ADDENDUM TO SITE ASSESSMENT REPORT PREPARED BY GDC ENGINEERING, INC. AND DATED AUGUST 31, 1994

MONITOR WELL INSTALLATION, MONITOR WELL PLUG AND ABANDONMENT, EASTERN OIL LAGOON IMPOUNDMENT SAMPLING, AND MONITOR WELL WATER LEVEL MEASUREMENT ADDENDUM PROJECT

Commonwealth Oil Refining Company
Petrochemical Complex
Peñuelas, Puerto Rico 00731

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1.0 EXECUTIVE SUMMARY

This addendum to the Site Assessment Report, written by GDC Engineering Inc. (GDC) and dated August 31, 1994, has been prepared for Commonwealth Oil Refining Company (CORCO) by DSM Environmental Services, Inc. (DSM) in order to document the installation of two monitor wells, the plugging and abandonment of two monitor wells, the collection of background soil samples at two locations, the sampling of soils at the Eastern Oil Lagoon Impoundment, the determination of sludge thickness within the Eastern Oil Lagoon Impoundment, and the measurement of water levels within eight (8) groundwater wells monitoring five (5) solid waste management units located at the CORCO Petrochemical Complex, Ponce, Puerto Rico (the Site).

The following conclusions can be drawn from the completion of this project:

- Groundwater analysis from monitor well PD-2 indicates that all volatile and semi-volatile organics, sulfide, cyanide, pesticides/PCB, chlorinated herbicides, and organo-phosphorus pesticides were not detected above the method detection limits for each parameter. Total heavy metals were detected at concentrations which are thought to reflect background levels within the silt considering the silty groundwater matrix. This conclusion is substantiated by a comparison with the dissolved metals sample which only detected Barium, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium, and Zinc at low concentrations. Total Tetrachlorodibenzofuran and Total Pentachlorinated dibenzofuran were detected at a concentration of .11 and .04 ng/l, respectively. These concentrations are in the part per trillion range.

- The groundwater in the vicinity of the Eastern Oil Lagoon Impoundment is flowing to the south with a 6.47×10^{-3}ft/ft hydraulic gradient.

- The groundwater in the vicinity of the Eastern Cooling Water Lagoon Impoundment, Western Cooling Water Lagoon impoundment, Aeration Lagoon Impoundment, and Oxidation Lagoon Impoundment is flowing to the west southwest with a 9.07×10^{-4}ft/ft hydraulic gradient.

- Soil samples from within the Eastern Oil Lagoon Impoundment indicate that hydrocarbons have migrated vertically a minimum of one foot beneath the sludge layer overlying the impoundment. The minimum volume of in-situ sludge and hydrocarbon affected soil within the Eastern Oil Lagoon Impoundment is approximately 3,248 cubic yards.

2.0 INTRODUCTION

The original site assessment was implemented by GDC and Roy F. Weston (Weston) as an initial step to determine closure methodology for seven specified solid waste management units at the CORCO facility in Ponce, Puerto Rico. The addendum field work was performed by DSM for CORCO from September 29, 1994 through October 6, 1994 in order to fill data gaps presented by the original site assessment. The work performed by DSM entailed the installation of monitor wells, plug and abandonment of monitor wells, the collection of background soil samples at two locations, sampling of the Eastern Oil Lagoon Impoundment, and the measurement of water levels in eight (8) monitor wells located at the CORCO Petrochemical Complex, Ponce, Puerto Rico (the Site).

The overall objectives of the work performed by DSM were:

- to evaluate the soil conditions at two background monitor well locations;
- to plug and abandon two monitor wells which were defective;
- to replace two monitor wells which were defective;
- to determine the thickness of sludge present within the Eastern Oil Lagoon Impoundment in order to ascertain a rough order of magnitude sludge volume estimate;
- to collect samples of native soils beneath the sludge present within the Eastern Oil Lagoon Impoundment to determine a rough estimate of the vertical extent of petroleum hydrocarbons within the Eastern Oil Lagoon Impoundment as well as determine an estimate of the volume of hydrocarbon affected soils;
- to collect groundwater level data from eight (8) monitor wells in order to determine the potentiometric surface and hydraulic gradient of the area adjacent to the Eastern Cooling Water Lagoon Impoundment, Western Cooling Water Lagoon Impoundment, Aeration Lagoon Impoundment, Oxidation Lagoon Impoundment, and the Eastern Oil Lagoon Impoundment.

This addendum presents the procedures which were used to install two (2) monitor wells, plug and abandon two (2) monitor wells, develop an estimate of the volume of sludge within the Eastern Oil Lagoon Impoundment, sample soils at four locations within the Eastern Oil Lagoon Impoundment to ascertain an estimate of hydrocarbon affected soils, and measure groundwater levels at eight (8) monitor wells at the subject site.

3.0 MONITOR WELL INSTALLATION

On September 30, 1994, two (2) monitor wells were installed in the uppermost aquifer adjacent to the Eastern Oil Lagoon Impoundment (**See Figure 1**). Monitor well EL-1 was installed upgradient of the Eastern Oil Lagoon Impoundment in order to determine background concentrations of waste constituents in soil and groundwater. EL-2 was installed downgradient of the Eastern Oil Lagoon Impoundment in order to detect potential releases of waste constituents from the unit. Monitor wells EL-1 and EL-2 were installed to replace defective wells which were plugged and abandoned as described in Section 4.0 of this addendum.

A Mobile B-53 trailer-mounted drill rig equipped with 6.75-inch O.D. hollow stem augers was used to advance a borehole for the construction of monitor wells and for background soil sample collection. Each boring was sampled with a 2-foot long split spoon sampler, driven in advance of the auger according to ASTM (D-1586) Standard Penetration Test. Continuous soil samples were obtained from ground surface to the saturated zone, characterized, and screened with a Thermoenvironmental 580B Photoionization Detector. Geotechnical samples were collected at roughly five (5) foot intervals beneath the saturated zone only if downhole conditions were favorable for sample collection. PID readings were recorded on the monitor well construction diagrams which are included as **Figures 2 and 3**.

The lithology of the native soils encountered in boring EL-1, completed to a depth of 24.2 feet, consists of a thin veneer of humus, silty clays (CL), clayey silts (ML), and clayey very fine sand (SM) overlaying unconsolidated sands and fine and coarse gravelly sands (SP). The lithology of the soils encountered in boring EL-2, completed to a depth of 28.5 feet, consists of twelve feet of fill (tan calcareous clay with calcareous nodules), clays (CH), silty clays (CL), and sandy clays (CL) overlaying unconsolidated sands (SP). Field screening of soils with the PID did not detect any organic vapors within these borings located upgradient and downgradient of the Eastern Oil Lagoon Impoundment. Initial groundwater levels ranged between 7.5 and 20 feet below ground surface elevation at EL-1 and EL-2, respectively.

The well materials used to construct the wells were clean, two-inch diameter, flush-joint threaded PVC riser with a 20-foot long screen (0.010-inch slot) and a 6-inch long conically shaped bottom cap. A filter pack, consisting of pea gravel, was placed in the annulus to approximately two feet and five feet above the top of the screen in EL-1 and EL-2, respectively. Heaving sands were present in both EL-1 and EL-2. The formation sand is adjacent to the screen from a depth of 11.5 feet and 24.7 feet below ground surface elevation to total depth of the boring in EL-1 and EL-2, respectively. Approximately one-two feet of bentonite pellets were placed above the filter pack and allowed to hydrate prior to constructing the final monitor well completions. Well completions consisted of four-inch diameter steel protective casings with locking caps and four feet by four feet by six inch thick surface concrete pad.

Monitor wells EL-1 and EL-2 were developed after installation by personnel from Victor E. Rivera Associates. Five well volumes were removed from each well with the use of a bailer.

Temperature, pH, and specific conductivity were recorded after each well volume was removed. This data is presented in **Table 1**.

A monitor well was to have been installed upgradient of the Western Cooling Water Lagoon Area in order to collect background soil and groundwater samples for the Western Cooling Water Lagoon Impoundment, Eastern Cooling Water Lagoon Impoundment, Aeration Lagoon Impoundment, and Oxidation Lagoon Impoundment. A background monitor well was not installed at this location due to the presence of hydrocarbons.

Boring WL-5-1 was performed approximately 150 feet northeast of the northeastern bank of the Eastern Cooling Water Lagoon Impoundment (**See Figure 4**). Organic vapors were detected in the auger head space (57 ppm) and a strong smell of hydrocarbons were noted on a sample of native soil collected at a depth of 6 to 8 feet below ground surface (60 ppm PID reading). Since the purpose of this monitor well was to provide background analytical data for soil and groundwater unaffected by site operations, the boring was abandoned and grouted with a Portland cement and bentonite mixture (95%/5% by dry weight) hydrated with 3-4 gallons of water per 47 pound sack of cement.

Subsequently to abandoning boring WL-5-1, boring WL-5-2 was performed approximately 45 feet northeast of the northeastern bank of the Eastern Cooling Water Lagoon Impoundment (**See Figure 4**). Organic vapors were detected while performing the boring (60-88 PPM). The sample of native soil collected at a depth of 6 to 8 feet below ground surface elevation was saturated with hydrocarbons. This boring was therefore abandoned and grouted to total depth in the same manner as boring WL-5-1. Lithographic logs of WL-5-1 and WL-5-2 are included as **Figures 5 and 6**, respectively.

The decision was made to use monitor well PD-2, previously installed by DSM, as a background monitor well for the Eastern Cooling Water Lagoon Impoundment, Western Cooling Water Lagoon Impoundment, Aeration Lagoon Impoundment, and Oxidation Lagoon Impoundment. A boring was performed in order to collect soil samples for background determination adjacent to monitor well PD-2. This subject is discussed in the next section of this addendum report.

3.1 Background Soil Sample Collection

Two soil samples were collected for analysis from borings EL-1 and PD-2. The samples were collected from native soils in EL-1 at a depth of 0 to 2 feet below ground surface elevation and from 2 to 7.5 feet below ground surface elevation just above the water table. At location PD-2, the soil samples were collected from native soils at a depth of 7.5 to 9.5 feet below ground surface elevation. The four samples were analyzed for Target Compound List (TCL) metals.

All soil samples were logged in the field by a qualified professional in geology. Boring logs and field records include discussions of the lithographic characteristics encountered according to the

Unified Soil Classification System (USCS). The structure, texture, mineral composition, moisture content, color and name is described in the monitor well construction diagram presented as **Figure 2** for monitor well EL-1, and the lithographic log presented as **Figure 7** for boring PD-2. No visual or olfactory evidence indicating the presence of hydrocarbons was noted at either of the two locations.

The purpose of boring PD-2 was to collect background soil samples from a location upgradient of the Eastern Cooling Water Lagoon Impoundment, Western Cooling Water Lagoon Impoundment, Aeration Lagoon Impoundment, and Oxidation Lagoon Impoundment. The boring was performed 25 feet south of monitor well PD-2. The boring was continuously logged to a depth of 11.5 feet below ground surface elevation. Fill was encountered to a depth of 7.5 feet below ground surface elevation. Groundwater was encountered at a depth of 9 feet below ground surface elevation.

Samples PD-2A and PD-2B were collected in native soils from a depth of 7.5 to 9.5 feet below ground surface elevation. The top half of the recovered sample was labeled as PD-A. The bottom half of the recovered sample was labeled as PD-B. The samples were analyzed for TCL metals. **Table 2** summarizes the analytical results of these samples.

The lithology of the soils encountered in boring PD-2 consists of fill (limestone gravel with tan calcareous clay) to a depth of 7.5 feet below ground surface elevation. Tan silty clay (CL) with calcareous nodules was present from 7.5 feet to 9.5 feet below ground surface elevation. The silty clay was saturated below a depth of 9 feet and gray below 9.5 feet. The boring was terminated at a depth of 11.5 feet below ground surface elevation. The boring was grouted to total depth with a Portland cement and bentonite mixture (95%/5% by dry weight) hydrated with 3-4 gallons of water per 47 pound sack of cement once the samples had been collected.

The purpose of boring EL-1 was to collect background soil samples from a location upgradient of the Eastern Oil Lagoon Impoundment and to install a replacement monitor well as described in Section 3.0. The boring is located approximately 100 feet north of the original monitor well labeled EL-1, which was plugged and abandoned by DSM. The boring was continuously logged to a depth of 10 feet below ground surface elevation. Groundwater was encountered at a depth of 7.5 feet below ground surface elevation.

The lithology of the soils encountered in boring EL-1 consists of Silty Clay (CL) from a depth of .3 feet to 4 feet below ground surface elevation and from 6 to 8 feet below ground surface elevation. Clayey Silt (ML) was present from 4 to 6 feet below ground surface elevation. Clayey very fine Sand (SM) was present from 8 to 10 feet below ground surface elevation. The silty clay was saturated below a depth of 7.5 feet below ground surface elevation. Silty Gravel (SM) was present from 14 to 16 feet below ground surface elevation. The boring was completed as replacement monitor well EL-1 as described in Section 3.0.

Four soil samples were collected within boring EL-1 and analyzed for TCL metals. Sample EL-1A was collected in native soils from a depth of zero to 2 feet below ground surface elevation. Samples EL-1B, Dup #1, and Dup #2 were collected from 2 to 7.5 feet below ground surface elevation. These soil samples were collected in a clean stainless steel bowl, mixed, and placed in three separate sample containers. **Table 2** summarizes the analytical results of these samples.

3.2 Groundwater Sample Collection

A groundwater sample was collected from monitor well PD-2. Upon opening the 2-inch diameter well cap, a water level measurement was taken to the nearest 0.01 foot with respect to the established survey point on top of the 2-inch well casing using an E-line. The E-line was decontaminated with a mixture of a mild detergent and potable water, rinsed with potable water, and rinsed with deionized water prior to being used and between each monitor well. The total depth of the well was sounded. The depth to the static water surface was subtracted from the total casing depth to determine the height of standing water in the casing.

A single groundwater purge volume was determined by using the following formula:

$$V=\Pi r^2 H x 7.48 gal/ft^3$$

A dedicated PVC bailer was used to remove three times the calculated volume of water in the well. Bailing was performed through the entire length of the water column in order to remove stagnant water and to provide recharge through the entire length of the well screen. The groundwater sample was collected using the previously referenced bailer. The bailer was carefully lowered 1 to 2 feet into the water column of the well and the sample withdrawn to the surface. Hydrocarbons were not noted in the well during purging.

The sample was analyzed for all Appendix IX constituents, which are as follows: extractable organics (BNA), total metals (unfiltered), dissolved metals (filtered), cyanide, sulfide, pesticides/PCB, chlorinated herbicides, organo-phosphorus pesticides, dioxins, and furans. Groundwater sample PD-2, which was analyzed for dissolved metals, could not be filtered and preserved in the field due to the large quantity of silt present in the sample which would plug the field filtering device. The samples were submitted to the laboratory unfiltered and unpreserved. The samples were filtered and preserved by Huntington Engineering & Environmental, Inc. Laboratory (Huntington) prior to being analyzed.

Table 3 summarizes the results of the groundwater sample labeled as PD-2, as well as the PD-2 duplicate, matrix spike, and matrix spike duplicate collected along with this sample. The data indicates that all volatile and semi-volatile organics, sulfide, cyanide, pesticides/PCB, chlorinated herbicides, and organo-phosphorus pesticides were not detected above the method detection limits for each parameter. Aluminum, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Magnesium, Manganese, Nickel, Potassium, Sodium, Tin, Vanadium, and

Zinc were detected at concentrations which are thought to reflect background levels considering the silty groundwater matrix. This conclusion is substantiated by a comparison with the dissolved metals sample which only detected Barium, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium, and Zinc at low concentrations. Total Tetrachlorodibenzofuran and Total Pentachlorinated dibenzofuran were detected at a concentration of .11 and .04 ng/l, respectively. These concentrations are in the part per trillion range. It should be noted that methylene chloride was detected in the trip blank which accompanied the groundwater samples to the laboratory. However, methylene chloride is a common laboratory contaminant.

3.3 Decontamination Procedures

The sampling tools were decontaminated between collection of individual samples and between sampling locations. All downhole equipment was decontaminated prior to the drilling of a boring. The sampling tools and downhole equipment was decontaminated using a high-pressure, hot water steam cleaner, and potable water. Items which were steam cleaned included drill pipe, hollow-stem auger flights, and split spoons. This equipment was decontaminated within a temporary decontamination pit located adjacent to the plant's API separator and constructed for the containment of generated liquids. The bottom and sides of the pit were lined with visqueen to enable the collection of decontamination generated liquids. The liquids generated during decontamination procedures was pumped to the CORCO API separator unit.

At the soil boring site, the sampling equipment was decontaminated between samples using first a washing and scrubbing in a mild laboratory detergent and potable water, followed by a potable water rinse, washed with nitric acid solution, rinsed with HPLC-grade water, rinsed with pesticide-grade acetone, and rinsed thoroughly with HPLC-grade water. The equipment was then allowed to air dry. The on-site decontamination procedures were used on sampling devices such as sample trays, knives, shovel, post hole digger, and trowels.

3.4 Waste Management

The drill cuttings and monitor well development water generated during the investigation were accumulated on-site in an environmentally safe manner. The generated waste was accumulated on-site in 55-gallon steel drums. Each drum was labeled with a permanent marker which described the drum contents and date the waste was generated. CORCO is responsible for the proper management and disposal of the waste generated during this investigation.

4.0 MONITOR WELL PLUG AND ABANDONMENT

Monitor wells EL-1 and EL-2 were plugged and abandoned. Monitor EL-1 was installed adjacent to an abandoned borehole. Due to possible contamination caused by this abandoned borehole, this well was plugged and abandoned and replaced as previously described in Section 3.0 of this addendum. Monitor well EL-2 was installed with a 10-foot screen due to the presence of heaving sands. This well was plugged and abandoned and replaced with the installation of a monitor well with a 20-foot screen as previously discussed in Section 3.0 of this addendum.

The well materials reportedly used to install the original wells consist of two-inch diameter, flush-joint threaded stainless steel with 10-20 feet continuously wound screen (0.01 inch slot) and a one foot sump. The screened interval was extended to two feet above the water table. Filter sand (6/20) was placed in the annulus to approximately one foot above the top of the screen. Approximately one foot of bentonite pellets were added above the sand pack. The annular space above the bentonite seal was grouted to the ground surface using a Portland cement/bentonite mixture.

DSM measured the total depth of the wells. The well riser was over-reamed with a 3 3/8 inch I.D. hollow stem auger. The rig proceeded to the depth of the bottom of the screen. The stainless steel riser and screen were pulled from the borehole within the augers. The augers were then removed. All of the two inch diameter stainless materials used to initially construct these wells were recovered intact from each of the respective boreholes. A one foot long sump, ten (10) long screen, and two ten foot long riser blanks were recovered from EL-1. A one foot sump, twenty foot long screen, and a five foot and two foot long blank risers were recovered from EL-2. The borehole was then grouted with a mixture of 95% Portland cement and 5% bentonite by weight with approximately 3-4 gallons of water per 47 pound sack of cement.

All equipment used to perform plug and abandonment operations was decontaminated with a steam cleaner in accordance with the procedures outlined in Section 3.3 of this addendum. Waste materials generated during plug and abandonment activities were managed as outlined in Section 3.4 of this addendum.

5.0 EASTERN OIL LAGOON IMPOUNDMENT INVESTIGATION

Four soil samples were collected within the Eastern Oil Lagoon Impoundment at locations as depicted in **Figure 8**. The four samples were collected six inches to one foot beneath the sludge blanket present in the basin. The samples were analyzed for total petroleum hydrocarbons. The thickness of the sludge layer was noted and recorded in the field book at these locations. The sludge layer was removed with the use of a shovel. The discrete soil samples were collected with the use of a post hole digger. The soil samples provide DSM with a rough estimate of vertical migration of total petroleum hydrocarbons within the basin. The analytical results and depth of collection of the samples below ground surface elevation are presented in **Table 4**.

In order to determine a rough order of magnitude of the volume of sludge present within the solid waste management unit, a grid was constructed within the Eastern Oil Lagoon Impoundment as depicted in **Figure 9**. Grid point AA' represents a location approximately 30 feet south and 50 feet east of the northwest corner of the unit. This point indicates the presence of nine inches of sludge. Grid point DC' represents a location approximately 180 feet south and 150 feet east of the northwest corner of the unit. This point indicates the presence of one inch of sludge. A shovel was used to dig through the sludge blanket into native soils. The thickness and description of the sludge was noted in the field book. The results of this investigation are presented in **Table 5**. The estimated volume of in-situ sludge within the Eastern Oil Lagoon Impoundment is approximately 1,402 cubic yards. The minimum volume of in-situ affected soil within the Eastern Oil Lagoon Impoundment is approximately 3,428 cubic yards. This information is presented in **Table 6**.

6.0 GROUNDWATER LEVEL MEASUREMENTS

Groundwater level measurements were collected for eight (8) monitor wells to establish the hydraulic gradient for the site. Groundwater levels were recorded for monitor wells EL-1, EL-2, EL-3, EL-4, WL-2, WL-3, WL-4, and PD-2. **Tables 7 and 8** present the water level data obtained on September 27, 1994 and October 5, 1994, respectively. The levels were recorded within a two and one-half hour time period. The levels were measured from the top of well riser casing. The E-line was decontaminated with a mixture of a mild detergent and potable water, rinsed with potable water, and rinsed with deionized water before beginning and in between each well measuring event.

Monitor wells WL-2, WL-3, WL-4, and PD-2 monitor the Eastern Cooling Water Lagoon Impoundment, Western Cooling Water Lagoon Impoundment, Aeration Lagoon Impoundment, and Oxidation Lagoon Impoundment. **Figures 10 and 11** display the hydraulic gradient and potentiometric surface at this location for September 27, 1994 and October 5, 1994, respectively.

Monitor wells EL-1, EL-2, EL-3, and EL-4 monitor the Eastern Oil Lagoon Impoundment. **Figures 12 and 13** display the hydraulic gradient and potentiometric surface at this location for September 27, 1994 and October 5, 1994, respectively.

6.1 Groundwater Flow Direction

The groundwater flow is assumed to be steady-state and laminar. Darcy's Law is assumed to be valid. These assumptions were made to generate the September 27, 1994 and October 5, 1994 potentiometric surfaces at the Facility.

The Western Lagoon Impoundment's area potentiometric surface ranges from a level of 1.01 to 2.34 ft. msl. The standard level was between one and two ft. above msl. The October 5, 1994 potentiometric surface, at the Western Oil Lagoon Impoundment's area, indicates a groundwater flow direction west southwest towards Guayanilla Bay.

The Eastern Oil Lagoon Impoundment potentiometric surface ranges from a level of -0.82 to 5.22 ft. msl. The standard level was between sea level and one ft. above msl. The September 27, 1994 potentiometric surface, at the Eastern Oil Lagoon Impoundment, indicates a groundwater flow direction south towards Tallaboa Bay

6.2 Groundwater Gradient

The hydraulic gradient at the Western Lagoon area has been calculated for the groundwater flow direction west southwest towards Guayanilla Bay. The hydraulic gradient at the Eastern Oil Lagoon Impoundment has been calculated for the groundwater flow direction south towards Tallaboa Bay.

The hydraulic gradient is defined as the change in static head per unit distance in a given direction. The hydraulic gradient defines the direction of flow. The hydraulic gradient is calculated from wells with intermediate water levels (Heath, U.S.G.S. Paper 2220, 1989).

The up-gradient wells, for the southeast groundwater flow direction, are PD-2 and WL-4. The down-gradient well is WL-2. The level measurements are 2.34, 2.04, and 1.01 ft. msl, respectively. The distance between PD-2 and WL-2 is 1,512.85 ft., and the distance between WL-4 and WL-2 is 1,077.38 ft. The change in head between PD-2 and WL-2 is 1.33 ft., and between WL-4 and WL-2 is 1.03 ft. The calculated hydraulic gradient from PD-2 to WL-2 is 8.779×10^{-4} ft/ft, and from WL-4 to WL-2 is 9.37×10^{-4} ft/ft. The average calculated hydraulic gradient, for the west southwest groundwater flow direction, is 9.07×10^{-4} ft/ft.

The up-gradient well for the southern groundwater flow direction is EL-1. The down-gradient wells are EL-2 and EL-4. The level measurements for EL-1, EL-2, and EL-4 are 5.22, 1.02, and -0.82 ft. msl, respectively. The distance between EL-1 and EL-2 is approximately 785 ft., and the distance between EL-1 and EL-2 is approximately 794 ft. The change in head between EL-1 and EL-2 is 4.20 ft. The change in head between EL-1 and EL-4 is 6.04 ft. The calculated hydraulic gradient from EL-1 to EL-2 is 5.35×10^{-3} ft/ft, and from EL-1 to EL-4 is 7.60×10^{-3} ft/ft. The average calculated hydraulic gradient for the southern groundwater flow direction is 6.47×10^{-3} ft/ft.

The average calculated hydraulic gradients of 6.47×10^{-3} ft/ft and 9.07×10^{-4} ft/ft represents a relative flat gradient in the areas of the Eastern Oil Lagoon Impoundment and the Western Lagoon Area.

6.3 Hydraulic Conductivity

The hydraulic conductivity is a measure of a materials ability to transmit water. The conductivity for the Quaternary Alluvial Deposits aquifer is an estimate based on hydrometer/sieve analysis using geotechnical methodology ASTM 63 D422 (rev. 1990). The particle distribution was evaluated on soil samples collected from borings EL-1, EL-2 and PD-4. The samples were selected, from the samples analyzed at the Eastern Oil Lagoon Impoundment and in the vicinity of the Western Lagoon Impoundment area, from the saturated zone of three soil borings. There was hydrometer/sieve data on five of the six selected soil samples from the aquifer of the Quaternary Alluvial Deposits.

The hydraulic conductivity (K) is estimated from the particle size distribution using the Hazen formula:

$$K = A(d_{10})^2$$

where:

d_{10} is equal to the effective grain size, which is that grain size diameter at which 10 percent by weight of the particles are finer and 90 percent are coarser (Freeze and Cherry, 1979)

A is equal to 1.0 when K is in units of cm/sec and d_{10} is in mm.

The following is a list of the sample point, depth below ground surface and analytical d_{10} results used to estimate the hydraulic conductivity of the Alluvial Deposits at the CORCO Facility:

Sample Point	Depth (ft. bls)	d_{10} (mm)
EL-1	8-10	0.01
EL-2	13-15	0.01
PD-4	16-18	0.001
PD-4	20-22	0.01

The conversion constant of 2,835 ft/day was used to convert hydraulic conductivity units reported in cm/sec to ft/day. The estimated hydraulic conductivity across the CORCO Facility ranges from 2.835 ft./day to 28.35 ft./day. This estimate is acceptable as the resulting conductivity values only vary a magnitude between all results calculated.

6.4 Groundwater Velocity

The groundwater velocity is directly related to hydraulic gradient. The average linear velocity (v) of the groundwater at the CORCO Facility was calculated using Darcy's Law. Darcy's Law is as follows:

$$v = -\frac{Ki}{n_e}$$

where:

K is the hydraulic conductivity (length/time)
i is the hydraulic gradient (length/length)
n_e is the effective porosity

The values derived from the hydraulic estimates calculated for the Alluvial aquifer are the values utilized to estimate the groundwater velocity. These values are:

K = 2.835 ft./day to 28.35 ft./day
i = 9.07×10^{-4} ft/ft. to 6.47×10^{-3} ft/ft
n_e = 1.0

The effective porosity for water is 1.0 using the assumption that all pores in a sediment are inter connected (Fetter, 1989). The estimated groundwater velocity ranges from 2.571×10^{-3} ft/day to 0.1836 ft./day in the Alluvial Deposits aquifer at the CORCO Facility.

