	PB	SWC	I		0.1139100	8.1382608	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	SB	SWC	I	U	0.0500000	3.5722328	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	SE	SWC	I		0.1337400	9.5550084	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	SI	SWC	I		25.3110000	1808.3357053	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	SN	SWC	I		0.0299800	2.1419108	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	SR	SWC	I		0.9735300	69.5535166	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	TI	SWC	I		22.8262100	1630.8107368	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	TL	SWC	I		0.0521500	3.7258388	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	V	SWC	I		1.1580200	82.7343413	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	M	ZN	SWC	I		0.8782500	62.7462697	mg/kg-dry	1.00	2.0180	0.00	100.00	69.36
T971	N	AG	SWC	I		0.0119000	1.1623569	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	AL	SWC	I		434.3883000	42429.7694655	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	AS	SWC	I	U	0.0500000	4.8838527	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	B	SWC	I		0.2398600	23.4288182	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	BA	SWC	I		2.0172000	197.0341535	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	BE	SWC	I		0.0067900	0.6632272	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	CA	SWC	I		77.8364100	7602.8312280	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	CD	SWC	I		0.0043400	0.4239184	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
T971	N	CO	SWC	I		0.1795200	17.5349847	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	CR	SWC	I		0.5178100	50.5781554	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	CU	SWC	I		0.5889400	57.5259242	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	FE	SWC	I		449.7776100	43932.9519305	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	K	SWC	I		16.3831900	1600.2617354	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	MG	SWC	I		70.5784700	6893.8970302	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	MN	SWC	I		4.6763000	456.7672079	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	MO	SWC	I	U	0.0050000	0.4883853	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	NA	SWC	I		130.2476100	12722.2028442	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	NI	SWC	I		0.3351100	32.7325576	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	PB	SWC	I		0.1531500	14.9592408	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	SB	SWC	I	U	0.0500000	4.8838527	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	SE	SWC	I		0.1158500	11.3158867	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	SI	SWC	I		31.7630500	3102.5211522	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	SN	SWC	I		0.0276400	2.6997938	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	SR	SWC	I		1.1282900	110.2080433	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	TI	SWC	I		21.1920800	2069.9799440	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	TL	SWC	I		0.1100800	10.7522901	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	V	SWC	I		1.0587100	103.4116739	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	N	ZN	SWC	I		1.0735200	104.8582711	mg/kg-dry	1.00	2.0390	0.00	100.00	50.21
T971	O	AG	SWC	I		0.0096200	0.7945782	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	AL	SWC	I		326.8236300	26994.4824723	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	AS	SWC	I	U	0.0500000	4.1298242	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	B	SWC	I		0.1145800	9.4639050	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	BA	SWC	I		1.5311100	126.4643014	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	BE	SWC	I		0.0057000	0.4708000	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	CA	SWC	I		71.9625300	5943.8519019	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	CD	SWC	I		0.0026800	0.2213586	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	CO	SWC	I		0.1474200	12.1763736	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	CR	SWC	I		0.3341600	27.6004408	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	CU	SWC	I		0.2812800	23.2327388	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	FE	SWC	I		353.9209800	29232.6282870	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	K	SWC	I		14.0525400	1160.6903844	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	MG	SWC	I		53.0928300	4385.2810424	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	MN	SWC	I		4.5608700	376.7118224	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	MO	SWC	I	U	0.0050000	0.4129824	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	NA	SWC	I		11.8521600	978.9467346	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	NI	SWC	I		0.2286000	18.8815561	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	PB	SWC	I		0.1387000	11.4561322	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	SB	SWC	I	U	0.0500000	4.1298242	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	SE	SWC	I		0.1040200	8.5916862	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	SI	SWC	I		28.6349200	2365.1436894	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	SN	SWC	I		0.0318700	2.6323499	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	SR	SWC	I		0.8239200	68.0528945	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	TI	SWC	I		21.3708400	1765.1562275	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	TL	SWC	I		0.0910400	7.5195838	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	V	SWC	I		0.8918800	73.6661515	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	O	ZN	SWC	I		0.7815100	64.5499776	mg/kg-dry	1.00	2.0510	0.00	100.00	59.03
T971	P	AG	SWC	I		0.0113500	1.1137846	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	AL	SWC	I		438.5553800	43035.7922296	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	AS	SWC	I	U	0.0500000	4.9065402	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	B	SWC	I		0.1267200	12.4351355	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	BA	SWC	I		1.8391100	180.4733437	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	BE	SWC	I		0.0069600	0.6829904	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	CA	SWC	I		91.9773700	9025.8133081	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
T971	P	CD	SWC	I		0.0032000	0.3140186	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T[redacted]	P	CO	SWC	I		0.1849800	18.1522362	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T[redacted]	P	CR	SWC	I		0.3827600	37.5605467	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	CU	SWC	I		0.4866500	47.7553560	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	FE	SWC	I		436.6494700	42848.7637481	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	K	SWC	I		14.9397100	1466.0457604	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	MG	SWC	I		74.3193700	7293.0195634	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	MN	SWC	I		6.9912500	686.0569865	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	MO	SWC	I	U	0.0050000	0.4906540	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	NA	SWC	I		13.3910800	1314.0774527	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	NI	SWC	I		0.3034500	29.7777926	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	PB	SWC	I		0.0969500	9.5137815	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	SB	SWC	I	U	0.0500000	4.9065402	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	SE	SWC	I		0.1352200	13.2692474	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	SI	SWC	I		34.0985200	3346.1151977	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	SN	SWC	I		0.0248800	2.4414944	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	SR	SWC	I		1.1286000	110.7504259	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	TI	SWC	I		20.9773200	2058.5212865	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	TL	SWC	I		0.1052700	10.3302298	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	V	SWC	I		1.0754700	105.5367362	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	P	ZN	SWC	I		0.9574800	93.9582826	mg/kg-dry	1.00	2.0320	0.00	100.00	50.15
T971	Q	AG	SWC	I		0.0103100	1.1263193	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	AL	SWC	I		410.8759100	44886.2712496	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	AS	SWC	I	U	0.0500000	5.4622661	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	B	SWC	I		0.1155200	12.6200196	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	BA	SWC	I		1.6765900	183.1596151	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	BE	SWC	I		0.0064600	0.7057248	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T[redacted]	Q	CA	SWC	I		81.4687200	8900.0765810	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T[redacted]	Q	CD	SWC	I		0.0032300	0.3528624	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	CO	SWC	I		0.1661800	18.1543877	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	CR	SWC	I		0.3496300	38.1954421	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	CU	SWC	I		0.4627800	50.5565503	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	FE	SWC	I		397.7790800	43455.5038340	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	K	SWC	I		14.2412500	1555.7899475	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	MG	SWC	I		67.3317000	7355.6732735	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	MN	SWC	I		6.5007100	710.1721597	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	MO	SWC	I	U	0.0050000	0.5462266	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	NA	SWC	I		12.0320500	1314.4451812	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	NI	SWC	I		0.2711000	29.6164069	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	PB	SWC	I		0.0851100	9.2978694	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	SB	SWC	I	U	0.0500000	5.4622661	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	SE	SWC	I		0.1623000	17.7305158	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	SI	SWC	I		31.7121600	3464.4051428	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	SN	SWC	I		0.0264000	2.8840765	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	SR	SWC	I		0.9944500	108.6390108	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	TI	SWC	I		19.4079500	2120.2277546	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	TL	SWC	I		0.1029300	11.2446210	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	V	SWC	I		0.9870100	107.8262257	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	Q	ZN	SWC	I		0.8472700	92.5602843	mg/kg-dry	1.00	2.0030	0.00	100.00	45.70
T971	R	AG	SWC	I		0.0111600	1.1980517	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	AL	SWC	I		404.3668500	43409.7119910	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	AS	SWC	I	U	0.0500000	5.3676151	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
[redacted]	R	B	SWC	I		0.1065800	11.4416083	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
[redacted]	R	BA	SWC	I		1.6755100	179.8698547	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	BE	SWC	I		0.0063000	0.6763195	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
T971	R	CA	SWC	I		81.0807800	8704.2083390	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	CD	SWC	I		0.0034500	0.3703654	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	CO	SWC	I		0.1724700	18.5150514	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	CR	SWC	I		0.3471600	37.2684250	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	CU	SWC	I		0.4614800	49.5409401	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	FE	SWC	I		402.0588300	43161.9407321	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	K	SWC	I		13.6016000	1460.1630639	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	MG	SWC	I		68.4293100	7346.0439174	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	MN	SWC	I		6.7742900	727.2356224	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	MO	SWC	I	U	0.0050000	0.5367615	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	NA	SWC	I		11.1725400	1199.3978824	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	NI	SWC	I		0.2779500	29.8385722	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	PB	SWC	I		0.1134900	12.1834127	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	SB	SWC	I	U	0.0500000	5.3676151	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	SE	SWC	I		0.1291000	13.8591821	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	SI	SWC	I		32.8696900	3528.6368705	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	SN	SWC	I		0.0277900	2.9833205	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	SR	SWC	I		0.9799400	105.1988143	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	TI	SWC	I		18.8933700	2028.2467523	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	TL	SWC	I		0.0972700	10.4421584	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	V	SWC	I		0.9739800	104.5589946	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	R	ZN	SWC	I		0.9133600	98.0512981	mg/kg-dry	1.00	2.0410	0.00	100.00	45.64
T971	S	AG	SWC	I		0.0097800	1.0340846	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	AL	SWC	I		397.3761200	42016.4142429	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	AS	SWC	I	U	0.0500000	5.2867312	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	B	SWC	I		0.1133200	11.9818475	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	BA	SWC	I		1.6665600	176.2130933	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	BE	SWC	I		0.0063300	0.6693002	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	CA	SWC	I		79.3218000	8387.0606198	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	CD	SWC	I		0.0031400	0.3320067	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	CO	SWC	I		0.1661700	17.5699223	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	CR	SWC	I		0.3458500	36.5683194	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	CU	SWC	I		0.4853500	51.3182993	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	FE	SWC	I		399.1066500	42199.3911800	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	K	SWC	I		13.2192900	1397.7366447	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	MG	SWC	I		67.8396400	7172.9987608	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	MN	SWC	I		6.3698200	673.5105164	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	MO	SWC	I	U	0.0050000	0.5286731	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	NA	SWC	I		11.0184900	1165.0358863	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	NI	SWC	I		0.2801100	29.6173253	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	PB	SWC	I		0.1184300	12.5221514	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	SB	SWC	I	U	0.0500000	5.2867312	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	SE	SWC	I		0.1478600	15.6339214	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	SI	SWC	I		33.8434500	3578.4244272	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	SN	SWC	I		0.0261600	2.7660177	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	SR	SWC	I		0.9663700	102.1787676	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	TI	SWC	I		19.0838400	2017.8226281	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	TL	SWC	I		0.0942700	9.9676029	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	V	SWC	I		0.9774100	103.3460779	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	S	ZN	SWC	I		0.8914800	94.2603017	mg/kg-dry	1.00	2.0200	0.00	100.00	46.82
T971	T	AG	SWC	I		0.0104800	1.1356662	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	AL	SWC	I		406.1243800	44009.7056111	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	AS	SWC	I	U	0.0500000	5.4182546	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	B	SWC	I		0.1360600	14.7441544	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	BA	SWC	I		1.6855400	182.6536964	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
T971	T	BE	SWC	I		0.0066300	0.7184606	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	CA	SWC	I		81.5654600	8838.8485385	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
[redacted]	T	CD	SWC	I		0.0033700	0.3651904	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	CO	SWC	I		0.1687200	18.2833582	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	CR	SWC	I		0.3516300	38.1044171	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	CU	SWC	I		0.4839100	52.4389514	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	FE	SWC	I		405.9707000	43993.0520638	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	K	SWC	I		13.9986200	1516.9617376	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	MG	SWC	I		68.4777600	7420.5987301	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	MN	SWC	I		6.6279700	718.2405757	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	MO	SWC	I	U	0.0050000	0.5418255	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	NA	SWC	I		11.8392000	1282.9559916	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	NI	SWC	I		0.2751600	29.8177386	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	PB	SWC	I		0.1011600	10.9622127	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	SB	SWC	I	U	0.0500000	5.4182546	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	SE	SWC	I		0.1151000	12.4728220	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	SI	SWC	I		35.4591500	3842.5340353	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	SN	SWC	I		0.0286600	3.1057435	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	SR	SWC	I		0.9917400	107.4699959	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	TI	SWC	I		20.0654700	2174.3964931	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	TL	SWC	I		0.0811600	8.7949108	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	V	SWC	I		1.0034700	108.7411184	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
T971	T	ZN	SWC	I		0.9117300	98.7997049	mg/kg-dry	1.00	2.0380	0.00	100.00	45.28
U100	MB3	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	AL	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	B	RCC	I		0.0253900	0.0253900	mg/L	1.00	0.0000	100.00	100.00	100.00
[redacted]	MB3	BA	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	CA	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	CU	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	FE	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	K	RCC	I	U	0.5000000	0.5000000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	MG	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	MN	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	NA	RCC	I		0.0534000	0.0534000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	SI	RCC	I		0.1125600	0.1125600	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	SR	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	TI	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	V	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	MB3	ZN	RCC	I	U	0.0040000	0.0040000	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	X	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	X	AL	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	X	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	B	RCC	I		0.0146800	0.0146800	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U075	X	BA	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	CA	RCC	I		0.0590800	0.0590800	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	CU	RCC	I		0.0027300	0.0027300	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	FE	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	K	RCC	I	U	0.5000000	0.5000000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	MG	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	MN	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	NA	RCC	I		0.0706100	0.0706100	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	SI	RCC	I		0.1889900	0.1889900	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	SR	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	TI	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	V	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U075	X	ZN	RCC	I	U	0.0040000	0.0040000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	AL	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	B	RCC	I		0.0192100	0.0192100	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	BA	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	CA	RCC	I		0.0453100	0.0453100	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	CU	RCC	I		0.0022500	0.0022500	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	FE	RCC	I		0.0393000	0.0393000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	K	RCC	I	U	0.5000000	0.5000000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	MG	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	MN	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	NA	RCC	I		0.1301200	0.1301200	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	SI	RCC	I		0.1756500	0.1756500	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	SR	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	TI	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	V	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	T	ZN	RCC	I		0.0078700	0.0078700	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	AL	RCC	I		0.0318500	0.0318500	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U100	AI	B	RCC	I		0.0188700	0.0188700	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	BA	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	AI	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	CA	RCC	I		0.0692700	0.0692700	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	CU	RCC	I		0.0023900	0.0023900	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	FE	RCC	I		0.0220700	0.0220700	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	K	RCC	I	U	0.5000000	0.5000000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	MG	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	MN	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	NA	RCC	I		0.0970000	0.0970000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	SI	RCC	I		0.2094200	0.2094200	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	SR	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	TI	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	V	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U100	AI	ZN	RCC	I	U	0.0040000	0.0040000	mg/L	1.00	0.0000	100.00	100.00	0.00
U269	MB1SPK	AG	LEN	I		0.8719600	0.8719600	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	AL	LEN	I		0.0227100	0.0227100	mg/L	1.00	0.0000	100.00	100.00	100.00
[redacted]	MB1SPK	AS	LEN	I		5.4838100	5.4838100	mg/L	1.00	0.0000	100.00	100.00	100.00
[redacted]	MB1SPK	B	LEN	I		0.0262000	0.0262000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	BA	LEN	I		5.2654700	5.2654700	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	CA	LEN	I		0.0231300	0.0231300	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	CD	LEN	I		1.0186600	1.0186600	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	CR	LEN	I		5.0835600	5.0835600	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	CU	LEN	I		0.0028400	0.0028400	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	K	LEN	I	U	0.5000000	0.5000000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	MG	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	MN	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	NA	LEN	I		1627.9582500	1627.9582500	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	PB	LEN	I		5.0584700	5.0584700	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	SE	LEN	I		1.2599900	1.2599900	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	SI	LEN	I		0.0667400	0.0667400	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	SR	LEN	I		0.0069100	0.0069100	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	100.00
U269	MB1SPK	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	100.00
[redacted]	MB1SPK	ZN	LEN	I		0.0534100	0.0534100	mg/L	1.00	0.0000	100.00	100.00	100.00
[redacted]	REF3	AG	RCC	I		0.6555100	0.6555100	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	AL	RCC	I		2.0734500	2.0734500	mg/L	1.00	0.0000	100.00	100.00	100.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U100	REF3	AS	RCC	I		2.0023500	2.0023500	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	B	RCC	I		1.0026900	1.0026900	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	BA	RCC	I		0.9838000	0.9838000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	BE	RCC	I		0.9477400	0.9477400	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	CA	RCC	I		2.0659900	2.0659900	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	CD	RCC	I		0.9754500	0.9754500	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	CO	RCC	I		0.9776800	0.9776800	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	CR	RCC	I		0.9800600	0.9800600	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	CU	RCC	I		0.9736100	0.9736100	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	FE	RCC	I		1.9787300	1.9787300	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	K	RCC	I		20.3705500	20.3705500	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	MG	RCC	I		2.0079000	2.0079000	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	MN	RCC	I		0.9631800	0.9631800	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	MO	RCC	I		0.9991100	0.9991100	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	NA	RCC	I		2.1627200	2.1627200	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	NI	RCC	I		1.0025900	1.0025900	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	PB	RCC	I		1.9635200	1.9635200	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	SB	RCC	I		2.0676100	2.0676100	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	SE	RCC	I		2.1084700	2.1084700	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	SI	RCC	I		2.7008400	2.7008400	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	SN	RCC	I		0.9440100	0.9440100	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	SR	RCC	I		0.9803700	0.9803700	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	TI	RCC	I		0.9452700	0.9452700	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	TL	RCC	I		1.9893900	1.9893900	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	V	RCC	I		0.9503200	0.9503200	mg/L	1.00	0.0000	100.00	100.00	100.00
U100	REF3	ZN	RCC	I		0.9966100	0.9966100	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	AG	RCC	I		0.9800800	0.9800800	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	AL	RCC	I		2.0703100	2.0703100	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	AS	RCC	I		2.0069000	2.0069000	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	B	RCC	I		1.0179500	1.0179500	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	BA	RCC	I		0.9898200	0.9898200	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	BE	RCC	I		0.9642100	0.9642100	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	CA	RCC	I		2.0749300	2.0749300	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	CD	RCC	I		0.9735600	0.9735600	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	CO	RCC	I		0.9828100	0.9828100	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	CR	RCC	I		0.9856600	0.9856600	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	CU	RCC	I		0.9767800	0.9767800	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	FE	RCC	I		1.9910700	1.9910700	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	K	RCC	I		20.5592500	20.5592500	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	MG	RCC	I		2.0130200	2.0130200	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	MN	RCC	I		0.9692500	0.9692500	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	MO	RCC	I		1.0109000	1.0109000	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	NA	RCC	I		2.0246500	2.0246500	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	NI	RCC	I		1.0058000	1.0058000	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	PB	RCC	I		1.9678700	1.9678700	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	SB	RCC	I		2.0687500	2.0687500	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	SE	RCC	I		2.0993700	2.0993700	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	SI	RCC	I		2.7192200	2.7192200	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	SN	RCC	I		0.9448800	0.9448800	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	SR	RCC	I		0.9871700	0.9871700	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	TI	RCC	I		0.9509000	0.9509000	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	TL	RCC	I		1.9934400	1.9934400	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	V	RCC	I		0.9549800	0.9549800	mg/L	1.00	0.0000	100.00	100.00	100.00
U075	REF2	ZN	RCC	I		0.9947000	0.9947000	mg/L	1.00	0.0000	100.00	100.00	100.00
U264	MB3	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	MB3	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	MB3	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	MB3	B	LEN	I		0.0361000	0.0361000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	BA	LEN	I		0.1660900	0.1660900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	CA	LEN	I		0.0361400	0.0361400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	K	LEN	I	U	0.5000000	0.5000000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	MG	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	MN	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	NA	LEN	I		1392.3541200	1392.3541200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	SI	LEN	I	U	0.0600000	0.0600000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	SR	LEN	I		0.0059900	0.0059900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB3	ZN	LEN	I		0.0447000	0.0447000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	X	AG	LEN	I	U	0.0030000	0.0060000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	AL	LEN	I	U	0.0200000	0.0400000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	AS	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	B	LEN	I		0.0502000	0.1004000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	BA	LEN	I		0.1000200	0.2000400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	BE	LEN	I	U	0.0010000	0.0020000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	CA	LEN	I		409.6011900	819.2023800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	CD	LEN	I	U	0.0020000	0.0040000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	CO	LEN	I		0.0159000	0.0318000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	CR	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	CU	LEN	I	U	0.0020000	0.0040000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	FE	LEN	I		0.0215000	0.0430000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	K	LEN	I		4.2128200	8.4256400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	MG	LEN	I		11.2716700	22.5433400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	MN	LEN	I		3.1883500	6.3767000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	MO	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	NA	LEN	I		722.0257500	1444.0515000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	NI	LEN	I		0.0231600	0.0463200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	PB	LEN	I	U	0.0200000	0.0400000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	SB	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	SE	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	SI	LEN	I		2.0565100	4.1130200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	SN	LEN	I	U	0.0100000	0.0200000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	SR	LEN	I		1.6285100	3.2570200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	TI	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
[redacted]	X	TL	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
[redacted]	X	V	LEN	I	U	0.0030000	0.0060000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	X	ZN	LEN	I		0.2246100	0.4492200	mg/L	2.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	Y	AG	LEN	I	U	0.0030000	0.0060000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	AL	LEN	I	U	0.0200000	0.0400000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	AS	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	B	LEN	I		0.0448200	0.0896400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	BA	LEN	I		0.1138600	0.2277200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	BE	LEN	I	U	0.0010000	0.0020000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	CA	LEN	I		383.8360500	767.6721000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	CD	LEN	I	U	0.0020000	0.0040000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	CO	LEN	I		0.0121800	0.0243600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	CR	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	CU	LEN	I	U	0.0020000	0.0040000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	FE	LEN	I		0.0232800	0.0465600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	K	LEN	I		4.4284800	8.8569600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	MG	LEN	I		9.0079400	18.0158800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	MN	LEN	I		2.7927400	5.5854800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	MO	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	NA	LEN	I		701.8412400	1403.6824800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	NI	LEN	I		0.0182700	0.0365400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	PB	LEN	I	U	0.0200000	0.0400000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	SB	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	SE	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	SI	LEN	I		3.6598400	7.3196800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	SN	LEN	I	U	0.0100000	0.0200000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	SR	LEN	I		1.4766700	2.9533400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	TI	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	TL	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	V	LEN	I	U	0.0030000	0.0060000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Y	ZN	LEN	I		0.2153400	0.4306800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	AG	LEN	I	U	0.0030000	0.0060000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	AL	LEN	I	U	0.0200000	0.0400000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	AS	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	B	LEN	I		0.0379200	0.0758400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	BA	LEN	I		0.0414400	0.0828800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	BE	LEN	I	U	0.0010000	0.0020000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	CA	LEN	I		409.8120100	819.6240200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	CD	LEN	I	U	0.0020000	0.0040000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	CO	LEN	I		0.0307300	0.0614600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	CR	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	CU	LEN	I	U	0.0020000	0.0040000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	FE	LEN	I		0.0350800	0.0701600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	K	LEN	I		4.0412700	8.0825400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	MG	LEN	I		11.3553300	22.7106600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	MN	LEN	I		4.9543600	9.9087200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	MO	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	NA	LEN	I		710.8698700	1421.7397400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	NI	LEN	I		0.0237300	0.0474600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	PB	LEN	I		0.0277700	0.0555400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	SB	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	SE	LEN	I		0.0505900	0.1011800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	SI	LEN	I		0.8678000	1.7356000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	SN	LEN	I	U	0.0100000	0.0200000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	SR	LEN	I		1.6590400	3.3180800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	TI	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	TL	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	Z	V	LEN	I	U	0.0030000	0.0060000	mg/L	2.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	Z	ZN	LEN	I		0.5681900	1.1363800	mg/L	2.00	0.0000	100.00	100.00	0.00
U[redacted]	AA	AG	LEN	I	U	0.0030000	0.0060000	mg/L	2.00	0.0000	100.00	100.00	0.00
[redacted]	AA	AL	LEN	I	U	0.0200000	0.0400000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	AS	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	B	LEN	I		0.0400800	0.0801600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	BA	LEN	I		0.0502300	0.1004600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	BE	LEN	I	U	0.0010000	0.0020000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	CA	LEN	I		419.2959500	838.5919000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	CD	LEN	I		0.0034700	0.0069400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	CO	LEN	I		0.0109400	0.0218800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	CR	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	CU	LEN	I	U	0.0020000	0.0040000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	FE	LEN	I	U	0.0200000	0.0400000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	K	LEN	I		4.1368400	8.2736800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	MG	LEN	I		10.4827600	20.9655200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	MN	LEN	I		3.1164300	6.2328600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	MO	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	NA	LEN	I		695.1016200	1390.2032400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	NI	LEN	I		0.0130600	0.0261200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	PB	LEN	I	U	0.0200000	0.0400000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	SB	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	SE	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	SI	LEN	I		1.0674100	2.1348200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	SN	LEN	I	U	0.0100000	0.0200000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	SR	LEN	I		1.6154800	3.2309600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	TI	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AA	TL	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U[redacted]	AA	V	LEN	I	U	0.0030000	0.0060000	mg/L	2.00	0.0000	100.00	100.00	0.00
U[redacted]	AA	ZN	LEN	I		0.4101400	0.8202800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	AG	LEN	I	U	0.0030000	0.0060000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	AL	LEN	I	U	0.0200000	0.0400000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	AS	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	B	LEN	I		0.0366900	0.0733800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	BA	LEN	I		0.0354700	0.0709400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	BE	LEN	I	U	0.0010000	0.0020000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	CA	LEN	I		400.1770300	800.3540600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	CD	LEN	I	U	0.0020000	0.0040000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	CO	LEN	I		0.0357400	0.0714800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	CR	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	CU	LEN	I	U	0.0020000	0.0040000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	FE	LEN	I		0.0889600	0.1779200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	K	LEN	I		2.9899000	5.9798000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	MG	LEN	I		13.3318800	26.6637600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	MN	LEN	I		4.7849100	9.5698200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	MO	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	NA	LEN	I		695.2117900	1390.4235800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	NI	LEN	I		0.0347100	0.0694200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	PB	LEN	I		0.0284500	0.0569000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	SB	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	SE	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	SI	LEN	I		0.7913000	1.5826000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	SN	LEN	I	U	0.0100000	0.0200000	mg/L	2.00	0.0000	100.00	100.00	0.00
U[redacted]	AB	SR	LEN	I		1.6162400	3.2324800	mg/L	2.00	0.0000	100.00	100.00	0.00
[redacted]	AB	TI	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	TL	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	AB	V	LEN	I	U	0.0030000	0.0060000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	AB	ZN	LEN	I		0.6218400	1.2436800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	AG	LEN	I	U	0.0030000	0.0060000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	AL	LEN	I	U	0.0200000	0.0400000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	AS	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	B	LEN	I		0.1511000	0.3022000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	BA	LEN	I		0.1634300	0.3268600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	BE	LEN	I	U	0.0010000	0.0020000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	CA	LEN	I		457.4697200	914.9394400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	CD	LEN	I	U	0.0020000	0.0040000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	CO	LEN	I		0.0131800	0.0263600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	CR	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	CU	LEN	I	U	0.0020000	0.0040000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	FE	LEN	I		0.0285700	0.0571400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	K	LEN	I		4.8304000	9.6608000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	MG	LEN	I		10.6839800	21.3679600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	MN	LEN	I		3.1822300	6.3644600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	MO	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	NA	LEN	I		808.6526400	1617.3052800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	NI	LEN	I		0.0227000	0.0454000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	PB	LEN	I	U	0.0200000	0.0400000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	SB	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	SE	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	SI	LEN	I		3.7494800	7.4989600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	SN	LEN	I	U	0.0100000	0.0200000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	SR	LEN	I		1.6836200	3.3672400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	TI	LEN	I		0.0050100	0.0100200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	TL	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	V	LEN	I	U	0.0030000	0.0060000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	W	ZN	LEN	I		0.3101100	0.6202200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	AG	LEN	I	U	0.0030000	0.0060000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	AL	LEN	I	U	0.0200000	0.0400000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	AS	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	B	LEN	I		0.1447300	0.2894600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	BA	LEN	I		0.1544800	0.3089600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	BE	LEN	I	U	0.0010000	0.0020000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	CA	LEN	I		437.2037000	874.4074000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	CD	LEN	I	U	0.0020000	0.0040000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	CO	LEN	I		0.0128000	0.0256000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	CR	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	CU	LEN	I	U	0.0020000	0.0040000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	FE	LEN	I		0.0274100	0.0548200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	K	LEN	I		4.5044500	9.0089000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	MG	LEN	I		10.2309400	20.4618800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	MN	LEN	I		3.0371900	6.0743800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	MO	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	NA	LEN	I		768.7587200	1537.5174400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	NI	LEN	I		0.0222600	0.0445200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	PB	LEN	I	U	0.0200000	0.0400000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	SB	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	SE	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	SI	LEN	I		3.5978600	7.1957200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	SN	LEN	I	U	0.0100000	0.0200000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	SR	LEN	I		1.5883000	3.1766000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WDUP	TI	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	WDUP	TL	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U[redacted]	WDUP	V	LEN	I	U	0.0030000	0.0060000	mg/L	2.00	0.0000	100.00	100.00	0.00
[redacted]	WDUP	ZN	LEN	I		0.2990900	0.5981800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	AG	LEN	I		1.0227800	2.0455600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	AL	LEN	I	U	0.0200000	0.0400000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	AS	LEN	I		5.1893600	10.3787200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	B	LEN	I		0.1449500	0.2899000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	BA	LEN	I		5.0742600	10.1485200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	BE	LEN	I	U	0.0010000	0.0020000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	CA	LEN	I		440.7433400	881.4866800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	CD	LEN	I		0.9512100	1.9024200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	CO	LEN	I		0.0128500	0.0257000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	CR	LEN	I		4.6978800	9.3957600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	CU	LEN	I	U	0.0020000	0.0040000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	FE	LEN	I		0.0282700	0.0565400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	K	LEN	I		4.5461200	9.0922400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	MG	LEN	I		10.3252800	20.6505600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	MN	LEN	I		3.0651100	6.1302200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	MO	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	NA	LEN	I		776.6494700	1553.2989400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	NI	LEN	I		0.0226100	0.0452200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	PB	LEN	I		4.7302500	9.4605000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	SB	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	SE	LEN	I		1.2408300	2.4816600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	SI	LEN	I		3.6103000	7.2206000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	SN	LEN	I	U	0.0100000	0.0200000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	SR	LEN	I		1.6061500	3.2123000	mg/L	2.00	0.0000	100.00	100.00	0.00
[redacted]	WSPK	TI	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	TL	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	V	LEN	I	U	0.0030000	0.0060000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	WSPK	ZN	LEN	I		0.3021600	0.6043200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	MB1	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	B	LEN	I		0.0124500	0.0124500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	BA	LEN	I		0.0322200	0.0322200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	CA	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	K	LEN	I	U	0.5000000	0.5000000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	MG	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	MN	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	NA	LEN	I		0.1668000	0.1668000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	MB1	SI	LEN	I	U	0.0600000	0.0600000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	MB1	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	SR	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	MB1	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB1	ZN	LEN	I		0.0061400	0.0061400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	B	LEN	I		0.0654200	0.0654200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	BA	LEN	I		0.0704600	0.0704600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	CA	LEN	I		290.6792200	290.6792200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	K	LEN	I		6.5924900	6.5924900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	MG	LEN	I		19.1820400	19.1820400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	MN	LEN	I		1.3892000	1.3892000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	NA	LEN	I		18.0605600	18.0605600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	SI	LEN	I		3.0217000	3.0217000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	SR	LEN	I		1.1945000	1.1945000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	B	ZN	LEN	I		0.0513100	0.0513100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	B	LEN	I		0.0520600	0.0520600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	BA	LEN	I		0.0667700	0.0667700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	CA	LEN	I		388.9719800	388.9719800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	K	LEN	I		7.2223300	7.2223300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	MG	LEN	I		18.3044700	18.3044700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	MN	LEN	I		0.7755900	0.7755900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	NA	LEN	I		18.8887400	18.8887400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	SE	LEN	I		0.0683700	0.0683700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	SI	LEN	I		5.5574300	5.5574300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	C	SR	LEN	I		1.1042900	1.1042900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	C	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	C	ZN	LEN	I		0.0202800	0.0202800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	AL	LEN	I		0.0257700	0.0257700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	B	LEN	I		0.1648500	0.1648500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	BA	LEN	I		0.1517700	0.1517700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	CA	LEN	I		192.9335700	192.9335700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	K	LEN	I		6.5042600	6.5042600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	MG	LEN	I		12.7916600	12.7916600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	MN	LEN	I		1.0586100	1.0586100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	MO	LEN	I		0.0056900	0.0056900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	NA	LEN	I		16.7554900	16.7554900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	SE	LEN	I		0.0504700	0.0504700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	SI	LEN	I		4.3126400	4.3126400	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	A	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	A	SR	LEN	I		0.8787700	0.8787700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	A	ZN	LEN	I		0.0848500	0.0848500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	B	LEN	I		0.1654800	0.1654800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	BA	LEN	I		0.1521000	0.1521000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	CA	LEN	I		192.3017200	192.3017200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	K	LEN	I		6.3645700	6.3645700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	MG	LEN	I		12.7928700	12.7928700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	MN	LEN	I		1.0567700	1.0567700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	MO	LEN	I		0.0052800	0.0052800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	NA	LEN	I		16.8374900	16.8374900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	ADUP	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	ADUP	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	SI	LEN	I		4.3333300	4.3333300	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	ADUP	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	SR	LEN	I		0.8805600	0.8805600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ADUP	ZN	LEN	I		0.0840600	0.0840600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	AG	LEN	I		0.9029100	0.9029100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	AL	LEN	I		0.0278000	0.0278000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	AS	LEN	I		5.3518200	5.3518200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	B	LEN	I		0.1630800	0.1630800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	BA	LEN	I		5.3893600	5.3893600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	CA	LEN	I		191.0989800	191.0989800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	CD	LEN	I		1.0338200	1.0338200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	CR	LEN	I		5.0363100	5.0363100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	K	LEN	I		6.2689900	6.2689900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	MG	LEN	I		12.6896100	12.6896100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	MN	LEN	I		1.0485600	1.0485600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	MO	LEN	I		0.0060000	0.0060000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	NA	LEN	I		16.6349600	16.6349600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	PB	LEN	I		5.1110300	5.1110300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	SE	LEN	I		1.1827800	1.1827800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	SI	LEN	I		4.2479600	4.2479600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	SR	LEN	I		0.8707300	0.8707300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	ASPK	ZN	LEN	I		0.0850600	0.0850600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	AL	LEN	I		0.0231900	0.0231900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	B	LEN	I		0.0129400	0.0129400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	BA	LEN	I		0.0304800	0.0304800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	CA	LEN	I		0.0236100	0.0236100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	K	LEN	I	U	0.5000000	0.5000000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	MG	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	MN	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	NA	LEN	I		0.1360100	0.1360100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	MB2	SI	LEN	I	U	0.0600000	0.0600000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	MB2	SR	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	MB2	ZN	LEN	I		0.0044000	0.0044000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	B	LEN	I		0.0475800	0.0475800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	BA	LEN	I		0.0796800	0.0796800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	CA	LEN	I		341.1822200	341.1822200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	CU	LEN	I		0.0026900	0.0026900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	K	LEN	I		7.7026700	7.7026700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	MG	LEN	I		13.5608600	13.5608600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	MN	LEN	I		0.1898800	0.1898800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	MO	LEN	I		0.0054200	0.0054200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	NA	LEN	I		19.4330200	19.4330200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	G	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U[redacted]	G	SI	LEN	I		6.6127500	6.6127500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	SR	LEN	I		0.8886800	0.8886800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	G	ZN	LEN	I		0.0144600	0.0144600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	B	LEN	I		0.0438800	0.0438800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	BA	LEN	I		0.0851100	0.0851100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	CA	LEN	I		379.0771400	379.0771400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	CU	LEN	I		0.0032700	0.0032700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	K	LEN	I		8.7050200	8.7050200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	MG	LEN	I		11.8130800	11.8130800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	MN	LEN	I		0.2486100	0.2486100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	MO	LEN	I		0.0065900	0.0065900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	NA	LEN	I		20.9508200	20.9508200	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	H	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	H	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	H	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	SI	LEN	I		6.5299300	6.5299300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	SR	LEN	I		0.8961000	0.8961000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	H	ZN	LEN	I		0.0133500	0.0133500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	AL	LEN	I		0.0343600	0.0343600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	B	LEN	I		0.0458300	0.0458300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	BA	LEN	I		0.1126600	0.1126600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	CA	LEN	I		196.8299700	196.8299700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	K	LEN	I		6.9674500	6.9674500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	MG	LEN	I		13.6241400	13.6241400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	MN	LEN	I		1.1555600	1.1555600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	MO	LEN	I		0.0054200	0.0054200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	NA	LEN	I		17.3263700	17.3263700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	SI	LEN	I		4.1121700	4.1121700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	SR	LEN	I		0.9353200	0.9353200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	I	ZN	LEN	I		0.0205900	0.0205900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	B	LEN	I		0.0398800	0.0398800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	BA	LEN	I		0.0836400	0.0836400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	CA	LEN	I		327.3043500	327.3043500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	K	LEN	I		7.4355400	7.4355400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	MG	LEN	I		14.0505300	14.0505300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	MN	LEN	I		0.2866600	0.2866600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	NA	LEN	I		18.1932900	18.1932900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	J	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	J	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	J	SI	LEN	I		6.5549200	6.5549200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	SR	LEN	I		0.8998900	0.8998900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	J	ZN	LEN	I		0.0103700	0.0103700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	B	LEN	I		0.0458400	0.0458400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	BA	LEN	I		0.0533700	0.0533700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	CA	LEN	I		431.6272800	431.6272800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	CO	LEN	I		0.0368400	0.0368400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	K	LEN	I		4.9995000	4.9995000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	MG	LEN	I		25.4325400	25.4325400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	MN	LEN	I		8.5516500	8.5516500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	NA	LEN	I		19.1319100	19.1319100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	NI	LEN	I		0.0282500	0.0282500	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	K	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	SI	LEN	I		1.1788700	1.1788700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	SR	LEN	I		1.8773800	1.8773800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	K	ZN	LEN	I		0.1353200	0.1353200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	AL	LEN	I		0.0292900	0.0292900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	B	LEN	I		0.1518400	0.1518400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	BA	LEN	I		0.1823100	0.1823100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	CA	LEN	I		145.6240300	145.6240300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	K	LEN	I		14.0868500	14.0868500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	MG	LEN	I		10.4668600	10.4668600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	MN	LEN	I		1.2005800	1.2005800	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	U	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	U	NA	LEN	I		37.1111000	37.1111000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	U	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	SI	LEN	I		1.4043200	1.4043200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	SR	LEN	I		1.1172300	1.1172300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	U	ZN	LEN	I		0.0497400	0.0497400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	AL	LEN	I		0.0304800	0.0304800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	B	LEN	I		0.1524000	0.1524000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	BA	LEN	I		0.1837800	0.1837800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	CA	LEN	I		146.6995200	146.6995200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	K	LEN	I		14.1334100	14.1334100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	MG	LEN	I		10.5559200	10.5559200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	MN	LEN	I		1.2103300	1.2103300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	NA	LEN	I		37.5321100	37.5321100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	SI	LEN	I		1.4121700	1.4121700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	SR	LEN	I		1.1306900	1.1306900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	UDUP	ZN	LEN	I		0.0505200	0.0505200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	AG	LEN	I		0.9020200	0.9020200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	AL	LEN	I		0.0250400	0.0250400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	AS	LEN	I		5.2749900	5.2749900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	B	LEN	I		0.1454600	0.1454600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	BA	LEN	I		5.3596900	5.3596900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	CA	LEN	I		139.0062800	139.0062800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	CD	LEN	I		1.0335800	1.0335800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	CR	LEN	I		4.9795700	4.9795700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	CU	LEN	I		0.0020600	0.0020600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	K	LEN	I		13.4472100	13.4472100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	MG	LEN	I		9.9680700	9.9680700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	MN	LEN	I		1.1424500	1.1424500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	NA	LEN	I		35.1966200	35.1966200	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	USPK	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	PB	LEN	I		5.0730200	5.0730200	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	USPK	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	SE	LEN	I		1.1433700	1.1433700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	SI	LEN	I		1.3534600	1.3534600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	SR	LEN	I		1.0562300	1.0562300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	USPK	ZN	LEN	I		0.0479100	0.0479100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	B	LEN	I		0.0519100	0.0519100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	BA	LEN	I		0.1040900	0.1040900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	CA	LEN	I		199.6535600	199.6535600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	CU	LEN	I		0.0020800	0.0020800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	K	LEN	I		7.3056500	7.3056500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	MG	LEN	I		13.0494600	13.0494600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	MN	LEN	I		2.1070900	2.1070900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	L	NA	LEN	I		17.9364700	17.9364700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	SI	LEN	I		1.0066800	1.0066800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	SR	LEN	I		1.2430800	1.2430800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	L	ZN	LEN	I		0.0265900	0.0265900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	B	LEN	I		0.0576500	0.0576500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	BA	LEN	I		0.0923200	0.0923200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	CA	LEN	I		197.1745600	197.1745600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	K	LEN	I		12.9227500	12.9227500	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	M	MG	LEN	I		14.1728700	14.1728700	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	M	MN	LEN	I		2.2372800	2.2372800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	M	NA	LEN	I		20.8894000	20.8894000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	SI	LEN	I		1.1594600	1.1594600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	SR	LEN	I		1.3716600	1.3716600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	M	ZN	LEN	I		0.0295900	0.0295900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	B	LEN	I		0.0519000	0.0519000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	BA	LEN	I		0.0641700	0.0641700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	CA	LEN	I		365.3294300	365.3294300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	CO	LEN	I		0.0078100	0.0078100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	K	LEN	I		8.4771000	8.4771000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	MG	LEN	I		21.0100300	21.0100300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	MN	LEN	I		5.1260000	5.1260000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	NA	LEN	I		23.1605200	23.1605200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	NI	LEN	I		0.0117500	0.0117500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	SI	LEN	I		1.0774900	1.0774900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	SR	LEN	I		1.9815100	1.9815100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	N	ZN	LEN	I		0.0438800	0.0438800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	O	AG	LEN	I	U	0.0030000	0.0060000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	AL	LEN	I	U	0.0200000	0.0400000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	AS	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	B	LEN	I		0.0212600	0.0425200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	BA	LEN	I		0.0217500	0.0435000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	BE	LEN	I	U	0.0010000	0.0020000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	CA	LEN	I		281.5688700	563.1377400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	CD	LEN	I	U	0.0020000	0.0040000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	CO	LEN	I		0.0091500	0.0183000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	CR	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	CU	LEN	I	U	0.0020000	0.0040000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	FE	LEN	I	U	0.0200000	0.0400000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	K	LEN	I		3.1344900	6.2689800	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	MG	LEN	I		16.8257500	33.6515000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	MN	LEN	I		3.4527900	6.9055800	mg/L	2.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	O	MO	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
[redacted]	O	NA	LEN	I		11.6673900	23.3347800	mg/L	2.00	0.0000	100.00	100.00	0.00
[redacted]	O	NI	LEN	I		0.0123300	0.0246600	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	PB	LEN	I	U	0.0200000	0.0400000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	SB	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	SE	LEN	I		0.0575600	0.1151200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	SI	LEN	I		0.4258600	0.8517200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	SN	LEN	I	U	0.0100000	0.0200000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	SR	LEN	I		1.1730600	2.3461200	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	TI	LEN	I	U	0.0050000	0.0100000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	TL	LEN	I	U	0.0500000	0.1000000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	V	LEN	I	U	0.0030000	0.0060000	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	O	ZN	LEN	I		0.0320700	0.0641400	mg/L	2.00	0.0000	100.00	100.00	0.00
U264	P	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	B	LEN	I		0.0396700	0.0396700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	BA	LEN	I		0.0631400	0.0631400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	CA	LEN	I		383.3928800	383.3928800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	K	LEN	I		9.5211200	9.5211200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	MG	LEN	I		18.7881400	18.7881400	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	P	MN	LEN	I		1.6939100	1.6939100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	NA	LEN	I		20.9098300	20.9098300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	SI	LEN	I		0.9328800	0.9328800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	SR	LEN	I		1.7935300	1.7935300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	P	ZN	LEN	I		0.0240600	0.0240600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	B	LEN	I		0.0330200	0.0330200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	BA	LEN	I		0.0589600	0.0589600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	CA	LEN	I		274.3767300	274.3767300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	CU	LEN	I		0.0021100	0.0021100	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	Q	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	Q	K	LEN	I		6.9772500	6.9772500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	MG	LEN	I		16.9844500	16.9844500	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	Q	MN	LEN	I		0.9844500	0.9844500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	NA	LEN	I		21.8856100	21.8856100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	SI	LEN	I		0.9518600	0.9518600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	SR	LEN	I		1.4186200	1.4186200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	Q	ZN	LEN	I		0.0177800	0.0177800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	AL	LEN	I		0.0418600	0.0418600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	B	LEN	I		0.0500200	0.0500200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	BA	LEN	I		0.1338700	0.1338700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	CA	LEN	I		131.8769900	131.8769900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	FE	LEN	I		0.0214300	0.0214300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	K	LEN	I		8.3325100	8.3325100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	MG	LEN	I		9.6574800	9.6574800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	MN	LEN	I		1.3522100	1.3522100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	NA	LEN	I		24.1117600	24.1117600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	SI	LEN	I		1.2599400	1.2599400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	SR	LEN	I		1.0004800	1.0004800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	R	ZN	LEN	I		0.0251800	0.0251800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	B	LEN	I		0.0387500	0.0387500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	BA	LEN	I		0.0530500	0.0530500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	CA	LEN	I		388.5865700	388.5865700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	CO	LEN	I		0.0108800	0.0108800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	K	LEN	I		4.7250200	4.7250200	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB.	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	S	MG	LEN	I		26.0107100	26.0107100	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	S	MN	LEN	I		5.6459500	5.6459500	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	S	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	NA	LEN	I		22.1459900	22.1459900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	NI	LEN	I		0.0122000	0.0122000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	SE	LEN	I		0.0548900	0.0548900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	SI	LEN	I		0.9529200	0.9529200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	SR	LEN	I		1.8601500	1.8601500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	V	LEN	I		0.0046800	0.0046800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	S	ZN	LEN	I		0.0549100	0.0549100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	AL	LEN	I		0.0509600	0.0509600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	B	LEN	I		0.0507300	0.0507300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	BA	LEN	I		0.1732500	0.1732500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	CA	LEN	I		73.3265900	73.3265900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	T	K	LEN	I		4.7862900	4.7862900	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	T	MG	LEN	I		6.3296100	6.3296100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	MN	LEN	I		0.6002700	0.6002700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	MO	LEN	I		0.0051600	0.0051600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	NA	LEN	I		24.6806500	24.6806500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	SI	LEN	I		1.0790000	1.0790000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	SR	LEN	I		0.6021000	0.6021000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	T	ZN	LEN	I		0.0250100	0.0250100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	B	LEN	I		0.0352600	0.0352600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	BA	LEN	I		0.0602100	0.0602100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	CA	LEN	I		310.6884100	310.6884100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	V	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	V	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	V	K	LEN	I		6.4307400	6.4307400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	MG	LEN	I		17.2125400	17.2125400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	MN	LEN	I		2.0564800	2.0564800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	NA	LEN	I		24.0684300	24.0684300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	SI	LEN	I		0.7732800	0.7732800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	SR	LEN	I		1.5431300	1.5431300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	V	ZN	LEN	I		0.0198100	0.0198100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	B	LEN	I		0.0485600	0.0485600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	BA	LEN	I		0.0689900	0.0689900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	CA	LEN	I		353.6038800	353.6038800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	CU	LEN	I		0.0023800	0.0023800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	K	LEN	I		7.1194000	7.1194000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	MG	LEN	I		17.0210200	17.0210200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	MN	LEN	I		0.5681200	0.5681200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	MO	LEN	I		0.0054800	0.0054800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	NA	LEN	I		19.3768000	19.3768000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	SI	LEN	I		5.9944800	5.9944800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	SR	LEN	I		1.0157700	1.0157700	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	D	ZN	LEN	I		0.0163400	0.0163400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	AL	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	B	LEN	I		0.0446400	0.0446400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	BA	LEN	I		0.0599900	0.0599900	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	CA	LEN	I		428.9386500	428.9386500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
U264	E	FE	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U[redacted]	E	K	LEN	I		6.4626000	6.4626000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	E	MG	LEN	I		20.1073600	20.1073600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	MN	LEN	I		0.6185400	0.6185400	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	NA	LEN	I		20.7389800	20.7389800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	SI	LEN	I		5.3271600	5.3271600	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	SR	LEN	I		1.3011000	1.3011000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	E	ZN	LEN	I		0.0125800	0.0125800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	AL	LEN	I		0.0349500	0.0349500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	B	LEN	I		0.0455800	0.0455800	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	BA	LEN	I		0.1601300	0.1601300	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	CA	LEN	I		351.7162100	351.7162100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
[redacted]	F	CU	LEN	I		0.0033500	0.0033500	mg/L	1.00	0.0000	100.00	100.00	0.00
U[redacted]	F	FE	LEN	I		0.0676200	0.0676200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	K	LEN	I		7.5017100	7.5017100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	MG	LEN	I		14.7241200	14.7241200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	MN	LEN	I		0.2881100	0.2881100	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	MO	LEN	I		0.0054200	0.0054200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	NA	LEN	I		19.2459200	19.2459200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	SI	LEN	I		6.7753500	6.7753500	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	SR	LEN	I		0.9459200	0.9459200	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	V	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
U264	F	ZN	LEN	I		0.0161700	0.0161700	mg/L	1.00	0.0000	100.00	100.00	0.00

ANALYTICAL
RESOURCES
INCORPORATED

ICP SAMPLE LOGBOOK

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All corrections made by analyst unless otherwise noted. NSJ 11-4-97

Sample Number	Prep. Code	Dilution	Comments	Edit Label
STD. 1 (BLANK)				
2			STD. # 989-7	
5			-10 (NOISY)	
4			-9	
3			-8	
5			-10	
ICV			924-4	
ICB				
CCV1			STD. # 973-15	
CCB1				
CRI				
ICSA				
ICSAB				
U969 MB1	CEN			
Ct-L		1/5	✓ -CLP SERIAL DILUTION-	
Ct ~~At~~				
D-t	(Dt)			
D-L		~~1/5~~	1/10 ✓ -CLP SERIAL DILUTION-	
~~C~~ D		1/2		
C				
CCV2				
CCB2				
T914 APPOST	SWC			
DPOST				

ANALYTICAL
RESOURCES
INCORPORATED

ICP SAMPLE LOGBOOK

Page 2 of 7 Date: 11/4/97 Analyst: NSJ

All corrections made by analyst unless otherwise noted.

Sample Number	Prep. Code	Dilution	Comments	Edit Label
T914 AG	SNC	1/2		
AH				
AI				
AJ				
AK				
AL				
AY				
AX		1X CLN 11-5		
CCV3				
CCB3				
U769 MB2	SNC			
T971 MB1		DEL	Cu 0.002 11-5 CLN RERUN	
B				
C				
D		DEL	RERUN 1/2 (Hi Fe)	
U769 MB1SPK	LEN	DEL	(NOT SPIKED)	
MB2SPK	SNC		✓	
CRI				
ICSA				
ICSAB				
CCV4				
CCB4				
T971 A-C	SNC	1/5	✓ -CLP SERIAL DILUTION-	
A				

ANALYTICAL RESOURCES INCORPORATED

ICP SAMPLE LOGBOOK

Page 3 of 7 Date: 11/4/97 Analyst: NSJ

All corrections made by analyst unless otherwise noted.

Sample Number	Prep. Code	Dilution	Comments	Edit Label
T971 AQP	SWC		✓	
ASpk			(56 8%)	
E				
F				
G				
H				
I				
REF1			✓	
CCV5				
CCB5				
T971 U-L	SWC	1/5	✓ -CLP SERIAL DILUTION-	
U				
UDUP			✓	
USpk			(Ca 155%, 56 7%)	
J				
K				
L		DEL	RERUN 1/2 (Hi Fe)	
M				
N				
O				
CCV6				
CCB6				
T971 P	SWC			
Q				

ANALYTICAL
RESOURCES
INCORPORATED

ICP SAMPLE LOGBOOK

Page 4 of 7 Date: 11/4/97 Analyst: NSJ

All corrections made by analyst unless otherwise noted.

Sample Number	Prep. Code	Dilution	Comments	Edit Label
T971 R	SWC			
↓ S	↓			
T				
APOST			✓ +12 µL Sb 100 to 10 mL sample	
↓ UPOST	↓		✓ +12 µL Sb 100, +200 µL Ca 10K to 10 mL	
CR1				
ICSA				
ICSAB				
CCV 7				
CCB7				
U075 MB2	RCC	ok ~~DEL~~ CEW 11-5	(Cu 0.0021)	
U100 MB3	↓			
U075 X-L		1/5	✓ -CLP SERIAL DILUTION-	
↓ X				
U100 T-L		1/5	✓ -CLP SERIAL DILUTION-	
↓ T				
↓ AI	↓			
U269 MB1SPK	LEN		✓ +0.1 mL TCLP SPK to 10 mL	
U100 REF3	RCC		✓	
U075 REF2	↓		✓	
CCV 8				
CCB8			Cu 0.0029	
U264 MB3	LEN		Ba 0.1 ldc	
↓ X	↓	DEL	RERUN 1/2 (Hi Ca)	U264

004120

5000F

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ANALYTICAL
RESOURCES
INCORPORATED

ICP SAMPLE LOGBOOK

Page 5 of 7 Date: 11/4/97 Analyst: NSJ

All corrections made by analyst unless otherwise noted.

Sample Number	Prep. Code	Dilution	Comments	Edit Label
U264 Y	LEN	DIL	RERUN 1/2 (Hi Ca)	U264
Z				
AA				
AB				
CCV 9				
CCB 9				
U264 X	LEN	1/2		U264
Y				
Z				
AA				
AB				
W-L		1/10	✓ -CLP SERIAL DILUTION-	
W		1/2		
WDup			✓	
WSpk			✓ +0.1mL TCLP SPK to 10mL DIL. SAMPLE	
CCV 10				
CCB 10				
U264 MB1	LEN		Ba 0.032	
B				
C				
A-L		1/5	✓ - CLP SERIAL DILUTION -	
A				
ADup			✓	
ASpk			✓ +0.1mL TCLP SPK to 10mL	

ANALYTICAL
RESOURCES
INCORPORATED

ICP SAMPLE LOGBOOK

Page 6 of 7 Date: 11/4/97 Analyst: NSJ

All corrections made by analyst unless otherwise noted.

Sample Number	Prep. Code	Dilution	Comments	Edit Label
CRI				
ICSA				
ICSAB				
CCV 11			Al, Mg >110%. (OUT FROM C/O)	
CCB11			Al, Ca, Mg C/O	
U264 MB2	CEN		Ba 0.03	
G				
H				
I				
J				
K				
U-L		1/5	✓ -ICP SERIAL DILUTION-	
U				
UDup			✓	
USpk			✓ +0.1mL YCP SPK to 10mL	
CCV12				
CCB12				
U264 L	CEN			
M				
N				
O		1/2		
P				
Q				
R				

5000F

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004122

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ANALYTICAL
RESOURCES
INCORPORATED

ICP SAMPLE LOGBOOK

Page 7 of 7 Date: 11/4/97 Analyst: NSJ

All corrections made by analyst unless otherwise noted.

Sample Number	Prep. Code	Dilution	Comments	Edit Label
U264 S	LEN			
T	↓			
V	↓			
CCV13				
CCB13				
U264 D	LEN			
E	↓			
F	↓			
CRI				
ICSA				
ICSAB				
CCV14				
CCB14				
VWR GLASS		DIL		

5000F

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✓ GM 11-5-97

Standardization Rpt. Tue 11-04-97 09:13:35 AM page 1

Method: ICP30J Standard: STD1-Blank

Elem	AG	AL	AS	B	BA	BE	CA
Avge	-.0536	.5643	.2821	.0196	.0007	.1204	.0025
SDev	.0055	.0188	.0101	.0079	.0014	.0038	.0066
%RSD	10.33	3.327	3.568	40.44	200.0	3.122	265.5
#1	-.0486	.5643	.2871	.0314	.0029	.1200	.0086
#2	-.0514	.5829	.2671	.0157	.0000	.1186	.0000
#3	-.0614	.5386	.2886	.0171	.0000	.1257	.0071
#4	-.0529	.5714	.2857	.0143	.0000	.1171	-.0057

Elem	CD	CO	CR	CU	FE	FE	K
Avge	.0139	.0118	.0082	.0443	.0096	.0396	-.0036
SDev	.0047	.0041	.0018	.0029	.0024	.0041	.0211
%RSD	33.89	34.82	21.88	6.452	25.30	10.35	590.1
#1	.0186	.0171	.0100	.0486	.0129	.0457	.0171
#2	.0114	.0071	.0086	.0429	.0100	.0371	-.0014
#3	.0086	.0114	.0086	.0429	.0086	.0386	.0029
#4	.0171	.0114	.0057	.0429	.0071	.0371	-.0329

Elem	MG	MN	MO	NA	NA	NI	PB
Avge	.0089	.0032	.0004	.2386	.7107	-.0775	.0071
SDev	.0067	.0021	.0050	.0338	.0277	.0308	.0221
%RSD	75.47	66.67	1400.	14.16	3.892	39.72	309.4
#1	.0186	.0043	.0029	.2886	.7486	-.0400	.0100
#2	.0071	.0014	-.0071	.2243	.6829	-.1143	-.0171
#3	.0071	.0057	.0029	.2143	.7014	-.0714	.0357
#4	.0029	.0014	.0029	.2271	.7100	-.0843	.0000

Elem	SB	SE	SI	SN	SR	TI	TL
Avge	.0529	.0600	.2368	-.0029	.0786	.0193	-.1339
SDev	.0216	.0331	.0121	.0045	.0000	.0025	.0182
%RSD	40.81	55.12	5.104	158.1	.0000	12.83	13.59
#1	.0343	.0200	.2471	-.0043	.0786	.0229	-.1414
#2	.0343	.0886	.2457	.0000	.0786	.0186	-.1314
#3	.0743	.0457	.2329	.0014	.0786	.0171	-.1529
#4	.0686	.0857	.2214	-.0086	.0786	.0186	-.1100

Elem	V	ZN
Avge	-.0186	.0129
SDev	.0071	.0016
%RSD	38.20	12.83
#1	-.0129	.0143
#2	-.0143	.0143
#3	-.0286	.0114
#4	-.0186	.0114

Method: ICP30J Standard: STD2

Elem	BA	CD	CO	CR	CU	MN	V
Avge	65.84	129.5	54.92	30.17	104.7	58.25	107.2
SDev	.36	.4	.19	.14	.7	.33	.5
%RSD	.5393	.3279	.3401	.4727	.6418	.5642	.4328
#1	65.31	129.1	54.64	29.96	103.7	57.76	106.6
#2	66.01	130.1	55.01	30.25	104.8	58.37	107.5
#3	66.05	129.4	55.02	30.26	105.2	58.47	107.6
#4	65.99	129.4	54.99	30.21	105.0	58.39	107.3

Method: ICP30J Standard: STD5

Elem	AL	CA	FE	K	MG	NA
Avge	150.4	99.62	18.37	15.24	36.36	10.31
SDev	1.9	1.10	.20	.18	.42	.12
%RSD	1.270	1.102	1.111	1.165	1.142	1.209
#1	150.6	99.67	18.34	15.21	36.43	10.26
#2	152.6	100.9	18.61	15.46	36.81	10.48
#3	150.6	99.71	18.42	15.25	36.39	10.30
#4	147.9	98.20	18.11	15.03	35.80	10.19

Standardization Rpt. Tue 11-04-97 09:31:10 AM page 1

Method: ICP30J Standard: STD4

Elem	MO	SB	SI	SN	TI
Avge	51.79	44.77	51.64	24.54	78.62
SDev	.43	.25	.36	.19	.65
%RSD	.8224	.5531	.6986	.7920	.8227
#1	51.72	44.74	51.76	24.63	78.83
#2	51.71	44.79	51.59	24.47	78.55
#3	51.35	44.47	51.17	24.31	77.78
#4	52.37	45.08	52.03	24.76	79.33

Method: ICP30J Standard: STD3

Elem	AG	AS	B	BE	FE	NA	NI
Avge	5.707	27.16	51.09	114.3	44.21	52.80	111.1
SDev	.033	.20	.24	.6	.24	.36	.6
%RSD	.5826	.7306	.4729	.5487	.5541	.6848	.5161
#1	5.739	27.39	51.24	114.7	44.40	53.14	111.5
#2	5.713	27.14	51.08	114.2	44.22	52.86	111.2
#3	5.716	27.18	51.29	114.8	44.35	52.92	111.4
#4	5.660	26.91	50.76	113.4	43.86	52.29	110.3

Elem	PB	SE	SR	TL	ZN
Avge	33.49	18.02	62.07	23.75	22.77
SDev	.18	.09	.35	.20	.14
%RSD	.5447	.4823	.5609	.8544	.6073
#1	33.60	18.11	62.28	23.78	22.91
#2	33.57	18.04	62.19	24.00	22.77
#3	33.57	18.05	62.26	23.73	22.83
#4	33.22	17.90	61.55	23.51	22.58

Standardization Rpt. Tue 11-04-97 09:40:50 AM

Method: ICP30J Standard: STD5

Elem	AL	CA	FE	K	MG	NA
Avge	143.8	95.79	17.63	14.57	34.83	9.783
SDev	.8	.62	.10	.06	.19	.066
%RSD	.5263	.6512	.5701	.3793	.5525	.6761
#1	144.4	96.30	17.71	14.63	34.99	9.821
#2	144.4	96.35	17.72	14.59	35.00	9.847
#3	143.0	95.18	17.52	14.51	34.63	9.699
#4	143.2	95.31	17.56	14.54	34.69	9.763

Standardization Report Tue 11-04-97 09:41:25 AM page 1

Method: ICP30J Slope = IR/Conc(SIR)

Element	Wavelen	High std	Low std	Slope	BEC	Date Standardized
AG	328.068	STD3	STD1-Blank	5.77074	.009283	11/04/97 09:37:41
AL	308.215	STD5	STD1-Blank	4.77351	.118212	11/04/97 09:37:41
AS	197.197	STD3	STD1-Blank	2.65824	.106139	11/04/97 09:37:41
B	249.678	STD3	STD1-Blank	5.10421	.003848	11/04/97 09:37:41
BA	455.495	STD2	STD1-Blank	6.58390	.000108	11/04/97 09:37:41
BE	313.042	STD3	STD1-Blank	22.8333	.005271	11/04/97 09:37:41
CA	317.933	STD5	STD1-Blank	3.19123	.000783	11/04/97 09:37:41
CD	228.802	STD2	STD1-Blank	12.9460	.001076	11/04/97 09:37:41
CO	228.616	STD2	STD1-Blank	5.48615	.002148	11/04/97 09:37:41
CR	267.716	STD2	STD1-Blank	3.01504	.002724	11/04/97 09:37:41
CU	324.754	STD2	STD1-Blank	10.4634	.004232	11/04/97 09:37:41
FE	259.940	STD3	STD1-Blank	4.41682	.008975	11/04/97 09:37:41
FE	271.441	STD5	STD1-Blank	.176404	.054664	11/04/97 09:37:41
K	766.491	STD5	STD1-Blank	.145729	.024507	11/04/97 09:37:41
MG	279.079	STD5	STD1-Blank	1.15959	.007700	11/04/97 09:37:41
MN	257.610	STD2	STD1-Blank	5.82304	.000552	11/04/97 09:37:41
MO	202.030	STD4	STD1-Blank	5.17886	.000069	11/04/97 09:37:41
NA	588.995	STD3	STD1-Blank	5.20936	.136430	11/04/97 09:37:41
NA	330.298	STD5	STD1-Blank	.095518	2.49765	11/04/97 09:37:41
NI	231.604	STD3	STD1-Blank	11.1123	.006974	11/04/97 09:37:41
PB	220.353	STD3	STD1-Blank	3.34771	.002134	11/04/97 09:37:41
[illegible]B	206.838	STD4	STD1-Blank	4.46030	.011851	11/04/97 09:37:41
[illegible]E	196.022	STD3	STD1-Blank	1.80111	.033313	11/04/97 09:37:41
SI	288.158	STD4	STD1-Blank	5.13996	.046068	11/04/97 09:37:41
SN	189.989	STD4	STD1-Blank	2.45354	.001164	11/04/97 09:37:41
SR	421.552	STD3	STD1-Blank	6.19929	.012674	11/04/97 09:37:41
TI	334.941	STD4	STD1-Blank	7.86046	.002454	11/04/97 09:37:41
TL	190.864	STD3	STD1-Blank	2.38378	.056183	11/04/97 09:37:41
V	292.402	STD2	STD1-Blank	10.7251	.001732	11/04/97 09:37:41
ZN	213.856	STD3	STD1-Blank	2.26814	.005669	11/04/97 09:37:41

Analysis Report QC Standard Tue 11-04-97 09:56:40 AM page 1

Method: ICP30J Sample Name: ICV Operator: NSJ
Run Time: 11/04/97 09:51:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4963	1.024	.9953	.5078	.4852	.4749	1.056
SDev	.0025	.002	.0075	.0039	.0038	.0031	.006
%RSD	.5115	.2352	.7491	.7755	.7868	.6546	.5591
#1	.4962	1.023	.9963	.5053	.4816	.4718	1.054
#2	.4999	1.027	1.004	.5137	.4905	.4792	1.065
#3	.4942	1.026	.9947	.5064	.4835	.4740	1.055
#4	.4950	1.021	.9861	.5059	.4853	.4744	1.051

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4905	.4955	.4936	.4971	.9993	10.20	1.026
SDev	.0004	.0036	.0032	.0025	.0065	.24	.002
%RSD	.0781	.7213	.6518	.4941	.6543	2.355	.2221
#1	.4901	.4929	.4913	.4953	.9951	10.05	1.025
#2	.4907	.5007	.4984	.5007	1.009	10.46	1.029
#3	.4910	.4934	.4927	.4959	.9960	10.35	1.027
#4	.4904	.4950	.4922	.4966	.9970	9.955	1.024

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4910	.4963	.9900	.4987	.9855	.9760	1.014
SDev	.0028	.0023	.0097	.0049	.0010	.0133	.016
%RSD	.5670	.4641	.9750	.9874	.1056	1.364	1.533
#1	.4889	.4931	1.002	.4947	.9842	.9644	1.003
#2	.4951	.4983	.9926	.4950	.9863	.9932	1.018
#3	.4902	.4961	.9797	.5051	.9851	.9666	1.035
#4	.4897	.4975	.9857	.5001	.9865	.9798	1.001

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.061	.4812	.4915	.4835	.9790	.4834	.4959
SDev	.008	.0044	.0034	.0034	.0202	.0021	.0017
%RSD	.7335	.9253	.6874	.7092	2.065	.4320	.3439
#1	1.065	.4851	.4881	.4804	.9676	.4823	.4947
#2	1.070	.4840	.4961	.4884	.9640	.4865	.4984
#3	1.054	.4752	.4906	.4826	1.008	.4826	.4953
#4	1.055	.4805	.4911	.4826	.9760	.4821	.4953

Method: ICP30J Sample Name: Blank Operator: NSJ
Run Time: 11/04/97 09:58:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0001	-.0015	.0001	.0005	.0002	.0000
SDev	.0009	.0046	.0080	.0024	.0000	.0001	.0028
%RSD	720.9	3317.	551.7	3410.	.0026	40.82	1545000.
#1	.0006	.0027	.0073	.0009	.0005	.0002	.0028
#2	.0009	.0048	.0019	.0032	.0005	.0002	-.0039
#3	.0001	-.0012	-.0115	-.0016	.0005	.0001	.0001
#4	-.0011	-.0057	-.0035	-.0022	.0005	.0003	.0010

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	-.0005	-.0001	.0015	-.0012	.1054	.0006
SDev	.0001	.0009	.0009	.0008	.0012	.2213	.0119
%RSD	42.22	174.5	770.7	50.49	99.84	210.0	1923.
#1	.0004	.0005	.0011	.0016	.0004	.2206	.0132
#2	.0001	-.0016	-.0008	H.0026	-.0025	-.1127	-.0151
#3	.0004	-.0001	-.0008	.0010	-.0015	-.0441	-.0003
#4	.0004	-.0008	.0001	.0010	-.0012	.3578	.0046

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0002	.0067	.0029	-.0017	-.0039	.0022
SDev	.0001	.0007	.0054	.0034	.0046	.0058	.0056
%RSD	31340.	342.7	81.88	117.2	267.1	148.2	254.7
#1	.0002	-.0001	.0103	.0009	-.0004	.0048	.0087
#2	-.0001	.0005	.0073	.0070	-.0056	-.0067	-.0016
#3	-.0001	-.0006	.0103	.0043	-.0051	-.0070	.0048
#4	-.0001	.0010	-.0012	-.0006	.0042	-.0067	-.0032

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0133	.0026	.0001	.0002	-.0069	-.0002	-.0003
SDev	.0074	.0025	.0001	.0002	.0113	.0008	.0006
%RSD	55.97	94.10	115.5	76.58	163.5	391.0	193.1
#1	.0167	.0052	-.0000	.0003	-.0037	-.0007	.0006
#2	.0204	.0011	.0002	.0005	.0011	.0008	-.0007
#3	.0129	.0041	.0002	.0001	-.0013	-.0000	-.0006
#4	.0031	-.0000	-.0000	.0001	-.0235	-.0009	-.0006

Analysis Report QC Standard Tue 11-04-97 10:08:05 AM page 1

Method: ICP30J Sample Name: CV Operator: NSJ
Run Time: 11/04/97 10:03:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9734	2.018	1.944	.9995	.9579	.9423	2.062
SDev	.0016	.004	.007	.0055	.0025	.0024	.004
%RSD	.1605	.1916	.3432	.5472	.2609	.2574	.1903
#1	.9741	2.020	1.934	.9941	.9585	.9421	2.061
#2	.9711	2.020	1.945	.9960	.9542	.9391	2.057
#3	.9746	2.020	1.948	1.006	.9592	.9434	2.063
#4	.9739	2.012	1.947	1.002	.9596	.9448	2.066

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9606	.9728	.9756	.9845	1.967	20.10	2.002
SDev	.0014	.0025	.0018	.0016	.005	.09	.003
%RSD	.1448	.2608	.1846	.1659	.2347	.4416	.1348
#1	.9609	.9718	.9753	.9851	1.968	20.00	2.002
#2	.9586	.9702	.9738	.9821	1.961	20.06	2.003
#3	.9612	.9731	.9753	.9852	1.968	20.13	1.998
#4	.9618	.9762	.9781	.9856	1.972	20.21	2.004

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9675	.9796	1.936	.9817	1.946	1.965	1.965
SDev	.0017	.0052	.007	.0097	.004	.028	.018
%RSD	.1749	.5348	.3704	.9874	.2068	1.420	.9119
#1	.9679	.9750	1.927	.9882	1.947	1.991	1.962
#2	.9657	.9777	1.934	.9724	1.941	1.986	1.948
#3	.9667	.9786	1.943	.9918	1.948	1.933	1.990
#4	.9696	.9871	1.941	.9745	1.950	1.950	1.959

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.009	.9477	.9717	.9567	1.956	.9523	.9762
SDev	.007	.0051	.0023	.0020	.021	.0012	.0024
%RSD	.3329	.5371	.2406	.2098	1.058	.1221	.2413
#1	2.001	.9435	.9722	.9567	1.938	.9520	.9755
#2	2.006	.9435	.9683	.9541	1.941	.9508	.9737
#3	2.013	.9539	.9727	.9569	1.964	.9530	.9761
#4	2.016	.9498	.9736	.9590	1.982	.9534	.9794

Analysis Report Blank Sample Tue 11-04-97 10:14:35 AM page 1

Method: ICP30J Sample Name: Blank Operator: NSJ
Run Time: 11/04/97 10:09:46
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0027	-.0082	.0025	.0006	.0005	.0004
SDev	.0009	.0078	.0099	.0018	.0005	.0001	.0010
%RSD	142.2	285.6	121.6	69.78	90.90	27.07	222.0
#1	.0014	-.0003	-.0207	.0043	H.0014	.0005	.0001
#2	.0011	-.0069	-.0051	.0029	.0003	.0006	.0010
#3	-.0006	.0087	.0030	.0001	.0003	.0004	-.0008
#4	.0006	.0096	-.0099	.0029	.0003	.0004	.0015

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.0001	.0002	.0016	.0000	.1078	-.0015
SDev	.0005	.0007	.0007	.0007	.0008	.0778	.0095
%RSD	104.7	559.5	294.3	45.26	23510.	72.16	629.1
#1	.0004	.0005	-.0004	.0019	.0004	.1323	-.0003
#2	.0012	-.0003	.0006	.0012	.0007	.1912	.0022
#3	.0007	-.0006	-.0004	.0008	-.0012	.0049	-.0151
#4	-.0001	.0010	.0011	H.0025	.0001	.1029	.0071

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0016	.0074	.0023	-.0037	-.0066	.0024
SDev	.0003	.0000	.0051	.0027	.0036	.0057	.0158
%RSD	44.40	.0568	68.99	119.3	94.98	87.10	665.9
#1	.0009	.0016	.0122	.0011	-.0000	-.0093	-.0135
#2	.0004	.0016	.0015	.0036	-.0030	-.0045	.0103
#3	.0004	.0016	.0048	-.0009	-.0086	.0003	.0206
#4	.0004	.0016	.0111	.0053	-.0034	-.0128	-.0079

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0137	.0046	.0005	.0003	-.0102	-.0003	.0005
SDev	.0026	.0040	.0000	.0004	.0020	.0009	.0008
%RSD	18.68	86.69	.0040	142.8	19.44	252.6	170.3
#1	.0162	.0081	.0005	.0005	-.0115	-.0005	.0006
#2	.0126	.0012	.0005	.0003	-.0121	-.0013	.0012
#3	.0106	.0012	.0005	-.0003	-.0091	.0008	-.0006
#4	.0154	.0081	.0005	.0008	-.0079	-.0004	.0006

Method: ICP30J Sample Name: CRI Operator: NSJ
Run Time: 11/04/97 10:14:41
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0210	.0056	.0170	.0025	.0003	.0096	.0039
SDev	.0006	.0033	.0079	.0010	.0000	.0000	.0020
%RSD	3.077	59.43	46.18	40.01	.0050	.3618	50.86
#1	.0219	.0104	.0284	.0016	.0003	.0097	.0064
#2	.0207	.0039	.0151	.0038	.0003	.0096	.0046
#3	.0209	.0050	.0102	.0019	.0003	.0097	.0028
#4	.0204	.0030	.0145	.0027	.0003	.0096	.0019

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0104	.0994	.0200	.0529	-.0011	-.0172	-.0030
SDev	.0004	.0011	.0010	.0003	.0007	.1166	.0079
%RSD	3.863	1.134	5.116	.4938	63.28	679.9	263.0
#1	.0106	.0978	.0186	.0531	-.0010	-.0147	.0025
#2	.0107	.0999	.0209	.0531	-.0010	.0833	.0001
#3	.0105	.0994	.0200	.0529	-.0003	.0441	.0001
#4	.0098	.1004	.0204	.0526	-.0019	-.1814	-.0147

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0302	-.0005	.0118	.0817	-.0021	.1224	.0238
SDev	.0001	.0007	.0048	.0043	.0065	.0104	.0184
%RSD	.4066	125.5	40.75	5.204	308.2	8.518	77.55
#1	.0301	-.0000	.0177	.0851	.0068	.1190	.0200
#2	.0301	-.0006	.0136	.0765	-.0072	.1280	.0501
#3	.0303	-.0000	.0070	.0852	-.0068	.1331	.0176
#4	.0301	-.0014	.0089	.0799	-.0012	.1094	.0073

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0600	.0017	.0001	.0003	.0096	.0997	.0407
SDev	.0037	.0032	.0001	.0003	.0068	.0012	.0006
%RSD	6.097	184.0	115.5	87.24	71.03	1.240	1.488
#1	.0637	.0014	-.0000	.0006	.0136	.0980	.0399
#2	.0624	-.0026	.0002	.0001	-.0002	.1007	.0406
#3	.0579	.0038	.0002	.0004	.0100	.0994	.0412
#4	.0560	.0043	-.0000	.0001	.0148	.1005	.0412

Method: ICP30J Sample Name: ICSA Operator: NSJ
Run Time: 11/04/97 10:19:35
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	504.7	-.0336	.0202	.0034	.0000	475.5
SDev	.0007	3.3	.0401	.0019	.0000	.0001	3.2
%RSD	86.60	.6493	119.5	9.336	.0029	247.1	.6667
#1	.0002	503.0	-.0727	.0203	.0034	-.0000	473.5
#2	.0008	506.2	-.0296	.0176	.0034	.0001	477.2
#3	.0004	508.5	.0205	.0221	.0034	-.0001	479.1
#4	.0017	501.2	-.0527	.0207	.0034	.0002	472.3

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	-.0001	-.0013	.0023	184.3	-.1421	506.8
SDev	.0006	.0008	.0010	.0003	1.2	.2916	3.1
%RSD	54.23	676.1	77.88	15.45	.6579	205.1	.6190
#1	.0011	.0010	-.0004	.0018	183.2	.0833	504.7
#2	.0002	-.0009	-.0027	.0023	184.9	-.5539	508.3
#3	.0015	-.0001	-.0013	.0025	185.7	.0441	510.5
#4	.0014	-.0005	-.0009	.0025	183.4	-.1421	503.8

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0021	.0135	-.0037	-.0582	-.0598	.0396
SDev	.0002	.0031	.0036	.0053	.0048	.0186	.0337
%RSD	169.7	147.0	26.70	142.1	8.257	31.08	85.13
#1	-.0003	-.0004	.0149	-.0086	-.0561	-.0346	.0050
#2	.0001	-.0008	.0086	-.0078	-.0540	-.0691	.0166
#3	-.0001	-.0005	.0133	-.0007	-.0651	-.0580	.0723
#4	-.0003	-.0067	.0171	.0022	-.0575	-.0774	.0646

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0731	-.0050	.0278	.0009	.0996	.0063	.0047
SDev	.0045	.0107	.0002	.0006	.0127	.0009	.0007
%RSD	6.176	214.7	.7573	68.10	12.71	14.53	13.99
#1	.0718	-.0051	.0276	-.0000	.0945	.0054	.0047
#2	.0682	.0101	.0280	.0010	.1076	.0059	.0052
#3	.0790	-.0111	.0280	.0012	.1121	.0075	.0038
#4	.0732	-.0139	.0276	.0013	.0843	.0066	.0053

Analysis Report QC Standard Tue 11-04-97 10:29:20 AM page 1

Method: ICP30J Sample Name: ICSAB Operator: NSJ
Run Time: 11/04/97 10:24:30
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9446	510.8	-.0280	.0191	.4706	.4464	477.2
SDev	.0061	4.0	.0315	.0020	.0038	.0041	3.7
%RSD	.6451	.7821	112.4	10.71	.8052	.9170	.7854
#1	.9370	505.9	-.0482	.0180	.4662	.4414	472.5
#2	.9492	514.4	.0145	.0216	.4740	.4492	479.2
#3	.9423	509.3	-.0232	.0169	.4688	.4447	476.1
#4	.9498	513.7	-.0552	.0196	.4736	.4503	481.1

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9107	.4392	.4426	.4766	186.2	-.2892	512.5
SDev	.0051	.0036	.0043	.0039	1.5	.1047	3.6
%RSD	.5586	.8221	.9598	.8196	.8266	36.19	.7088
#1	.9059	.4363	.4377	.4714	184.3	-.3774	507.9
#2	.9157	.4413	.4449	.4794	187.2	-.3480	515.2
#3	.9068	.4359	.4406	.4759	185.7	-.2892	511.2
#4	.9145	.4431	.4472	.4798	187.7	-.1421	515.6

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4460	-.0040	-.0043	.8754	.8355	-.0250	.0550
SDev	.0039	.0030	.0028	.0070	.0173	.0492	.0513
%RSD	.8805	73.51	65.45	.7976	2.075	196.7	93.27
#1	.4412	-.0050	-.0026	.8659	.8270	.0444	-.0128
#2	.4485	-.0004	-.0067	.8761	.8507	-.0373	.0811
#3	.4444	-.0074	-.0067	.8768	.8151	-.0717	.0462
#4	.4499	-.0033	-.0012	.8827	.8490	-.0354	.1054

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0794	.0019	.0281	.0005	.0993	.4577	.8994
SDev	.0030	.0066	.0004	.0005	.0244	.0042	.0091
%RSD	3.812	352.3	1.328	93.59	24.53	.9225	1.009
#1	.0781	.0089	.0276	-.0001	.0866	.4523	.8899
#2	.0759	-.0039	.0284	.0004	.0722	.4593	.9072
#3	.0806	-.0036	.0280	.0007	.1261	.4568	.8935
#4	.0829	.0061	.0284	.0010	.1122	.4623	.9072

Analysis Report Tue 11-04-97 10:39:01 AM page 1

Method: ICP30J Sample Name: U269 MB1 LEN Operator: NSJ
Run Time: 11/04/97 10:34:12
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0621	-.0155	.0229	.1068	-.0002	.0967
SDev	.0003	.0108	.0068	.0014	.0007	.0001	.0038
%RSD	63.68	17.44	43.75	6.018	.6942	51.31	3.916
#1	-.0006	.0509	-.0120	.0230	.1075	-.0001	.0919
#2	-.0004	.0550	-.0088	.0247	.1066	-.0001	.0955
#3	-.0009	.0733	-.0244	.0213	.1071	-.0001	.0999
#4	-.0001	.0691	-.0169	.0227	.1058	-.0003	.0995

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	-.0017	-.0011	.0008	.0134	-.0490	.0622
SDev	.0003	.0007	.0008	.0005	.0040	.1314	.0066
%RSD	95.65	45.22	76.86	61.92	29.53	268.1	10.64
#1	.0007	-.0012	-.0008	.0012	.0091	-.1519	.0551
#2	.0002	-.0028	-.0023	.0007	.0111	-.1127	.0613
#3	-.0000	-.0015	-.0008	.0001	.0159	-.0735	.0711
#4	.0005	-.0012	-.0004	.0010	.0175	.1421	.0613

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	-.0006	1556.	.0041	-.0082	-.0125	-.0073
SDev	.0001	.0002	13.	.0039	.0015	.0077	.0096
%RSD	76.13	36.10	.8254	95.40	18.59	61.36	131.0
#1	-.0001	-.0003	1570.	.0006	-.0078	-.0067	-.0174
#2	-.0001	-.0006	1555.	.0047	-.0074	-.0179	-.0095
#3	-.0003	-.0009	1559.	.0094	-.0070	-.0202	-.0079
#4	-.0003	-.0006	1539.	.0018	-.0104	-.0051	.0056

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0528	.0049	.0069	-.0002	-.0027	-.0011	.0497
SDev	.0049	.0019	.0000	.0003	.0102	.0009	.0000
%RSD	9.339	39.09	.0010	202.2	376.3	82.22	.0245
#1	.0584	.0052	.0069	-.0003	-.0103	-.0004	.0498
#2	.0551	.0035	.0069	.0001	.0106	-.0023	.0497
#3	.0473	.0075	.0069	-.0006	-.0002	-.0004	.0497
#4	.0504	.0035	.0069	.0001	-.0110	-.0012	.0497

Method: ICP30J Sample Name: U269 Ct-L LEN Operator: NSJ
Run Time: 11/04/97 10:39:05
Comment: 1/5 CLP SERIAL DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0614	.0024	.0143	.1767	-.0001	28.47
SDev	.0009	.0130	.0065	.0033	.0024	.0001	.35
%RSD	113.3	21.22	270.6	23.28	1.387	72.36	1.238
#1	-.0004	.0510	.0049	.0099	.1787	-.0003	28.65
#2	.0013	.0557	-.0034	.0177	.1789	-.0001	28.87
#3	.0016	.0803	.0105	.0157	.1748	-.0002	28.25
#4	.0006	.0584	-.0024	.0141	.1743	-.0000	28.11

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0449	-.0002	-.0000	.0155	.0209	1.571	1.390
SDev	.0008	.0013	.0023	.0006	.0035	.400	.020
%RSD	1.884	634.4	85740.	3.558	16.70	25.44	1.452
#1	.0447	-.0015	-.0032	.0147	.0178	.9950	1.372
#2	.0462	-.0010	.0011	.0158	.0207	1.613	1.414
#3	.0443	.0014	.0020	.0160	.0258	1.799	1.399
#4	.0445	.0003	.0001	.0154	.0194	1.877	1.374

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1471	-.0009	292.6	.0109	.1915	-.0025	.0015
SDev	.0016	.0020	3.5	.0041	.0112	.0167	.0074
%RSD	1.081	233.4	1.182	37.38	5.855	680.7	488.9
#1	.1483	-.0037	294.8	.0054	.1748	-.0174	.0112
#2	.1486	-.0004	296.2	.0120	.1953	-.0120	-.0039
#3	.1461	.0010	290.1	.0108	.1984	.0204	.0033
#4	.1454	-.0004	289.2	.0152	.1975	-.0007	-.0046

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.242	.0010	.1538	.0003	-.0065	.0006	.8589
SDev	.008	.0045	.0021	.0004	.0056	.0020	.0094
%RSD	.6787	459.4	1.383	145.7	84.92	354.7	1.091
#1	1.234	-.0034	.1555	-.0002	-.0113	.0005	.8628
#2	1.254	-.0022	.1557	.0001	-.0065	-.0015	.8697
#3	1.242	.0037	.1520	.0006	-.0096	.0034	.8546
#4	1.240	.0059	.1518	.0006	.0012	-.0001	.8483

Analysis Report Tue 11-04-97 10:48:48 AM page 1

Method: ICP30J Sample Name: U269 Ct LEN Operator: NSJ
Run Time: 11/04/97 10:43:59
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	.1832	-.0016	.0653	.9117	-.0001	146.5
SDev	.0004	.0048	.0079	.0011	.0065	.0000	.8
%RSD	50.47	2.595	489.8	1.727	.7149	28.64	.5513
#1	-.0007	.1854	.0092	.0647	.9177	-.0001	147.3
#2	-.0007	.1818	-.0081	.0669	.9125	-.0001	146.6
#3	-.0005	.1884	-.0006	.0644	.9142	-.0001	146.9
#4	-.0015	.1773	-.0069	.0652	.9025	-.0001	145.4

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2334	.0034	.0025	.0690	.0609	8.582	7.011
SDev	.0017	.0013	.0012	.0008	.0014	.079	.039
%RSD	.7363	37.03	46.76	1.088	2.309	.9232	.5547
#1	.2356	.0016	.0011	.0684	.0591	8.475	7.049
#2	.2336	.0044	.0034	.0692	.0604	8.573	7.020
#3	.2325	.0037	.0020	.0700	.0617	8.632	7.017
#4	.2316	.0039	.0034	.0685	.0623	8.651	6.956

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.7522	-.0005	1517.	.0245	.9973	.0084	.0414
SDev	.0042	.0008	11.	.0018	.0070	.0098	.0172
%RSD	.5629	162.7	.7451	7.323	.7061	116.6	41.52
#1	.7564	-.0016	1528.	.0251	.9912	.0220	.0231
#2	.7527	.0003	1521.	.0224	1.003	.0051	.0461
#3	.7535	-.0002	1519.	.0266	1.004	.0076	.0334
#4	.7463	-.0005	1501.	.0239	.9913	-.0011	.0629

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.591	.0070	.7933	.0017	-.0061	.0015	4.406
SDev	.037	.0015	.0057	.0006	.0107	.0006	.026
%RSD	.5646	21.62	.7231	33.38	175.9	41.33	.5947
#1	6.627	.0088	.7985	.0014	-.0210	.0007	4.432
#2	6.597	.0076	.7941	.0012	-.0067	.0020	4.411
#3	6.599	.0053	.7955	.0025	.0023	.0013	4.412
#4	6.538	.0064	.7852	.0019	.0010	.0021	4.370

Method: ICP30J Sample Name: U269 Dt LEN Operator: NSJ
Run Time: 11/04/97 10:48:53
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	.4023	.0007	.0605	1.428	.0000	82.20
SDev	.0012	.0072	.0056	.0010	.010	.0001	.57
%RSD	169.8	1.796	769.5	1.618	.7168	267.3	.6882
#1	-.0019	.4118	.0059	.0600	1.439	-.0000	82.90
#2	-.0014	.4032	.0051	.0595	1.433	-.0000	82.41
#3	-.0004	.3948	-.0043	.0617	1.415	-.0000	81.75
#4	.0008	.3993	-.0039	.0609	1.425	.0001	81.74

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0411	.0649	.0059	.3560	.2039	3.027	3.512
SDev	.0004	.0004	.0013	.0018	.0007	.346	.023
%RSD	.8924	.6980	21.09	.5099	.3461	11.42	.6662
#1	.0416	.0643	.0049	.3576	.2046	2.652	3.543
#2	.0409	.0648	.0053	.3564	.2030	3.073	3.518
#3	.0409	.0653	.0077	.3534	.2038	3.475	3.496
#4	.0409	.0651	.0058	.3565	.2041	2.907	3.492

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.913	-.0017	1491.	.0851	13.38	.0118	.0110
SDev	.013	.0012	11.	.0030	.09	.0097	.0154
%RSD	.7044	67.79	.7557	3.480	.6484	81.56	139.3
#1	1.928	-.0021	1503.	.0866	13.48	.0174	.0172
#2	1.920	-.0013	1497.	.0828	13.41	.0030	-.0027
#3	1.900	-.0004	1478.	.0825	13.33	.0226	.0299
#4	1.903	-.0032	1484.	.0886	13.29	.0044	-.0003

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.440	.0068	.2266	.0112	.0031	-.0015	11.49
SDev	.034	.0011	.0017	.0005	.0126	.0010	.08
%RSD	.4580	15.58	.7382	4.385	401.7	63.61	.6918
#1	7.398	.0055	.2284	.0108	.0024	-.0024	11.60
#2	7.479	.0065	.2275	.0118	-.0145	-.0005	11.50
#3	7.432	.0077	.2248	.0108	.0117	-.0023	11.44
#4	7.452	.0076	.2257	.0114	.0129	-.0009	11.42

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Analysis Report Tue 11-04-97 11:05:19 AM page 1

Method: ICP30J Sample Name: U269 D-L SWC Operator: NSJ
Run Time: 11/04/97 11:00:30
Comment: ~~1/5~~ CLP SERIAL DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0020	9.662	.0345	.0190	.3365	.0002	9.109
SDev	.0009	.017	.0046	.0017	.0004	.0001	.015
%RSD	43.81	.1715	13.30	8.969	.1329	34.27	.1684
#1	.0011	9.686	.0277	.0175	.3369	.0001	9.131
#2	.0026	9.649	.0376	.0213	.3360	.0001	9.101
#3	.0028	9.653	.0363	.0179	.3362	.0003	9.096
#4	.0013	9.662	.0366	.0193	.3369	.0001	9.110

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0041	.0194	.1564	.3377	58.48	.6274	5.309
SDev	.0004	.0010	.0009	.0005	.10	.1528	.015
%RSD	8.859	5.092	.5731	.1409	.1692	24.36	.2753
#1	.0041	.0182	.1570	.3379	58.62	.4558	5.325
#2	.0041	.0192	.1566	.3381	58.40	.7793	5.315
#3	.0036	.0205	.1551	.3370	58.42	.7303	5.306
#4	.0045	.0197	.1570	.3379	58.49	.5441	5.290

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8129	.0323	.6466	.1358	3.954	-.0175	.0119
SDev	.0020	.0007	.0050	.0020	.010	.0103	.0155
%RSD	.2413	2.123	.7684	1.468	.2624	58.92	130.4
#1	.8157	.0313	.6534	.1351	3.958	-.0292	-.0028
#2	.8113	.0330	.6465	.1362	3.952	-.0214	.0287
#3	.8118	.0324	.6449	.1383	3.965	-.0050	.0216
#4	.8130	.0324	.6416	.1336	3.941	-.0143	.0002

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.107	.0148	.0602	.7982	.0126	.0455	1.624
SDev	.004	.0020	.0000	.0009	.0050	.0005	.002
%RSD	.3528	13.43	.0005	.1183	39.61	1.056	.1094
#1	1.109	.0168	.0602	.7995	.0054	.0452	1.627
#2	1.111	.0156	.0602	.7975	.0130	.0451	1.624
#3	1.104	.0122	.0602	.7975	.0166	.0462	1.623
#4	1.104	.0145	.0602	.7982	.0152	.0455	1.623

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Analysis Report Tue 11-04-97 11:10:13 AM page 1

Method: ICP30J Sample Name: U269 D SWC Operator: NSJ
Run Time: 11/04/97 11:05:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0098	48.03	.2001	.0859	1.668	.0004	44.62
SDev	.0001	.44	.0067	.0014	.018	.0001	.40
%RSD	1.128	.9234	3.342	1.629	1.066	14.12	.9045
#1	.0097	47.40	.1979	.0855	1.643	.0004	44.02
#2	.0098	48.39	.2093	.0861	1.682	.0004	44.85
#3	.0097	48.28	.1934	.0843	1.678	.0003	44.80
#4	.0099	48.08	.1997	.0876	1.671	.0004	44.83

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0208	.0954	.7723	1.665	301.1	3.279	26.23
SDev	.0008	.0019	.0082	.017	2.8	.029	.24
%RSD	3.863	1.956	1.067	.9929	.9253	.8801	.9038
#1	.0210	.0931	.7600	1.642	297.0	3.308	25.89
#2	.0213	.0952	.7771	1.680	303.0	3.299	26.41
#3	.0197	.0958	.7757	1.673	302.3	3.259	26.37
#4	.0214	.0976	.7766	1.663	302.2	3.250	26.26

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.998	.1642	3.057	.6524	19.28	-.0178	.0999
SDev	.038	.0029	.027	.0067	.16	.0079	.0410
%RSD	.9578	1.796	.8760	1.023	.8252	44.28	40.99
#1	3.942	.1598	3.023	.6462	19.04	-.0108	.0494
#2	4.026	.1662	3.070	.6543	19.36	-.0120	.1169
#3	4.014	.1653	3.085	.6480	19.34	-.0208	.1452
#4	4.013	.1656	3.051	.6609	19.37	-.0275	.0881

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.460	.0700	.3001	3.987	.0630	.2227	7.816
SDev	.048	.0034	.0032	.042	.0279	.0018	.063
%RSD	.8747	4.847	1.060	1.044	44.27	.8250	.8075
#1	5.389	.0682	.2955	3.927	.0713	.2215	7.722
#2	5.493	.0750	.3027	4.019	.0725	.2254	7.860
#3	5.477	.0689	.3017	4.008	.0859	.2217	7.834
#4	5.481	.0677	.3006	3.996	.0224	.2224	7.846

Analysis Report Tue 11-04-97 11:15:07 AM page 1

Method: ICP30J Sample Name: U269 C SWC Operator: NSJ
Run Time: 11/04/97 11:10:18
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0118	137.5	.3602	.1299	8.248	.0023	101.8
SDev	.0011	.5	.0095	.0032	.036	.0000	.4
%RSD	9.306	.3950	2.640	2.425	.4424	1.383	.3683
#1	.0123	137.3	.3530	.1309	8.229	.0023	101.7
#2	.0103	137.4	.3512	.1309	8.250	.0023	101.5
#3	.0128	137.0	.3701	.1324	8.214	.0023	101.7
#4	.0119	138.3	.3666	.1253	8.298	.0023	102.4

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1608	.0811	1.195	1.818	412.2	7.200	54.55
SDev	.0008	.0012	.004	.006	1.6	.236	.16
%RSD	.5220	1.453	.3538	.3144	.3763	3.273	.3012
#1	.1602	.0824	1.194	1.814	411.6	7.308	54.46
#2	.1611	.0798	1.193	1.819	411.1	6.847	54.53
#3	.1601	.0804	1.193	1.813	411.4	7.308	54.42
#4	.1619	.0816	1.202	1.826	414.5	7.338	54.79

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.783	.0679	5.645	.5003	7.654	.0081	.1196
SDev	.033	.0019	.023	.0039	.031	.0192	.0273
%RSD	.3383	2.791	.4108	.7814	.4011	235.9	22.83
#1	9.765	.0676	5.648	.5039	7.647	.0008	.1514
#2	9.765	.0692	5.647	.4985	7.635	-.0004	.1135
#3	9.769	.0654	5.614	.5031	7.634	-.0045	.1274
#4	9.833	.0695	5.670	.4956	7.699	.0367	.0860

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	11.31	.1023	.4407	8.963	.1036	.5768	6.374
SDev	.03	.0086	.0017	.034	.0188	.0012	.023
%RSD	.2997	8.413	.3766	.3809	18.11	.2086	.3543
#1	11.30	.1100	.4403	8.946	.0995	.5761	6.367
#2	11.29	.0900	.4403	8.956	.1149	.5759	6.363
#3	11.29	.1053	.4392	8.936	.0789	.5767	6.358
#4	11.36	.1040	.4431	9.012	.1210	.5785	6.407

Analysis Report QC Standard Tue 11-04-97 11:21:38 AM page 1

Method: ICP30J Sample Name: CV 2 Operator: NSJ
Run Time: 11/04/97 11:16:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9787	2.039	1.964	1.006	.9711	.9568	2.079
SDev	.0021	.009	.010	.004	.0024	.0031	.006
%RSD	.2096	.4490	.5038	.4150	.2427	.3217	.2835
#1	.9764	2.033	1.963	1.001	.9709	.9533	2.076
#2	.9809	2.053	1.951	1.009	.9728	.9599	2.088
#3	.9776	2.034	1.967	1.004	.9679	.9552	2.075
#4	.9799	2.038	1.975	1.010	.9728	.9588	2.076

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9680	.9780	.9863	.9802	2.037	20.30	2.029
SDev	.0031	.0030	.0030	.0030	.013	.30	.008
%RSD	.3216	.3060	.3035	.3059	.6176	1.465	.4071
#1	.9661	.9767	.9834	.9782	2.046	20.21	2.024
#2	.9723	.9819	.9905	.9844	2.049	20.62	2.040
#3	.9654	.9749	.9858	.9778	2.028	20.44	2.022
#4	.9682	.9785	.9858	.9802	2.024	19.93	2.029

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9790	.9983	1.938	1.002	1.973	1.975	2.023
SDev	.0029	.0057	.006	.006	.009	.011	.024
%RSD	.2910	.5692	.3103	.5886	.4772	.5775	1.176
#1	.9765	.9902	1.938	1.002	1.975	1.978	2.027
#2	.9826	1.003	1.946	1.009	1.986	1.960	2.000
#3	.9770	.9998	1.931	1.000	1.965	1.973	2.009
#4	.9799	.9998	1.936	.9952	1.967	1.988	2.054

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.020	.9460	.9780	.9643	1.969	.9572	.9785
SDev	.009	.0078	.0022	.0016	.021	.0034	.0020
%RSD	.4568	.8261	.2210	.1688	1.077	.3592	.2050
#1	2.012	.9383	.9761	.9634	1.972	.9533	.9768
#2	2.033	.9569	.9803	.9661	1.985	.9603	.9805
#3	2.019	.9447	.9761	.9625	1.938	.9552	.9768
#4	2.017	.9441	.9793	.9650	1.979	.9598	.9799

Analysis Report Blank Sample Tue 11-04-97 11:28:08 AM page 1

Method: ICP30J Sample Name: Blank 2 Operator: NSJ
Run Time: 11/04/97 11:23:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0039	-.0031	.0017	.0005	.0003	-.0001
SDev	.0011	.0100	.0053	.0027	.0002	.0002	.0035
%RSD	206.9	257.2	169.7	157.5	42.55	53.00	3113.
#1	.0001	.0114	-.0025	.0043	.0008	.0005	.0046
#2	.0014	-.0000	.0035	.0023	.0003	.0001	.0006
#3	.0016	.0126	-.0093	.0026	.0003	.0004	-.0030
#4	-.0009	-.0084	-.0040	-.0022	.0005	.0002	-.0026

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	-.0012	-.0005	.0019	.0084	.0172	-.0077
SDev	.0004	.0011	.0012	.0010	.0036	.2441	.0059
%RSD	2379.	96.33	250.8	50.50	42.98	1423.	76.37
#1	-.0003	.0004	.0011	.0019	.0127	.3186	-.0015
#2	.0007	-.0014	-.0008	H.0026	.0101	.1127	-.0040
#3	-.0001	-.0022	-.0018	H.0026	.0056	-.1814	-.0114
#4	-.0002	-.0016	-.0004	.0005	.0053	-.1814	-.0139

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0001	.0207	.0012	.0024	-.0069	-.0006
SDev	.0004	.0011	.0067	.0056	.0058	.0071	.0016
%RSD	114.0	816.5	32.32	476.7	242.2	102.7	281.0
#1	.0009	.0016	.0234	.0068	.0094	.0016	.0008
#2	-.0001	.0005	.0270	-.0059	.0021	-.0041	.0008
#3	.0004	-.0006	.0210	.0040	-.0048	-.0144	-.0016
#4	.0002	-.0009	.0114	-.0003	.0029	-.0106	-.0024

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0015	.0020	.0003	.0000	-.0084	-.0002	.0001
SDev	.0059	.0022	.0002	.0005	.0049	.0010	.0009
%RSD	387.8	109.2	76.58	1142.	58.94	439.2	625.8
#1	.0017	.0035	.0005	.0005	-.0026	.0005	.0012
#2	.0051	.0035	.0005	-.0001	-.0133	-.0007	-.0006
#3	.0062	.0023	.0002	.0005	-.0115	.0007	.0006
#4	-.0069	-.0012	.0000	-.0006	-.0061	-.0015	-.0006

Method: ICP30J Sample Name: T914 APPOST SWC Operator: NSJ
Run Time: 11/04/97 11:35:55
Comment: +14uL Sb 100 TO 10mL SAMPLE
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0102	390.0	.0100	.0964	1.763	.0067	86.03
SDev	.0015	1.0	.0240	.0032	.006	.0001	.06
%RSD	15.00	.2508	239.7	3.360	.3188	1.396	.0664
#1	.0107	389.4	.0293	.0958	1.760	.0065	86.09
#2	.0080	391.4	-.0088	.0921	1.771	.0067	86.01
#3	.0106	389.2	-.0126	.0983	1.758	.0066	85.96
#4	.0115	390.0	.0320	.0995	1.762	.0067	86.08

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0039	.1831	.3565	.4178	421.5	12.33	71.84
SDev	.0005	.0013	.0019	.0006	.3	.18	.18
%RSD	13.65	.6922	.5416	.1339	.0828	1.490	.2466
#1	.0041	.1848	.3579	.4172	421.4	12.54	71.78
#2	.0032	.1817	.3551	.4185	421.6	12.11	72.02
#3	.0039	.1827	.3546	.4181	421.1	12.41	71.62
#4	.0045	.1832	.3584	.4177	421.9	12.28	71.94

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.745	L-.0056	11.39	.2946	.1005	.1069	.1111
SDev	.007	.0021	.02	.0060	.0116	.0055	.0501
%RSD	.0990	38.02	.1826	2.028	11.57	5.133	45.04
#1	6.744	L-.0063	11.38	.2940	.1166	.1077	.1502
#2	6.750	-.0025	11.41	.3004	.0889	.0996	.1334
#3	6.735	L-.0066	11.37	.2973	.0981	.1129	.0380
#4	6.750	L-.0071	11.40	.2865	.0983	.1073	.1230

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	38.10	.0175	1.065	20.79	.1008	1.038	.9270
SDev	.03	.0088	.003	.05	.0251	.002	.0014
%RSD	.0872	50.15	.3042	.2436	24.96	.1562	.1515
#1	38.07	.0276	1.063	20.77	.1343	1.040	.9287
#2	38.08	.0210	1.069	20.86	.0855	1.039	.9255
#3	38.09	.0071	1.062	20.75	.0780	1.036	.9262
#4	38.15	.0144	1.065	20.77	.1053	1.039	.9274

Analysis Report Tue 11-04-97 11:46:12 AM page 1

Method: ICP30J Sample Name: **T914 DPOST SWC** Operator: NSJ
Run Time: 11/04/97 11:41:06
Comment: **+12uL Sb100, +210uL Ca10,000 TO 10mL**
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0080	365.4	.0175	.0701	1.644	.0062	**277.0**
SDev	.0007	.4	.0214	.0028	.002	.0001	.3
%RSD	8.946	.1199	122.6	3.951	.1322	1.150	.1027
#1	.0080	365.3	.0018	.0696	1.643	.0061	276.9
#2	.0081	364.8	.0003	.0675	1.641	.0061	276.7
#3	.0089	365.8	.0461	.0692	1.644	.0062	277.3
#4	.0071	365.6	.0216	.0740	1.646	.0062	276.9

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0033	.1631	.3222	.4113	380.5	11.91	67.03
SDev	.0011	.0008	.0014	.0011	.7	.20	.05
%RSD	33.72	.4867	.4397	.2701	.1744	1.650	.0700
#1	.0040	.1621	.3229	.4108	380.3	12.14	67.02
#2	.0020	.1640	.3229	.4100	379.7	11.92	66.97
#3	.0026	.1633	.3201	.4124	381.1	11.66	67.07
#4	.0043	.1631	.3229	.4120	381.0	11.93	67.06

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.669	-.0029	10.17	.2652	.0945	.0974	.1131
SDev	.010	.0023	.02	.0040	.0038	.0266	.0416
%RSD	.1455	81.01	.1693	1.514	4.003	27.27	36.78
#1	6.666	L-.0055	10.19	.2645	.0921	.1093	.1574
#2	6.656	-.0014	10.16	.2693	.1002	.1244	.1321
#3	6.673	-.0005	10.16	.2599	.0926	.0935	.1021
#4	6.679	-.0041	10.16	.2670	.0933	.0623	.0607

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	38.85	.0204	.9709	17.85	.1144	.9309	.8764
SDev	.05	.0068	.0020	.03	.0064	.0007	.0007
%RSD	.1288	33.18	.2077	.1708	5.615	.0763	.0763
#1	38.85	.0225	.9712	17.85	.1239	.9306	.8761
#2	38.78	.0149	.9680	17.81	.1124	.9308	.8774
#3	38.88	.0152	.9721	17.89	.1105	.9304	.8760
#4	38.88	.0291	.9724	17.87	.1107	.9320	.8760

Method: ICP30J Sample Name: T914 AG SWC Operator: NSJ
Run Time: 11/04/97 11:46:16
Comment: 1/2 DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0084	206.1	.0037	.0513	1.001	.0042	44.49
SDev	.0010	.9	.0187	.0009	.005	.0001	.17
%RSD	11.44	.4473	504.6	1.854	.4615	1.676	.3933
#1	.0083	205.5	-.0132	.0507	.9986	.0041	44.28
#2	.0086	207.3	.0304	.0504	1.008	.0041	44.70
#3	.0071	206.2	-.0020	.0518	1.001	.0043	44.54
#4	.0095	205.3	-.0003	.0524	.9978	.0042	44.46

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0023	.1212	.1752	.1984	314.5	5.740	34.39
SDev	.0004	.0011	.0028	.0005	1.2	.309	.13
%RSD	19.63	.8800	1.598	.2494	.3853	5.388	.3696
#1	.0020	.1197	.1713	.1978	313.2	5.289	34.32
#2	.0018	.1214	.1775	.1990	316.0	5.985	34.57
#3	.0027	.1214	.1751	.1983	315.0	5.808	34.39
#4	.0027	.1223	.1770	.1985	314.1	5.877	34.28

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.802	-.0014	5.643	.1514	.1162	-.0268	.1009
SDev	.016	.0010	.020	.0047	.0027	.0039	.0405
%RSD	.4187	72.46	.3622	3.140	2.286	14.61	40.19
#1	3.785	-.0021	5.641	.1584	.1138	-.0226	.0936
#2	3.823	-.0008	5.671	.1496	.1158	-.0280	.0654
#3	3.806	-.0003	5.638	.1483	.1200	-.0250	.0855
#4	3.796	-.0023	5.622	.1492	.1153	-.0317	.1590

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	17.24	.0117	.4893	17.13	.0430	.7968	.7064
SDev	.06	.0023	.0022	.08	.0160	.0032	.0033
%RSD	.3330	19.69	.4452	.4651	37.31	.4005	.4623
#1	17.20	.0102	.4875	17.07	.0271	.7953	.7023
#2	17.32	.0108	.4923	17.24	.0352	.8015	.7103
#3	17.22	.0107	.4893	17.14	.0454	.7946	.7066
#4	17.21	.0152	.4879	17.07	.0642	.7959	.7067

Method: ICP30J Sample Name: T914 AH SWC Operator: NSJ
Run Time: 11/04/97 11:51:27
Comment: 1/2 DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0080	211.6	.0063	.0478	1.010	.0045	45.98
SDev	.0010	1.8	.0154	.0027	.011	.0001	.37
%RSD	12.49	.8419	246.0	5.709	1.102	2.786	.8155
#1	.0081	209.0	.0117	.0447	.9943	.0043	45.43
#2	.0070	211.9	.0189	.0471	1.012	.0045	46.12
#3	.0093	212.6	-.0162	.0513	1.017	.0045	46.10
#4	.0075	212.9	.0107	.0480	1.019	.0046	46.27

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0023	.1227	.1796	.2063	320.2	5.865	35.13
SDev	.0013	.0018	.0021	.0023	2.8	.117	.29
%RSD	56.49	1.493	1.170	1.137	.8780	1.994	.8281
#1	.0024	.1204	.1770	.2028	316.1	5.955	34.70
#2	.0008	.1227	.1808	.2074	321.1	5.975	35.19
#3	.0039	.1229	.1789	.2077	321.5	5.749	35.26
#4	.0020	.1249	.1817	.2073	322.3	5.779	35.35

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.855	-.0008	5.892	.1490	.1000	-.0242	.0677
SDev	.032	.0021	.054	.0077	.0128	.0094	.0082
%RSD	.8387	265.3	.9086	5.190	12.77	38.73	12.13
#1	3.807	-.0035	5.813	.1396	.1014	-.0120	.0667
#2	3.865	-.0008	5.913	.1458	.0945	-.0347	.0650
#3	3.869	.0014	5.931	.1553	.0872	-.0237	.0599
#4	3.879	-.0002	5.912	.1553	.1171	-.0266	.0793

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	17.28	.0255	.5087	17.17	.0446	.7993	.7088
SDev	.14	.0038	.0053	.17	.0415	.0078	.0045
%RSD	.7996	15.01	1.053	.9961	93.03	.9749	.6348
#1	17.08	.0222	.5008	16.92	-.0132	.7878	.7021
#2	17.32	.0221	.5096	17.22	.0804	.8014	.7111
#3	17.35	.0280	.5119	17.26	.0432	.8044	.7104
#4	17.38	.0294	.5123	17.29	.0679	.8037	.7116

Method: ICP30J Sample Name: T914 AI SWC Operator: NSJ
Run Time: 11/04/97 11:56:38
Comment: 1/2 DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0074	173.1	-.0034	.0413	.8425	.0036	41.01
SDev	.0010	.9	.0223	.0011	.0054	.0001	.22
%RSD	13.11	.5295	659.2	2.739	.6369	2.893	.5297
#1	.0085	174.5	-.0117	.0419	.8500	.0037	41.31
#2	.0062	172.6	-.0311	.0400	.8396	.0036	40.91
#3	.0078	172.5	.0167	.0409	.8379	.0035	40.81
#4	.0072	173.0	.0126	.0426	.8426	.0037	41.02

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0021	.1030	.1535	.1776	290.9	4.705	30.80
SDev	.0009	.0007	.0008	.0013	1.5	.293	.17
%RSD	43.35	.6448	.5242	.7533	.5319	6.228	.5385
#1	.0027	.1039	.1538	.1791	292.9	4.328	31.04
#2	.0009	.1023	.1524	.1758	290.0	4.867	30.69
#3	.0028	.1029	.1534	.1778	289.4	4.995	30.70
#4	.0019	.1029	.1543	.1777	291.3	4.632	30.76

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.312	-.0000	4.624	.1238	.0966	-.0069	.0871
SDev	.019	.0018	.031	.0044	.0078	.0085	.0340
%RSD	.5774	16660.	.6699	3.525	8.037	123.0	39.08
#1	3.338	.0004	4.667	.1262	.0977	-.0082	.1072
#2	3.301	.0023	4.610	.1279	.1017	.0054	.0846
#3	3.295	-.0019	4.595	.1231	.1015	-.0135	.0401
#4	3.314	-.0009	4.624	.1179	.0852	-.0115	.1164

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	17.53	.0207	.4382	15.34	.0284	.7014	.6332
SDev	.09	.0070	.0027	.10	.0305	.0049	.0031
%RSD	.4901	33.77	.6100	.6263	107.4	.6935	.4893
#1	17.65	.0307	.4419	15.48	.0299	.7079	.6373
#2	17.47	.0149	.4366	15.29	.0177	.6971	.6319
#3	17.46	.0171	.4359	15.26	-.0033	.6985	.6301
#4	17.55	.0199	.4382	15.33	.0692	.7023	.6337

Method: ICP30J Sample Name: T914 AJ SWC Operator: NSJ
Run Time: 11/04/97 12:01:49
Comment: 1/2 DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0099	184.0	.0003	.0521	1.046	.0050	41.82
SDev	.0008	.9	.0290	.0030	.007	.0000	.22
%RSD	8.564	.5002	10420.	5.748	.7065	.4498	.5173
#1	.0088	182.7	-.0395	.0510	1.035	.0050	41.50
#2	.0109	183.9	.0292	.0522	1.046	.0050	41.89
#3	.0099	184.7	.0105	.0490	1.050	.0050	41.97
#4	.0100	184.5	.0009	.0561	1.051	.0050	41.92

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0034	.1385	.1547	.1880	374.1	5.156	32.06
SDev	.0006	.0006	.0007	.0014	1.9	.067	.17
%RSD	16.42	.4464	.4332	.7708	.5199	1.294	.5159
#1	.0027	.1382	.1542	.1860	371.3	5.093	31.83
#2	.0040	.1393	.1547	.1890	374.4	5.132	32.05
#3	.0034	.1384	.1542	.1878	375.7	5.249	32.20
#4	.0035	.1379	.1557	.1891	375.0	5.151	32.15

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.269	-.0020	4.424	.1279	.1377	-.0196	.0966
SDev	.028	.0013	.031	.0034	.0057	.0150	.0324
%RSD	.5376	64.15	.7115	2.688	4.166	76.49	33.60
#1	5.228	-.0038	4.382	.1240	.1414	-.0402	.0613
#2	5.276	-.0016	4.419	.1268	.1292	-.0048	.1398
#3	5.288	-.0009	4.453	.1322	.1394	-.0195	.0946
#4	5.286	-.0016	4.443	.1285	.1407	-.0139	.0906

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.76	.0231	.4149	19.45	.0439	.8821	.6942
SDev	.09	.0075	.0023	.11	.0197	.0048	.0023
%RSD	.4340	32.55	.5496	.5553	44.92	.5393	.3270
#1	19.64	.0119	.4117	19.30	.0233	.8761	.6908
#2	19.77	.0255	.4147	19.46	.0680	.8804	.6955
#3	19.82	.0270	.4165	19.52	.0333	.8857	.6954
#4	19.82	.0279	.4165	19.52	.0508	.8861	.6949

Method: ICP30J Sample Name: T914 AK SWC Operator: NSJ
Run Time: 11/04/97 12:07:00
Comment: 1/2 DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0083	159.6	.0166	.0448	.7994	.0037	31.11
SDev	.0009	.6	.0158	.0016	.0033	.0001	.10
%RSD	11.08	.3566	95.35	3.589	.4125	2.127	.3199
#1	.0071	159.1	.0119	.0468	.7964	.0036	31.00
#2	.0089	159.3	.0365	.0441	.7969	.0037	31.09
#3	.0090	160.4	.0194	.0430	.8031	.0036	31.24
#4	.0081	159.7	-.0014	.0451	.8012	.0038	31.11

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0020	.1108	.1178	.1529	305.0	4.257	22.46
SDev	.0004	.0016	.0009	.0013	1.1	.137	.09
%RSD	19.32	1.460	.7315	.8272	.3529	3.215	.4065
#1	.0023	.1097	.1169	.1512	303.8	4.063	22.37
#2	.0017	.1104	.1173	.1528	304.6	4.259	22.44
#3	.0025	.1099	.1183	.1540	306.4	4.338	22.59
#4	.0017	.1132	.1188	.1537	305.2	4.367	22.45

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.152	.0011	2.932	.1073	.1416	-.0256	.0755
SDev	.010	.0012	.018	.0042	.0069	.0104	.0222
%RSD	.3317	116.3	.5981	3.872	4.884	40.64	29.38
#1	3.141	.0020	2.909	.1066	.1347	-.0284	.0583
#2	3.150	.0020	2.927	.1033	.1374	-.0147	.1077
#3	3.166	-.0005	2.945	.1060	.1442	-.0205	.0719
#4	3.153	.0007	2.947	.1131	.1500	-.0387	.0641

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	15.76	.0148	.2808	16.69	.0280	.7643	.6475
SDev	.05	.0028	.0009	.07	.0275	.0032	.0027
%RSD	.3382	18.83	.3137	.4215	98.22	.4129	.4119
#1	15.71	.0125	.2801	16.63	.0434	.7624	.6460
#2	15.73	.0139	.2801	16.65	.0269	.7618	.6460
#3	15.83	.0189	.2819	16.79	.0518	.7688	.6515
#4	15.78	.0140	.2810	16.70	-.0102	.7642	.6465

Method: ICP30J Sample Name: T914 AL SWC Operator: NSJ
Run Time: 11/04/97 12:12:12
Comment: 1/2 DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0061	161.9	.0127	.0343	.9432	.0035	44.40
SDev	.0007	.6	.0071	.0014	.0046	.0001	.08
%RSD	11.19	.3616	55.58	4.201	.4918	2.177	.1913
#1	.0070	161.5	.0082	.0347	.9411	.0034	44.44
#2	.0061	161.2	.0229	.0347	.9377	.0035	44.29
#3	.0053	162.5	.0077	.0323	.9477	.0035	44.40
#4	.0061	162.2	.0122	.0357	.9464	.0036	44.49