7.0 SAMPLE PRESERVATION

Sample containers, volumes, preservation, and holding times were as specified by the methods outlined in SW-846. Samples were placed in labeled sample containers at the time of collection. Pertinent information, such as field sample identification number, date and time of collection, size and material of sample container, sample type, preservative, requested analysis, and sampler were recorded on the sample container and chain-of-custody form. Groundwater sample PD-2, which was analyzed for dissolved metals, could not be filtered and preserved in the field due to the presence of silt in the sample. The sample was filtered and preserved at Huntington Engineering & Environmental, Inc. Laboratory (Huntington).

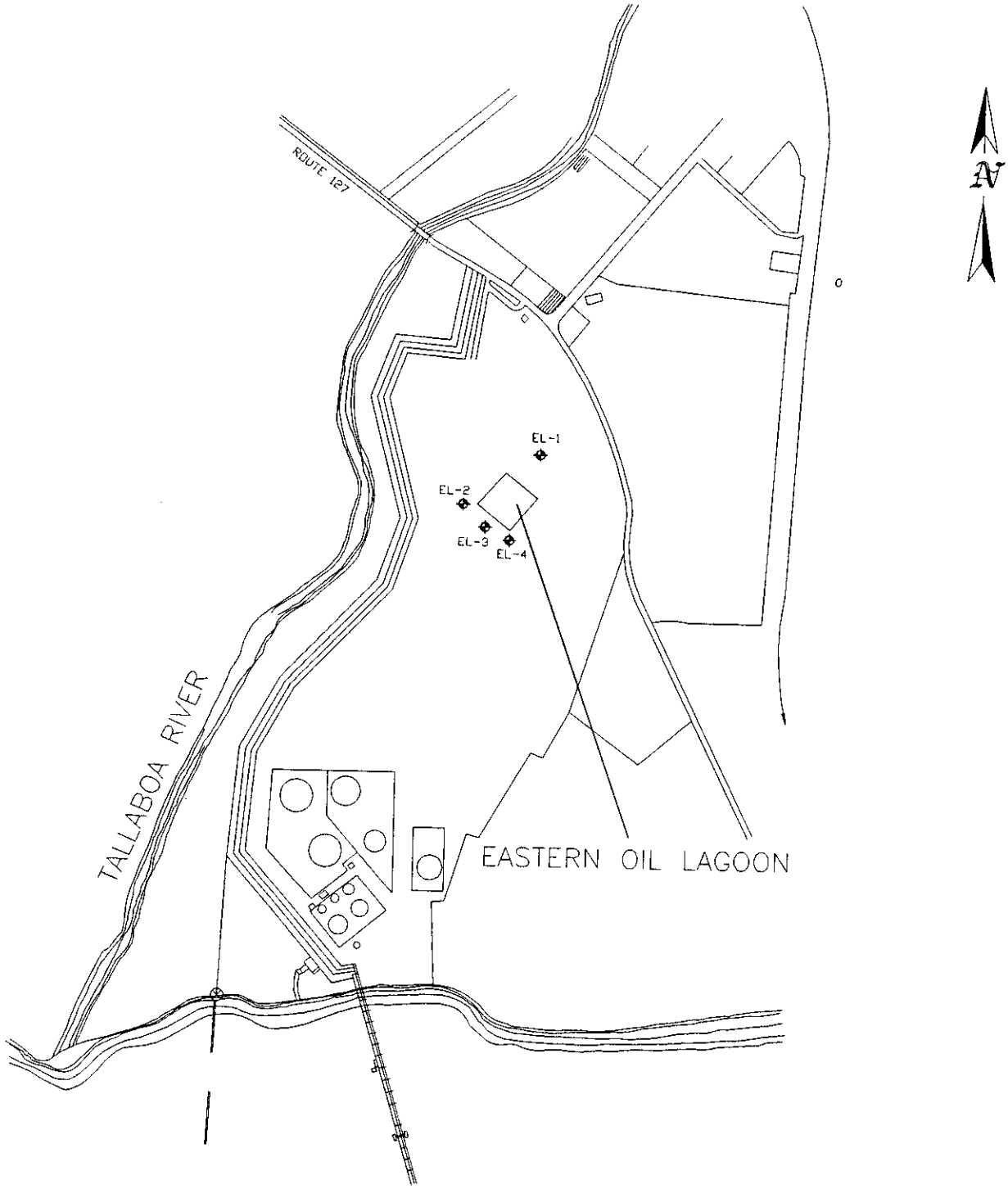
8.0 FIELD AND LABORATORY QUALITY CONTROL SAMPLES

Three duplicate samples were collected during the implementation of the project. One groundwater sample duplicate was collected to ensure that the laboratory procedures are precise. The sample was analyzed for Appendix IX constituents. Two soil sample duplicates were collected. These sample were analyzed for the Target Compound List metals. Matrix spike and matrix spike duplicate samples of groundwater were also collected for the laboratory. One trip blank sample accompanied the samples and was analyzed for Appendix IX volatile organic constituents. The results of these samples are in **Table 2**.

9.0 DATA VALIDATION

The analytical results from Huntington were validated by personnel not directly involved with the analytical testing. The data validation reports are presented as **Appendix B**. A copy of the original laboratory data package is presented as **Appendix C**. All data was validated with regard to usability according to the quality assurance set forth in the U.S. EPA's National Functional Guidelines for Organic and Inorganic Data Review. The reported data is considered acceptable and representative with the applied qualifiers.

FIGURES



DSM Environmental Services, Inc.				
EASTERN OIL LAGOON IMPOUNDMENT LOCATION MAP				
PROJECT NO. 1019-02	DRAWN BY DWM	CHK'D BY	DATE 1-16-95	REV
SCALE N.T.S.	PHASE NO.	FIG. NO. 1	SHEET 1 OF 1	

DSM Environmental Services, Inc.

FIGURE 2

Company Name: Commonwealth Oil Refining Co. Well/Boring Designation: EL-1 Page: 1 of 1

Location: Approx. 475' North of Eastern Lagoon Impoundment Date drilled: 9-30-94

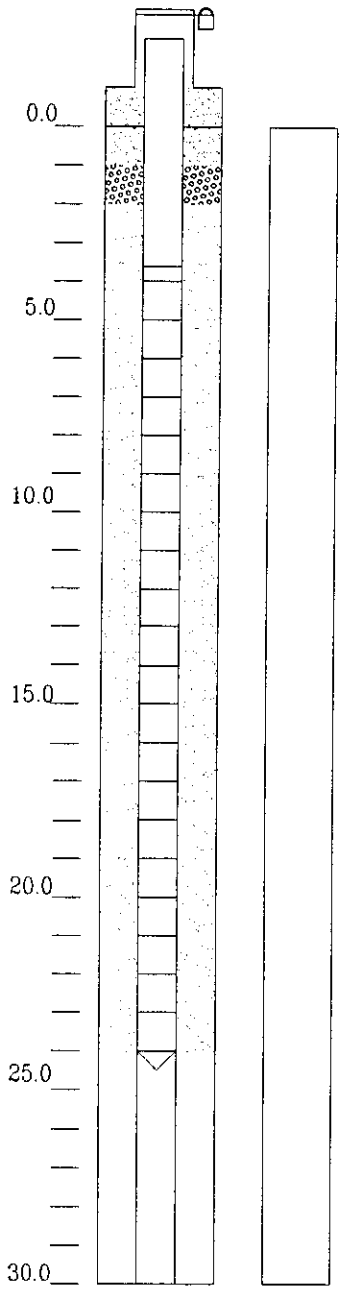
T.O.C. 15.19' G.L. 12.07' Cement: Interval 0-1' Type Portland Cement

Seal: Interval 1'-2' Type: Bentonite Pellets Filter pack: Interval: 2'-11.5' Type: Pea Gravel

Casing: Interval 3'8" - +3' Length 6'8" Dia. 2" Type PVC

Screen: Interval 3'8" - 23'8" Length 20' Slot 0.01" Type PVC Sump: 6"

Driller: William Perez Contractor Victor Rivera & Associates Logged by: Gerardo H. Garcia



Moisture Content	Group Symbol	Toughness	Plasticy	Sample Number	Organic Vapor	Sample Recovery	Group Name/Lithology/Remarks
					0	45	Humus 4" thick
M	CL	Low	Med	0-2			Silty clay (CL) brown, firm, medium plasticity, moist
				2-4	0	60	Stiff below 2'
M	ML	Med	Med	4-6	0	70	Clayey silt (ML)
M W	CL	Low	Med	6-8	0	90	Silty clay (CL) saturated below 7.5'
W	SM	N/A	Non	8-10	0	30	Clayey very fine sand (SM), some silt, trace of gravel
W	SP	N/A	Non	14-16	0	50	Silty gravel(SM), some clay, some sand
							T.D. = 24.2'

DSM Project # 1019-02

DSM Environmental Services, Inc.

FIGURE 3

Company Name: Commonwealth Oil Refining Co. Well/Boring Designation: EL-2 Page: 1 of 1

Location: Approximately 150' SW of Eastern Lagoon Impoundment Date drilled: 9-30-94

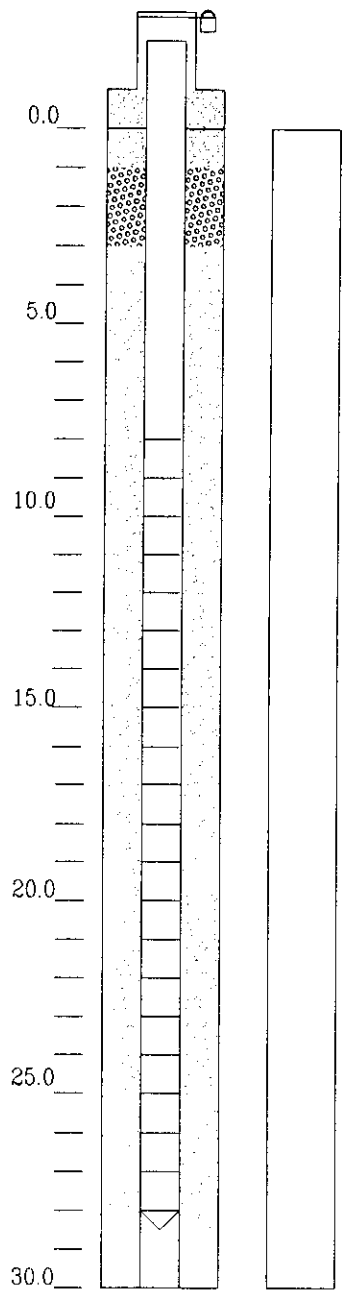
T.O.C. 17.23' G.L. 14.24' Cement: Interval 0-1' Type Portland Cement

Seal: Interval 1'-3' Type: Bentonite Pellets Filter pack: Interval: 3'-24'8" Type: Pea Gravel

Casing: Interval 8' - +3' Length 11' Dia. 2" Type PVC

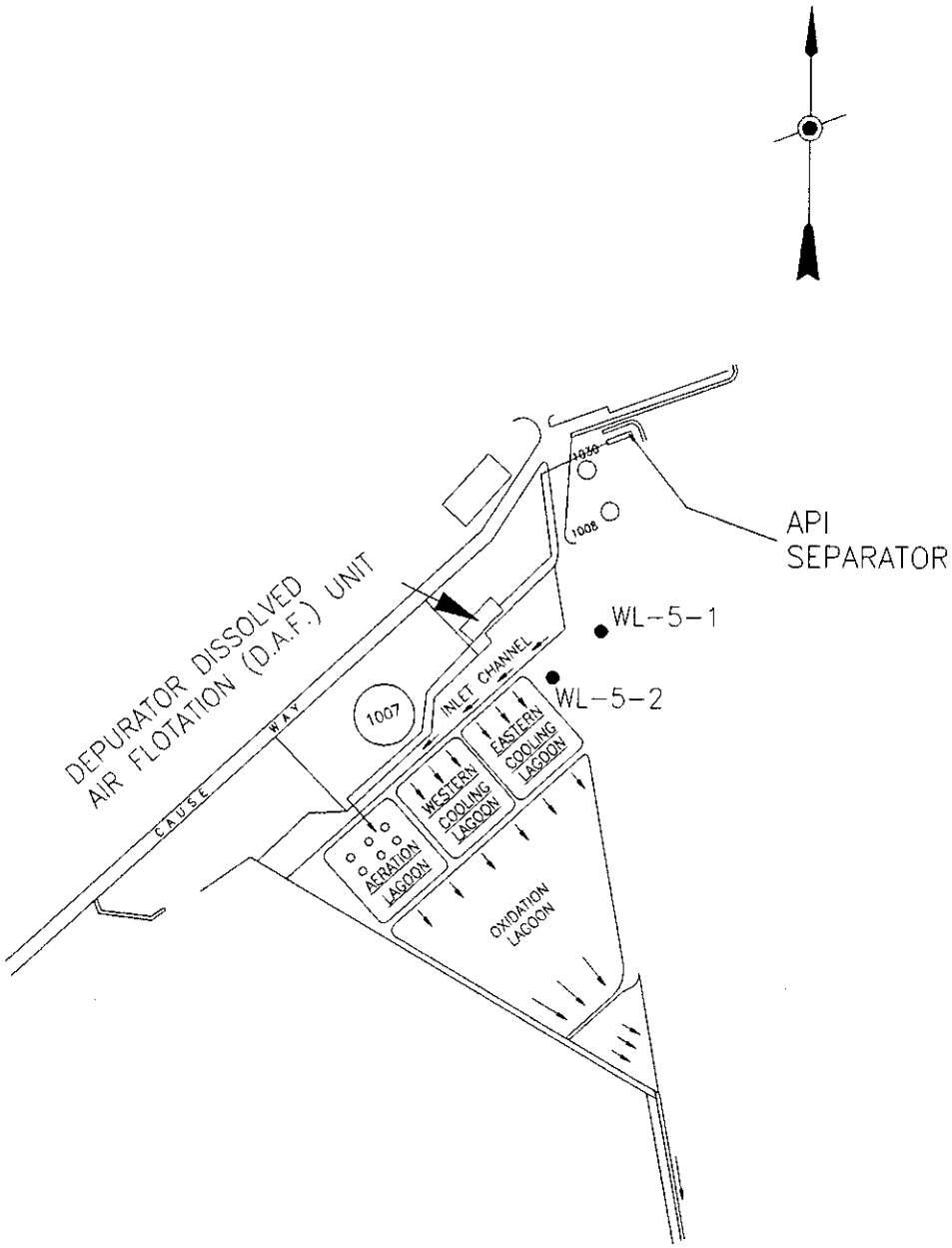
Screen: Interval 8' - 28' Length 20' Slot 0.01" Type PVC Sump: 6"

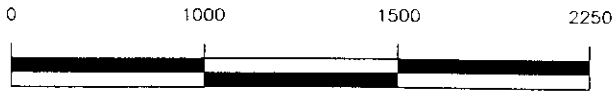
Driller: William Perez Contractor Victor Rivera & Associates Logged by: Gerardo H. Garcia



Depth	Moisture Content	Group Symbol	Toughness	Plasticy	Sample Number	Organic Vapor	Sample Recovery	Group Name/Lithology/Remarks
0.0						0		Fill to 12' Tan calcareous clay w/ calcareous nodules and limestone
						0		
5.0						0		
						0		
						0		
10.0						0		
						0		
	M	CL CH	Low	M H	13-15	0		Silty clay (CL) to clay (CH) dark gray, firm, medium to highly plastic
15.0								
	M	CL	Low	M	18-19	0		Silty clay (CL) medium plasticity
20.0	M	CL	Low	M	19-20	0		Very fine sandy clay (CL) saturated below 20'
	W	SP						Sand (SP) unconsolidated, olive gray w/ trace of gravel
25.0								
30.0								T.D. = 28.5'

DSM Project # 1019-02





DSM Environmental Services, Inc.

WESTERN LAGOON AREA

CORCO FACILITY

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-02	DWM		9-27-94	
SCALE NOTED	PHASE NO.	FIG. NO. 4	SHEET 1 OF 1	

FIGURE 5

Lithographic Log

Client	Commonwealth Oil Refining Company, Inc.	Boring #	WL-5-1
Project Name	Site Assessment Addendum	Method/Dia.	Hollow Stem Auger 6 3/4 " OD
Project Number	1019-02	Date Started	9/29/94
Project Manager	Gerardo H. Garcia	Date Finished	9/29/94
Drilling Co.	Victor E. Rivera Associates	Total Depth	8' bls

Depth in Feet (bls)	Description		Sample #	Type	PID Value	Sample Zone	Odor
0	Fill	Limestone gravel with trace of tan calcareous clay (CL)			o		
1					o		
2					o		
3					o		
4					o		
5					57		
6	Clay (CL):	tan, firm, medium plasticity, moist, calcareous	6-8	SS	60	6-8	Hydrocarbs.
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
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FIGURE 6

Lithographic Log

Client	Commonwealth Oil Refining Company, Inc.	Boring #	WL-5-2
Project Name	Site Assessment Addendum	Method/Dia.	Hollow Stem Auger 6 3/4 " OD
Project Number	1019-02	Date Started	9/29/94
Project Manager	Gerardo H. Garcia	Date Finished	9/29/94
Drilling Co.	Victor E. Rivera Associates	Total Depth	8' bls

Depth in Feet (bls)	Description		Sample #	Type	PID Value	Sample Zone	Odor
0	Fill	Limestone gravel with trace of tan calcareous clay (CL), gray below 1 foot			o		
1					o		
2					o		
3					o		
4	Clay (CL):	firm, medium plasticity, moist, calcareous	4-6	SS	57	4-6	Hydrocarbs.
5							
6		soft, medium plasticity, moist, saturated with hydrocarbons	6-8	SS	60	6-8	Hydrocarbs.
7							
8							
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FIGURE 7

Lithographic Log

Client	Commonwealth Oil Refining Company, Inc.	Boring #	PD-2
Project Name	Site Assessment Addendum	Method/Dia.	Hollow Stem Auger 6 3/4 " OD
Project Number	1019-02	Date Started	9/29/94
Project Manager	Gerardo H. Garcia	Date Finished	9/29/94
Drilling Co.	Victor E. Rivera Associates	Total Depth	11.5' bls

Depth in Feet (bls)	Description	Sample #	Type	PID Value	Sample Zone	Odor
0	Fill Limestone gravel with tan calcareous clay (CL)			o		
1				o		
2				o		
3				o		
4				o		
5				o		
6				o		
7	Silty Clay (CL) tan, firm, medium plasicity, moist, with calcareous nodules	PD-2A	SS	o	7.5-9.5	
8	wet beneath 9 feet	PD-2B		o		
9						
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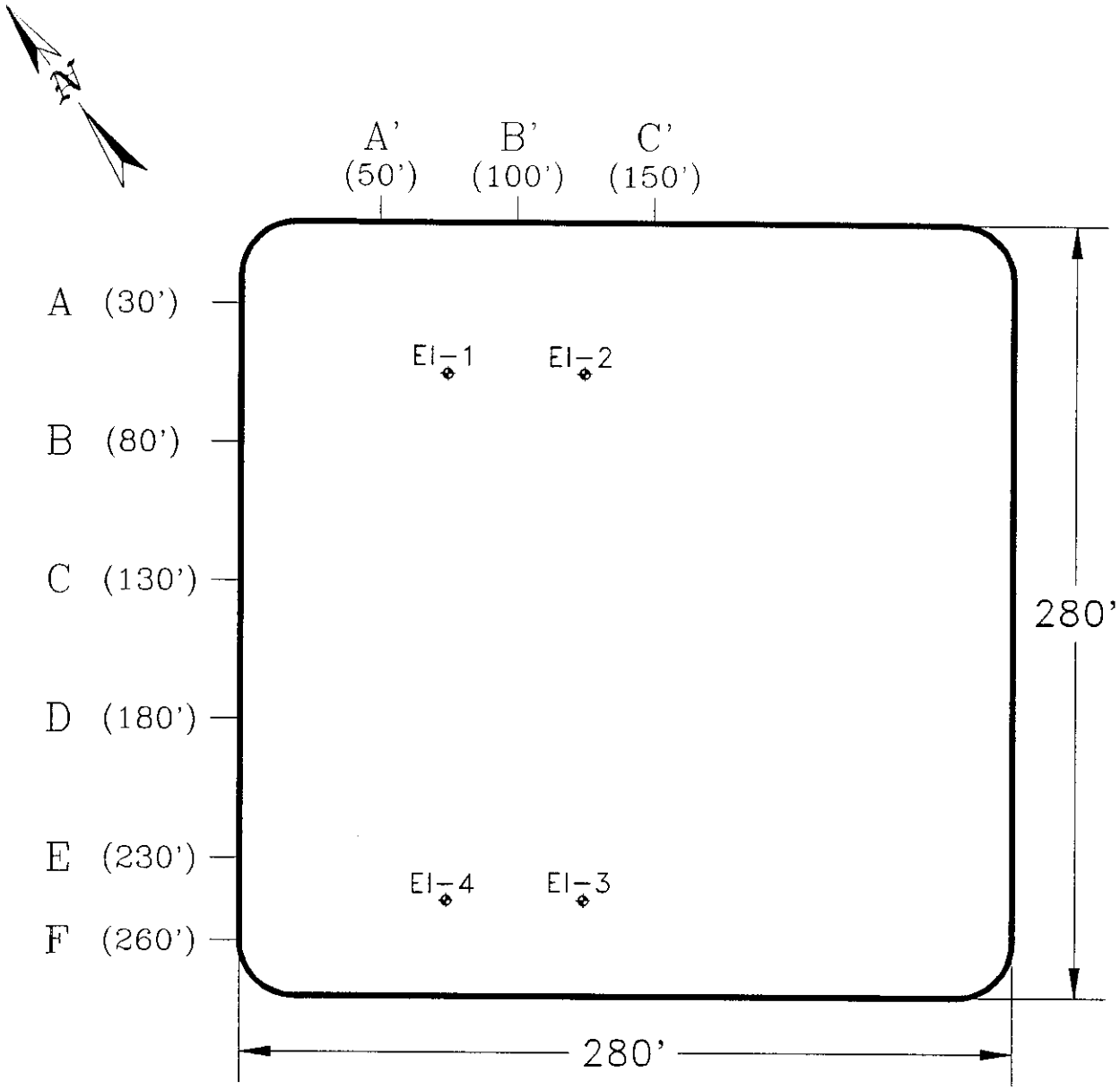


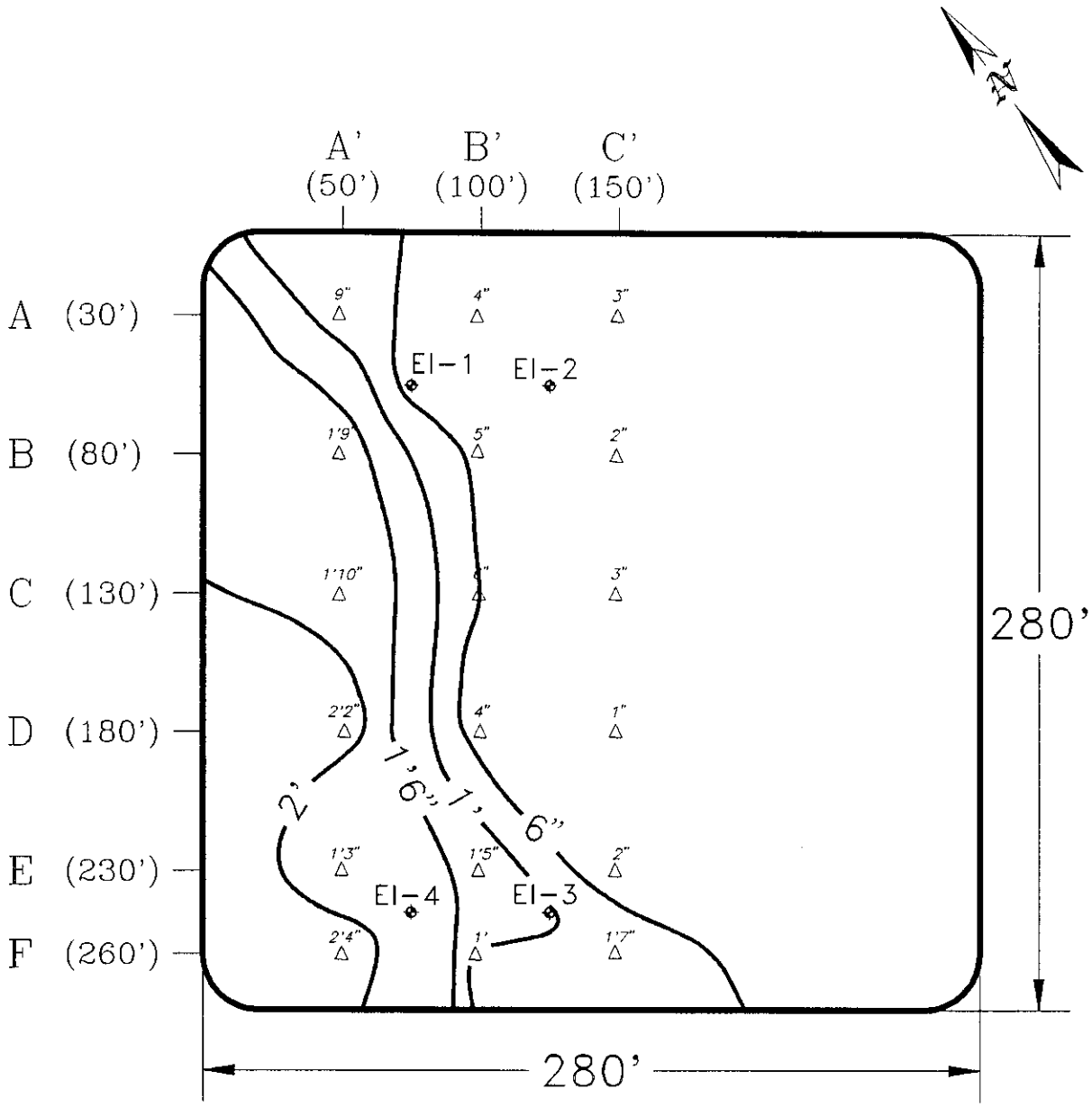
LEGEND
◆ EI-3 SOIL SAMPLE LOCATION

DSM Environmental Services, Inc.