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0017	.0973	.1577	.1610	262.1	5.879	33.61
SDev	.0002	.0008	.0015	.0007	.5	.272	.09
%RSD	13.72	.7942	.9485	.4391	.1960	4.627	.2715
#1	.0015	.0973	.1572	.1610	262.0	6.181	33.59
#2	.0014	.0971	.1586	.1600	261.4	5.730	33.49
#3	.0018	.0966	.1558	.1616	262.3	5.583	33.71
#4	.0020	.0984	.1591	.1615	262.7	6.024	33.65

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.088	.0013	5.812	.1555	.1558	-.0128	.0671
SDev	.006	.0016	.032	.0036	.0099	.0155	.0116
%RSD	.1860	124.2	.5484	2.284	6.341	120.8	17.29
#1	3.088	.0033	5.796	.1563	.1647	-.0073	.0808
#2	3.079	.0007	5.774	.1515	.1498	.0027	.0681
#3	3.091	.0016	5.835	.1543	.1451	-.0339	.0524
#4	3.092	-.0005	5.841	.1600	.1637	-.0127	.0673

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	17.27	.0168	.5514	11.48	.0289	.5649	.6338
SDev	.03	.0078	.0023	.04	.0174	.0014	.0012
%RSD	.1795	46.49	.4170	.3792	60.28	.2552	.1833
#1	17.29	.0261	.5497	11.46	.0180	.5645	.6347
#2	17.22	.0144	.5492	11.43	.0113	.5631	.6323
#3	17.26	.0190	.5538	11.52	.0370	.5661	.6335
#4	17.29	.0076	.5529	11.51	.0493	.5660	.6347

Analysis Report Tue 11-04-97 12:22:30 PM page 1

Method: ICP30J Sample Name: T914 AY SWC Operator: NSJ
Run Time: 11/04/97 12:17:24
Comment: 1/2 DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0084	210.3	.0059	.0510	.9831	.0040	41.52
SDev	.0003	1.8	.0107	.0013	.0088	.0001	.34
%RSD	3.807	.8371	181.4	2.574	.8979	2.493	.8300
#1	.0087	207.8	.0039	.0502	.9709	.0039	41.04
#2	.0081	210.3	-.0067	.0505	.9835	.0041	41.52
#3	.0080	212.0	.0193	.0503	.9917	.0041	41.83
#4	.0086	211.0	.0071	.0530	.9863	.0040	41.69

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0030	.1168	.1886	.2154	297.0	5.916	33.41
SDev	.0006	.0013	.0014	.0015	2.5	.196	.27
%RSD	21.57	1.132	.7239	.6819	.8489	3.311	.8210
#1	.0024	.1149	.1870	.2133	293.5	5.720	33.02
#2	.0036	.1180	.1884	.2162	297.1	6.014	33.46
#3	.0024	.1174	.1903	.2158	299.3	6.142	33.65
#4	.0035	.1168	.1889	.2164	298.2	5.789	33.52

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.975	-.0020	5.127	.1496	.1343	-.0310	.0917
SDev	.033	.0011	.042	.0061	.0069	.0068	.0116
%RSD	.8401	53.05	.8180	4.087	5.107	21.82	12.67
#1	3.928	-.0029	5.077	.1548	.1275	-.0285	.0761
#2	3.977	-.0014	5.112	.1549	.1333	-.0288	.0940
#3	4.005	-.0029	5.173	.1435	.1326	-.0409	.0928
#4	3.991	-.0008	5.147	.1452	.1438	-.0258	.1041

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	18.24	.0173	.4542	16.30	.0455	.7468	.7916
SDev	.14	.0072	.0043	.15	.0164	.0063	.0055
%RSD	.7613	41.49	.9545	.9476	35.95	.8371	.7003
#1	18.05	.0232	.4481	16.08	.0472	.7388	.7838
#2	18.24	.0228	.4543	16.31	.0672	.7455	.7917
#3	18.36	.0082	.4583	16.44	.0286	.7534	.7966
#4	18.32	.0150	.4560	16.36	.0389	.7496	.7942

Analysis Report Tue 11-04-97 12:27:41 PM page 1

Method: ICP30J Sample Name: T914 AX SWC Operator: NSJ
Run Time: 11/04/97 12:22:35
Comment: ~~1/2 DILUTION~~ NSJ 11/4/97
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0126	382.4	-.0022	.0707	1.714	.0067	75.61
SDev	.0009	2.7	.0072	.0011	.013	.0001	.47
%RSD	6.827	.6990	322.7	1.620	.7858	1.445	.6254
#1	.0120	380.0	-.0086	.0703	1.703	.0067	75.16
#2	.0119	380.2	.0066	.0707	1.703	.0066	75.30
#3	.0138	385.2	-.0076	.0723	1.728	.0068	76.18
#4	.0126	384.1	.0006	.0695	1.724	.0066	75.82

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0055	.1857	.3777	.4714	450.4	11.65	64.92
SDev	.0010	.0016	.0021	.0041	3.2	.22	.40
%RSD	17.55	.8712	.5636	.8754	.7040	1.880	.6095
#1	.0063	.1834	.3778	.4693	447.2	11.46	64.58
#2	.0046	.1857	.3749	.4670	448.4	11.57	64.58
#3	.0065	.1872	.3801	.4763	454.2	11.96	65.36
#4	.0048	.1864	.3778	.4730	451.7	11.58	65.15

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.955	-.0029	9.744	.3062	.2541	-.0325	.1250
SDev	.045	.0026	.066	.0038	.0061	.0175	.0301
%RSD	.6432	90.32	.6738	1.242	2.414	53.87	24.06
#1	6.914	.0008	9.679	.3113	.2476	-.0121	.1639
#2	6.922	-.0030	9.698	.3022	.2502	-.0252	.0910
#3	7.008	-.0041	9.814	.3048	.2590	-.0403	.1185
#4	6.975	L-.0051	9.785	.3066	.2598	L-.0522	.1265

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	35.07	.0295	.8803	22.60	.0519	1.120	1.368
SDev	.22	.0073	.0060	.17	.0326	.007	.008
%RSD	.6180	24.83	.6791	.7374	62.83	.6389	.6051
#1	34.87	.0367	.8757	22.46	.0146	1.116	1.358
#2	34.92	.0348	.8750	22.47	.0380	1.111	1.363
#3	35.32	.0244	.8872	22.79	.0654	1.128	1.376
#4	35.19	.0220	.8835	22.69	.0897	1.123	1.373

Method: ICP30J Sample Name: CV 3 Operator: NSJ
Run Time: 11/04/97 12:29:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.006	2.120	2.023	1.031	1.006	.9865	2.119
SDev	.002	.010	.010	.003	.002	.0024	.004
%RSD	.2092	.4917	.4929	.3016	.2468	.2487	.1912
#1	1.009	2.130	2.030	1.031	1.009	.9883	2.124
#2	1.004	2.120	2.012	1.030	1.006	.9855	2.118
#3	1.007	2.126	2.032	1.035	1.007	.9887	2.121
#4	1.005	2.106	2.017	1.028	1.003	.9835	2.115

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9998	1.009	1.012	1.010	2.077	21.02	2.075
SDev	.0030	.003	.001	.004	.010	.14	.010
%RSD	.3037	.3215	.1146	.3519	.4918	.6826	.4963
#1	1.002	1.013	1.012	1.014	2.089	20.95	2.064
#2	.9995	1.008	1.011	1.007	2.080	21.18	2.088
#3	1.002	1.009	1.013	1.011	2.073	21.09	2.078
#4	.9956	1.005	1.011	1.007	2.065	20.86	2.069

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.001	1.026	1.995	1.032	2.017	2.081	2.108
SDev	.002	.003	.008	.007	.007	.021	.030
%RSD	.2167	.3203	.3960	.6665	.3340	1.018	1.413
#1	1.003	1.021	1.993	1.031	2.023	2.077	2.076
#2	.9998	1.026	2.006	1.037	2.023	2.105	2.089
#3	1.003	1.029	1.994	1.037	2.010	2.086	2.135
#4	.9988	1.028	1.987	1.022	2.013	2.054	2.131

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.079	.9641	1.010	.9813	2.032	.9811	1.010
SDev	.006	.0041	.003	.0025	.012	.0024	.001
%RSD	.2915	.4208	.2622	.2573	.5717	.2395	.1085
#1	2.084	.9688	1.012	.9834	2.028	.9828	1.011
#2	2.080	.9642	1.009	.9801	2.047	.9793	1.008
#3	2.082	.9589	1.012	.9834	2.033	.9835	1.010
#4	2.070	.9646	1.006	.9783	2.020	.9789	1.010

Analysis Report Blank Sample Tue 11-04-97 12:45:29 PM page 1

Method: ICP30J Sample Name: Blank 3 Operator: NSJ
Run Time: 11/04/97 12:40:23
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0032	-.0076	.0007	-.0001	.0002	.0024
SDev	.0014	.0046	.0052	.0012	.0000	.0001	.0032
%RSD	176.2	145.4	68.33	168.0	.0189	39.74	138.2
#1	.0028	.0090	-.0094	.0023	-.0001	.0002	.0037
#2	.0004	-.0021	-.0141	.0003	-.0001	.0001	.0015
#3	-.0004	.0042	-.0039	-.0005	-.0001	.0002	-.0017
#4	.0004	.0018	-.0030	.0006	-.0001	.0001	.0059

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0006	-.0002	.0020	.0039	.0221	-.0049
SDev	.0005	.0011	.0012	.0010	.0018	.2785	.0104
%RSD	195.9	192.1	522.3	48.63	47.35	1263.	210.1
#1	-.0001	-.0006	.0006	H.0034	.0053	.2206	-.0016
#2	.0008	-.0011	-.0013	.0014	.0036	-.0147	-.0077
#3	-.0002	-.0016	-.0013	.0016	.0014	-.3578	-.0176
#4	.0005	.0010	.0011	.0015	.0053	.2402	.0071

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	-.0007	.0033	-.0008	-.0030	-.0124	.0101
SDev	.0000	.0009	.0060	.0027	.0048	.0189	.0099
%RSD	.2844	132.1	181.2	351.9	159.3	152.3	97.58
#1	-.0003	-.0020	.0117	.0021	.0017	.0055	.0071
#2	-.0003	-.0001	-.0015	.0008	-.0061	-.0387	-.0024
#3	-.0003	-.0006	.0034	-.0021	-.0082	-.0048	.0159
#4	-.0003	-.0001	-.0004	-.0038	.0004	-.0115	.0198

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	-.0012	-.0003	.0002	-.0063	-.0011	-.0006
SDev	.0088	.0025	.0002	.0006	.0052	.0007	.0000
%RSD	846.2	209.9	66.65	247.2	82.39	57.46	1.716
#1	.0140	-.0046	-.0000	.0010	-.0050	-.0002	-.0006
#2	-.0013	-.0013	-.0005	.0003	.0005	-.0015	-.0006
#3	-.0033	.0012	-.0005	-.0001	-.0109	-.0015	-.0006
#4	-.0052	-.0000	-.0005	-.0003	-.0098	-.0015	-.0006

Method: ICP30J Sample Name: U269 MB2 SWC Operator: NSJ
Run Time: 11/04/97 12:49:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0423	-.0050	.0603	.0002	.0001	.0290
SDev	.0007	.0024	.0116	.0023	.0002	.0001	.0013
%RSD	88.53	5.713	233.8	3.887	100.0	61.86	4.630
#1	.0014	.0449	-.0035	.0625	.0003	.0001	.0297
#2	-.0001	.0413	-.0207	.0572	.0003	.0001	.0279
#3	.0011	.0395	.0074	.0600	-.0001	.0001	.0279
#4	.0006	.0437	-.0030	.0616	.0003	.0002	.0305

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0003	.0008	.0014	.0009	.3799	.0049
SDev	.0006	.0007	.0016	.0011	.0010	.1466	.0118
%RSD	251.3	205.5	189.5	74.76	108.8	38.59	238.2
#1	.0007	-.0001	-.0004	-.0001	.0014	.4068	.0108
#2	-.0003	-.0006	-.0004	.0016	.0001	.1716	-.0102
#3	-.0002	-.0011	.0011	.0022	.0001	.4264	.0022
#4	.0007	.0005	.0030	.0020	.0020	.5147	.0170

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0003	.0756	.0014	-.0022	-.0047	-.0032
SDev	.0001	.0008	.0042	.0021	.0071	.0065	.0049
%RSD	33.28	286.9	5.489	154.3	324.5	138.9	153.9
#1	.0004	-.0003	.0723	.0018	.0016	-.0086	-.0016
#2	.0002	.0005	.0720	-.0018	-.0026	.0048	-.0016
#3	.0004	-.0003	.0775	.0026	-.0120	-.0090	-.0103
#4	.0004	.0013	.0805	.0029	.0042	-.0058	.0008

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2543	.0099	-.0005	.0001	-.0064	.0000	.0044
SDev	.0021	.0040	.0000	.0004	.0096	.0005	.0000
%RSD	.8335	40.26	.0054	269.2	148.9	19490.	.1784
#1	.2524	.0105	-.0005	.0005	-.0055	.0004	.0044
#2	.2552	.0082	-.0005	-.0003	-.0187	-.0008	.0044
#3	.2569	.0058	-.0005	.0005	.0047	.0003	.0044
#4	.2527	.0151	-.0005	-.0001	-.0061	.0001	.0044

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Method: ICP30J Sample Name: T971 MB1 SWC Operator: NSJ
Run Time: 11/04/97 12:54:34
Comment:
Mode: CONC Corr. Factor: 1

Rerun 11-5

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0294	-.0091	.0683	.0003	.0001	.0245
SDev	.0010	.0038	.0048	.0013	.0000	.0000	.0031
%RSD	119.1	12.95	52.40	1.903	.0060	2.913	12.43
#1	.0014	.0329	-.0083	.0678	.0003	.0001	.0288
#2	-.0001	.0242	-.0029	.0692	.0003	.0001	.0234
#3	.0001	.0314	-.0142	.0667	.0003	.0001	.0243
#4	.0019	.0290	-.0111	.0695	.0003	.0001	.0216

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	-.0007	.0007	.0020	.0006	.2647	-.0031
SDev	.0003	.0008	.0012	.0007	.0008	.2035	.0059
%RSD	96.90	108.6	167.2	36.26	143.3	76.89	191.2
#1	.0001	.0005	.0020	.0023	.0017	.4852	.0021
#2	-.0004	-.0011	.0006	.0020	.0004	.0637	-.0028
#3	-.0008	-.0011	.0011	.0026	.0004	.3872	-.0003
#4	-.0003	-.0011	-.0008	.0010	-.0002	.1225	-.0114

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0008	.1161	.0031	-.0004	-.0066	.0012
SDev	.0000	.0010	.0040	.0029	.0024	.0134	.0127
%RSD	.3196	134.5	3.404	94.93	624.9	203.4	1066.
#1	.0002	-.0012	.1186	.0016	-.0034	.0022	.0016
#2	.0002	-.0012	.1164	.0008	-.0001	-.0163	-.0079
#3	.0002	.0008	.1104	.0026	-.0005	-.0195	.0190
#4	.0002	-.0014	.1189	.0074	.0025	.0074	-.0079

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2796	.0125	-.0005	.0004	-.0120	-.0004	.0069
SDev	.0048	.0034	.0000	.0002	.0126	.0007	.0000
%RSD	1.712	26.96	.0123	55.60	105.4	184.1	.1211
#1	.2827	.0151	-.0005	.0006	-.0145	-.0000	.0069
#2	.2786	.0116	-.0005	.0005	-.0283	-.0011	.0069
#3	.2733	.0081	-.0005	.0001	-.0061	.0004	.0069
#4	.2838	.0152	-.0005	.0005	.0011	-.0008	.0069

Method: ICP30J Sample Name: T971 B SWC Operator: NSJ
Run Time: 11/04/97 12:59:45
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0107	420.3	.0022	.1431	1.805	.0068	90.61
SDev	.0010	2.4	.0246	.0014	.010	.0000	.55
%RSD	9.478	.5786	1110.	1.003	.5335	.5543	.6076
#1	.0100	417.8	-.0126	.1440	1.798	.0068	90.01
#2	.0117	423.6	.0295	.1417	1.819	.0068	91.30
#3	.0096	419.5	.0157	.1446	1.800	.0068	90.38
#4	.0114	420.3	-.0237	.1419	1.802	.0068	90.75

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0036	.1824	.3731	.4496	427.1	13.96	73.69
SDev	.0010	.0016	.0030	.0032	2.6	.19	.46
%RSD	27.56	.8935	.8106	.7188	.6029	1.345	.6205
#1	.0024	.1803	.3702	.4471	424.2	13.71	73.23
#2	.0032	.1839	.3754	.4540	430.3	13.97	74.30
#3	.0040	.1821	.3707	.4472	426.0	14.01	73.49
#4	.0047	.1835	.3759	.4501	427.7	14.16	73.74

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.734	-.0040	13.04	.2994	.0878	-.0265	.1177
SDev	.036	.0018	.07	.0118	.0071	.0203	.0229
%RSD	.5367	44.98	.5000	3.957	8.101	76.74	19.45
#1	6.697	-.0050	13.00	.2841	.0843	-.0366	.1007
#2	6.782	-.0022	13.14	.3127	.0828	.0029	.1364
#3	6.717	L-.0059	13.00	.2984	.0858	-.0428	.1385
#4	6.738	-.0027	13.01	.3022	.0983	-.0296	.0954

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	35.41	.0250	1.122	20.68	.0833	1.059	.9955
SDev	.17	.0055	.006	.12	.0227	.007	.0063
%RSD	.4738	22.13	.4950	.5787	27.21	.6396	.6323
#1	35.23	.0186	1.118	20.55	.0662	1.052	.9876
#2	35.62	.0319	1.130	20.83	.1164	1.067	1.002
#3	35.33	.0260	1.120	20.64	.0786	1.055	.9937
#4	35.46	.0236	1.120	20.68	.0720	1.060	.9986

Method: ICP30J Sample Name: T971 C SWC Operator: NSJ
Run Time: 11/04/97 13:04:56
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0115	377.0	.0098	.1594	1.651	.0062	80.96
SDev	.0009	2.7	.0288	.0024	.014	.0001	.47
%RSD	8.230	.7140	292.9	1.485	.8578	1.118	.5832
#1	.0103	374.0	-.0309	.1561	1.636	.0061	80.31
#2	.0118	379.1	.0281	.1605	1.662	.0063	81.27
#3	.0114	379.4	.0100	.1615	1.663	.0062	81.35
#4	.0126	375.6	.0322	.1593	1.641	.0062	80.90

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0041	.1731	.3503	.4021	416.9	13.00	65.77
SDev	.0004	.0011	.0029	.0032	2.6	.15	.44
%RSD	9.689	.6620	.8398	.7997	.6321	1.120	.6763
#1	.0035	.1716	.3461	.3983	413.5	12.97	65.23
#2	.0042	.1741	.3518	.4044	418.6	13.06	66.09
#3	.0042	.1738	.3527	.4052	419.3	12.82	66.17
#4	.0045	.1728	.3508	.4008	416.4	13.16	65.58

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.540	-.0046	11.20	.2819	.1302	-.0028	.1296
SDev	.045	.0010	.07	.0032	.0105	.0165	.0414
%RSD	.6811	21.24	.6250	1.143	8.087	581.4	31.96
#1	6.480	-.0041	11.14	.2776	.1366	.0077	.0820
#2	6.569	-.0036	11.28	.2839	.1146	-.0136	.1103
#3	6.578	L-.0057	11.24	.2813	.1332	-.0199	.1747
#4	6.533	L-.0052	11.14	.2848	.1364	.0145	.1515

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	33.77	.0251	.9570	20.88	.0441	1.001	1.234
SDev	.23	.0029	.0078	.16	.0102	.008	.007
%RSD	.6792	11.42	.8120	.7794	23.07	.8356	.5516
#1	33.45	.0266	.9484	20.69	.0430	.9903	1.225
#2	33.91	.0254	.9640	21.02	.0574	1.008	1.235
#3	33.96	.0210	.9631	21.01	.0326	1.006	1.241
#4	33.76	.0274	.9525	20.81	.0433	.9974	1.233

LDEZ) RERUN 1/2

Analysis Report Tue 11-04-97 01:15:13 PM page 1

Method: ICP30J Sample Name: T971 D SWC Operator: NSJ
Run Time: 11/04/97 13:10:06
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0120	389.9	.0298	.1593	1.967	.0067	95.05
SDev	.0006	1.5	.0083	.0026	.010	.0001	.38
%RSD	4.578	.3916	27.75	1.623	.5085	1.190	.4051
#1	.0123	388.1	.0246	.1558	1.956	.0066	94.60
#2	.0118	389.4	.0255	.1615	1.960	.0068	94.90
#3	.0113	391.3	.0270	.1589	1.977	.0067	95.50
#4	.0126	391.0	.0421	.1611	1.973	.0068	95.18

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0049	.1857	.3790	.3541	H532.5	13.15	77.55
SDev	.0007	.0015	.0014	.0021	2.4	.22	.30
%RSD	14.55	.7995	.3752	.6035	.4429	1.653	.3870
#1	.0050	.1872	.3778	.3516	H530.0	13.43	77.17
#2	.0046	.1837	.3778	.3530	H531.3	13.02	77.45
#3	.0042	.1860	.3806	.3562	H535.1	12.94	77.78
#4	.0058	.1859	.3797	.3555	H533.9	13.20	77.80

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.218	-.0020	14.16	.3174	.2486	.0078	.1663
SDev	.018	.0022	.05	.0120	.0040	.0126	.0272
%RSD	.4322	113.7	.3244	3.778	1.612	160.4	16.34
#1	4.195	-.0047	14.10	.3043	.2505	-.0067	.1696
#2	4.212	-.0013	14.15	.3113	.2529	.0216	.1275
#3	4.236	-.0026	14.21	.3229	.2474	.0144	.1776
#4	4.229	.0006	14.16	.3312	.2437	.0022	.1902

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	34.43	.0350	1.176	22.85	.1157	1.145	1.132
SDev	.13	.0026	.005	.11	.0141	.005	.006
%RSD	.3739	7.436	.4419	.4933	12.20	.4073	.4950
#1	34.26	.0381	1.170	22.73	.0990	1.140	1.127
#2	34.41	.0361	1.173	22.79	.1255	1.143	1.128
#3	34.52	.0324	1.181	22.98	.1093	1.151	1.137
#4	34.54	.0333	1.179	22.91	.1292	1.147	1.138

DEZ (NOT SPIKED)

Analysis Report Tue 11-04-97 01:20:23 PM page 1

Method: ICP30J Sample Name: U269 MB1SPK LEN Operator: NSJ
Run Time: 11/04/97 13:15:17
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	.0505	-.0224	.0234	.1115	-.0001	.0405
SDev	.0009	.0067	.0096	.0009	.0025	.0001	.0027
%RSD	92.46	13.37	42.87	3.705	2.272	92.42	6.774
#1	.0014	.0572	-.0299	.0227	.1153	-.0002	.0440
#2	.0014	.0494	-.0294	.0230	.1103	-.0000	.0404
#3	.0014	.0539	-.0094	.0247	.1103	-.0001	.0404
#4	-.0004	.0416	-.0208	.0233	.1101	-.0000	.0373

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	-.0004	.0005	.0011	.0608	.5735	.0182
SDev	.0006	.0009	.0005	.0013	.0076	.2167	.0061
%RSD	160.6	210.1	96.11	115.4	12.49	37.79	33.64
#1	-.0009	.0003	.0011	.0012	.0609	.5441	.0108
#2	.0002	-.0002	.0001	.0015	.0622	.8872	.0256
#3	.0001	-.0017	.0001	.0023	.0693	.4558	.0194
#4	-.0009	-.0002	.0006	-.0007	.0509	.4068	.0169

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0002	1596.	.0038	.0023	-.0025	.0051
SDev	.0002	.0010	33.	.0056	.0046	.0041	.0159
%RSD	31.02	497.7	2.051	148.4	202.2	164.8	313.4
#1	.0009	.0010	1644.	-.0006	-.0009	.0029	.0081
#2	.0009	-.0001	1584.	-.0009	.0080	-.0015	.0263
#3	.0009	-.0012	1578.	.0108	-.0019	-.0060	-.0046
#4	.0004	.0010	1576.	.0058	.0038	-.0054	-.0094

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0675	.0076	.0069	.0026	.0002	.0005	.0515
SDev	.0093	.0029	.0000	.0004	.0143	.0012	.0006
%RSD	13.80	38.73	.0007	15.54	7378.	245.3	1.191
#1	.0807	.0082	.0069	.0025	.0021	.0021	.0523
#2	.0662	.0105	.0069	.0025	.0093	.0007	.0510
#3	.0640	.0082	.0069	.0032	-.0206	-.0004	.0510
#4	.0590	.0035	.0069	.0023	.0099	-.0004	.0516

Method: ICP30J Sample Name: U269 MB2SPK SWC Operator: NSJ
Run Time: 11/04/97 13:20:28
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0979	4.078	3.948	.0394	3.934	.0960	.0203
SDev	.0009	.061	.061	.0005	.064	.0014	.0040
%RSD	.9019	1.489	1.534	1.381	1.625	1.477	19.78
#1	.0989	4.141	4.016	.0399	3.999	.0974	.0224
#2	.0984	4.118	3.982	.0399	3.979	.0970	.0184
#3	.0971	4.022	3.893	.0391	3.878	.0948	.0246
#4	.0973	4.030	3.900	.0388	3.881	.0947	.0157

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0953	.9830	.3914	.4805	1.982	.1961	.0047
SDev	.0006	.0108	.0051	.0059	.030	.0761	.0112
%RSD	.6620	1.095	1.313	1.231	1.509	38.84	239.4
#1	.0957	.9943	.3963	.4863	2.013	.1716	.0100
#2	.0959	.9901	.3949	.4850	2.002	.2304	.0026
#3	.0948	.9731	.3888	.4750	1.958	.2794	.0160
#4	.0947	.9746	.3854	.4759	1.954	.1029	-.0099

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9765	.0005	.2575	1.011	.9703	-.0065	4.058
SDev	.0133	.0012	.0494	.019	.0138	.0095	.063
%RSD	1.358	257.8	19.19	1.881	1.419	146.0	1.546
#1	.9888	.0005	.3265	1.035	.9832	-.0028	4.117
#2	.9871	.0010	.2590	1.017	.9810	-.0195	4.104
#3	.9645	.0016	.2286	.9941	.9571	.0029	3.990
#4	.9655	-.0012	.2160	.9974	.9597	-.0067	4.019

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1961	.0116	-.0002	.0007	3.969	.9594	.9702
SDev	.0039	.0018	.0003	.0003	.039	.0127	.0078
%RSD	2.008	15.09	115.3	46.71	.9795	1.329	.8003
#1	.2002	.0107	-.0005	.0011	3.981	.9728	.9772
#2	.1985	.0107	-.0005	.0005	4.005	.9677	.9766
#3	.1940	.0142	-.0000	.0007	3.975	.9484	.9628
#4	.1917	.0107	-.0000	.0003	3.914	.9486	.9641

Method: ICP30J Sample Name: CRI Operator: NSJ
Run Time: 11/04/97 13:27:31
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0205	.0042	.0161	-.0009	.0007	.0097	.0014
SDev	.0001	.0055	.0090	.0024	.0001	.0001	.0012
%RSD	.6907	130.9	55.98	284.9	19.25	.6269	80.13
#1	.0207	.0116	.0230	-.0020	.0008	.0097	.0010
#2	.0204	.0050	.0042	.0024	.0008	.0098	.0019
#3	.0207	.0012	.0139	-.0032	.0005	.0098	.0028
#4	.0204	-.0009	.0231	-.0006	.0005	.0098	.0001

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0104	.0988	.0190	.0503	.0031	-.0980	-.0138
SDev	.0008	.0006	.0010	.0006	.0004	.1099	.0065
%RSD	7.346	.5670	5.375	1.117	13.63	112.1	46.98
#1	.0111	.0983	.0190	.0496	.0032	-.0735	-.0135
#2	.0094	.0996	.0200	.0507	.0036	-.0343	-.0048
#3	.0100	.0988	.0195	.0501	.0029	-.0245	-.0196
#4	.0109	.0986	.0176	.0508	.0026	-.2598	-.0172

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0298	-.0003	.0301	.0857	.0019	.1274	.0101
SDev	.0003	.0006	.0126	.0022	.0018	.0066	.0130
%RSD	1.162	191.2	41.75	2.574	92.18	5.183	128.9
#1	.0298	.0002	.0374	.0847	.0030	.1200	-.0070
#2	.0301	-.0003	.0440	.0876	.0009	.1321	.0073
#3	.0294	-.0011	.0199	.0875	.0038	.1238	.0224
#4	.0301	-.0000	.0191	.0831	.0000	.1338	.0176

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0483	-.0015	-.0001	-.0002	.0210	.0988	.0412
SDev	.0042	.0015	.0002	.0003	.0095	.0003	.0009
%RSD	8.718	101.7	199.9	186.2	45.51	.3371	2.154
#1	.0507	.0003	-.0000	-.0005	.0256	.0983	.0418
#2	.0510	-.0032	-.0000	.0003	.0100	.0988	.0418
#3	.0496	-.0009	-.0000	-.0001	.0316	.0988	.0412
#4	.0421	-.0020	-.0005	-.0005	.0166	.0991	.0399

Analysis Report QC Standard Tue 11-04-97 01:37:49 PM page 1

Method: ICP30J Sample Name: ICSA Operator: NSJ
Run Time: 11/04/97 13:32:42
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0015	520.2	-.0398	.0245	.0040	.0001	480.6
SDev	.0014	3.7	.0235	.0022	.0002	.0000	2.8
%RSD	97.32	.7090	59.14	8.984	5.245	31.20	.5732
#1	.0028	515.8	-.0691	.0237	.0040	.0001	477.5
#2	.0023	524.8	-.0133	.0267	.0042	.0001	484.0
#3	.0013	520.6	-.0314	.0258	.0038	.0001	481.2
#4	-.0005	519.8	-.0455	.0218	.0038	.0001	479.8

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0017	.0005	-.0008	.0031	189.2	-.1617	516.0
SDev	.0017	.0007	.0014	.0006	1.2	.0836	3.3
%RSD	97.83	138.8	167.6	20.29	.6342	51.66	.6435
#1	.0029	.0013	-.0008	.0035	187.7	-.1716	512.0
#2	.0026	.0004	.0006	.0035	190.7	-.2402	520.0
#3	.0020	.0005	-.0004	.0032	189.4	-.0441	516.9
#4	-.0007	-.0003	-.0027	.0022	189.0	-.1912	515.3

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	-.0031	.0204	-.0055	-.0485	-.0294	.0683
SDev	.0003	.0050	.0073	.0072	.0103	.0318	.0369
%RSD	151.5	162.3	35.88	131.1	21.31	107.9	54.02
#1	.0001	-.0055	.0270	-.0098	-.0400	-.0462	.0415
#2	-.0006	.0036	.0248	-.0092	-.0612	.0073	.1058
#3	-.0003	-.0023	.0193	-.0081	-.0401	-.0149	.0938
#4	.0000	-.0082	.0106	.0052	-.0525	-.0639	.0322

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0678	-.0017	.0286	.0008	.0968	.0058	.0045
SDev	.0043	.0059	.0003	.0005	.0131	.0009	.0004
%RSD	6.372	348.8	1.066	66.51	13.49	15.47	9.837
#1	.0679	.0068	.0285	.0010	.0864	.0060	.0049
#2	.0729	-.0023	.0290	.0014	.1127	.0053	.0041
#3	.0682	-.0064	.0284	.0008	.0858	.0070	.0048
#4	.0623	-.0049	.0284	.0001	.1022	.0050	.0042

Method: ICP30J Sample Name: ICSAB Operator: NSJ
Run Time: 11/04/97 13:37:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9554	520.2	-.0217	.0222	.4854	.4540	479.7
SDev	.0021	2.3	.0255	.0029	.0027	.0023	1.4
%RSD	.2158	.4416	117.4	13.18	.5529	.4974	.2990
#1	.9538	518.6	-.0279	.0233	.4840	.4517	478.2
#2	.9541	519.0	-.0482	.0239	.4831	.4532	479.4
#3	.9583	523.6	.0131	.0178	.4892	.4571	481.6
#4	.9556	519.8	-.0240	.0238	.4853	.4540	479.7

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9294	.4443	.4482	.4724	189.7	.0196	516.7
SDev	.0032	.0011	.0008	.0025	.7	.1113	1.8
%RSD	.3422	.2560	.1713	.5263	.3695	567.9	.3495
#1	.9284	.4459	.4482	.4693	189.0	.0049	515.1
#2	.9258	.4433	.4472	.4718	189.4	.1029	515.8
#3	.9334	.4443	.4482	.4751	190.7	-.1323	519.2
#4	.9302	.4438	.4491	.4735	189.5	.1029	516.9

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4488	-.0015	.0009	.8957	.8630	-.0138	.0287
SDev	.0018	.0036	.0070	.0076	.0065	.0318	.0592
%RSD	.3920	238.3	781.4	.8455	.7471	229.9	206.2
#1	.4467	.0026	.0048	.8894	.8712	.0151	-.0237
#2	.4481	-.0004	.0018	.8903	.8650	.0096	-.0211
#3	.4508	-.0022	-.0092	.9057	.8583	-.0281	.0843
#4	.4495	-.0059	.0062	.8975	.8574	-.0519	.0753

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0705	.0044	.0284	.0004	.1051	.4600	.9136
SDev	.0041	.0047	.0000	.0004	.0230	.0019	.0036
%RSD	5.800	106.6	.0939	112.1	21.85	.4245	.3906
#1	.0687	.0115	.0284	.0002	.0737	.4577	.9108
#2	.0721	.0018	.0284	.0006	.1022	.4602	.9120
#3	.0660	.0017	.0284	-.0001	.1214	.4624	.9188
#4	.0754	.0028	.0284	.0008	.1231	.4596	.9126

Analysis Report QC Standard Tue 11-04-97 01:51:58 PM page 1

Method: ICP30J Sample Name: CV 4 Operator: NSJ
Run Time: 11/04/97 13:46:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9962	2.112	2.023	1.018	1.002	.9761	2.113
SDev	.0066	.017	.022	.009	.008	.0094	.021
%RSD	.6669	.8030	1.095	.9059	.7558	.9608	.9938
#1	.9900	2.098	2.033	1.006	.9928	.9644	2.092
#2	1.005	2.132	2.018	1.028	1.010	.9862	2.140
#3	.9982	2.119	2.045	1.020	1.005	.9804	2.117
#4	.9920	2.097	1.994	1.017	.9984	.9735	2.102

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9917	.9964	.9987	.9948	2.035	20.75	2.081
SDev	.0063	.0089	.0084	.0079	.016	.15	.014
%RSD	.6306	.8894	.8435	.7981	.7857	.7023	.6683
#1	.9871	.9873	.9877	.9841	2.019	20.65	2.064
#2	1.000	1.007	1.007	1.002	2.054	20.74	2.097
#3	.9926	.9995	1.003	.9998	2.042	20.95	2.084
#4	.9868	.9915	.9972	.9935	2.026	20.64	2.079

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9854	1.018	1.979	1.018	1.992	2.079	2.120
SDev	.0080	.010	.007	.011	.015	.022	.032
%RSD	.8099	1.026	.3647	1.095	.7398	1.077	1.515
#1	.9762	1.004	1.973	1.010	1.977	2.051	2.098
#2	.9946	1.024	1.988	1.017	2.004	2.072	2.110
#3	.9887	1.027	1.981	1.033	2.005	2.101	2.168
#4	.9821	1.017	1.973	1.010	1.982	2.093	2.105

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.047	.9526	1.002	.9725	2.015	.9699	.9993
SDev	.014	.0090	.008	.0077	.022	.0084	.0080
%RSD	.6710	.9440	.8181	.7880	1.068	.8642	.8018
#1	2.038	.9396	.9927	.9639	1.985	.9604	.9912
#2	2.063	.9536	1.011	.9814	2.022	.9795	1.009
#3	2.053	.9583	1.006	.9758	2.036	.9735	1.002
#4	2.033	.9589	.9989	.9689	2.016	.9660	.9950

Analysis Report Blank Sample Tue 11-04-97 02:01:24 PM page 1

Method: ICP30J Sample Name: Blank 4 Operator: NSJ
Run Time: 11/04/97 13:56:18
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0077	-.0081	-.0017	.0002	.0002	.0018
SDev	.0007	.0070	.0040	.0015	.0004	.0002	.0041
%RSD	306.3	90.35	48.97	85.18	191.5	76.02	229.3
#1	.0011	-.0025	-.0094	-.0036	.0003	.0002	.0055
#2	.0006	.0134	-.0114	.0001	.0008	.0004	.0046
#3	-.0004	.0104	-.0093	-.0016	-.0001	.0002	.0006
#4	-.0004	.0096	-.0023	-.0019	-.0001	-.0000	-.0035

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	-.0015	-.0014	.0011	.0015	-.1667	-.0123
SDev	.0002	.0005	.0009	.0003	.0017	.1689	.0104
%RSD	45.65	33.29	63.20	32.28	115.1	101.4	84.23
#1	-.0008	-.0011	-.0013	.0012	.0030	-.0539	-.0077
#2	-.0003	-.0011	-.0008	.0015	.0027	.0049	-.0003
#3	-.0004	-.0016	-.0008	.0010	.0007	-.3480	-.0176
#4	-.0004	-.0021	-.0027	.0007	-.0006	-.2696	L-.0237

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	-.0003	-.0008	-.0012	-.0047	-.0120	-.0071
SDev	.0004	.0009	.0034	.0027	.0040	.0070	.0067
%RSD	136700.	269.1	416.8	230.3	86.38	58.57	93.43
#1	-.0003	.0008	-.0056	-.0009	.0004	-.0182	-.0063
#2	.0002	-.0001	.0018	-.0051	-.0095	-.0176	-.0095
#3	-.0003	-.0006	-.0010	.0008	-.0043	-.0042	.0016
#4	.0004	-.0014	.0015	.0004	-.0052	-.0080	-.0143

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0063	-.0018	-.0001	-.0001	-.0187	-.0012	-.0006
SDev	.0022	.0024	.0002	.0004	.0062	.0008	.0000
%RSD	34.51	136.6	199.9	297.7	33.32	65.41	1.318
#1	-.0038	-.0047	-.0000	.0005	-.0205	-.0023	-.0006
#2	-.0086	.0011	-.0000	-.0003	-.0241	-.0008	-.0006
#3	-.0052	-.0012	-.0000	-.0003	-.0205	-.0015	-.0006
#4	-.0077	-.0023	-.0005	-.0005	-.0097	-.0004	-.0006

Method: ICP30J Sample Name: T971 A-L SWC Operator: NSJ
Run Time: 11/04/97 14:02:22
Comment: 1/5 CLP SERIAL DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	88.26	-.0025	.0391	.3511	.0016	16.95
SDev	.0009	.75	.0129	.0013	.0033	.0001	.12
%RSD	55.96	.8492	516.2	3.347	.9458	6.504	.7073
#1	.0024	88.61	.0058	.0410	.3527	.0017	17.00
#2	.0015	88.92	-.0199	.0386	.3540	.0016	17.06
#3	.0004	88.32	-.0046	.0383	.3514	.0017	16.95
#4	.0022	87.20	.0086	.0383	.3464	.0015	16.78

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0378	.0752	.0900	83.47	2.691	15.45
SDev	.0008	.0005	.0010	.0010	.65	.059	.12
%RSD	407.2	1.283	1.394	1.129	.7781	2.206	.7879
#1	.0008	.0382	.0763	.0907	83.71	2.779	15.48
#2	-.0005	.0382	.0739	.0908	84.04	2.652	15.57
#3	-.0005	.0372	.0758	.0899	83.58	2.662	15.46
#4	.0011	.0377	.0749	.0886	82.54	2.671	15.28

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.427	-.0013	2.133	.0642	.0209	-.0153	.0142
SDev	.010	.0016	.013	.0064	.0023	.0161	.0175
%RSD	.7183	121.6	.6222	9.981	11.01	105.4	123.4
#1	1.429	-.0027	2.140	.0696	.0209	-.0056	.0231
#2	1.437	.0001	2.137	.0610	.0221	-.0193	.0315
#3	1.428	.0000	2.141	.0695	.0229	-.0361	-.0087
#4	1.412	-.0025	2.113	.0567	.0177	-.0001	.0107

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.767	.0070	.1923	4.093	.0212	.2146	.1839
SDev	.051	.0040	.0016	.037	.0221	.0009	.0015
%RSD	.6547	56.63	.8198	.9110	104.3	.4359	.8362
#1	7.790	.0080	.1928	4.108	.0041	.2155	.1836
#2	7.813	.0115	.1937	4.125	.0317	.2153	.1861
#3	7.770	.0067	.1926	4.099	.0474	.2141	.1836
#4	7.696	.0019	.1900	4.040	.0017	.2136	.1825

Method: ICP30J Sample Name: T971 A SWC Operator: NSJ
Run Time: 11/04/97 14:07:33
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0104	432.2	.0013	.1760	1.711	.0070	81.06
SDev	.0013	2.8	.0146	.0015	.013	.0001	.43
%RSD	12.60	.6425	1095.	.8777	.7423	1.243	.5303
#1	.0099	435.2	.0163	.1739	1.726	.0069	81.48
#2	.0101	433.0	.0111	.1763	1.712	.0070	81.25
#3	.0122	432.1	-.0134	.1764	1.710	.0070	81.04
#4	.0092	428.5	-.0087	.1776	1.695	.0071	80.48

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0034	.1815	.3602	.4351	420.6	13.33	74.78
SDev	.0006	.0024	.0025	.0021	2.2	.16	.45
%RSD	18.03	1.302	.6911	.4712	.5182	1.201	.6008
#1	.0029	.1827	.3617	.4366	422.9	13.54	75.26
#2	.0030	.1836	.3617	.4358	421.3	13.35	74.92
#3	.0035	.1814	.3608	.4361	420.6	13.28	74.77
#4	.0042	.1782	.3565	.4321	417.7	13.16	74.18

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.834	-.0010	10.54	.2988	.0851	-.0087	.1318
SDev	.035	.0012	.07	.0059	.0115	.0257	.0303
%RSD	.5052	123.6	.6525	1.966	13.53	294.4	22.99
#1	6.872	-.0007	10.61	.3058	.0764	-.0032	.1354
#2	6.843	.0005	10.55	.2921	.0947	.0217	.1724
#3	6.832	-.0014	10.54	.3008	.0740	-.0129	.1020
#4	6.789	-.0023	10.44	.2963	.0954	-.0406	.1176

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	37.41	.0272	.9450	20.39	.0924	1.028	.8608
SDev	.16	.0121	.0064	.15	.0434	.006	.0030
%RSD	.4297	44.67	.6774	.7368	46.98	.6086	.3483
#1	37.56	.0355	.9523	20.55	.1066	1.035	.8642
#2	37.47	.0276	.9468	20.44	.1469	1.029	.8619
#3	37.43	.0356	.9442	20.37	.0508	1.029	.8600
#4	37.18	.0098	.9369	20.19	.0652	1.020	.8571

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Method: ICP30J Sample Name: T971 ADUP SWC Operator: NSJ
Run Time: 11/04/97 14:12:44
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0108	413.8	.0200	.1206	1.644	.0066	79.00
SDev	.0010	2.6	.0294	.0036	.010	.0001	.41
%RSD	8.997	.6234	147.1	2.947	.6189	.8273	.5203
#1	.0113	409.9	.0112	.1229	1.629	.0066	78.41
#2	.0100	414.8	-.0153	.1170	1.650	.0067	79.08
#3	.0119	415.4	.0298	.1243	1.649	.0066	79.36
#4	.0099	415.0	.0543	.1182	1.649	.0066	79.15

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0031	.1792	.3451	.4266	406.2	12.85	72.97
SDev	.0002	.0016	.0017	.0023	2.2	.18	.40
%RSD	7.471	.8678	.4880	.5347	.5380	1.375	.5462
#1	.0033	.1775	.3437	.4233	403.0	12.76	72.38
#2	.0031	.1782	.3470	.4275	406.7	12.66	73.09
#3	.0033	.1805	.3437	.4285	407.6	12.92	73.18
#4	.0028	.1806	.3461	.4272	407.6	13.06	73.23

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.707	-.0021	9.827	.2829	.0942	-.0152	.1282
SDev	.039	.0023	.064	.0046	.0065	.0339	.0195
%RSD	.5876	109.5	.6544	1.618	6.913	222.9	15.21
#1	6.649	-.0003	9.730	.2867	.0991	-.0236	.1338
#2	6.716	-.0003	9.859	.2856	.0846	.0321	.0999
#3	6.730	-.0027	9.861	.2829	.0969	-.0208	.1343
#4	6.732	L-.0052	9.856	.2765	.0961	-.0486	.1447

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	34.35	.0257	.9130	18.81	.0699	.9775	.8359
SDev	.17	.0101	.0058	.12	.0279	.0059	.0048
%RSD	.5001	39.24	.6315	.6155	39.93	.6074	.5786
#1	34.10	.0256	.9044	18.63	.0294	.9687	.8294
#2	34.39	.0237	.9164	18.86	.0776	.9801	.8360
#3	34.43	.0390	.9164	18.88	.0791	.9795	.8372
#4	34.49	.0145	.9148	18.85	.0933	.9816	.8410

Method: ICP30J Sample Name: T971 ASPK SWC Operator: NSJ
Run Time: 11/04/97 14:17:55
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1061	475.7	3.790	.2031	5.650	.1036	108.9
SDev	.0007	2.4	.024	.0026	.034	.0009	.6
%RSD	.6896	.5026	.6259	1.302	.6007	.9005	.5214
#1	.1067	477.2	3.818	.2012	5.675	.1044	109.3
#2	.1067	477.7	3.798	.2070	5.681	.1043	109.3
#3	.1056	475.5	3.783	.2028	5.636	.1034	108.8
#4	.1053	472.4	3.762	.2015	5.609	.1024	108.1

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0965	1.120	.7350	.9186	407.1	35.06	96.06
SDev	.0006	.006	.0037	.0043	2.1	.32	.53
%RSD	.6168	.5296	.5006	.4713	.5063	.9043	.5519
#1	.0969	1.123	.7376	.9211	408.5	35.08	96.36
#2	.0956	1.127	.7366	.9222	408.7	35.28	96.49
#3	.0968	1.118	.7361	.9187	406.8	35.27	96.07
#4	.0965	1.113	.7295	.9125	404.2	34.60	95.31

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.567	-.0023	34.36	1.248	1.034	.0790	4.119
SDev	.042	.0043	.21	.010	.008	.0150	.064
%RSD	.5566	184.8	.6073	.7745	.7328	18.97	1.543
#1	7.590	.0029	34.53	1.259	1.044	.0956	4.157
#2	7.605	L-.0073	34.54	1.253	1.028	.0654	4.142
#3	7.564	-.0014	34.28	1.241	1.035	.0673	4.152
#4	7.509	-.0035	34.11	1.239	1.027	.0878	4.024

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	32.03	.0189	1.038	23.26	3.912	1.923	1.784
SDev	.13	.0111	.006	.14	.043	.013	.007
%RSD	.3919	58.66	.5845	.6022	1.109	.6667	.3874
#1	32.09	.0332	1.043	23.36	3.937	1.934	1.788
#2	32.14	.0064	1.043	23.37	3.929	1.931	1.791
#3	32.03	.0165	1.036	23.24	3.935	1.923	1.783
#4	31.85	.0194	1.030	23.07	3.847	1.905	1.775

Method: ICP30J Sample Name: T971 E SWC Operator: NSJ
Run Time: 11/04/97 14:23:06
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0115	341.9	.0157	.1518	1.553	.0057	71.86
SDev	.0012	2.2	.0319	.0046	.011	.0001	.50
%RSD	10.32	.6468	203.4	2.994	.7233	1.380	.6948
#1	.0128	345.2	.0040	.1577	1.570	.0056	72.58
#2	.0100	340.6	.0105	.1494	1.548	.0057	71.53
#3	.0118	340.6	-.0129	.1530	1.545	.0056	71.52
#4	.0113	341.2	.0611	.1473	1.548	.0058	71.84

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0046	.1445	.3332	.4389	366.0	11.55	61.72
SDev	.0005	.0016	.0021	.0034	2.7	.10	.45
%RSD	10.36	1.113	.6189	.7775	.7256	.8915	.7248
#1	.0045	.1465	.3362	.4439	369.8	11.63	62.37
#2	.0041	.1426	.3315	.4363	364.0	11.63	61.47
#3	.0053	.1442	.3324	.4371	364.5	11.49	61.39
#4	.0045	.1446	.3329	.4384	365.7	11.43	61.63

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.387	.0006	9.644	.2452	.1453	.0006	.1286
SDev	.029	.0016	.062	.0080	.0084	.0136	.0358
%RSD	.6595	276.1	.6402	3.275	5.813	2270.	27.85
#1	4.428	.0023	9.734	.2552	.1553	.0195	.1569
#2	4.370	-.0015	9.635	.2481	.1493	-.0090	.0792
#3	4.365	.0004	9.602	.2378	.1395	.0018	.1530
#4	4.384	.0011	9.604	.2396	.1372	-.0098	.1251

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	34.24	.0211	.7453	17.49	.0832	.8630	1.135
SDev	.20	.0122	.0054	.13	.0164	.0063	.006
%RSD	.5766	57.64	.7257	.7370	19.77	.7335	.5457
#1	34.53	.0389	.7533	17.68	.0732	.8716	1.143
#2	34.12	.0116	.7425	17.42	.1022	.8570	1.131
#3	34.11	.0154	.7418	17.41	.0662	.8598	1.129
#4	34.21	.0186	.7435	17.46	.0911	.8637	1.135

Method: ICP30J Sample Name: T971 F SWC Operator: NSJ
Run Time: 11/04/97 14:28:18
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0112	433.7	.0346	.1805	1.798	.0067	93.33
SDev	.0003	.8	.0199	.0043	.003	.0001	.09
%RSD	3.141	.1847	57.41	2.410	.1845	.8996	.0971
#1	.0117	432.7	.0310	.1744	1.793	.0067	93.33
#2	.0109	433.4	.0509	.1819	1.799	.0068	93.21
#3	.0110	434.0	.0080	.1846	1.800	.0068	93.42
#4	.0110	434.6	.0486	.1812	1.801	.0067	93.36

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0036	.1790	.3934	.4152	431.6	14.65	73.56
SDev	.0008	.0014	.0010	.0014	.4	.10	.06
%RSD	21.59	.7607	.2628	.3261	.1029	.6898	.0846
#1	.0027	.1797	.3949	.4132	431.4	14.78	73.50
#2	.0035	.1781	.3930	.4159	431.0	14.60	73.52
#3	.0046	.1806	.3934	.4159	432.0	14.67	73.60
#4	.0038	.1777	.3925	.4159	431.8	14.54	73.64

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.981	-.0028	15.45	.2929	.1160	-.0261	.1323
SDev	.007	.0033	.04	.0033	.0109	.0276	.0271
%RSD	.1247	117.6	.2489	1.129	9.382	105.8	20.47
#1	5.971	.0020	15.42	.2975	.1320	.0073	.1177
#2	5.980	-.0043	15.48	.2896	.1098	-.0283	.1298
#3	5.988	-.0037	15.41	.2920	.1137	L-.0602	.1105
#4	5.985	L-.0051	15.49	.2927	.1087	-.0233	.1711

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	32.44	.0307	1.152	21.15	.0853	1.050	.9798
SDev	.02	.0086	.003	.03	.0389	.003	.0021
%RSD	.0663	28.01	.2200	.1572	45.61	.3123	.2156
#1	32.43	.0418	1.148	21.11	.0694	1.046	.9795
#2	32.41	.0211	1.153	21.15	.1412	1.051	.9771
#3	32.46	.0318	1.152	21.16	.0518	1.048	.9820
#4	32.46	.0283	1.154	21.19	.0789	1.053	.9808

Method: ICP30J Sample Name: T971 G SWC Operator: NSJ
Run Time: 11/04/97 14:33:30
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0118	393.6	.0314	.1596	1.798	.0062	75.79
SDev	.0005	.6	.0055	.0051	.003	.0001	.06
%RSD	4.552	.1434	17.37	3.181	.1881	1.997	.0831
#1	.0118	393.1	.0297	.1538	1.795	.0061	75.85
#2	.0116	394.4	.0304	.1658	1.803	.0061	75.83
#3	.0125	393.3	.0264	.1611	1.798	.0064	75.73
#4	.0112	393.5	.0392	.1578	1.796	.0063	75.74

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0045	.1784	.4504	.5051	429.3	13.31	68.25
SDev	.0011	.0012	.0007	.0013	.1	.19	.04
%RSD	24.07	.6658	.1587	.2513	.0302	1.454	.0538
#1	.0040	.1783	.4508	.5038	429.4	13.47	68.27
#2	.0060	.1768	.4498	.5053	429.4	13.17	68.26
#3	.0034	.1790	.4498	.5068	429.3	13.12	68.27
#4	.0047	.1796	.4513	.5046	429.1	13.48	68.20

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.889	-.0020	40.05	.3896	.2070	-.0237	.1169
SDev	.004	.0015	.06	.0034	.0052	.0251	.0396
%RSD	.0772	73.65	.1587	.8756	2.504	106.3	33.82
#1	4.890	-.0006	40.01	.3867	.2015	.0115	.0935
#2	4.891	-.0036	40.14	.3945	.2045	-.0265	.1474
#3	4.892	-.0028	40.01	.3882	.2085	-.0478	.0735
#4	4.883	-.0009	40.03	.3890	.2134	-.0319	.1534

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	34.85	.0326	.9226	20.94	.0857	1.007	1.342
SDev	.02	.0010	.0021	.03	.0423	.002	.003
%RSD	.0432	3.062	.2265	.1485	49.33	.1726	.2086
#1	34.87	.0329	.9210	20.92	.0321	1.006	1.341
#2	34.85	.0339	.9257	20.98	.0857	1.010	1.339
#3	34.86	.0321	.9222	20.93	.1355	1.006	1.345
#4	34.83	.0316	.9215	20.92	.0896	1.006	1.344

Method: ICP30J Sample Name: T971 H SWC Operator: NSJ
Run Time: 11/04/97 14:38:42
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0120	397.4	.0182	.1492	1.801	.0062	84.33
SDev	.0002	.9	.0217	.0040	.008	.0001	.18
%RSD	1.694	.2197	119.1	2.697	.4420	.8405	.2136
#1	.0122	397.5	.0111	.1485	1.804	.0062	84.42
#2	.0117	397.9	.0043	.1527	1.805	.0062	84.46
#3	.0120	397.9	.0505	.1519	1.808	.0062	84.38
#4	.0120	396.1	.0069	.1438	1.790	.0061	84.07

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0043	.1735	.3929	.4504	417.7	13.23	69.53
SDev	.0008	.0011	.0008	.0021	1.1	.13	.17
%RSD	18.26	.6419	.2052	.4542	.2615	.9586	.2427
#1	.0033	.1745	.3925	.4499	418.1	13.42	69.49
#2	.0052	.1742	.3930	.4507	418.1	13.13	69.64
#3	.0043	.1721	.3939	.4529	418.5	13.18	69.69
#4	.0043	.1730	.3921	.4479	416.1	13.19	69.31

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.970	-.0014	16.53	.3067	.1717	-.0057	.1523
SDev	.015	.0013	.08	.0045	.0098	.0145	.0389
%RSD	.2483	88.12	.4680	1.471	5.736	257.5	25.52
#1	5.977	-.0025	16.56	.3062	.1727	.0108	.1901
#2	5.974	-.0014	16.59	.3045	.1789	-.0244	.1330
#3	5.980	-.0022	16.57	.3030	.1575	-.0022	.1073
#4	5.948	.0003	16.42	.3132	.1777	-.0067	.1789

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	30.32	.0238	1.076	19.53	.0829	.9822	1.116
SDev	.06	.0056	.005	.07	.0628 OK	.0024	.003
%RSD	.2117	23.68	.4281	.3490	75.66	.2439	.2272
#1	30.35	.0179	1.078	19.55	.0366	.9820	1.115
#2	30.36	.0237	1.079	19.56	.1612	.9839	1.118
#3	30.35	.0314	1.080	19.57	.1059	.9839	1.118
#4	30.23	.0221	1.070	19.42	.0280	.9788	1.114

UF

Method: ICP30J Sample Name: T971 I SWC Operator: NSJ
Run Time: 11/04/97 14:43:53
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0123	417.1	.0198	.2100	1.888	.0067	75.74
SDev	.0010	1.7	.0087	.0012	.007	.0001	.12
%RSD	7.852	.4064	44.01	.5902	.3927	2.232	.1530
#1	.0129	417.2	.0087	.2111	1.889	.0068	75.86
#2	.0109	419.0	.0180	.2082	1.896	.0066	75.82
#3	.0124	417.3	.0233	.2105	1.887	.0066	75.66
#4	.0131	414.8	.0292	.2101	1.878	.0068	75.62

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0040	.1737	.4187	.5221	432.0	13.85	69.51
SDev	.0004	.0011	.0014	.0010	.9	.28	.18
%RSD	11.21	.6237	.3385	.1830	.2124	2.000	.2657
#1	.0039	.1750	.4205	.5230	432.8	13.87	69.66
#2	.0034	.1725	.4171	.5221	432.9	13.46	69.66
#3	.0043	.1740	.4190	.5225	431.4	14.11	69.41
#4	.0043	.1732	.4181	.5208	431.1	13.96	69.30

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.451	-.0033	56.24	.3286	.2068	-.0272	.1226
SDev	.011	.0030	.25	.0061	.0084	.0273	.0288
%RSD	.2447	92.60	.4422	1.856	4.063	100.3	23.45
#1	4.461	-.0000	56.29	.3261	.2162	.0124	.0854
#2	4.458	-.0025	56.50	.3376	.1995	-.0374	.1369
#3	4.450	L-.0073	56.25	.3241	.2001	-.0498	.1162
#4	4.436	-.0032	55.90	.3267	.2116	-.0341	.1518

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	34.14	.0340	1.126	21.03	.0690	1.046	1.328
SDev	.07	.0035	.005	.08	.0395	.002	.001
%RSD	.2033	10.35	.4561	.4006	57.20	.1467	.1042
#1	34.21	.0339	1.127	21.05	.0745	1.046	1.329
#2	34.16	.0302	1.132	21.13	.0328	1.047	1.327
#3	34.13	.0333	1.126	21.03	.1223	1.046	1.326
#4	34.04	.0387	1.119	20.93	.0466	1.044	1.328

Method: ICP30J Sample Name: T971 REF1 SWC Operator: NSJ
Run Time: 11/04/97 14:49:05
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5595	57.77	1.050	.7928	.6303	.4753	18.46
SDev	.0023	.30	.018	.0033	.0043	.0024	.07
%RSD	.4064	.5163	1.732	.4216	.6853	.5041	.3741
#1	.5623	58.16	1.063	.7973	.6361	.4787	18.56
#2	.5602	57.86	1.035	.7893	.6311	.4752	18.45
#3	.5582	57.57	1.067	.7925	.6278	.4737	18.41
#4	.5572	57.51	1.033	.7920	.6263	.4736	18.42

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.055	1.201	.4341	.6770	83.33	28.45	20.18
SDev	.004	.006	.0032	.0038	.40	.19	.10
%RSD	.3582	.5296	.7244	.5584	.4770	.6722	.4993
#1	1.059	1.210	.4384	.6822	83.90	28.71	20.33
#2	1.058	1.202	.4308	.6772	83.31	28.49	20.17
#3	1.052	1.196	.4337	.6739	83.09	28.31	20.13
#4	1.053	1.197	.4337	.6746	83.03	28.31	20.10

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.294	.5895	2.766	.7440	.4463	.2762	.7631
SDev	.006	.0008	.020	.0071	.0043	.0178	.0232
%RSD	.4786	.1429	.7126	.9512	.9542	6.434	3.041
#1	1.303	.5906	2.795	.7534	.4479	.2907	.7828
#2	1.293	.5887	2.761	.7367	.4399	.2892	.7702
#3	1.291	.5895	2.755	.7412	.4487	.2723	.7295
#4	1.290	.5892	2.752	.7447	.4487	.2527	.7699

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.32	.7311	1.233	2.912	.8107	.6533	.8551
SDev	.06	.0032	.008	.017	.0120	.0025	.0035
%RSD	.5233	.4442	.6329	.5945	1.480	.3803	.4115
#1	12.42	.7343	1.244	2.935	.7990	.6553	.8602
#2	12.32	.7283	1.235	2.914	.8205	.6546	.8527
#3	12.28	.7282	1.227	2.900	.8017	.6535	.8528
#4	12.28	.7334	1.227	2.898	.8216	.6497	.8546

Analysis Report QC Standard Tue 11-04-97 03:01:15 PM page 1

Method: ICP30J Sample Name: CV 5 Operator: NSJ
Run Time: 11/04/97 14:56:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9977	2.088	2.049	1.016	1.003	.9823	2.097
SDev	.0006	.007	.012	.004	.003	.0023	.003
%RSD	.0589	.3539	.5740	.4007	.2589	.2296	.1274
#1	.9972	2.079	2.044	1.011	1.004	.9804	2.094
#2	.9973	2.097	2.037	1.013	1.002	.9813	2.098
#3	.9977	2.090	2.051	1.019	1.001	.9818	2.097
#4	.9985	2.086	2.065	1.020	1.007	.9855	2.100

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9937	.9999	1.003	.9996	2.044	20.99	2.049
SDev	.0026	.0019	.001	.0030	.003	.22	.009
%RSD	.2580	.1905	.1365	.2996	.1456	1.069	.4546
#1	.9933	.9972	1.002	.9989	2.043	20.86	2.037
#2	.9943	1.001	1.002	.9990	2.044	21.33	2.059
#3	.9906	1.000	1.003	.9967	2.040	20.90	2.052
#4	.9968	1.001	1.005	1.004	2.047	20.89	2.048

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9898	1.025	1.976	1.029	1.997	2.079	2.112
SDev	.0019	.006	.004	.006	.005	.014	.025
%RSD	.1935	.6028	.2029	.6258	.2587	.6589	1.191
#1	.9875	1.016	1.977	1.028	1.994	2.094	2.107
#2	.9895	1.029	1.971	1.034	2.005	2.074	2.089
#3	.9900	1.028	1.980	1.020	1.994	2.063	2.104
#4	.9922	1.028	1.975	1.033	1.997	2.087	2.148

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.070	.9561	1.003	.9675	2.043	.9721	1.003
SDev	.002	.0036	.002	.0014	.024	.0012	.001
%RSD	.1111	.3801	.1703	.1466	1.199	.1258	.0794
#1	2.073	.9525	1.003	.9670	2.013	.9703	1.002
#2	2.071	.9583	1.001	.9663	2.037	.9730	1.004
#3	2.070	.9536	1.001	.9672	2.071	.9724	1.003
#4	2.067	.9601	1.005	.9696	2.051	.9727	1.004

Analysis Report Blank Sample Tue 11-04-97 03:11:30 PM page 1

Method: ICP30J Sample Name: Blank 5 Operator: NSJ
Run Time: 11/04/97 15:06:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0068	-.0081	-.0011	.0001	.0003	.0018
SDev	.0009	.0046	.0125	.0010	.0003	.0001	.0004
%RSD	252.8	67.84	155.6	87.52	230.9	29.79	23.93
#1	.0016	.0129	-.0073	.0001	.0003	.0003	.0015
#2	.0004	.0018	-.0169	-.0008	-.0001	.0004	.0023
#3	-.0006	.0068	.0094	-.0016	-.0001	.0004	.0019
#4	.0001	.0057	-.0174	-.0022	.0003	.0002	.0015

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	-.0004	-.0007	.0015	.0030	.0662	-.0068
SDev	.0003	.0005	.0002	.0006	.0009	.1048	.0096
%RSD	41.38	126.1	33.47	42.69	29.32	158.4	142.2
#1	-.0010	-.0001	-.0008	H.0023	.0043	.1127	.0009
#2	-.0003	-.0003	-.0004	.0008	.0027	-.0343	-.0151
#3	-.0009	-.0001	-.0008	.0012	.0027	.1912	.0022
#4	-.0010	-.0011	-.0008	.0016	.0023	-.0049	-.0151

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	.0008	-.0040	.0019	.0002	-.0041	.0018
SDev	.0001	.0010	.0062	.0017	.0023	.0072	.0085
%RSD	33.28	135.8	155.5	86.64	1267.	177.0	475.5
#1	-.0003	.0010	.0051	.0003	.0008	-.0045	.0119
#2	-.0003	.0008	-.0081	.0015	.0030	-.0074	-.0016
#3	-.0003	.0019	-.0078	.0017	-.0004	.0061	-.0079
#4	-.0006	-.0006	-.0051	.0043	-.0026	-.0106	.0048

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0017	-.0001	-.0004	-.0046	-.0008	-.0003
SDev	.0073	.0031	.0002	.0006	.0141	.0010	.0006
%RSD	5097.	177.1	199.9	166.0	303.4	129.4	194.3
#1	.0106	-.0023	-.0000	.0005	-.0062	.0007	.0006
#2	-.0044	.0012	-.0005	-.0010	-.0109	-.0013	-.0006
#3	-.0052	.0035	-.0000	-.0005	-.0169	-.0014	-.0006
#4	-.0016	.0046	-.0000	-.0005	.0154	-.0009	-.0006

Analysis Report Tue 11-04-97 03:20:04 PM page 1

Method: ICP30J Sample Name: T971 U-L SWC Operator: NSJ
Run Time: 11/04/97 15:14:58
Comment: -1/5 CLP SERIAL DILUTION -
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0022	69.77	-.0039	.0183	.3019	.0013	14.26
SDev	.0008	.23	.0143	.0012	.0013	.0001	.06
%RSD	37.13	.3260	362.8	6.319	.4445	5.403	.4184
#1	.0023	69.82	-.0049	.0189	.3019	.0013	14.28
#2	.0026	70.01	.0086	.0195	.3030	.0014	14.33
#3	.0030	69.46	.0041	.0177	.3000	.0014	14.19
#4	.0011	69.79	-.0236	.0170	.3026	.0013	14.23

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0327	.0632	.1148	71.58	2.414	12.42
SDev	.0004	.0004	.0007	.0010	.30	.237	.06
%RSD	1511.	1.215	1.125	.8347	.4187	9.838	.4488
#1	.0006	.0325	.0626	.1155	71.61	2.279	12.44
#2	-.0002	.0330	.0640	.1157	71.93	2.318	12.48
#3	-.0004	.0331	.0635	.1137	71.20	2.769	12.35
#4	.0000	.0322	.0626	.1144	71.57	2.289	12.41

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.321	-.0002	1.704	.0547	.0276	-.0155	.0110
SDev	.006	.0012	.009	.0037	.0053	.0071	.0248
%RSD	.4564	629.0	.5423	6.732	19.21	46.08	226.4
#1	1.322	.0000	1.707	.0587	.0217	-.0096	.0021
#2	1.328	-.0010	1.708	.0512	.0330	-.0150	.0389
#3	1.314	.0014	1.690	.0570	.0312	-.0116	.0214
#4	1.320	-.0011	1.710	.0521	.0247	-.0256	-.0186

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.307	.0043	.1630	3.316	.0093	.1818	.1865
SDev	.036	.0025	.0008	.015	.0188	.0009	.0013
%RSD	.4871	57.66	.4683	.4557	203.0	.5104	.7199
#1	7.324	.0040	.1631	3.317	.0311	.1822	.1864
#2	7.342	.0076	.1638	3.333	.0138	.1829	.1883
#3	7.260	.0039	.1620	3.296	.0066	.1810	.1852
#4	7.300	.0016	.1631	3.319	-.0144	.1809	.1858

Method: ICP30J Sample Name: T971 U SWC Operator: NSJ
Run Time: 11/04/97 15:20:09
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0091	341.9	.0090	.0752	1.471	.0058	67.64
SDev	.0002	1.1	.0090	.0032	.006	.0001	.19
%RSD	2.628	.3196	99.90	4.238	.4419	1.249	.2828
#1	.0088	342.8	.0095	.0734	1.475	.0059	67.74
#2	.0093	342.4	.0141	.0799	1.475	.0058	67.84
#3	.0091	342.1	.0162	.0746	1.471	.0057	67.61
#4	.0091	340.3	-.0038	.0730	1.461	.0058	67.39

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0031	.1514	.2995	.5432	359.5	10.74	59.73
SDev	.0004	.0008	.0011	.0030	1.1	.26	.18
%RSD	13.32	.5131	.3768	.5489	.2981	2.386	.3034
#1	.0037	.1504	.3002	.5431	360.0	10.76	59.86
#2	.0028	.1515	.3002	.5457	360.4	11.07	59.82
#3	.0030	.1513	.2978	.5449	359.5	10.45	59.79
#4	.0029	.1523	.2997	.5390	358.0	10.67	59.46

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.282	.0006	8.341	.2449	.1012	-.0220	.1378
SDev	.020	.0009	.044	.0049	.0066	.0231	.0464
%RSD	.3106	151.6	.5278	2.012	6.550	105.1	33.66
#1	6.287	.0020	8.364	.2391	.0925	-.0128	.1781
#2	6.302	.0001	8.381	.2471	.1057	-.0095	.1224
#3	6.283	-.0000	8.336	.2430	.0998	L-.0566	.0791
#4	6.255	.0004	8.281	.2505	.1070	-.0091	.1718

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	34.89	.0260	.7957	16.35	.0640	.8632	.8645
SDev	.09	.0048	.0034	.06	.0236	.0031	.0031
%RSD	.2638	18.57	.4209	.3623	36.77	.3609	.3572
#1	34.89	.0304	.7988	16.39	.0981	.8652	.8624
#2	35.00	.0276	.7970	16.38	.0613	.8663	.8667
#3	34.88	.0191	.7961	16.35	.0493	.8612	.8674
#4	34.77	.0270	.7910	16.26	.0474	.8599	.8613

Method: ICP30J Sample Name: T971 UDUP SWC Operator: NSJ
Run Time: 11/04/97 15:25:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0106	337.9	-.0029	.1020	1.497	.0058	67.63
SDev	.0001	1.9	.0062	.0045	.009	.0001	.45
%RSD	1.320	.5744	212.5	4.426	.5864	1.788	.6662
#1	.0105	336.0	.0042	.1019	1.490	.0057	67.17
#2	.0107	336.6	-.0001	.0959	1.490	.0057	67.34
#3	.0105	338.6	-.0098	.1038	1.502	.0059	67.85
#4	.0108	340.2	-.0059	.1066	1.507	.0058	68.14

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0034	.1552	.3011	.5385	366.4	10.67	60.69
SDev	.0010	.0010	.0013	.0042	2.4	.11	.39
%RSD	28.81	.6653	.4447	.7835	.6655	1.007	.6396
#1	.0028	.1547	.2992	.5344	363.8	10.73	60.29
#2	.0029	.1540	.3011	.5356	365.0	10.77	60.47
#3	.0048	.1563	.3021	.5407	367.7	10.52	60.83
#4	.0029	.1558	.3021	.5433	369.1	10.67	61.16

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.447	-.0025	8.076	.2436	.0982	-.0186	.1164
SDev	.044	.0005	.044	.0053	.0047	.0115	.0269
%RSD	.6848	19.18	.5474	2.196	4.796	62.11	23.11
#1	6.402	-.0029	8.050	.2387	.1032	-.0173	.1333
#2	6.417	-.0023	8.036	.2481	.0929	-.0151	.0768
#3	6.472	-.0020	8.081	.2483	.1010	-.0347	.1334
#4	6.495	-.0030	8.136	.2391	.0959	-.0073	.1222

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	34.79	.0227	.7978	16.93	.0655	.8868	.8800
SDev	.21	.0063	.0048	.10	.0260	.0054	.0075
%RSD	.6112	27.54	.6019	.6140	39.66	.6089	.8461
#1	34.56	.0275	.7947	16.83	.0847	.8815	.8728
#2	34.67	.0139	.7933	16.85	.0903	.8834	.8746
#3	34.90	.0268	.7993	16.97	.0372	.8890	.8844
#4	35.03	.0226	.8039	17.05	.0500	.8934	.8881

Analysis Report Tue 11-04-97 03:35:38 PM page 1

Method: ICP30J Sample Name: T971 USPK SWC Operator: NSJ
Run Time: 11/04/97 15:30:32
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1054	407.2	3.816	.1041	5.508	.1015	98.73
SDev	.0019	3.1	.056	.0053	.047	.0009	.79
%RSD	1.822	.7533	1.466	5.087	.8520	.8722	.7994
#1	.1040	403.8	3.794	.1066	5.458	.1004	97.82
#2	.1080	411.0	3.894	.1094	5.566	.1022	99.58
#3	.1055	408.0	3.811	.1031	5.523	.1022	99.16
#4	.1039	406.1	3.763	.0971	5.486	.1011	98.37

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0955	1.096	.6933	1.027	365.4	33.41	83.59
SDev	.0035	.007	.0051	.009	2.8	.24	.56
%RSD	3.645	.6408	.7362	.8417	.7799	.7269	.6756
#1	.0910	1.087	.6874	1.016	362.0	33.16	82.97
#2	.0983	1.101	.6978	1.036	368.4	33.27	84.30
#3	.0982	1.102	.6973	1.030	366.9	33.70	83.72
#4	.0943	1.094	.6907	1.025	364.2	33.51	83.37

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.243	-.0026	32.90	1.212	1.041	.0708	4.082
SDev	.054	.0022	.22	.010	.004	.0080	.076
%RSD	.7471	84.45	.6541	.8478	.4024	11.32	1.850
#1	7.183	-.0006	32.71	1.204	1.035	.0599	4.014
#2	7.301	-.0008	33.19	1.210	1.040	.0754	4.173
#3	7.274	-.0040	32.91	1.227	1.044	.0780	4.116
#4	7.214	-.0048	32.77	1.209	1.044	.0699	4.027

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	29.35	.0263	.9475	21.27	3.884	1.828	1.819
SDev	.21	.0060	.0083	.20	.052	.016	.012
%RSD	.7171	23.03	.8768	.9511	1.342	.8526	.6516
#1	29.10	.0238	.9384	21.04	3.830	1.811	1.803
#2	29.57	.0345	.9577	21.50	3.953	1.846	1.830
#3	29.46	.0266	.9501	21.36	3.888	1.834	1.825
#4	29.27	.0202	.9439	21.18	3.863	1.819	1.816

Method: ICP30J Sample Name: T971 J SWC Operator: NSJ
Run Time: 11/04/97 15:37:35
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0108	416.0	-.0088	.1345	1.814	.0066	84.90
SDev	.0005	.9	.0194	.0018	.004	.0001	.17
%RSD	4.933	.2170	221.9	1.306	.2029	1.523	.2000
#1	.0109	416.4	.0111	.1328	1.819	.0066	84.99
#2	.0114	414.8	-.0060	.1350	1.810	.0065	84.69
#3	.0101	415.9	-.0354	.1335	1.811	.0067	84.86
#4	.0110	416.9	-.0047	.1367	1.814	.0066	85.08

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0039	.1829	.4097	.4191	426.2	13.27	72.71
SDev	.0010	.0009	.0005	.0007	.8	.08	.19
%RSD	26.14	.4787	.1128	.1658	.1844	.6015	.2553
#1	.0048	.1827	.4100	.4199	426.5	13.30	72.83
#2	.0030	.1818	.4096	.4184	425.1	13.17	72.49
#3	.0047	.1833	.4091	.4186	426.3	13.36	72.62
#4	.0030	.1839	.4100	.4194	426.9	13.24	72.89

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.854	L-.0055	24.97	.3123	.2234	-.0207	.1388
SDev	.010	.0035	.09	.0050	.0100	.0383	.0278
%RSD	.1745	63.57	.3640	1.597	4.474	184.8	20.01
#1	5.858	-.0039	25.08	.3137	.2344	.0316	.1603
#2	5.841	-.0046	24.89	.3064	.2258	-.0247	.1254
#3	5.852	L-.0106	24.91	.3110	.2234	L-.0603	.1633
#4	5.865	-.0028	25.01	.3183	.2102	-.0295	.1061

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	32.16	.0278	1.278	19.82	.0757	1.013	1.024
SDev	.04	.0040	.003	.05	.0296	.002	.001
%RSD	.1096	14.57	.2280	.2357	39.07	.2153	.1292
#1	32.18	.0313	1.280	19.85	.0900	1.014	1.026
#2	32.12	.0291	1.274	19.76	.0546	1.010	1.024
#3	32.15	.0287	1.277	19.81	.0478	1.011	1.025
#4	32.19	.0219	1.280	19.87	.1103	1.015	1.023

Method: ICP30J Sample Name: T971 K SWC Operator: NSJ
Run Time: 11/04/97 15:42:47
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0108	391.1	.0012	.0986	1.676	.0064	76.06
SDev	.0015	2.5	.0174	.0026	.013	.0001	.48
%RSD	13.58	.6504	1410.	2.665	.7617	1.072	.6318
#1	.0097	390.7	.0136	.0972	1.677	.0065	75.88
#2	.0099	390.8	-.0194	.1000	1.676	.0065	76.02
#3	.0105	388.5	-.0068	.0957	1.661	.0064	75.60
#4	.0129	394.6	.0175	.1015	1.692	.0065	76.73

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0035	.1643	.3759	.4058	409.2	13.23	66.44
SDev	.0012	.0009	.0039	.0029	2.7	.20	.41
%RSD	34.70	.5545	1.023	.7109	.6545	1.525	.6131
#1	.0028	.1629	.3745	.4057	408.1	13.31	66.36
#2	.0035	.1647	.3745	.4048	409.0	12.94	66.39
#3	.0025	.1648	.3731	.4029	406.8	13.25	66.01
#4	.0052	.1646	.3816	.4097	413.0	13.42	66.99

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.262	-.0038	10.57	.2771	.1143	-.0249	.1204
SDev	.040	.0028	.06	.0091	.0062	.0204	.0470
%RSD	.6433	72.64	.6054	3.271	5.437	81.95	39.02
#1	6.248	-.0004	10.57	.2806	.1135	-.0216	.0822
#2	6.260	-.0034	10.57	.2690	.1103	-.0011	.1057
#3	6.221	L-.0072	10.49	.2705	.1234	-.0261	.1047
#4	6.317	-.0044	10.65	.2883	.1101	L-.0508	.1890

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	35.18	.0342	.9419	21.19	.1348	1.019	.9792
SDev	.20	.0087	.0070	.16	.0320	.006	.0060
%RSD	.5627	25.46	.7488	.7408	23.70	.6369	.6114
#1	35.09	.0436	.9418	21.18	.1609	1.016	.9765
#2	35.19	.0370	.9416	21.17	.1176	1.019	.9808
#3	34.99	.0336	.9335	21.01	.0984	1.014	.9728
#4	35.45	.0227	.9508	21.39	.1625	1.029	.9867

RERUN 11/2

Analysis Report Tue 11-04-97 03:53:05 PM page 1

Method: ICP30J Sample Name: T971 L SWC Operator: NSJ
Run Time: 11/04/97 15:47:58
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0131	315.5	.0126	.1910	1.202	.0060	81.41
SDev	.0009	1.2	.0256	.0018	.008	.0001	.22
%RSD	6.758	.3809	203.5	.9519	.6448	1.378	.2658
#1	.0134	316.6	.0010	.1892	1.211	.0061	81.60
#2	.0122	316.5	.0181	.1935	1.206	.0059	81.54
#3	.0126	314.2	-.0143	.1906	1.193	.0059	81.12
#4	.0142	314.8	.0455	.1907	1.199	.0060	81.39

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0049	.1584	.3881	.3817	H551.6	11.50	56.71
SDev	.0004	.0009	.0012	.0023	1.8	.13	.21
%RSD	8.931	.5933	.3206	.6122	.3278	1.089	.3645
#1	.0044	.1597	.3882	.3839	H553.3	11.37	56.95
#2	.0052	.1577	.3891	.3831	H552.6	11.44	56.82
#3	.0053	.1577	.3863	.3787	H549.1	11.64	56.50
#4	.0046	.1585	.3887	.3811	H551.3	11.57	56.58

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.394	.0068	34.31	.3506	2.493	.0015	.1309
SDev	.017	.0006	.25	.0076	.014	.0161	.0538
%RSD	.3858	8.777	.7256	2.157	.5611	1041.	41.08
#1	4.408	.0072	34.56	.3508	2.491	.0189	.1106
#2	4.406	.0071	34.49	.3484	2.510	-.0020	.2057
#3	4.372	.0068	34.04	.3607	2.476	.0082	.0793
#4	4.389	.0059	34.16	.3426	2.492	-.0190	.1281

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	27.76	.0394	1.174	23.48	.1337	1.203	.9667
SDev	.09	.0072	.006	.11	.0150	.006	.0018
%RSD	.3300	18.38	.5475	.4576	11.19	.5407	.1884
#1	27.87	.0447	1.180	23.58	.1125	1.210	.9676
#2	27.79	.0358	1.178	23.55	.1378	1.206	.9683
#3	27.65	.0309	1.167	23.35	.1368	1.194	.9642
#4	27.73	.0461	1.171	23.43	.1477	1.201	.9666

Method: ICP30J Sample Name: T971 M SWC Operator: NSJ
Run Time: 11/04/97 15:53:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0097	296.9	.0086	.1655	1.143	.0057	75.28
SDev	.0009	2.9	.0118	.0025	.012	.0001	.57
%RSD	9.586	.9683	138.1	1.495	1.075	2.685	.7547
#1	.0087	293.4	.0043	.1632	1.129	.0057	74.63
#2	.0106	296.1	.0242	.1649	1.139	.0056	75.10
#3	.0103	300.3	-.0039	.1690	1.159	.0059	75.98
#4	.0092	297.6	.0097	.1648	1.145	.0057	75.41

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0026	.1418	.3152	.2766	361.1	10.72	54.24
SDev	.0009	.0006	.0023	.0029	3.0	.28	.48
%RSD	33.79	.4126	.7362	1.056	.8298	2.594	.8920
#1	.0027	.1419	.3124	.2737	357.8	11.07	53.64
#2	.0026	.1421	.3152	.2758	360.1	10.53	54.17
#3	.0038	.1410	.3181	.2807	364.9	10.81	54.81
#4	.0016	.1424	.3152	.2762	361.6	10.46	54.33

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.649	.0005	32.31	.2752	.1139	-.0107	.1337
SDev	.031	.0016	.30	.0110	.0074	.0135	.0147
%RSD	.8489	320.0	.9398	3.998	6.482	126.2	10.96
#1	3.612	-.0018	31.98	.2687	.1227	-.0297	.1330
#2	3.642	.0012	32.21	.2689	.1046	-.0027	.1547
#3	3.687	.0019	32.71	.2916	.1140	.0004	.1240
#4	3.654	.0008	32.35	.2717	.1144	-.0110	.1232

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.31	.0300	.9735	22.83	.0522	1.158	.8783
SDev	.20	.0072	.0114	.23	.0288	.013	.0058
%RSD	.7912	24.08	1.170	1.011	55.19	1.079	.6637
#1	25.08	.0203	.9593	22.55	.0587	1.142	.8732
#2	25.29	.0289	.9715	22.76	.0099	1.157	.8736
#3	25.56	.0369	.9867	23.10	.0734	1.173	.8851
#4	25.31	.0338	.9766	22.89	.0666	1.161	.8811

Method: ICP30J Sample Name: T971 N SWC Operator: NSJ
Run Time: 11/04/97 15:58:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0119	434.4	.0118	.2399	2.017	.0068	77.84
SDev	.0018	.9	.0160	.0056	.004	.0001	.08
%RSD	14.84	.1975	134.9	2.340	.2207	1.804	.1051
#1	.0107	433.7	-.0027	.2395	2.018	.0069	77.81
#2	.0112	435.1	.0093	.2321	2.017	.0066	77.77
#3	.0145	433.6	.0345	.2447	2.012	.0069	77.82
#4	.0112	435.1	.0063	.2432	2.023	.0068	77.95

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0043	.1795	.5178	.5889	449.8	16.38	70.58
SDev	.0012	.0015	.0023	.0014	.6	.22	.09
%RSD	26.77	.8517	.4396	.2394	.1389	1.371	.1230
#1	.0036	.1808	.5195	.5872	449.2	16.47	70.60
#2	.0044	.1774	.5152	.5886	449.4	16.08	70.53
#3	.0059	.1803	.5166	.5906	449.9	16.61	70.49
#4	.0034	.1796	.5199	.5894	450.6	16.37	70.69

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.676	-.0037	130.2	.3351	.1532	-.0270	.1159
SDev	.007	.0032	.3	.0086	.0085	.0110	.0153
%RSD	.1603	86.33	.2188	2.552	5.539	40.79	13.24
#1	4.673	.0010	130.4	.3284	.1613	-.0192	.1185
#2	4.669	L-.0059	130.3	.3304	.1428	-.0330	.1211
#3	4.676	-.0042	129.8	.3474	.1587	-.0395	.1298
#4	4.687	L-.0055	130.4	.3342	.1499	-.0164	.0940

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	31.76	.0276	1.128	21.19	.1101	1.059	1.074
SDev	.04	.0053	.003	.04	.0366	.001	.002
%RSD	.1388	19.28	.2909	.1860	33.25	.1117	.2233
#1	31.72	.0340	1.127	21.17	.1120	1.057	1.074
#2	31.74	.0282	1.130	21.21	.0735	1.059	1.070
#3	31.78	.0273	1.124	21.15	.1596	1.058	1.076
#4	31.82	.0210	1.132	21.24	.0952	1.060	1.074

Method: ICP30J Sample Name: T971 0 SWC Operator: NSJ
Run Time: 11/04/97 16:03:33
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0096	326.8	.0043	.1146	1.531	.0057	71.96
SDev	.0006	1.5	.0147	.0024	.008	.0001	.29
%RSD	6.658	.4736	344.8	2.127	.5168	1.926	.4007
#1	.0101	326.5	-.0086	.1135	1.530	.0056	71.83
#2	.0100	326.2	.0145	.1174	1.527	.0057	71.83
#3	.0097	329.1	-.0081	.1156	1.543	.0058	72.39
#4	.0087	325.5	.0192	.1119	1.525	.0058	71.79

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0027	.1474	.3342	.2813	353.9	14.05	53.09
SDev	.0008	.0010	.0021	.0014	1.4	.18	.22
%RSD	29.88	.6730	.6377	.5157	.3958	1.267	.4169
#1	.0036	.1478	.3324	.2810	353.0	13.88	53.10
#2	.0023	.1476	.3343	.2805	353.3	14.08	52.97
#3	.0030	.1483	.3371	.2834	356.0	14.29	53.40
#4	.0018	.1460	.3329	.2803	353.3	13.96	52.91

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.561	-.0013	11.85	.2286	.1387	-.0158	.1040
SDev	.023	.0010	.04	.0098	.0039	.0149	.0362
%RSD	.5079	74.38	.3762	4.278	2.811	94.28	34.84
#1	4.544	-.0003	11.85	.2277	.1330	-.0224	.0850
#2	4.559	-.0020	11.84	.2246	.1394	-.0195	.1466
#3	4.594	-.0006	11.91	.2424	.1415	.0060	.1196
#4	4.547	-.0022	11.81	.2197	.1410	-.0272	.0650

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	28.63	.0319	.8239	21.37	.0910	.8919	.7815
SDev	.11	.0085	.0035	.11	.0377	.0051	.0028
%RSD	.3912	26.55	.4298	.4915	41.39	.5760	.3573
#1	28.58	.0414	.8227	21.34	.0600	.8886	.7786
#2	28.58	.0363	.8225	21.32	.0942	.8911	.7817
#3	28.80	.0229	.8292	21.53	.1431	.8994	.7852
#4	28.57	.0270	.8213	21.30	.0670	.8884	.7805

Analysis Report QC Standard Tue 11-04-97 04:17:35 PM page 1

Method: ICP30J Sample Name: CV 6 Operator: NSJ
Run Time: 11/04/97 16:12:29
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9685	2.034	1.978	.9860	.9698	.9475	2.030
SDev	.0070	.016	.016	.0135	.0100	.0105	.019
%RSD	.7265	.8109	.8047	1.373	1.032	1.103	.9526
#1	.9644	2.028	1.960	.9736	.9613	.9374	2.014
#2	.9659	2.026	1.969	.9815	.9650	.9437	2.024
#3	.9649	2.023	1.991	.9837	.9687	.9470	2.024
#4	.9791	2.058	1.992	1.005	.9841	.9620	2.058

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9662	.9673	.9710	.9716	1.978	20.35	1.993
SDev	.0069	.0090	.0096	.0079	.015	.35	.022
%RSD	.7186	.9277	.9872	.8156	.7402	1.709	1.100
#1	.9633	.9604	.9629	.9650	1.965	20.04	1.973
#2	.9612	.9627	.9668	.9712	1.973	20.40	1.987
#3	.9637	.9658	.9696	.9674	1.976	20.13	1.987
#4	.9765	.9804	.9848	.9829	1.999	20.82	2.024

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9572	.9912	1.916	.9919	1.949	2.036	2.072
SDev	.0086	.0137	.015	.0151	.014	.022	.025
%RSD	.8970	1.381	.8080	1.522	.7048	1.089	1.222
#1	.9502	.9736	1.912	.9912	1.938	2.034	2.053
#2	.9532	.9885	1.908	.9834	1.942	2.016	2.068
#3	.9556	.9973	1.906	.9796	1.947	2.028	2.058
#4	.9696	1.006	1.939	1.013	1.969	2.067	2.109

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.013	.9221	.9680	.9317	1.935	.9374	.9778
SDev	.014	.0097	.0094	.0090	.031	.0075	.0081
%RSD	.7108	1.048	.9737	.9648	1.596	.7986	.8262
#1	2.009	.9111	.9588	.9245	1.911	.9309	.9705
#2	2.003	.9198	.9655	.9283	1.933	.9350	.9762
#3	2.006	.9233	.9664	.9292	1.916	.9355	.9750
#4	2.034	.9344	.9812	.9449	1.979	.9482	.9893

Analysis Report Blank Sample Tue 11-04-97 04:24:39 PM page 1

Method: ICP30J Sample Name: Blank 6 Operator: NSJ
Run Time: 11/04/97 16:19:33
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	.0030	-.0036	-.0002	.0005	.0003	-.0004
SDev	.0015	.0080	.0116	.0025	.0002	.0001	.0037
%RSD	113.2	268.7	324.3	1176.	42.55	47.34	838.0
#1	H.0033	.0144	.0001	.0034	.0008	.0005	.0046
#2	.0001	-.0042	.0094	-.0019	.0005	.0002	.0001
#3	.0004	.0006	-.0183	-.0016	.0003	.0002	-.0039
#4	.0014	.0012	-.0055	-.0008	.0003	.0002	-.0026

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	-.0007	-.0013	.0018	.0040	.0417	-.0074
SDev	.0003	.0015	.0018	.0011	.0025	.3687	.0139
%RSD	87.77	210.3	139.6	60.24	61.42	885.1	188.0
#1	.0007	.0012	.0011	H.0031	.0069	H.5735	.0096
#2	.0004	-.0006	-.0008	.0007	.0053	-.0245	-.0028
#3	.0001	-.0024	-.0027	.0012	.0027	-.2696	-.0139
#4	.0001	-.0011	-.0027	H.0020	.0014	-.1127	L-.0225

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0004	.0008	.0011	-.0036	-.0092	-.0002
SDev	.0003	.0012	.0064	.0056	.0113	.0075	.0130
%RSD	517.7	279.0	781.5	521.2	317.5	81.33	6772.
#1	.0004	.0016	.0086	.0065	.0098	-.0016	-.0048
#2	-.0001	.0005	-.0070	-.0018	.0013	-.0077	-.0159
#3	-.0003	-.0012	-.0001	.0049	-.0155	-.0195	.0056
#4	.0002	.0008	.0018	-.0054	-.0099	-.0080	.0143

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0045	-.0006	.0000	.0004	-.0138	-.0008	-.0002
SDev	.0087	.0041	.0000	.0006	.0034	.0009	.0009
%RSD	192.2	679.4	815.1	165.5	24.97	106.5	561.5
#1	.0173	.0035	-.0000	.0012	-.0121	.0003	.0012
#2	.0009	-.0047	-.0000	.0003	-.0187	-.0016	-.0006
#3	-.0019	-.0035	.0000	-.0003	-.0133	-.0015	-.0006
#4	.0017	.0023	.0000	.0003	-.0109	-.0005	-.0006

Method: ICP30J Sample Name: T971 P SWC Operator: NSJ
Run Time: 11/04/97 16:24:44
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0114	438.6	.0195	.1267	1.839	.0070	91.98
SDev	.0008	2.2	.0128	.0045	.011	.0003	.46
%RSD	6.662	.4924	65.70	3.561	.6020	4.601	.4954
#1	.0106	441.4	.0042	.1258	1.854	.0073	92.55
#2	.0122	438.8	.0303	.1272	1.840	.0067	92.11
#3	.0117	437.7	.0299	.1324	1.836	.0072	91.76
#4	.0109	436.3	.0137	.1215	1.827	.0067	91.49

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0032	.1850	.3828	.4867	436.6	14.94	74.32
SDev	.0008	.0016	.0016	.0029	2.0	.34	.38
%RSD	23.42	.8439	.4225	.6070	.4676	2.277	.5074
#1	.0038	.1873	.3844	.4902	439.1	15.21	74.78
#2	.0030	.1843	.3825	.4873	437.3	14.65	74.45
#3	.0022	.1845	.3835	.4861	436.0	15.26	74.14
#4	.0038	.1839	.3806	.4831	434.2	14.64	73.91

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.991	-.0039	13.39	.3035	.0970	-.0122	.1352
SDev	.032	.0050	.09	.0094	.0109	.0289	.0321
%RSD	.4577	126.4	.6479	3.086	11.23	237.0	23.74
#1	7.026	.0011	13.50	.3166	.1088	-.0173	.1689
#2	7.003	-.0037	13.40	.2945	.1008	.0132	.1297
#3	6.985	L-.0108	13.37	.3023	.0954	L-.0509	.1488
#4	6.950	-.0024	13.29	.3004	.0829	.0062	.0935

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	34.10	.0249	1.129	20.98	.1053	1.075	.9575
SDev	.14	.0060	.007	.12	.0373	.005	.0034
%RSD	.3999	23.96	.5768	.5753	35.43	.4449	.3576
#1	34.26	.0330	1.137	21.14	.1478	1.081	.9604
#2	34.13	.0193	1.130	20.99	.1248	1.078	.9593
#3	34.09	.0218	1.127	20.93	.0797	1.073	.9575
#4	33.93	.0255	1.121	20.85	.0688	1.070	.9527

Method: ICP30J Sample Name: T971 Q SWC Operator: NSJ
Run Time: 11/04/97 16:29:56
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0103	410.9	.0115	.1155	1.677	.0065	81.47
SDev	.0009	4.0	.0317	.0019	.018	.0001	.65
%RSD	8.990	.9713	275.3	1.609	1.053	1.315	.8016
#1	.0095	405.1	.0076	.1144	1.651	.0064	80.55
#2	.0100	411.2	-.0092	.1152	1.679	.0066	81.46
#3	.0101	413.4	-.0098	.1182	1.687	.0064	81.88
#4	.0116	413.8	.0574	.1142	1.689	.0065	81.98

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0032	.1662	.3496	.4628	397.8	14.24	67.33
SDev	.0004	.0011	.0027	.0047	3.4	.20	.64
%RSD	13.83	.6781	.7838	1.008	.8543	1.419	.9448
#1	.0029	.1658	.3470	.4562	392.9	14.39	66.42
#2	.0030	.1662	.3475	.4629	398.1	14.16	67.38
#3	.0039	.1677	.3518	.4654	400.0	13.99	67.71
#4	.0032	.1651	.3522	.4667	400.1	14.43	67.82

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.501	-.0038	12.03	.2711	.0851	-.0153	.1623
SDev	.054	.0019	.11	.0043	.0134	.0129	.0413
%RSD	.8327	49.22	.9083	1.574	15.68	83.84	25.46
#1	6.423	-.0024	11.87	.2648	.1038	-.0150	.2090
#2	6.507	-.0022	12.04	.2743	.0763	-.0317	.1230
#3	6.533	-.0045	12.11	.2725	.0747	-.0003	.1324
#4	6.540	L-.0061	12.11	.2728	.0856	-.0143	.1848

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	31.71	.0264	.9945	19.41	.1029	.9870	.8473
SDev	.23	.0057	.0112	.21	.0268	.0105	.0058
%RSD	.7367	21.61	1.121	1.094	26.02	1.066	.6823
#1	31.38	.0195	.9783	19.10	.0840	.9735	.8397
#2	31.72	.0311	.9956	19.42	.0900	.9840	.8461
#3	31.89	.0310	1.002	19.54	.0953	.9938	.8504
#4	31.86	.0240	1.002	19.57	.1425	.9967	.8529

Method: ICP30J Sample Name: T971 R SWC Operator: NSJ
Run Time: 11/04/97 16:35:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0112	404.4	.0079	.1066	1.676	.0063	81.08
SDev	.0012	2.0	.0255	.0035	.011	.0001	.44
%RSD	10.81	.5020	322.5	3.276	.6624	2.338	.5477
#1	.0094	401.7	-.0197	.1015	1.661	.0061	80.46
#2	.0112	404.5	-.0079	.1073	1.676	.0063	81.25
#3	.0121	406.7	.0292	.1093	1.688	.0065	81.49
#4	.0119	404.5	.0300	.1082	1.676	.0063	81.12

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0035	.1725	.3472	.4615	402.1	13.60	68.43
SDev	.0003	.0016	.0036	.0038	2.5	.21	.37
%RSD	9.222	.9270	1.029	.8202	.6312	1.542	.5448
#1	.0035	.1703	.3418	.4566	398.5	13.39	67.93
#2	.0034	.1728	.3494	.4610	402.8	13.53	68.50
#3	.0039	.1741	.3489	.4657	404.6	13.60	68.84
#4	.0031	.1726	.3485	.4626	402.3	13.89	68.45

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.774	-.0012	11.17	.2780	.1135	-.0165	.1291
SDev	.041	.0014	.06	.0100	.0091	.0050	.0125
%RSD	.6073	120.5	.5804	3.614	7.979	30.34	9.711
#1	6.718	-.0016	11.10	.2632	.1002	-.0199	.1264
#2	6.781	-.0006	11.15	.2840	.1171	-.0216	.1149
#3	6.817	-.0030	11.26	.2801	.1206	-.0130	.1297
#4	6.781	.0004	11.18	.2845	.1160	-.0115	.1453

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	32.87	.0278	.9799	18.89	.0973	.9740	.9134
SDev	.18	.0076	.0063	.12	.0519	.0073	.0056
%RSD	.5545	27.32	.6380	.6501	53.39	.7528	.6169
#1	32.63	.0358	.9717	18.73	.0366	.9639	.9060
#2	32.91	.0182	.9806	18.92	.1635	.9748	.9156
#3	33.06	.0315	.9868	19.02	.0971	.9814	.9193
#4	32.88	.0257	.9806	18.90	.0918	.9759	.9125

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Method: ICP30J Sample Name: T971 S SWC Operator: NSJ
Run Time: 11/04/97 16:40:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0098	397.4	.0002	.1133	1.667	.0063	79.32
SDev	.0003	1.9	.0215	.0023	.014	.0001	.45
%RSD	3.622	.4769	12850.	2.033	.8153	1.532	.5695
#1	.0098	397.8	.0165	.1135	1.671	.0063	79.53
#2	.0103	399.9	-.0049	.1141	1.684	.0065	79.85
#3	.0095	395.9	.0173	.1101	1.654	.0063	78.89
#4	.0096	395.9	-.0282	.1156	1.658	.0063	79.01

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0031	.1662	.3459	.4854	399.1	13.22	67.84
SDev	.0011	.0032	.0015	.0036	2.5	.09	.42
%RSD	33.97	1.945	.4259	.7350	.6304	.6688	.6239
#1	.0028	.1682	.3456	.4859	400.0	13.21	68.01
#2	.0047	.1694	.3480	.4901	402.3	13.33	68.36
#3	.0024	.1648	.3447	.4819	396.7	13.11	67.49
#4	.0027	.1623	.3451	.4835	397.5	13.23	67.50

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.370	-.0025	11.02	.2801	.1184	-.0273	.1479
SDev	.038	.0029	.10	.0072	.0107	.0353	.050Z CK
%RSD	.5967	116.2	.9493	2.553	9.064	129.5	34.31
#1	6.378	.0013	11.04	.2746	.1270	.0217	.0781
#2	6.420	-.0021	11.15	.2778	.1031	-.0332	.1975
#3	6.336	-.0037	10.91	.2775	.1246	-.0351	.1678
#4	6.346	L-.0055	10.96	.2906	.1191	L-.0625	.1481

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	33.84	.0262	.9664	19.08	.0943	.9774	.8915
SDev	.18	.0043	.0076	.14	.0576 CK	.0072	.0073
%RSD	.5414	16.52	.7838	.7528	61.09	.7324	.8188
#1	33.88	.0294	.9687	19.13	.0671	.9792	.8957
#2	34.09	.0281	.9760	19.26	.1400	.9868	.8993
#3	33.68	.0198	.9595	18.94	.0261	.9721	.8878
#4	33.73	.0274	.9613	19.00	.1440	.9716	.8832

Method: ICP30J Sample Name: T971 T SWC Operator: NSJ
Run Time: 11/04/97 16:45:31
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0105	406.1	-.0015	.1361	1.686	.0066	81.57
SDev	.0011	.8	.0192	.0034	.005	.0001	.27
%RSD	10.98	.2017	1321.	2.485	.2786	1.450	.3296
#1	.0102	406.1	-.0077	.1365	1.687	.0065	81.54
#2	.0090	406.2	-.0252	.1313	1.686	.0067	81.52
#3	.0113	407.1	.0088	.1373	1.690	.0068	81.93
#4	.0115	405.1	.0183	.1392	1.679	.0066	81.28

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0034	.1687	.3516	.4839	406.0	14.00	68.48
SDev	.0007	.0008	.0013	.0013	1.1	.20	.24
%RSD	20.55	.4868	.3716	.2776	.2622	1.440	.3435
#1	.0029	.1678	.3522	.4834	406.0	13.91	68.44
#2	.0041	.1683	.3503	.4827	405.8	14.17	68.45
#3	.0039	.1697	.3532	.4858	407.4	13.76	68.79
#4	.0027	.1691	.3508	.4838	404.8	14.16	68.22

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.628	L-.0059	11.84	.2752	.1012	-.0229	.1151
SDev	.019	.0031	.03	.0043	.0101	.0228	.0284
%RSD	.2908	52.20	.2825	1.554	9.994	99.47	24.67
#1	6.630	L-.0056	11.85	.2786	.0970	-.0416	.1453
#2	6.624	L-.0100	11.84	.2701	.0888	-.0412	.1053
#3	6.652	L-.0052	11.87	.2788	.1093	.0056	.1294
#4	6.605	-.0027	11.79	.2732	.1096	-.0147	.0804

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	35.46	.0287	.9917	20.07	.0812	1.003	.9117
SDev	.09	.0098	.0034	.06	.0245	.004	.0028
%RSD	.2549	34.26	.3418	.3156	30.14	.3539	.3071
#1	35.48	.0222	.9928	20.06	.0841	1.004	.9097
#2	35.44	.0192	.9919	20.07	.1085	1.002	.9110
#3	35.56	.0326	.9951	20.14	.0830	1.008	.9159
#4	35.35	.0407	.9871	19.99	.0490	.9995	.9104

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Method: ICP30J Sample Name: T971 APOST SWC Operator: NSJ
Run Time: 11/04/97 16:50:43
Comment: +12 µL SB 100 to 10mL sample
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0101	426.0	-.0052	.1779	1.685	.0068	79.09
SDev	.0012	2.1	.0198	.0034	.007	.0001	.44
%RSD	12.07	.4949	378.3	1.925	.3911	.9979	.5594
#1	.0093	424.2	-.0275	.1735	1.681	.0069	78.75
#2	.0089	425.5	.0196	.1769	1.684	.0068	78.88
#3	.0114	429.0	-.0011	.1801	1.695	.0068	79.74
#4	.0108	425.2	-.0119	.1810	1.681	.0068	78.99

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0028	.1782	.3520	.4232	412.2	13.30	73.44
SDev	.0005	.0017	.0019	.0027	2.2	.35	.36
%RSD	18.58	.9743	.5530	.6447	.5333	2.660	.4935
#1	.0033	.1775	.3504	.4212	410.6	12.98	73.24
#2	.0025	.1769	.3503	.4219	411.0	13.01	73.28
#3	.0022	.1808	.3541	.4272	415.4	13.55	73.98
#4	.0030	.1777	.3532	.4224	412.0	13.66	73.25

Elem	MN	MO	NA	NI	PB	SB 95.2%	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.669	-.0038	10.37	.2843	.1011	.1023	.1086
SDev	.034	.0026	.05	.0047	.0040	.0295	.0312
%RSD	.5131	68.58	.4769	1.643	3.937	28.84	28.73
#1	6.642	-.0002	10.35	.2780	.0961	.1340	.0954
#2	6.656	-.0040	10.35	.2884	.1042	.1139	.0719
#3	6.719	-.0047	10.44	.2872	.0997	.0644	.1423
#4	6.660	L-.0064	10.34	.2837	.1045	.0967	.1249

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	37.12	.0307	.9251	19.66	.0623	.9987	.8484
SDev	.16	.0086	.0039	.10	.0473	.0056	.0048
%RSD	.4430	28.12	.4214	.5290	75.91	.5582	.5674
#1	36.98	.0353	.9226	19.58	.0293	.9938	.8433
#2	37.05	.0406	.9242	19.63	.0146	.9966	.8458
#3	37.35	.0225	.9309	19.82	.0956	1.007	.8542
#4	37.08	.0246	.9228	19.63	.1096	.9978	.8501

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Method: ICP30J Sample Name: T971 UPOST SWC Operator: NSJ
Run Time: 11/04/97 16:55:55
Comment: +12 µL SB 100 } to 10 mL sample
Mode: CONC Corr. Factor: 1 +200 µL Ca 10,000 }

92-31

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0089	343.7	.0017	.0819	1.467	.0057	252.3
SDev	.0010	2.1	.0166	.0009	.012	.0001	1.7
%RSD	11.24	.6110	996.7	1.156	.7940	1.731	.6636
#1	.0098	345.9	.0012	.0808	1.481	.0059	254.4
#2	.0095	345.1	-.0017	.0825	1.471	.0056	253.0
#3	.0076	341.6	.0237	.0814	1.456	.0057	250.7
#4	.0085	342.3	-.0166	.0828	1.458	.0057	251.2

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0029	.1478	.2908	.5392	349.5	10.95	59.52
SDev	.0010	.0016	.0025	.0045	2.3	.24	.39
%RSD	34.83	1.100	.8668	.8384	.6632	2.150	.6510
#1	.0037	.1497	.2945	.5441	352.4	11.20	59.98
#2	.0036	.1478	.2897	.5418	350.5	10.99	59.70
#3	.0025	.1457	.2888	.5344	347.3	10.63	59.13
#4	.0016	.1480	.2902	.5363	348.1	10.96	59.29

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.113	-.0048	8.432	.2385	.0894	.1164	.1389
SDev	.040	.0028	.059	.0057	.0056	.0193	.0254
%RSD	.6579	59.03	.7048	2.376	6.232	16.57	18.25
#1	6.161	-.0023	8.504	.2433	.0919	.1039	.1708
#2	6.131	L-.0089	8.457	.2371	.0846	.1038	.1305
#3	6.074	-.0045	8.394	.2426	.0851	.1445	.1103
#4	6.086	-.0036	8.374	.2312	.0962	.1132	.1438

97%

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	34.97	.0189	.7966	16.01	.0851	.8455	.8447
SDev	.18	.0116	.0061	.12	.0232	.0067	.0048
%RSD	.5190	61.58	.7641	.7612	27.25	.7885	.5644
#1	35.17	.0362	.8032	16.14	.1117	.8532	.8504
#2	35.07	.0147	.8002	16.07	.0947	.8487	.8468
#3	34.78	.0111	.7911	15.89	.0579	.8390	.8407
#4	34.85	.0136	.7917	15.92	.0763	.8410	.8407

Method: ICP30J Sample Name: CRI Operator: NSJ
Run Time: 11/04/97 17:04:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0210	.0193	.0097	.0012	-.0001	.0098	.0099
SDev	.0009	.0049	.0045	.0009	.0000	.0001	.0039
%RSD	4.443	25.58	46.22	79.67	.0136	.5969	39.40
#1	.0197	.0266	.0127	.0002	-.0001	.0098	.0153
#2	.0217	.0176	.0036	.0024	-.0001	.0098	.0104
#3	.0209	.0162	.0133	.0010	-.0001	.0099	.0068
#4	.0216	.0167	.0091	.0010	-.0001	.0098	.0073

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0104	.1007	.0193	.0536	.0154	.1985	-.0008
SDev	.0005	.0008	.0008	.0003	.0047	.0998	.0065
%RSD	5.108	.8175	4.258	.5243	30.58	50.26	771.4
#1	.0108	.1009	.0200	.0535	.0217	.3480	.0087
#2	.0106	.1001	.0186	.0533	.0162	.1519	-.0036
#3	.0096	.1017	.0186	.0535	.0133	.1519	-.0024
#4	.0105	.0999	.0200	.0539	.0107	.1421	-.0061

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0304	-.0006	.0084	.0845	.0052	.1231	.0131
SDev	.0004	.0007	.0052	.0014	.0047	.0063	.0053
%RSD	1.208	115.1	61.21	1.695	91.21	5.081	40.38
#1	.0306	-.0014	.0089	.0852	.0082	.1312	.0176
#2	.0306	-.0000	.0081	.0829	.0098	.1248	.0089
#3	.0306	-.0009	.0021	.0861	.0031	.1190	.0081
#4	.0298	-.0000	.0147	.0838	-.0004	.1174	.0176

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0529	.0014	-.0005	.0007	.0054	.0993	.0413
SDev	.0063	.0019	.0000	.0003	.0108	.0010	.0014
%RSD	11.94	132.6	.0158	43.60	200.8	1.002	3.375
#1	.0601	.0038	-.0005	.0010	.0184	.0993	.0430
#2	.0557	-.0009	-.0005	.0010	.0088	.0990	.0399
#3	.0457	.0014	-.0005	.0004	.0010	.1006	.0405
#4	.0501	.0014	-.0005	.0004	-.0068	.0982	.0418

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Method: ICP30J Sample Name: ICSA Operator: NSJ
Run Time: 11/04/97 17:10:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	519.3	-.0251	.0287	.0040	-.0000	472.6
SDev	.0011	2.6	.0148	.0013	.0003	.0001	1.2
%RSD	142.5	.5093	59.13	4.430	6.240	893.9	.2434
#1	.0016	519.4	-.0092	.0295	.0038	-.0000	472.4
#2	.0007	520.9	-.0233	.0269	.0042	-.0000	473.0
#3	-.0008	521.5	-.0451	.0286	.0042	-.0000	474.0
#4	.0017	515.6	-.0227	.0296	.0038	.0001	471.2

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	.0007	-.0018	.0022	188.3	-.1838	512.4
SDev	.0011	.0004	.0007	.0005	.6	.1655	2.1
%RSD	75.73	68.47	37.81	23.58	.2989	90.02	.4012
#1	.0011	.0003	-.0008	.0024	187.9	-.4264	512.3
#2	.0001	.0003	-.0023	.0022	188.6	-.1323	513.6
#3	.0027	.0010	-.0023	.0015	188.9	-.1225	514.1
#4	.0017	.0011	-.0018	.0027	187.7	-.0539	509.5

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0025	.0081	-.0047	-.0421	-.0363	.0654
SDev	.0002	.0037	.0068	.0036	.0060	.0252	.0377
%RSD	199.4	148.2	84.27	77.08	14.32	69.45	57.75
#1	.0000	.0017	.0081	-.0067	-.0384	-.0345	.1149
#2	-.0004	-.0013	.0064	-.0047	-.0511	-.0625	.0533
#3	-.0002	-.0032	.0007	-.0078	-.0391	-.0457	.0685
#4	.0001	-.0072	.0171	.0004	-.0397	-.0027	.0246

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0712	.0026	.0284	.0004	.0973	.0048	.0060
SDev	.0066	.0094	.0002	.0001	.0349	.0008	.0003
%RSD	9.309	363.7	.7076	11.38	35.85	16.13	4.951
#1	.0771	.0163	.0283	.0004	.0875	.0055	.0062
#2	.0740	-.0050	.0285	.0005	.1236	.0051	.0061
#3	.0618	.0004	.0285	.0004	.1260	.0037	.0061
#4	.0721	-.0013	.0281	.0004	.0521	.0048	.0055

Analysis Report QC Standard Tue 11-04-97 05:20:22 PM page 1

Method: ICP30J Sample Name: ICSAB Operator: NSJ
Run Time: 11/04/97 17:15:15
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9538	522.0	-.0406	.0258	.4878	.4555	474.9
SDev	.0020	1.2	.0126	.0017	.0013	.0012	1.2
%RSD	.2080	.2291	31.12	6.721	.2628	.2722	.2565
#1	.9518	521.7	-.0368	.0256	.4877	.4541	473.4
#2	.9539	521.6	-.0285	.0234	.4874	.4549	474.7
#3	.9565	523.7	-.0584	.0272	.4896	.4569	476.3
#4	.9531	520.9	-.0387	.0269	.4866	.4559	475.2

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9287	.4425	.4453	.4754	189.7	.0049	515.7
SDev	.0025	.0009	.0021	.0020	.6	.1461	1.1
%RSD	.2691	.2046	.4680	.4192	.3059	2980.	.2211
#1	.9283	.4417	.4444	.4732	189.0	-.0735	515.2
#2	.9294	.4417	.4463	.4757	189.8	.1225	515.8
#3	.9315	.4435	.4477	.4780	190.4	.1323	517.2
#4	.9255	.4430	.4429	.4746	189.6	-.1617	514.5

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4462	-.0043	-.0084	.8901	.8655	-.0336	.0459
SDev	.0010	.0024	.0034	.0102	.0062	.0320	.0317
%RSD	.2272	56.53	39.86	1.143	.7189	95.25	69.09
#1	.4452	-.0016	-.0037	.8925	.8664	.0058	.0399
#2	.4460	-.0031	-.0108	.8900	.8604	-.0420	.0851
#3	.4476	-.0056	-.0108	.9013	.8739	-.0711	.0082
#4	.4461	-.0070	-.0084	.8767	.8613	-.0270	.0503

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0757	.0048	.0285	.0007	.0867	.4580	.9144
SDev	.0039	.0055	.0000	.0001	.0384	.0012	.0023
%RSD	5.176	115.9	.0795	14.86	44.26	.2537	.2526
#1	.0804	.0116	.0285	.0007	.0579	.4564	.9121
#2	.0773	.0065	.0285	.0007	.1406	.4580	.9139
#3	.0715	.0021	.0285	.0008	.0606	.4587	.9176
#4	.0737	-.0011	.0285	.0006	.0876	.4590	.9140

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Method: ICP30J Sample Name: CV 7 Operator: NSJ
Run Time: 11/04/97 17:26:03
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9931	2.085	2.027	1.013	1.004	.9759	2.068
SDev	.0027	.005	.006	.007	.003	.0041	.004
%RSD	.2746	.2474	.2903	.6493	.2880	.4207	.1705
#1	.9910	2.082	2.019	1.005	1.002	.9716	2.064
#2	.9937	2.082	2.026	1.013	1.004	.9746	2.067
#3	.9967	2.093	2.032	1.021	1.009	.9814	2.072
#4	.9910	2.086	2.030	1.015	1.003	.9762	2.070

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9874	.9914	.9933	.9922	2.019	20.94	2.048
SDev	.0011	.0032	.0038	.0031	.006	.11	.008
%RSD	.1155	.3198	.3805	.3148	.2822	.5261	.4015
#1	.9865	.9894	.9886	.9894	2.013	20.89	2.039
#2	.9862	.9902	.9920	.9916	2.017	20.87	2.043
#3	.9884	.9962	.9972	.9967	2.026	20.90	2.057
#4	.9883	.9899	.9953	.9911	2.020	21.10	2.053

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9791	1.017	1.977	1.019	1.991	2.093	2.116
SDev	.0030	.008	.009	.009	.014	.026	.019
%RSD	.3045	.7814	.4785	.8914	.6914	1.227	.8876
#1	.9765	1.006	1.973	1.020	1.973	2.060	2.141
#2	.9780	1.015	1.981	1.014	1.987	2.117	2.097
#3	.9834	1.025	1.988	1.031	2.002	2.085	2.107
#4	.9784	1.020	1.967	1.011	2.001	2.110	2.118

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.055	.9397	.9994	.9595	2.009	.9632	1.002
SDev	.004	.0016	.0037	.0039	.026	.0029	.003
%RSD	.1712	.1720	.3694	.4048	1.312	.2974	.3226
#1	2.052	.9396	.9962	.9549	1.977	.9609	1.001
#2	2.058	.9386	.9987	.9599	2.002	.9617	1.001
#3	2.059	.9420	1.005	.9643	2.017	.9673	1.007
#4	2.053	.9386	.9980	.9589	2.040	.9630	1.000

Analysis Report Blank Sample Tue 11-04-97 05:38:14 PM page 1

Method: ICP30J Sample Name: Blank 7 Operator: NSJ
Run Time: 11/04/97 17:33:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0045	-.0098	.0003	.0003	.0003	.0001
SDev	.0012	.0035	.0060	.0012	.0003	.0001	.0016
%RSD	337.2	78.14	61.03	441.3	100.7	20.68	1462.
#1	.0004	.0074	-.0175	.0012	.0003	.0002	-.0017
#2	-.0004	.0003	-.0029	-.0005	.0005	.0002	.0019
#3	-.0006	.0074	-.0099	-.0010	-.0001	.0004	-.0008
#4	.0021	.0030	-.0089	.0015	.0003	.0003	.0010

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	-.0011	-.0005	.0019	.0021	.0049	-.0015
SDev	.0006	.0008	.0007	.0009	.0003	.1398	.0051
%RSD	107.0	69.22	150.1	49.84	14.75	2852.	332.8
#1	.0006	-.0014	-.0008	.0015	.0023	-.1029	-.0028
#2	.0007	-.0001	.0006	.0011	.0023	.1617	.0046
#3	-.0002	-.0019	-.0008	.0018	.0020	-.1225	-.0077
#4	.0012	-.0011	-.0008	H.0033	.0017	.0833	-.0003