Eastern Oil Lagoon Impoundment Soil Sample Location Map

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-02	MB	GHG	11/9/94	

SCALE NONE	PHASE NO.	FIG. NO. 8	SHEET 1 OF 1

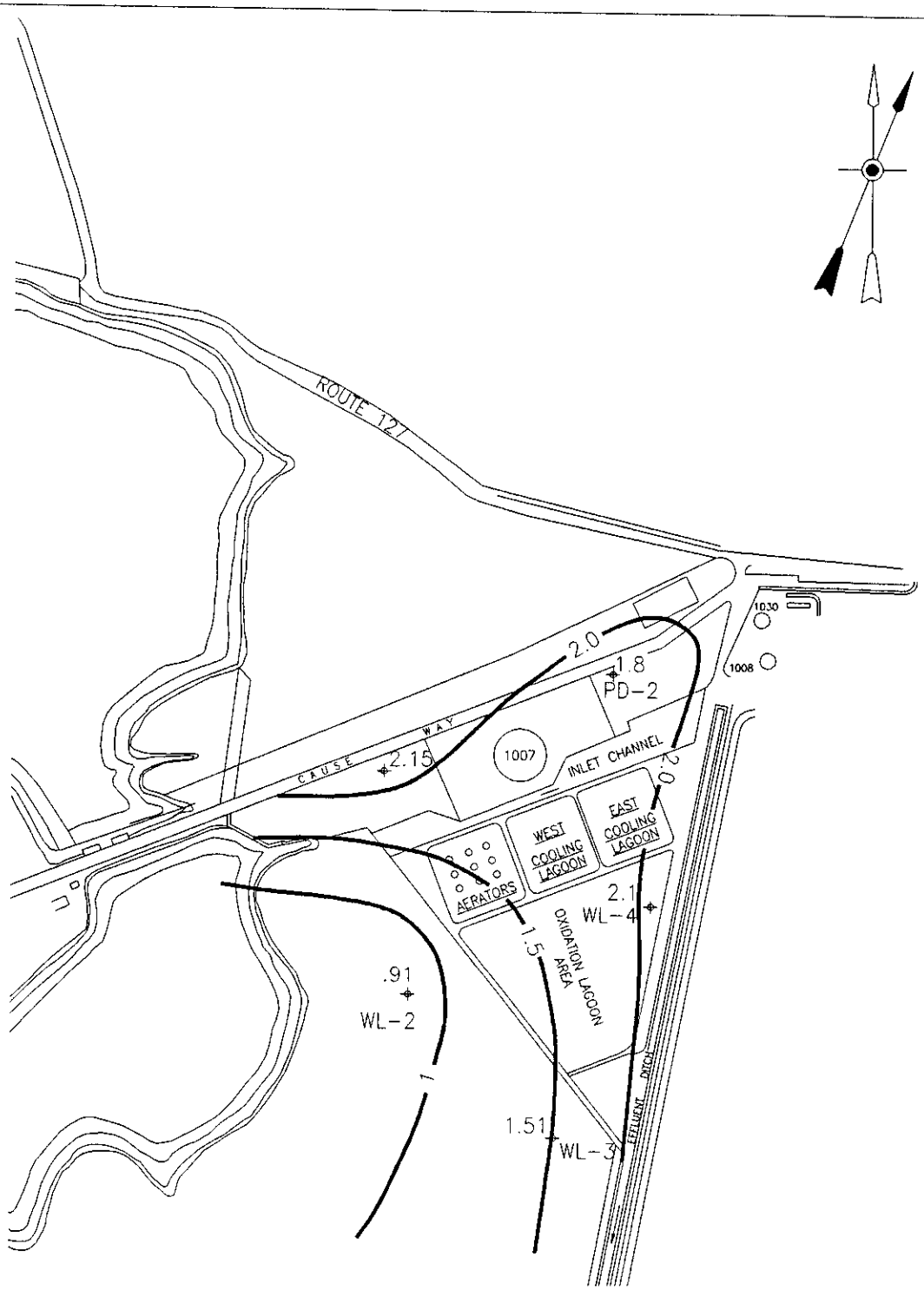


LEGEND	
△	SLUDGE GRID THICKNESS MEASUREMENT POINT
◆ EI-3	SOIL SAMPLE LOCATION
2'	ISOPACH

DSM Environmental Services, Inc.

Eastern Oil Lagoon Impoundment Sludge Thickness Map

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-02	MB	GHG	11/9/94	
SCALE NONE	PHASE NO.	FIG. NO. 9	SHEET 1 OF 1	



0 1000 2000 3000

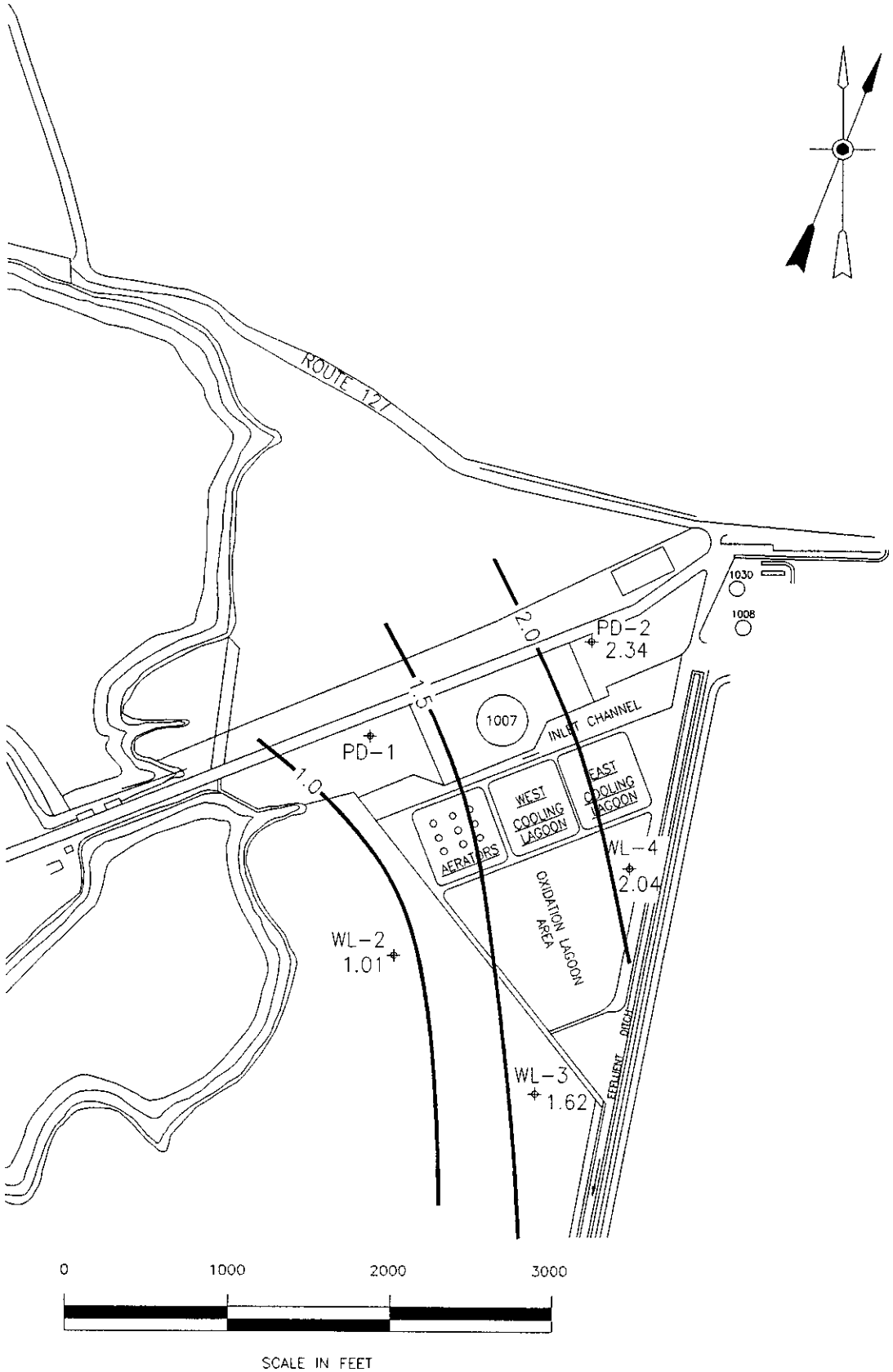
SCALE IN FEET

LEGEND	
✦ WL-1	RCRA MONITORING WELL
~	CONTOURS

DSM Environmental Services, Inc.

WESTERN LAGOON AREA
POTENTIOMETRIC SURFACE MAP
CORCO FACILITY 9/27/94

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-02	DWM		9-27-94	
SCALE NOTED	PHASE NO.	FIG. NO. 10	SHEET 1 OF 1	



LEGEND

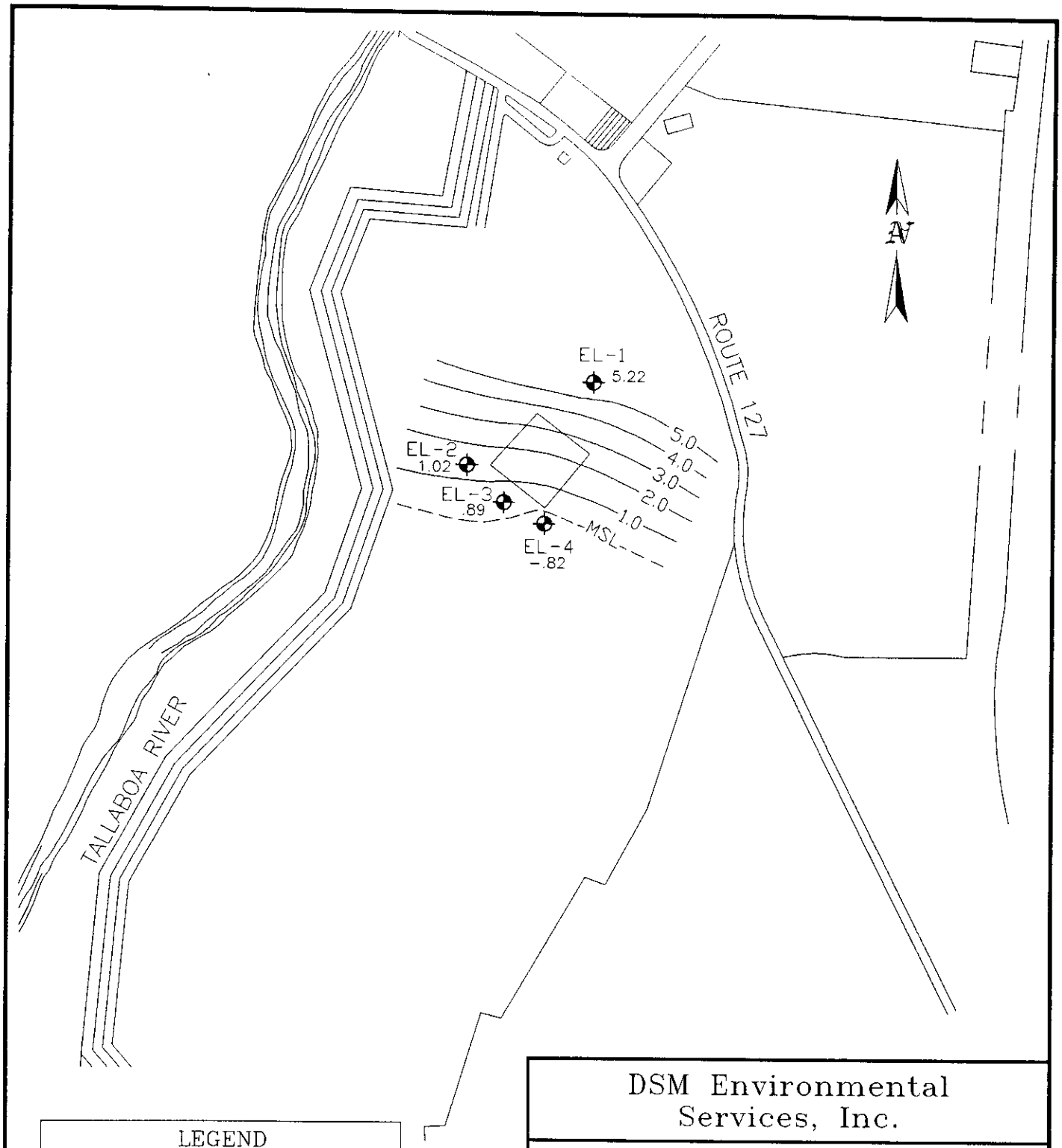
⌖ WL-1	RCRA MONITORING WELL
~	CONTOURS

DSM Environmental Services, Inc.

WESTERN LAGOON AREA POTENTIOMETRIC SURFACE MAP CORCO FACILITY 10/05/94

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-02	DWM		9-27-94	

SCALE NOTED	PHASE NO.	FIG. NO. 11	SHEET 1 OF 1



LEGEND

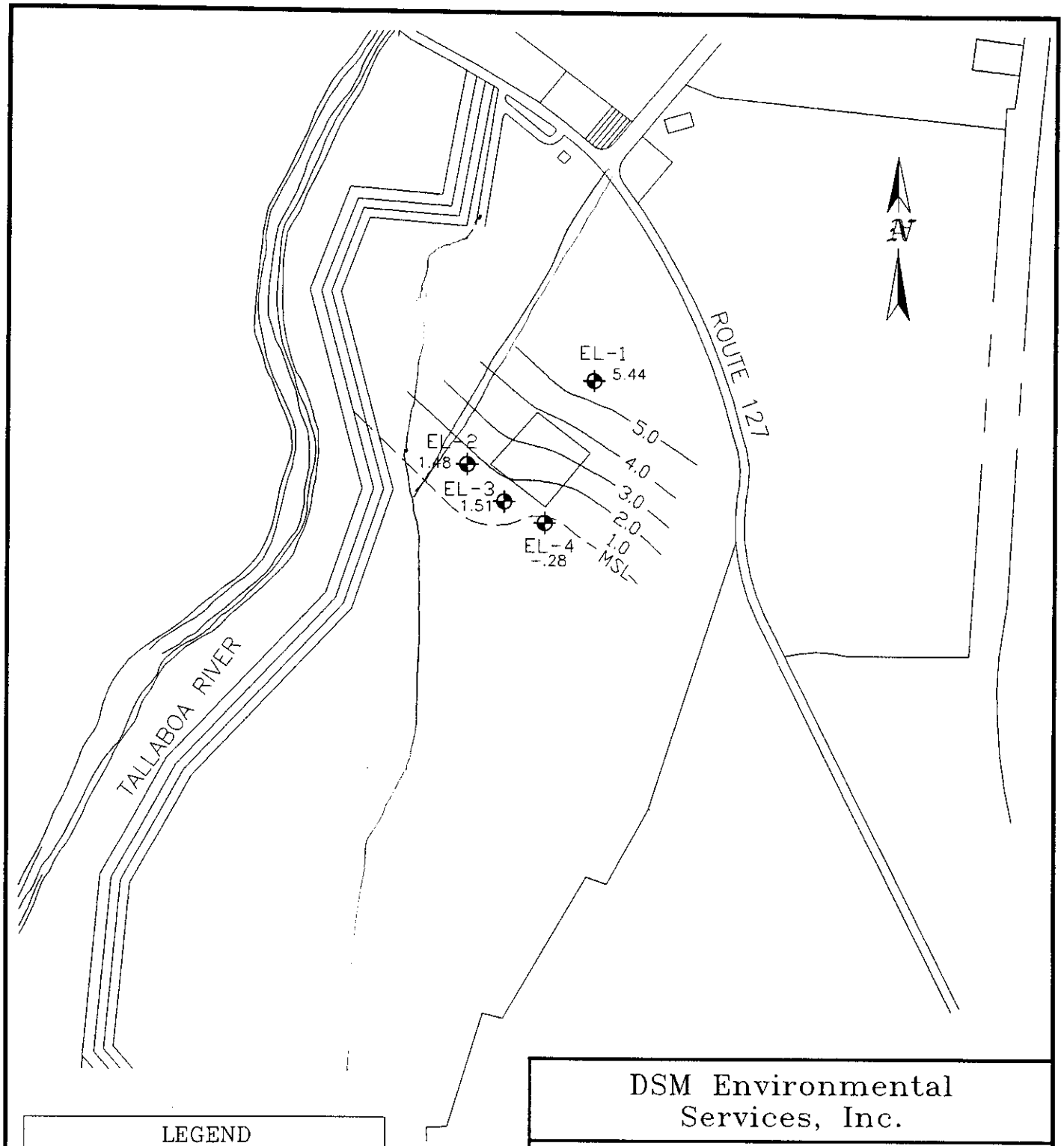
- MSL (MEAN SEA LEVEL)
- EI-3 SAMPLE LOCATION
- 2' ISOPACH
- GROUNDWATER FLOW DIRECTION

DSM Environmental Services, Inc.

EASTERN OIL LAGOON IMPOUNDMENT POTENTIOMETRIC SURFACE MAP 9/27/94

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-02	DWM		9-27-94	

SCALE N.T.S.	PHASE NO.	FIG. NO. 12	SHEET 1 OF 1



LEGEND

- MSL (MEAN SEA LEVEL)
- EL-3 SAMPLE LOCATION
- 2' ISOPACH
- GROUNDWATER FLOW DIRECTION

DSM Environmental Services, Inc.

EASTERN OIL LAGOON IMPOUNDMENT POTENTIOMETRIC SURFACE MAP 10/5/94

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-02	DWM		10-5-94	

SCALE N.T.S.	PHASE NO.	FIG. NO. 13	SHEET 1 OF 1

TABLES

TABLE 1

MONITOR WELL DEVELOPMENT INFORMATION

PROJECT: CORCO SITE ADDENDUM PROJECT LOCATION: PEÑUELAS, PUERTO RICO

CLIENT: DSM ENVIRONMENTAL SERVICES, INC. DATE: OCTOBER 03, 1994

MONITOR WELL NO.: EL-1

WELL DEPTH (ft.): 24.2' {1}

DEPTH TO WATER (ft.): 6.6' {2}

HEIGHT OF WATER COLUMN (ft.): 17.6' {3} = [{1}-{2}]

VOLUME OF WATER (gallons): {3} X 0.165 = 2.9 gallons

FIELD TEST	TEMPERATURE	pH	CONDUCTIVITY
FIRST VOLUME	30.7°C	7.71	0.73 mS/cm
SECOND VOLUME	31.0°C	7.76	0.81 mS/cm
THIRD VOLUME	30.7°C	7.70	0.85 mS/cm
FOURTH VOLUME	30.7°C	7.57	0.82 mS/cm
FIFTH VOLUME	30.9°C	7.55	0.86 mS/cm

REMARKS: WATER OF HIGH TURBIDITY. WELL DEVELOPMENT BEGAN AT 11:20 AM AND WAS COMPLETED AT 13:20. THE WELL RECHARGE RATE ALLOWED FOR CONTINUOUS BAILING TO BE PERFORMED.

DEVELOPED BY: PEDRO J. PEREZ AND RAFAEL RUIZ

SUPERVISED BY: PEDRO J. PEREZ

CHECKED AND APPROVED BY: JOSE R. RIVERA NAZARIO, P.E.

TABLE 1 (CONTINUED)

MONITOR WELL DEVELOPMENT INFORMATION

PROJECT: CORCO SITE ADDENDUM PROJECT LOCATION: PEÑUELAS, PUERTO RICO

CLIENT: DSM ENVIRONMENTAL SERVICES, INC. DATE: OCTOBER 03, 1994

MONITOR WELL NO.: EL-2

WELL DEPTH (ft.): 28.5' {1}

DEPTH TO WATER (ft.): 12.7' {2}

HEIGHT OF WATER COLUMN (ft.): 15.8' {3} = [{1}-{2}]

VOLUME OF WATER (gallons): {3} X 0.165 = 2.6 gallons

FIELD TEST	TEMPERATURE	pH	CONDUCTIVITY
FIRST VOLUME	30.6°C	7.23	2.23 mS/cm
SECOND VOLUME	30.3°C	7.20	2.27 mS/cm
THIRD VOLUME	30.2°C	7.27	2.30 mS/cm
FOURTH VOLUME	29.9°C	7.33	2.22 mS/cm
FIFTH VOLUME	30.2°C	7.32	2.23 mS/cm

REMARKS: WATER OF HIGH TURBIDITY. WELL DEVELOPMENT BEGAN AT 13:40 AND WAS COMPLETED AT 14:15. THE WELL RECHARGE RATE ALLOWED FOR CONTINUOUS BAILING TO BE PERFORMED.

DEVELOPED BY: PEDRO J. PEREZ AND RAFAEL RUIZ

SUPERVISED BY: PEDRO J. PEREZ

CHECKED AND APPROVED BY: JOSE R. RIVERA NAZARIO, P.E.

TABLE 2
BACKGROUND SOIL SAMPLE ANALYTICAL RESULTS
TARGET COMPOUND LIST (TCL)
TOTAL METALS

FIELD SAMPLE I.D.	PD-2A	PD-2B	EL-1A	EL-1B	Dup #1	Dup #2
LABORATORY I.D	**01A**	**02A**	**03A**	**04A**	**05A**	**06A**
TOTAL METALS (MG/KG)						
Aluminum	6,280	8,280	36,500	33,100	31,700	33,000
Antimony	<14.6	<15.9	<15.2	<15.0	<15.0	<15.1
Arsenic	5.91	2.73	<2.53	<2.50	<2.50	<2.51
Barium	33.5	69.1	163	160	130	157
Beryllium	<1.00	<1.00	1.25	1.2	1.17	1.25
Cadmium	<1.00	4.24	<1.0	<1.0	<1.00	<1.00
Calcium	233,000	268,000	16,400	48,800	56,000	50,200
Chromium	33	27.3	77.6	70.9	68.4	72.4
Cobalt	<2.4	23.7	32.2	26.7	27	28.1
Copper	8.43	11.3	76.1	65	63.3	64.7
Iron	9,210	13,600	50,900	48,100	43,800	46,400
Lead	<0.40	13.2	3.29	2.64	2.33	2.36
Magnesium	3,690	5,240	13,900	16,200	14,900	16,300
Manganese	167	226	1,745	181.3	180.2	304.6
Mercury	<0.122	<0.132	<0.127	<0.125	<0.125	<0.125
Nickel	29.2	35,300	38.4	33.7	31.8	33.9
Potassium	<97.6	1,620	1,800	<100	<99.6	<100
Selenium	<1.22	<1.32	<1.27	<1.25	<1.25	<1.26
Silver	<1.00	6.54	<2.00	<2.00	<1.00	<2.00
Sodium	2,020	2,450	478	1,020	999	1,010
Thallium	<2.44	<2.64	<2.53	<2.5	<2.5	<2.51
Tin	<24.4	<26.4	<25.3	<25.04	<25	<25.1
Vanadium	53	53.3	178	177	168	183
Zinc	52.4	26	86.4	84.8	71.1	74.3

TABLE 3

BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
TARGET COMPOUND LIST (TCL)
TOTAL METALS

FIELD SAMPLE I.D.	PD-2 TOTAL	PD-2 DUPLICATE TOTAL	PD-2 MATRIX SPIKE TOTAL	PD-2 MATRIX SPIKE DUPLICATE TOTAL
LABORATORY I.D.	13A	13B	13C	13D
PARAMETER (UG/L)				
Aluminum	740,000	733,000	64,200	48,100
Antimony	<60	<60	<60	<60
Arsenic	<10.0	<10.0	<10.0	<10.0
Barium	2,240	2,510	190	4,470
Beryllium	26.9	23.6	14.1	32.3
Cadmium	178	174	31.2	68.3
Calcium	6,140,000	6,010,000	2,580,000	2,550,000
Chromium	2,140	2,000	170	350
Cobalt	982	975	288	622
Copper	2,620	2,720	256	558
Iron	1,180,000	1,200,000	147,000	143,000
Lead	<100	164	<100	<100
Magnesium	835,000	862,000	177,000	409,000
Manganese	21,170	27,060	9,562	9,485
Mercury	<0.2	<0.2	5	95
Nickel	1,200	1,190	288	630
Potassium	133,000	137,000	23,500	59,300
Selenium	<5	<5	<5	<5
Silver	<6.0	<6.0	<6.0	<6.0
Sodium	734,000	768,000	215,000	544,000
Thallium	<10	<10	<10	<10
Tin	210	<100	<100	<100
Vanadium	2,980	2,360	671	1,440
Zinc	3,250	3,290	641	1,400

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
TARGET COMPOUND LIST (TCL)
DISSOLVED METALS

FIELD SAMPLE I.D.	PD-2 DISSOLVED	PD-2 DUPLICATE DISSOLVED	PD-2 MATRIX SPIKE DISSOLVED	PD-2 MATRIX SPIKE DUPLICATE DISSOLVED
LABORATORY I.D. PARAMETER (UG/L)	18A	18B	18C	18D
Aluminum	<70	<70	1,990	2,010
Antimony	<60	<60	84	87
Arsenic	<10	<10	35	35
Barium	1,140	1,120	3,050	3,120
Beryllium	<5.0	<5	50.5	51.1
Cadmium	<5.0	<5.0	47.6	52
Calcium	337,000	342,000	342,000	345,000
Chromium	<10	<10	202	199
Cobalt	<10	<10	497	498
Copper	<6.0	<6.0	249	248
Iron	73.2	93.6	1,260	1,040
Lead	<2.0	<2.0	18.9	17.99
Magnesium	120,000	122,000	120,000	121,000
Manganese	416	416	908	913
Mercury	<0.2	<0.2	0.3	9.6
Nickel	<20	<20	510	505
Potassium	38,700	37,600	38,400	38,800
Selenium	<5	<5	<5	<5
Silver	<6.0	<6.0	54	49.4
Sodium	868,000	869,000	865,000	876,000
Thallium	<10	<10	35	38
Tin	<100	<100	1,540	1,540
Vanadium	<10	<10	520	525
Zinc	96.4	94.9	566	565

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
APPENDIX IX VOLATILES

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE	TRIP BLANK
LABORATORY I.D. PARAMETER (UG/L)	11A	11B	11C	11D	19A
ACETONE	50.0U	50.0U	50.0U	50.0U	50.0U
ACETONITRILE	100.0U	100.0U	100.0U	100.0U	100.0U
ACROLEIN	100.0U	50.0U	50.0U	50.0U	50.0U
ACRYLONITRILE	10.0U	10.0U	10.0U	10.0U	10.0U
ALLYL CHLORIDE	10.0U	5.0U	5.0U	5.0U	5.0U
BENZENE	5.0U	5.0U	54.5	56	5.0U
BROMODICHLOROMETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
BROMOFORM	5.0U	5.0U	5.0U	5.0U	5.0U
CARBON DISULFIDE	5.0U	5.0U	5.0U	5.0U	5.0U
CARBON TETRACHLORIDE	5.0U	5.0U	5.0U	5.0U	5.0U
CHLOROBENZENE	5.0U	5.0U	52.8	54.6	5.0U
CHLOROETHANE	10.0U	10.0U	10.0U	10.0U	10.0U
CHLOROFORM	5.0U	5.0U	5.0U	5.0U	5.0U
CHLOROPRENE	5.0U	5.0U	5.0U	5.0U	5.0U
DIBROMOCHLOROMETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
1,2-DIBROMO-3-CHLOROPROPANE	5.0U	5.0U	5.0U	5.0U	5.0U
TRANS-1,4-DICHLORO-2-BUTENE	5.0U	5.0U	5.0U	5.0U	5.0U
DICHLORODIFLUOROMETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
1,1-DICHLOROETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
1,2-DICHLOROETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
1,1-DICHLOROETHENE	5.0U	5.0U	46.2	47	5.0U
TRANS-1,2-DICHLOROETHENE	5.0U	5.0U	5.0U	5.0U	5.0U
1,2-DICHLOROPROPANE	5.0U	5.0U	5.0U	5.0U	5.0U
CIS-1,3-DICHLOROPROPENE	5.0U	5.0U	5.0U	5.0U	5.0U
TRANS-1,3-DICHLOROPROPENE	5.0U	5.0U	5.0U	5.0U	5.0U
1,4-DIOXANE	200U	200U	200U	200U	200U
ETHYLBENZENE	5.0U	5.0U	5.0U	5.0U	5.0U
ETHYL METHACRYLATE	5.0U	5.0U	5.0U	5.0U	5.0U
2-HEXANONE	10.0U	10.0U	10.0U	10.0U	10.0U
ISOBUTYL ALCOHOL	100U	100U	100U	100U	100U
METHACRYLONITRILE	20.0U	20.0U	20.0U	20.0U	20.0U
BROMOMETHANE	10.0U	10.0U	10.0U	10.0U	10.0U
CHLOROMETHANE	10.0U	10.0U	10.0U	10.0U	10.0U
DIBROMOMETHANE	5.0U	5.0U	5.0U	5.0U	5.0U

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
APPENDIX IX VOLATILES (CONTINUED)