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0003	-.0005	-.0002	.0008	-.0054	.0006
SDev	.0000	.0008	.0062	.0021	.0044	.0105	.0021
%RSD	.1877	240.1	1297.	937.2	554.5	192.7	350.3
#1	-.0003	.0010	-.0007	.0016	.0042	-.0138	-.0024
#2	-.0003	-.0006	-.0043	-.0005	-.0030	-.0022	.0008
#3	-.0003	-.0001	-.0053	-.0031	-.0031	-.0138	.0024
#4	-.0003	.0010	.0084	.0011	.0051	.0080	.0016

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	-.0012	-.0001	-.0002	-.0036	-.0013	-.0006
SDev	.0070	.0009	.0002	.0005	.0042	.0005	.0010
%RSD	632.0	79.39	200.0	251.9	116.1	34.43	162.7
#1	.0073	-.0000	.0000	-.0003	.0011	-.0012	-.0006
#2	-.0072	-.0012	-.0000	-.0003	-.0061	-.0019	-.0019
#3	-.0022	-.0012	-.0005	-.0006	-.0013	-.0015	.0006
#4	.0065	-.0023	-.0000	.0005	-.0079	-.0008	-.0006

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Method: ICP30J Sample Name: U075 MB2 RCC Operator: NSJ
Run Time: 11/04/97 17:46:33
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0074	-.0090	.0572	.0004	.0002	.0078
SDev	.0004	.0036	.0091	.0016	.0001	.0000	.0018
%RSD	35.11	49.08	100.8	2.720	28.87	16.70	23.03
#1	.0014	.0045	-.0029	.0594	.0005	.0002	.0064
#2	.0006	.0126	-.0009	.0558	.0003	.0002	.0068
#3	.0009	.0071	-.0208	.0572	.0005	.0002	.0104
#4	.0014	.0054	-.0116	.0566	.0003	.0002	.0077

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0001	-.0001	.0021	.0028	.2696	.0022
SDev	.0005	.0006	.0008	.0007	.0016	.2066	.0044
%RSD	253.8	838.1	698.7	32.29	57.15	76.62	203.9
#1	.0003	-.0009	-.0008	.0029	.0007	.2206	-.0028
#2	-.0005	-.0001	.0011	.0012	.0033	.1617	.0059
#3	.0005	.0002	-.0004	.0022	.0046	.5735	.0059
#4	.0005	.0005	-.0004	.0020	.0027	.1225	-.0003

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0002	.1041	.0026	.0022	-.0015	.0054
SDev	.0002	.0010	.0040	.0038	.0050	.0064	.0128
%RSD	324.0	471.7	3.819	145.7	222.4	420.8	238.5
#1	-.0001	-.0006	.1085	.0072	-.0051	.0048	.0056
#2	.0002	.0008	.0994	-.0018	.0051	-.0103	.0159
#3	-.0001	.0013	.1024	.0013	.0051	.0010	.0127
#4	-.0003	-.0006	.1060	.0036	.0038	-.0016	-.0127

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1212	.0006	-.0000	.0001	-.0096	-.0007	.0019
SDev	.0093	.0036	.0000	.0004	.0143	.0008	.0010
%RSD	7.696	624.1	23.07	273.4	148.7	124.1	55.12
#1	.1346	-.0012	-.0000	.0005	-.0235	-.0012	.0019
#2	.1140	-.0023	-.0000	-.0003	-.0097	.0005	.0032
#3	.1157	.0058	-.0000	.0005	.0100	-.0012	.0006
#4	.1207	.0000	-.0000	-.0001	-.0151	-.0008	.0019

Method: ICP30J Sample Name: U100 MB3 RCC Operator: NSJ
Run Time: 11/04/97 17:51:11
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0076	-.0084	.0254	.0002	.0001	.0095
SDev	.0009	.0088	.0091	.0028	.0002	.0002	.0040
%RSD	154.1	116.7	107.2	10.85	100.00	126.9	42.24
#1	-.0006	-.0030	-.0001	.0213	.0003	-.0000	.0055
#2	.0014	.0051	-.0018	.0275	.0003	-.0000	.0077
#3	.0004	.0102	-.0126	.0264	-.0001	.0002	.0100
#4	.0014	.0180	-.0192	.0264	.0003	.0003	.0149

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	-.0001	-.0004	.0014	.0048	.1716	-.0012
SDev	.0002	.0012	.0023	.0004	.0018	.3133	.0174
%RSD	694.0	960.5	635.2	28.58	37.46	182.6	1402.
#1	-.0002	-.0019	-.0027	.0010	.0033	-.1421	L-.0213
#2	.0001	.0005	-.0018	.0018	.0033	-.0441	-.0102
#3	-.0000	-.0001	.0011	.0012	.0059	.3676	.0145
#4	.0001	.0010	.0020	.0018	.0069	.5049	.0120

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	-.0003	.0534	-.0018	-.0016	-.0037	.0125
SDev	.0000	.0020	.0040	.0039	.0073	.0120	.0099
%RSD	.1918	736.5	7.516	215.0	448.2	326.7	78.97
#1	-.0003	-.0017	.0479	-.0059	-.0107	-.0077	.0064
#2	-.0003	-.0023	.0564	-.0038	-.0026	-.0176	.0175
#3	-.0003	.0010	.0531	-.0007	.0000	.0109	.0238
#4	-.0003	.0019	.0564	.0031	.0068	-.0003	.0024

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1126	.0026	-.0000	-.0001	-.0132	-.0004	.0011
SDev	.0015	.0018	.0000	.0005	.0062	.0010	.0008
%RSD	1.295	67.73	42.30	353.8	46.71	218.1	71.51
#1	.1118	.0011	-.0000	-.0005	-.0133	-.0015	.0013
#2	.1146	.0011	-.0000	.0003	-.0121	-.0004	.0013
#3	.1126	.0035	-.0000	-.0006	-.0062	-.0007	-.0000
#4	.1113	.0047	-.0000	.0003	-.0211	.0008	.0019

Method: ICP30J Sample Name: U075 X-L RCC Operator: NSJ
Run Time: 11/04/97 17:55:49
Comment: 1/5 CLP SERIAL DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0043	-.0013	.0010	.0001	.0001	.0063
SDev	.0008	.0075	.0121	.0016	.0002	.0000	.0019
%RSD	459.4	177.2	914.1	164.0	383.0	32.97	31.05
#1	.0014	.0096	.0126	.0031	.0003	.0001	.0091
#2	-.0006	.0066	.0041	.0001	.0001	.0000	.0046
#3	-.0001	.0078	-.0073	-.0005	-.0001	.0001	.0059
#4	.0001	-.0069	-.0147	.0012	-.0001	.0001	.0055

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0004	-.0002	.0013	.0019	.1348	-.0012
SDev	.0005	.0010	.0011	.0007	.0014	.3694	.0101
%RSD	446.6	251.3	443.3	57.47	69.73	274.0	816.3
#1	.0004	.0010	.0011	.0023	.0040	.6519	.0108
#2	-.0007	-.0014	-.0013	.0011	.0011	.1323	-.0015
#3	-.0003	-.0006	-.0008	.0010	.0014	-.1912	-.0139
#4	.0001	-.0006	.0001	.0007	.0014	-.0539	-.0003

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	-.0002	.0106	.0011	-.0022	.0002	.0103
SDev	.0004	.0012	.0049	.0024	.0042	.0101	.0192
%RSD	696.8	562.0	46.37	226.5	196.7	4135.	185.8
#1	-.0003	.0013	.0163	.0011	.0013	.0006	.0230
#2	.0004	-.0001	.0084	.0008	-.0022	-.0093	.0278
#3	.0004	-.0006	.0128	.0042	.0004	-.0045	.0048
#4	-.0003	-.0014	.0051	-.0018	-.0081	.0141	-.0143

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0267	.0017	-.0003	-.0003	-.0132	-.0005	.0002
SDev	.0066	.0022	.0002	.0005	.0070	.0007	.0009
%RSD	24.56	127.0	66.63	189.0	53.15	151.8	622.4
#1	.0365	.0035	-.0000	.0005	-.0223	.0001	.0006
#2	.0234	.0011	-.0005	-.0006	-.0061	-.0004	-.0006
#3	.0240	.0035	-.0005	-.0006	-.0145	-.0001	.0012
#4	.0229	-.0011	-.0005	-.0003	-.0097	-.0015	-.0006

Method: ICP30J Sample Name: U075 X RCC Operator: NSJ
Run Time: 11/04/97 18:00:27
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0017	.0190	-.0046	.0147	.0005	.0001	.0591
SDev	.0005	.0040	.0067	.0009	.0000	.0000	.0016
%RSD	28.16	21.18	146.0	6.294	.0045	3.250	2.721
#1	.0014	.0183	-.0003	.0152	.0005	.0001	.0583
#2	.0016	.0158	-.0117	.0141	.0005	.0001	.0614
#3	.0014	.0248	-.0089	.0138	.0005	.0001	.0579
#4	.0024	.0171	.0024	.0157	.0005	.0001	.0588

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0007	-.0002	.0027	.0083	.2010	.0022
SDev	.0004	.0005	.0006	.0005	.0010	.1140	.0066
%RSD	526.6	69.38	252.4	18.71	12.07	56.75	307.0
#1	-.0006	-.0001	-.0004	.0027	.0075	.2990	.0095
#2	-.0001	-.0006	.0006	.0022	.0098	.1912	.0059
#3	.0004	-.0011	-.0004	.0026	.0078	.0441	-.0040
#4	.0000	-.0011	-.0008	.0034	.0082	.2696	-.0028

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	-.0002	.0706	.0011	.0044	-.0025	.0137
SDev	.0003	.0013	.0055	.0039	.0056	.0052	.0065
%RSD	254.1	633.7	7.851	368.9	127.3	208.9	47.17
#1	.0004	-.0012	.0761	-.0018	-.0009	-.0006	.0222
#2	.0002	.0016	.0640	.0052	.0119	-.0087	.0151
#3	-.0003	-.0012	.0681	-.0028	.0055	.0035	.0079
#4	.0002	-.0001	.0742	.0036	.0012	-.0042	.0095

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1890	.0023	.0001	.0007	-.0087	-.0004	.0031
SDev	.0302	.0030	.0001	.0002	.0076	.0008	.0010
%RSD	15.97	129.1	116.6	25.28	86.88	190.0	32.44
#1	.2330	.0035	.0002	.0008	-.0109	-.0003	.0031
#2	.1704	-.0012	.0002	.0005	-.0049	-.0014	.0044
#3	.1843	.0012	-.0000	.0008	-.0008	-.0003	.0019
#4	.1682	.0058	-.0000	.0006	-.0181	.0004	.0031

Method: ICP30J Sample Name: U100 T-L RCC Operator: NSJ
Run Time: 11/04/97 18:05:04
Comment: 1/5 CLP SERIAL DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0119	-.0039	.0044	.0001	.0001	.0119
SDev	.0004	.0043	.0066	.0005	.0002	.0001	.0017
%RSD	119.8	36.55	167.1	11.06	383.0	43.72	14.57
#1	.0001	.0086	-.0089	.0043	.0003	.0001	.0095
#2	.0006	.0108	-.0078	.0043	.0001	.0002	.0135
#3	.0006	.0098	.0056	.0051	-.0001	.0001	.0126
#4	-.0001	.0183	-.0046	.0040	-.0001	.0001	.0117

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	-.0006	.0004	.0014	.0086	.2745	.0006
SDev	.0008	.0006	.0006	.0001	.0008	.1864	.0075
%RSD	19950.	95.70	171.4	8.186	8.939	67.92	1221.
#1	-.0006	-.0006	-.0004	.0012	.0075	.0245	-.0028
#2	.0011	-.0001	.0011	.0015	.0091	.3088	.0095
#3	-.0000	-.0014	.0001	.0014	.0085	.2892	-.0077
#4	-.0005	-.0003	.0006	.0014	.0091	.4754	.0034

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0000	.0274	.0003	.0034	.0002	.0046
SDev	.0004	.0011	.0061	.0031	.0032	.0156	.0149
%RSD	296.8	136700.	22.22	1035.	96.25	6339.	325.1
#1	-.0003	.0008	.0204	-.0023	-.0001	-.0163	-.0016
#2	-.0003	-.0006	.0295	.0044	.0013	.0026	.0214
#3	-.0003	.0010	.0251	-.0018	.0060	.0205	-.0127
#4	.0004	-.0012	.0347	.0008	.0064	-.0058	.0111

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0353	.0029	-.0001	-.0001	-.0081	-.0004	.0014
SDev	.0063	.0015	.0002	.0001	.0104	.0005	.0009
%RSD	17.81	50.36	199.6	67.24	127.9	133.8	66.48
#1	.0443	.0046	-.0000	-.0003	-.0014	-.0009	.0000
#2	.0337	.0023	-.0000	-.0001	-.0044	-.0003	.0019
#3	.0337	.0012	-.0005	-.0001	-.0235	-.0005	.0019
#4	.0295	.0035	-.0000	-.0001	-.0032	.0003	.0019

Method: ICP30J Sample Name: U100 T RCC Operator: NSJ
Run Time: 11/04/97 18:09:41
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0168	-.0087	.0192	.0006	.0001	.0453
SDev	.0012	.0095	.0163	.0016	.0001	.0001	.0029
%RSD	483.2	56.40	186.1	8.454	18.18	83.23	6.501
#1	-.0004	.0258	.0057	.0205	.0005	.0002	.0435
#2	.0016	.0234	-.0019	.0199	.0008	.0001	.0471
#3	-.0011	.0053	-.0319	.0196	.0005	-.0000	.0422
#4	.0009	.0129	-.0068	.0168	.0005	.0002	.0485

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0008	.0027	.0023	.0393	.1985	.0006
SDev	.0005	.0009	.0009	.0006	.0010	.1042	.0069
%RSD	481.0	106.4	33.37	26.81	2.457	52.48	1138.
#1	-.0009	-.0006	.0025	.0021	.0383	.0441	.0034
#2	.0004	-.0006	.0034	.0029	.0405	.2696	.0083
#3	.0000	-.0022	.0015	.0015	.0389	.2304	-.0077
#4	.0001	-.0001	.0034	.0026	.0395	.2500	-.0016

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	-.0006	.1301	-.0031	-.0018	-.0064	.0080
SDev	.0001	.0008	.0034	.0048	.0077	.0080	.0231
%RSD	20.16	126.1	2.598	155.8	438.1	124.9	288.9
#1	.0007	-.0012	.1296	-.0090	-.0052	-.0109	-.0222
#2	.0007	.0005	.1345	-.0035	-.0018	-.0064	.0318
#3	.0004	-.0012	.1263	.0029	-.0091	-.0131	.0040
#4	.0007	-.0006	.1301	-.0028	.0090	.0048	.0183

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1757	.0026	.0001	.0005	-.0191	-.0001	.0079
SDev	.0068	.0017	.0001	.0004	.0130	.0018	.0011
%RSD	3.864	66.10	203.0	74.34	68.30	1191.	13.99
#1	.1746	.0046	.0002	.0001	-.0110	.0009	.0088
#2	.1855	.0012	-.0000	.0010	-.0350	.0017	.0069
#3	.1702	.0035	-.0000	.0005	-.0062	-.0020	.0069
#4	.1724	.0012	-.0000	.0005	-.0242	-.0012	.0088

Method: ICP30J Sample Name: U100 AI RCC Operator: NSJ
Run Time: 11/04/97 18:14:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.0319	-.0058	.0189	.0007	.0002	.0693
SDev	.0014	.0054	.0060	.0029	.0001	.0001	.0016
%RSD	286.6	16.87	103.1	15.19	19.25	36.37	2.389
#1	.0004	.0296	-.0088	.0208	.0008	.0001	.0690
#2	.0024	.0392	-.0014	.0199	.0008	.0002	.0695
#3	-.0011	.0320	-.0003	.0146	.0005	.0001	.0673
#4	.0004	.0266	-.0127	.0202	.0005	.0002	.0713

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	-.0011	.0004	.0024	.0221	.1446	.0018
SDev	.0006	.0006	.0003	.0009	.0011	.1142	.0021
%RSD	119.7	50.71	77.25	38.02	5.216	78.94	114.6
#1	-.0000	-.0011	.0001	.0016	.0211	.0147	.0046
#2	-.0001	-.0019	.0001	.0037	.0234	.2304	-.0003
#3	-.0005	-.0008	.0006	.0019	.0211	.0833	.0021
#4	-.0012	-.0006	.0006	.0023	.0227	.2500	.0009

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	-.0005	.0970	.0008	.0012	-.0087	.0060
SDev	.0001	.0005	.0042	.0013	.0047	.0081	.0197
%RSD	20.10	99.37	4.376	164.0	395.6	92.60	329.4
#1	.0004	-.0001	.1011	-.0007	-.0035	-.0064	.0016
#2	.0007	-.0009	.1000	.0003	.0024	-.0138	.0064
#3	.0007	-.0009	.0920	.0024	-.0014	-.0163	.0317
#4	.0007	-.0001	.0950	.0013	.0072	.0016	-.0158

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2094	.0012	.0005	.0001	-.0068	-.0004	.0036
SDev	.0063	.0023	.0000	.0004	.0191	.0008	.0009
%RSD	3.012	201.5	.0067	399.3	283.0	176.8	26.10
#1	.2066	-.0023	.0005	-.0003	-.0271	-.0012	.0031
#2	.2177	.0023	.0005	.0006	.0172	.0005	.0044
#3	.2030	.0023	.0005	-.0001	-.0158	-.0001	.0044
#4	.2105	.0023	.0005	.0001	-.0014	-.0009	.0025

Method: ICP30J Sample Name: U269 MB1SPK LEN Operator: NSJ
Run Time: 11/04/97 18:18:56
Comment: +0.1 mL TCLP SPK to 10mL
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8720	.0227	5.484	.0262	5.265	-.0003	.0231
SDev	.0329	.0237	.026	.0016	.040	.0001	.0040
%RSD	3.769	104.4	.4672	6.102	.7551	48.93	17.44
#1	.8960	.0195	5.449	.0260	5.234	-.0004	.0173
#2	.9044	.0003	5.505	.0251	5.312	-.0002	.0236
#3	.8470	.0561	5.480	.0285	5.231	-.0002	.0254
#4	.8405	.0150	5.501	.0252	5.285	-.0002	.0263

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.019	-.0009	5.084	.0028	-.0048	.0956	-.0065
SDev	.005	.0015	.031	.0011	.0014	.4601	.0174
%RSD	.4771	176.9	.6015	39.43	29.87	481.4	268.6
#1	1.017	-.0025	5.070	.0032	-.0063	L-.5147	L-.0271
#2	1.026	-.0007	5.118	.0018	-.0057	-.0049	-.0123
#3	1.015	-.0014	5.048	.0043	-.0034	.4460	-.0000
#4	1.017	.0011	5.098	.0021	-.0038	.4558	.0136

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	-.0005	1628.	.0065	5.058	-.0003	1.260
SDev	.0008	.0015	9.	.0040	.029	.0081	.025
%RSD	152.6	338.9	.5475	61.76	.5651	3223.	1.999
#1	.0006	-.0027	1622.	.0103	5.046	.0000	1.225
#2	.0001	-.0002	1637.	.0049	5.099	-.0115	1.262
#3	.0015	.0009	1619.	.0090	5.034	.0034	1.267
#4	-.0002	.0001	1634.	.0016	5.055	.0072	1.286

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0667	.0056	.0069	.0005	-.0004	.0024	.0534
SDev	.0063	.0017	.0000	.0006	.0113	.0034	.0005
%RSD	9.494	29.58	.0011	135.4	2832.	141.3	.9471
#1	.0726	.0033	.0069	.0006	-.0001	.0027	.0540
#2	.0632	.0068	.0069	.0003	.0155	-.0010	.0528
#3	.0715	.0056	.0069	.0012	-.0091	.0070	.0534
#4	.0596	.0068	.0069	-.0003	-.0079	.0010	.0534

Analysis Report Tue 11-04-97 06:28:06 PM page 1

Method: ICP30J Sample Name: U100 REF3 RCC Operator: NSJ
Run Time: 11/04/97 18:23:34
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6555	2.073	2.002	1.003	.9838	.9477	2.066
SDev	.0038	.011	.026	.006	.0093	.0079	.013
%RSD	.5818	.5490	1.309	.5811	.9444	.8365	.6143
#1	.6548	2.073	2.014	.9997	.9817	.9442	2.059
#2	.6540	2.069	1.967	1.0000	.9815	.9472	2.064
#3	.6610	2.089	2.029	1.011	.9969	.9589	2.084
#4	.6523	2.062	2.000	.9997	.9750	.9406	2.056

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9755	.9777	.9801	.9736	1.979	20.37	2.008
SDev	.0060	.0081	.0063	.0074	.014	.15	.006
%RSD	.6130	.8240	.6445	.7590	.7255	.7122	.3134
#1	.9739	.9728	.9772	.9721	1.970	20.34	1.999
#2	.9750	.9780	.9815	.9710	1.978	20.48	2.012
#3	.9836	.9889	.9882	.9842	1.999	20.48	2.013
#4	.9693	.9710	.9734	.9672	1.968	20.18	2.007

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9632	.9991	2.163	1.003	1.964	2.068	2.108
SDev	.0070	.0095	.048	.001	.014	.011	.015
%RSD	.7289	.9513	2.219	.1276	.7267	.5196	.7132
#1	.9605	.9879	2.223	1.004	1.958	2.055	2.111
#2	.9625	1.001	2.166	1.003	1.970	2.076	2.129
#3	.9731	1.011	2.156	1.001	1.979	2.077	2.098
#4	.9566	.9968	2.106	1.002	1.946	2.062	2.096

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.701	.9440	.9804	.9453	1.989	.9503	.9966
SDev	.015	.0020	.0090	.0078	.030	.0076	.0060
%RSD	.5455	.2105	.9157	.8238	1.484	.7958	.6038
#1	2.695	.9431	.9775	.9427	1.988	.9479	.9944
#2	2.705	.9420	.9786	.9434	1.960	.9491	.9995
#3	2.719	.9466	.9932	.9565	2.030	.9610	1.003
#4	2.684	.9443	.9722	.9385	1.980	.9433	.9894

Method: ICP30J Sample Name: U075 REF2 RCC Operator: NSJ
Run Time: 11/04/97 18:28:11
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9801	2.070	2.007	1.018	.9898	.9642	2.075
SDev	.0038	.013	.018	.005	.0054	.0053	.013
%RSD	.3914	.6237	.9139	.5323	.5506	.5511	.6283
#1	.9831	2.082	2.011	1.019	.9915	.9669	2.088
#2	.9833	2.081	2.031	1.022	.9945	.9694	2.084
#3	.9786	2.063	1.997	1.020	.9913	.9635	2.068
#4	.9753	2.056	1.989	1.010	.9820	.9571	2.060

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9736	.9828	.9857	.9768	1.991	20.56	2.013
SDev	.0080	.0076	.0071	.0052	.011	.08	.019
%RSD	.8232	.7770	.7202	.5362	.5546	.3881	.9587
#1	.9793	.9897	.9924	.9780	2.000	20.53	2.038
#2	.9796	.9874	.9910	.9822	1.999	20.65	2.010
#3	.9729	.9816	.9810	.9774	1.989	20.59	2.013
#4	.9625	.9725	.9782	.9696	1.976	20.46	1.991

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9693	1.011	2.025	1.006	1.968	2.069	2.099
SDev	.0058	.004	.008	.007	.024	.020	.018
%RSD	.5974	.4284	.4022	.7163	1.205	.9492	.8644
#1	.9730	1.009	2.034	1.006	1.985	2.097	2.115
#2	.9743	1.017	2.028	1.006	1.990	2.065	2.089
#3	.9681	1.012	2.021	1.014	1.957	2.055	2.114
#4	.9615	1.007	2.015	.9966	1.940	2.058	2.079

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.719	.9449	.9872	.9509	1.993	.9550	.9947
SDev	.014	.0020	.0052	.0047	.017	.0056	.0051
%RSD	.4996	.2075	.5227	.4927	.8538	.5837	.5119
#1	2.732	.9444	.9890	.9532	1.991	.9574	.9994
#2	2.728	.9472	.9918	.9550	2.018	.9610	.9988
#3	2.714	.9454	.9881	.9510	1.985	.9536	.9906
#4	2.702	.9425	.9798	.9443	1.980	.9479	.9900

Analysis Report QC Standard Tue 11-04-97 06:37:24 PM page 1

Method: ICP30J Sample Name: CV Operator: NSJ
Run Time: 11/04/97 18:32:50
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9940	2.087	2.043	1.022	1.007	.9875	2.093
SDev	.0059	.012	.013	.008	.007	.0090	.017
%RSD	.5912	.5916	.6493	.8146	.7046	.9122	.8109
#1	.9870	2.072	2.025	1.010	.9976	.9755	2.072
#2	1.001	2.097	2.050	1.027	1.014	.9961	2.113
#3	.9923	2.097	2.040	1.021	1.007	.9861	2.088
#4	.9958	2.083	2.055	1.028	1.011	.9923	2.098

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9883	.9976	1.001	.9937	2.023	20.97	2.050
SDev	.0055	.0071	.009	.0079	.016	.33	.023
%RSD	.5547	.7086	.8532	.7962	.8100	1.571	1.132
#1	.9834	.9884	.9900	.9833	2.004	20.56	2.026
#2	.9956	1.005	1.010	1.002	2.042	21.37	2.074
#3	.9849	.9964	.9991	.9928	2.017	21.00	2.035
#4	.9893	1.001	1.005	.9968	2.029	20.93	2.064

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9835	1.024	1.989	1.033	1.998	2.095	2.127
SDev	.0075	.009	.011	.009	.014	.015	.023
%RSD	.7624	.8525	.5453	.8586	.7203	.7004	1.072
#1	.9748	1.012	1.983	1.022	1.994	2.104	2.105
#2	.9914	1.030	2.003	1.037	2.018	2.098	2.158
#3	.9802	1.022	1.979	1.043	1.984	2.073	2.127
#4	.9878	1.030	1.993	1.029	1.993	2.105	2.117

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.054	.9454	1.005	.9678	2.019	.9695	1.004
SDev	.010	.0077	.008	.0072	.016	.0086	.005
%RSD	.4687	.8112	.7680	.7396	.8039	.8912	.5397
#1	2.045	.9397	.9941	.9578	1.998	.9577	.9981
#2	2.065	.9554	1.012	.9747	2.016	.9783	1.011
#3	2.047	.9390	1.004	.9685	2.032	.9697	1.002
#4	2.059	.9473	1.009	.9701	2.031	.9723	1.006

Analysis Report Blank Sample Tue 11-04-97 06:43:21 PM page 1

Method: ICP30J Sample Name: Blank 8 Operator: NSJ
Run Time: 11/04/97 18:38:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0019	.0103	-.0094	.0022	.0009	.0006	.0015
SDev	.0020	.0036	.0136	.0019	.0001	.0001	.0013
%RSD	102.4	34.57	143.7	85.76	11.76	18.90	90.60
#1	H.0043	.0144	.0104	.0051	.0008	.0006	.0015
#2	.0014	.0105	-.0121	.0015	.0010	.0007	-.0003
#3	.0024	.0057	-.0165	.0012	.0010	.0007	.0028
#4	-.0004	.0105	-.0196	.0012	.0010	.0005	.0019

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0002	.0004	H.0029	.0008	.2818	-.0009
SDev	.0003	.0015	.0006	.0013	.0010	.1110	.0066
%RSD	78.84	800.1	170.8	45.85	118.6	39.39	718.6
#1	.0004	-.0009	-.0004	H.0045	.0011	.3970	.0034
#2	.0002	-.0011	.0006	H.0031	-.0006	.1421	-.0077
#3	.0001	.0023	.0011	H.0025	.0017	.3382	.0059
#4	.0008	.0005	.0001	.0014	.0011	.2500	-.0052

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0006	.0142	-.0003	.0036	-.0073	-.0032
SDev	.0002	.0011	.0066	.0036	.0073	.0141	.0187
%RSD	38.42	201.8	46.89	1285.	203.6	193.5	588.6
#1	.0007	.0021	.0177	.0042	.0068	.0109	.0040
#2	.0009	-.0001	.0199	-.0041	-.0014	-.0234	.0190
#3	.0004	-.0003	.0144	-.0023	.0124	-.0099	-.0119
#4	.0004	.0005	.0048	.0011	-.0034	-.0067	-.0238

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0029	.0017	.0002	.0005	-.0085	.0006	.0008
SDev	.0092	.0022	.0003	.0010	.0082	.0009	.0003
%RSD	323.6	128.0	115.5	210.7	96.35	157.0	38.71
#1	.0143	.0012	.0005	.0019	-.0061	.0020	.0012
#2	.0017	.0034	.0005	.0003	-.0121	.0003	.0006
#3	.0037	.0035	-.0000	.0005	.0016	-.0000	.0006
#4	-.0083	-.0012	-.0000	-.0006	-.0175	.0001	.0006

Method: ICP30J Sample Name: U264 MB3 LEN Operator: NSJ
Run Time: 11/04/97 18:43:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0017	.0040	-.0192	.0361	.1661	.0002	.0361
SDev	.0011	.0052	.0114	.0023	.0029	.0001	.0016
%RSD	63.78	129.6	59.45	6.308	1.733	33.62	4.575
#1	.0029	.0087	-.0190	.0376	.1683	.0001	.0337
#2	.0024	.0084	-.0223	.0381	.1683	.0002	.0368
#3	.0004	-.0009	-.0315	.0331	.1657	.0002	.0373
#4	.0014	-.0000	-.0040	.0356	.1622	.0002	.0368

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0001	.0001	.0017	-.0044	.4509	-.0031
SDev	.0008	.0008	.0010	.0008	.0009	.2359	.0067
%RSD	407.8	567.5	856.9	48.14	19.68	52.31	218.4
#1	.0004	-.0013	-.0013	.0027	-.0057	.1127	-.0126
#2	.0013	.0006	.0011	.0018	-.0041	.6127	.0022
#3	-.0002	-.0002	.0001	.0007	-.0041	.6127	-.0028
#4	-.0006	.0003	.0006	.0018	-.0038	.4656	.0009

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0004	1392.	.0030	-.0002	-.0039	.0113
SDev	.0003	.0009	19.	.0014	.0059	.0095	.0134
%RSD	79.94	220.9	1.334	45.18	2575.	247.6	118.4
#1	.0004	-.0006	1409.	.0024	-.0081	.0086	-.0047
#2	.0004	.0010	1405.	.0049	.0000	-.0035	.0064
#3	.0004	.0013	1386.	.0029	.0060	-.0061	.0262
#4	-.0001	-.0001	1369.	.0018	.0013	-.0144	.0175

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0569	.0067	.0060	-.0000	-.0022	-.0002	.0447
SDev	.0113	.0035	.0000	.0003	.0074	.0015	.0000
%RSD	19.91	51.95	.0005	749.4	332.7	958.5	.0104
#1	.0629	.0035	.0060	.0003	-.0049	.0017	.0447
#2	.0690	.0116	.0060	-.0001	.0035	.0004	.0447
#3	.0434	.0058	.0060	-.0005	-.0115	-.0010	.0447
#4	.0523	.0058	.0060	.0001	.0041	-.0017	.0447

RERUN 1/2

Analysis Report Tue 11-04-97 06:53:22 PM page 1

Method: ICP30J Sample Name: U274 X LEN Operator: NSJ
Run Time: 11/04/97 18:48:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0015	-.0058	-.0431	.1031	.1920	.0001	H795.6
SDev	.0003	.0055	.0147	.0019	.0020	.0001	7.0
%RSD	20.45	94.81	34.14	1.886	1.046	102.8	.8783
#1	-.0018	-.0056	-.0425	.1002	.1906	.0001	H790.8
#2	-.0011	-.0068	-.0335	.1036	.1908	.0002	H792.0
#3	-.0016	.0013	-.0323	.1044	.1917	-.0000	H793.7
#4	-.0016	-.0121	L-.0641	.1041	.1950	.0001	H805.9

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0312	.0017	.0002	.0433	8.357	21.75
SDev	.0006	.0012	.0007	.0003	.0011	.424	.18
%RSD	285.4	3.962	42.87	150.4	2.486	5.070	.8321
#1	.0007	.0299	.0011	.0000	.0421	7.818	21.63
#2	.0004	.0320	.0025	.0006	.0433	8.818	21.64
#3	-.0006	.0305	.0011	.0004	.0430	8.269	21.70
#4	.0004	.0325	.0020	-.0001	.0447	8.524	22.01

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.136	.0024	1431.	.0393	.0093	-.0250	.0381
SDev	.054	.0011	14.	.0007	.0065	.0030	.0133
%RSD	.8809	44.48	.9534	1.892	70.07	11.92	34.86
#1	6.091	.0010	1422.	.0401	.0039	-.0261	.0203
#2	6.114	.0032	1421.	.0393	.0176	-.0206	.0471
#3	6.125	.0021	1429.	.0393	.0043	-.0265	.0492
#4	6.214	.0032	1450.	.0383	.0113	-.0268	.0356

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.139	.0142	3.186	.0100	.0311	.0019	.4305
SDev	.035	.0029	.036	.0010	.0185	.0008	.0029
%RSD	.8494	20.54	1.115	9.789	59.71	41.37	.6697
#1	4.111	.0127	3.156	.0095	.0073	.0025	.4275
#2	4.124	.0186	3.165	.0115	.0477	.0020	.4300
#3	4.132	.0127	3.187	.0095	.0437	.0025	.4300
#4	4.191	.0127	3.235	.0096	.0254	.0008	.4345

RERUN 11/2

Analysis Report Tue 11-04-97 06:58:22 PM page 1

Method: ICP30J Sample Name: U274 Y LEN Operator: NSJ
Run Time: 11/04/97 18:53:27
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0021	-.0053	L-.0550	.0930	.2189	.0001	H747.0
SDev	.0016	.0057	.0193	.0019	.0044	.0000	11.3
%RSD	76.93	108.9	35.07	2.019	2.014	24.51	1.511
#1	-.0010	.0003	-.0404	.0932	.2151	.0001	H737.2
#2	-.0015	-.0011	-.0436	.0955	.2203	.0002	H752.7
#3	L-.0045	-.0111	L-.0827	.0910	.2245	.0001	H760.1
#4	-.0015	-.0093	L-.0532	.0924	.2156	.0001	H738.1

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0241	.0010	-.0003	.0457	8.869	17.45
SDev	.0004	.0009	.0006	.0013	.0014	.237	.26
%RSD	349.2	3.797	62.60	382.4	3.169	2.678	1.496
#1	.0001	.0245	.0011	.0007	.0450	8.524	17.28
#2	.0006	.0231	.0015	.0006	.0462	8.965	17.54
#3	-.0004	.0237	.0001	L-.0020	.0474	9.063	17.79
#4	.0003	.0252	.0011	-.0005	.0441	8.926	17.21

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.391	.0028	1395.	.0353	.0081	-.0269	.0371
SDev	.087	.0010	23.	.0044	.0042	.0106	.0158
%RSD	1.620	37.37	1.678	12.35	51.69	39.28	42.57
#1	5.315	.0035	1376.	.0404	.0140	-.0229	.0229
#2	5.430	.0029	1406.	.0363	.0075	-.0162	.0279
#3	5.496	.0013	1423.	.0347	.0041	-.0412	.0388
#4	5.323	.0035	1375.	.0298	.0067	-.0272	.0585

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.360	.0116	2.898	.0089	.0222	.0010	.4134
SDev	.105	.0017	.061	.0006	.0175	.0019	.0038
%RSD	1.427	14.34	2.100	7.250	78.83	201.7	.9179
#1	7.268	.0139	2.844	.0081	.0065	.0024	.4111
#2	7.411	.0116	2.921	.0094	.0234	.0019	.4156
#3	7.483	.0104	2.973	.0093	.0462	-.0019	.4175
#4	7.276	.0104	2.853	.0086	.0126	.0014	.4093

RERUN 1/2

Analysis Report Tue 11-04-97 07:03:23 PM page 1

Method: ICP30J Sample Name: U274 Z LEN Operator: NSJ
Run Time: 11/04/97 18:58:27
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0036	-.0119	L-.0520	.0759	.0792	.0000	H776.1
SDev	.0045	.0203	.0180	.0063	.0011	.0002	16.7
%RSD	125.3	170.6	34.59	8.291	1.441	475.8	2.148
#1	L-.0034	-.0039	-.0341	.0775	.0802	.0002	H791.5
#2	L-.0100	L-.0413	L-.0757	.0666	.0780	-.0002	H754.1
#3	-.0001	-.0075	L-.0551	.0794	.0784	.0002	H772.5
#4	-.0009	.0051	-.0431	.0800	.0802	-.0000	H786.2

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	.0547	-.0019	-.0016	.0681	7.475	21.68
SDev	.0008	.0053	.0056	.0033	.0089	1.046	.26
%RSD	68.64	9.746	297.0	204.4	13.01	14.00	1.192
#1	.0014	.0576	.0001	-.0007	.0749	7.700	21.97
#2	-.0000	.0467	L-.0103	L-.0064	.0551	5.936	21.45
#3	.0016	.0574	.0015	.0006	.0719	8.092	21.48
#4	.0014	.0571	.0011	.0002	.0706	8.171	21.82

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.404	-.0021	1404.	.0501	.0385	-.0402	.0421
SDev	.151	.0036	14.	.0047	.0321	.0137	.0326
%RSD	1.609	176.3	.9907	9.369	83.45	34.05	77.46
#1	9.554	-.0012	1419.	.0509	.0568	-.0361	.0559
#2	9.223	L-.0073	1399.	.0432	-.0084	L-.0576	.0110
#3	9.341	.0010	1387.	.0532	.0615	-.0248	.0815
#4	9.500	-.0007	1411.	.0530	.0440	-.0422	.0202

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.774	.0075	3.219	.0071	.0012	-.0002	1.067
SDev	.045	.0053	.033	.0034	.0231	.0035	.026
%RSD	2.539	70.50	1.010	47.92	1949.	1890.	2.452
#1	1.811	.0081	3.246	.0100	.0307	.0009	1.090
#2	1.711	.0010	3.218	.0022	-.0202	L-.0054	1.031
#3	1.773	.0140	3.174	.0074	.0080	.0013	1.067
#4	1.802	.0069	3.239	.0087	-.0137	.0025	1.082

RERUN 11/2

Analysis Report Tue 11-04-97 07:08:24 PM page 1

Method: ICP30J Sample Name: U274 AA LEN Operator: NSJ
Run Time: 11/04/97 19:03:28
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0016	-.0116	L-.0586	.0869	.0982	.0002	H802.5
SDev	.0021	.0034	.0067	.0037	.0019	.0001	13.8
%RSD	131.7	29.25	11.50	4.261	1.884	76.48	1.721
#1	-.0006	-.0097	L-.0550	.0885	.0988	.0002	H810.0
#2	.0004	-.0103	L-.0534	.0913	.0984	.0002	H805.8
#3	L-.0046	-.0167	L-.0575	.0832	.0999	-.0000	H812.2
#4	-.0018	-.0097	L-.0683	.0846	.0956	.0002	H782.2

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0068	.0208	.0008	.0010	-.0027	8.254	20.16
SDev	.0005	.0011	.0008	.0012	.0023	.348	.33
%RSD	7.521	5.149	99.57	129.2	85.89	4.219	1.616
#1	.0065	.0222	.0015	.0018	-.0019	8.269	20.30
#2	.0076	.0207	.0011	.0021	-.0007	8.582	20.21
#3	.0065	.0207	.0011	-.0007	-.0022	8.396	20.42
#4	.0068	.0196	-.0004	.0007	-.0059	7.769	19.69

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.972	-.0003	1381.	.0264	.0268	-.0382	.0502
SDev	.102	.0017	23.	.0043	.0064	.0101	.0183
%RSD	1.714	640.3	1.673	16.29	23.95	26.57	36.47
#1	6.012	.0018	1392.	.0286	.0314	-.0477	.0509
#2	5.998	.0004	1383.	.0265	.0326	-.0456	.0579
#3	6.055	-.0015	1400.	.0203	.0190	-.0265	.0673
#4	5.823	-.0018	1348.	.0301	.0241	-.0329	.0246

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.190	.0114	3.161	.0083	.0221	.0012	.7763
SDev	.033	.0038	.059	.0014	.0149	.0008	.0122
%RSD	1.517	33.34	1.851	16.27	67.39	67.22	1.572
#1	2.208	.0133	3.172	.0091	.0440	.0014	.7872
#2	2.205	.0139	3.168	.0087	.0109	.0013	.7790
#3	2.207	.0127	3.222	.0090	.0187	.0001	.7803
#4	2.140	.0057	3.081	.0063	.0150	.0019	.7589

RERUN 1/2

Analysis Report Tue 11-04-97 07:13:24 PM page 1

Method: ICP30J Sample Name: U2/4 AB LEN Operator: NSJ
Run Time: 11/04/97 19:08:29
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	-.0059	-.0457	.0791	.0758	.0002	H825.5
SDev	.0011	.0040	.0063	.0020	.0009	.0001	8.7
%RSD	86.23	67.35	13.74	2.500	1.168	32.15	1.051
#1	.0003	-.0092	-.0433	.0813	.0763	.0002	H830.7
#2	-.0017	-.0091	-.0445	.0788	.0761	.0001	H826.1
#3	-.0014	-.0041	-.0403	.0796	.0765	.0002	H832.1
#4	-.0021	-.0011	L-.0548	.0765	.0745	.0002	H813.1

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0017	.0754	.0013	-.0000	.1914	6.519	27.64
SDev	.0003	.0010	.0012	.0007	.0022	.168	.31
%RSD	15.84	1.329	91.65	1906.	1.125	2.583	1.135
#1	.0015	.0751	.0011	.0010	.1936	6.318	27.84
#2	.0017	.0748	.0001	-.0005	.1913	6.504	27.70
#3	.0016	.0769	.0011	-.0004	.1922	6.730	27.83
#4	.0021	.0748	.0030	-.0002	.1885	6.524	27.17

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.910	-.0003	1484.	.0701	.0575	-.0338	.0389
SDev	.100	.0010	19.	.0064	.0066	.0250	.0137
%RSD	1.007	402.1	1.253	9.080	11.56	73.78	35.16
#1	9.960	-.0018	1496.	.0744	.0475	-.0463	.0211
#2	9.916	-.0001	1488.	.0657	.0607	L-.0604	.0352
#3	9.996	.0004	1495.	.0765	.0613	-.0032	.0502
#4	9.769	.0004	1457.	.0636	.0604	-.0254	.0490

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.739	.0073	3.436	.0092	.0313	.0011	1.266
SDev	.018	.0032	.045	.0006	.0202	.0007	.011
%RSD	1.048	44.15	1.308	6.025	64.54	64.98	.8606
#1	1.750	.0058	3.462	.0089	.0082	.0006	1.275
#2	1.742	.0093	3.446	.0086	.0251	.0004	1.266
#3	1.753	.0106	3.467	.0098	.0355	.0017	1.272
#4	1.713	.0035	3.370	.0095	.0565	.0018	1.251

Analysis Report QC Standard Tue 11-04-97 07:47:44 PM page 1

Method: ICP30J Sample Name: CV 9 Operator: NSJ
Run Time: 11/04/97 19:42:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9704	2.029	1.996	.9980	.9753	.9636	2.055
SDev	.0047	.017	.012	.0040	.0059	.0053	.018
%RSD	.4832	.8202	.6143	.4057	.6080	.5526	.8574
#1	.9749	2.045	2.001	.9977	.9815	.9669	2.071
#2	.9706	2.020	2.001	.9972	.9728	.9626	2.070
#3	.9639	2.010	1.978	.9935	.9683	.9565	2.038
#4	.9724	2.041	2.004	1.003	.9787	.9683	2.041

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9617	.9757	.9766	.9752	1.972	20.57	2.004
SDev	.0046	.0036	.0032	.0059	.009	.23	.009
%RSD	.4753	.3728	.3330	.6065	.4747	1.117	.4558
#1	.9677	.9777	.9796	.9797	1.977	20.83	2.014
#2	.9607	.9775	.9772	.9740	1.975	20.58	2.000
#3	.9566	.9702	.9720	.9673	1.958	20.27	1.993
#4	.9620	.9772	.9777	.9797	1.979	20.60	2.007

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9645	1.004	1.938	.9990	1.954	2.057	2.097
SDev	.0040	.006	.017	.0067	.013	.009	.016
%RSD	.4100	.6326	.8801	.6706	.6395	.4298	.7713
#1	.9677	1.001	1.949	1.005	1.968	2.068	2.092
#2	.9647	1.004	1.935	1.004	1.954	2.052	2.114
#3	.9588	.9979	1.915	.9916	1.938	2.058	2.077
#4	.9667	1.013	1.953	.9951	1.957	2.048	2.104

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.013	.9371	.9779	.9446	1.975	.9477	.9861
SDev	.009	.0036	.0056	.0048	.027	.0052	.0053
%RSD	.4252	.3807	.5709	.5042	1.358	.5474	.5346
#1	2.016	.9396	.9826	.9483	1.940	.9513	.9912
#2	2.018	.9344	.9757	.9436	1.969	.9495	.9875
#3	2.000	.9338	.9710	.9383	1.998	.9400	.9787
#4	2.017	.9408	.9823	.9483	1.994	.9499	.9869

Analysis Report Blank Sample Tue 11-04-97 07:54:26 PM page 1

Method: ICP30J Sample Name: Blank 9 Operator: NSJ
Run Time: 11/04/97 19:49:31
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	.0036	-.0063	-.0003	.0006	.0004	H.0205
SDev	.0006	.0033	.0062	.0017	.0001	.0001	.0097
%RSD	46.70	90.53	98.44	479.8	18.18	15.37	47.13
#1	.0009	.0039	-.0132	.0018	.0008	.0005	H.0332
#2	.0019	.0077	-.0045	-.0010	.0005	.0004	H.0225
#3	.0006	-.0003	-.0088	-.0022	.0005	.0004	.0144
#4	.0014	.0033	.0013	.0001	.0005	.0004	.0118

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	-.0007	-.0007	.0018	.0003	.1985	-.0015
SDev	.0005	.0012	.0006	.0005	.0013	.2853	.0099
%RSD	159.4	163.7	84.18	29.15	399.2	143.7	645.4
#1	.0009	-.0001	.0001	H.0020	.0017	.3578	.0120
#2	.0007	-.0024	-.0008	H.0023	-.0012	-.2206	-.0114
#3	-.0003	-.0006	-.0008	.0011	.0011	.2598	-.0052
#4	.0000	.0002	-.0013	.0018	-.0002	.3970	-.0015

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0003	.0214	-.0001	-.0010	-.0045	.0089
SDev	.0002	.0005	.0044	.0044	.0033	.0073	.0131
%RSD	46.61	189.0	20.66	5024.	331.3	162.2	146.4
#1	.0007	.0010	.0149	-.0038	.0021	-.0010	.0071
#2	.0004	-.0001	.0243	-.0005	-.0010	-.0154	.0079
#3	.0004	.0002	.0243	-.0023	-.0056	-.0013	-.0056
#4	.0002	-.0001	.0221	.0062	.0004	-.0003	.0262

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0035	.0003	.0001	-.0120	-.0004	.0002
SDev	.0050	.0034	.0002	.0003	.0153	.0007	.0006
%RSD	911.9	98.57	76.64	223.7	127.9	171.2	386.7
#1	.0015	.0082	.0005	.0003	.0023	.0003	.0000
#2	.0073	.0023	.0005	.0001	-.0307	-.0011	.0006
#3	-.0027	-.0000	.0002	-.0003	-.0013	-.0011	-.0006
#4	-.0038	.0035	-.0000	.0005	-.0181	.0001	.0006

Method: ICP30J Sample Name: U274 X LEN Operator: NSJ
Run Time: 11/04/97 19:54:31
Comment: 1/2 DIL
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0017	-.0123	-.0366	.0502	.1000	.0002	409.6
SDev	.0008	.0070	.0105	.0011	.0009	.0001	2.5
%RSD	49.09	57.40	28.73	2.199	.8944	76.09	.6019
#1	-.0026	-.0161	-.0221	.0507	.1010	.0004	412.7
#2	-.0021	L-.0202	-.0412	.0493	.0993	.0001	408.1
#3	-.0011	-.0052	-.0466	.0493	.0993	.0001	407.2
#4	-.0009	-.0076	-.0365	.0515	.1006	.0001	410.5

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0159	.0008	.0005	.0215	4.213	11.27
SDev	.0007	.0013	.0009	.0003	.0012	.226	.07
%RSD	2520.	8.158	109.2	66.01	5.570	5.368	.6384
#1	-.0010	.0178	.0020	.0006	.0231	4.544	11.37
#2	.0001	.0152	.0001	.0001	.0202	4.083	11.23
#3	.0006	.0149	.0001	.0004	.0211	4.054	11.21
#4	.0003	.0157	.0011	.0010	.0217	4.171	11.29

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.188	.0016	722.0	.0232	.0058	-.0015	.0337
SDev	.020	.0010	4.7	.0033	.0090	.0172	.0264
%RSD	.6254	62.19	.6505	14.39	156.8	1127.	78.17
#1	3.210	.0029	727.6	.0239	.0172	.0060	.0026
#2	3.177	.0016	718.3	.0221	.0009	-.0216	.0627
#3	3.167	.0005	717.9	.0193	-.0033	.0179	.0232
#4	3.199	.0016	724.2	.0273	.0082	-.0084	.0465

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.057	.0073	1.629	.0046	.0054	.0007	.2246
SDev	.014	.0052	.010	.0002	.0103	.0011	.0013
%RSD	.6752	70.92	.6106	4.373	189.2	148.9	.5783
#1	2.067	.0128	1.638	.0049	.0066	-.0002	.2260
#2	2.045	.0034	1.622	.0044	-.0070	-.0001	.2254
#3	2.044	.0024	1.618	.0047	.0181	.0020	.2235
#4	2.070	.0105	1.636	.0046	.0041	.0013	.2235

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Method: ICP30J Sample Name: U274 Y LEN Operator: NSJ
Run Time: 11/04/97 19:59:32
Comment: 1/2 DIL
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0020	-.0089	-.0290	.0448	.1139	.0001	383.8
SDev	.0007	.0067	.0083	.0035	.0007	.0000	2.0
%RSD	35.63	75.51	28.67	7.818	.6101	4.841	.5325
#1	-.0028	-.0074	-.0386	.0417	.1136	.0001	383.9
#2	-.0020	-.0050	-.0208	.0440	.1134	.0001	382.4
#3	-.0011	-.0188	-.0235	.0437	.1136	.0001	382.3
#4	-.0021	-.0045	-.0331	.0499	.1149	.0001	386.7

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0122	.0012	-.0002	.0233	4.428	9.008
SDev	.0003	.0010	.0010	.0005	.0013	.187	.053
%RSD	108.2	8.263	82.16	220.1	5.693	4.213	.5888
#1	.0003	.0134	.0025	-.0010	.0242	4.436	9.012
#2	.0001	.0126	.0011	.0001	.0229	4.681	8.960
#3	.0000	.0110	.0011	.0001	.0216	4.240	8.980
#4	.0007	.0118	.0001	-.0003	.0244	4.357	9.081

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.793	.0014	701.8	.0183	-.0009	-.0019	.0494
SDev	.016	.0003	3.9	.0038	.0032	.0073	.0068
%RSD	.5641	19.34	.5590	20.69	364.7	391.0	13.79
#1	2.790	.0013	702.1	.0203	.0030	-.0059	.0466
#2	2.782	.0016	699.1	.0203	-.0047	.0090	.0595
#3	2.783	.0010	698.9	.0198	-.0001	-.0054	.0468
#4	2.816	.0016	707.3	.0126	-.0018	-.0053	.0446

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.660	.0049	1.477	.0036	.0097	-.0002	.2153
SDev	.014	.0026	.010	.0003	.0056	.0011	.0013
%RSD	.3769	52.30	.6467	9.313	57.42	635.3	.5869
#1	3.666	.0070	1.472	.0041	.0154	-.0002	.2160
#2	3.652	.0058	1.470	.0034	.0021	.0014	.2160
#3	3.645	.0012	1.473	.0034	.0117	-.0011	.2134
#4	3.676	.0058	1.491	.0035	.0097	-.0008	.2160

Method: ICP30J Sample Name: U274 Z LEN Operator: NSJ
Run Time: 11/04/97 20:04:32
Comment: 1/2 DIL
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0022	-.0128	-.0249	.0379	.0414	.0001	409.8
SDev	.0014	.0071	.0146	.0026	.0011	.0000	10.2
%RSD	63.66	55.23	58.90	6.956	2.754	2.318	2.485
#1	-.0022	-.0118	-.0443	.0381	.0424	.0001	418.8
#2	-.0004	-.0096	-.0116	.0397	.0420	.0001	413.6
#3	-.0024	-.0069	-.0158	.0397	.0416	.0001	411.6
#4	L-.0038	L-.0230	-.0277	.0342	.0398	.0001	395.2

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0307	.0002	-.0004	.0351	4.041	11.36
SDev	.0004	.0008	.0002	.0009	.0018	.157	.29
%RSD	96.30	2.536	100.6	246.8	5.243	3.873	2.570
#1	.0008	.0311	.0001	-.0007	.0366	3.887	11.64
#2	.0005	.0311	.0006	.0006	.0366	4.014	11.47
#3	.0006	.0311	.0001	.0001	.0342	4.005	11.37
#4	-.0002	.0296	.0001	-.0015	.0329	4.259	10.95

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.954	.0002	710.9	.0237	.0278	.0024	.0506
SDev	.130	.0008	18.8	.0007	.0039	.0145	.0126
%RSD	2.615	456.8	2.648	3.009	14.17	609.0	24.80
#1	5.074	.0002	729.0	.0229	.0266	-.0060	.0355
#2	4.993	.0010	717.9	.0234	.0331	.0232	.0608
#3	4.980	-.0009	711.9	.0242	.0236	.0014	.0611
#4	4.770	.0005	684.7	.0245	.0278	-.0090	.0451

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8678	.0047	1.659	.0042	.0110	.0008	.5682
SDev	.0242	.0059	.050	.0007	.0100	.0005	.0120
%RSD	2.789	125.1	2.992	16.83	90.27	68.09	2.106
#1	.8881	.0128	1.705	.0043	-.0001	.0003	.5787
#2	.8775	.0036	1.675	.0044	.0104	.0005	.5724
#3	.8728	-.0011	1.667	.0048	.0097	.0007	.5706
#4	.8328	.0035	1.589	.0032	.0242	.0015	.5510

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Method: ICP30J Sample Name: U274 AA LEN Operator: NSJ
Run Time: 11/04/97 20:09:33
Comment: 1/2 DIL
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0015	-.0101	-.0195	.0401	.0502	.0000	419.3
SDev	.0013	.0036	.0122	.0015	.0000	.0001	1.6
%RSD	86.56	35.25	62.58	3.706	.0000	235.3	.3932
#1	-.0001	-.0115	-.0167	.0409	.0502	.0000	417.8
#2	L-.0031	-.0141	-.0037	.0398	.0502	-.0000	418.5
#3	-.0019	-.0091	-.0257	.0415	.0502	.0001	421.6
#4	-.0009	-.0058	-.0317	.0381	.0502	-.0000	419.2

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0035	.0109	.0014	.0008	-.0030	4.137	10.48
SDev	.0002	.0010	.0008	.0006	.0011	.209	.06
%RSD	6.034	9.598	57.08	80.39	37.72	5.051	.5624
#1	.0036	.0124	.0015	.0015	-.0020	4.426	10.43
#2	.0035	.0100	.0011	.0001	-.0046	4.132	10.47
#3	.0036	.0111	.0006	.0004	-.0031	3.936	10.57
#4	.0032	.0103	.0025	.0010	-.0023	4.054	10.46

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.116	.0011	695.1	.0131	.0163	-.0001	.0461
SDev	.013	.0014	3.3	.0051	.0049	.0156	.0134
%RSD	.4307	126.7	.4759	38.76	30.40	30540.	29.04
#1	3.105	.0013	692.1	.0183	.0184	.0214	.0443
#2	3.113	.0010	694.6	.0062	.0165	-.0152	.0625
#3	3.136	-.0007	699.8	.0131	.0093	-.0002	.0477
#4	3.112	.0027	693.9	.0147	.0208	-.0063	.0298

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.067	.0020	1.615	.0044	.0083	.0011	.4101
SDev	.007	.0006	.012	.0004	.0017	.0011	.0016
%RSD	.6379	28.81	.7130	8.129	20.27	106.9	.4025
#1	1.067	.0024	1.604	.0042	.0104	-.0005	.4100
#2	1.060	.0023	1.616	.0041	.0063	.0013	.4087
#3	1.077	.0012	1.631	.0044	.0083	.0013	.4125
#4	1.066	.0023	1.611	.0049	.0081	.0021	.4093

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Method: ICP30J Sample Name: U274 AB LEN Operator: NSJ
Run Time: 11/04/97 20:14:34
Comment: 1/2 DIL
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0019	-.0156	-.0193	.0367	.0355	.0000	400.2
SDev	.0011	.0029	.0076	.0019	.0010	.0001	8.2
%RSD	58.92	18.31	39.45	5.326	2.825	109.8	2.039
#1	-.0023	-.0154	-.0197	.0341	.0346	-.0000	392.7
#2	-.0013	-.0190	-.0084	.0369	.0346	.0000	393.9
#3	-.0006	-.0120	-.0239	.0389	.0363	.0001	404.9
#4	L-.0031	-.0160	-.0251	.0369	.0363	.0000	409.2

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0357	.0004	-.0002	.0890	2.990	13.33
SDev	.0004	.0009	.0005	.0008	.0029	.041	.27
%RSD	58.62	2.617	133.5	440.4	3.246	1.378	1.989
#1	.0007	.0345	.0001	-.0008	.0853	2.936	13.10
#2	.0011	.0355	.0011	.0002	.0880	2.985	13.12
#3	.0006	.0363	.0001	.0008	.0917	3.034	13.49
#4	.0002	.0366	.0001	-.0009	.0909	3.005	13.62

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.785	-.0001	695.2	.0347	.0285	-.0047	.0381
SDev	.102	.0000	15.0	.0043	.0029	.0124	.0110
%RSD	2.129	2.088	2.162	12.24	10.36	264.3	28.96
#1	4.693	-.0001	681.9	.0355	.0301	-.0018	.0474
#2	4.706	-.0001	683.0	.0404	.0289	.0015	.0449
#3	4.838	-.0001	704.3	.0321	.0242	-.0229	.0370
#4	4.902	-.0001	711.6	.0308	.0306	.0044	.0229

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.7913	.0041	1.616	.0036	.0057	.0008	.6218
SDev	.0131	.0015	.042	.0005	.0099	.0013	.0113
%RSD	1.651	36.05	2.590	12.80	174.0	159.4	1.815
#1	.7780	.0035	1.579	.0030	.0006	-.0009	.6121
#2	.7825	.0047	1.584	.0039	-.0010	.0023	.6127
#3	.7997	.0058	1.637	.0040	.0028	.0012	.6278
#4	.8050	.0024	1.665	.0034	.0203	.0007	.6348

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Method: ICP30J Sample Name: U274 W-L LEN Operator: NSJ
Run Time: 11/04/97 20:21:15
Comment: 1/10 CLP SERIAL DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	-.0032	-.0112	.0277	.0295	-.0000	86.21
SDev	.0015	.0065	.0057	.0010	.0001	.0001	.10
%RSD	692.4	202.9	50.65	3.629	.3684	281.6	.1114
#1	-.0019	-.0084	-.0197	.0264	.0296	-.0001	86.15
#2	-.0010	-.0090	-.0083	.0275	.0294	-.0000	86.24
#3	.0008	.0042	-.0084	.0283	.0294	-.0000	86.11
#4	.0013	.0003	-.0084	.0286	.0294	.0000	86.33

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0015	-.0002	.0007	.0042	.9215	1.983
SDev	.0005	.0006	.0005	.0006	.0005	.0802	.012
%RSD	430.0	40.97	193.4	86.38	10.85	8.708	.5926
#1	.0008	.0009	.0001	.0001	.0042	.9166	1.988
#2	-.0001	.0020	-.0004	.0007	.0036	.8480	1.976
#3	-.0001	.0009	-.0008	.0004	.0045	.8872	1.971
#4	-.0001	.0020	.0001	.0015	.0046	1.034	1.997

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6020	.0008	143.0	.0045	.0041	.0045	.0247
SDev	.0005	.0010	.3	.0032	.0060	.0062	.0072
%RSD	.0903	120.5	.1943	70.41	146.8	137.2	28.98
#1	.6022	.0021	142.9	.0060	.0090	.0118	.0309
#2	.6017	-.0001	143.0	-.0002	-.0046	-.0033	.0309
#3	.6015	.0010	142.6	.0057	.0052	.0054	.0198
#4	.6027	.0002	143.3	.0065	.0069	.0041	.0174

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6991	.0018	.3050	.0006	-.0025	.0006	.0597
SDev	.0038	.0031	.0006	.0003	.0098	.0003	.0003
%RSD	.5445	174.9	.1896	60.48	385.7	44.93	.5099
#1	.6966	.0035	.3049	.0001	-.0093	.0010	.0598
#2	.6988	.0046	.3049	.0008	.0015	.0005	.0592
#3	.6966	-.0023	.3044	.0006	-.0117	.0005	.0598
#4	.7046	.0012	.3058	.0008	.0093	.0005	.0598

Method: ICP30J Sample Name: U274 W LEN Operator: NSJ
Run Time: 11/04/97 20:26:15
Comment: 1/2 DIL
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0016	.0049	-.0316	.1511	.1634	.0001	457.5
SDev	.0006	.0078	.0138	.0011	.0023	.0001	4.4
%RSD	40.16	159.1	43.56	.7452	1.431	94.60	.9596
#1	-.0019	.0040	L-.0515	.1520	.1663	.0001	461.8
#2	-.0006	.0140	-.0198	.1517	.1613	.0002	452.3
#3	-.0019	.0067	-.0283	.1512	.1644	.0001	460.3
#4	-.0019	-.0050	-.0268	.1495	.1618	-.0000	455.4

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.0132	.0012	.0001	.0286	4.830	10.68
SDev	.0006	.0004	.0006	.0008	.0009	.235	.10
%RSD	121.3	3.422	50.44	539.2	3.026	4.866	.9415
#1	.0004	.0133	.0011	-.0004	.0280	4.750	10.79
#2	.0007	.0136	.0006	.0012	.0277	5.024	10.56
#3	.0011	.0133	.0011	.0001	.0294	4.534	10.73
#4	-.0003	.0125	.0020	-.0004	.0292	5.014	10.65

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.182	.0013	808.7	.0227	.0018	-.0010	.0282
SDev	.031	.0011	10.3	.0047	.0039	.0111	.0212
%RSD	.9799	87.43	1.278	20.87	218.6	1068.	75.23
#1	3.216	.0005	820.4	.0157	.0012	-.0161	.0264
#2	3.145	.0010	796.6	.0239	.0009	.0043	.0094
#3	3.198	.0007	813.1	.0257	-.0021	-.0021	.0186
#4	3.169	.0029	804.5	.0255	.0073	.0097	.0582

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.749	.0052	1.684	.0050	.0083	.0009	.3101
SDev	.039	.0031	.021	.0003	.0117	.0009	.0026
%RSD	1.032	58.58	1.229	6.929	140.9	97.08	.8410
#1	3.793	.0093	1.708	.0052	.0151	.0015	.3130
#2	3.707	.0035	1.660	.0053	-.0090	.0011	.3079
#3	3.769	.0023	1.691	.0051	.0113	.0016	.3117
#4	3.729	.0058	1.675	.0045	.0158	-.0004	.3079

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Method: ICP30J Sample Name: U274 WDUP LEN Operator: NSJ
Run Time: 11/04/97 20:31:16
Comment: 1/2 DIL
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0018	-.0029	-.0353	.1447	.1545	.0000	437.2
SDev	.0010	.0098	.0109	.0009	.0016	.0001	3.1
%RSD	57.57	340.3	30.91	.6103	1.029	161.0	.7041
#1	-.0021	-.0003	-.0358	.1459	.1561	-.0000	440.9
#2	L-.0031	-.0150	-.0487	.1439	.1555	-.0000	438.4
#3	-.0009	-.0047	-.0348	.1442	.1537	.0001	435.6
#4	-.0011	.0085	-.0220	.1450	.1526	.0001	433.9

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0128	.0007	-.0001	.0274	4.504	10.23
SDev	.0007	.0017	.0008	.0009	.0003	.340	.07
%RSD	333.0	13.19	113.9	901.7	1.125	7.553	.7242
#1	.0001	.0118	-.0004	-.0004	.0277	4.024	10.31
#2	-.0007	.0110	.0011	-.0011	.0273	4.504	10.27
#3	.0005	.0141	.0006	.0010	.0271	4.720	10.18
#4	.0009	.0144	.0015	.0001	.0276	4.769	10.16

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.037	.0007	768.8	.0223	.0006	-.0040	.0415
SDev	.024	.0009	6.8	.0019	.0062	.0090	.0263
%RSD	.7951	140.3	.8889	8.360	996.4	225.0	63.38
#1	3.066	-.0006	775.2	.0208	-.0069	-.0169	.0182
#2	3.047	.0016	773.5	.0232	-.0001	.0000	.0328
#3	3.024	.0010	765.7	.0206	.0013	-.0025	.0792
#4	3.012	.0007	760.6	.0244	.0081	.0035	.0358

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.598	.0073	1.588	.0043	.0056	.0007	.2991
SDev	.026	.0011	.016	.0004	.0040	.0012	.0017
%RSD	.7294	15.09	1.002	8.980	72.25	172.9	.5717
#1	3.633	.0081	1.604	.0042	.0027	.0009	.3016
#2	3.601	.0070	1.599	.0043	.0085	-.0003	.2985
#3	3.587	.0081	1.581	.0049	.0095	-.0002	.2985
#4	3.571	.0058	1.569	.0040	.0015	.0022	.2978

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Method: ICP30J Sample Name: U274 WSPK LEN Operator: NSJ
Run Time: 11/04/97 20:36:16
Comment: 1/2 DIL; 0.1mL TCLP SPIKE TO 10mL SAMPLE
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.023	-.0023	5.189	.1450	5.074	-.0002	440.7
SDev	.007	.0066	.030	.0012	.034	.0000	2.2
%RSD	.6785	285.5	.5786	.8352	.6641	19.29	.4915
#1	1.031	.0072	5.197	.1456	5.090	-.0002	443.2
#2	1.017	-.0078	5.156	.1434	5.057	-.0002	439.1
#3	1.025	-.0057	5.227	.1461	5.113	-.0001	441.9
#4	1.017	-.0030	5.178	.1448	5.037	-.0002	438.8

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9512	.0129	4.698	.0006	.0283	4.546	10.33
SDev	.0059	.0007	.024	.0005	.0005	.083	.07
%RSD	.6222	5.568	.5052	87.20	1.657	1.816	.6971
#1	.9585	.0134	4.722	.0010	.0289	4.524	10.40
#2	.9468	.0118	4.680	-.0001	.0277	4.465	10.29
#3	.9535	.0133	4.714	.0005	.0282	4.661	10.37
#4	.9461	.0129	4.675	.0010	.0283	4.534	10.24

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.065	.0011	776.6	.0226	4.730	-.0022	1.241
SDev	.015	.0012	5.0	.0022	.019	.0112	.018
%RSD	.4812	103.4	.6446	9.669	.3964	517.8	1.461
#1	3.078	.0026	780.8	.0247	4.753	.0095	1.262
#2	3.056	.0007	772.7	.0214	4.720	-.0114	1.226
#3	3.078	-.0002	781.2	.0202	4.737	-.0120	1.251
#4	3.049	.0015	772.0	.0242	4.711	.0053	1.225

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.610	.0022	1.606	.0047	.0057	.0006	.3022
SDev	.019	.0039	.010	.0002	.0138	.0004	.0017
%RSD	.5397	178.3	.6284	5.071	241.9	77.74	.5625
#1	3.626	.0066	1.612	.0047	-.0131	.0011	.3047
#2	3.596	-.0005	1.600	.0047	.0041	.0003	.3009
#3	3.628	-.0016	1.618	.0044	.0181	.0001	.3015
#4	3.591	.0042	1.596	.0050	.0136	.0008	.3015

Analysis Report QC Standard Tue 11-04-97 08:49:35 PM page 1

Method: ICP30J Sample Name: CV 10 Operator: NSJ
Run Time: 11/04/97 20:44:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9834	2.062	2.039	1.009	.9936	.9744	2.051
SDev	.0027	.011	.016	.007	.0064	.0062	.004
%RSD	.2747	.5298	.7933	.7198	.6401	.6325	.1801
#1	.9808	2.047	2.023	1.001	.9863	.9671	2.047
#2	.9821	2.071	2.048	1.007	.9922	.9736	2.054
#3	.9871	2.069	2.028	1.018	1.002	.9821	2.055
#4	.9838	2.060	2.057	1.011	.9941	.9748	2.049

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9795	.9886	.9896	.9817	1.999	20.74	2.027
SDev	.0041	.0026	.0043	.0051	.010	.25	.012
%RSD	.4140	.2660	.4389	.5186	.5037	1.225	.6094
#1	.9749	.9853	.9844	.9758	1.986	20.56	2.010
#2	.9814	.9881	.9887	.9801	1.998	20.75	2.034
#3	.9841	.9915	.9948	.9879	2.011	20.56	2.028
#4	.9775	.9897	.9905	.9829	1.999	21.10	2.037

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9759	1.019	2.002	1.013	1.993	2.096	2.157
SDev	.0040	.008	.009	.004	.005	.018	.007
%RSD	.4112	.7539	.4557	.4378	.2302	.8652	.3165
#1	.9708	1.008	2.000	1.007	1.988	2.089	2.157
#2	.9762	1.023	2.004	1.014	1.994	2.116	2.157
#3	.9807	1.025	2.012	1.018	1.994	2.105	2.150
#4	.9758	1.021	1.990	1.013	1.999	2.075	2.166

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.038	.9595	.9910	.9592	2.018	.9600	1.004
SDev	.004	.0069	.0063	.0047	.023	.0032	.003
%RSD	.1844	.7205	.6363	.4907	1.124	.3286	.3173
#1	2.036	.9531	.9835	.9530	1.999	.9565	.9994
#2	2.034	.9549	.9909	.9587	1.998	.9593	1.004
#3	2.043	.9618	.9989	.9643	2.034	.9641	1.007
#4	2.039	.9682	.9909	.9607	2.041	.9601	1.005

Analysis Report Blank Sample Tue 11-04-97 08:56:17 PM page 1

Method: ICP30J Sample Name: Blank 10 Operator: NSJ
Run Time: 11/04/97 20:51:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0036	-.0074	.0008	.0007	.0004	.0027
SDev	.0007	.0050	.0099	.0019	.0001	.0001	.0019
%RSD	100.9	137.6	133.8	248.1	15.39	29.58	69.84
#1	.0014	.0072	.0073	.0032	.0008	.0005	.0032
#2	.0004	-.0027	-.0142	-.0005	.0008	.0005	.0001
#3	-.0001	.0080	-.0122	-.0010	.0008	.0005	.0046
#4	.0014	.0021	-.0104	.0015	.0005	.0002	.0028

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	-.0009	-.0007	.0016	-.0003	.0515	-.0034
SDev	.0005	.0007	.0011	.0005	.0003	.1845	.0065
%RSD	53.35	75.10	158.2	32.17	96.24	358.5	192.3
#1	.0008	-.0003	.0001	H.0020	-.0002	.1029	-.0003
#2	.0004	-.0016	-.0023	.0010	-.0006	-.2010	-.0126
#3	.0015	-.0003	-.0008	.0014	.0001	.0637	.0022
#4	.0008	-.0014	.0001	.0019	-.0006	.2402	-.0028

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0008	.0215	.0002	-.0004	-.0052	.0030
SDev	.0003	.0016	.0090	.0045	.0047	.0099	.0042
%RSD	79.84	191.1	41.84	2195.	1306.	191.2	141.8
#1	.0007	.0010	.0350	.0049	.0012	-.0160	.0048
#2	.0002	-.0006	.0180	.0024	-.0031	-.0106	.0079
#3	.0002	.0030	.0158	-.0054	.0055	-.0003	-.0016
#4	.0002	-.0001	.0174	-.0011	-.0052	.0061	.0008

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0029	.0002	.0001	-.0144	-.0008	-.0002
SDev	.0044	.0020	.0002	.0004	.0075	.0010	.0014
%RSD	453.4	69.95	127.7	429.1	52.46	131.2	859.4
#1	.0067	-.0000	.0005	.0006	-.0073	.0001	.0012
#2	-.0024	.0046	-.0000	-.0001	-.0175	-.0023	-.0019
#3	.0020	.0035	-.0000	-.0003	-.0091	-.0005	-.0006
#4	-.0024	.0035	.0002	.0001	-.0235	-.0005	.0006

Method: ICP30J Sample Name: U264 MB1 LEN Operator: NSJ
Run Time: 11/04/97 20:56:22
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0080	-.0104	.0125	.0322	.0002	.0082
SDev	.0011	.0042	.0063	.0014	.0004	.0001	.0013
%RSD	148.3	52.24	60.81	11.37	1.347	50.83	16.13
#1	.0024	.0105	-.0089	.0141	.0324	.0004	.0082
#2	-.0001	.0039	-.0072	.0129	.0324	.0001	.0064
#3	.0004	.0051	-.0196	.0107	.0324	.0002	.0086
#4	.0004	.0126	-.0057	.0121	.0316	.0004	.0095

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0000	.0006	.0015	-.0062	.3333	.0003
SDev	.0010	.0008	.0010	.0009	.0008	.2060	.0063
%RSD	616.5	2127.	172.9	61.78	12.39	61.81	2013.
#1	.0009	.0004	.0001	.0029	-.0054	.4460	.0083
#2	-.0010	-.0004	.0006	.0007	-.0067	.0245	-.0052
#3	-.0010	-.0009	-.0004	.0011	-.0070	.4264	-.0040
#4	.0005	.0010	.0020	.0015	-.0057	.4362	.0022

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0001	.1668	-.0008	.0023	-.0006	.0014
SDev	.0003	.0012	.0090	.0031	.0046	.0064	.0141
%RSD	468.6	1709.	5.397	392.0	195.3	1125.	1016.
#1	.0002	.0016	.1795	.0022	.0055	-.0023	-.0111
#2	-.0003	-.0003	.1597	-.0023	-.0039	-.0083	.0048
#3	-.0003	-.0012	.1611	.0013	.0017	.0070	-.0079
#4	.0002	.0002	.1669	-.0045	.0060	.0013	.0198

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0284	.0038	.0005	.0000	-.0093	.0002	.0061
SDev	.0037	.0027	.0000	.0003	.0118	.0008	.0008
%RSD	12.90	72.46	.0053	48160.	126.8	356.4	12.90
#1	.0332	.0035	.0005	.0005	-.0265	.0014	.0069
#2	.0243	.0058	.0005	-.0003	-.0043	.0001	.0063
#3	.0279	.0000	.0005	-.0003	-.0001	-.0007	.0050
#4	.0281	.0058	.0005	.0001	-.0061	.0001	.0063

Method: ICP30J Sample Name: U264 B LEN Operator: NSJ
Run Time: 11/04/97 21:00:59
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.0060	-.0057	.0654	.0705	.0001	290.7
SDev	.0005	.0061	.0053	.0017	.0011	.0001	2.7
%RSD	89.72	101.5	93.66	2.627	1.537	64.17	.9325
#1	.0002	-.0005	-.0057	.0647	.0698	.0002	289.2
#2	.0002	.0030	-.0121	.0633	.0695	.0001	288.1
#3	.0007	.0081	.0009	.0670	.0706	.0000	291.2
#4	.0011	.0135	-.0057	.0667	.0719	.0002	294.3

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	.0022	.0002	.0018	-.0024	6.592	19.18
SDev	.0002	.0015	.0008	.0005	.0003	.180	.21
%RSD	859.1	67.95	329.4	25.30	14.35	2.734	1.071
#1	-.0002	.0040	.0006	.0020	-.0022	6.681	19.06
#2	.0002	.0025	.0011	.0012	-.0029	6.602	18.98
#3	.0000	.0004	-.0008	.0018	-.0021	6.338	19.25
#4	-.0001	.0020	.0001	.0023	-.0023	6.749	19.44

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.389	.0035	18.06	.0042	-.0020	-.0043	.0391
SDev	.014	.0011	.20	.0030	.0035	.0083	.0031
%RSD	.9747	30.02	1.128	71.18	175.5	192.4	7.857
#1	1.380	.0029	17.92	.0083	-.0011	.0015	.0423
#2	1.378	.0043	17.87	.0009	.0013	-.0163	.0354
#3	1.392	.0024	18.13	.0042	-.0068	-.0032	.0381
#4	1.407	.0046	18.32	.0036	-.0012	.0008	.0408

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.022	.0073	1.195	.0025	-.0034	.0019	.0513
SDev	.020	.0026	.017	.0003	.0086	.0007	.0011
%RSD	.6748	35.63	1.381	10.20	256.1	34.17	2.127
#1	3.016	.0047	1.182	.0022	.0063	.0013	.0504
#2	3.000	.0058	1.181	.0028	-.0135	.0014	.0504
#3	3.023	.0081	1.200	.0024	-.0068	.0025	.0523
#4	3.049	.0105	1.215	.0026	.0005	.0025	.0523

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Method: ICP30J Sample Name: U264 C LEN Operator: NSJ
Run Time: 11/04/97 21:05:38
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0011	-.0003	-.0105	.0521	.0668	.0001	389.0
SDev	.0022	.0146	.0112	.0029	.0014	.0001	5.8
%RSD	195.6	4229.	106.1	5.488	2.062	94.14	1.482
#1	L-.0032	-.0012	-.0119	.0496	.0654	-.0000	382.8
#2	-.0022	-.0126	-.0141	.0505	.0663	.0002	388.1
#3	.0018	.0205	.0051	.0561	.0667	.0001	388.2
#4	-.0007	-.0081	-.0213	.0521	.0687	.0002	396.8

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0005	-.0003	.0017	-.0043	7.222	18.30
SDev	.0007	.0018	.0024	.0014	.0022	.852	.21
%RSD	340.0	399.5	695.6	84.81	51.28	11.80	1.156
#1	-.0008	-.0017	-.0027	.0005	-.0071	6.338	18.12
#2	-.0001	.0001	-.0008	.0012	-.0032	7.073	18.24
#3	.0008	.0007	-.0008	.0038	-.0051	7.092	18.25
#4	-.0008	.0027	.0030	.0012	-.0020	8.386	18.61

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.7756	.0044	18.89	.0077	-.0097	-.0038	.0684
SDev	.0111	.0021	.24	.0052	.0090	.0091	.0154
%RSD	1.427	47.79	1.287	66.86	93.30	240.1	22.52
#1	.7653	.0016	18.72	.0129	L-.0205	-.0056	.0839
#2	.7724	.0051	18.77	.0013	-.0128	.0062	.0784
#3	.7734	.0043	18.81	.0059	-.0060	-.0153	.0602
#4	.7913	.0065	19.25	.0108	.0005	-.0004	.0510

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.557	.0032	1.104	.0027	-.0010	.0018	.0203
SDev	.066	.0031	.018	.0003	.0025	.0026	.0010
%RSD	1.191	96.36	1.635	12.74	253.0	142.0	4.735
#1	5.489	-.0012	1.088	.0022	.0013	.0011	.0195
#2	5.546	.0047	1.099	.0028	-.0046	-.0002	.0214
#3	5.546	.0058	1.101	.0028	-.0004	.0056	.0208
#4	5.648	.0035	1.130	.0030	-.0003	.0009	.0195

Method: ICP30J Sample Name: U264 A-L LEN Operator: NSJ
Run Time: 11/04/97 21:10:16
Comment: 1/5 CLP SERIAL DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0103	-.0098	.0342	.0295	.0001	37.94
SDev	.0011	.0069	.0091	.0028	.0001	.0000	.10
%RSD	268.8	66.81	92.16	8.240	.3683	2.098	.2641
#1	.0006	.0138	-.0208	.0314	.0296	.0001	38.06
#2	-.0002	.0087	.0008	.0337	.0294	.0001	37.82
#3	-.0007	.0015	-.0072	.0337	.0294	.0001	37.93
#4	.0018	.0173	-.0121	.0381	.0294	.0001	37.96

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	-.0007	-.0009	.0014	-.0001	1.394	2.468
SDev	.0004	.0007	.0006	.0007	.0002	.220	.019
%RSD	89.17	88.37	62.99	52.91	139.4	15.79	.7530
#1	-.0003	.0002	-.0004	.0010	-.0002	1.573	2.486
#2	-.0004	-.0009	-.0018	.0015	-.0002	1.573	2.481
#3	-.0010	-.0009	-.0008	.0007	.0001	1.122	2.448
#4	-.0001	-.0014	-.0008	.0023	-.0002	1.309	2.456

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2088	.0009	3.195	.0010	.0011	-.0014	.0140
SDev	.0006	.0009	.016	.0033	.0074	.0041	.0117
%RSD	.2956	105.8	.4907	316.2	651.9	282.2	83.82
#1	.2094	-.0001	3.211	-.0023	.0115	-.0040	.0221
#2	.2079	.0010	3.178	.0047	-.0005	.0037	-.0009
#3	.2089	.0005	3.186	-.0011	-.0060	-.0053	.0102
#4	.2089	.0021	3.206	.0029	-.0005	-.0002	.0245

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8417	-.0000	.1702	.0003	-.0082	.0003	.0164
SDev	.0054	.0023	.0007	.0004	.0132	.0005	.0000
%RSD	.6422	73200.	.3878	117.5	160.9	179.4	.0749
#1	.8439	-.0012	.1710	.0008	-.0126	.0002	.0164
#2	.8358	.0035	.1694	.0002	-.0174	.0006	.0164
#3	.8389	-.0012	.1703	-.0002	-.0144	-.0004	.0164
#4	.8480	-.0012	.1703	.0006	.0114	.0007	.0164

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Method: ICP30J Sample Name: U264 A LEN Operator: NSJ
Run Time: 11/04/97 21:14:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0258	-.0076	.1649	.1518	.0002	192.9
SDev	.0005	.0094	.0049	.0016	.0015	.0001	1.5
%RSD	158.1	36.29	63.61	.9754	1.018	55.65	.7902
#1	-.0008	.0184	-.0149	.1630	.1496	.0002	190.8
#2	-.0005	.0175	-.0054	.1641	.1518	.0004	192.8
#3	.0002	.0304	-.0057	.1663	.1526	.0001	194.4
#4	-.0000	.0367	-.0046	.1660	.1531	.0002	193.7

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0017	.0012	.0013	.0099	6.504	12.79
SDev	.0008	.0019	.0021	.0003	.0033	.457	.09
%RSD	438.5	110.8	177.9	20.15	33.80	7.032	.7221
#1	.0010	.0006	.0001	.0014	.0097	6.367	12.65
#2	.0006	.0045	.0044	.0011	.0147	7.181	12.83
#3	.0002	.0008	.0001	.0016	.0079	6.181	12.85
#4	-.0010	.0008	.0001	.0011	.0073	6.289	12.84

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.059	.0057	16.76	.0039	.0042	.0083	.0505
SDev	.010	.0014	.13	.0019	.0135	.0116	.0096
%RSD	.9402	24.36	.7484	48.02	322.5	140.2	18.95
#1	1.045	.0043	16.58	.0054	.0056	.0089	.0587
#2	1.059	.0076	16.76	.0012	.0228	.0243	.0394
#3	1.066	.0054	16.84	.0048	-.0043	.0011	.0582
#4	1.065	.0054	16.84	.0043	-.0073	-.0014	.0456

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.313	.0015	.8788	.0018	.0007	.0009	.0849
SDev	.032	.0035	.0096	.0001	.0037	.0009	.0015
%RSD	.7520	237.2	1.093	7.693	535.4	93.25	1.751
#1	4.270	.0024	.8652	.0017	-.0036	.0002	.0837
#2	4.311	.0047	.8788	.0019	-.0011	.0002	.0838
#3	4.348	-.0035	.8847	.0019	.0038	.0014	.0869
#4	4.321	.0023	.8864	.0017	.0038	.0019	.0850

Method: ICP30J Sample Name: U264 ADUP LEN Operator: NSJ
Run Time: 11/04/97 21:19:32
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	.0175	-.0172	.1655	.1521	.0001	192.3
SDev	.0019	.0080	.0095	.0003	.0017	.0001	2.0
%RSD	157.6	45.75	54.88	.1951	1.126	64.79	1.038
#1	-.0005	.0130	-.0165	.1658	.1513	.0001	192.2
#2	-.0028	.0106	-.0192	.1652	.1535	.0002	193.3
#3	-.0028	.0178	-.0282	.1658	.1535	.0001	194.1
#4	.0012	.0286	-.0052	.1652	.1500	.0000	189.6

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0009	.0006	.0008	.0100	6.365	12.79
SDev	.0009	.0003	.0006	.0014	.0008	.287	.17
%RSD	190.0	27.64	90.20	180.9	7.477	4.502	1.311
#1	-.0000	.0006	.0001	.0012	.0098	6.063	12.79
#2	-.0015	.0008	.0011	-.0003	.0111	6.720	12.93
#3	-.0008	.0011	.0001	-.0004	.0095	6.455	12.89
#4	.0005	.0011	.0011	.0025	.0097	6.220	12.56

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.057	.0053	16.84	.0041	.0004	.0036	.0349
SDev	.012	.0007	.21	.0024	.0065	.0081	.0151
%RSD	1.175	13.14	1.262	58.10	1461.	223.7	43.15
#1	1.056	.0043	16.79	.0053	.0043	.0020	.0204
#2	1.065	.0060	17.03	.0061	.0051	.0009	.0345
#3	1.067	.0054	16.98	.0007	-.0090	-.0037	.0289
#4	1.040	.0054	16.56	.0044	.0013	.0152	.0557

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.333	.0038	.8806	.0016	-.0065	-.0010	.0841
SDev	.041	.0020	.0121	.0005	.0022	.0016	.0006
%RSD	.9467	52.14	1.374	34.57	34.08	160.7	.7611
#1	4.334	.0058	.8774	.0022	-.0083	-.0019	.0837
#2	4.361	.0047	.8903	.0011	-.0082	-.0019	.0837
#3	4.363	.0035	.8898	.0012	-.0058	-.0015	.0850
#4	4.275	.0012	.8648	.0018	-.0037	.0014	.0837

Method: ICP30J Sample Name: U264 ASPK LEN Operator: NSJ
Run Time: 11/04/97 21:24:11
Comment: +0.1mL TCLP SPIKE TO 10mL SAMPLE
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9029	.0278	5.352	.1631	5.389	.0001	191.1
SDev	.0124	.0063	.037	.0009	.047	.0001	1.0
%RSD	1.373	22.50	.6944	.5641	.8745	60.78	.5231
#1	.9191	.0325	5.364	.1637	5.373	.0002	191.3
#2	.9062	.0187	5.332	.1620	5.373	.0001	190.9
#3	.8926	.0286	5.313	.1626	5.353	.0002	189.9
#4	.8938	.0313	5.398	.1640	5.459	.0000	192.3

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.034	.0008	5.036	.0018	.0104	6.269	12.69
SDev	.005	.0009	.034	.0005	.0010	.086	.12
%RSD	.4830	117.5	.6718	26.55	9.817	1.369	.9436
#1	1.039	.0011	5.038	.0024	.0117	6.387	12.76
#2	1.033	.0011	5.026	.0016	.0107	6.249	12.65
#3	1.027	.0016	5.000	.0018	.0094	6.259	12.54
#4	1.035	-.0006	5.081	.0013	.0098	6.181	12.81

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.049	.0060	16.63	.0085	5.111	.0062	1.183
SDev	.007	.0011	.13	.0038	.028	.0110	.019
%RSD	.6364	18.93	.7827	44.24	.5510	178.4	1.587
#1	1.048	.0061	16.64	.0111	5.135	.0190	1.185
#2	1.047	.0045	16.59	.0042	5.115	-.0000	1.205
#3	1.042	.0061	16.50	.0066	5.071	-.0055	1.159
#4	1.058	.0072	16.81	.0121	5.123	.0112	1.182

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.248	.0048	.8707	.0019	-.0145	.0017	.0851
SDev	.026	.0024	.0080	.0005	.0136	.0015	.0003
%RSD	.6111	50.68	.9181	27.91	93.87	83.74	.3625
#1	4.263	.0033	.8684	.0025	.0042	.0021	.0855
#2	4.255	.0068	.8675	.0016	-.0131	-.0000	.0849
#3	4.210	.0021	.8645	.0020	-.0251	.0014	.0849
#4	4.265	.0068	.8825	.0013	-.0239	.0035	.0849

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Method: ICP30J Sample Name: CRI Operator: NSJ
Run Time: 11/04/97 21:30:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0225	.0086	.0111	.0025	.0014	.0102	.0411
SDev	.0009	.0094	.0052	.0006	.0003	.0001	.0129
%RSD	4.076	108.8	46.56	24.74	17.77	1.517	31.43
#1	.0222	.0075	.0107	.0022	.0016	.0104	.0578
#2	.0234	.0084	.0069	.0019	.0016	.0102	.0444
#3	.0231	.0207	.0186	.0033	.0012	.0101	.0323
#4	.0214	-.0021	.0084	.0027	.0012	.0100	.0296

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0106	.1025	.0214	.0547	-.0007	.2965	.0053
SDev	.0008	.0014	.0007	.0012	.0007	.2313	.0048
%RSD	7.332	1.391	3.142	2.210	98.71	78.01	89.15
#1	.0112	.1040	.0209	.0553	-.0010	-.0441	.0001
#2	.0100	.1022	.0224	.0553	-.0013	.4068	.0100
#3	.0113	.1030	.0214	.0552	.0003	.4656	.0026
#4	.0099	.1007	.0209	.0528	-.0010	.3578	.0087

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0306	.0010	.0054	.0848	.0064	.1241	.0160
SDev	.0008	.0010	.0034	.0024	.0090	.0068	.0065
%RSD	2.535	101.8	62.48	2.777	139.7	5.482	40.42
#1	.0316	-.0003	.0032	.0863	-.0028	.1292	.0065
#2	.0301	.0022	.0064	.0861	.0005	.1254	.0192
#3	.0308	.0011	.0097	.0856	.0159	.1142	.0208
#4	.0298	.0011	.0023	.0813	.0120	.1276	.0176

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0549	.0006	-.0005	.0000	.0073	.1001	.0424
SDev	.0028	.0029	.0000	.0003	.0061	.0009	.0007
%RSD	5.136	514.2	.0520	707.4	83.83	.9522	1.698
#1	.0557	-.0032	-.0005	-.0003	.0136	.1007	.0430
#2	.0585	.0014	-.0005	-.0001	.0100	.0999	.0430
#3	.0529	.0038	-.0005	.0005	-.0008	.1010	.0418
#4	.0524	.0003	-.0005	.0001	.0064	.0988	.0418

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Method: ICP30J Sample Name: ICSA Operator: NSJ
Run Time: 11/04/97 21:34:47
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	527.0	-.0157	.0301	.0042	.0001	469.5
SDev	.0004	4.8	.0268	.0021	.0000	.0001	3.9
%RSD	31.19	.9067	170.9	7.035	.0029	73.77	.8234
#1	.0011	529.5	.0181	.0288	.0042	.0002	472.3
#2	.0015	519.9	-.0278	.0279	.0042	.0000	463.8
#3	.0011	530.2	-.0444	.0311	.0042	.0002	471.4
#4	.0021	528.4	-.0087	.0326	.0042	.0001	470.4

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0017	.0014	-.0010	.0016	190.1	.1274	520.2
SDev	.0008	.0008	.0002	.0005	1.6	.2035	4.2
%RSD	46.98	57.10	24.57	32.82	.8337	159.7	.8102
#1	.0025	.0014	-.0008	.0013	191.0	-.0147	522.8
#2	.0011	.0006	-.0008	.0018	187.7	-.0441	513.9
#3	.0022	.0012	-.0013	.0011	190.9	.1716	522.4
#4	.0009	.0025	-.0009	.0023	190.7	.3970	521.6

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0006	-.0040	.0101	-.0022	-.0410	-.0273	.0262
SDev	.0005	.0030	.0049	.0057	.0134	.0223	.0219
%RSD	80.84	74.41	48.57	260.5	32.78	81.79	83.63
#1	.0000	-.0003	.0086	-.0043	-.0333	-.0072	.0289
#2	-.0010	-.0047	.0152	.0052	-.0263	-.0591	-.0029
#3	-.0004	-.0036	.0040	-.0013	-.0494	-.0241	.0503
#4	-.0009	-.0075	.0128	-.0084	-.0549	-.0189	.0284

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0705	-.0012	.0289	-.0007	.1150	.0060	.0061
SDev	.0089	.0116	.0003	.0004	.0184	.0004	.0003
%RSD	12.60	987.9	1.215	56.29	16.00	7.059	4.712
#1	.0829	.0073	.0292	-.0007	.1254	.0064	.0065
#2	.0701	.0092	.0287	-.0013	.1316	.0064	.0062
#3	.0665	-.0056	.0293	-.0003	.1133	.0057	.0059
#4	.0624	-.0156	.0286	-.0007	.0899	.0057	.0060

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Method: ICP30J Sample Name: ICSAB Operator: NSJ
Run Time: 11/04/97 21:39:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9633	531.3	-.0591	.0270	.5001	.4609	471.2
SDev	.0114	8.2	.0083	.0031	.0088	.0076	6.0
%RSD	1.185	1.545	14.10	11.41	1.749	1.654	1.264
#1	.9536	525.0	-.0600	.0285	.4931	.4547	466.4
#2	.9628	530.8	-.0519	.0288	.4996	.4599	470.1
#3	.9574	526.4	-.0704	.0284	.4953	.4570	468.3
#4	.9794	543.1	-.0539	.0224	.5126	.4719	479.8

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9397	.4468	.4493	.4886	191.3	-.0539	524.2
SDev	.0092	.0062	.0060	.0080	2.6	.2957	7.0
%RSD	.9767	1.376	1.338	1.646	1.385	548.5	1.344
#1	.9301	.4407	.4434	.4816	189.3	-.4362	518.9
#2	.9418	.4445	.4491	.4865	191.0	-.0735	523.1
#3	.9353	.4466	.4472	.4861	189.9	.2794	520.3
#4	.9514	.4552	.4576	.5002	195.1	.0147	534.4

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4487	-.0028	-.0078	.9039	.8588	-.0186	.0443
SDev	.0059	.0057	.0057	.0196	.0051	.0413	.0327
%RSD	1.309	203.3	72.31	2.163	.5961	221.4	73.79
#1	.4436	.0012	-.0089	.9015	.8605	-.0181	.0685
#2	.4481	-.0017	-.0078	.8843	.8524	-.0651	-.0004
#3	.4459	-.0111	-.0004	.8987	.8577	-.0264	.0401
#4	.4570	.0004	-.0141	.9309	.8646	.0351	.0689

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0739	-.0019	.0290	-.0012	.0709	.4633	.9282
SDev	.0022	.0047	.0004	.0003	.0374	.0070	.0100
%RSD	3.009	243.8	1.329	29.23	52.78	1.503	1.077
#1	.0737	-.0052	.0287	-.0012	.0367	.4587	.9208
#2	.0771	-.0057	.0293	-.0016	.0580	.4618	.9258
#3	.0726	-.0014	.0286	-.0010	.0648	.4592	.9233
#4	.0722	.0045	.0293	-.0008	.1240	.4736	.9429

Analysis Report QC Standard Tue 11-04-97 09:49:59 PM page 1

Method: ICP30J Sample Name: CV 11 Operator: NSJ
Run Time: 11/04/97 21:45:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.004	Q2.265	2.040	1.024	1.023	.9854	Q2.206
SDev	.010	.018	.033	.011	.015	.0113	.025
%RSD	.9751	.7731	1.600	1.038	1.436	1.149	1.155
#1	1.009	Q2.273	2.030	1.024	1.026	.9868	Q2.220
#2	.9955	Q2.285	2.039	1.017	1.012	.9776	Q2.234
#3	.9960	Q2.244	2.006	1.016	1.012	.9765	2.183
#4	1.015	Q2.259	2.084	1.039	1.043	1.001	2.186

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.005	1.002	1.001	1.016	2.096	21.27	Q2.239
SDev	.011	.009	.010	.013	.014	.21	.030
%RSD	1.073	.9474	.9884	1.231	.6482	.9668	1.345
#1	1.014	1.004	1.002	1.018	2.103	21.30	Q2.251
#2	.9981	.9967	.9934	1.006	2.093	21.00	Q2.276
#3	.9929	.9938	.9934	1.007	2.079	21.30	Q2.217
#4	1.014	1.015	1.014	1.033	2.110	21.50	Q2.212

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9865	1.033	2.043	1.029	2.013	2.145	2.170
SDev	.0099	.013	.022	.012	.015	.027	.034
%RSD	1.005	1.237	1.069	1.156	.7231	1.248	1.544
#1	.9882	1.032	2.057	1.041	2.011	2.169	Q2.202
#2	.9797	1.024	2.023	1.020	2.006	2.135	2.148
#3	.9782	1.025	2.027	1.018	2.000	2.112	2.135
#4	.9998	1.051	2.067	1.038	2.033	2.164	2.196

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.067	.9576	1.014	.9804	2.040	.9740	1.021
SDev	.019	.0085	.013	.0118	.033	.0100	.009
%RSD	.9283	.8890	1.266	1.206	1.633	1.022	.8784
#1	2.083	.9643	1.016	.9825	2.043	.9759	1.024
#2	2.047	.9474	1.005	.9710	1.991	.9662	1.017
#3	2.054	.9537	1.005	.9718	2.060	.9665	1.011
#4	2.084	.9649	1.032	.9963	2.063	.9873	1.031

Analysis Report Blank Sample Tue 11-04-97 09:55:57 PM page 1

Method: ICP30J Sample Name: Blank // Operator: NSJ
Run Time: 11/04/97 21:51:23
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	H.0354	-.0131	.0002	.0005	.0004	H.0370
SDev	.0016	.0049	.0080	.0012	.0003	.0001	.0065
%RSD	280.7	13.84	60.90	600.2	46.19	12.46	17.58
#1	.0024	H.0377	-.0100	.0020	.0008	.0005	H.0341
#2	.0014	H.0380	-.0243	-.0005	.0003	.0004	H.0458
#3	-.0006	H.0380	-.0056	-.0002	.0003	.0005	H.0377
#4	-.0009	H.0281	-.0126	-.0005	.0008	.0004	H.0305

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	-.0011	-.0007	.0017	.0135	.0417	H.0296
SDev	.0007	.0008	.0014	.0009	.0022	.2842	.0041
%RSD	145.5	74.14	191.9	52.43	16.18	682.0	13.78
#1	.0008	-.0001	-.0004	H.0029	.0130	.1029	H.0268
#2	.0011	-.0016	-.0018	.0019	.0166	-.0539	H.0292
#3	.0007	-.0019	-.0018	.0012	.0130	-.2794	H.0268
#4	-.0006	-.0008	.0011	.0008	.0114	.3970	H.0354

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	-.0001	-.0044	.0010	-.0044	-.0034	-.0103
SDev	.0002	.0014	.0082	.0025	.0063	.0050	.0096
%RSD	64.35	2032.	187.7	247.3	144.6	148.8	92.73
#1	.0004	.0016	.0051	.0040	.0034	-.0016	.0000
#2	.0002	-.0014	-.0001	-.0005	-.0121	-.0067	-.0206
#3	.0007	-.0009	-.0122	.0020	-.0044	-.0080	-.0159
#4	.0002	.0005	-.0103	-.0015	-.0043	.0029	-.0048

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0021	.0015	-.0002	.0002	-.0141	-.0006	-.0006
SDev	.0058	.0024	.0003	.0007	.0094	.0013	.0000
%RSD	276.7	166.2	115.1	297.5	66.52	222.4	1.567
#1	.0040	.0035	-.0000	.0010	-.0146	.0012	-.0007
#2	.0017	-.0000	-.0000	.0005	-.0086	-.0015	-.0006
#3	-.0074	-.0012	-.0005	.0001	-.0271	-.0004	-.0006
#4	-.0066	.0035	-.0005	-.0006	-.0062	-.0017	-.0006

Method: ICP30J Sample Name: U264 MB2 LEN Operator: NSJ
Run Time: 11/04/97 21:56:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	.0232	-.0129	.0129	.0305	.0002	.0236
SDev	.0013	.0037	.0101	.0026	.0004	.0001	.0051
%RSD	105.3	16.00	78.44	19.75	1.299	51.09	21.75
#1	.0024	.0209	-.0062	.0152	.0307	.0001	.0162
#2	-.0006	.0218	-.0201	.0099	.0309	.0002	.0261
#3	.0019	.0287	-.0229	.0118	.0301	.0003	.0279
#4	.0014	.0213	-.0024	.0149	.0303	.0001	.0243

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0007	-.0006	.0016	.0013	.1961	.0179
SDev	.0005	.0014	.0016	.0013	.0026	.1578	.0126
%RSD	285.9	204.7	272.4	80.84	197.8	80.47	70.73
#1	.0006	-.0022	-.0027	.0026	-.0025	-.0343	.0021
#2	-.0005	-.0001	-.0008	-.0003	.0030	.2696	.0169
#3	.0006	-.0014	.0001	.0018	.0027	.3186	.0194
#4	.0000	.0010	.0011	.0023	.0020	.2304	.0330

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0008	.1360	-.0003	-.0021	-.0082	-.0036
SDev	.0002	.0005	.0087	.0030	.0038	.0078	.0044
%RSD	96.25	63.07	6.379	958.4	181.2	95.71	123.7
#1	.0004	-.0012	.1433	.0036	-.0005	-.0093	-.0095
#2	-.0001	-.0009	.1235	-.0037	-.0069	-.0138	.0008
#3	.0004	-.0012	.1400	-.0010	.0020	-.0128	-.0016
#4	.0002	-.0001	.1373	-.0002	-.0030	.0032	-.0040

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0279	.0026	.0001	-.0001	-.0076	-.0001	.0044
SDev	.0059	.0022	.0001	.0005	.0136	.0004	.0000
%RSD	21.23	84.43	115.9	604.4	178.7	545.0	.2920
#1	.0334	.0011	-.0000	.0005	-.0019	-.0000	.0044
#2	.0195	.0023	-.0000	-.0008	.0082	-.0007	.0044
#3	.0298	.0058	.0002	-.0001	-.0139	.0003	.0044
#4	.0287	.0012	.0002	.0001	-.0229	.0001	.0044

Method: ICP30J Sample Name: U264 G LEN Operator: NSJ
Run Time: 11/04/97 22:00:40
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0017	.0069	-.0193	.0476	.0797	.0002	341.2
SDev	.0024	.0101	.0098	.0018	.0014	.0001	4.6
%RSD	143.8	145.0	50.86	3.850	1.742	41.34	1.358
#1	-.0024	.0009	-.0207	.0482	.0782	.0001	338.6
#2	.0001	.0080	-.0230	.0460	.0804	.0002	342.9
#3	L-.0049	-.0018	-.0282	.0463	.0813	.0001	346.8
#4	.0004	.0207	-.0053	.0499	.0789	.0002	336.4

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0008	.0023	.0027	.0083	7.703	13.56
SDev	.0009	.0014	.0014	.0014	.0017	.303	.19
%RSD	199.6	173.1	62.89	53.16	20.71	3.940	1.377
#1	.0010	-.0012	.0001	.0027	.0061	7.259	13.45
#2	.0005	.0014	.0030	.0034	.0084	7.818	13.66
#3	-.0008	.0009	.0030	.0007	.0084	7.788	13.77
#4	.0010	.0022	.0030	.0040	.0103	7.945	13.37

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1899	.0054	19.43	.0054	.0049	-.0122	.0472
SDev	.0029	.0013	.33	.0034	.0100	.0073	.0115
%RSD	1.514	24.56	1.716	61.95	202.5	59.74	24.28
#1	.1876	.0035	19.32	.0059	.0008	-.0186	.0450
#2	.1913	.0060	19.61	.0036	.0086	-.0099	.0570
#3	.1933	.0065	19.78	.0022	-.0064	-.0174	.0319
#4	.1874	.0057	19.02	.0099	.0167	-.0029	.0548

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.613	.0035	.8887	.0024	-.0001	.0007	.0145
SDev	.081	.0019	.0165	.0005	.0080	.0010	.0000
%RSD	1.219	54.33	1.854	21.04	6632.	147.4	.0980
#1	6.566	.0035	.8793	.0018	.0033	.0002	.0145
#2	6.660	.0035	.8965	.0026	-.0087	.0001	.0145
#3	6.699	.0058	.9077	.0023	-.0045	.0002	.0145
#4	6.526	.0012	.8713	.0030	.0093	.0022	.0144

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Method: ICP30J Sample Name: U264 H LEN Operator: NSJ
Run Time: 11/04/97 22:05:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	-.0025	-.0149	.0439	.0851	.0001	379.1
SDev	.0035 OK	.0019	.0092	.0044	.0008	.0001	3.7
%RSD	1264.	75.93	61.43	9.959	.9624	86.05	.9708
#1	.0006	-.0013	-.0052	.0443	.0849	.0002	381.1
#2	-.0016	-.0031	-.0153	.0432	.0862	.0001	382.5
#3	-.0029	-.0007	-.0272	.0387	.0849	.0002	378.6
#4	.0050	-.0049	-.0120	.0493	.0843	-.0000	374.1

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	-.0004	.0010	.0033	.0012	8.705	11.81
SDev	.0011	.0011	.0019	.0025	.0023	.362	.13
%RSD	1667.	266.0	201.9	77.23	186.8	4.154	1.067
#1	.0008	.0009	.0035	.0044	.0047	9.102	11.84
#2	-.0009	-.0001	-.0003	.0018	.0008	8.494	11.96
#3	-.0008	-.0007	.0016	.0007	.0001	8.906	11.79
#4	.0012	-.0017	-.0008	.0063	-.0006	8.318	11.66

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2486	.0066	20.95	.0071	-.0005	-.0009	.0360
SDev	.0025	.0012	.21	.0027	.0065	.0060	.0076
%RSD	.9939	17.53	1.023	38.36	1207.	655.4	21.12
#1	.2495	.0082	20.96	.0076	.0081	-.0081	.0278
#2	.2512	.0065	21.23	.0052	-.0038	.0065	.0450
#3	.2485	.0054	20.91	.0049	.0004	-.0001	.0321
#4	.2453	.0063	20.71	.0108	-.0069	-.0020	.0391

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.530	.0032	.8961	.0031	-.0077	.0012	.0134
SDev	.055	.0018	.0092	.0016	.0167	.0009	.0003
%RSD	.8360	55.05	1.027	51.68	217.6	70.67	2.429
#1	6.557	.0023	.8949	.0034	-.0035	.0023	.0132
#2	6.591	.0058	.9080	.0023	-.0065	.0013	.0132
#3	6.505	.0023	.8961	.0015	-.0305	.0013	.0138
#4	6.467	.0023	.8855	.0052	.0097	.0001	.0132

Method: ICP30J Sample Name: U264 I LEN Operator: NSJ
Run Time: 11/04/97 22:09:58
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0344	-.0251	.0458	.1127	.0002	196.8
SDev	.0003	.0022	.0157	.0005	.0006	.0001	.8
%RSD	186.0	6.323	62.53	1.171	.5532	31.51	.3877
#1	.0004	.0372	-.0112	.0460	.1119	.0002	195.7
#2	.0004	.0348	-.0250	.0454	.1127	.0002	197.0
#3	-.0003	.0320	-.0470	.0465	.1134	.0001	197.5
#4	.0002	.0335	-.0171	.0454	.1127	.0002	197.1

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0014	.0011	.0018	.0167	6.967	13.62
SDev	.0005	.0004	.0010	.0004	.0014	.240	.07
%RSD	905.5	30.58	94.75	25.12	8.595	3.441	.5489
#1	.0002	.0019	.0016	.0023	.0186	7.249	13.53
#2	.0003	.0014	-.0003	.0018	.0151	6.681	13.63
#3	-.0007	.0009	.0011	.0012	.0164	7.043	13.71
#4	.0004	.0014	.0020	.0018	.0167	6.896	13.62

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.156	.0054	17.33	.0074	.0026	-.0009	.0415
SDev	.006	.0006	.07	.0036	.0083	.0054	.0198
%RSD	.5410	10.18	.4108	49.07	322.6	631.9	47.68
#1	1.147	.0051	17.24	.0034	.0115	.0009	.0554
#2	1.156	.0051	17.33	.0114	-.0021	-.0089	.0584
#3	1.162	.0051	17.41	.0054	-.0064	.0032	.0155
#4	1.157	.0063	17.33	.0093	.0073	.0013	.0370

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.112	.0041	.9353	.0018	-.0091	.0002	.0206
SDev	.011	.0035	.0067	.0004	.0079	.0006	.0003
%RSD	.2668	85.83	.7220	24.18	86.60	299.7	1.491
#1	4.100	.0058	.9260	.0024	-.0182	.0006	.0201
#2	4.112	.0011	.9370	.0015	-.0097	.0009	.0207
#3	4.127	.0082	.9421	.0015	.0011	-.0005	.0208
#4	4.110	.0012	.9363	.0018	-.0097	-.0002	.0207

Method: ICP30J Sample Name: U264 J LEN Operator: NSJ
Run Time: 11/04/97 22:14:36
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0048	L-.0221	-.0266	.0399	.0836	.0000	327.3
SDev	.0051 OK	.0287	.0204	.0070	.0033	.0002	11.5
%RSD	107.1	130.1	76.83	17.53	3.911 OK	1688.	3.518
#1	L-.0061	L-.0278	-.0314	.0415	.0878	.0001	342.0
#2	L-.0109	L-.0602	L-.0514	.0297	.0815	-.0002	316.9
#3	.0013	.0035	-.0025	.0457	.0806	.0001	319.4
#4	L-.0034	-.0038	-.0211	.0426	.0847	.0000	330.9

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	-.0005	.0004	.0011	.0048	7.436	14.05
SDev	.0010	.0030	.0037	.0037	.0033	.643	.47
%RSD	99.62	561.2	993.8	335.4	69.68	8.651	3.311
#1	-.0006	-.0001	.0020	.0007	.0063	7.935	14.65
#2	L-.0024	L-.0043	-.0046	L-.0037	.0004	6.534	13.73
#3	-.0003	.0030	.0039	.0051	.0081	7.857	13.64
#4	-.0006	-.0007	.0001	.0023	.0043	7.416	14.18

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2867	.0045	18.19	.0043	-.0123	-.0090	.0241
SDev	.0101	.0026	.64	.0044	.0121	.0089	.0182
%RSD	3.517	57.54	3.504	101.8	98.80	98.04	75.44
#1	.2992	.0043	19.00	.0013	-.0055	-.0041	.0109
#2	.2781	.0010	17.92	.0041	L-.0296	-.0207	.0367
#3	.2789	.0071	17.50	.0106	-.0025	-.0005	.0063
#4	.2904	.0054	18.36	.0012	-.0116	-.0110	.0426

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.555	.0008	.8999	.0007	-.0039	-.0020	.0104
SDev	.213	.0043	.0335	.0016	.0108	.0044	.0013
%RSD	3.250	509.8	3.725	244.0	276.8	218.3	12.60
#1	6.832	.0012	.9414	.0016	-.0124	L-.0032	.0120
#2	6.361	-.0047	.8818	-.0017	.0026	L-.0077	.0088
#3	6.417	.0058	.8654	.0018	.0079	.0025	.0107
#4	6.610	.0011	.9110	.0009	-.0136	.0002	.0101

Method: ICP30J Sample Name: U264 K LEN Operator: NSJ
Run Time: 11/04/97 22:19:15
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0032	-.0083	-.0181	.0458	.0534	.0001	431.6
SDev	.0048	.0125	.0194	.0064	.0009	.0001	5.7
%RSD	150.4	149.7	107.5	13.90	1.772	85.59	1.332
#1	.0003	-.0005	-.0258	.0498	.0520	.0001	423.1
#2	L-.0047	-.0066	-.0118	.0476	.0537	.0001	434.1
#3	L-.0092	L-.0264	-.0401	.0364	.0539	-.0000	433.8
#4	.0010	.0003	.0054	.0495	.0539	.0002	435.6

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0368	-.0000	-.0004	.0047	5.000	25.43
SDev	.0005	.0017	.0021	.0035	.0047	.144	.35
%RSD	184.9	4.714	397000.	799.4	99.21	2.888	1.381
#1	.0005	.0381	.0020	.0020	.0078	5.161	24.91
#2	-.0007	.0361	-.0004	-.0014	.0026	5.063	25.54
#3	-.0007	.0348	-.0027	L-.0051	-.0008	4.828	25.65
#4	-.0003	.0384	.0011	.0026	.0093	4.946	25.63

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	8.552	-.0002	19.13	.0283	-.0067	-.0046	.0466
SDev	.129	.0015	.34	.0047	.0055	.0046	.0166
%RSD	1.506	849.1	1.796	16.54	82.32	100.4	35.56
#1	8.359	.0013	18.63	.0334	-.0060	.0006	.0231
#2	8.605	-.0012	19.25	.0253	-.0040	-.0104	.0548
#3	8.616	-.0018	19.42	.0234	-.0147	-.0030	.0477
#4	8.626	.0010	19.23	.0309	-.0022	-.0055	.0610

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.179	.0017	1.877	.0016	-.0017	.0000	.1353
SDev	.014	.0052	.039	.0007	.0090	.0023	.0014
%RSD	1.167	298.6	2.076	41.80	543.5	14670.	1.011
#1	1.171	.0058	1.820	.0012	.0001	.0020	.1334
#2	1.181	.0035	1.890	.0018	-.0104	-.0000	.1360
#3	1.166	-.0058	1.907	.0009	-.0066	L-.0032	.1354
#4	1.197	.0035	1.892	.0024	.0102	.0013	.1366

Method: ICP30J Sample Name: U264 U-L LEN Operator: NSJ
Run Time: 11/04/97 22:23:54
Comment: 1/5 CLP SERIAL DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0021	.0183	-.0080	.0315	.0363	.0002	28.88
SDev	.0017	.0091	.0043	.0012	.0009	.0001	.55
%RSD	81.83	49.64	53.55	3.733	2.600	50.78	1.910
#1	.0003	.0173	-.0123	.0297	.0355	.0004	28.41
#2	.0043	.0299	-.0100	.0323	.0355	.0001	28.44
#3	.0013	.0077	-.0024	.0320	.0370	.0002	29.12
#4	.0023	.0182	-.0072	.0320	.0372	.0002	29.54

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	-.0000	.0006	.0025	-.0001	2.963	2.044
SDev	.0008	.0016	.0015	.0015	.0016	.308	.036
%RSD	202.1	4758.	261.0	59.46	1409.	10.39	1.775
#1	-.0010	.0022	.0025	.0015	.0020	3.397	2.023
#2	-.0010	-.0009	.0006	.0045	-.0006	2.720	2.013
#3	-.0004	-.0004	.0006	.0012	.0001	2.965	2.046
#4	.0007	-.0011	-.0013	.0029	-.0018	2.769	2.094

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2397	.0005	7.108	.0011	.0011	.0065	.0048
SDev	.0050	.0015	.187	.0018	.0101	.0060	.0140
%RSD	2.063	312.1	2.630	166.9	954.1	91.74	294.3
#1	.2359	.0016	6.940	-.0013	.0150	.0151	.0219
#2	.2354	.0010	6.972	.0025	.0008	.0014	-.0098
#3	.2418	-.0017	7.182	.0005	-.0030	.0055	-.0028
#4	.2457	.0010	7.338	.0026	-.0086	.0041	.0098

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2770	.0000	.2175	.0005	.0013	.0011	.0091
SDev	.0059	.0016	.0049	.0007	.0069	.0010	.0006
%RSD	2.136	11860.	2.255	139.2	518.5	91.64	6.870
#1	.2694	.0012	.2129	-.0001	-.0038	.0007	.0094
#2	.2830	.0000	.2138	.0014	.0004	.0022	.0094
#3	.2755	-.0023	.2209	-.0000	-.0025	-.0001	.0082
#4	.2800	.0012	.2225	.0008	.0113	.0018	.0094

Method: ICP30J Sample Name: U264 U LEN Operator: NSJ
Run Time: 11/04/97 22:28:32
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0293	-.0117	.1518	.1823	.0001	145.6
SDev	.0015	.0045	.0070	.0013	.0003	.0001	.6
%RSD	607.4	15.43	59.66	.8556	.1785	149.4	.4305
#1	-.0018	.0254	-.0125	.1501	.1822	-.0000	145.7
#2	.0007	.0353	-.0032	.1523	.1819	-.0000	144.7
#3	.0017	.0263	-.0110	.1532	.1826	.0001	146.1
#4	.0004	.0302	-.0202	.1518	.1826	.0002	145.9

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0011	-.0002	.0014	.0094	14.09	10.47
SDev	.0003	.0013	.0014	.0004	.0014	.40	.05
%RSD	67.77	116.4	621.9	29.62	14.39	2.815	.5154
#1	.0004	-.0007	-.0018	.0008	.0077	13.49	10.49
#2	.0008	.0021	-.0008	.0015	.0109	14.26	10.39
#3	.0001	.0013	.0015	.0018	.0090	14.33	10.51
#4	.0006	.0016	.0001	.0016	.0100	14.27	10.48

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.201	.0032	37.11	.0037	-.0007	.0122	.0387
SDev	.007	.0009	.26	.0037	.0106	.0084	.0140
%RSD	.5584	28.02	.7136	99.79	1460.	68.56	36.20
#1	1.201	.0021	37.32	-.0004	-.0146	.0036	.0200
#2	1.191	.0043	36.72	.0080	.0107	.0223	.0376
#3	1.207	.0032	37.22	.0054	-.0021	.0157	.0533
#4	1.203	.0032	37.18	.0018	.0030	.0074	.0438

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.404	.0050	1.117	.0012	.0058	-.0003	.0497
SDev	.008	.0031	.009	.0007	.0059	.0008	.0000
%RSD	.5663	61.97	.7969	62.82	101.3	234.9	.0270
#1	1.403	.0023	1.119	.0001	.0033	-.0008	.0498
#2	1.394	.0094	1.104	.0016	.0056	.0009	.0497
#3	1.413	.0047	1.123	.0016	.0004	-.0007	.0497
#4	1.406	.0035	1.122	.0014	.0141	-.0007	.0497

Method: ICP30J Sample Name: U264 UDUP LEN Operator: NSJ
Run Time: 11/04/97 22:33:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0305	-.0154	.1524	.1838	.0000	146.7
SDev	.0007	.0049	.0084	.0010	.0027	.0000	.9
%RSD	1064.	16.20	54.36	.6435	1.460	10630.	.5818
#1	.0009	.0314	-.0148	.1512	.1822	-.0000	146.1
#2	-.0008	.0287	-.0233	.1521	.1826	-.0000	146.5
#3	-.0003	.0251	-.0195	.1535	.1826	.0001	146.2
#4	-.0001	.0368	-.0040	.1529	.1878	-.0000	148.0