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE	TRIP BLANK
LABORATORY I.D. PARAMETER (UG/L)	11A	11B	11C	11D	19A
METHYLENE CHLORIDE	5.0U	5.0U	5.0U	5.0U	23.2
METHYL ETHYL KETONE	50.0U	50.0U	50.0U	50.0U	50.0U
IODOMETHANE	10.0U	5.0U	5.0U	5.0U	5.0U
METHYL METHACRYLATE	5.0U	5.0U	5.0U	5.0U	5.0U
4-METHYL-2-PENTANONE	10.0U	10.0U	10.0U	10.0U	10.0U
PROPIONITRILE	20.0U	20.0U	20.0U	20.0U	20.0U
STYRENE	5.0U	5.0U	5.0U	5.0U	5.0U
1,1,1,2-TETRACHLOROETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
1,1,2,2-TETRACHLOROETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
TETRACHLOROETHENE	5.0U	5.0U	5.0U	5.0U	5.0U
TOLUENE	5.0U	5.0U	61.1	61.3	5.0U
1,1,1-TRICHLOROETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
1,1,2-TRICHLOROETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
TRICHLOROETHENE	5.0U	5.0U	49	49.1	5.0U
TRICHLOROFLUOROMETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
1,2,3-TRICHLOROPROPANE	5.0U	5.0U	5.0U	5.0U	5.0U
VINYL ACETATE	10.0U	10.0U	10.0U	10.0U	10.0U
VINYL CHLORIDE	10.0U	10.0U	10.0U	10.0U	10.0U
ETHYLENE DIBROMIDE	5.0U	5.0U	5.0U	5.0U	5.0U
PENTACHLOROETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
TOTAL XYLENE	5.0U	5.0U	5.0U	5.0U	5.0U

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
APPENDIX IX SEMI-VOLATILES

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE
LABORATORY I.D. PARAMETER (UG/L)	12A	12B	12C	12D
4-CHLORO-3-METHYLPHENOL	10.0U	10.0U	135	130
2-CHLOROPHENOL	10.0U	10.0U	123	114
4-METHYLPHENOL	10.0U	10.0U	10.0U	10.0U
2-METHYLPHENOL	10.0U	10.0U	10.0U	10.0U
2,4-DICHLOROPHENOL	10.0U	10.0U	10.0U	10.0U
2,6-DICHLOROPHENOL	10.0U	10.0U	10.0U	10.0U
2,4-DIMETHYLPHENOL	10.0U	10.0U	10.0U	10.0U
4,6-DINITRO-2-METHYLPHENOL	20.0U	20.0U	20.0U	20.0U
2,4-DINITROPHENOL	50.0U	50.0U	50.0U	50.0U
DINOSEB	10.0U	10.0U	10.0U	10.0U
HEXACHLOROPHENE	20.0U	20.0U	20.0U	20.0U
2-NITROPHENOL	10.0U	10.0U	10.0U	10.0U
4-NITROPHENOL	50.0U	50.0U	63.8	52.4
PENTACHLOROPHENOL	25.0U	25.0U	77.4	88.6
PHENOL	10.0U	10.0U	60.6	57.2
2,3,4,6-TETRACHLOROPHENOL	10.0U	10.0U	10.0U	10.0U
2,4,5-TRICHLOROPHENOL	10.0U	10.0U	10.0U	10.0U
2,4,6-TRICHLOROPHENOL	10.0U	10.0U	10.0U	10.0U
ACENAPHTHENE	10.0U	10.0U	45.2	47.4
ACENAPHTHYLENE	10.0U	10.0U	10.0U	10.0U
ACETOPHENONE	10.0U	10.0U	10.0U	10.0U
2-ACETYLAMINOFLUORENE	10.0U	10.0U	10.0U	10.0U
4-AMINOBIPHENYL	10.0U	10.0U	10.0U	10.0U
ANILINE	10.0U	10.0U	10.0U	10.0U
ANTHRACENE	10.0U	10.0U	10.0U	10.0U
ARAMITE (1)	10.0U	10.0U	10.0U	10.0U
ARAMITE (2)	10.0U	10.0U	10.0U	10.0U
BENZO(A)ANTHRACENE	10.0U	10.0U	10.0U	10.0U
BENZO(B)FLUORANTHENE	10.0U	10.0U	10.0U	10.0U
BENZO(K)FLUORANTHENE	10.0U	10.0U	10.0U	10.0U
BENZO(GHI)PERYLENE	10.0U	10.0U	10.0U	10.0U
BENZO(A)PYRENE	10.0U	10.0U	10.0U	10.0U
BENZYL ALCOHOL	10.0U	10.0U	10.0U	10.0U
BIS(2-CHLOROETHOXY)METHANE	10.0U	10.0U	10.0U	10.0U
BIS(2-CHLOROETHYL)ETHER	10.0U	10.0U	10.0U	10.0U

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
APPENDIX IX SEMI-VOLATILES (CONTINUED)

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE
LABORATORY I.D.	12A	12B	12C	12D
PARAMETER (UG/L)				
BIS(2-CHLOROISOPROPYL)ETHER	10.0U	10.0U	10.0U	10.0U
BIS(2-ETHYLHEXYL)PHTHALATE	10.0U	10.0U	10.0U	10.0U
4-BROMOPHENYL PHENYL ETHER	10.0U	10.0U	10.0U	10.0U
BUTYLBENZYLPHTHALATE	10.0U	10.0U	10.0U	10.0U
4-CHLOROANILINE	10.0U	10.0U	10.0U	10.0U
CHLOROBENZILATE	10.0U	10.0U	10.0U	10.0U
2-CHLORONAPHTHALENE	10.0U	10.0U	10.0U	10.0U
4-CHLOROPHENYL PHENYL ETHER	10.0U	10.0U	10.0U	10.0U
CHRYSENE	10.0U	10.0U	10.0U	10.0U
DIALLIATE (CIS OR TRANS)	10.0U	10.0U	10.0U	10.0U
DIALLIATE (TRANS OR CIS)	10.0U	10.0U	10.0U	10.0U
DIBENZO(A,H)ANTHRACENE	10.0U	10.0U	10.0U	10.0U
DIBENZOFURANS	10.0U	10.0U	10.0U	10.0U
DI-N-BUTYLPHTHALATE	10.0U	10.0U	10.0U	10.0U
1,3-DICHLOROBENZENE	10.0U	10.0U	10.0U	10.0U
1,2-DICHLOROBENZENE	10.0U	10.0U	10.0U	10.0U
1,4-DICHLOROBENZENE	10.0U	10.0U	39.2	52
3,3-DICHLOROBENZIDINE	20.0U	20.0U	20.0U	20.0U
DIMETHYLPHTHALATE	10.0U	10.0U	10.0U	10.0U
DIMETHOATE	10.0U	10.0U	10.0U	10.0U
P-DIMETHYLAMINOAZOBENZENE	10.0U	10.0U	10.0U	10.0U
7,12-DIMETHYLBENZ(A)ANTHRACENE	10.0U	10.0U	10.0U	10.0U
3,3-DIMETHYLBENZIDINE	10.0U	10.0U	10.0U	10.0U
A,A-DIMETHYLPHENETHYLAMINE	10.0U	10.0U	10.0U	10.0U
DIETHYL PHTHALATE	10.0U	10.0U	10.0U	10.0U
M-DINITROBENZENE	10.0U	10.0U	10.0U	10.0U
2,4-DINITROTOLUENE	10.0U	10.0U	44.6	54.6
2,6-DINITROTOLUENE	10.0U	10.0U	10.0U	10.0U
DI-N-OCTYL PHTHALATE	10.0U	10.0U	10.0U	10.0U
DISULFOTON	10.0U	10.0U	10.0U	10.0U
ETHYLMETHANESULFONATE	10.0U	10.0U	10.0U	10.0U
FAMPHUR	20.0U	20.0U	20.0U	20.0U
FLUORANTHENE	10.0U	10.0U	10.0U	10.0U
FLUORENE	10.0U	10.0U	10.0U	10.0U

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
APPENDIX IX SEMI-VOLATILES (CONTINUED)

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE
LABORATORY I.D. PARAMETER (UG/L)	12A	12B	12C	12D
HEXACHLOROBENZENE	10.0U	10.0U	10.0U	10.0U
HEXACHLOROBUTADIENE	10.0U	10.0U	135	10.0U
HEXACHLOROCYCLOPENTADIENE	10.0U	10.0U	10.0U	10.0U
HEXACHLOROETHANE	10.0U	10.0U	10.0U	10.0U
HEXACHLOROPHENE	20.0U	20.0U	20.0U	20.0U
INDENO(1,2,3-CD)PYRENE	10.0U	10.0U	10.0U	10.0U
ISODRIN	10.0U	10.0U	10.0U	10.0U
ISOPHORONE	10.0U	10.0U	10.0U	10.0U
ISOSAFROLE	10.0U	10.0U	10.0U	10.0U
KEPONE	50.0U	50.0U	50.0U	50.0U
METHAPYRILENE	100.0U	100.0U	100.0U	100.0U
3-METHYLCHOLANTHRENE	10.0U	10.0U	10.0U	10.0U
METHYLMETHANESULFONATE	10.0U	10.0U	10.0U	10.0U
2-METHYLNAPHTHALENE	10.0U	10.0U	10.0U	10.0U
METHYL PARATHION	10.0U	10.0U	10.0U	10.0U
NAPHTHALENE	10.0U	10.0U	10.0U	10.0U
1,4-NAPHTHOQUINONE	10.0U	10.0U	10.0U	10.0U
1-NAPHTHYLAMINE	10.0U	10.0U	10.0U	10.0U
2-NAPHTHYLAMINE	10.0U	10.0U	10.0U	10.0U
3-NITROANILINE	50.0U	50.0U	50.0U	50.0U
2-NITROANILINE	50.0U	50.0U	50.0U	50.0U
4-NITROANILINE	50.0U	50.0U	50.0U	50.0U
NITROBENZENE	10.0U	10.0U	10.0U	10.0U
4-NITROQUINOLINE-1-OXIDE	100.0U	100.0U	100.0U	100.0U
N-NITROSO-DI-N-BUTYLAMINE	10.0U	10.0U	10.0U	10.0U
N-NITROSODIETHYLAMINE	10.0U	10.0U	10.0U	10.0U
N-NITROSODIMETHYLAMINE	10.0U	10.0U	10.0U	10.0U
N-NITROSODIPHENYLAMINE	10.0U	10.0U	10.0U	10.0U
N-NITROSO-DI-N-PROPYLAMINE	10.0U	10.0U	59	72
N-NITROSOMETHYLETHYLAMINE	10.0U	10.0U	10.0U	10.0U
N-NITROSOMORPHOLINE	10.0U	10.0U	10.0U	10.0U
N-NITROSOPIPERDINE	10.0U	10.0U	10.0U	10.0U
N-NITROSOPYRROLIDINE	10.0U	10.0U	10.0U	10.0U
5-NITRO-O-TOLUIDINE	10.0U	10.0U	10.0U	10.0U

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
APPENDIX IX SEMI-VOLATILES (CONTINUED)

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE
LABORATORY I.D. PARAMETER (UG/L)	12A	12B	12C	12D
PARATHION	10.0U	10.0U	10.0U	10.0U
PENTACHLOROBENZENE	10.0U	10.0U	10.0U	10.0U
PENTACHLORONITROBENZENE	50.0U	50.0U	50.0U	50.0U
PHENACETIN	10.0U	10.0U	10.0U	10.0U
PHENANTHRENE	10.0U	10.0U	10.0U	10.0U
P-PHENYLENEDIAMINE	50.0U	50.0U	50.0U	50.0U
PHORATE	10.0U	10.0U	10.0U	10.0U
2-PICOLINE	10.0U	10.0U	10.0U	10.0U
PRONAMIDE	10.0U	10.0U	10.0U	10.0U
PYRENE	10.0U	10.0U	24.6	14.2
PYRIDINE	10.0U	10.0U	10.0U	10.0U
SAFROLE	10.0U	10.0U	10.0U	10.0U
1,2,4,5-TETRACHLOROBENZENE	10.0U	10.0U	10.0U	10.0U
TETRAETHYLDITHIOPYROPHOSPHATE	10.0U	10.0U	10.0U	10.0U
THIONAZIN	10.0U	10.0U	10.0U	10.0U
O-TOLUIDINE	10.0U	10.0U	10.0U	10.0U
1,2,4-TRICHLOROBENZENE	10.0U	10.0U	42.8	51
O,O,O-TRIETHYLPHOSPHOROTHIOATE	10.0U	10.0U	10.0U	10.0U
DIBENZ(A,H)ANTHRACENE	10.0U	10.0U	10.0U	10.0U
1,3,5-TRINITROBENZENE	50.0U	50.0U	50.0U	50.0U

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RES
APPENDIX IX PESTICIDES AND HERBICIDES

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICA	PD-2 MATRIX SPI	PD-2 MATRIX SPI DUPLICATE
LABORTORY I.D. PARAMETER	16A	16B	16C	16D
ALDRIN (UG/L)	<0.40	<0.40	<0.40	<0.40
AROCLOR-1016 (UG/L)	<20.0	<20.0	<20.0	<20.0
AROCLOR-1221 (UG/L)	<20.0	<20.0	<20.0	<20.0
AROCLOR-1232 (UG/L)	<20.0	<20.0	<20.0	<20.0
AROCLOR-1242 (UG/L)	<20.0	<20.0	<20.0	<20.0
AROCLOR-1248 (UG/L)	<20.0	<20.0	<20.0	<20.0
AROCLOR-1254 (UG/L)	<20.0	<20.0	<20.0	<20.0
AROCLOR-1260 (UG/L)	<20.0	<20.0	<20.0	<20.0
ALPHA-BHC (UG/L)	<0.40	<0.40	<0.40	<0.40
BETA-BHC (UG/L)	<0.40	<0.40	<0.40	<0.40
DELTA-BHC (UG/L)	<0.40	<0.40	<0.40	<0.40
GAMMA-BHC(LINDANE) (UG/L)	<0.40	<0.40	<0.40	<0.40
CHLORDANE (UG/L)	<2.0	<2.0	<2.0	<2.0
4,4'-DDD (UG/L)	<0.80	<0.80	<0.80	<0.80
4,4'-DDE (UG/L)	<0.80	<0.80	<0.80	<0.80
4,4'-DDT (UG/L)	<0.80	<0.80	<0.80	<0.80
DIELDRIN (UG/L)	<0.80	<0.80	<0.80	<0.80
ENDOSULFAN SULFATE (UG/L)	<0.80	<0.80	<0.80	<0.80
ENDOSULFAN I (UG/L)	<0.80	<0.80	<0.80	<0.80
ENDOSULFAN II (UG/L)	<0.80	<0.80	<0.80	<0.80
ENDRIN (UG/L)	<0.80	<0.80	<0.80	<0.80
ENDRIN ALDEHYDE (UG/L)	<0.80	<0.80	<0.80	<0.80
HEPTACHLOR (UG/L)	<0.40	<0.40	<0.40	<0.40
HEPTACHLOR EPOXIDE (UG/L)	<0.40	<0.40	<0.40	<0.40
METHOXYCHLOR (UG/L)	<4.0	<4.0	<4.0	<4.0
TOXAPHENE (UG/L)	<10.0	<10.0	<10.0	<10.0
2,4,5-TP SILVEX (MG/L)	<.005	<.005	<.005	<.005
2,4,5-T (MG/L)	<.005	<.005	<.005	<.005
2,4-D (MG/L)	<.025	<.025	<.025	<.025

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULT
APPENDIX IX DIOXINS AND FURANS

FIELD SAMPLE I.D	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE
LABORATORY I.D. PARAMETER (ng/l)	**20A**	**20B**	**20D-MS**	**20D-MSD**
2,3,7,8-TCDD	.0065U	.0031U	0.18	0.23
1,2,3,7,8-PECDD	.0250U	.0056U	0.98	1.13
1,2,3,4,7,8-HXCDD	.0150U	.0067U	0.92	1.03
1,2,3,6,7,8-HXCDD	.0150U	.0069U	1.01	1.11
1,2,3,7,8,9-HXCDD	.0180U	.013U	1.06	1.11
2,3,7,8-TCDF	0.02	.0045U	0.19	0.23
TOTAL TCDF	0.11	N/A	N/A	N/A
1,2,3,7,8-PECDF	0.016	.0041U	1.11	1.06
2,3,4,7,8-PECDF	.0096U	.0082U	0.98	1.17
TOTAL PECDF	0.04	N/A	N/A	N/A
1,2,3,4,7,8-HXCDF	.01U	.0031U	0.94	1.13
1,2,3,6,7,8-HXCDF	.0180U	.012U	1	1.07
2,3,4,6,7,8-HXCDF	.0230U	.011U	0.99	1.18
1,2,3,7,8,9-HXCDF	.0150U	.011U	1.02	1.16

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
TARGET COMPOUND LIST (TCL)
AMENABLE CYANIDE

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE
LABORATORY I.D. PARAMETER (MG/L)	14A	14B	14C	14D
AMENABLE CYANIDE	<0.01	<0.01	0.24	0.26

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
TARGET COMPOUND LIST (TCL)
SULFIDE

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE
LABORATORY I.D.	15A	15B	15C	15D
SULFIDE (MG/L)	<.4	<.4	<.4	<.4

TABLE 4
EASTERN OIL LAGOON IMPOUNDMENT
SOIL SAMPLE ANALYTICAL RESULTS
TOTAL PETROLEUM HYDROCARBONS (TPH)

FIELD SAMPLE I.D.	EI-1	EI-2	EI-3	EI-4
LABORATORY I.D.	**7A**	**8A**	**9A**	**10A**
TOTAL PETROLEUM HYDROCARBONS (MG/KG)	3500	1550	1700	4640
SAMPLE COLLECTION DEPTH BELOW GROUND SURFACE ELEVATION (FEET)	1.3 - 2.3	0.83 - 1.1	1.5 - 2	2.25 - 2.5

TABLE 5

TABLULATED FIELD DATA FOR SLUDGE VOLUME ESTIMATE
EASTERN OIL LAGOON IMPOUNDMENT

FIELD LOCATION I.D.	OBSERVED INTERVAL (FROM GROUND SURFACE ELEVATION)	SLUDGE DESCRIPTION
FA'	0-2'4"	Black, oily, soft, viscous
FB'	0-1'	Dark brown, dry with 2" thick top layer of oily material
FC'	0-1'7"	Black, soft, viscous
EA'	0-1'3"	Dark brown soil-like material with 2" thick top layer of oily sludge
EB'	0-1'5"	1'3" thick affected material with 2" thick top layer of oily sludge
EC'	0-10"	Soil-like sludge with 8" of affected soil
DC'	0-9"	Soil-like sludge with 8" of affected soil
DB'	0-1'2"	Soil-like sludge with 10" of affected soil
DA'	0-2'2"	Black, oily, soft viscous
CA'	0-1'10"	Black, oily, soft viscous
CB'	0-10"	Soil-like sludge with 4" of affected soil
CC'	0-7"	Soil-like sludge with 4" of affected soil
BA'	0-1'9"	Black, oily, soft viscous
BB'	0-7"	Dark brown soil-like material with 2" thick top layer of black oily sludge
BC'	0-2"	Dark brown soil-like material
AA'	0-9"	Dark brown soil-like material with 2" inch thick top layer of black oily sludge
AB'	0-4"	Dark brown soil-like material with 1" inch thick top layer of black oily sludge
AC'	0-3"	Dark brown soil-like material

TABLE 6
EASTERN OIL LAGOON IMPOUNDMENT
SLUDGE AND AFFECTED SOIL VOLUME ESTIMATE

ESTIMATED SLUDGE VOLUME (IN-SITU) EASTERN OIL LAGOON IMPOUNDMENT

CELL	DIMENSION (ft.xft.)	AREA (sq. ft.)	SLUDGE THICKNESS (ft.)	SLUDGE VOLUME (cu. ft.)	SLUDGE VOLUME (cu. yds.)
A-A'	30x50	1,500	0.8	1,125	41.7
B-A'	50x50	2,500	1.8	4,375	162
C-A'	50x50	2,500	1.8	4583.3	169.8
D-A'	50x50	2,500	2.2	5416.7	200.6
E-A'	50x50	2,500	1.3	3,125	115.7
F-A'	30x50	1,500	2.3	3,500	129.6
			TOTAL		819.4

CELL	DIMENSION (ft.xft.)	AREA (sq. ft.)	SLUDGE THICKNESS (ft.)	SLUDGE VOLUME (cu. ft.)	SLUDGE VOLUME (cu. yds.)
A-B'	30x50	1,500	0.3	500	18.5
B-B'	50x50	2,500	0.4	1041.7	38.6
C-B'	50x50	2,500	0.5	1,250	46.3
D-B'	50x50	2,500	0.3	833.3	30.9
E-B'	50x50	2,500	1.4	3541.7	131.2
F-B'	30x50	1,500	1	1,500	55.6
			TOTAL		321

CELL	DIMENSION (ft.xft.)	AREA (sq. ft.)	SLUDGE THICKNESS (ft.)	SLUDGE VOLUME (cu. ft.)	SLUDGE VOLUME (cu. yds.)
A-C'	30x80	2,400	0.3	600	22.2
B-C'	50x80	4,000	0.2	666.7	24.7
C-C'	50x80	4,000	0.3	1,000	37
D-C'	50x80	4,000	0.1	333.3	12.3
E-C'	50x80	4,000	0.2	666.7	24.7
F-C'	30x80	2,400	1.6	3,800	140.7
			TOTAL		261.7

IN-SITU SLUDGE VOLUME EASTERN OIL LAGOON IMPOUNDMENT (cu. yds.) 1,402

TABLE 6 (CONTINUED)
EASTERN OIL LAGOON IMPOUNDMENT
SLUDGE AND AFFECTED SOIL VOLUME ESTIMATE

ESTIMATED AFFECTED SOIL VOLUME (IN-SITU) EASTERN OIL LAGOON IMPOUNDMENT

CELL	DIMENSION (ft.xft.)	AREA (sq. ft.)	AFFECTED SOIL THICKNESS (ft.)	*AFFECTED SOIL VOLUME (cu. ft.)	*AFFECTED SOIL VOLUME (cu. yds.)
A-A'	30x50	1500	1	1,500	55.6
B-A'	50x50	2500	1	2,500	92.6
C-A'	50x50	2500	1	2,500	92.6
D-A'	50x50	2500	1	2,500	92.6
E-A'	50x50	2500	1	2,500	92.6
F-A'	30x50	1500	1	1,500	55.6
			TOTAL		481.5

CELL	DIMENSION (ft.xft.)	AREA (sq. ft.)	AFFECTED SOIL THICKNESS (ft.)	*AFFECTED SOIL VOLUME (cu. ft.)	*AFFECTED SOIL VOLUME (cu. yds.)
A-B'	30x50	1500	1	1,500	55.6
B-B'	50x50	2500	1	2,500	92.6
C-B'	50x50	2500	1	2,500	92.6
D-B'	50x50	2500	1	2,500	92.6
E-B'	50x50	2500	1	2,500	92.6
F-B'	30x50	1500	1	1,500	55.6
			TOTAL		481.5

CELL	DIMENSION (ft.xft.)	AREA (sq. ft.)	AFFECTED SOIL THICKNESS (ft.)	*AFFECTED SOIL VOLUME (cu. ft.)	*AFFECTED SOIL VOLUME (cu. yds.)
A-C'	30x80	2400	1	2,400	88.9
B-C'	50x80	4000	1	4,000	148.1
C-C'	50x80	4000	1	4,000	148.1
D-C'	50x80	4000	1	4,000	148.1
E-C'	50x80	4000	1	4,000	148.1
F-C'	30x80	2400	1	2,400	88.9
EAST SIDE		31600	0.25	7,900	292.6
			TOTAL		1,063

*IN-SITU AFFECTED SOIL VOLUME EASTERN OIL LAGOON IMPOUNDMENT (cu. yds.) 2,026

*Affected soil volume estimate is based on a total petroleum hydrocarbons analysis and is considered to reflect a minimum quantity of affected soil present within the impoundment.

IN-SITU MATERIAL (SLUDGE and AFFECTED SOIL) VOLUME ESTIMATE
EASTERN OIL LAGOON IMPOUNDMENT (cu. yds.) 3,428

TABLE 7

GROUNDWATER LEVEL MEASUREMENT RESULTS OBTAINED SEPTEMBER 27, 1994

MONITOR WELL	TIME MEASURE	TOP OF CASING ELEVATION (FEET ABOVE SEA L	DEPTH TO GROUND FROM TOP OF CASIN (FEET)	ELEVATION OF GROUNDWATER (FEET ABOVE SEA L
PD-1	11:38 AM	7.51	5.36	2.15
PD-2	10:48 AM	11.71	9.91	1.8
WL-2	11:45 AM	10.28	9.37	0.91
WL-3	11:49 AM	8.22	6.71	1.51
WL-4	12:15 PM	7.29	5.19	2.1
EL-1	12:25 PM	15.29	10.07	5.22
EL-2	12:15 PM	17.28	16.26	1.02
EL-3	12:20 PM	10.1	9.21	0.89
EL-4	12:35 PM	10.79	11.61	-0.82

TABLE 8
GROUNDWATER LEVEL MEASUREMENT RESULTS
OBTAINED OCTOBER 5, 1994

MONITOR WEL	TIME MEASUR	TOP OF CASING ELEVATION (FEET ABOVE SEA	DEPTH TO GROUND FROM TOP OF CASI (FEET)	ELEVATION OF GROUNDWATER (FEET ABOVE SEA
PD-2	9:00 AM	11.71	9.37	2.34
WL-2	9:20 AM	10.28	9.27	1.01
WL-3	9:35 AM	8.22	6.6	1.62
WL-4	9:50 AM	7.29	5.25	2.04
EL-1	10:30 AM	15.19	9.75	5.44
EL-2	11:00 AM	17.23	15.75	1.48
EL-3	11:15 AM	9.81	8.3	1.51
EL-4	11:25 AM	10.47	10.75	-.28

Huntingdon

INORGANIC DATA VALIDATION

DSM ENVIRONMENTAL

PROJECT: CORCO WORKPLAN ADDENDUM

HUNTINGDON/SWL LAB# 9410061

CASE# 410061

SOUTHWESTERN LABORATORIES

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Sample ID	Lab Sample Number
DUP #1	9410061-05A
DUP #2	9410061-06A
EL-1-A	9410061-03A
EL-1-B	9410061-04A
PD-2	9410061-13A
PD-2 (DISSOLVED)	9410061-18A
PD-2A	9410061-01A
PD-2B	9410061-02A

Were ICP interelement corrections applied? No

Were ICP background corrections applied? Yes

If yes-were raw data generated before application of background corrections? No

Comments:

Signature: Gary L. Nichols

Date: 12-22-94

Name: GARY L. NICHOLS

Title: QA OFFICER

SOUTHWESTERN LABORATORIES

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

DUP #1

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-05A

% Solids: 80.17

Date Received: 10/07/94

Concentration Units: mg/kg

CAS Number	Analyte	Concentration	C	Q	M
7429-90-5	ALUMINUM	31700		*	P
7440-36-0	ANTIMONY	< 7.5	U	N	F
7440-38-2	ARSENIC	7.72	U	N	F
7440-39-3	BARIUM	130	B		P
7440-41-7	BERYLLIUM	1.17	B		P
7440-43-9	CADMIUM	< 1	U		P
7440-70-2	CALCIUM	56000			P
7440-47-3	CHROMIUM	68.4			P
7440-48-4	COBALT	27.0	B		P
7440-50-8	COPPER	63.3			P
7439-89-6	IRON	43800			P
7439-92-1	LEAD	2.90	B		F
7439-95-4	MAGNESIUM	14900			P
7439-96-5	MANGANESE	180			P
7439-97-6	MERCURY	4.29		N	AV
7440-02-0	NICKEL	31.8	B		P
7440-09-7	POTASSIUM	< 99.6	U		P
7782-49-2	SELENIUM	< 1	U	N	F
7440-22-4	SILVER	< 1	U	N	P
7440-23-5	SODIUM	999	B		P
7440-28-0	THALLIUM	< 10.0	U	N	F
7440-62-2	VANADIUM	168			P
7440-66-6	ZINC	71.1		*N	P