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0002	-.0014	.0011	.0079	14.13	10.56
SDev	.0003	.0009	.0005	.0005	.0007	.32	.06
%RSD	338.6	411.2	32.00	46.36	8.363	2.269	.6066
#1	.0002	.0006	-.0018	.0014	.0071	13.89	10.52
#2	.0000	-.0015	-.0018	.0015	.0084	13.83	10.52
#3	-.0004	-.0002	-.0013	.0004	.0078	14.42	10.53
#4	-.0001	.0003	-.0008	.0010	.0085	14.41	10.65

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.210	.0019	37.53	.0038	-.0076	.0005	.0385
SDev	.008	.0011	.28	.0035	.0025	.0096	.0065
%RSD	.6452	56.98	.7344	91.93	32.79	1943.	16.81
#1	1.204	.0010	37.24	.0071	-.0039	-.0106	.0446
#2	1.208	.0024	37.52	-.0011	-.0086	.0032	.0366
#3	1.207	.0032	37.46	.0045	-.0090	-.0029	.0303
#4	1.222	.0010	37.90	.0047	-.0090	.0123	.0427

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.412	.0009	1.131	.0011	.0053	-.0001	.0505
SDev	.008	.0045	.010	.0003	.0130	.0009	.0006
%RSD	.5629	517.1	.8987	22.45	242.7	1551.	1.198
#1	1.408	.0035	1.121	.0010	.0027	.0006	.0510
#2	1.416	-.0035	1.128	.0014	.0016	-.0008	.0510
#3	1.403	-.0023	1.129	.0009	.0237	-.0009	.0504
#4	1.421	.0058	1.145	.0010	-.0067	.0008	.0497

Method: ICP30J Sample Name: U264 USPK LEN Operator: NSJ
Run Time: 11/04/97 22:37:49
Comment: +0.1mL TCLP SPIKE TO 10mL SAMPLE
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9020	.0250	5.275	.1455	5.360	-.0000	139.0
SDev	.0115	.0017	.040	.0011	.034	.0001	.9
%RSD	1.271	6.874	.7661	.7286	.6420	413.2	.6639
#1	.9116	.0252	5.329	.1447	5.408	-.0001	140.4
#2	.9032	.0270	5.230	.1447	5.327	-.0001	138.4
#3	.9077	.0252	5.270	.1469	5.351	.0000	138.7
#4	.8856	.0228	5.271	.1455	5.353	.0001	138.5

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.034	.0000	4.980	.0021	.0079	13.45	9.968
SDev	.006	.0005	.035	.0012	.0012	.13	.068
%RSD	.5918	5152.	.7001	59.25	14.89	.9343	.6864
#1	1.042	-.0002	5.032	.0003	.0064	13.55	10.07
#2	1.033	.0006	4.957	.0032	.0089	13.41	9.923
#3	1.031	.0001	4.966	.0024	.0089	13.29	9.954
#4	1.028	-.0004	4.964	.0024	.0076	13.54	9.927

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.142	.0030	35.20	.0037	5.073	.0008	1.143
SDev	.008	.0005	.25	.0023	.032	.0139	.025
%RSD	.7351	17.66	.7175	63.34	.6398	1795.	2.226
#1	1.155	.0034	35.56	.0042	5.121	-.0038	1.169
#2	1.136	.0034	34.97	.0004	5.052	.0015	1.158
#3	1.140	.0028	35.11	.0060	5.058	.0193	1.136
#4	1.139	.0023	35.14	.0043	5.060	-.0139	1.111

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.353	.0047	1.056	.0010	-.0072	.0005	.0479
SDev	.008	.0014	.008	.0004	.0169	.0001	.0009
%RSD	.5777	30.73	.7317	39.73	234.0	29.22	1.967
#1	1.365	.0033	1.067	.0006	-.0211	.0005	.0490
#2	1.351	.0068	1.049	.0015	.0171	.0005	.0471
#3	1.348	.0045	1.054	.0010	-.0152	.0005	.0484
#4	1.350	.0044	1.054	.0008	-.0098	.0003	.0471

Analysis Report QC Standard Tue 11-04-97 10:48:19 PM page 1

Method: ICP30J Sample Name: CCV 12 Operator: NSJ
Run Time: 11/04/97 22:43:46
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.018	2.137	2.074	1.040	1.045	.9980	2.094
SDev	.015	.036	.050	.022	.023	.0222	.029
%RSD	1.449	1.695	2.414	2.077	2.203	2.229	1.363
#1	.9987	2.093	2.004	1.012	1.017	.9710	2.061
#2	1.013	2.124	2.075	1.033	1.036	.9885	2.079
#3	1.029	2.158	2.103	1.057	1.064	1.015	2.122
#4	1.030	2.175	2.116	1.057	1.064	1.017	2.113

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.019	1.014	1.013	1.022	2.054	21.61	2.093
SDev	.015	.019	.019	.019	.041	.72	.038
%RSD	1.481	1.863	1.911	1.823	1.982	3.321	1.819
#1	.9996	.9894	.9891	.9993	2.003	20.83	2.048
#2	1.015	1.008	1.005	1.015	2.038	21.31	2.074
#3	1.032	1.029	1.029	1.038	2.088	Q22.50	2.129
#4	1.030	1.029	1.028	1.036	2.085	21.82	2.119

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9987	1.046	2.088	1.032	2.029	2.181	2.176
SDev	.0186	.022	.031	.019	.025	.043	.033
%RSD	1.862	2.102	1.468	1.814	1.253	1.959	1.513
#1	.9760	1.019	2.049	1.013	2.000	2.130	2.133
#2	.9910	1.038	2.079	1.020	2.018	2.162	2.168
#3	1.014	1.061	2.106	1.052	2.056	Q2.209	2.194
#4	1.014	1.066	2.118	1.044	2.045	Q2.223	Q2.208

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.090	.9796	1.031	.9968	2.088	.9877	1.033
SDev	.030	.0189	.023	.0205	.057	.0189	.013
%RSD	1.449	1.931	2.219	2.058	2.742	1.916	1.286
#1	2.049	.9613	1.004	.9712	2.011	.9644	1.017
#2	2.088	.9666	1.020	.9892	2.077	.9802	1.027
#3	2.109	1.002	1.050	1.013	2.131	1.003	1.043
#4	2.116	.9888	1.050	1.014	2.132	1.004	1.045

Analysis Report Blank Sample Tue 11-04-97 10:54:16 PM page 1

Method: ICP30J Sample Name: CCB 12 Operator: NSJ
Run Time: 11/04/97 22:49:43
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	.0044	.0013	.0024	.0008	.0004	.0012
SDev	.0008	.0041	.0109	.0007	.0004	.0001	.0020
%RSD	59.01	93.33	862.8	30.89	45.54	23.63	161.1
#1	.0014	.0042	-.0018	.0023	H,.0012	.0003	.0019
#2	.0006	.0027	-.0121	.0020	.0010	.0005	.0028
#3	.0009	.0006	.0052	.0018	.0003	.0005	-.0017
#4	.0024	.0102	.0137	.0034	.0008	.0004	.0019

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	-.0007	-.0014	.0014	-.0009	-.0417	-.0089
SDev	.0004	.0007	.0007	.0007	.0011	.2077	.0082
%RSD	61.08	104.8	50.08	48.32	126.4	498.5	91.60
#1	.0014	-.0001	-.0023	.0019	-.0006	-.0539	-.0077
#2	.0008	-.0001	-.0008	.0016	.0001	.1421	.0022
#3	.0004	-.0014	-.0018	.0004	-.0025	-.3284	-.0151
#4	.0004	-.0011	-.0008	.0015	-.0006	.0735	-.0151

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0002	-.0021	.0023	-.0052	-.0046	.0008
SDev	.0000	.0006	.0067	.0037	.0062	.0082	.0056
%RSD	.1070	265.5	327.9	163.6	120.1	176.0	713.0
#1	.0004	-.0001	.0012	.0036	-.0103	-.0138	-.0024
#2	.0004	.0010	-.0048	.0003	.0008	-.0054	-.0040
#3	.0004	-.0001	-.0100	-.0016	-.0107	-.0054	.0008
#4	.0004	-.0001	.0053	.0067	-.0005	.0061	.0087

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0017	.0020	.0001	.0005	-.0019	.0003	-.0006
SDev	.0065	.0028	.0001	.0004	.0158	.0004	.0000
%RSD	372.4	136.4	200.1	86.26	817.7	122.0	2.104
#1	.0028	-.0000	.0002	.0005	.0142	.0008	-.0006
#2	.0059	.0058	-.0000	.0008	-.0235	-.0001	-.0006
#3	-.0077	-.0000	.0000	-.0001	-.0013	.0001	-.0006
#4	.0059	.0023	-.0000	.0006	.0029	.0005	-.0007

Method: ICP30J Sample Name: U264 L LEN Operator: NSJ
Run Time: 11/04/97 22:54:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0059	-.0059	.0519	.1041	.0003	199.7
SDev	.0010	.0063	.0071	.0020	.0026	.0003	3.8
%RSD	630.3	107.3	120.6	3.769	2.457	94.45	1.896
#1	.0010	.0031	-.0137	.0541	.1071	.0001	204.2
#2	-.0005	.0001	.0014	.0521	.1034	.0007	198.6
#3	.0010	.0056	-.0100	.0521	.1010	.0002	195.1
#4	-.0009	.0148	-.0013	.0493	.1049	.0002	200.7

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0030	.0012	.0021	.0019	7.306	13.05
SDev	.0005	.0035	.0028	.0009	.0023	1.154	.27
%RSD	79.09	116.6	237.5	45.23	122.8	15.80	2.070
#1	.0011	.0006	-.0008	.0029	-.0009	6.671	13.39
#2	.0008	.0077	.0053	.0019	.0048	9.033	12.93
#3	.0008	.0035	.0006	.0027	.0022	6.681	12.76
#4	-.0001	.0001	-.0004	.0008	.0014	6.838	13.11

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.107	.0030	17.94	.0042	.0082	.0034	.0286
SDev	.043	.0022	.43	.0022	.0182	.0123	.0210
%RSD	2.058	72.37	2.378	53.46	222.5	363.3	73.59
#1	2.158	.0016	18.48	.0026	-.0026	-.0142	.0249
#2	2.097	.0063	17.77	.0075	.0353	.0092	.0544
#3	2.054	.0021	17.47	.0031	.0031	.0138	.0319
#4	2.120	.0021	18.03	.0035	-.0030	.0048	.0033

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.007	.0041	1.243	.0014	.0059	.0008	.0266
SDev	.019	.0029	.030	.0002	.0097	.0013	.0003
%RSD	1.910	72.13	2.398	16.29	164.8	156.1	1.193
#1	1.034	.0035	1.279	.0015	.0082	.0018	.0271
#2	.9981	.0082	1.231	.0017	.0184	-.0010	.0264
#3	.9892	.0035	1.209	.0013	-.0042	.0008	.0264
#4	1.006	.0012	1.254	.0012	.0013	.0018	.0264

Method: ICP30J Sample Name: U264 M LEN Operator: NSJ
Run Time: 11/04/97 22:58:59
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0017	.0053	-.0229	.0577	.0923	.0001	197.2
SDev	.0009	.0135	.0146	.0017	.0018	.0001	2.8
%RSD	55.03	254.3	63.99	2.922	1.947	79.03	1.419
#1	-.0020	.0231	-.0030	.0572	.0902	.0002	194.3
#2	-.0010	-.0094	-.0377	.0588	.0917	-.0000	195.3
#3	-.0030	.0019	-.0227	.0555	.0943	.0002	200.2
#4	-.0010	.0056	-.0282	.0591	.0932	.0001	198.8

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0004	-.0012	.0001	.0004	12.92	14.17
SDev	.0004	.0011	.0014	.0006	.0011	.47	.19
%RSD	78.48	295.6	119.9	639.1	260.0	3.648	1.376
#1	-.0007	.0014	.0001	.0001	.0014	13.09	13.95
#2	-.0006	-.0009	-.0032	.0004	-.0010	12.22	14.09
#3	-.0006	-.0001	-.0008	-.0008	.0001	13.21	14.39
#4	.0001	.0012	-.0008	.0007	.0012	13.17	14.27

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.237	.0015	20.89	.0026	-.0087	.0065	.0267
SDev	.037	.0006	.37	.0041	.0092	.0123	.0147
%RSD	1.635	38.13	1.783	160.1	105.2	189.8	55.12
#1	2.196	.0010	20.41	.0007	-.0046	.0228	.0142
#2	2.219	.0010	20.83	.0083	-.0192	-.0042	.0149
#3	2.277	.0021	21.30	.0026	-.0128	.0092	.0443
#4	2.257	.0018	21.01	-.0013	.0017	-.0018	.0334

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.159	.0029	1.372	.0008	.0012	-.0011	.0296
SDev	.016	.0015	.029	.0002	.0155	.0018	.0010
%RSD	1.399	52.48	2.080	21.58	1257.	166.9	3.513
#1	1.141	.0047	1.336	.0008	.0056	.0012	.0309
#2	1.151	.0011	1.363	.0006	-.0217	L-.0030	.0283
#3	1.175	.0035	1.401	.0009	.0112	-.0020	.0296
#4	1.170	.0023	1.386	.0009	.0098	-.0006	.0296

Analysis Report Tue 11-04-97 11:08:12 PM page 1

Method: ICP30J Sample Name: U264 N LEN Operator: NSJ
Run Time: 11/04/97 23:03:38
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.0041	-.0012	.0519	.0642	.0002	365.3
SDev	.0037 OK	.0090	.0062	.0047	.0011	.0001	5.0
%RSD	672.1	219.2	502.7	9.120	1.797	45.86	1.379
#1	-.0014	.0003	-.0046	.0507	.0656	.0001	372.3
#2	-.0019	.0059	.0045	.0499	.0641	.0002	365.2
#3	-.0004	-.0055	-.0084	.0482	.0641	.0002	363.3
#4	.0060	.0156	.0035	.0588	.0628	.0001	360.5

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0078	.0002	.0014	-.0061	8.477	21.01
SDev	.0007	.0010	.0013	.0023	.0018	.260	.33
%RSD	88.48	12.89	530.1	157.5	28.92	3.063	1.553
#1	.0006	.0066	-.0008	.0001	-.0068	8.445	21.46
#2	.0008	.0090	.0011	.0000	-.0050	8.828	20.99
#3	.0000	.0074	-.0008	.0008	-.0082	8.435	20.89
#4	.0017	.0082	.0015	.0048	-.0043	8.200	20.70

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.126	-.0004	23.16	.0118	-.0028	-.0092	.0388
SDev	.071	.0002	.41	.0042	.0031	.0051	.0176
%RSD	1.391	58.61	1.750	35.86	111.7	55.49	45.42
#1	5.224	-.0004	23.71	.0070	-.0062	-.0104	.0346
#2	5.127	-.0001	23.16	.0117	.0003	-.0101	.0587
#3	5.097	-.0007	23.02	.0111	-.0006	-.0143	.0169
#4	5.057	-.0004	22.75	.0172	-.0044	-.0021	.0451

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.077	.0026	1.982	.0024	.0094	.0018	.0439
SDev	.012	.0015	.035	.0015	.0191	.0012	.0010
%RSD	1.129	56.66	1.763	62.19	204.3	64.42	2.189
#1	1.093	.0011	2.029	.0019	-.0130	.0021	.0447
#2	1.069	.0046	1.982	.0015	.0123	.0026	.0447
#3	1.067	.0023	1.969	.0016	.0049	.0001	.0434
#4	1.081	.0023	1.946	.0046	.0332	.0025	.0428

Method: ICP30J Sample Name: U264 0 LEN Operator: NSJ
Run Time: 11/04/97 23:08:17
Comment: 1/2 DIL
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	-.0141	-.0210	.0213	.0218	.0001	281.6
SDev	.0018	.0027	.0078	.0029	.0008	.0001	4.7
%RSD	185.5	19.05	37.34	13.77	3.853	82.36	1.660
#1	-.0012	-.0146	-.0196	.0197	.0214	-.0000	280.2
#2	-.0009	-.0104	-.0110	.0233	.0209	.0001	276.1
#3	.0013	-.0168	-.0235	.0241	.0218	.0001	282.9
#4	L-.0032	-.0145	-.0297	.0180	.0229	.0001	287.2

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0092	-.0014	.0012	-.0067	3.134	16.83
SDev	.0011	.0016	.0011	.0019	.0018	.376	.31
%RSD	171.4	17.43	73.91	152.7	26.50	11.98	1.830
#1	.0009	.0077	-.0008	.0008	-.0053	3.005	16.72
#2	.0015	.0098	-.0018	.0023	-.0073	3.456	16.49
#3	.0012	.0111	-.0004	.0030	-.0053	3.416	16.87
#4	-.0010	.0080	-.0027	-.0012	-.0090	2.662	17.23

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.453	-.0005	11.67	.0123	-.0056	.0001	.0576
SDev	.063	.0008	.25	.0032	.0081	.0119	.0131
%RSD	1.823	161.5	2.185	26.20	145.1	10370.	22.82
#1	3.430	-.0012	11.55	.0104	-.0070	.0041	.0742
#2	3.383	-.0001	11.42	.0137	-.0069	.0063	.0566
#3	3.465	.0005	11.70	.0162	.0055	.0076	.0421
#4	3.533	-.0012	12.01	.0090	-.0138	-.0176	.0573

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4259	-.0018	1.173	.0015	-.0045	.0000	.0321
SDev	.0124	.0035	.029	.0011	.0044	.0008	.0005
%RSD	2.923	198.2	2.460	71.90	97.07	3086.	1.634
#1	.4236	-.0058	1.160	.0013	-.0037	.0005	.0321
#2	.4148	-.0035	1.145	.0014	-.0042	.0006	.0314
#3	.4437	.0012	1.175	.0030	.0002	.0002	.0321
#4	.4214	.0011	1.212	.0004	-.0104	-.0012	.0327

Method: ICP30J Sample Name: U264 P LEN Operator: NSJ
Run Time: 11/04/97 23:12:55
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0013	-.0054	-.0120	.0397	.0631	.0002	383.4
SDev	.0026	.0095	.0120	.0051	.0005	.0001	2.3
%RSD	194.3	177.0	100.1	12.76	.8180	32.00	.6128
#1	-.0001	-.0043	-.0036	.0446	.0624	.0001	379.9
#2	.0011	-.0007	-.0029	.0421	.0632	.0002	384.9
#3	L-.0049	-.0190	-.0287	.0328	.0635	.0002	383.9
#4	-.0014	.0025	-.0126	.0393	.0635	.0002	384.8

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0015	.0007	.0009	-.0031	9.521	18.79
SDev	.0004	.0009	.0012	.0019	.0010	.146	.13
%RSD	155.2	57.16	165.9	211.1	31.15	1.530	.6696
#1	.0006	.0025	.0020	.0020	-.0024	9.455	18.60
#2	-.0003	.0007	.0011	.0026	-.0026	9.455	18.84
#3	.0001	.0009	-.0008	-.0018	-.0045	9.739	18.84
#4	.0007	.0020	.0006	.0008	-.0029	9.435	18.87

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.694	.0017	20.91	.0065	.0007	-.0025	.0311
SDev	.013	.0012	.22	.0025	.0068	.0147	.0181
%RSD	.7709	72.55	1.050	38.88	984.5	593.8	58.27
#1	1.674	.0032	20.58	.0099	.0108	.0056	.0192
#2	1.700	.0010	20.99	.0044	-.0042	.0024	.0470
#3	1.699	.0004	21.04	.0048	-.0025	-.0244	.0463
#4	1.702	.0021	21.03	.0070	-.0012	.0065	.0121

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9329	.0049	1.794	.0018	.0076	.0005	.0241
SDev	.0113	.0020	.020	.0008	.0099	.0014	.0006
%RSD	1.215	40.27	1.126	46.01	129.4	296.4	2.466
#1	.9284	.0058	1.763	.0026	.0097	.0012	.0245
#2	.9453	.0070	1.801	.0022	.0070	.0017	.0239
#3	.9195	.0046	1.804	.0006	-.0050	-.0015	.0233
#4	.9384	.0023	1.806	.0018	.0190	.0005	.0245

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Method: ICP30J Sample Name: U264 Q LEN Operator: NSJ
Run Time: 11/04/97 23:17:34
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	.0095	.0000	.0330	.0590	.0001	274.4
SDev	.0020	.0111	.0134	.0018	.0009	.0001	2.6
%RSD	254.7	116.1	53370.	5.290	1.514	99.02	.9576
#1	.0012	.0240	.0061	.0356	.0578	-.0000	272.8
#2	-.0018	.0030	-.0197	.0320	.0591	.0001	276.9
#3	.0005	.0120	.0098	.0325	.0600	.0001	276.4
#4	L-.0030	-.0009	.0039	.0320	.0589	.0001	271.5

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0007	.0008	.0021	.0027	6.977	16.98
SDev	.0007	.0010	.0013	.0012	.0009	.221	.18
%RSD	128.6	150.5	150.7	55.12	34.44	3.170	1.087
#1	.0008	-.0006	-.0004	.0034	.0017	6.749	16.86
#2	.0015	.0004	.0011	.0018	.0022	6.847	17.15
#3	.0001	.0014	.0001	.0026	.0034	7.239	17.14
#4	-.0001	.0014	.0025	.0007	.0036	7.073	16.79

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9845	.0018	21.89	.0016	.0075	.0067	.0488
SDev	.0095	.0011	.24	.0031	.0044	.0064	.0183
%RSD	.9645	59.06	1.083	191.9	58.90	95.38	37.59
#1	.9775	.0013	21.67	.0008	.0046	.0012	.0553
#2	.9935	.0007	22.05	.0049	.0030	.0029	.0373
#3	.9917	.0021	22.12	.0030	.0099	.0155	.0715
#4	.9751	.0032	21.70	-.0023	.0124	.0071	.0309

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9519	.0041	1.419	.0017	-.0031	.0014	.0178
SDev	.0076	.0015	.018	.0001	.0149	.0020	.0006
%RSD	.7996	36.67	1.235	4.542	482.0	141.8	3.338
#1	.9487	.0058	1.402	.0017	-.0237	.0040	.0183
#2	.9551	.0023	1.433	.0016	.0004	.0004	.0182
#3	.9606	.0035	1.434	.0018	.0118	.0019	.0176
#4	.9431	.0047	1.405	.0016	-.0009	-.0006	.0170

Method: ICP30J Sample Name: U264 R LEN Operator: NSJ
Run Time: 11/04/97 23:22:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	.0419	-.0124	.0500	.1339	-.0000	131.9
SDev	.0018	.0078	.0112	.0007	.0044	.0000	3.0
%RSD	178.7	18.53	90.35	1.404	3.323	2112.	2.261
#1	.0014	.0480	.0001	.0510	.1275	-.0000	127.9
#2	-.0018	.0305	-.0272	.0493	.1357	-.0000	131.8
#3	-.0028	.0446	-.0111	.0499	.1377	.0001	135.1
#4	-.0008	.0443	-.0116	.0499	.1346	-.0000	132.8

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0009	.0007	.0008	.0214	8.333	9.657
SDev	.0004	.0006	.0014	.0018	.0006	.152	.244
%RSD	91.46	65.87	196.6	228.9	2.999	1.824	2.528
#1	.0008	.0016	.0025	.0031	.0221	8.181	9.315
#2	.0006	.0009	.0011	-.0008	.0219	8.308	9.725
#3	-.0001	.0006	-.0008	-.0004	.0208	8.298	9.894
#4	.0003	.0003	.0001	.0012	.0210	8.543	9.696

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.352	.0034	24.11	.0012	.0013	.0037	.0358
SDev	.035	.0011	.76	.0018	.0040	.0223	.0077
%RSD	2.565	33.08	3.168	154.3	315.2	602.6	21.66
#1	1.304	.0032	23.02	-.0002	.0047	.0334	.0330
#2	1.355	.0049	24.39	.0008	.0047	-.0081	.0260
#3	1.387	.0021	24.79	.0003	-.0022	.0072	.0422
#4	1.362	.0035	24.26	.0039	-.0022	-.0178	.0418

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.260	.0015	1.000	.0012	-.0060	.0004	.0252
SDev	.024	.0020	.034	.0008	.0172	.0019	.0007
%RSD	1.871	136.2	3.418	66.66	287.5	506.1	2.878
#1	1.231	.0036	.9521	.0020	-.0032	.0025	.0246
#2	1.254	.0012	1.010	.0002	-.0260	-.0016	.0246
#3	1.286	-.0011	1.033	.0009	-.0101	-.0007	.0258
#4	1.270	.0023	1.008	.0016	.0154	.0014	.0258

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Method: ICP30J Sample Name: U264 S LEN Operator: NSJ
Run Time: 11/04/97 23:26:52
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0032	.0137	.0091	.0388	.0531	-.0001	388.6
SDev	.0036 ok	.0539	.0364	.0051	.0012	.0002	6.3
%RSD	114.9	393.0	398.5	13.21	2.190	282.3	1.625
#1	-.0012	-.0147	-.0025	.0395	.0513	-.0000	382.2
#2	-.0010	-.0121	-.0031	.0409	.0537	.0001	395.2
#3	L-.0086	.0946	.0623	.0314	.0537	-.0003	384.2
#4	-.0018	-.0129	-.0202	.0432	.0535	-.0000	392.7

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0109	-.0020	-.0008	-.0098	4.725	26.01
SDev	.0012	.0029	.0040	.0028	.0058	.587	.43
%RSD	237.0	26.89	196.1	371.3	59.01	12.42	1.670
#1	.0007	.0119	.0001	.0008	-.0070	5.034	25.36
#2	.0000	.0134	.0001	.0003	-.0067	4.955	26.27
#3	L-.0022	.0067	L-.0080	L-.0049	-.0184	3.848	26.22
#4	-.0005	.0116	-.0004	.0008	-.0069	5.063	26.19

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.646	-.0018	22.15	.0122	-.0079	-.0151	.0549
SDev	.090	.0020	.53	.0051	.0178	.0107	.0456
%RSD	1.595	109.0	2.412	41.58	225.2	71.03	83.00
#1	5.524	-.0009	21.41	.0181	.0008	-.0027	.0506
#2	5.727	-.0004	22.28	.0085	.0051	-.0162	.0232
#3	5.635	-.0048	22.69	.0075	L-.0341	-.0286	.1206
#4	5.698	-.0012	22.21	.0147	-.0035	-.0127	.0252

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9529	-.0006	1.860	.0002	.0039	.0047	.0549
SDev	.0204	.0049	.046	.0019	.0233	.0082	.0013
%RSD	2.140	787.8	2.469	800.5	598.2	174.5	2.395
#1	.9442	.0058	1.793	.0016	.0053	.0024	.0547
#2	.9698	-.0000	1.878	.0010	.0189	-.0008	.0548
#3	.9282	-.0024	1.896	-.0026	-.0295	.0168	.0567
#4	.9695	-.0059	1.873	.0009	.0209	.0003	.0535

Method: ICP30J Sample Name: U264 T LEN Operator: NSJ
Run Time: 11/04/97 23:31:31
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0510	-.0171	.0507	.1733	.0001	73.33
SDev	.0014	.0071	.0117	.0023	.0038	.0001	1.52
%RSD	656.5	13.98	68.39	4.548	2.176	145.8	2.070
#1	.0018	.0598	-.0116	.0521	.1728	-.0000	73.30
#2	-.0012	.0463	-.0111	.0488	.1787	.0001	75.48
#3	-.0007	.0442	-.0347	.0488	.1713	-.0000	72.34
#4	.0010	.0536	-.0111	.0532	.1702	.0002	72.18

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0000	-.0001	.0019	.0163	4.786	6.330
SDev	.0004	.0007	.0009	.0011	.0009	.184	.120
%RSD	238.5	1702.	876.4	56.54	5.420	3.837	1.894
#1	-.0001	-.0005	-.0008	.0030	.0165	4.710	6.332
#2	-.0001	.0000	.0001	.0004	.0173	4.995	6.497
#3	.0001	-.0005	-.0008	.0020	.0152	4.573	6.261
#4	.0008	.0011	.0011	.0023	.0164	4.867	6.229

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6003	.0052	24.68	.0035	-.0013	.0083	.0268
SDev	.0132	.0011	.57	.0048	.0050	.0062	.0151
%RSD	2.197	20.46	2.315	139.1	375.4	75.11	56.42
#1	.6001	.0043	24.56	-.0006	-.0060	.0105	.0474
#2	.6188	.0065	25.51	.0002	.0008	.0044	.0241
#3	.5933	.0043	24.41	.0044	-.0047	.0160	.0245
#4	.5889	.0054	24.24	.0099	.0047	.0023	.0111

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.079	.0029	.6021	.0012	-.0096	-.0002	.0250
SDev	.013	.0015	.0144	.0005	.0042	.0011	.0009
%RSD	1.246	51.31	2.386	43.04	44.37	551.3	3.817
#1	1.083	.0047	.5999	.0018	-.0040	.0005	.0246
#2	1.097	.0035	.6229	.0006	-.0140	-.0013	.0265
#3	1.068	.0024	.5953	.0010	-.0113	-.0009	.0245
#4	1.068	.0012	.5904	.0014	-.0089	.0009	.0245

Method: ICP30J Sample Name: U264 V LEN Operator: NSJ
Run Time: 11/04/97 23:36:09
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0022	-.0086	-.0095	.0353	.0602	.0000	310.7
SDev	.0014	.0052	.0117	.0035	.0007	.0002	2.7
%RSD	64.46	60.62	123.3	9.834	1.213	519.6	.8681
#1	-.0014	-.0019	-.0093	.0381	.0606	-.0000	312.7
#2	-.0017	-.0136	-.0228	.0370	.0604	.0001	311.5
#3	-.0014	-.0117	-.0116	.0356	.0591	.0002	306.7
#4	L-.0044	-.0073	.0057	.0303	.0606	-.0001	311.8

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0018	.0002	.0006	-.0028	6.431	17.21
SDev	.0005	.0023	.0022	.0011	.0023	.413	.19
%RSD	1133.	123.6	911.5	179.1	81.00	6.420	1.116
#1	-.0000	.0009	-.0004	.0007	-.0029	6.406	17.36
#2	.0007	.0014	.0006	.0012	-.0048	6.416	17.28
#3	-.0002	.0051	.0030	.0015	.0004	6.955	16.93
#4	-.0003	-.0001	-.0023	-.0010	-.0038	5.945	17.28

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.056	.0005	24.07	.0082	-.0026	-.0081	.0399
SDev	.019	.0012	.34	.0047	.0065	.0034	.0140
%RSD	.9282	260.3	1.393	57.95	250.6	42.28	35.22
#1	2.066	-.0004	24.25	.0111	-.0106	-.0064	.0538
#2	2.064	.0010	24.22	.0093	-.0004	-.0130	.0207
#3	2.028	.0018	23.57	.0112	.0049	-.0053	.0397
#4	2.069	-.0007	24.24	.0012	-.0043	-.0075	.0452

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.7733	.0026	1.543	.0012	-.0022	.0002	.0198
SDev	.0079	.0055	.021	.0004	.0156	.0015	.0006
%RSD	1.026	211.8	1.370	32.34	700.2	728.9	3.274
#1	.7777	.0023	1.554	.0010	-.0192	.0012	.0195
#2	.7822	-.0012	1.552	.0013	.0059	-.0020	.0195
#3	.7675	.0105	1.512	.0017	.0151	.0007	.0195
#4	.7658	-.0012	1.556	.0008	-.0108	.0009	.0208

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Method: ICP30J Sample Name: CCV 13 Operator: NSJ
Run Time: 11/04/97 23:42:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9795	2.052	1.981	.9966	.9894	.9442	2.010
SDev	.0037	.005	.013	.0040	.0029	.0032	.013
%RSD	.3735	.2293	.6480	.4002	.2918	.3384	.6240
#1	.9795	2.049	1.979	.9922	.9876	.9412	2.020
#2	.9783	2.050	1.966	1.001	.9876	.9440	2.009
#3	.9845	2.059	1.982	.9989	.9937	.9487	2.017
#4	.9758	2.050	1.998	.9944	.9889	.9430	1.992

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9813	.9670	.9661	.9789	1.954	20.69	2.010
SDev	.0021	.0035	.0025	.0030	.008	.22	.007
%RSD	.2133	.3615	.2562	.3034	.3972	1.079	.3584
#1	.9824	.9637	.9635	.9762	1.947	20.44	2.002
#2	.9798	.9673	.9668	.9800	1.954	20.95	2.019
#3	.9837	.9717	.9692	.9826	1.965	20.58	2.011
#4	.9794	.9653	.9649	.9769	1.950	20.78	2.008

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9547	.9965	2.005	.9946	1.946	2.077	2.075
SDev	.0033	.0056	.004	.0078	.012	.011	.023
%RSD	.3468	.5658	.1977	.7873	.6051	.5372	1.116
#1	.9520	.9888	2.005	1.006	1.930	2.062	2.065
#2	.9549	.9979	2.004	.9906	1.957	2.089	2.047
#3	.9593	1.002	2.010	.9892	1.948	2.078	2.087
#4	.9527	.9970	2.001	.9925	1.951	2.077	2.100

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.009	.9488	.9824	.9519	1.996	.9440	.9925
SDev	.006	.0046	.0031	.0037	.027	.0036	.0027
%RSD	.3000	.4845	.3161	.3886	1.346	.3778	.2709
#1	2.013	.9518	.9800	.9498	1.957	.9415	.9894
#2	2.006	.9455	.9816	.9501	1.999	.9420	.9944
#3	2.014	.9536	.9869	.9574	2.016	.9492	.9951
#4	2.001	.9443	.9810	.9501	2.011	.9433	.9913

Method: ICP30J Sample Name: CCB 12 Operator: NSJ
Run Time: 11/04/97 23:48:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	.0030	-.0070	.0000	-.0001	.0004	.0047
SDev	.0010	.0091	.0086	.0011	.0000	.0001	.0015
%RSD	239.4	303.6	122.9	42200.	.0242	28.89	32.39
#1	-.0001	-.0102	-.0153	.0006	-.0001	.0004	.0068
#2	-.0019	.0075	-.0109	-.0016	-.0001	.0005	.0041
#3	.0006	.0099	.0046	.0003	-.0001	.0002	.0046
#4	-.0004	.0048	-.0062	.0006	-.0001	.0004	.0032

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0011	-.0012	.0004	-.0008	-.0098	-.0123
SDev	.0003	.0007	.0013	.0017	.0008	.2652	.0029
%RSD	134.4	66.42	110.3	382.2	94.86	2705.	23.65
#1	.0001	-.0006	.0001	.0014	-.0002	.3284	-.0126
#2	.0005	-.0021	-.0027	L-.0020	-.0019	-.2402	-.0163
#3	.0004	-.0011	-.0004	.0016	-.0009	.0735	-.0102
#4	-.0002	-.0006	-.0018	.0008	-.0002	-.2010	-.0102

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0001	-.0070	.0016	-.0013	-.0052	.0014
SDev	.0000	.0014	.0063	.0021	.0031	.0053	.0056
%RSD	.0859	1959.	89.48	134.5	230.7	101.7	402.8
#1	.0004	.0016	.0007	.0024	.0004	.0022	.0000
#2	.0004	-.0006	-.0114	.0006	-.0056	-.0067	-.0048
#3	.0004	-.0014	-.0045	.0042	-.0013	-.0061	.0016
#4	.0004	.0008	-.0128	-.0007	.0012	-.0102	.0087

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0013	.0014	-.0000	.0002	-.0144	-.0001	-.0006
SDev	.0036	.0006	.0000	.0003	.0067	.0011	.0000
%RSD	269.7	40.25	32.48	190.2	46.51	1121.	1.567
#1	.0006	.0012	-.0000	.0001	-.0055	-.0014	-.0006
#2	-.0063	.0011	-.0000	-.0003	-.0145	.0003	-.0006
#3	.0017	.0023	-.0000	.0005	-.0217	.0012	-.0006
#4	-.0013	.0011	-.0000	.0005	-.0157	-.0004	-.0006

Analysis Report Tue 11-04-97 11:57:16 PM page 1

Method: ICP30J Sample Name: U264 D LEN Operator: NSJ
Run Time: 11/04/97 23:52:42
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0013	-.0093	-.0134	.0486	.0690	.0001	353.6
SDev	.0037 OK	.0123	.0171	.0046	.0002	.0001	5.5
%RSD	289.7	132.2	127.8	9.523	.3145	159.4	1.562
#1	-.0017	-.0174	-.0044	.0499	.0689	-.0000	351.1
#2	-.0015	-.0066	-.0282	.0493	.0689	.0001	350.6
#3	.0035	.0069	.0063	.0530	.0689	-.0000	350.9
#4	L-.0054	L-.0201	-.0271	.0421	.0693	.0002	361.9

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	-.0001	-.0002	.0024	.0024	7.119	17.02
SDev	.0002	.0014	.0012	.0028	.0012	.482	.25
%RSD	113.7	1076.	535.5	116.7	48.39	6.769	1.462
#1	-.0000	-.0009	.0011	.0023	.0033	6.994	16.96
#2	-.0001	-.0004	-.0018	.0023	.0007	6.759	16.89
#3	-.0001	-.0012	.0001	.0059	.0029	6.896	16.85
#4	-.0006	.0020	-.0003	-.0010	.0028	7.828	17.39

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5681	.0055	19.38	.0089	-.0072	-.0107	.0457
SDev	.0093	.0011	.30	.0040	.0068	.0061	.0126
%RSD	1.636	19.42	1.548	44.31	95.00	57.55	27.60
#1	.5627	.0049	19.25	.0049	-.0128	-.0141	.0472
#2	.5641	.0043	19.25	.0117	.0021	-.0015	.0283
#3	.5637	.0065	19.18	.0129	-.0116	-.0134	.0584
#4	.5820	.0062	19.82	.0062	-.0063	-.0138	.0488

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.994	.0023	1.016	.0021	.0015	.0002	.0163
SDev	.060	.0031	.020	.0005	.0051	.0017	.0005
%RSD	1.002	136.6	1.954	23.38	338.8	951.7	3.181
#1	5.968	.0035	1.005	.0022	.0010	-.0008	.0164
#2	5.952	-.0023	1.008	.0019	-.0014	.0003	.0170
#3	5.975	.0035	1.004	.0027	.0088	.0026	.0157
#4	6.083	.0046	1.045	.0015	-.0025	-.0013	.0164

Method: ICP30J Sample Name: U264 E LEN Operator: NSJ
Run Time: 11/04/97 23:57:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0027	-.0120	-.0172	.0446	.0600	.0002	428.9
SDev	.0023	.0072	.0158	.0019	.0009	.0002	5.8
%RSD	86.09	60.00	91.98	4.263	1.477	95.07	1.358
#1	.0000	-.0054	.0053	.0460	.0591	.0001	424.0
#2	L-.0039	-.0108	-.0179	.0435	.0609	-.0000	434.2
#3	L-.0052	L-.0223	-.0261	.0426	.0606	.0004	433.8
#4	-.0017	-.0096	-.0302	.0465	.0593	.0002	423.8

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0011	.0002	.0010	-.0028	6.463	20.11
SDev	.0006	.0010	.0008	.0014	.0016	.322	.29
%RSD	562.1	91.65	336.4	151.3	58.19	4.984	1.465
#1	-.0007	-.0012	.0001	.0029	-.0032	6.357	19.86
#2	.0005	-.0006	.0006	.0001	-.0033	6.445	20.40
#3	-.0006	-.0001	.0011	-.0004	-.0004	6.906	20.32
#4	.0004	-.0025	-.0008	.0012	-.0041	6.142	19.85

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6185	.0017	20.74	.0036	-.0086	-.0117	.0370
SDev	.0087	.0018	.36	.0044	.0068	.0105	.0113
%RSD	1.410	104.0	1.720	120.3	78.76	90.25	30.55
#1	.6097	.0010	20.41	.0098	-.0133	-.0231	.0502
#2	.6254	.0007	21.05	-.0005	-.0098	-.0091	.0384
#3	.6266	.0043	21.04	.0029	.0013	.0016	.0226
#4	.6124	.0007	20.45	.0023	-.0125	-.0160	.0367

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.327	.0023	1.301	.0013	.0064	-.0001	.0126
SDev	.063	.0013	.024	.0004	.0061	.0019	.0005
%RSD	1.188	57.57	1.832	33.09	96.40	2160.	4.058
#1	5.279	.0034	1.278	.0016	.0118	.0021	.0126
#2	5.387	.0011	1.322	.0007	.0041	-.0012	.0120
#3	5.376	.0012	1.322	.0012	.0108	-.0020	.0132
#4	5.267	.0034	1.283	.0016	-.0013	.0008	.0126

Method: ICP30J Sample Name: U264 F LEN Operator: NSJ
Run Time: 11/05/97 00:02:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0020	.0350	-.0037	.0456	.1601	.0001	351.7
SDev	.0021	.0284	.0140	.0031	.0021	.0001	3.1
%RSD	102.5	81.16	375.0	6.683	1.278	116.2	.8791
#1	-.0009	.0175	-.0035	.0499	.1583	.0001	348.3
#2	.0001	.0328	-.0112	.0457	.1596	.0001	351.4
#3	L-.0046	.0757	.0157	.0431	.1631	-.0001	355.8
#4	-.0026	.0139	-.0160	.0437	.1596	.0002	351.3

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0002	.0025	.0034	.0676	7.502	14.72
SDev	.0006	.0005	.0007	.0014	.0013	.182	.14
%RSD	1366.	306.9	26.83	41.54	1.857	2.432	.9458
#1	.0008	-.0005	.0020	.0041	.0664	7.681	14.60
#2	-.0005	.0003	.0020	.0045	.0671	7.592	14.69
#3	.0003	.0000	.0025	.0014	.0677	7.259	14.92
#4	-.0004	.0008	.0035	.0034	.0693	7.475	14.69

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2881	.0054	19.25	.0090	.0008	-.0106	.0472
SDev	.0031	.0015	.24	.0067	.0082	.0084	.0244
%RSD	1.075	28.48	1.227	73.79	1032.	79.11	51.69
#1	.2855	.0068	19.06	.0121	-.0082	-.0067	.0252
#2	.2869	.0049	19.20	.0152	.0059	-.0180	.0272
#3	.2926	.0035	19.59	-.0002	-.0039	-.0006	.0646
#4	.2874	.0065	19.14	.0090	.0094	-.0170	.0716

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.775	.0020	.9459	.0026	-.0061	.0025	.0162
SDev	.051	.0032	.0114	.0006	.0059	.0037	.0006
%RSD	.7594	157.7	1.204	20.92	97.23	144.5	3.882
#1	6.720	.0058	.9356	.0019	-.0103	.0005	.0157
#2	6.781	-.0012	.9438	.0024	-.0037	.0016	.0157
#3	6.843	.0000	.9622	.0029	.0011	.0079	.0170
#4	6.757	.0035	.9422	.0031	-.0115	.0001	.0163

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Method: ICP30J Sample Name: CRI Operator: NSJ
Run Time: 11/05/97 00:07:59
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0204	-.0008	.0146	.0028	-.0001	.0091	.0503
SDev	.0014	.0064	.0077	.0011	.0000	.0001	.0130
%RSD	7.082	817.4	52.61	38.66	.0135	1.550	25.75
#1	.0211	.0067	.0187	.0022	-.0001	.0089	.0655
#2	.0221	-.0047	.0134	.0044	-.0001	.0091	.0565
#3	.0189	-.0074	.0044	.0022	-.0001	.0092	.0422
#4	.0196	.0022	.0220	.0024	-.0001	.0092	.0373

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0105	.0941	.0177	.0503	-.0012	.1887	-.0002
SDev	.0005	.0009	.0002	.0006	.0010	.2954	.0102
%RSD	4.596	.9934	1.336	1.096	87.20	156.6	4094.
#1	.0107	.0936	.0176	.0496	-.0010	.4068	.0062
#2	.0110	.0939	.0176	.0507	-.0007	.2304	.0001
#3	.0099	.0934	.0176	.0503	-.0026	-.2402	-.0147
#4	.0106	.0955	.0181	.0508	-.0003	.3578	.0075

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0280	.0000	.0058	.0846	.0052	.1189	.0023
SDev	.0001	.0007	.0097	.0044	.0054	.0079	.0117
%RSD	.5053	2248.	167.4	5.214	104.9	6.614	501.8
#1	.0279	-.0003	.0095	.0873	.0096	.1216	-.0078
#2	.0279	.0011	.0180	.0838	.0037	.1075	-.0078
#3	.0281	-.0006	-.0026	.0788	-.0019	.1254	.0120
#4	.0281	-.0000	-.0015	.0887	.0093	.1213	.0128

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0504	.0003	-.0002	.0007	.0059	.0936	.0409
SDev	.0056	.0013	.0003	.0005	.0083	.0010	.0003
%RSD	11.16	515.2	114.9	70.26	140.8	1.104	.8595
#1	.0509	-.0009	-.0000	.0010	.0011	.0950	.0412
#2	.0582	.0014	-.0000	.0012	.0065	.0925	.0405
#3	.0454	-.0009	-.0005	.0003	.0173	.0935	.0406
#4	.0473	.0014	-.0005	.0003	-.0013	.0935	.0412

Method: ICP30J Sample Name: ICSA Operator: NSJ
Run Time: 11/05/97 00:12:38
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	491.8	-.0339	.0181	.0047	-.0000	433.5
SDev	.0004	3.1	.0175	.0020	.0000	.0001	2.6
%RSD	1670.	.6379	51.69	10.80	.0020	344.3	.5928
#1	.0003	488.7	-.0547	.0177	.0047	.0001	430.7
#2	.0002	489.5	-.0300	.0166	.0047	-.0000	431.9
#3	-.0005	493.8	-.0126	.0172	.0047	-.0000	435.3
#4	.0001	495.0	-.0383	.0210	.0047	-.0002	436.0

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	.0013	-.0019	.0006	175.7	-.1274	487.5
SDev	.0007	.0008	.0010	.0002	1.3	.2026	3.2
%RSD	51.55	61.39	50.62	42.46	.7125	159.0	.6497
#1	.0004	.0017	-.0008	.0005	174.4	-.0049	484.3
#2	.0017	.0022	-.0013	.0006	174.9	.0833	485.4
#3	.0021	.0003	-.0027	.0003	176.6	-.2304	489.5
#4	.0013	.0011	-.0027	.0009	176.9	-.3578	490.9

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0011	-.0034	.0088	-.0035	-.0323	-.0140	.0658
SDev	.0002	.0045	.0027	.0058	.0090	.0173	.0696
%RSD	19.74	130.9	30.21	168.6	27.78	123.7	105.7
#1	-.0014	-.0067	.0078	-.0040	-.0189	-.0343	-.0319
#2	-.0010	-.0078	.0122	-.0098	-.0373	-.0221	.1254
#3	-.0009	.0012	.0059	-.0044	-.0374	.0026	.1035
#4	-.0012	-.0004	.0095	.0043	-.0355	-.0021	.0661

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0644	.0001	.0267	-.0026	.0819	.0032	.0073
SDev	.0052	.0081	.0002	.0002	.0291	.0010	.0002
%RSD	8.026	6090.	.8222	6.471	35.55	30.89	3.345
#1	.0690	.0065	.0266	-.0028	.0427	.0026	.0073
#2	.0665	-.0066	.0265	-.0025	.0841	.0034	.0072
#3	.0571	-.0070	.0269	-.0024	.1129	.0023	.0071
#4	.0651	.0077	.0269	-.0026	.0878	.0045	.0077

Method: ICP30J Sample Name: ICSAB Operator: NSJ
Run Time: 11/05/97 00:17:17
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9056	493.6	-.0562	.0175	.4557	.4187	435.0
SDev	.0115	6.8	.0265	.0027	.0079	.0069	5.5
%RSD	1.273	1.375	47.25	15.63	1.732	1.647	1.268
#1	.8938	486.9	-.0729	.0161	.4471	.4123	430.1
#2	.9001	489.4	-.0822	.0193	.4521	.4143	431.4
#3	.9080	496.1	-.0457	.0143	.4584	.4206	436.1
#4	.9206	501.9	-.0238	.0202	.4653	.4276	442.3

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8926	.4160	.4141	.4478	176.8	-.1029	489.8
SDev	.0093	.0058	.0048	.0071	2.4	.0993	6.2
%RSD	1.043	1.394	1.149	1.581	1.364	96.50	1.273
#1	.8856	.4102	.4098	.4399	174.5	.0441	483.9
#2	.8848	.4125	.4117	.4444	175.3	-.1519	485.8
#3	.8953	.4179	.4140	.4510	177.5	-.1716	491.8
#4	.9045	.4232	.4207	.4560	179.9	-.1323	497.6

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4144	-.0036	-.0114	.8368	.8338	-.0262	.0331
SDev	.0056	.0020	.0048	.0198	.0119	.0281	.0147
%RSD	1.348	56.37	42.06	2.373	1.428	107.3	44.29
#1	.4089	-.0043	-.0130	.8160	.8234	-.0206	.0432
#2	.4112	-.0034	-.0043	.8337	.8284	-.0576	.0171
#3	.4161	-.0059	-.0144	.8336	.8325	.0093	.0244
#4	.4215	-.0010	-.0138	.8638	.8508	-.0359	.0477

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0652	-.0008	.0268	-.0028	.0844	.4279	.8758
SDev	.0053	.0087	.0003	.0007	.0112	.0054	.0091
%RSD	8.164	1048.	1.266	23.18	13.22	1.269	1.043
#1	.0612	-.0011	.0266	-.0035	.0845	.4210	.8682
#2	.0643	-.0008	.0265	-.0029	.0688	.4262	.8700
#3	.0624	-.0113	.0269	-.0030	.0945	.4311	.8767
#4	.0730	.0100	.0273	-.0019	.0897	.4333	.8884

Analysis Report QC Standard Wed 11-05-97 00:30:27 AM page 1

Method: ICP30J Sample Name: CCV 14 Operator: NSJ
Run Time: 11/05/97 00:25:53
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9522	2.007	1.924	.9592	.9462	.9037	1.927
SDev	.0135	.030	.026	.0193	.0214	.0195	.023
%RSD	1.423	1.505	1.348	2.013	2.263	2.155	1.185
#1	.9352	1.970	1.900	.9343	.9203	Q.8800	1.899
#2	.9519	2.013	1.906	.9589	.9429	.9021	1.936
#3	.9534	2.000	1.937	.9622	.9492	.9050	1.922
#4	.9683	2.043	1.955	.9813	.9724	.9277	1.953

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9602	.9346	.9308	.9442	1.902	19.99	1.982
SDev	.0104	.0154	.0155	.0190	.031	.31	.025
%RSD	1.083	1.642	1.668	2.012	1.604	1.526	1.254
#1	.9461	.9160	.9117	.9219	1.864	19.55	1.948
#2	.9620	.9344	.9307	.9415	1.904	20.11	1.994
#3	.9617	.9344	.9312	.9450	1.902	20.02	1.983
#4	.9712	.9536	.9497	.9682	1.939	20.26	2.005

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9186	.9637	1.940	.9612	1.893	2.009	1.997
SDev	.0158	.0197	.037	.0213	.024	.036	.037
%RSD	1.715	2.042	1.923	2.214	1.260	1.813	1.831
#1	Q.9000	.9394	1.892	.9353	1.860	1.966	1.967
#2	.9171	.9620	1.940	.9556	1.904	2.019	1.991
#3	.9189	.9661	1.944	.9680	1.891	1.998	1.982
#4	.9385	.9874	1.983	.9858	1.915	2.053	2.050

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.947	.9103	.9400	.9152	1.928	.9083	.9691
SDev	.026	.0144	.0195	.0192	.037	.0162	.0122
%RSD	1.340	1.586	2.071	2.095	1.904	1.781	1.263
#1	1.913	Q.8906	.9167	Q.8923	1.892	Q.8894	.9545
#2	1.947	.9093	.9374	.9136	1.904	.9072	.9695
#3	1.952	.9174	.9418	.9158	1.944	.9076	.9681
#4	1.976	.9239	.9641	.9392	1.972	.9290	.9844

Analysis Report Blank Sample Wed 11-05-97 00:36:23 AM page 1

Method: ICP30J Sample Name: CCB 14 Operator: NSJ
Run Time: 11/05/97 00:31:50
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0058	-.0039	.0001	.0007	.0002	.0087
SDev	.0012	.0037	.0050	.0007	.0002	.0000	.0029
%RSD	460.2	63.69	128.6	469.9	33.33	13.93	33.07
#1	-.0006	.0110	-.0110	.0006	.0005	.0002	.0100
#2	-.0016	.0039	-.0035	-.0008	.0010	.0002	.0122
#3	.0011	.0027	-.0019	.0001	.0005	.0002	.0068
#4	.0001	.0056	.0007	.0006	.0005	.0002	.0059

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	-.0013	-.0005	.0009	.0036	-.0074	.0003
SDev	.0006	.0007	.0005	.0010	.0011	.1662	.0070
%RSD	282.4	52.70	96.12	111.1	31.59	2261.	2235.
#1	-.0007	-.0016	-.0008	.0007	.0046	-.2108	-.0028
#2	-.0006	-.0003	.0001	-.0001	.0046	.1814	.0108
#3	.0007	-.0014	-.0008	H.0023	.0030	.0539	-.0028
#4	-.0003	-.0019	-.0003	.0008	.0023	-.0539	-.0040

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0008	-.0036	-.0031	.0018	-.0051	-.0014
SDev	.0004	.0009	.0031	.0038	.0055	.0064	.0042
%RSD	300.4	110.4	86.69	123.3	312.0	125.5	304.2
#1	-.0003	.0013	-.0040	-.0025	-.0043	-.0019	-.0048
#2	-.0003	-.0001	-.0075	-.0045	.0021	-.0144	-.0048
#3	-.0003	.0002	-.0001	-.0073	.0004	.0000	.0040
#4	.0004	.0019	-.0026	.0018	.0089	-.0042	.0000

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0024	.0023	.0001	.0000	-.0031	-.0007	.0003
SDev	.0025	.0021	.0001	.0003	.0103	.0001	.0006
%RSD	102.8	91.38	200.5	667.2	326.8	19.66	193.7
#1	-.0044	.0047	.0002	.0001	-.0145	-.0005	.0006
#2	-.0038	.0035	-.0000	-.0003	.0052	-.0008	-.0006
#3	.0012	.0012	-.0000	.0005	.0058	-.0008	.0006
#4	-.0027	-.0000	-.0000	-.0001	-.0091	-.0006	.0006

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Fisher Mills
Soil Stockpile

3 April 1998

Steven Codrington
Remediation Technologies Inc.
1011 S.W. Klickitat Way
Suite 207
Seattle, WA 98134

RE: Client Project: Harbor Island – Fisher Mills
ARI Project: #V718 and V720

Dear Steven:

Please find enclosed the original Chain-of-Custody record (COC) and the final data package for the samples from the project referenced above. Six soil samples were received on 3/16/98. All samples were received intact.

The samples were analyzed for WTPH-HCID, PAHs and WTPH-gasoline as requested. Based on the WTPH-HCID results, the tests for WTPH-diesel were added where diesel range hydrocarbons were detected.

Problems associated with these analyses are discussed in the Case Narrative.

A copy of this package will be kept on file with ARI. Should you have any questions or problems, please feel free to call any time.

Sincerely,

ANALYTICAL RESOURCES, INC.

Mark D. Harris
Project Manager
206/340-2866, ext. 113

Enclosures

cc: file #V718 and V720

MDH/jmb

Chain-of-Custody

Chain of Custody Record & Laboratory Analysis Request

Date: Mar 16
Page 1 of 1
Number of coolers: 1
Cooler Temp:

Analytical Resources, Incorporated
Analytical Chemist and Consultants
400 Ninth Avenue North
Seattle, WA 98109-4708
(206) 621-6490
(206) 621-7523 (Fax)

ARI Client: RETEC Phone#: 624 9349 ext 216
Client Contact: Stephen Codrington
Client Project ID: Harbor Island - Fisher Mills
Samplers: SBC

	Sample ID	Date	Time	Matx	No Cont	Lab ID	TPH 4NCID	TPH 4NCID ext	PAH	TPH-G					Notes/Comments
1	SP1	Mar 13	4:45	Soil			✓								98-4939 to 98-4940 ~~98-4945~~
2	SP2	"	"	"				✓							98-4941 to 98-4945
3	SP3	"	"	"					✓						
4	SP4	"	"	"					✓						
5	SP5	"	"	"						✓					
6	SP6	"	"	"						✓					
7	2 TB														

ARI Project No: V718/V720	Relinquished by: (Signature) [signature]	Relinquished by: (Signature)	Relinquished by: (Signature)
T.A.T. Requested:	Printed Name: Stephen Codrington	Printed Name:	Printed Name:
Comments/Special Instructions:	Company: RETEC	Company:	Company:
Samples kept in refrigerator over wkend	Date: Mar 16/98 Time: 3:20pm	Date: Time:	Date: Time:
	Received by: (Signature) Amy Bergin	Received by: (Signature)	Received by: (Signature)
	Printed Name: Amy Bergin	Printed Name:	Printed Name:
	Company: ARI	Company:	Company:
	Date: 3/16/98 Time: 1520	Date: Time:	Date: Time:

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following Standard Operating Procedures and our Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the client.

Case Narrative

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Case Narrative

Client Project: Harbor Island – Fisher Mills
ARI Job No.: V718 and V720
Date: April 3, 1998

PAHs

1) Sample SP3 required a dilution and was reanalyzed to quantitate the PAH compounds within the instruments linear range. The compounds that exceeded the linear range have been qualified with an "E" on the original report. No other analytical complications were encountered during analysis.

WTPH-HCID

1) These analyses proceeded without incident of note.

WTPH-Gasoline

1) These analyses proceeded without incident of note.

WTPH-Diesel

1) The surrogate recovery for SP2 exceeds the QC limits due to matrix interferences.

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WTPH-HCID

TOTAL PETROLEUM HYDROCARBONS
WA HCID Method by GC/FID

ANALYTICAL RESOURCES INCORPORATED

QC Report No: V718-Remediation Technologies, Inc.
Matrix: Soil Project: Harbor Island-Fisher Mills

Date Received: 03/16/98

Data Release Authorized: CH 4/2/98
Reported: 04/02/98

Lab ID	Client Sample ID	Date Analyzed	Dilution Factor	Gas Range	Diesel Range	Oil Range	Surrogate Recovery
98-4939-0327MB	Method Blank	03/27/98	1:1	20 U	25 U	50 U	110%
98-4939-V718A	SP1	03/27/98	1:1	20 U	86	280	113%
98-4940-V718B	SP2	03/27/98	1:1	20 U	83	270	112%

Values reported in ppm (mg/kg) on a dry weight basis.

Surrogate is Methyl Arachidate.
Gas value based on total peaks in the range from Toluene to C12.
Diesel value based on the total peaks in the range from C12 to C24.
Oil value based on the total peaks in the range from C24 to C38.

Data Qualifiers

U	Compound not detected at the given detection limit.
X	Value detected above linear range of instrument. Dilution required.
J	Indicates an estimated value below the calculated detection limit.
S	No value reported due to saturation of the detector. Dilution required.
E	Indicates a value above the linear range of the detector. Dilution required.
D	Indicates the surrogate was not detected because of dilution of the extract.
C	Indicates a probable value which cannot be confirmed due to matrix interference.
NR	Indicates no recovery due to matrix interference and/or dilution.

FORM-1 HCID

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TOTAL PETROLEUM HYDROCARBONS
WA HCID Method by GC/FID

Lab Sample ID: V718SB
LIMS ID: 98-4939
Matrix: Soil

QC Report No: V718-Remediation Technologies, Inc.
Project: Harbor Island-Fisher Mills

Data Release Authorized: CH 4/2/98
Reported: 04/02/98

LABORATORY CONTROL SAMPLE RECOVERY REPORT
Date extracted: 03/18/98
Date analyzed: 03/27/98

CONSTITUENT	SPIKE VALUE	SPIKE ADDED	% RECOVERY
LABORATORY CONTROL SAMPLE			
Diesel Range	614	500	123%

HCID Surrogate Recovery

Spike Blank	Methylarachidate	107%

Values reported in parts per million (mg/kg)

HCID SPIKE CONTROL LIMITS

Percent Recovery 50-150%
Duplicate RPD <50%

Advisory QA Limits

WTPH-Diesel

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TOTAL DIESEL RANGE HYDROCARBONS
WA TPHd Range C12 to C24 by GC/FID
and motor oil

LIMS ID: 98-4941
Matrix: Soil

QC Report No: V720-Remediation Technologies, Inc.
Project: Harbor Island-Fisher Mills

Data Release Authorized: CA 4/2/98
Reported: 04/02/98

Date Received: 03/16/98

Lab ID	Sample ID	Date Analyzed	Dilution Factor	Diesel Range	*HC ID	motor oil Range	Surrogate Recovery
V720MB	Method Blank	03/27/98	1:1	5.0 U	---	10 U	97.2%
V720A	**SP2**	03/27/98	1:10	56 U	NO	**140**	187%

Values reported in ppm (mg/kg) on a dry weight basis.

Surrogate is Methyl-Arachidate.

* ID indicates, in the opinion of the analyst, the petroleum product with the best pattern match. 'NO' indicates that there was not a good match for any of the requested products.
Diesel quantitation on total peaks in the range from C12 to C24.
motor oil quantitation on total peaks in the range from C24 to C38.

Data Qualifiers

U	Compound not detected at the given detection limit.
J	Indicates an estimated value below the calculated detection limit.
S	No value reported due to saturation of the detector. Dilution required.
D	Indicates the surrogate was not detected because of dilution of the extract.
E	Indicates a value above the linear range of the detector. Dilution required.
NR	Indicates no recovery due to matrix interference.
B	Indicates compound also detected in the method blank.

FORM-1 WA TPHD

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TOTAL DIESEL RANGE HYDROCARBONS
WA TPHd Range C12 to C24 by GC/FID

Lab Sample ID: V720SB
LIMS ID: 98-4941
Matrix: Soil

QC Report No: V720-Remediation Technologies, Inc.
Project: Harbor Island-Fisher Mills

Data Release Authorized: CH 4/17/98
Reported: 04/02/98

LABORATORY CONTROL SAMPLE RECOVERY REPORT
Date extracted: 03/19/98
Date analyzed: 03/27/98

CONSTITUENT	SPIKE FOUND	SPIKE ADDED	% RECOVERY
Diesel Range Hydrocarbons	120	100	120%

TPHd Surrogate Recovery

Methylarachidate 105%

Values reported in ppm (mg/kg) on a dry weight basis.

Polynuclear Aromatic Hydrocarbons

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANIC COMPOUND DATA REPORTING QUALIFIERS

U	Indicates the compound was undetected at the reported concentration. (Same as ND).
J	Indicates an estimated concentration when the value is less than the calculated reporting limit.
D	Indicates the surrogate/spike(s) was not detected, due to dilution of extract.
NR	Indicates the surrogate recovery cannot be reported due to matrix interference.
E	Indicates a value above the linear range of the detector. Sample dilution required.
S	Indicates no value reported due to saturation of the detector. Sample dilution required.
NA	Indicates compound not analyzed for.
M	Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match.
B	Indicates possible/probable blank contamination. Flagged when the analyte is detected in the blank as well as the sample.
Y	Indicates raised reporting limit due to background interference or to activity on the instrument. Compound is still not detected at or above the raised level.

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ORGANICS ANALYSIS DATA SHEET **Sample No: Method Blank**
PNAs by GC/MS

Lab Sample ID: 032498MB
LIMS ID: 98-4942
Matrix: Soil
Data Release Authorized: BWB
Reported: 03/26/98

QC Report No: V720-Remediation Technologies, Inc.
Project: Harbor Island-Fisher Mills
Date Sampled: NA
Date Received: NA

Date extracted: 03/20/98 9:30
Date analyzed: 03/24/98 11:05
Instrument: nt1
GPC Cleanup: NO

Sample Amount: 7.50 g-dry-wt
Final Extract Volume: 0.5 mL
Conc/Dilution Factor: 1:1
Moisture: NA
pH: NA

CAS Number	Analyte	ug/kg
91-20-3	Naphthalene	67 U
91-57-6	2-Methylnaphthalene	67 U
208-96-8	Acenaphthylene	67 U
83-32-9	Acenaphthene	67 U
86-73-7	Fluorene	67 U
85-01-8	Phenanthrene	67 U
120-12-7	Anthracene	67 U
206-44-0	Fluoranthene	67 U
129-00-0	Pyrene	67 U
56-55-3	Benzo(a)anthracene	67 U
218-01-9	Chrysene	67 U
205-99-2	Benzo(b)fluoranthene	67 U
207-08-9	Benzo(k)fluoranthene	67 U
50-32-8	Benzo(a)pyrene	67 U
193-39-5	Indeno(1,2,3-cd)pyrene	67 U
53-70-3	Dibenz(a,h)anthracene	67 U
191-24-2	Benzo(g,h,i)perylene	67 U
132-64-9	Dibenzofuran	67 U

Base/Neutral Surrogate Recovery	
d14-p-Terphenyl	102%
d10-Diphenyl	73.6%

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ORGANICS ANALYSIS DATA SHEET **Sample No: SP3**
PNAs by GC/MS

Lab Sample ID: V720B
LIMS ID: 98-4942
Matrix: Soil
Data Release Authorized: [signature]
Reported: 03/26/98

QC Report No: V720-Remediation Technologies, Inc.
Project: Harbor Island-Fisher Mills

Date Sampled: 03/13/98
Date Received: 03/16/98

Date extracted: 03/20/98 9:30
Date analyzed: 03/24/98 20:13
Instrument: nt1
GPC Cleanup: NO

Sample Amount: 6.67 g-dry-wt
Final Extract Volume: 0.5 mL
Conc/Dilution Factor: 1:1
Moisture: 11.9%
pH: 7.3

CAS Number	Analyte	ug/kg
91-20-3	Naphthalene	110
91-57-6	2-Methylnaphthalene	94
208-96-8	Acenaphthylene	600
83-32-9	Acenaphthene	270
86-73-7	Fluorene	600
85-01-8	Phenanthrene	7,500 E
120-12-7	Anthracene	2,200
206-44-0	Fluoranthene	8,600 E
129-00-0	Pyrene	10,000 E
56-55-3	Benzo(a)anthracene	4,600
218-01-9	Chrysene	5,200
205-99-2	Benzo(b)fluoranthene	3,000
207-08-9	Benzo(k)fluoranthene	3,200
50-32-8	Benzo(a)pyrene	4,600
193-39-5	Indeno(1,2,3-cd)pyrene	2,500
53-70-3	Dibenz(a,h)anthracene	790
191-24-2	Benzo(g,h,i)perylene	2,600
132-64-9	Dibenzofuran	230

Base/Neutral Surrogate Recovery	
d14-p-Terphenyl	110%
d10-Diphenyl	73.2%

ANALYTICAL
RESOURCES
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ORGANICS ANALYSIS DATA SHEET **Sample No: SP3**
PNAs by GC/MS **DILUTION**

Lab Sample ID: V720B-DL
LIMS ID: 98-4942
Matrix: Soil
Data Release Authorized: *GW*
Reported: 03/26/98

QC Report No: V720-Remediation Technologies, Inc.
Project: Harbor Island-Fisher Mills
Date Sampled: 03/13/98
Date Received: 03/16/98

Date extracted: 03/20/98 9:30
Date analyzed: 03/25/98 11:25
Instrument: nt1
GPC Cleanup: NO

Sample Amount: 6.67 g-dry-wt
Final Extract Volume: 0.5 mL
Conc/Dilution Factor: 1:5
Moisture: 11.9%
pH: 7.3

CAS Number	Analyte	ug/kg
91-20-3	Naphthalene	370 U
91-57-6	2-Methylnaphthalene	370 U
208-96-8	**Acenaphthylene**	**460**
83-32-9	Acenaphthene	370 U
86-73-7	**Fluorene**	**550**
85-01-8	**Phenanthrene**	**7,000**
120-12-7	**Anthracene**	**1,800**
206-44-0	**Fluoranthene**	**7,900**
129-00-0	**Pyrene**	**13,000**
56-55-3	**Benzo(a)anthracene**	**3,900**
218-01-9	**Chrysene**	**5,000**
205-99-2	**Benzo(b)fluoranthene**	**2,700**
207-08-9	**Benzo(k)fluoranthene**	**3,400**
50-32-8	**Benzo(a)pyrene**	**3,900**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**1,700**
53-70-3	**Dibenz(a,h)anthracene**	**600**
191-24-2	**Benzo(g,h,i)perylene**	**2,100**
132-64-9	Dibenzofuran	370 U

Base/Neutral Surrogate Recovery	
d14-p-Terphenyl	109%
d10-Diphenyl	62.8%

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ORGANICS ANALYSIS DATA SHEET **Sample No: SP4**
PNAs by GC/MS

Lab Sample ID: V720C
LIMS ID: 98-4943
Matrix: Soil
Data Release Authorized: MB
Reported: 03/26/98

QC Report No: V720-Remediation Technologies, Inc.
Project: Harbor Island-Fisher Mills
Date Sampled: 03/13/98
Date Received: 03/16/98

Date extracted: 03/20/98 9:30
Date analyzed: 03/25/98 10:53
Instrument: nt1
GPC Cleanup: NO

Sample Amount: 6.61 g-dry-wt
Final Extract Volume: 0.5 mL
Conc/Dilution Factor: 1:1
Moisture: 12.3%
pH: 7.5

CAS Number	Analyte	ug/kg
91-20-3	Naphthalene	76 U
91-57-6	2-Methylnaphthalene	76 U
208-96-8	**Acenaphthylene**	**98**
83-32-9	**Acenaphthene**	**160**
86-73-7	**Fluorene**	**160**
85-01-8	**Phenanthrene**	**2,200**
120-12-7	**Anthracene**	**490**
206-44-0	**Fluoranthene**	**2,900**
129-00-0	**Pyrene**	**3,800**
56-55-3	**Benzo(a)anthracene**	**1,100**
218-01-9	**Chrysene**	**1,600**
205-99-2	**Benzo(b)fluoranthene**	**1,200**
207-08-9	**Benzo(k)fluoranthene**	**1,300**
50-32-8	**Benzo(a)pyrene**	**1,600**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**790**
53-70-3	**Dibenz(a,h)anthracene**	**220**
191-24-2	**Benzo(g,h,i)perylene**	**1,100**
132-64-9	Dibenzofuran	76 U

Base/Neutral Surrogate Recovery	
d14-p-Terphenyl	104%
d10-Diphenyl	70.8%

ANALYTICAL
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ORGANICS ANALYSIS DATA SHEET
PNAs by GC/MS

Lab Sample ID: V720SB
LIMS ID: 98-4942
Matrix: Soil

QC Report No: V720-Remediation Technologies, Inc.
Project: Harbor Island-Fisher Mills

Data Release Authorized: *CW3*
Reported: 03/26/98

Date extracted: 03/20/98
Date analyzed: 03/20/98

LABORATORY CONTROL SAMPLE CONSTITUENT	SPIKE VALUE	SPIKE ADDED	% RECOVERY
Naphthalene	1470	1670	88.0%
Acenaphthene	1250	1670	74.9%
Fluoranthene	1250	1670	74.9%
Benzo(a)anthracene	1520	1670	91.0%

Spike Blank Surrogate Recovery

d14-p-Terphenyl	92.8%
d10-Diphenyl	69.2%

Values reported in ppb (ug/kg) dry weight

WTPH-Gasoline

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TOTAL GASOLINE RANGE HYDROCARBONS
WTPHg Range Toluene to C12 by GC/FID

QC Report No: V720-Remediation Technologies, Inc.
Matrix: Soil Project: Harbor Island-Fisher Mills

Data Release Authorized: Date Received: 03/16/98
Reported: 03/29/98

Lab ID	Client Sample ID	Date Analyzed	Dilution Factor	Gas Range Hydrocarbons		Gasoline ID	Surr A Rec	Surr B Rec
V720-0323MB	Method Blank	03/23/98	1:1	5.0	U	NO	107.%	108.%
98-4944-V720D	SP5	03/23/98	1:1	5.4	U	NO	96.8%	90.5%
98-4945-V720E	SP6	03/23/98	1:1	5.4	U	NO	95.6%	92.0%

Surrogate A is Trifluorotoluene.
Surrogate B is Bromobenzene.
Values reported in ppm (mg/kg) on a dry weight basis.
Quantitation on total peaks in the gasoline range from Toluene to C12.

Data Qualifiers

U	Compound not detected at the given detection limit.
X	Value detected above linear range of instrument. Dilution required.
J	Indicates an estimated value below the calculated detection limit.
S	No value reported due to saturation of the detector. Dilution required.
D	Indicates the surrogate was not detected because of dilution of the extract.
NR	Indicates no recovery due to matrix interference.

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TOTAL GASOLINE RANGE HYDROCARBONS
WTPHg Range Toluene to C12 by GC/FID

QC Report No: V720-Remediation Technologies, Inc.
Matrix: Water Project: Harbor Island-Fisher Mills

Data Release Authorized: Date Received: 03/16/98
Reported: 03/29/98

Lab ID	Client Sample ID	Date Analyzed	Dilution Factor	Gas Range	Gas ID	Surr A Rec	Surr B Rec
V720-0323MB	Method Blank	03/23/98	1:1	0.25 U	NO	109%	110%
98-4964-V720F	Trip Blank	03/23/98	1:1	0.25 U	NO	107%	106%

Surrogate A is Trifluorotoluene.
Surrogate B is Bromobenzene.
Values reported in ppm (mg/L).
Quantitation on total peaks in the gasoline range from Toluene to C12.

Data Qualifiers

U	Compound not detected at the given detection limit.
X	Value detected above linear range of instrument. Dilution required.
J	Indicates an estimated value below the calculated detection limit.
S	No value reported due to saturation of the detector. Dilution required.
D	Indicates the surrogate was not detected because of dilution of the extract.
NR	Indicates no recovery due to matrix interference.

ANALYTICAL
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TOTAL GASOLINE RANGE HYDROCARBONS
WTPHg Range Toluene to C12 by GC/FID

Sample No: SP6
Lab Sample ID: V720E QC Report No: V720-Remediation Technologies, Inc.
LIMS ID: 98-4945 Project: Harbor Island-Fisher Mills
Matrix: Soil

Date Received: 03/16/98

Data Release Authorized:
Reported: 03/30/98

MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Analyzed 03/23/98

CONSTITUENT	SAMPLE VALUE	SPIKE FOUND	SPIKE ADDED	% RECOVERY	RPD
MATRIX SPIKE					
Gasoline Range Hydrocarbons	5.4 U	260	323	81.4%	
MATRIX SPIKE DUPLICATE					
Gasoline Range Hydrocarbons	5.4 U	250	309	81.2%	0.2%

TPH-g Surrogate Recovery

Trifluorotoluene	113%
Bromobenzene	NR
Trifluorotoluene	116%
Bromobenzene	NR

Values reported in parts per million (mg/kg)

TPHg SPIKE CONTROL LIMITS

Percent Recovery 30.0-160.%
Duplicate RPD <30.0%

Advisory QA Limits

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TOTAL GASOLINE RANGE HYDROCARBONS
WTPHg Range Toluene to C12 by GC/FID

Lab Sample ID: V720SB
LIMS ID: 98-4944
Matrix: Soil

QC Report No: V720-Remediation Technologies, Inc.
Project: Harbor Island-Fisher Mills

Data Release Authorized:
Reported: 03/29/98

LABORATORY CONTROL SAMPLE RECOVERY REPORT
Analyzed 03/23/98

CONSTITUENT	SPIKE FOUND	SPIKE ADDED	% RECOVERY
LABORATORY CONTROL SAMPLE			
Gasoline Range Hydrocarbons	2.55	2.5	102%

TPHg Surrogate Recovery

Trifluorotoluene	120%
Bromobenzene	NR

Values reported in parts per million (mg/kg)

TPHg SPIKE CONTROL LIMITS

Percent Recovery 80.0-120%

Advisory QA Limits

TOTAL GASOLINE RANGE HYDROCARBONS
WTPHg Range Toluene to C12 by GC/FID

ANALYTICAL RESOURCES INCORPORATED

Lab Sample ID: V720SB
LIMS ID: 98-4964
Matrix: Water

QC Report No: V720-Remediation Technologies, Inc.
Project: Harbor Island-Fisher Mills

Data Release Authorized:
Reported: 03/29/98

LABORATORY CONTROL SAMPLE RECOVERY REPORT
Analyzed 03/23/98

CONSTITUENT	SPIKE FOUND	SPIKE ADDED	% RECOVERY
LABORATORY CONTROL SAMPLE			
Gasoline Range Hydrocarbons	2.44	2.5	97.6%

TPHg Surrogate Recovery

Trifluorotoluene	122%
Bromobenzene	NR

Values reported in parts per million (mg/L)

TPHg SPIKE CONTROL LIMITS

Percent Recovery	50-150%
Duplicate RPD	<50%

Advisory QA Limits

APPENDIX G

Appendix G

Soil Disposal Information

REIEC

MEMORANDUM

TO:	Eric Winiecki	**DATE:**	November 24, 1997
FROM:	Bryan Stone	**RE:**	Hazardous Soil Disposal Asahipen America (Aspen Paints) Harbor Island S&GOU Superfund Site

---

During Design Set #1B remedial action activities at the Aspen Paints site, approximately 14 tons of soil were removed during subgrade preparation to facilitate placement of the surface cap. This material was tested and found to contain lead in concentrations such that the extract failed the TCLP criteria of 5 mg/l (the result from the composite sample was 13.4 mg/L). This material will require stabilization prior to landfill disposal as a hazardous material, and will be classified as a D008 hazardous waste.

This memorandum serves as written notice to EPA of the shipment and disposal of 14 tons of D008 waste material to an out of state facility. The waste will be shipped from the Aspen Paints site, located within the Harbor Island S&GOU to the Chemical Waste Management (CWM) RCRA Subtitle C Hazardous Waste Landfill located in Arlington, Oregon. The waste will be stabilized at the Arlington facility and disposed at the CWM Subtitle D Columbia Ridge Landfill. It is anticipated that the soil will be shipped off site during the week or the week of December 1.

If you have any questions call me at (206) 624-9349.

cc: M.Valentine - de maximis
file: 1-2900-965(801)

WASTE MANAGEMENT
NORTHWEST

335192

NATIONAL RESPONSE CENTER 1-800-424-8802
OREGON ACCIDENT RESPONSE CENTER 1-800-452-0311

Form Approved. OMB No. 2050-0039. Expires 9-30-94.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. WAD 0 8 0 8 9 8 9 8 4 — Manifest Document No. 23778 — 2. Page 1 of — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
ASAHIPEN AMERICA INC
1128 SW SPOKANE STREET
SEATTLE, WA 98134

4. Generator's Phone (206) 682-4601

5. Transporter 1 Company Name: West Pac Environmental — 6. US EPA ID Number: WAD988518031

7. Transporter 2 Company Name — 8. US EPA ID Number

9. Designated Facility Name and Site Address
Chemical Waste Management
Of The Northwest
17629 Cedar Springs Lane
Arlington, Oregon 97812-9709

10. US EPA ID Number: ORD089452353

H. Facility's Phone: 541-454-2643

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. RQ, ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S. 9, UN3077, PGIII (D008)	002	RO	~~[illegible]~~ 14	~~[illegible]~~	D008
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
a. WPS# AK7581 TCLP LEAD CONTAMINATED SOIL
b.
c.
d.

K. Handling Codes for Wastes Listed Above
13.52 ~~147~~ 27040 A
12.5 97 Ame
SU 2B

15. Special Handling Instructions and Additional Information
a. ERG# 171
b. EMERGENCY CONTACT: (206) 762-1190
c.
d.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed / Typed Name: HAROLD PERANTIE — Signature: Harold S. Perantie — Month Day Year: 12 03 97

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed / Typed Name: DAN DOYLE — Signature: Dan Doyle — Month Day Year: 12 05 97

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed / Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator. Certification of receipt of hazardous materials covered by this manifest except as noted in Item 18.
Printed / Typed Name: BRENDA OPEN — Signature: [signature] — Month Day Year: 12 04 97

EPA Form 8700-22 (Rev. 9-91) Previous editions are obsolete.

ORIGINAL - RETURN TO GENERATOR

...mical Waste Management
Of The Northwest
17629 Cedar Springs Lane
Arlington, Oregon 97812
503-454-2643
EPA I.D. # ORDO...

D77

LOAD NO. 335192

MANIFEST DOC. NO. 23798

GROSS 44120 LB

W TARE 31120 LB
NET 13000 LB

TIME 10:55 04 DEC 97
TRUCK ID D77

NET 6.50 TON
11:28
TRUCK ID D77

27040 P Total
13.52 tons Total

GENERATOR ASAHI Pen America Inc

Waste Management
Of The Northwest
17629 Cedar Springs Lane
Arlington, Oregon 97812
503-454-2643
EPA I.D. # ORDO[illegible]

D 77

LOAD NO. 335192

MANIFEST DOC. NO. 23797

GROSS 44080 LB

W TARE 30040 LB
NET 14040 LB.

TIME 11:41 04 DEC 97
TRUCK ID D77

NET 7.02 TON
12:10
TRUCK ID D77

GENERATOR ASAHI PEN America Inc

Chemical Waste Management, Inc.

Date Printed 12/04/97

GENERATOR'S WASTE PROFILE SHEET

Profile # ARL AK7581

(_) Check here if this is a Recertification LOCATION OF ORIGINAL CWM OF THE NORTHWEST-ARLINGTON

GENERAL INFORMATION

2. Generator Name: ASAHIPEN AMERICA INC
   Generator USEPA ID: WAD080898984
   Generator Address: 1128 SW SPOKANE ST
   Billing Address: (_) Same
   RETEC
   1011 SW KLICKITAT WAY STE 207
   SEATTLE WA 98134-1128
   SEATTLE WA 98134-1162
3. Technical Contact/Phone: GRANT HAINSWORTH 206/682-4601
4. Alternate Contact/Phone:
   Billing Contact/Phone: GRANT HAINSWORTH 206/624-9349

PROPERTIES AND COMPOSITION

5. Process Generating Waste: CERCLA CLEANUP HARBOR ISLAND SUPERFUND SITE

6. Waste Name: TCLP LEAD CONT. SOIL

7A. Is this a USEPA hazardous waste (40 CFR Part 261)? Yes (X) No (_)
B. Identify ALL USEPA listed and characteristic waste code numbers (D,F,K,P,U): D008

State Waste Codes:

8. Physical State @ 70F: A. Solid(X) Liquid(_) Both(_) Gas(_) B. Single Layer (X) Multilayer (_) C. Free liq. range 0 to 0

9A. pH: Range _____ or Not applicable (X) B. Strong Odor (_);describe _____

10. Liquid Flash Point: < 73F (_) 73-99F (_) 100-139F (_) 140-199F (_) >= 200F (_) N.A. (X) Closed Cup (X) Open Cup (_)

11. CHEMICAL COMPOSITION: List ALL constituents (incl. halogenated organics) present in any concentration and forward analysi

Constituents	Range	Unit Description
LEAD	.4 to .5	%
PETROLEUM (DEISEL)	to .1	%
SOIL	99 to 100	%
FPT-LDR-ISU	to	
SUBPART CC CERT REQUIRED	to	
	to	
TOTAL COMPOSITION (MUST EQUAL OR EXCEED 100%):	100.600000	

12. OTHER: PCBs if yes, concentration _ _____ ppm, PCBs regulated by 40 CFR 761 (_). Pyrophoric (_) Explosive (_) Radioactive (_) Benzene if yes, concentration _ _____ ppm. NESHAP (_) Shock Sensitive (_) Oxidizer (_) Carcinogen (_) Infectious (_) Other _____

13. If waste subject to the land ban & meets treatment standards, check here: _ & supply analytical results where applicable.

SHIPPING INFORMATION

14. PACKAGING: Bulk Solid (X) Bulk Liquid (_) Drum (_) Type/Size: TONS Other _____

15. ANTICIPATED ANNUAL VOLUME: 14 Units: TONS Shipping Frequency: ONE TIME

SAMPLING INFORMATION

Sample Tracking Number: 4907202

16a. Sample source (drum, lagoon, pond, tank, vat, etc.): ROLL OFF BIN

Date Sampled: 10/27/97 Sampler's Name/Company: STEPHEN CODRINGTON RETECH

16b. Generator's Agent Supervising Sampling: _____ 17. (_) No sample required (See instructions.

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste. Any sample submitted is representative as defined in 40 CFR 261 - Appendix I or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize CWM to obtain a sample from any waste shipment for purposes of recertification.

Signature on original profile AK7581 (Signature) HAROLD PERANTIE PLANT SUPT. (Name and Title) 11/20/9 (Date)

Date Printed 12/04/97

Profile #
ARL AK7581

18. This is a Nonwastewater.

19. If this waste is subject to any California list restrictions enter the letter from below (either A, B.1 or B.2) next to each restriction that is applicable:

___ HOCs, ___ PCBs, ___ Acid, ___ Metals, ___ Cyanides

20. Identify ALL Characteristic and Listed USEPA hazardous waste numbers that apply (as defined by 40 CFR 261). For each waste number, identify the subcategory (as applicable, check none, or write in the description from 40 CFR 268.41, 268.42, 268.43).

REF #	A. US EPA HAZARDOUS WASTE CODE(S)	B. SUBCATEGORY Enter the subcategory description. If not applicable, simply check none		C. APPLICABLE TREATMENT STANDARDS			D. HOW MUST THE WASTE BE MANAGED?
				PERFORMANCE-BASED: Check as applicable		SPECIFIED TECHNOLOGY: If applicable enter the 40 CFR 268.42 table 1 treatment code(s)	
		DESCRIPTION	NONE	268.41(a)	268.43(a)	268.42	Enter letter from below
1	D008		X	X			A
2							
3							
4							
5							
6							
7							
8							
9							
10							

Management under the land disposal restrictions:

A. RESTRICTED WASTE REQUIRES TREATMENT

B.1 RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS

B.2 RESTRICTED WASTES FOR WHICH THE TREATMENT STANDARD IS EXPRESSED AS A SPECIFIED TECHNOLOGY (AND THE WASTE HAS BEEN TREATED BY THAT TECHNOLOGY)

B.3 GOOD FAITH ANALYTICAL CERTIFICATION FOR INCINERATED ORGANICS

C. RESTRICTED WASTE SUBJECT TO A VARIANCE

D. RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT

E. NOT CURRENTLY SUBJECT TO LAND DISPOSAL RESTRICTIONS

21. Is this waste a soil or debris? No: _ Yes, Soil: X Yes, Debris: _

22. Specific Gravity Range: _____ to _____

23. Indicate the range of each: Units

Cyanides: _ None to _____ _____ Type (free, total, amenable, etc.) _____

Cyanides: _ None to _____ _____ Type (free, total, amenable, etc.) _____

Sulfides: _ None to _____ _____ Type _____

Optional Phenolics: _ None to _____ _____

24. Identify the waste color VARIES , DOT physical state Solid ,

and physical appearance SOLID

Date Printed 12/04/97

Profile #
ARL AK7581

25. COMPLETE ONLY FOR WASTES INTENDED FOR FUELS OR INCINERATION		26. RECLAMATION, FUELS or INCINERATION PARAMETERS (Provide if information is available)
	TOTAL	RANGE
Beryllium as Be	ppm	A. Heat Value (Btu/lb): _____-_____
Potassium as K	ppm	B. Water: _____
Sodium as Na	ppm	C. Viscosity (cps): _____@_____F _ 100 F _ 150 F
Bromine as Br	%	D. Ash: _____ %
Chlorine as Cl	%	E. Settleable solids: _____ %
Fluorine as F	%	F. Vapor Pressure @ STP (mm/Hg): ____
Sulfur as S	%	G. Is this waste a pumpable liquid? Yes _ No _
		H. Can this waste be heated to improve flow? Yes _ No _
		I. Is this waste soluble in water? Yes _ No _
		J. Particle size: Will the solid portion of this waste pass through a 1/8 inch screen? Yes _ No _

27. TRANSPORTATION INFORMATION

A. Is this a DOT Hazardous Material? Yes X No _

B. Proper Shipping Name. . . . . .: HAZARDOUS WASTE, SOLID, N.O.S

and Additional Description if required: (D008)

C. DOT Regulations: North America Hazard Class: 9 Misc.Hazardous Mat'l I.D. NA3077 Packing Group: III

D. CERCLA Reportable Quantity (RQ) and units (Lb, Kg):

E. Non-Bulk code 213 Bulk code 240

F. Special Provisions B54 ___ ___ ___ ___ ___

G. Labels Required CLASS 9

28. SPECIAL HANDLING INFORMATION

_ Material Safety Data Sheets Attached

29. OTHER INFORMATION

30. CHEMICAL WASTE MANAGEMENT CERTIFICATION

Chemical Waste Management, Inc. has all the necessary permits and licenses for the waste that has been characterized and identified by this approved profile.

Date Printed 12/04/97

Profile #
ARL AK7581

31. OTHER HAZARDOUS CONSTITUENTS Indicate if the waste contains any of the following.

METALS	TCLP Information: Check only ONE for each constituent Use units: ppm, mg/l				TCLP Data	TCA or TOTAL Use units: ppm, mg/l, mg/kg or percent			
						California List			
	Less Than	TC Regulated Level	Equal or More	Waste No.	TCLP Actual	Less Than	Regulated Level	Equal or More	Actual
Arsenic as As	X	5.0 mg/l		D004			500 mg/l		
Barium as Ba	X	100.0 mg/l		D005					
Cadmium as Cd	X	1.0 mg/l		D006			100 mg/l		
Chromium tot Cr	X	5.0 mg/l		D007					
Lead as Pb		5.0 mg/l	X	D008			500 mg/l		
Mercury as Hg	X	.2 mg/l		D009			20 mg/l		
Selenium as Se	X	1.0 mg/l		D010			100 mg/l		
Silver as Ag	X	5.0 mg/l		D011					
Nickel as Ni							134 mg/l		
Thallium as Tl							130 mg/l		
Chromium Hex							500 mg/l		
Antimony									
Beryllium									
Copper									
Vanadium									
Zinc									

Date Printed 12/04/97

Profile #
ARL AK7581

32. OTHER HAZARDOUS CONSTITUENTS Indicate if the waste contains any of the following.

ORGANICS	TCLP Information: Check only ONE for each constituent				TCLP Data	TCA or TOTAL Use units: ppm, mg/l or %
	Less Than	Regulated Level	Equal or More	Waste No.	TCLP Analytical Test Results Use units: ppm or mg/l	
Benzene	X	0.5 mg/l		D018		
Carbon Tetrachloride	X	0.5 mg/l		D019		
Chlordane	X	0.03 mg/l		D020		
Chlorobenzene	X	100.0 mg/l		D021		
Chloroform	X	6.0 mg/l		D022		
m-Cresol	X	200 mg/l		D024		
o-Cresol	X	200.0 mg/l		D023		
p-Cresol	X	200.0 mg/l		D025		
Cresol	X	200.0 mg/l		D026		
2,4-D	X	10.0 mg/l		D016		
1,4 Dichlorobenzene	X	7.5 mg/l		D027		
1,2-Dichloroethane	X	0.5 mg/l		D028		
1,1-Dichloroethylene	X	0.7 mg/l		D029		
2,4-Dinitrotoluene	X	0.13 mg/l		D030		
Endrin	X	.02 mg/l		D012		
Heptachlor, & Hydroxide	X	0.008 mg/l		D031		
Hexachloro-1,3 Butadiene	X	0.5 mg/l		D033		
Hexachlorobenzene	X	0.13 mg/l		D032		
Hexachloroethane	X	3.0 mg/l		D034		
Lindane	X	0.4 mg/l		D013		
Methoxychlor	X	10.0 mg/l		D014		
Methyl Ethyl Ketone	X	200.0 mg/l		D035		
Nitrobenzene	X	2.0 mg/l		D036		
Pentachlorophenol	X	100.0 mg/l		D037		
Pyridine	X	5.0 mg/l		D038		
Tetrachloroethylene	X	0.7 mg/l		D039		
Toxaphene	X	0.5 mg/l		D015		
2,4,5-TP Silvex	X	1.0 mg/l		D017		
Trichloroethylene	X	0.5 mg/l		D040		
2,4,5-Trichlorophenol	X	400.0 mg/l		D041		
2,4,6-Trichlorophenol	X	2.0 mg/l		D042		
Vinyl Chloride	X	0.2 mg/l		D043		

12/15/97 → LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM (UTS) ARL-AK7581

Generator Name: ASAHIPEN AMERICA INC Manifest Doc. No.: _____

Profile Number: AK7581 SOIL State Manifest No: _____

1. Is this waste a non-wastewater or wastewater? (See 40 CFR 268.2) Check ONE: Nonwastewater X Wastewater
2. If this waste is subject to any California List restrictions enter the letter from below (either A, B.1, or B.2) next to each restriction that is applicable:
   ___ HOCs, ___ PCBs, ___ Acid, ___ Metals, ___ Cyanides
3. Identify ALL USEPA hazardous waste codes that apply to this waste shipment, as defined by 40 CFR 261. For each waste code, identify the corresponding subcategory, or check NONE if the waste code has no subcategory. Spent solvent and California List treatment standards are listed on the following page. If F039, multi-source leachate applies those constituents must be listed and attached by the generator. If D001, D002, D003 or D012-D043 requires treatment of the characteristic and meet 268.48 standards, then the underlying hazardous constituent(s) present in the waste must be listed and attached.

REF #	4. US EPA HAZARDOUS WASTE CODE(S)	5. SUBCATEGORY ENTER THE SUBCATEGORY DESCRIPTION. IF NOT APPLICABLE, SIMPLY CHECK NONE		6. HOW MUST THE WASTE BE MANAGED? ENTER LETTER FROM BELOW
		DESCRIPTION	NONE	
1	D008		X	A
2				
3				
4				

To identify F039 or D001, D002, D003 and D012-D043, underlying hazardous constituent(s), use the "F039/Underlying Hazardous Constituent Form" provided (CWM-2004) and check here:
If no UHCs are present in the waste upon its initial generation check here: X
To list additional USEPA waste code(s) and subcategorie(s), use the supplemental sheet provided (CWM-2005-B) and check here:

HOW MUST THE WASTE BE MANAGED? In column 6 above, enter the letter (A, B1, B2, B3, B4, C, D or E) below that describes how the waste must be managed to comply with the land disposal regulations (40 CFR 268.7). Please understand that if you enter the letter B1, B2, B3, B4 or D, you are making the appropriate certification as provided below. (States authorized by EPA to manage the LDR program may have regulatory citations different from the 40 CFR citations listed below. Where these regulatory citations differ, your certification will be deemed to refer to those state citations instead of the 40 CFR citations.

A. RESTRICTED WASTE REQUIRES TREATMENT
This waste must be treated to the applicable treatment standards set forth in 40 CFR Part 268 Subpart D, 268.32, or RCRA Section 3004(d).
For Hazardous Debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR Part 268.45."

B.1 RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based upon my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 40 CFR part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d) without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.2 RESTRICTED WASTES FOR WHICH THE TREATMENT STANDARD IS EXPRESSED AS A SPECIFIED TECHNOLOGY (AND THE WASTE HAS BEEN TREATED BY THAT TECHNOLOGY)
"I certify under penalty of the law that the waste has been treated in accordance with the requirements of 40 CFR 268.42. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.3 GOOD FAITH ANALYTICAL CERTIFICATION FOR INCINERATED ORGANICS
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based upon my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by incineration in units operated in accordance with 40 CFR Part 264 Subpart O or Part 265 Subpart O, or by combustion in fuel substitution units operating in accordance with applicable technical requirements, and I have been unable to detect the nonwastewater organic constituents despite having used best good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.4 DECHARACTERIZED WASTE REQUIRES TREATMENT FOR UNDERLYING HAZARDOUS CONSTITUENTS
"I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet universal treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

C. RESTRICTED WASTE SUBJECT TO A VARIANCE
This waste is subject to a national capacity variance, a treatability variance, or a case-by-case extension. Enter the effective date of prohibition in column 6 above.
For Hazardous Debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR Part 268.45."

D. RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT
"I have determined that this waste meets all applicable treatment standards set forth in 40 CFR Part 268 Subpart D, and all applicable prohibition levels set forth in Section 268.32 or RCRA Section 3004(d), and therefore, can be land disposed without further treatment. A copy of all applicable treatment standards and specified treatment methods is maintained at the treatment, storage and disposal facility named above." "I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth on 40 CFR 268.32 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false certifications, including the possibility of a fine and imprisonment."

E. WASTE IS NOT CURRENTLY SUBJECT TO PART 268 RESTRICTIONS
This waste is a newly identified waste that is not currently subject to any 40 CFR Part 268 restrictions.

I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

Signature _____ Title _____ Date _____

LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM (UTS) -REVERSE SIDE ARL-AK7581

SOLVENT AND CALIFORNIA LIST TREATMENT STANDARDS

If the waste identified on the first page of this form is described by any of the following USEPA hazardous waste codes: F001, F002, F003, F004, F005, and all solvent constituents will not be monitored by the treater, and/or this hazardous waste is subject to any prohibitions identified as California List restrictions (40 CFR 268.32 and/or RCRA Section 3004(d)), then each constituent MUST be identified below by checking the appropriate box, and this page must accompany the shipment, along with the previous page of this form. If the waste code F039 describes this waste, then the corresponding list of constituents must be attached. If D001, D002, D003 or D012-D043 require treatment to 268.48 standards, then the underlying hazardous constituent(s) must also be attached.

SOLVENT WASTE TREATMENT STANDARDS			
F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s).	Treatment Standard[1]	F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s).	Treatment Standard[1]
	Wastewaters ; Nonwastewaters		Wastewaters ; Nonwastewaters

[1] All spent solvent treatment standards are measured through a total waste analysis (TCA), unless otherwise noted. Wastewater units are mg/l, nowastewater are mg/kg.

CALIFORNIA LIST TREATMENT STANDARDS--40CFR 268.32,40 CFR 268.42 and RCRA Section 3004(d) A waste must first be designated as a US EPA Hazardous waste before the waste can be subject to the California List restrictions.		
Restricted waste description	Prohibition	Treatment Standard
Liquid* or nonliquid wastes containing Halogenated Organic Compounds listed in 40 CFR 268, Appendix III	Liquid* wastes: Greater than or equal to 1,000 mg/l Nonliquid wastes: Greater than or equal to 1,000 mg/kg	40 CFR 268.42(a)(2) - INCIN or FSUBS
Liquid* wastes containing Poly Chlorinated Biphenyls (PCBs)	Greater than or equal to 50 ppm	40CFR 268.42(a)(1) - INCIN or FSUBS Also see 40 CFR 761.60 and .70
Liquid* wastes containing Metals Note: Hazardous wastes containing As, Cd, Cr, Hg, Pb, or Se must be evaluated if not characteristically hazardous for that metal	One or more of the following metals (or elements) at concentrations greater than or equal to the following: Nickel and/or compounds as Ni: 134mg/l Thalium and/or compounds as Th: 130mg/l	RCRA Section 3004(d)

* - For the definition "liquid" refer to Method 9095, the Paint Filter Liquids Test from EPA manual SW-846

SUBCATEGORY REFERENCE

D001:

A. Ignitable characteristic wastes, except for the 40 CFR 261.21(a)(1) High TOC subcategory, that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems.

B. Ignitable characteristic wastes, except for the 40 CFR 261.21(a)(1) High TOC subcategory, that are managed in CWA/CWA-equival or Class I SDWA systems.

High TOC Ignitable characteristic liquids subcategory based on 40 CFR 261.21(a)(1) - Greater than or equal to 10% total organic carbon.

D002:

D. Corrosive characteristic wastes that are managed in non-CWA/non-CWA-equivalent/non-Class I SDWA systems.

E. Corrosive characteristic wastes that are managed in CWA, CWA-equivalent, or Class I SWDA systems.

Chemical Waste Management, Inc.

WASTE PROFILE

AK 7581
Profile #

☐ Check here if this is a Recertification LOCATION OF ORIGINAL _____

GENERAL INFORMATION

1. GENERATOR NAME: Aspen Paints Generator USEPA ID: WAD - 080-898-984
2. Generator Address: 1128 SW Spokane St. Seattle, WA, 98134 Billing Address: ☑ Same
3. Technical Contact/Phone: 206-682-4601
4. Alternate Contact/Phone: _____ Billing Contact/Phone:

RETEC
1011 SW Klickitat Way, #207
Seattle, WA 98134
Grant Hainsworth (206) 624-9349

PROPERTIES AND COMPOSITION

5. Process Generating Waste: CERCLA cleanup - Harbor Island Superfund Site - CD No C95-1495-Z
6. Waste Name: TCLP Lead Contaminated Soil
7A. Is this a USEPA hazardous waste (40 CFR Part 261)? Yes ☒ No ☐
B. Identify ALL USEPA listed and characteristic waste code numbers (D,F,K,P,U): D008
State Waste Codes: D008
8. Physical State @ 70°F: A. Solid ☒ Liquid ☐ Both ☐ B. Single Layer ☒ Multilayer ☐ C. Free liquid range 0 to 1 %
9A. pH: Range _____ to _____ or Not applicable ☒ B. Strong Odor ☐; describe _____
10. Liquid Flash Point: < 73°F ☐ 73-99°F ☐ 100-139°F ☐ 140-199°F ☐ ≥ 200°F ☐ N.A. ☒ Closed Cup ☐ Open Cup ☐
11. CHEMICAL COMPOSITION: List ALL constituents (including halogenated organics) present in any concentration and forward available analysis.

Constituents	Range	Units	Constituents	Range	Units
Lead	0.4 - 0.5	%	- see attached data for HI1B04		
Petroleum (Diesel & Oil)	0.1	%	- see attached data for HI1B02		
Soil	99.4 - 99.5	%			

TOTAL COMPOSITION MUST EQUAL OR EXCEED 100%

12. OTHER: PCBs if yes, concentration ____ ppm, PCBs regulated by 40 CFR 761 ☐. Pyrophoric ☐ Explosive ☐ Radioactive ☐
Benzene if yes, concentration ____ ppm. Shock Sensitive ☐ Oxidizer ☐ Carcinogen ☐ Infectious ☐ Other _____
13. If the waste is subject to the land ban and meets the treatment standards, check here: ____, and supply analytical results where applicable.

SHIPPING INFORMATION

14. PACKAGING: Bulk Solid ☒ Bulk Liquid ☐ Drum ☐ Type/Size: Roll-off bins 2 x 10 cy Other _____
15. ANTICIPATED ANNUAL VOLUME: 14 Units: tons Shipping Frequency: One-time only

SAMPLING INFORMATION

16a. Sample source (drum, lagoon, pond, tank, vat, etc.) Roll-off Bin with stockpiled soil
Date Sampled: Oct. 27, 1997. Sampler's Name/Company: Stephen Codrington / RETEC
16b. Generator's Agent Supervising Sampling: Grant Hainsworth 17. ☐ No sample required (See Instructions.)

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste. Any sample submitted is representa as defined in 40 CFR 261 - Appendix I or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator been disclosed. I authorize CWM to obtain a sample from any waste shipment for purposes of recertification.

Harold S. Perantie — HAROLD PERANTIE PLANT SUPT. — 11/20/97
Signature — Printed (or typed) name and title — Date

CWM Form 6000-C replaces and is equivalent to the following forms: CWM-51, CWM-6000, CWM 50-A-2 and CWM 50-B

Printed on recycled paper.

ANALYTICAL RESOURCES INCORPORATED

TOTAL GASOLINE RANGE HYDROCARBONS
WTPHg Range Toluene to C12 by GC/FID

Lab Sample ID: U269SB
LIMS ID: 97-20924
Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900

Data Release Authorized:
Reported: 11/17/97

LABORATORY CONTROL SAMPLE RECOVERY REPORT
Analyzed 11/06/97

CONSTITUENT	SPIKE FOUND	SPIKE ADDED	% RECOVERY
LABORATORY CONTROL SAMPLE			
Gasoline Range Hydrocarbons	2.70	2.5	108%

TPHg Surrogate Recovery

Trifluorotoluene	113%
Bromobenzene	NR

Values reported in parts per million (mg/kg)

TPHg SPIKE CONTROL LIMITS

Percent Recovery 80.0-120%

Advisory QA Limits

ANALYTICAL
RESOURCES
INCORPORATED

TOTAL GASOLINE RANGE HYDROCARBONS
WTPHg Range Toluene to C12 by GC/FID

QC Report No: U269-Remediation Technologies, Inc.
Matrix: Water Project: 1 2900

Data Release Authorized: Date Received: 10/27/97
Reported: 11/17/97

Lab ID	Client Sample ID	Date Analyzed	Dilution Factor	Gas Range	Gas ID	Surr A Rec	Surr B Rec
97-20925-U269F	Trip Blank	11/06/97	1:1	0.25 U	NO	97.2%	87.1%

Surrogate A is Trifluorotoluene.
Surrogate B is Bromobenzene.
Values reported in ppm (mg/L).
Quantitation on total peaks in the gasoline range from Toluene to C12.

Data Qualifiers

U	Compound not detected at the given detection limit.
X	Value detected above linear range of instrument. Dilution required.
J	Indicates an estimated value below the calculated detection limit.
S	No value reported due to saturation of the detector. Dilution required.
D	Indicates the surrogate was not detected because of dilution of the extract.
NR	Indicates no recovery due to matrix interference.

ANALYTICAL
RESOURCES
INCORPORATED

TOTAL GASOLINE RANGE HYDROCARBONS
WTPHg Range Toluene to C12 by GC/FID

QC Report No: U269-Remediation Technologies, Inc.
Matrix: Soil
Project: 1 2900

Data Release Authorized: NC Date Received: 10/27/97
Reported: 11/17/97

Lab ID	Client Sample ID	Date Analyzed	Dilution Factor	Gas Range Hydrocarbons		Gasoline ID	Surr A Rec	Surr B Rec
U269-1106MB	Method Blank	11/06/97	1:1	5.0	U	NO	101.%	97.3%
97-20924-U269B	HI1B02	11/06/97	1:1	5.8	U	NO	100.%	95.1%

Post-it® Fax Note 7671
Date 11/17/97 # of pages ▶ 4
To Steven Corrington
From Mark Harris
Co./Dept. RSTEC - SCA
Co. ARI
Phone # 624-9349
Phone # 621-6490
Fax # 624-2839
Fax #

Surrogate A is Trifluorotoluene.
Surrogate B is Bromobenzene.
Values reported in ppm (mg/kg) on a dry weight basis.
Quantitation on total peaks in the gasoline range from Toluene to C12.

Data Qualifiers

U	Compound not detected at the given detection limit.
X	Value detected above linear range of instrument. Dilution required.
J	Indicates an estimated value below the calculated detection limit.
S	No value reported due to saturation of the detector. Dilution required.
D	Indicates the surrogate was not detected because of dilution of the extract.
NR	Indicates no recovery due to matrix interference.

FORM-1 TPH-g

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample No: Method Blank

Lab Sample ID: U269MB
LIMS ID: 97-20170
Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900

Date Sampled: NA
Date Received: NA

Data Release Authorized:
Reported: 11/07/97

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry
3050	10/31/97	6010	11/04/97	7440-38-2	Arsenic	5	5 U
3050	10/31/97	6010	11/04/97	7439-92-1	Lead	2	2 U

I'LL TRACK DOWN THE TPH DATA ASAP. IN THE MEANTIME, HERE ARE THE TOTAL / TCLP METALS.

Post-it® Fax Note 7671	Date 11/17/97	# of pages ▶ 7
To STEVE COMPTON	From MARK HARRIS	
Co./Dept. ROCC-SRA	Co. ARI	
Phone # 624-9349	Phone # 621-6490	
Fax # 624-8839	Fax #	

U Analyte undetected at given RL

RL Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET Sample No: Method Blank
TCLP METALS

Lab Sample ID: U269MB
LIMS ID: 97-20169
Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900

Date Sampled: NA
Date Received: NA

Data Release Authorized:
Reported: 11/07/97

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L
1311	10/31/97	6010	11/04/97	7440-38-2	Arsenic	0.05	0.05 U
1311	10/31/97	6010	11/04/97	7439-92-1	Lead	0.02	0.02 U

U Analyte undetected at given RL

RL Reporting Limits

FORM-I

ANALYTICAL RESOURCES INCORPORATED

TOTAL PETROLEUM HYDROCARBONS
WA HCID Method by GC/FID

QC Report No: U269-Remediation Technologies, Inc.
Matrix: Soil Project: 1 2900

Date Received: 10/27/97

Data Release Authorized:
Reported: 11/03/97

Lab ID	Client Sample ID	Date Analyzed	Dilution Factor	Gas Range	Diesel Range	Oil Range	Surrogate Recovery
97-20167-1030MB	Method Blank	10/30/97	1:1	20 U	25 U	50 U	74.0%
97-20167-U269A	HI1B01	10/30/97	1:10	200 U	250 U	1900	90.0%
97-20168-U269B	HI1B02	10/30/97	1:1	41	130	390	64.0%

Values reported in ppm (mg/kg) on a dry weight basis.

Surrogate is Methyl Arachidate.
Gas value based on total peaks in the range from Toluene to C12.
Diesel value based on the total peaks in the range from C12 to C24.
Oil value based on the total peaks in the range from C24 to C38.

Data Qualifiers

U	Compound not detected at the given detection limit.
X	Value detected above linear range of instrument. Dilution required.
J	Indicates an estimated value below the calculated detection limit.
S	No value reported due to saturation of the detector. Dilution required.
E	Indicates a value above the linear range of the detector. Dilution required.
D	Indicates the surrogate was not detected because of dilution of the extract.
C	Indicates a probable value which cannot be confirmed due to matrix interference.
NR	Indicates no recovery due to matrix interference and/or dilution.

ANALYTICAL RESOURCES INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS
WA TPHd Range C12 to C24 by GC/FID
and Motor Oil

LIMS ID: 97-20923 QC Report No: U269-Remediation Technologies, Inc.
Matrix: Soil Project: 1 2900

Data Release Authorized: Date Received: 10/27/97
Reported: 11/17/97

Lab ID	Sample ID	Date Analyzed	Dilution Factor	Diesel Range	*HC ID	Motor Oil Range	Surrogate Recovery
U269MB	Method Blank	11/10/97	1:1	5.0 U	---	10 U	65.6%
U269A	HI1B01	11/13/97	1:20	580	M.OIL	2,700	NR
U269B	HI1B02	11/13/97	1:1	210	NO	720	31.7%

Values reported in ppm (mg/kg) on a dry weight basis.

Surrogate is Methyl-Arachidate.

* ID indicates, in the opinion of the analyst, the petroleum product with the best pattern match. 'NO' indicates that there was not a good match for any of the requested products.
Diesel quantitation on total peaks in the range from C12 to C24.
Motor Oil quantitation on total peaks in the range from C24 to C38.

Data Qualifiers

U	Compound not detected at the given detection limit.
J	Indicates an estimated value below the calculated detection limit.
S	No value reported due to saturation of the detector. Dilution required.
D	Indicates the surrogate was not detected because of dilution of the extract.
E	Indicates a value above the linear range of the detector. Dilution required.
NR	Indicates no recovery due to matrix interference.
B	Indicates compound also detected in the method blank.

FORM-1 WA TPHD

PRELIMINARY DATA

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample No: HI1B04

Lab Sample ID: U269D
LIMS ID: 97-20170
Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900

Date Sampled: 10/27/97
Date Received: 10/27/97

Data Release Authorized:
Reported: 11/07/97

Percent Total Solids: 84.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry
3050	10/31/97	6010	11/04/97	7439-92-1	Lead	5	4,520

U Analyte undetected at given RL

RL Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Lab Sample ID: U269LCS
LIMS ID: 97-20170
Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900

Data Release Authorized:
Reported: 11/07/97

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike mg/kg-dry	Spike Added	% Recovery	Q
Arsenic	6010	395	400	98.8%	
Lead	6010	97	100	97.0%	

'Q' codes: N = control limit not met

Control Limits: 80-120%

FORM-VII

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET Sample No: HI1B04
TCLP METALS

Lab Sample ID: U269D
LIMS ID: 97-20170
Matrix: Soil

QC Report No: U269-Remediation Technologies, Inc.
Project: 1 2900

Date Sampled: 10/27/97
Date Received: 10/27/97

Data Release Authorized:
Reported: 11/07/97

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L
1311	10/31/97	6010	11/04/97	7439-92-1	Lead	0.02	13.4

U Analyte undetected at given RL

RL Reporting Limits

FORM-I

Soil Master (c) TPS Technologies, Inc.

Customer Job Report

Gross & Tare Weight Codes: M=Manual; S=Scale; T=Trk File

Job Number Name	SiteAddress	SiteCity	State	ZipCode
A03 -- 01873 FISHER MILLS, INC.	3235 - 16th AVENUE SW	SEATTLE	WA	98134

Load #	Date & Time Out	Transporter #	Truck & Trailer Number	Gross (lb)	Tare (lb)	Net (lb)	Net Wt (tons)
1	07/27/98 10:39	3JLACON	MERLIN	62,680M	24,200M	38,480	19.24
2	07/27/98 10:41	3JLACON	MERLIN	50,140M	24,200M	25,940	12.97

Completed Loads	Manifests Received	Completed Weight	Estimated Weight	TOTAL Net Wt:
150.00%	3	343.00%	15.00 (tons)	32.21 (tons)

11-26-1997 11:34AM FROM Alicia/Cristie RABANCO TO 92066242839 P.02

Certification No. 97-1454
Billing Acct. No. 11422
Product Code 104

BILL OF LADING
PETROLEUM CONTAMINATED SOIL

REGIONAL DISPOSAL COMPANY
200 - 112th Avenue NE, Suite 300
Bellevue, WA 98004
Telephone: (206) 646-2400 / Fax: (206) 646-2440

This Bill of Lading augments the Master Service Agreement ("Agreement") entered into by Peter ("Customer") and Regional Disposal Company ("RDC") on 11/26/97 (date). The terms herein are made a part of the Agreement. In the event of conflict between this Bill of Lading and the Agreement, the terms of the Agreement prevail.

RDC hereby authorizes the Wastes ("Waste") described in Certification No. 97-1454, signed by Customer on 11/26/97 (date), for disposal at Roosevelt Regional Landfill. Customer shall present a copy of this Bill of Lading with each shipment delivered.

Location of Waste: 3431 11th ave SW, seattle

Method of Shipment: self truck

Additional Fees (e.g., laboratory fees, transportation fees, special handling fees, etc. If none, so state):
na

PERFORMANCE DATE

FOR RDC TRANSPORTATION: Customer shall make the Waste available for shipment no later than na (date). RDC shall transport the Waste no later than na (date), unless RDC notifies the Customer in writing that Waste transport shall be suspended or canceled due to RDC's exercise of its right to inspect or analyze the Waste (as provided in the Agreement).

FOR CUSTOMER TRANSPORTATION: Customer shall begin delivery of the Waste at [*check one*]:

☐ Roosevelt Regional Landfill. ☑ Seattle Transfer Station located at Third and Lander.

Waste delivery shall begin no later than 11/26/97 (date), and shall complete delivery of the Waste no later than 12/26/97 (date), unless RDC notifies Customer in writing to suspend or cancel the waste delivery due to RDC's exercise of its right to inspect or analyze the Waste (As provided in the Agreement).

CUSTOMER	REGIONAL DISPOSAL COMPANY
[signature] As agent for UPRR Signature	Cristie R Gamble Signature
x Stephen Codrington EIT Printed Name and Title	Cristie L. Gamble Printed Name and Title
x Nov 26, 1997 Date	11/26/97 Date

ALL TRUCKS MUST HAVE A COPY OF THIS BILL OF LADING WHEN DELIVERING WASTE TO THE TRANSFER STATION OR TO THE LANDFILL.

Revised: 1/26/96

SUMMARY OF LOADS HAULED **INVOICE #9721394-L**

PAGE: 1

DATE	TICKET #	GROSS	TARE	NET	NET TONS	TRUCK #	CONTAINER #
(64) PCS - Seattle							
12/01/97	772955	60,540	35,340	25,200	12.600	79	
				Total:	12.600		

Certification No. 97-1452
Billing Acct. No. 11425
Product Code 164

BILL OF LADING
PETROLEUM CONTAMINATED SOIL

REGIONAL DISPOSAL COMPANY
200 - 112th Avenue NE, Suite 300
Bellevue, WA 98004
Telephone: (206) 646-3400 / Fax: (206) 646-3440

This Bill of Lading augments the Master Service Agreement ("Agreement") entered into by Hetec ("Customer") and Regional Disposal Company ("RDC") on 11/26/97 (date). The terms herein are made a part of the Agreement. In the event of conflict between this Bill of Lading and the Agreement, the terms of the Agreement prevail.

RDC hereby authorizes the Wastes ("Waste") described in Certification No. 97-1452, signed by Customer on 11/26/97 (date), for disposal at Roosevelt Regional Landfill. Customer shall present a copy of this Bill of Lading with each shipment delivered.

Location of Waste: Pier 15½ 1130 SW Massachusetts Ave, Seattle

Method of Shipment: Self truck

Additional Fees (e.g., laboratory fees, transportation fees, special handling fees, etc. If none, so state):

na

PERFORMANCE DATE

FOR RDC TRANSPORTATION: Customer shall make the Waste available for shipment no later than 11/26/97 (date). RDC shall transport the Waste no later than 12/26/97 (date), unless RDC notifies the Customer in writing that Waste transport shall be suspended or canceled due to RDC's exercise of its right to inspect or analyze the Waste (as provided in the Agreement).

FOR CUSTOMER TRANSPORTATION: Customer shall begin delivery of the Waste at [check one]:

☐ Roosevelt Regional Landfill ☑ Seattle Transfer Station located at Third and Lander.

Waste delivery shall begin no later than na (date), and shall complete delivery of the Waste no later than na (date), unless RDC notifies Customer in writing to suspend or cancel the waste delivery due to RDC's exercise of its right to inspect or analyze the Waste (As provided in the Agreement).

CUSTOMER	REGIONAL DISPOSAL COMPANY
As agent for UPRR Signature	Cristie L. Gamble Signature
Stephen Codrington EIT Printed Name and Title	Cristie L. Gamble Printed Name and Title
Nov 26/97 Date	11/26/97 Date

ALL TRUCKS MUST HAVE A COPY OF THIS BILL OF LADING WHEN DELIVERING WASTE TO THE TRANSFER STATION OR TO THE LANDFILL.

Revised: 1/26/96

SUMMARY OF LOADS HAULED **INVOICE #9721393-L**

PAGE: 1

DATE	TICKET #	GROSS	TARE	NET	NET TONS	TRUCK #	CONTAINER #
(64) PCS - Seattle							
12/01/97	772885	40,900	34,860	6,040	3.020	79	
				Total:	3.020		