Comments:

SOUTHWESTERN LABORATORIES

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

DUP #2

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-06A

% Solids: 79.71

Date Received: 10/07/94

Concentration Units: mg/kg

CAS Number	Analyte	Concentration	C	Q	M
7429-90-5	ALUMINUM	33000		*	P
7440-36-0	ANTIMONY	< 7.5	U	N	F
7440-38-2	ARSENIC	6.80	U	N	F
7440-39-3	BARIUM	157	B		P
7440-41-7	BERYLLIUM	1.25	B		P
7440-43-9	CADMIUM	< 1	U		P
7440-70-2	CALCIUM	50200			P
7440-47-3	CHROMIUM	72.4			P
7440-48-4	COBALT	28.1	B		P
7440-50-8	COPPER	64.7			P
7439-89-6	IRON	46400			P
7439-92-1	LEAD	2.95	B		F
7439-95-4	MAGNESIUM	16300			P
7439-96-5	MANGANESE	305			P
7439-97-6	MERCURY	< 0.1	U	N	AV
7440-02-0	NICKEL	33.9	B		P
7440-09-7	POTASSIUM	< 100	U		P
7782-49-2	SELENIUM	< 1	U	N	F
7440-22-4	SILVER	< 2	U	N	P
7440-23-5	SODIUM	1010	B		P
7440-28-0	THALLIUM	< 10.0	U	N	F
7440-62-2	VANADIUM	183			P
7440-66-6	ZINC	74.3		*N	P

Comments:

SOUTHWESTERN LABORATORIES

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

EL-1-A

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-03A

% Solids: 79.03

Date Received: 10/07/94

Concentration Units: mg/kg

CAS Number	Analyte	Concentration	C	Q	M
7429-90-5	ALUMINUM	36500		*	P
7440-36-0	ANTIMONY	< 7.6	U	N	F
7440-38-2	ARSENIC	1.65	U	N	F
7440-39-3	BARIUM	163	B		P
7440-41-7	BERYLLIUM	1.25	B		P
7440-43-9	CADMIUM	< 1	U		P
7440-70-2	CALCIUM	16400			P
7440-47-3	CHROMIUM	77.6			P
7440-48-4	COBALT	32.2	B		P
7440-50-8	COPPER	76.1			P
7439-89-6	IRON	50900			P
7439-92-1	LEAD	4.16			F
7439-95-4	MAGNESIUM	13900			P
7439-96-5	MANGANESE	1740			P
7439-97-6	MERCURY	< 0.1	U	N	AV
7440-02-0	NICKEL	38.4	B		P
7440-09-7	POTASSIUM	1800	B		P
7782-49-2	SELENIUM	< 1	U	N	F
7440-22-4	SILVER	< 2	U	N	P
7440-23-5	SODIUM	478	B		P
7440-28-0	THALLIUM	< 10.0	U	N	F
7440-62-2	VANADIUM	178			P
7440-66-6	ZINC	86.4		*N	P

Comments:

SOUTHWESTERN LABORATORIES

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

EL-1-B

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-04A

% Solids: 79.88

Date Received: 10/07/94

Concentration Units: mg/kg

CAS Number	Analyte	Concentration	C	Q	M
7429-90-5	ALUMINUM	33100		*	P
7440-36-0	ANTIMONY	< 7.5	U	N	F
7440-38-2	ARSENIC	1.96	U	N	F
7440-39-3	BARIUM	160	B		P
7440-41-7	BERYLLIUM	1.20	B		P
7440-43-9	CADMIUM	< 1	U		P
7440-70-2	CALCIUM	48800			P
7440-47-3	CHROMIUM	70.9			P
7440-48-4	COBALT	26.7	B		P
7440-50-8	COPPER	65.0			P
	Fe2599	48100			P
7439-92-1	LEAD	3.30			F
7439-95-4	MAGNESIUM	16200			P
7439-96-5	MANGANESE	181			P
7439-97-6	MERCURY	< 0.1	U	N	AV
7440-02-0	NICKEL	33.7	B		P
7440-09-7	POTASSIUM	< 100	U		P
7782-49-2	SELENIUM	< 1	U	N	F
7440-22-4	SILVER	< 2	U	N	P
7440-23-5	SODIUM	1020	B		P
7440-28-0	THALLIUM	< 10.0	U	N	F
7440-62-2	VANADIUM	177			P
7440-66-6	ZINC	84.8		*N	P

Comments:

SOUTHWESTERN LABORATORIES

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2

Matrix (soil/water): WATER

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-13A

% Solids: 0.00

Date Received: 10/07/94

Concentration Units: ug/L

CAS Number	Analyte	Concentration	C	Q	M
7429-90-5	ALUMINUM	740000		N	P
7440-36-0	ANTIMONY	< 30	U	N	F
7440-38-2	ARSENIC	0.90	U	N	F
7440-39-3	BARIUM	2240		N	P
7440-41-7	BERYLLIUM	26.9		N	P
7440-43-9	CADMIUM	178		N	P
7440-70-2	CALCIUM	6140000			P
7440-47-3	CHROMIUM	2140		N	P
7440-48-4	COBALT	982		N	P
7440-50-8	COPPER	2620		N	P
7439-89-6	IRON	1180000		N	P
7439-92-1	LEAD	134		*N	A
7439-95-4	MAGNESIUM	835000			P
7439-96-5	MANGANESE	272		N	P
7439-97-6	MERCURY	< 0.2	U		AV
7440-02-0	NICKEL	1200		N	P
7440-09-7	POTASSIUM	133000			P
7782-49-2	SELENIUM	< 5	U	N	F
7440-22-4	SILVER	< 6	U	N	P
7440-23-5	SODIUM	734000			P
7440-28-0	THALLIUM	< 10.0	U	N	F
7440-62-2	VANADIUM	2980		*N	P
7440-66-6	ZINC	3250		N	P

Comments:

SOUTHWESTERN LABORATORIES

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

PD-2 (DISSOLVED)

Lab Name: Southwestern Laboratories - Houston

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids: 0.00

Batch ID:

Lab Sample ID: 9410061-18A

Date Received: 10/07/94

Concentration Units: ug/L

CAS Number	Analyte	Concentration	C	Q	M
7429-90-5	ALUMINUM	< 70	U		P
7440-36-0	ANTIMONY	< 30	U		F
7440-38-2	ARSENIC	3.21	U	N	F
7440-39-3	BARIUM	1140		N	P
7440-41-7	BERYLLIUM	< 5	U	N	P
7440-43-9	CADMIUM	< 5	U	N	P
7440-70-2	CALCIUM	337000			P
7440-47-3	CHROMIUM	< 10	U	N	P
7440-48-4	COBALT	< 10	U	N	P
7440-50-8	COPPER	< 6	U	N	P
7439-89-6	IRON	73.2	B		P
7439-92-1	LEAD	< 2	U		F
7439-95-4	MAGNESIUM	120000			P
7439-96-5	MANGANESE	416			P
7439-97-6	MERCURY	< 0.2	U		AV
7440-02-0	NICKEL	< 20	U	N	P
7440-09-7	POTASSIUM	38700			P
7782-49-2	SELENIUM	< 5	U	N	F
7440-22-4	SILVER	< 6	U	N	P
7440-23-5	SODIUM	868000			P
7440-28-0	THALLIUM	< 10.0	U	N	F
7440-62-2	VANADIUM	< 10	U	*N	P
7440-66-6	ZINC	96.4		N	P

Comments:

SOUTHWESTERN LABORATORIES

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2A

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-01A

% Solids: 82.11

Date Received: 10/07/94

Concentration Units: mg/kg

CAS Number	Analyte	Concentration	C	Q	M
7429-90-5	ALUMINUM	6280		*	P
7440-36-0	ANTIMONY	< 7.3	U	N	F
7440-38-2	ARSENIC	5.92	B	N	F
7440-39-3	BARIUM	33.5	B		P
7440-41-7	BERYLLIUM	< 1	U		P
7440-43-9	CADMIUM	< 1	U		P
7440-70-2	CALCIUM	233000			P
7440-47-3	CHROMIUM	33.0			P
7440-48-4	COBALT	< 2.4	U		P
7440-50-8	COPPER	8.43	B		P
7439-89-6	IRON	9210			P
7439-92-1	LEAD	< 0.5	U		F
7439-95-4	MAGNESIUM	3690	B		P
7439-96-5	MANGANESE	167			P
7439-97-6	MERCURY	< 0.1	U	N	AV
7440-02-0	NICKEL	29.2	B		P
7440-09-7	POTASSIUM	< 97.6	U		P
7782-49-2	SELENIUM	< 1	U	N	F
7440-22-4	SILVER	< 1	U	N	P
7440-23-5	SODIUM	2020	B		P
7440-28-0	THALLIUM	< 10.0	U	N	F
7440-62-2	VANADIUM	53.0			P
7440-66-6	ZINC	52.4		*N	P

Comments:

SOUTHWESTERN LABORATORIES

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2B

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-02A

% Solids: 75.67

Date Received: 10/07/94

Concentration Units: mg/kg

CAS Number	Analyte	Concentration	C	Q	M
7429-90-5	ALUMINUM	8280		*	P
7440-36-0	ANTIMONY	< 7.9	U	N	F
7440-38-2	ARSENIC	2.72	B	N	F
7440-39-3	BARIUM	69.1	B		P
7440-41-7	BERYLLIUM	< 1	U		P
7440-43-9	CADMIUM	4.24	B		P
7440-70-2	CALCIUM	268000			P
7440-47-3	CHROMIUM	27.3			P
7440-48-4	COBALT	23.7	B		P
7440-50-8	COPPER	11.3	B		P
7439-89-6	IRON	13600			P
7439-92-1	LEAD	< 26.4	U		A
7439-95-4	MAGNESIUM	5240			P
7439-96-5	MANGANESE	226			P
7439-97-6	MERCURY	< 0.1	U	N	AV
7440-02-0	NICKEL	35300			P
7440-09-7	POTASSIUM	1620	B		P
7782-49-2	SELENIUM	< 1	U	N	F
7440-22-4	SILVER	6.54	B	N	P
7440-23-5	SODIUM	2450	B		P
7440-28-0	THALLIUM	< 10.0	U	N	F
7440-62-2	VANADIUM	53.3			P
7440-66-6	ZINC	26.0		*N	P

Comments:

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: HG-CK

Run ID: 57800\941013000000

Continuing Calibration Source:

Analysis Date: 10/13/94

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
MERCURY	10.0	10.3	103	AV

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 57800\941013000000

Continuing Calibration Source: HG-CK

Analysis Date: 10/13/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
MERCURY	10.0	9.80	98.0	AV

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: HG-CK

Run ID: 57800\941021000000

Continuing Calibration Source:

Analysis Date: 10/21/94

Sample ID: ·ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
MERCURY	10.0	9.90	99.0	AV

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 57800\941021000000

Continuing Calibration Source: HG-CK

Analysis Date: 10/21/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
MERCURY	10.0	9.50	95.0	AV

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 66950\941119000000

Continuing Calibration Source:

Analysis Date: 11/19/94

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ARSENIC	40.0	39.3	98.2	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 66950\941119000000

Continuing Calibration Source: PREPARED

Analysis Date: 11/19/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ARSENIC	40.0	38.77	96.9	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 66950\941119163900

Continuing Calibration Source:

Analysis Date: 11/19/94 16:39:00

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
SELENIUM	40.0	39.38	98.4	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 66950\941119163900

Continuing Calibration Source: PREPARED

Analysis Date: 11/19/94 16:39:00

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
SELENIUM	40.0	40.07	100	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 58310\941121000000

Continuing Calibration Source:

Analysis Date: 11/21/94

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ALUMINUM	10000	10400	104.00	P
BARIUM	10000	10300	103.00	P
BERYLLIUM	250	255	102	P
CADMIUM	250	254	102	P
CALCIUM	250000	251000	100.40	P
CHROMIUM	500	511	102	P
COBALT	2500	2550	102.0	P
COPPER	1250	1280	102.4	P
IRON	5000	5170	103.4	P
MAGNESIUM	250000	253000	101.20	P
MANGANESE	750	760	101	P
NICKEL	2000	2040	102.0	P
POTASSIUM	250000	252000	100.80	P
SILVER	500	509	102	P
SODIUM	250000	253000	101.20	P
VANADIUM	2500	2560	102.4	P
ZINC	1000	996	99.6	P

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 58310\941121000000

Continuing Calibration Source: PREPARED

Analysis Date: 11/21/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ALUMINUM	10000	10300	103.00	P
BARIUM	10000	10200	102.00	P
BERYLLIUM	250	258	103	P
CADMIUM	250	256	102	P
CALCIUM	250000	255000	102.00	P
CHROMIUM	500	511	102	P
COBALT	2500	2570	102.8	P
COPPER	1250	1280	102.4	P
IRON	5000	5190	103.8	P
MAGNESIUM	250000	256000	102.40	P
MANGANESE	750	769	103	P
NICKEL	2000	2020	101.0	P
POTASSIUM	250000	250000	100.00	P
SILVER	500	513	103	P
SODIUM	250000	244000	97.600	P
VANADIUM	2500	2560	102.4	P
ZINC	1000	999	99.9	P

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 66950\941121101500

Continuing Calibration Source:

Analysis Date: 11/21/94 10:15:00

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
THALLIUM	40.0	39.18	98.0	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 66950\941121101500

Continuing Calibration Source: PREPARED

Analysis Date: 11/21/94 10:15:00

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
THALLIUM	40.0	38.57	96.4	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 66950\941121144900

Continuing Calibration Source:

Analysis Date: 11/21/94 14:49:00

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ANTIMONY	100	99.7	99.7	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 66950\941121144900

Continuing Calibration Source: PREPARED

Analysis Date: 11/21/94 14:49:00

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ANTIMONY	100	97.9	97.9	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 66950\941122000000

Continuing Calibration Source:

Analysis Date: 11/22/94

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ANTIMONY	100	99.0	99.0	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 66950\941122000000

Continuing Calibration Source: PREPARED

Analysis Date: 11/22/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ANTIMONY	100	101.5	102	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 58310\941123000000

Continuing Calibration Source:

Analysis Date: 11/23/94

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ALUMINUM	10000	10100	101.00	P
BARIUM	10000	< 17	0	P
CALCIUM	250000	238000	95.200	P
IRON	5000	4900	98.00	P
MAGNESIUM	250000	246000	98.400	P
SODIUM	250000	252000	100.80	P

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 58310\941123000000

Continuing Calibration Source: PREPARED

Analysis Date: 11/23/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ALUMINUM	10000	9570	95.70	P
CALCIUM	250000	225000	90.000	P
IRON	5000	4550	91.00	P
MAGNESIUM	250000	228000	91.200	P
SODIUM	250000	249000	99.600	P

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 57800\941128000000

Continuing Calibration Source:

Analysis Date: 11/28/94

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
LEAD	2000	1964	98.20	A

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 57800\941128000000

Continuing Calibration Source: PREPARED

Analysis Date: 11/28/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
LEAD	2000	1986	99.30	A

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 58310\941129000000

Continuing Calibration Source:

Analysis Date: 11/29/94

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ALUMINUM	10000	9890	98.90	P
CALCIUM	250000	243000	97.200	P
IRON	5000	4940	98.80	P
MAGNESIUM	250000	240000	96.000	P
MANGANESE	750	744	99.2	P

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 58310\941129000000

Continuing Calibration Source: PREPARED

Analysis Date: 11/29/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ALUMINUM	10000	10100	101.00	P
CALCIUM	250000	253000	101.20	P
IRON	5000	5180	103.6	P
MAGNESIUM	250000	254000	101.60	P
MANGANESE	750	770	103	P

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 66950\941205000000

Continuing Calibration Source:

Analysis Date: 12/05/94

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
LEAD	5.00	4.51	90.2	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 66950\941205000000

Continuing Calibration Source: PREPARED

Analysis Date: 12/05/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
LEAD	5.00	4.62	92.4	F

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

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: HG-ST

Run ID: 57800\941013000000

Analysis Date: 10/13/94

Concentration Units: ug/L

Analyte	True	Found	%R
MERCURY	0.800	0.3	40

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: HG-ST

Run ID: 57800\941021000000

Analysis Date: 10/21/94

Concentration Units: ug/L

Analyte	True	Found	%R
MERCURY	0.800	-0.1	-10

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: PREPARED

Run ID: 66950\941119000000

Analysis Date: 11/19/94

Concentration Units: ug/L

Analyte	True	Found	%R
ARSENIC	5.00	2.72	54.4

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: PREPARED

Run ID: 66950\941119163900

Analysis Date: 11/19/94 16:39:00

Concentration Units: ug/L

Analyte	True	Found	%R
SELENIUM	5.00	3.93	78.6

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: PREPARED

Run ID: 66950\941121101500

Analysis Date: 11/21/94 10:15:00

Concentration Units: ug/L

Analyte	True	Found	%R
THALLIUM	10.0	7.72	77.2

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: PREPARED

Run ID: 66950\941121144900

Analysis Date: 11/21/94 14:49:00

Concentration Units: ug/L

Analyte	True	Found	%R
ANTIMONY	30.0	25.2	84.0

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: PREPARED

Run ID: 66950\941122000000

Analysis Date: 11/22/94

Concentration Units: ug/L

Analyte	True	Found	%R
ANTIMONY	30.0	26.9	89.7

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: PREPARED

Run ID: 57800\941128000000

Analysis Date: 11/28/94

Concentration Units: ug/L

Analyte	True	Found	%R
LEAD	100	99.0	99.0

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: PREPARED

Run ID: 66950\941205000000

Analysis Date: 12/05/94

Concentration Units: ug/L

Analyte	True	Found	%R
LEAD	2.00	1.01	50.5

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR ICP

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICP CRDL Standard Source: PREPARED

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: CRII

Concentration Units: ug/L

	Initial		
Analyte	True	Found	%R
ALUMINUM		102.7	
BARIUM		0	
BERYLLIUM	10.0	10.70	107
CADMIUM	10.0	12.21	122
CALCIUM		9.567	
CHROMIUM	20.0	22.49	112
COBALT	100	124.5	124
COPPER	50.0	55.82	112
IRON		1.178	
MAGNESIUM		22.35	
MANGANESE	30.0	35.31	118
NICKEL	80.0	97.36	122
POTASSIUM		0	
SILVER	20.0	21.83	109
SODIUM		30.54	
VANADIUM	100	110.9	111
ZINC	40.0	44.92	112

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR ICP

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICP CRDL Standard Source: PREPARED

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: CRIF

Concentration Units: ug/L

	Final		
Analyte	True	Found	%R
ALUMINUM		15.23	
BARIUM		2.158	
BERYLLIUM	10.0	10.51	105
CADMIUM	10.0	9.643	96.4
CALCIUM		32.32	
CHROMIUM	20.0	23.07	115
COBALT	100	126.5	126
COPPER	50.0	54.43	109
IRON		71.18	
MAGNESIUM		-31.76	
MANGANESE	30.0	35.19	117
NICKEL	80.0	106.0	132
POTASSIUM		-22.98	
SILVER	20.0	17.22	86.1
SODIUM		120.3	
VANADIUM	100	111.2	111
ZINC	40.0	45.51	114

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR ICP

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICP CRDL Standard Source: PREPARED

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: CRII

Concentration Units: ug/L

	Initial		
Analyte	True	Found	%R
MANGANESE	30.0	33.37	111

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR ICP

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICP CRDL Standard Source: PREPARED

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: CRIF

Concentration Units: ug/L

	Final		
Analyte	True	Found	%R
MANGANESE	30.0	35.72	119

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 57800\941013000000

Analysis Date: 10/13/94

Sample ID: ICB

Analyte	Found	C	M
MERCURY	< 0.2	U	AV

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 57800\941013000000

Analysis Date: 10/13/94

Sample ID: CCB

Analyte	Found	C	M
MERCURY	< 0.2	U	AV

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 57800\941021000000

Analysis Date: 10/21/94

Sample ID: ICB

Analyte	Found	C	M
MERCURY	< 0.2	U	AV

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 57800\941021000000

Analysis Date: 10/21/94

Sample ID: CCB

Analyte	Found	C	M
MERCURY	< 0.2	U	AV

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Preparation Blank Matrix WATER

Run ID: 66950\941119000000

Preparation Blank Concentration Units: ug/L

Analysis Date: 11/19/94

Sample ID: PB

Analyte	Found	C	M
ARSENIC	< 10	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941119000000

Analysis Date: 11/19/94

Sample ID: ICB

Analyte	Found	C	M
ARSENIC	< 10	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941119000000

Analysis Date: 11/19/94

Sample ID: CCB

Analyte	Found	C	M
ARSENIC	< 10	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Preparation Blank Matrix WATER

Run ID: 66950\941119163900

Preparation Blank Concentration Units: ug/L

Analysis Date: 11/19/94 16:39:00

Sample ID: PB

Analyte	Found	C	M
SELENIUM	< 5	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941119163900

Analysis Date: 11/19/94 16:39:00

Sample ID: ICB

Analyte	Found	C	M
SELENIUM	< 5	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941119163900

Analysis Date: 11/19/94 16:39:00

Sample ID: CCB

Analyte	Found	C	M
SELENIUM	< 5	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: PBW

Analyte	Found	C	M
ALUMINUM	< 70	U	P
BARIUM	< 17	U	P
BERYLLIUM	< 5	U	P
CADMIUM	< 5	U	P
CALCIUM	2090	U	P
CHROMIUM	< 10	U	P
COBALT	< 10	U	P
COPPER	< 6	U	P
IRON	45.9	U	P
MAGNESIUM	< 100	U	P
MANGANESE	< 5	U	P
NICKEL	< 20	U	P
POTASSIUM	< 400	U	P
SILVER	< 6	U	P
SODIUM	201	U	P
VANADIUM	< 10	U	P
ZINC	35.1		P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: PBS

Analyte	Found	C	M
ALUMINUM	< 70	U	P
BARIUM	< 17	U	P
BERYLLIUM	< 5	U	P
CADMIUM	< 5	U	P
CALCIUM	< 60	U	P
CHROMIUM	< 10	U	P
COBALT	< 10	U	P
COPPER	< 6	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
MANGANESE	< 5	U	P
NICKEL	< 20	U	P
POTASSIUM	< 400	U	P
SILVER	< 6	U	P
SODIUM	257	U	P
VANADIUM	< 10	U	P
ZINC	< 10	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: ICB

Analyte	Found	C	M
ALUMINUM	< 70	U	P
BARIUM	< 17	U	P
BERYLLIUM	< 5	U	P
CADMIUM	< 5	U	P
CALCIUM	< 60	U	P
CHROMIUM	< 10	U	P
COBALT	< 10	U	P
COPPER	< 6	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
MANGANESE	< 5	U	P
NICKEL	< 20	U	P
POTASSIUM	< 400	U	P
SILVER	< 6	U	P
SODIUM	< 100	U	P
VANADIUM	< 10	U	P
ZINC	< 10	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: CCB

Analyte	Found	C	M
ALUMINUM	< 70	U	P
BARIUM	< 17	U	P
BERYLLIUM	< 5	U	P
CADMIUM	< 5	U	P
CALCIUM	< 60	U	P
CHROMIUM	< 10	U	P
COBALT	< 10	U	P
COPPER	< 6	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
MANGANESE	< 5	U	P
NICKEL	< 20	U	P
POTASSIUM	< 400	U	P
SILVER	< 6	U	P
SODIUM	< 100	U	P
VANADIUM	< 10	U	P
ZINC	< 10	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Preparation Blank Matrix WATER

Run ID: 66950\941121101500

Preparation Blank Concentration Units: ug/L

Analysis Date: 11/21/94 10:15:00

Sample ID: PB

Analyte	Found	C	M
THALLIUM	< 10.0	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941121101500

Analysis Date: 11/21/94 10:15:00

Sample ID: ICB

Analyte	Found	C	M
THALLIUM	< 10.0	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941121101500

Analysis Date: 11/21/94 10:15:00

Sample ID: CCB

Analyte	Found	C	M
THALLIUM	< 10.0	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Preparation Blank Matrix WATER

Run ID: 66950\941121144900

Preparation Blank Concentration Units: ug/L

Analysis Date: 11/21/94 14:49:00

Sample ID: PB

Analyte	Found	C	M
ANTIMONY	< 30	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941121144900

Analysis Date: 11/21/94 14:49:00

Sample ID: ICB

Analyte	Found	C	M
ANTIMONY	< 30	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941121144900

Analysis Date: 11/21/94 14:49:00

Sample ID: CCB

Analyte	Found	C	M
ANTIMONY	< 30	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Preparation Blank Matrix WATER

Run ID: 66950\941122000000

Preparation Blank Concentration Units: ug/L

Analysis Date: 11/22/94

Sample ID: PB

Analyte	Found	C	M
ANTIMONY	< 30	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941122000000

Analysis Date: 11/22/94

Sample ID: ICB

Analyte	Found	C	M
ANTIMONY	< 30	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941122000000

Analysis Date: 11/22/94

Sample ID: CCB

Analyte	Found	C	M
ANTIMONY	< 30	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941123000000

Analysis Date: 11/23/94

Sample ID: PBW

Analyte	Found	C	M
ALUMINUM	< 70	U	P
CALCIUM	< 60	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
SODIUM	< 100	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941123000000

Analysis Date: 11/23/94

Sample ID: PBS

Analyte	Found	C	M
ALUMINUM	< 70	U	P
CALCIUM	< 60	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
SODIUM	< 100	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941123000000

Analysis Date: 11/23/94

Sample ID: ICB

Analyte	Found	C	M
ALUMINUM	< 70	U	P
CALCIUM	< 60	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
SODIUM	< 100	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941123000000

Analysis Date: 11/23/94

Sample ID: CCB

Analyte	Found	C	M
ALUMINUM	< 70	U	P
BARIUM	< 17	U	P
CALCIUM	< 60	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
SODIUM	< 100	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Preparation Blank Matrix WATER

Run ID: 57800\941128000000

Preparation Blank Concentration Units: ug/L

Analysis Date: 11/28/94

Sample ID: PB

Analyte	Found	C	M
LEAD	< 100	U	A

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 57800\941128000000

Analysis Date: 11/28/94

Sample ID: ICB

Analyte	Found	C	M
LEAD	< 100	U	A

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 57800\941128000000

Analysis Date: 11/28/94

Sample ID: CCB

Analyte	Found	C	M
LEAD	< 100	U	A

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: PBW

Analyte	Found	C	M
ALUMINUM	< 70	U	P
CALCIUM	< 60	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
MANGANESE	< 5	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: PBS

Analyte	Found	C	M
MANGANESE	< 5	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: ICB

Analyte	Found	C	M
ALUMINUM	< 70	U	P
CALCIUM	< 60	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
MANGANESE	< 5	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: CCB

Analyte	Found	C	M
ALUMINUM	< 70	U	P
CALCIUM	< 60	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
MANGANESE	< 5	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Preparation Blank Matrix WATER

Run ID: 66950\941205000000

Preparation Blank Concentration Units: ug/L

Analysis Date: 12/05/94

Sample ID: PB

Analyte	Found	C	M
LEAD	< 2	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941205000000

Analysis Date: 12/05/94

Sample ID: ICB

Analyte	Found	C	M
LEAD	< 2	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941205000000

Analysis Date: 12/05/94

Sample ID: CCB

Analyte	Found	C	M
LEAD	< 2	U	F

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE A

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source: PREPARED

ICP ID Number: 2514

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: ICSAI

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	194000	39
CALCIUM	500000	484000	97
IRON	200000	36600	18
MAGNESIUM	500000	504000	101

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE A

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source: PREPARED

ICP ID Number: 2514

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: ICSAF

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	194000	39
CALCIUM	500000	515000	103
IRON	200000	36800	18
MAGNESIUM	500000	527000	105

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE AB

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source:

ICP ID Number: 2514

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: ICSABI

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	SATURATED	0
BARIUM	500	525	105
BERYLLIUM	500	492	98
CADMIUM	1000	948	95
CALCIUM	500000	490000	98
CHROMIUM	500	573	115
COBALT	500	480	96
COPPER	500	468	94
IRON	200000	SATURATED	0
MAGNESIUM	500000	507000	101
MANGANESE	500	497	99
NICKEL	1000	946	95
SILVER	1000	1040	104
VANADIUM	500	495	99
ZINC	1000	987	99

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE AB

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source:

ICP ID Number: 2514

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: ICSABF

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	194000	39
BARIUM	500	522	104
BERYLLIUM	500	501	100
CADMIUM	1000	981	98
CALCIUM	500000	510000	102
CHROMIUM	500	588	118
COBALT	500	492	98
COPPER	500	464	93
IRON	200000	36700	18
MAGNESIUM	500000	521000	104
MANGANESE	500	509	102
NICKEL	1000	988	99
SILVER	1000	1000	100
VANADIUM	500	502	100
ZINC	1000	1000	100

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE A

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source: PREPARED

ICP ID Number: 2514

Run ID: 58310\941123000000

Analysis Date: 11/23/94

Sample ID: ICSAF

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	SATURATED	0
CALCIUM	500000	446000	89
IRON	200000	SATURATED	0
MAGNESIUM	500000	472000	94

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE AB

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source:

ICP ID Number: 2514

Run ID: 58310\941123000000

Analysis Date: 11/23/94

Sample ID: ICSABI

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	SATURATED	0
CALCIUM	500000	460000	92
IRON	200000	SATURATED	0
MAGNESIUM	500000	494000	99

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE AB

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source:

ICP ID Number: 2514

Run ID: 58310\941123000000

Analysis Date: 11/23/94

Sample ID: ICSABF

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	SATURATED	0
CALCIUM	500000	441000	88
IRON	200000	SATURATED	0
MAGNESIUM	500000	469000	94

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE A

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source: PREPARED

ICP ID Number: 2514

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: ICSAI

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	SATURATED	0
CALCIUM	500000	474000	95
IRON	200000	SATURATED	0
MAGNESIUM	500000	497000	99

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE A

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source: PREPARED

ICP ID Number: 2514

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: ICSAF

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	SATURATED	0
CALCIUM	500000	476000	95
IRON	200000	SATURATED	0
MAGNESIUM	500000	494000	99

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE AB

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source:

ICP ID Number: 2514

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: ICSABI

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	SATURATED	0
CALCIUM	500000	472000	94
IRON	200000	SATURATED	0
MAGNESIUM	500000	488000	98
MANGANESE	500	495	99

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE AB

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source:

ICP ID Number: 2514

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: ICSABF

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	SATURATED	0
CALCIUM	500000	477000	95
IRON	200000	SATURATED	0
MAGNESIUM	500000	498000	100
MANGANESE	500	494	99

SOUTHWESTERN LABORATORIES

SPIKE SAMPLE RECOVERY

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2A

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-01

% Solids: 82.11

Date Received: 10/07/94

Concentration Units: mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
ANTIMONY	75.0 - 125	< 7.3	U	< 7.3	U	100	0	N	F
ARSENIC	75.0 - 125	5.72	B	5.92	B	40.0	-0.500	N	F
BARIUM	75.0 - 125	521		33.5	B	488	99.9		P
BERYLLIUM	75.0 - 125	12.3		< 1	U	12.2	101		P
CADMIUM	75.0 - 125	12.5		< 1	U	12.2	102		P
CHROMIUM	75.0 - 125	80.2		33.0		48.8	96.7		P
COBALT	75.0 - 125	124		< 2.4	U	122	102		P
COPPER	75.0 - 125	70.3		8.43	B	61.0	101		P
LEAD	75.0 - 125	4.69		< 0.5	U	4.875	96.2		F
MANGANESE	75.0 - 125	277		167		122	90.2		P
NICKEL	75.0 - 125	128		29.2	B	122	81.0		P
SELENIUM	75.0 - 125	< 1	U	< 1	U	2.44	0	N	F
SILVER		44.7		< 1	U	12.2	366		P
THALLIUM	75.0 - 125	< 10.0	U	< 10.0	U	50.0	0	N	F
VANADIUM	75.0 - 125	176		53.0		122	101		P
ZINC	75.0 - 125	138		52.4		122	70.2	N	P

Comments:

SOUTHWESTERN LABORATORIES

SPIKE SAMPLE RECOVERY

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

EL-1-B

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-04

% Solids: 79.88

Date Received: 10/07/94

Concentration Units: mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
MERCURY	75.0 - 125	< 0.1	U	< 0.1	U	5.01	0	N	AV

Comments:

SOUTHWESTERN LABORATORIES

SPIKE SAMPLE RECOVERY

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2 –MS

Matrix (soil/water): WATER

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-13

% Solids: 0.00

Date Received: 10/07/94

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
ALUMINUM	75.0 - 125	44200		740000		200000	-347.9	N	P
ANTIMONY	75.0 - 125	< 30	U	< 30	U	100	0	N	F
ARSENIC	75.0 - 125	0.67	U	0.90	U	40.0	-0.58	N	F
BARIUM	75.0 - 125	190	B	2240		2000	-102	N	P
BERYLLIUM	75.0 - 125	14.1		26.9		50.0	-25.6	N	P
CADMIUM	75.0 - 125	31.2		178		50.0	-294	N	P
CHROMIUM	75.0 - 125	170		2140		200	-985		P
COBALT	75.0 - 125	288		982		500	-139	N	P
COPPER	75.0 - 125	256		2620		250	-946		P
IR[illegible]	75.0 - 125	120000		1180000		100000	-1060.		P
LEAD	75.0 - 125	214		134		500	16.0	N	A
MANGANESE	75.0 - 125	95.6		272		500	-35.3	N	P
MERCURY	75.0 - 125	9.50		< 0.2	U	10.0	95.0		AV
NICKEL	75.0 - 125	288		1200		500	-182	N	P
SELENIUM	75.0 - 125	< 5	U	< 5	U	10.0	0	N	F
SILVER		< 6	U	< 6	U	50.0	0		P
THALLIUM	75.0 - 125	< 10.0	U	< 10.0	U	50.0	0	N	F
VANADIUM	75.0 - 125	671		2980		500	-462		P
ZINC	75.0 - 125	641		3250		500	-522		P

Comments:

SOUTHWESTERN LABORATORIES

SPIKE SAMPLE RECOVERY

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2-MSD

Matrix (soil/water): WATER

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-13

% Solids: 0.00

Date Received: 10/07/94

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
ALUMINUM	75.0 - 125	SATURATED	U	SATURATED	U	2000	0	N	P
ANTIMONY	75.0 - 125	< 30	U	< 30	U	100	0	N	F
ARSENIC	75.0 - 125	0.86	U	0.90	U	40.0	-0.10	N	F
BARIUM	75.0 - 125	4470		2240		2000	111.5		P
BERYLLIUM	75.0 - 125	32.3		26.9		50.0	11.0	N	P
CADMIUM	75.0 - 125	68.3		178		50.0	-219	N	P
CHROMIUM	75.0 - 125	350		2140		200	-895		P
COBALT	75.0 - 125	622		982		500	-72.0	N	P
COPPER	75.0 - 125	558		2620		250	-825		P
[illegible]	75.0 - 125	SATURATED	U	21000		1000	0		P
LEAD	75.0 - 125	442		134		500	61.6	N	A
MANGANESE	75.0 - 125	SATURATED	U	SATURATED	U	500	0	N	P
MERCURY	75.0 - 125	9.50		< 0.2	U	10.0	95.0		AV
NICKEL	75.0 - 125	630		1200		500	-114	N	P
SELENIUM	75.0 - 125	< 5	U	< 5	U	10.0	0	N	F
SILVER		< 6	U	< 6	U	50.0	0		P
THALLIUM	75.0 - 125	< 10.0	U	< 10.0	U	50.0	0	N	F
VANADIUM	75.0 - 125	1440		2980		500	-308		P
ZINC	75.0 - 125	1400		3250		500	-370		P

Comments:

SOUTHWESTERN LABORATORIES

SPIKE SAMPLE RECOVERY

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2 (DISSOLVED) -MS

Matrix (soil/water): WATER

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-18

% Solids: -0.00

Date Received: 10/07/94

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
ALUMINUM	75.0 - 125	1990		< 70	U	2000	99.50		P
ANTIMONY	75.0 - 125	83.6		< 30	U	100	83.6		F
ARSENIC	75.0 - 125	34.89		3.21	U	40.0	79.2		F
BARIUM	75.0 - 125	3050		1140		2000	95.50		P
BERYLLIUM	75.0 - 125	50.5		< 5	U	50.0	101		P
CADMIUM	75.0 - 125	47.6		< 5	U	50.0	95.2		P
CHROMIUM	75.0 - 125	202		< 10	U	200	101		P
COBALT	75.0 - 125	497		< 10	U	500	99.4		P
COPPER	75.0 - 125	249		< 6	U	250	99.6		P
IRON	75.0 - 125	1260		73.2	B	1000	119		P
LEAD	75.0 - 125	18.9		< 2	U	20.0	94.5		F
MANGANESE	75.0 - 125	908		416		500	98.4		P
MERCURY	75.0 - 125	9.60		< 0.2	U	10.0	96.0		AV
NICKEL	75.0 - 125	510		< 20	U	500	102		P
SELENIUM	75.0 - 125	< 5	U	< 5	U	10.0	0	N	F
SILVER		54.0		< 6	U	50.0	110		P
THALLIUM	75.0 - 125	34.97		< 10.0	U	50.0	69.9	N	F
VANADIUM	75.0 - 125	520		< 10	U	500	104		P
ZINC	75.0 - 125	566		96.4		500	93.9		P

Comments:

SOUTHWESTERN LABORATORIES

SPIKE SAMPLE RECOVERY

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2 (DISSOLVED) -MSD

Matrix (soil/water): WATER

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-18

% Solids: 0.00

Date Received: 10/07/94

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
ALUMINUM	75.0 - 125	2010		< 70	U	2000	100.5		P
ANTIMONY	75.0 - 125	87.2		< 30	U	100	87.2		F
ARSENIC	75.0 - 125	35.04		3.21	U	40.0	79.6		F
BARIUM	75.0 - 125	3120		1140		2000	99.00		P
BERYLLIUM	75.0 - 125	51.1		< 5	U	50.0	102		P
CADMIUM	75.0 - 125	52.0		< 5	U	50.0	100		P
CHROMIUM	75.0 - 125	199		< 10	U	200	99.5		P
COBALT	75.0 - 125	498		< 10	U	500	99.6		P
COPPER	75.0 - 125	248		< 6	U	250	99.2		P
I[illegible]	75.0 - 125	1040		73.2	B	1000	96.7		P
LEAD	75.0 - 125	421		< 100	U	500	84.2		P
MANGANESE	75.0 - 125	913		416		500	99.4		P
MERCURY	75.0 - 125	9.60		< 0.2	U	10.0	96.0		AV
NICKEL	75.0 - 125	505		< 20	U	500	101		P
SELENIUM	75.0 - 125	< 5	U	< 5	U	10.0	0	N	F
SILVER		49.4		< 6	U	50.0	98.8		P
THALLIUM	75.0 - 125	37.95		< 10.0	U	50.0	75.9		F
VANADIUM	75.0 - 125	525		< 10	U	500	105		P
ZINC	75.0 - 125	565		96.4		500	93.7		P

Comments:

SOUTHWESTERN LABORATORIES

DUPLICATES

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2A

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-01

% Solids: 82.11

Date Received: 10/07/94

Concentration Units: mg/kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
ALUMINUM		6280		7810		21.72	-	P
ANTIMONY	60.0	< 7.3	U	< 7.3	U	0		F
ARSENIC	10.0	5.92	B	5.19	B	13.1		F
BARIUM	200.0	33.5	B	36.3	B	8.02		P
BERYLLIUM	5.0	< 1	U	< 1	U	0		P
CADMIUM	5.0	< 1	U	< 1	U	0		P
CALCIUM		233000		230000		1.2959		P
CHROMIUM	10.0	33.0		31.5		4.65		P
COBALT	50.0	< 2.4	U	< 2.4	U	0		P
COPPER	25.0	8.43	B	< 1	U	0		P
IRON		9210		9130		0.8724		P
LEAD	3.0	< 0.5	U	< 0.5	U	0		F
MAGNESIUM	5000.0	3690	B	3870	B	4.762		P
MANGANESE		167		159		4.91		P
NICKEL	40.0	29.2	B	< 4.9	U	0		P
POTASSIUM	5000.0	< 97.6	U	< 97.6	U	0		P
SELENIUM	5.0	< 1	U	< 1	U	0		F
SILVER	10.0	< 1	U	< 1	U	0		P
SODIUM	5000.0	2020	B	1890	B	6.650		P
THALLIUM	10.0	< 10.0	U	< 10.0	U	0		F
VANADIUM	50.0	53.0		52.3		1.33		P
ZINC	20.0	52.4		38.6		30.3		P

Comments:

SOUTHWESTERN LABORATORIES

DUPLICATES

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

EL-1-B

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-04

% Solids: 79.88

Date Received: 10/07/94

Concentration Units: mg/kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
MERCURY	0.2	< 0.1	U	< 0.1	U	0		AV

Comments:

SOUTHWESTERN LABORATORIES

DUPLICATES

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2 (DISSOLVED)

Matrix (soil/water): WATER

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-18

% Solids: 0.00

Date Received: 10/07/94

Concentration Units: ug/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
ALUMINUM	200.0	< 70	U	< 70	U	0		P
ANTIMONY	60.0	< 30	U	< 30	U	0		F
ARSENIC	10.0	3.21	U	2.74	U	15.8		F
BARIUM		1140		1120		1.770		P
BERYLLIUM	5.0	< 5	U	< 5	U	0		P
CADMIUM	5.0	< 5	U	< 5	U	0		P
CALCIUM		337000		342000		1.4727		P
CHROMIUM	10.0	< 10	U	< 10	U	0		P
COBALT	50.0	< 10	U	< 10	U	0		P
COPPER	25.0	< 6	U	< 6	U	0		P
IRON	100.0	73.2	B	93.6	B	24.5		P
LEAD	3.0	< 2	U	< 2	U	0		F
MAGNESIUM		120000		122000		1.6528		P
MANGANESE		416		416		0		P
MERCURY	0.2	< 0.2	U	< 0.2	U	0		AV
NICKEL	40.0	< 20	U	< 20	U	0		P
POTASSIUM		38700		37600		2.8834		P
SELENIUM	5.0	< 5	U	< 5	U	0		F
SILVER	10.0	< 6	U	< 6	U	0		P
SODIUM		868000		869000		0.1151		P
THALLIUM	10.0	< 10.0	U	< 10.0	U	0		F
VANADIUM	50.0	< 10	U	< 10	U	0		P
ZINC	20.0	96.4		94.9		1.57		P

Comments:

SOUTHWESTERN LABORATORIES

LABORATORY CONTROL SAMPLE

Lab Name: Southwestern Laboratories - Houston Batch ID:

LCS Source: PREPARED

Sample ID: LCSW Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ALUMINUM	2000	1850	92.50	P
ANTIMONY	100	104.6	105	F
ARSENIC	40.0	38.57	96.4	F
BARIUM	2000	1910	95.50	P
BERYLLIUM	50.0	48.2	96.4	P
CADMIUM	50.0	47.2	94.4	P
CHROMIUM	200	190	95.0	P
COBALT	500	472	94.4	P
COPPER	250	245	98.0	P
IRON	1000	971	97.1	P
LEAD	500	601	120	A
MANGANESE	500	460	92.0	P
MERCURY	10.0	9.30	93.0	AV
NICKEL	500	479	95.8	P
SELENIUM	10.00	9.62	96.2	F
SILVER	50.0	45.0	90.0	P
THALLIUM	50.0	44.85	89.7	F
VANADIUM	500	458	91.6	P
ZINC	500	440	88.0	P

(1) - Control Limits: Antimony and Silver 70-130% All other metals 80-120%

SOUTHWESTERN LABORATORIES

LABORATORY CONTROL SAMPLE

Lab Name: Southwestern Laboratories - Houston Batch ID:

LCS Source: PREPARED

Sample ID: LCSS Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ALUMINUM	2000	2500	125.0	P
ANTIMONY	100	97.2	97.2	F
ARSENIC	40.0	37.45	93.6	F
BARIUM	2000	2100	105.0	P
BERYLLIUM	50.0	51.5	103	P
CADMIUM	50.0	52.1	104	P
CHROMIUM	200	209	104	P
COBALT	500	519	104	P
COPPER	250	265	106	P
IRON	1000	1560	156.0	P
LEAD	500	528	106	A
MANGANESE	500	521	104	P
NICKEL	500	522	104	P
SELENIUM	10.0	8.78	87.8	F
SILVER	50.0	43.1	86.2	P
THALLIUM	50.0	53.00	106	F
VANADIUM	500	510	102	P
ZINC	500	503	101	P

(1) - Control Limits: Antimony and Silver 70-130% All other metals 80-120%

SOUTHWESTERN LABORATORIES

LABORATORY CONTROL SAMPLE

Lab Name: Southwestern Laboratories - Houston Batch ID:

LCS Source: PREPARED

Sample ID: CCV Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
THALLIUM	40.0	38.58	96.4	F

(1) - Control Limits: Antimony and Silver 70-130% All other metals 80-120%

EBS RUN NUMBER: 57800\941013000000
INSTRUMENT ID: 57800

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 1

TEST: MERCURY **DATE ANALYZED: 10/13/94** **ANALYZED BY: JBA** **HOLDING TIME: 28 Days**

Total Number of Samples: 6
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 3
Number of LCS's: 0

Number of ICB's: 1
Number of CCB's: 3
Number of PB's: 0

Number of DUP's: 2
Number of SPK's: 2
Number of MSD'S: 0

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	HGW	ug/L	10.3	10.0		103		85.0	115	NA	NA	NA
ICB	HGW	ug/L	< 0.2							NA	NA	NA
CRA	HGW	ug/L	0.3	0.800		40				NA	NA	NA
9410061-01A	HGS	mg/kg	< 0.1							10/07/94	09/29/94	YES
9410061-02A	HGS	mg/kg	< 0.1							10/07/94	09/29/94	YES
9410061-03A	HGS	mg/kg	< 0.1							10/07/94	09/29/94	YES
CCV	HGW	ug/L	9.80	10.0		98.0		85.0	115	NA	NA	NA
CCB	HGW	ug/L	< 0.2							NA	NA	NA
9410061-04A	HGS	mg/kg	< 0.1							10/07/94	09/29/94	YES
DUP	HGS	mg/kg	< 0.1	< 0.1			0			10/07/94	09/29/94	YES
SPK	HGS	mg/kg	< 0.1	< 0.1	5.01	0		75.0	125	10/07/94	NA	NA
9410061-05A	HGS	mg/kg	4.29							10/07/94	09/29/94	YES
9410061-06A	HGS	mg/kg	< 0.1							10/07/94	09/29/94	YES
CCV	HGW	ug/L	9.60	10.0		96.0		85.0	115	NA	NA	NA
CCB	HGW	ug/L	< 0.2							NA	NA	NA
9410061-06A DUP	HGS	mg/kg	< 0.2	< 0.1			0			10/07/94	09/29/94	YES
SPK	HGS	mg/kg	< 0.2	< 0.1	10.0	0		75.0	125	10/07/94	NA	NA
CCV	HGW	ug/L	9.20	10.0		92.0		85.0	115	NA	NA	NA
CCB	HGW	ug/L	< 0.2							NA	NA	NA

EBS RUN NUMBER: 57800\941013000000
INSTRUMENT ID: 57800

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: MERCURY **DATE ANALYZED: 10/13/94** **ANALYZED BY: JBA** **HOLDING TIME: 28 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?

COMMENTS:

INSTRUMENT MODE	[illegible]
CALIBRATION MODE	[illegible]
MEASUREMENT MODE	[illegible]
LAMP POSITION	
LAMP CURRENT (mA)	[illegible]
SLIT WIDTH (nm)	[illegible]
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	253.7
FLAME	AIR-ACETYLENE
SAMPLE INTRODUCTION	AUTO NORMAL
DELAY TIME	60
TIME CONSTANT	[illegible]
MEASUREMENT TIME (sec)	[illegible]
REPLICATES	[illegible]
BACKGROUND CORRECTION	ON
AIR FLOW (L/min)	[illegible]
ACETYLENE FLOW (L/min)	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

Hg
10.0 ug/L

NAME HK METH BLK H_2O X LCSS X
DATE 10-11 METH BLK SOIL X LCSW X

Hg

Blk		x	(3)
Chk std	.0025	x	(1)
Chk std	.005	x	(1)
Chk std	.01	x	(1)
Chk std	.02	x	(1)
Chk std	.03	x	(1)
IW	.01	x	(3)

10-009-6A	wt	.25 g
-6 Dup		.24
-6 spk		.25
10-061-1A	wt	.24 g
-1B		.21
-1C		.21
-2A		.22
-2B		.22
-2C		.21
-3A		.21
-3B		.21
-3C		.26
-4A		.21
-4 Dp		.22
-4 spk		.22
-5A		.21
-5B		.21
-5C		.23
-6A		.21
-6B		.23
-6C		.29

EBS RUN NUMBER: 57800\941021000000
INSTRUMENT ID: 57800

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 1

TEST: MERCURY | DATE ANALYZED: 10/21/94 | ANALYZED BY: JP | HOLDING TIME: 28 Days

Total Number of Samples: 2
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 1
Number of LCS's: 1

Number of ICB's: 1
Number of CCB's: 1
Number of PB's: 0

Number of DUP's: 2
Number of SPK's: 4
Number of MSD'S: 0

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	HGW	ug/L	9.90	10.0		99.0		85.0	115	NA	NA	NA
ICB	HGW	ug/L	< 0.2							NA	NA	NA
CRA	HGW	ug/L	-0.1	0.800		-10				NA	NA	NA
LCSW	HGW	ug/L	9.30	10.0		93.0		85.0	115	NA	NA	NA
9410061-13A	HGW	ug/L	< 0.2							10/07/94	09/29/94	YES
DUP	HGW	ug/L	< 0.2	< 0.2			0			10/07/94	09/29/94	YES
9410061-13 SPK	HGW	ug/L	5.00	< 0.2	10.0	50.0		75.0	125	10/07/94	NA	NA
SPK	HGW	ug/L	9.50	< 0.2	10.0	95.0	62.1	75.0	125	10/07/94	NA	NA
9410061-18A	HGW	ug/L	< 0.2							10/07/94	09/29/94	YES
DUP	HGW	ug/L	< 0.2	< 0.2			0			10/07/94	09/29/94	YES
9410061-18 SPK	HGW	ug/L	< 0.2	< 0.2	10.0	0		75.0	125	10/07/94	NA	NA
SPK	HGW	ug/L	9.60	< 0.2	10.0	96.0	0	75.0	125	10/07/94	NA	NA
CCV	HGW	ug/L	9.50	10.0		95.0		85.0	115	NA	NA	NA
CCB	HGW	ug/L	< 0.2							NA	NA	NA

COMMENTS:

SWL SOUTHWESTERN LABORATORIES

P.O. Box 224227 • 2575 Lone Star Drive • Dallas, Texas 75222 • 214/631-2700

INORGANIC ANALYTICAL NONCONFORMANCE

TEST: Hg - COLD VAPOR DATE: 10/21/94

SAMPLES: 9410061 (13A, 13B, 13C, 18D)
9410061 (18A, 18B, 18C, 18D

DUPLICATE RPD > 20% _____

BLANKS OUT OF SPECIFICATION: _____

SPIKE RECOVERY OUT OF CONTROL: LOST "MS"

INSUFFICIENT SAMPLE FOR DUPLICATE: _____

INSUFFICIENT SAMPLE FOR SPIKE: _____

ACTION: "MS" SPIKE WAS LOST IN PREP AND HAD INSUFFICIENT RECOVERY. HOWEVER, THE "MSS" SPIKE RECOVERY IS ACCEPTABLE. 95% THE DUPLICATE SX. WAS ALSO A VAILD NUMBER, BOTH SX. WERE <0.0002. THIS IS ALSO THE SAME CONDITION FOR SX. 9410061-18A,B,C,D.

COMMENTS: I CONSULTED WITH MARK TIPTON ON THIS MATTER 10/28/94.

ANALYST: [signature]

QA/QC OFFICER: _____

SOUTHWESTERN LABORATORIES QUALITY CONTROL LOG

METHOD OF ANALYSIS: EPA: 245.1
DATE OF TEST: 10/21/94 PARAMETER: HG MATRIX: HNO3 ANALYST: JP MDL: .0002

CALIBRATION STANDARDS/BLANKS	ABSORBANCE	STANDARDS	THEORETICAL CONCENTRATION	MEASURED CONCENTRATION	% RECOVERY
0.00/.0025	0.00/.028	ICV	0.0100	0.0099	99.0
.0050/.0100	.073/.170	ICB	0.0000	0.0000	ERR
.0200	.328	CCV	0.0100	0.0094	94.0
.0300	.498	CCB	0.0000	0.0000	ERR
L.R.(R) =	.999	LCS	0.0100	0.0093	93.0

SAMPLE ID NUMBERS IN THIS RUN: 94-10-136

UNITS = mg/L

SAMPLE ID	BACKGROUND CONC.	DUPLICATE CONC	% DIFF.	SPIKE CONC	RECOVERED CONC	P* % RECOVERY
94-10-061-18	<.0002	<.0002	ERR	0.0100	0.0096	96.0
			ERR			ERR
			ERR			ERR
			ERR			ERR

Varian SpectrAA 300/400 System Report

OPERATOR J.PALACIOS
DATE 21 OCT 94
BATCH VARIOUS

PROGRAM 16 Hg COLD VAPOR

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	INTEGRATION
LAMP POSITION	6
LAMP CURRENT (mA)	4
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	253.7
FLAME	AIR-ACETYLENE
SAMPLE INTRODUCTION	AUTO NORMAL
DELAY TIME	60
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	2.0
REPLICATES	3
BACKGROUND CORRECTION	ON
AIR FLOW (L/min)	13.5
ACETYLENE FLOW (L/min)	2.00
RINSE RATE	1
RINSE TIME (sec)	15.0
RECALIBRATION RATE	0
RESLOPE RATE	0

SAMPLE	CONC MG/L	%RSD	MEAN ABS	
BLANK	0.0000		0.015	
BLANK	0.0000		-0.004	
STANDARD 1	0.0025	3.2	0.028	
STANDARD 2	0.0050	0.5	0.073	LR=0.999
STANDARD 3	0.0100	0.5	0.170	
STANDARD 4	0.0200	0.2	0.328	
STANDARD 5	0.0300	0.2	0.498	
ICV	0.0099	0.3	0.168	0.0099/0.010x100=99%
ICB	-.0007	1.5	-0.008	
LCSS	0.0093	1.0	0.155	
LCSW	0.0093	0.5	0.154	0.0093/0.010x100=93%
CRDL	-.0010	4.1	-0.011	
PB H20	-.0011	1.6	-0.012	
EB #1	-.0012	1.4	-0.013	
EB #2	-.0008	6.0	-0.009	
9410061-13A	0.0004	48.3	0.004	
94 061-13BD	-.0002	22.5	-0.003	
94 061-13S	0.0050	1.1	0.072	
BLANK	0.0000		0.000	
9410061-13S2	0.0095	0.3	0.159	0.0095/0.010x100=95%

MADE A MISTAKE AT INST. WHEN PLACING SX. JP 10/21/94

SAMPLE	CONC MG/L	%RSD	MEAN ABS	
9410061-18A	-.0016	0.7	-0.018	
9410061-18D	-.0017	2.1	-0.019	
9410061-18S1	0.0003	22.3	0.004	
9410061-18S2	0.0096	0.4	0.161	0.0096/0.010 x100 = 96%
CCV	0.0095	0.6	0.160	0.095/0.010 x100 = 95%
CCB	-.0008	12.7	-0.009	
9410136-01A	0.0003	6.7	0.003	
9410136-01D	0.0002	9.4	0.003	
9410136-01S	0.0096	0.9	0.161	0.0096/0.010 x100 = 96%
9410061-02	-.0009	3.0	-0.010	
9410137-01	-.0004	11.9	-0.004	
9410149-01	-.0010	5.0	-0.011	
9410077-01B	-.0013	1.3	-0.015	
9410077-01D	-.0014	0.6	-0.015	
9410077-01S	0.0087	0.8	0.141	0.0087/0.010 x100 = 87%
CCV	0.0093	0.1	0.154	0.0093/0.010 x100 = 93%
CCB	-.0009	6.3	-0.010	
9410116-01	-.0014	2.4	-0.016	
9410125-01	-.0015	2.5	-0.017	
CCV	0.0094	0.2	0.157	0.0094/0.010 x100 = 94%
CCB	-.0010	11.7	-0.011	

EBS RUN NUMBER: 66950\941119000000
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 1

TEST: ARSENIC | DATE ANALYZED: 11/19/94 | ANALYZED BY: JBA | HOLDING TIME: 90 Days

Total Number of Samples: 8
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 4
Number of LCS's: 2

Number of ICB's: 2
Number of CCB's: 3
Number of PB's: 3

Number of DUP's: 3
Number of SPK's: 3
Number of MSD'S: 2

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	ARSENIC	ug/L	39.3	40.0		98.2		90.0	110	NA	NA	NA
ICB	ARSENIC	ug/L	< 10							NA	NA	NA
CRA	ARSENIC	ug/L	2.72	5.00		54.4				NA	NA	NA
CCV	ARSENIC	ug/L	38.77	40.0		96.9		90.0	110	NA	NA	NA
CCB	ARSENIC	ug/L	< 10							NA	NA	NA
LCSW	ARSENIC	ug/L	38.57	40.0		96.4		80.0	120	NA	NA	NA
PB	ARSENIC	ug/L	< 10							NA	NA	NA
9410061-13A	ARSENIC	ug/L	0.90							10/07/94	09/29/94	YES
9410061-13 DUP	ARSENIC	ug/L	0.79	0.90			13			10/07/94	09/29/94	YES
SPK	ARSENIC	ug/L	0.67	0.90	40.0	-0.58		75.0	125	10/07/94	NA	NA
MSD	ARSENIC	ug/L	0.86	0.90	40.0	-0.10	140	75.0	125	10/07/94	NA	NA
ISPK	ARSENIC	ug/L	26.04	0.450	25.0	102		85.0	115	10/07/94	NA	NA
CCV	ARSENIC	ug/L	37.9	40.0		94.8		90.0	110	NA	NA	NA
CCB	ARSENIC	ug/L	< 10							NA	NA	NA
PB	ARSENIC	ug/L	< 10							NA	NA	NA
9410061-18A	ARSENIC	ug/L	3.21							10/07/94	09/29/94	YES
9410061-18 DUP	ARSENIC	ug/L	2.74	3.21			15.8			10/07/94	09/29/94	YES
SPK	ARSENIC	ug/L	34.89	3.21	40.0	79.2		75.0	125	10/07/94	NA	NA
MSD	ARSENIC	ug/L	35.04	3.21	40.0	79.6	0.504	75.0	125	10/07/94	NA	NA
ISPK	ARSENIC	ug/L	23.81	1.60	25.0	88.8		85.0	115	10/07/94	NA	NA
LCSS	ASSF	mg/kg	37.45	40.0		93.6				NA	NA	NA
PB	ARSENIC	ug/L	< 10							NA	NA	NA
CCV	ARSENIC	ug/L	38.01	40.0		95.0		90.0	110	NA	NA	NA

EBS RUN NUMBER: 66950\941119000000
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 2

TEST: ARSENIC DATE ANALYZED: 11/19/94 ANALYZED BY: JBA HOLDING TIME: 90 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
CCB	ARSENIC	ug/L	< 10							NA	NA	NA
9410061-02A	ASSF	mg/kg	2.72							10/07/94	09/29/94	YES
9410061-03A	ASSF	mg/kg	1.65							10/07/94	09/29/94	YES
9410061-04A	ASSF	mg/kg	1.96							10/07/94	09/29/94	YES
9410061-01A	ASSF	mg/kg	5.92							10/07/94	09/29/94	YES
9410061-01 DUP	ASSF	mg/kg	5.19	5.92			13.1			10/07/94	09/29/94	YES
SPK	ASSF	mg/kg	5.72	5.92	40.0	-0.500		75.0	125	10/07/94	NA	NA
ISPK	ASSF	mg/kg	8.68	2.96	25.0	22.9		85.0	115	10/07/94	NA	NA
9410061-05A	ASSF	mg/kg	7.72							10/07/94	09/29/94	YES
9410061-06A	ASSF	mg/kg	6.80							10/07/94	09/29/94	YES
CCV	ARSENIC	ug/L	34.43	40.0		86.1		90.0	110	NA	NA	NA
CCB	ARSENIC	ug/L	< 10							NA	NA	NA

COMMENTS:

11/19/94 As

Sample ID	DF	Result (µg/L)	Theoretical
ICV		39.31	40.00
ICB		-0.22	
CRDL		2.72	25.00
CCV		38.77	40.00
CCB		-0.19	
LCSW		38.57	40.0
PB		-0.18	
9410061-13A		0.90 ~~38.7~~	
-13A dup		0.79	
-13A spk		0.67	40.00
-13A MSD		0.86	40.00
-13A ISpk		26.04	25.00
CCV		37.90	
CCB		0.11	
PB		-0.09	
9410061-18A		3.21	
-18A dup		2.74	
-18A spk		34.89	40.00
-18A MSD		35.04	40.00
-18A ISpk		23.81	25.00
LCSS		37.45	40.0
PB		-0.24	
CCV		38.01	40.0
CCB		-0.41	
9410061-02A		10.32	
9410061-03A		6.51	
9410061-04A		7.83	
9410061-01A		24.28	
-01A dup		21.29	
-01A spk		23.45	40.00
-01A ISpk		35.59	25.00

11/19/94 As

Sample ID	DF	Result (mg/L)	Theoretical
9410061-05A		7.72	
9410061-06A		6.80	
CCV		34.43	40.00
CCB		-0.36	

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	85	5.0	3.0	NORMAL	NO
2	95	40.0	3.0	NORMAL	NO
3	120	10.0	3.0	NORMAL	NO
4	1200	5.0	3.0	NORMAL	NO
5	1200	1.0	3.0	NORMAL	NO
6	1200	2.0	0.0	NORMAL	NO
7	2600	1.0	0.0	NORMAL	YES
8	2600	2.0	0.0	NORMAL	YES
9	2600	2.0	3.0	NORMAL	NO

SAMPLER PARAMETERS

VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	4	16	5
STANDARD 2	10	10	5
STANDARD 3	20	0	5
SAMPLE	20		5

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT NO PRE INJECT NO

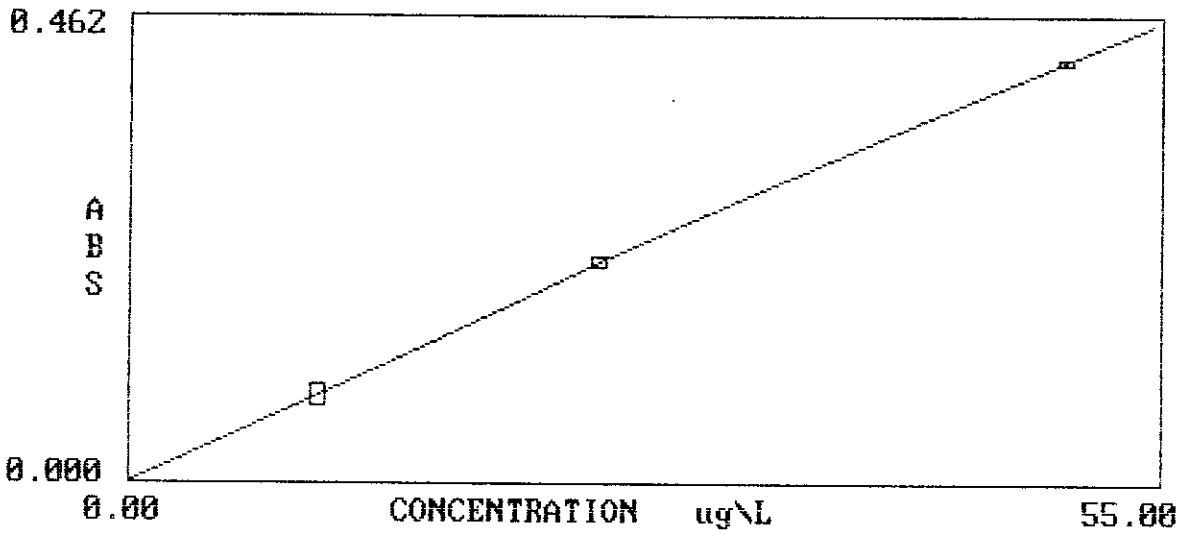
QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	46
QC INITIAL BLANK POSITION	47
QC CONTINUING STANDARD POSITION	48
QC CONTINUING BLANK POSITION	49
QC STANDARD VOLUME (µL)	20
QC STANDARD CONCENTRATION	40.00 ug\L
QC STANDARD LIMITS (%)	90 TO 110
QC SPIKE RATE	0
QC SPIKE VOLUME (µL)	5
QC SPIKE CONCENTRATION	1.00 ug\L
MATRIX SPIKE CONCENTRATION	1.00 ug\L
INSTRUMENT DETECTION LIMIT	10.00 ug\L
REQUIRED DETECTION LIMIT	10.00 ug\L

SAMPLE	CONC ug\L	%RSD	MEAN ABS
BLANK	0.00		0.007

19Nov94 19:24
CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug\L	%RSD	MEAN ABS	
STANDARD 1 QC	10.00	9.3	0.085	19Nov94 19:28
. NDARD 2 QC	25.00	1.8	0.219	19Nov94 19:32
STANDARD 3 QC	50.00	0.0	0.420	19Nov94 19:36



ICV QC	39.31	1.5	0.336	19Nov94 19:40 %R = 98.3
ICB QC	-0.22	35.0	-0.002	19Nov94 19:44 ABS = 0.005 CONCENTRATION LESS THAN IDL
CRDL QC	2.72	6.8	0.023	19Nov94 19:48 CONCENTRATION LESS THAN IDL
C 1 Q	38.77	1.1	0.332	19Nov94 19:51 %R = 96.9

SAMPLE	CONC ug\L	%RSD	MEAN ABS	
CCB 1 QC	-0.19	90.3	-0.002	19Nov94 19:55 ABS = 0.005 CONCENTRATION LESS THAN IDL
LCSW 10061 T QC	38.57	1.2	0.330	19Nov94 19:59
PB 10061 T QC	-0.18	39.8	-0.001	19Nov94 20:03 RPD = 201.8 CONCENTRATION LESS THAN IDL
9410061-13a QC	0.90	38.1	0.008	19Nov94 20:06 %R = 90.2 CONCENTRATION LESS THAN IDL
9410061-13aD QC	0.79	5.3	0.007	19Nov94 20:10 CONCENTRATION LESS THAN IDL
9410061-13aS QC	0.67	46.8	0.006	19Nov94 20:14 CONCENTRATION LESS THAN IDL
9410061-13aS C	0.86	40.9	0.007	19Nov94 20:17 CONCENTRATION LESS THAN IDL
061-13aINS S QC	26.04	0.2	0.227	19Nov94 20:21
LCSW 10061 D QC	OVER	1.7	1.256*	19Nov94 20:25
LCSW 10061 D QC	OVER	2.8	1.277*	19Nov94 20:28 DF = 2.00
LCSW 10061 D QC	OVER	0.7	1.260*	19Nov94 20:31 DF = 4.00
CCV 2 QC	37.90	0.4	0.325	19Nov94 20:35 %R = 94.8
CCB 2 QC	0.11	99.9	0.001	19Nov94 20:39 ABS = 0.007 CONCENTRATION LESS THAN IDL
LCSW 10061 D C	OVER	1.2	1.034*	19Nov94 20:43 DF = 10.00

SAMPLE	CONC ug\L	%RSD	MEAN ABS	
LCSW 10061 D QC	OVER	4.7	0.727	19Nov94 20:46 DF = 20.00 REDUCED SAMPLE VOLUME LESS THAN 1µL
PB 10061 D QC	-0.09	0.0	-0.001	19Nov94 20:50 CONCENTRATION LESS THAN IDL
9410061-18a QC	3.21	6.9	0.027	19Nov94 20:53 CONCENTRATION LESS THAN IDL
9410061-18aD QC	2.74	6.8	0.023	19Nov94 20:57 CONCENTRATION LESS THAN IDL
9410061-18aS QC	34.89	3.3	0.300	19Nov94 21:00
9410061-18aS QC	35.04	1.1	0.302	19Nov94 21:04
061-18aINS S QC	23.81	0.6	0.208	19Nov94 21:08
LCSS 10061 Q	37.45	1.5	0.321	19Nov94 21:11
[illegible] 10061 QC	-0.24	44.9	-0.002	19Nov94 21:15 CONCENTRATION LESS THAN IDL
CCV 3 QC	38.01	0.9	0.326	19Nov94 21:19 %R = 95.0
CCB 3 QC	-0.41	13.8	-0.004	19Nov94 21:23 ABS = 0.003 CONCENTRATION LESS THAN IDL
9410061-02a QC	10.32	1.3	0.088	19Nov94 21:26
9410061-03a QC	6.51	8.4	0.055	19Nov94 21:30 CONCENTRATION LESS THAN IDL
9410061-04a QC	7.83	4.9	0.067	19Nov94 21:34 CONCENTRATION LESS THAN IDL
[illegible]0061-01a L	24.28	0.2	0.212	19Nov94 21:38
9410061-01aD QC	21.29	1.2	0.185	19Nov94 21:42

SAMPLE	CONC ug\L	%RSD	MEAN ABS	
9410061-01aS QC	23.45	1.7	0.205	19Nov94 21:45
-01aINS S u	35.59	0.2	0.306	19Nov94 21:49
9410061-05a QC	7.72	13.7	0.066	19Nov94 21:53 CONCENTRATION LESS THAN IDL
9410061-06a QC	6.80	24.8	0.058	19Nov94 21:57 CONCENTRATION LESS THAN IDL
DI H20 QC	-0.33	10.8	-0.003	19Nov94 22:00 CONCENTRATION LESS THAN IDL
CCV 4 QC	34.43	0.1 Q	0.297	19Nov94 22:04 %R = 86.1
CCB 4 QC	-0.36	0.0	-0.003	19Nov94 22:08 ABS = 0.003 CONCENTRATION LESS THAN IDL

EBS RUN NUMBER: 66950\941122000000
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 1

TEST: ANTIMONY **DATE ANALYZED: 11/22/94** **ANALYZED BY: JBA** **HOLDING TIME: 90 Days**

Total Number of Samples: 7
QA Acceptable? ____
Initials: ____

Number of ICV's: 2
Number of CCV's: 2
Number of LCS's: 2

Number of ICB's: 2
Number of CCB's: 2
Number of PB's: 2

Number of DUP's: 2
Number of SPK's: 2
Number of MSD'S: 1

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	ANTIMONY	ug/L	99.0	100		99.0		90.0	110	NA	NA	NA
ICB	ANTIMONY	ug/L	< 30							NA	NA	NA
CRA	ANTIMONY	ug/L	26.9	30.0		89.7				NA	NA	NA
CCV	ANTIMONY	ug/L	101.5	100		102		90.0	110	NA	NA	NA
CCB	ANTIMONY	ug/L	< 30							NA	NA	NA
LCSW	ANTIMONY	ug/L	109.2	100		109		80.0	120	NA	NA	NA
PB	ANTIMONY	ug/L	< 30							NA	NA	NA
9410061-18A	ANTIMONY	ug/L	< 30							10/07/94	09/29/94	YES
9410061-18 DUP	ANTIMONY	ug/L	< 30	< 30			0			10/07/94	09/29/94	YES
SPK	ANTIMONY	ug/L	83.6	< 30	100	83.6		75.0	125	10/07/94	NA	NA
MSD	ANTIMONY	ug/L	87.2	< 30	100	87.2	4.22	75.0	125	10/07/94	NA	NA
ISPK	ANTIMONY	ug/L	58.9	< 30	50.0	118		85.0	115	10/07/94	NA	NA
LCSS	SBSF	mg/kg	94.8	100		94.8		80.0	120	NA	NA	NA
PB	ANTIMONY	ug/L	< 30							NA	NA	NA
9410061-02A	SBSF	mg/kg	< 7.9							10/07/94	09/29/94	YES
CCV	SBSF	ug/L	94.6	100		94.6		90.0	110	NA	NA	NA
CCB	ANTIMONY	ug/L	< 30							NA	NA	NA
9410061-03A	SBSF	mg/kg	< 7.6							10/07/94	09/29/94	YES
9410061-04A	SBSF	mg/kg	< 7.5							10/07/94	09/29/94	YES
9410061-01A	SBSF	mg/kg	< 7.3							10/07/94	09/29/94	YES
9410061-01 DUP	SBSF	mg/kg	< 7.3	< 7.3			0			10/07/94	09/29/94	YES
SPK	SBSF	mg/kg	< 7.3	< 7.3	100	0		75.0	125	10/07/94	NA	NA
ISPK	SBSF	mg/kg	13.8	< 7.3	50.0	27.6		85.0	115	10/07/94	NA	NA

EBS RUN NUMBER: 66950\941122000000
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 2

TEST: ANTIMONY **DATE ANALYZED: 11/22/94** **ANALYZED BY: JBA** **HOLDING TIME: 90 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-05A	SBSF	mg/kg	< 7.5							10/07/94	09/29/94	YES
9410061-06A	SBSF	mg/kg	< 7.5							10/07/94	09/29/94	YES
CCV	ANTIMONY	ug/L	89.9	100		89.9		90.0	110	NA	NA	NA
CCB	ANTIMONY	ug/L	< 30							NA	NA	NA

COMMENTS:

11/22/94 Sb

Sample ID	DF	MG/L Result	Theoretical
ICV		99.0	100
ICB		-0.5	
CRDL		26.9	30.0
CCV		101.5	100
CCB		-0.1	
LCSW		109.2	100
PB		-0.6	
9410061-18A		-0.2	
-18Adup		-0.1	
-18Aspk		83.6	100
-18A MSD		87.2	100
-18A ISpk		58.9	50.0
LCSS		94.8	100
PB		-0.4	
9410061-02A		-0.3	
CCV		94.6	100
CCB		-0.3	
9410061-03A		-0.2	
9410061-04A		-0.5	
9410061-01A		-0.4	
-01Adup		-0.4	
-01Aspk		2.3	100
-01A ISpk		56.4	50.0
9410061-05A		-0.3	
9410061-06A		-0.3	
CCV		89.9	100
CCB		-0.1	

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

OPERATOR	JOHN ALLEN
DATE	22 NOV 94
BATCH	DSM CLP

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	44
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	2
REPLICATE RSD LIMIT (%)	20.0

PROGRAM 14 Sb CLP

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK HEIGHT
LAMP POSITION	7
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	231.2
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.10
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.40

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	85	5.0	3.0	NORMAL	NO
2	95	20.0	3.0	NORMAL	NO
3	120	30.0	3.0	NORMAL	NO
4	1400	5.0	3.0	NORMAL	NO
5	1400	1.0	3.0	NORMAL	NO
6	1400	2.0	0.0	NORMAL	NO
7	2400	0.5	0.0	NORMAL	YES
8	2400	2.0	0.0	NORMAL	YES
9	2400	2.0	3.0	NORMAL	NO

SAMPLER PARAMETERS

VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	5	15	5
STANDARD 2	10	10	5
STANDARD 3	20	0	5
SAMPLE	20	0	5

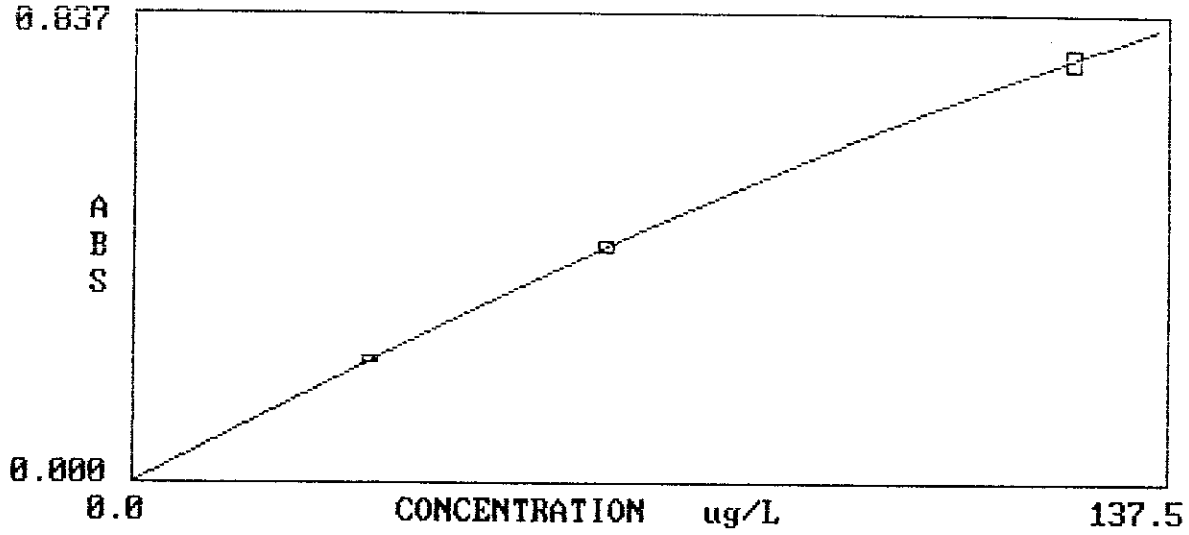
RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT NO PRE INJECT NO

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	46
QC INITIAL BLANK POSITION	47
QC CONTINUING STANDARD POSITION	48
QC CONTINUING BLANK POSITION	49
QC STANDARD VOLUME (µL)	20
QC STANDARD CONCENTRATION	100.0 ug/L
QC STANDARD LIMITS (%)	90 TO 110
QC SPIKE RATE	0
QC SPIKE VOLUME (µL)	2
QC SPIKE CONCENTRATION	1200.0ug/L
MATRIX SPIKE CONCENTRATION	0.0 ug/L
INSTRUMENT DETECTION LIMIT	30.0 ug/L
REQUIRED DETECTION LIMIT	60.0 ug/L

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
BLANK	0.0		0.009	
QC				22Nov94 10:50
				CONCENTRATION LESS THAN IDL
STANDARD 1	31.2	0.7	0.216	
QC				22Nov94 10:54
STANDARD 2	62.5	1.2	0.420	
QC				22Nov94 10:58
STANDARD 3	125.0	1.8	0.761	
QC				22Nov94 11:02



S PLE	CONC ug/L	%RSD	MEAN ABS	
ICV QC	99.0	0.5	0.630	22Nov94 11:06 %R = 99.0
ICB QC	-0.5	1.9	-0.003	22Nov94 11:10 ABS = 0.006 CONCENTRATION LESS THAN IDL
CRDL QC	26.9	0.9	0.186	22Nov94 11:14 CONCENTRATION LESS THAN IDL
CCV 1 QC	101.3	27.8	0.643	22Nov94 11:18 %RSD GREATER THAN LIMIT
CCV 1 QC	101.5	1.0	0.644	22Nov94 11:21 %R = 101.5
CCB 1 QC	-0.1	99.9	-0.001	22Nov94 11:25 ABS = 0.009 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
LCSW 10061 D QC	109.2	1.5	0.684	22Nov94 11:29
10061 D QC	-0.6	0.0	-0.004	22Nov94 11:32 CONCENTRATION LESS THAN IDL
9410061-18a QC	-0.2	99.9	-0.001	22Nov94 11:36 CONCENTRATION LESS THAN IDL
9410061-18aD QC	-0.1	99.9	-0.001	22Nov94 11:39 CONCENTRATION LESS THAN IDL
9410061-18aS QC	83.6	1.2	0.546	22Nov94 11:43
9410061-18aS QC	87.2	1.8	0.566	22Nov94 11:47
061-18aINS S QC	58.9	0.1	0.397	22Nov94 11:50
LCSS 10061 QC	94.8	1.2	0.608	22Nov94 11:54
P 10061	-0.4	60.0	-0.002	22Nov94 11:58 CONCENTRATION LESS THAN IDL
9410061-02a QC	-0.3	5.3	-0.002	22Nov94 12:01 CONCENTRATION LESS THAN IDL
CCV 2 QC	94.6	3.2	0.607	22Nov94 12:05 %R = 94.6
CCB 2 QC	-0.3	34.2	-0.002	22Nov94 12:09 ABS = 0.007 CONCENTRATION LESS THAN IDL
9410061-03a QC	-0.2	33.6	-0.001	22Nov94 12:13 CONCENTRATION LESS THAN IDL
9410061-04a QC	-0.5	4.0	-0.003	22Nov94 12:16 CONCENTRATION LESS THAN IDL
9410061-01a QC	-0.4	33.7	-0.003	22Nov94 12:20 CONCENTRATION LESS THAN IDL
9410061-01aD QC	-0.4	16.9	-0.003	22Nov94 12:24 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
9410061-01aS QC	2.3	6.4	0.016	22Nov94 12:28 CONCENTRATION LESS THAN IDL
061-01aINS S QC	56.4	4.2	0.381	22Nov94 12:32
9410061-05a QC	-0.3	23.6	-0.002	22Nov94 12:35 CONCENTRATION LESS THAN IDL
9410061-06a QC	-0.3	27.9	-0.002	22Nov94 12:39 CONCENTRATION LESS THAN IDL
DI H20 QC	-0.3	10.3	-0.002	22Nov94 12:43 CONCENTRATION LESS THAN IDL
CCV 3 QC	89.9	5.0 Q	0.581	22Nov94 12:47 %R = 89.9
CCB 3 QC	-0.1	92.8	-0.001	22Nov94 12:50 ABS = 0.008 CONCENTRATION LESS THAN IDL

EBS RUN NUMBER: 66950\941121144900
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 1

TEST: ANTIMONY

DATE ANALYZED: 11/21/94

ANALYZED BY: JBA

HOLDING TIME: 90 Days

Total Number of Samples: 1
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 2
Number of LCS's: 2

Number of ICB's: 2
Number of CCB's: 1
Number of PB's: 2

Number of DUP's: 1
Number of SPK's: 1
Number of MSD'S: 1

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	ANTIMONY	ug/L	99.7	100		99.7		90.0	110	NA	NA	NA
ICB	ANTIMONY	ug/L	< 30							NA	NA	NA
CRA	ANTIMONY	ug/L	25.2	30.0		84.0				NA	NA	NA
CCV	ANTIMONY	ug/L	97.9	100		97.9		90.0	110	NA	NA	NA
CCB	ANTIMONY	ug/L	< 30							NA	NA	NA
LCSW	ANTIMONY	ug/L	104.6	100		105		80.0	120	NA	NA	NA
PB	ANTIMONY	ug/L	< 30							NA	NA	NA
9410061-13A	ANTIMONY	ug/L	< 30							10/07/94	09/29/94	YES
9410061-13 DUP	ANTIMONY	ug/L	< 30	< 30			0			10/07/94	09/29/94	YES
SPK	ANTIMONY	ug/L	< 30	< 30	100	0		75.0	125	10/07/94	NA	NA
MSD	ANTIMONY	ug/L	< 30	< 30	100	0	0	75.0	125	10/07/94	NA	NA
ISPK	ANTIMONY	ug/L	43.2	< 30	50.0	86.4		85.0	115	10/07/94	NA	NA
LCSS	SBSF	mg/kg	97.2	100		97.2		80.0	120	NA	NA	NA
PB	ANTIMONY	ug/L	< 30							NA	NA	NA
CCV	ANTIMONY	ug/L	94.1	100		94.1		90.0	110	NA	NA	NA
CCB	ANTIMONY	ug/L	< 30							NA	NA	NA

COMMENTS:

11/21/94 Sb

Sample ID	DF	Result (µg/L)	Theoretical (µg/L)
ICV		99.7	100
ICB		0.9	
CRDL		25.2	30.00
CCV		97.9	100
CCB		0.9	
LCSW		104.6	100
PB		0.5	
9410061-13A		0.6	
-13A dup		0.4	
-13A spk		1.2	100
-13A MSD		1.4	100
-13A Ispk		43.2	50.00
LCSW		97.2	100
PB		-0.0	
CCV		94.1	100
CCB		0.1	

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

OPERATOR	JOHN ALLEN
DATE	21 NOV 94
BATCH	DSM CLP

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	44
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	2
REPLICATE RSD LIMIT (%)	20.0

PROGRAM 14 Sb CLP

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK HEIGHT
LAMP POSITION	7
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	231.2
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.10
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.40

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	85	5.0	3.0	NORMAL	NO
2	95	20.0	3.0	NORMAL	NO
3	120	30.0	3.0	NORMAL	NO
4	1400	5.0	3.0	NORMAL	NO
5	1400	1.0	3.0	NORMAL	NO
6	1400	2.0	0.0	NORMAL	NO
7	2400	0.5	0.0	NORMAL	YES
8	2400	2.0	0.0	NORMAL	YES
9	2400	2.0	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	5	15	5
STANDARD 2	10	10	5
STANDARD 3	20	0	5
SAMPLE	20	0	5

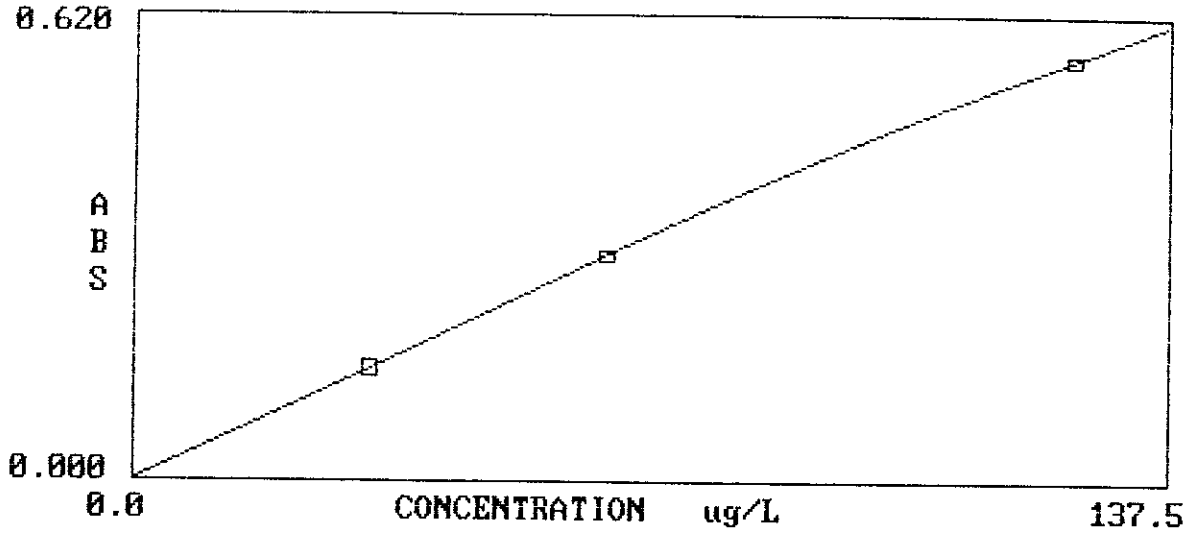
RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT NO PRE INJECT NO

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	46
QC INITIAL BLANK POSITION	47
QC CONTINUING STANDARD POSITION	48
QC CONTINUING BLANK POSITION	49
QC STANDARD VOLUME (µL)	20
QC STANDARD CONCENTRATION	100.0 ug/L
QC STANDARD LIMITS (%)	90 TO 110
QC SPIKE RATE	0
QC SPIKE VOLUME (µL)	2
QC SPIKE CONCENTRATION	1200.0ug/L
MATRIX SPIKE CONCENTRATION	0.0 ug/L
INSTRUMENT DETECTION LIMIT	30.0 ug/L
REQUIRED DETECTION LIMIT	60.0 ug/L

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
BLANK	0.0		0.004	
QC				21Nov94 14:33
				CONCENTRATION LESS THAN IDL
STANDARD 1	31.2	5.0	0.147	
QC				21Nov94 14:37
STANDARD 2	62.5	1.3	0.299	
QC				21Nov94 14:41
STANDARD 3	125.0	0.4	0.564	
QC				21Nov94 14:45



SAMPLE	CONC ug/L	%RSD	MEAN ABS	
ICV QC	99.7	1.2	0.466	21Nov94 14:49 %R = 99.7
ICB QC	0.9	99.9	0.004	21Nov94 14:53 ABS = 0.008 CONCENTRATION LESS THAN IDL
CRDL QC	25.2	0.9	0.119	21Nov94 14:57 CONCENTRATION LESS THAN IDL
CCV 1 QC	97.9	2.2	0.458	21Nov94 15:00 %R = 97.9
CCB 1 QC	0.9	0.0	0.004	21Nov94 15:04 ABS = 0.008 CONCENTRATION LESS THAN IDL
LCSW 10061 T Q	104.6	1.3	0.486	21Nov94 15:08
PB 10061 T QC	0.5	18.6	0.002	21Nov94 15:12 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
9410061-13a QC	0.6	16.7	0.003	21Nov94 15:15 CONCENTRATION LESS THAN IDL
9410061-13aD QC	0.4	99.9	0.002	21Nov94 15:19 CONCENTRATION LESS THAN IDL
9410061-13aS QC	1.2	25.0	0.005	21Nov94 15:23 CONCENTRATION LESS THAN IDL
9410061-13aS QC	1.4	34.1	0.007	21Nov94 15:26 CONCENTRATION LESS THAN IDL
061-13aINS S QC	43.2	0.5	0.205	21Nov94 15:30
LCSW 10061 D QC	97.2	0.5	0.456	21Nov94 15:33
PB 10061 D QC	-0.0	99.9	-0.000	21Nov94 15:37 CONCENTRATION LESS THAN IDL
9410061-18a QC	0.7	48.1	0.003	21Nov94 15:40 CONCENTRATION LESS THAN IDL
CCV 2 QC	94.1	1.1	0.442	21Nov94 15:44 %R = 94.1
CCB 2 QC	0.1	99.9	0.000	21Nov94 15:48 ABS = 0.004 CONCENTRATION LESS THAN IDL
9410061-18aD QC	0.6	99.9	0.003	21Nov94 15:52 CONCENTRATION LESS THAN IDL
9410061-18aS QC	80.0	2.2	0.381	21Nov94 15:55
9410061-18aS QC	88.0	1.1	0.416	21Nov94 15:59
061-18aINS S QC	61.6	1.7	0.295	21Nov94 16:02
LCSS 10061 QC	84.6	3.2	0.401	21Nov94 16:06
PB 10061 QC	0.6	17.6	0.003	21Nov94 16:10 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
9410061-02a QC	0.1	99.9	0.001	21Nov94 16:14 CONCENTRATION LESS THAN IDL
9410061-03a QC	0.1	99.9	0.001	21Nov94 16:17 CONCENTRATION LESS THAN IDL
9410061-04a QC	0.1	37.7	0.000	21Nov94 16:21 CONCENTRATION LESS THAN IDL
9410061-01a QC	0.1	99.9	0.001	21Nov94 16:25 CONCENTRATION LESS THAN IDL
CCV 3 QC	88.5	3.0 Q	0.418	21Nov94 16:29 %R = 88.5

EBS RUN NUMBER: 66950\941121101500
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 1

TEST: THALLIUM **DATE ANALYZED: 11/21/94** **ANALYZED BY: JBA** **HOLDING TIME: 90 Days**

Total Number of Samples:	8	Number of ICV's:	2	Number of ICB's:	2	Number of DUP's:	3
QA Acceptable?	____	Number of CCV's:	2	Number of CCB's:	3	Number of SPK's:	3
Initials:	____	Number of LCS's:	4	Number of PB's:	2	Number of MSD'S:	2

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	THALLIUM	ug/L	39.18	40.0		98.0		90.0	110	NA	NA	NA
ICB	THALLIUM	ug/L	< 10.0							NA	NA	NA
CRA	THALLIUM	ug/L	7.72	10.0		77.2				NA	NA	NA
CCV	THALLIUM	ug/L	38.57	40.0		96.4		90.0	110	NA	NA	NA
CCB	THALLIUM	ug/L	< 10.0							NA	NA	NA
LCSW	THALLIUM	ug/L	44.85	50.0		89.7		80.0	120	NA	NA	NA
PB	THALLIUM	ug/L	< 10.0							NA	NA	NA
9410061-13A	THALLIUM	ug/L	< 10.0							10/07/94	09/29/94	YES
9410061-13 DUP	THALLIUM	ug/L	< 10.0	< 10.0			0			10/07/94	09/29/94	YES
SPK	THALLIUM	ug/L	< 10.0	< 10.0	50.0	0		75.0	125	10/07/94	NA	NA
MSD	THALLIUM	ug/L	< 10.0	< 10.0	50.0	0	0	75.0	125	10/07/94	NA	NA
ISPK	THALLIUM	ug/L	19.47	< 10.0	25.0	77.9		85.0	115	10/07/94	NA	NA
LCSW	THALLIUM	ug/L	49.28	50.0		98.6		80.0	120	NA	NA	NA
PB	THALLIUM	ug/L	< 10.0							NA	NA	NA
9410061-18A	THALLIUM	ug/L	< 10.0							10/07/94	09/29/94	YES
CCV	THALLIUM	ug/L	39.24	40.0		98.1		90.0	110	NA	NA	NA
CCB	THALLIUM	ug/L	< 10.0							NA	NA	NA
9410061-18 DUP	THALLIUM	ug/L	< 10.0	< 10.0			0			10/07/94	09/29/94	YES
SPK	THALLIUM	ug/L	34.97	< 10.0	50.0	69.9		75.0	125	10/07/94	NA	NA
MSD	THALLIUM	ug/L	37.95	< 10.0	50.0	75.9	8.23	75.0	125	10/07/94	NA	NA
ISPK	THALLIUM	ug/L	20.33	< 10.0	25.0	81.3		85.0	115	10/07/94	NA	NA
LCSS	TLSF	mg/kg	53.00	50.0		106		80.0	120	NA	NA	NA
9410061-02A	TLSF	mg/kg	< 10.0							10/07/94	09/29/94	YES

EBS RUN NUMBER: 66950\941121101500
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: THALLIUM **DATE ANALYZED: 11/21/94** **ANALYZED BY: JBA** **HOLDING TIME: 90 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-03A	TLSF	mg/kg	< 10.0							10/07/94	09/29/94	YES
CCV	THALLIUM	ug/L	38.58	40.0		96.4		80.0	120	NA	NA	NA
CCB	THALLIUM	ug/L	< 10.0							NA	NA	NA
9410061-04A	THALLIUM	ug/L	< 10.0							10/07/94	09/29/94	YES
9410061-01A	TLSF	mg/kg	< 10.0							10/07/94	09/29/94	YES
9410061-01 DUP	TLSF	mg/kg	< 10.0	< 10.0			0			10/07/94	09/29/94	YES
SPK	TLSF	mg/kg	< 10.0	< 10.0	50.0	0		75.0	125	10/07/94	NA	NA
ISPK	TLSF	mg/kg	15.59	< 10.0	25.0	62.4		85.0	115	10/07/94	NA	NA
9410061-05A	TLSF	mg/kg	< 10.0							10/07/94	09/29/94	YES
9410061-06A	TLSF	mg/kg	< 10.0							10/07/94	09/29/94	YES
CCV	THALLIUM	ug/L	38.32	40.0		95.8		90.0	110	NA	NA	NA
CCB	THALLIUM	ug/L	< 10.0							NA	NA	NA

COMMENTS:

11/21/94 Tl

Sample ID	DF	µg/L Result	Theoretical
ICV		39.18	40.00
ICB		0.07	
CRQL		7.72	10.00
CCV		38.57	40.00
CCB		0.05	
LCSW		44.85	
PB		0.18	
9410061-13A		1.83	
-13Adup		0.70	
-13Aspk		0.01	50.00
-13A MSD		6.07	50.00
-13A Dspk		19.47	25.00
LCSW		49.28	50.00
PB		0.22	
9410061-18A		0.32	
CCV		39.24	40.00
CCB		0.12	
9410061-18Adup		0.30	
-18Aspk		34.97	50.00
-18A MSD		37.95	50.00
-18A Dspk		20.33	25.00
LCSS		6.08	50.00
PB		20.82	
PB		53.00	
PB		55.57	
9410061-02A		1.27	
9410061-03A		1.34	
CCV		38.58	40.00
CCB		0.33	

11/21/94 TL

Sample ID	DF	Result	Theoretical
9410061-04A		1.00	
9410061-01A		0.76	
-01Adup		0.56	
-01Aspk		6.15	50.00
-01Aisdk		15.59	
9410061-05A		1.18	
-06A		1.22	
CCV		38.32	
CCB		0.12	

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

OPERATOR	JOHN ALLEN
DATE	21 NOV 94
BATCH	DSM CLP

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	44
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	2
REPLICATE RSD LIMIT (%)	20.0

PROGRAM 6 TI

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK HEIGHT
LAMP POSITION	6
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	276.8
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.10
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	0.55

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	95	15.0	3.0	NORMAL	NO
2	120	30.0	3.0	NORMAL	NO
3	1000	10.0	3.0	NORMAL	NO
4	1000	5.0	3.0	NORMAL	NO
5	1000	3.0	0.0	NORMAL	NO
6	2600	0.8	0.0	NORMAL	YES
7	2600	2.0	0.0	NORMAL	YES
8	2600	0.1	3.0	NORMAL	NO
9	50	12.8	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	4	16	5
STANDARD 2	10	10	5
STANDARD 3	20	0	5
SAMPLE	20	0	5

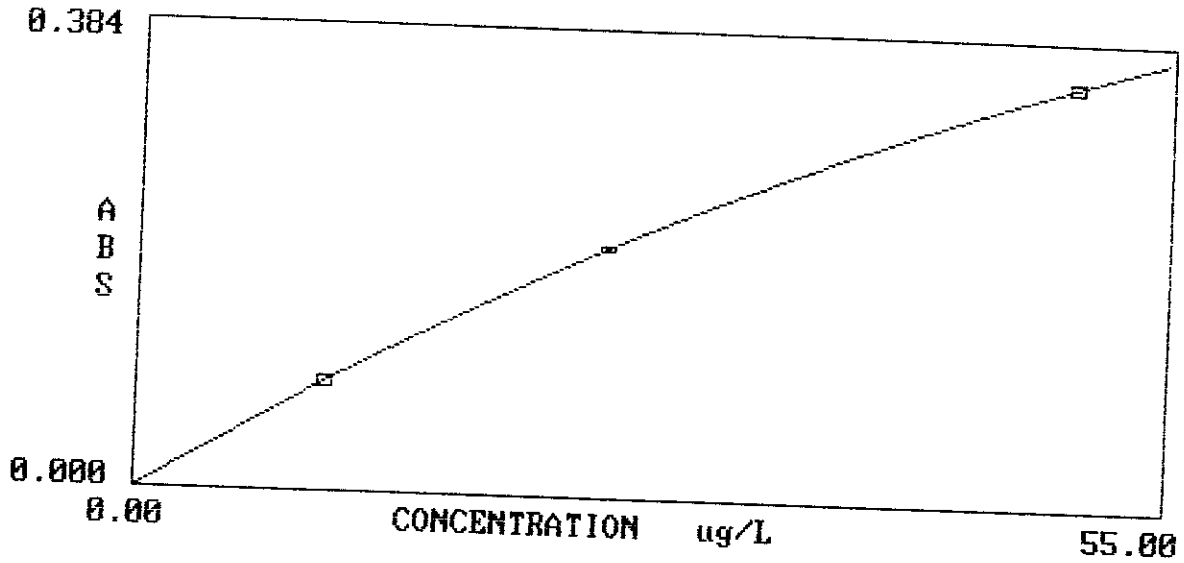
RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT NO PRE INJECT NO

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	46
QC INITIAL BLANK POSITION	47
QC CONTINUING STANDARD POSITION	48
QC CONTINUING BLANK POSITION	49
QC STANDARD VOLUME (µL)	20
QC STANDARD CONCENTRATION	40.00 ug/L
QC STANDARD LIMITS (%)	90 TO 110
QC SPIKE RATE	0
QC SPIKE VOLUME (µL)	5
QC SPIKE CONCENTRATION	100.00ug/L
MATRIX SPIKE CONCENTRATION	0.00 ug/L
INSTRUMENT DETECTION LIMIT	40.00 ug/L
REQUIRED DETECTION LIMIT	10.00 ug/L

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
BLANK QC	0.00		0.003	21Nov94 10:15 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	10.00	2.3	0.089	21Nov94 10:20 CONCENTRATION LESS THAN IDL
STANDARD 2 QC	25.00	0.0	0.204	21Nov94 10:24 CONCENTRATION LESS THAN IDL
STANDARD 3 QC	50.00	0.6	0.349	21Nov94 10:28



PLE	CONC ug/L	%RSD	MEAN ABS	
ICV QC	39.18	0.2	0.292	
				21Nov94 10:33 %R = 97.9 CONCENTRATION LESS THAN IDL
ICB QC	0.07	88.3	0.001	
				21Nov94 10:37 ABS = 0.004 CONCENTRATION LESS THAN IDL
CRDL QC	7.72	1.6	0.069	
				21Nov94 10:41 CONCENTRATION LESS THAN IDL
CCV 1 QC	38.57	0.3	0.289	
				21Nov94 10:46 %R = 96.4 CONCENTRATION LESS THAN IDL
CCB 1 QC	0.05	99.9	0.000	
				21Nov94 10:50 ABS = 0.004 CONCENTRATION LESS THAN IDL
LCSW 10061 T QC	44.85	1.3	0.323	
				21Nov94 10:54

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
PB 10061 T QC	0.18	71.6	0.002	21Nov94 10:58 CONCENTRATION LESS THAN IDL
9410061-13a QC	1.83	15.0	0.016	21Nov94 11:02 CONCENTRATION LESS THAN IDL
9410061-13aD QC	0.70	64.1	0.006	21Nov94 11:06 CONCENTRATION LESS THAN IDL
9410061-13aS QC	0.01	0.0	0.000	21Nov94 11:10 CONCENTRATION LESS THAN IDL
9410061-13aS QC	6.07	99.9	0.054	21Nov94 11:14 CONCENTRATION LESS THAN IDL
061-13aINS S QC	19.47	5.3	0.164	21Nov94 11:18 CONCENTRATION LESS THAN IDL
LCSW 10061 D QC	49.28	2.0	0.345	21Nov94 11:22
F .0061 D L	0.22	39.8	0.002	21Nov94 11:26 CONCENTRATION LESS THAN IDL
9410061-18a QC	0.32	35.0	0.003	21Nov94 11:30 CONCENTRATION LESS THAN IDL
CCV 2 QC	39.24	0.2	0.292	21Nov94 11:34 %R = 98.1 CONCENTRATION LESS THAN IDL
CCB 2 QC	0.12	41.5	0.001	21Nov94 11:38 ABS = 0.004 CONCENTRATION LESS THAN IDL
9410061-18aD QC	0.30	27.7	0.003	21Nov94 11:42 CONCENTRATION LESS THAN IDL
9410061-18aS QC	34.97	1.0	0.268	21Nov94 11:46 CONCENTRATION LESS THAN IDL
9)061-18aS QC	37.95	1.0	0.285	21Nov94 11:50 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
061-18aINS S QC	20.33	1.7	0.170	21Nov94 11:54 CONCENTRATION LESS THAN IDL
LLSS 10061 QC	0.08	28.8	0.001	21Nov94 11:58 CONCENTRATION LESS THAN IDL
PB 10061 QC	20.82	99.9	0.174	21Nov94 12:02 %RSD GREATER THAN LIMIT CONCENTRATION LESS THAN IDL
PB 10061 QC	53.00	0.4	0.363	21Nov94 12:06
PB 10061 QC	55.57	2.5	0.223	21Nov94 12:10 DF = 2.00
9410061-02a QC	1.27	25.0	0.011	21Nov94 12:14 CONCENTRATION LESS THAN IDL
9410061-03a QC	1.34	5.4	0.012	21Nov94 12:18 CONCENTRATION LESS THAN IDL
[illegible] 3 QC	38.58	1.2	0.289	21Nov94 12:22 %R = 96.4 CONCENTRATION LESS THAN IDL
CCB 3 QC	0.33	0.0	0.003	21Nov94 12:27 ABS = 0.006 CONCENTRATION LESS THAN IDL
9410061-04a QC	1.00	18.2	0.009	21Nov94 12:31 CONCENTRATION LESS THAN IDL
9410061-01a QC	0.76	34.1	0.007	21Nov94 12:35 CONCENTRATION LESS THAN IDL
9410061-01aD QC	0.56	9.4	0.005	21Nov94 12:39 CONCENTRATION LESS THAN IDL
9410061-01aS QC	6.15	9.3	0.055	21Nov94 12:43 CONCENTRATION LESS THAN IDL
[illegible] 01aINS S QC	15.59	5.0	0.134	21Nov94 12:47 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
9410061-05a QC	1.18	9.5	0.011	21Nov94 12:52 CONCENTRATION LESS THAN IDL
9410061-06a QC	1.22	5.3	0.011	21Nov94 12:56 CONCENTRATION LESS THAN IDL
DI H20 QC	0.08	25.8	0.001	21Nov94 13:00 CONCENTRATION LESS THAN IDL
CCV 4 QC	38.32	0.2	0.287	21Nov94 13:04 %R = 95.8 CONCENTRATION LESS THAN IDL
CCB 4 QC	0.12	9.7	0.001	21Nov94 13:08 ABS = 0.004 CONCENTRATION LESS THAN IDL

EBS RUN NUMBER: 66950\941205000000
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 1

TEST: LEAD **DATE ANALYZED: 12/05/94** **ANALYZED BY: JBA** **HOLDING TIME: 90 Days**

Total Number of Samples: 6
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 5
Number of LCS's: 2

Number of ICB's: 1
Number of CCB's: 5
Number of PB's: 2

Number of DUP's: 2
Number of SPK's: 2
Number of MSD'S: 1

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	LEAD	mg/L	4.51	5.00		90.2		90.0	110	NA	NA	NA
ICB	LEAD	mg/L	< 2							NA	NA	NA
CRA	LEAD	mg/L	< 2	2.00		50.5				NA	NA	NA
CCV	LEAD	ug/L	4.62	5.00		92.4		90.0	110	NA	NA	NA
CCB	LEAD	ug/L	< 2							NA	NA	NA
LCSS	PBSF	mg/kg	18.5	20.0		92.5		80.0	120	NA	NA	NA
PB	LEAD	ug/L	< 2							NA	NA	NA
9410061-01A	PBSF	mg/kg	< 0.5							10/07/94	09/29/94	YES
DUP	PBSF	mg/kg	< 0.5	< 0.5			0			10/07/94	09/29/94	YES
9410061-01 SPK	LEAD	mg/kg	4.69	< 0.5	4.875	96.2		75.0	125	10/07/94	NA	NA
CCV	LEAD	mg/L	4.97	5.00		99.4		90.0	110	NA	NA	NA
CCB	LEAD	mg/L	< 2							NA	NA	NA
9410061-03A	PBSF	mg/kg	4.16							10/07/94	09/29/94	YES
9410061-04A	PBSF	mg/kg	3.30							10/07/94	09/29/94	YES
9410061-05A	PBSF	mg/kg	2.90							10/07/94	09/29/94	YES
CCV	LEAD	ug/L	4.84	5.00		96.8		90.0	110	NA	NA	NA
CCB	LEAD	ug/L	< 2							NA	NA	NA
9410061-06A	PBSF	mg/kg	2.95							10/07/94	09/29/94	YES
LCSW	LEAD	ug/L	22.3	20.0		112		80.0	120	NA	NA	NA
PB	LEAD	ug/L	< 2							NA	NA	NA
9410061-18A	LEAD	ug/L	< 2							10/07/94	09/29/94	YES
DUP	LEAD	ug/L	< 2	< 2			0			10/07/94	09/29/94	YES
CCV	LEAD	ug/L	4.49	5.00		89.8		90.0	110	NA	NA	NA

EBS RUN NUMBER: 66950\941205000000
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: LEAD **DATE ANALYZED: 12/05/94** **ANALYZED BY: JBA** **HOLDING TIME: 90 Days**

LAB NUMBER		ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
CCB		LEAD	ug/L	< 2							NA	NA	NA
9410061-18	SPK	LEAD	ug/L	18.9	< 2	20.0	94.5		75.0	125	10/07/94	NA	NA
	MSD	LEAD	ug/L	17.9	< 2	20.0	89.5	5.43	75.0	125	10/07/94	NA	NA
CCV		LEAD	ug/L	4.50	5.00		90.0		90.0	110	NA	NA	NA
CCB		LEAD	ug/L	< 2							NA	NA	NA

COMMENTS:

12/5/94 Pb

Sample ID	DF	Result (µg/L)	Theoretical
ICV		4.51	5.00
ICB		0.79	
CRDL		1.01	2.00
CCV		4.62	5.00
CCB		0.75	
LCSS	4	18.52	20.00
PB		0.82	
9410061-01A		-0.79	
9410061-01A dup		-0.44	
9410061-01A spk	4	19.29	20.0
CCV		4.97	5.00
CCB		0.72	
9410061-03A	8	16.47	
9410061-04A	4	13.19	
9410061-05A	4	11.65	
CCV		4.84	5.00
CCB		0.80	
9410061-06A	4	11.79	
LCSW	8	22.29	20.0
PB		0.72	
9410061-18A		-0.26	
9410061-18B dup		-0.42	
CCV		4.49	5.00
CCB		0.71	
9410061-18C spk	4	18.90	20.0
9410061-18B MSD		17.99	20.0
CCV		4.50	
CCB		0.66	

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

OPERATOR	JOHN ALLEN
DATE	05 DEC 94
BATCH	DSM CLP

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	44
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	2
REPLICATE RSD LIMIT (%)	20.0

PROGRAM 1 Pb

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK HEIGHT
LAMP POSITION	1
LAMP CURRENT (mA)	5
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	283.3
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.10
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.40

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	85	5.0	3.0	NORMAL	NO
2	95	40.0	3.0	NORMAL	NO
3	120	10.0	3.0	NORMAL	NO
4	400	5.0	3.0	NORMAL	NO
5	400	1.0	3.0	NORMAL	NO
6	400	2.0	0.0	NORMAL	NO
7	2100	1.0	0.0	NORMAL	YES
8	2100	2.0	0.0	NORMAL	YES
9	2100	2.0	3.0	NORMAL	NO

SAMPLER PARAMETERS

VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	24	
ANDARD 1	6	18	
NDARD 2	12	12	
S ANDARD 3	24	0	
SAMPLE	24	0	

RECALIBRATION RATE 0

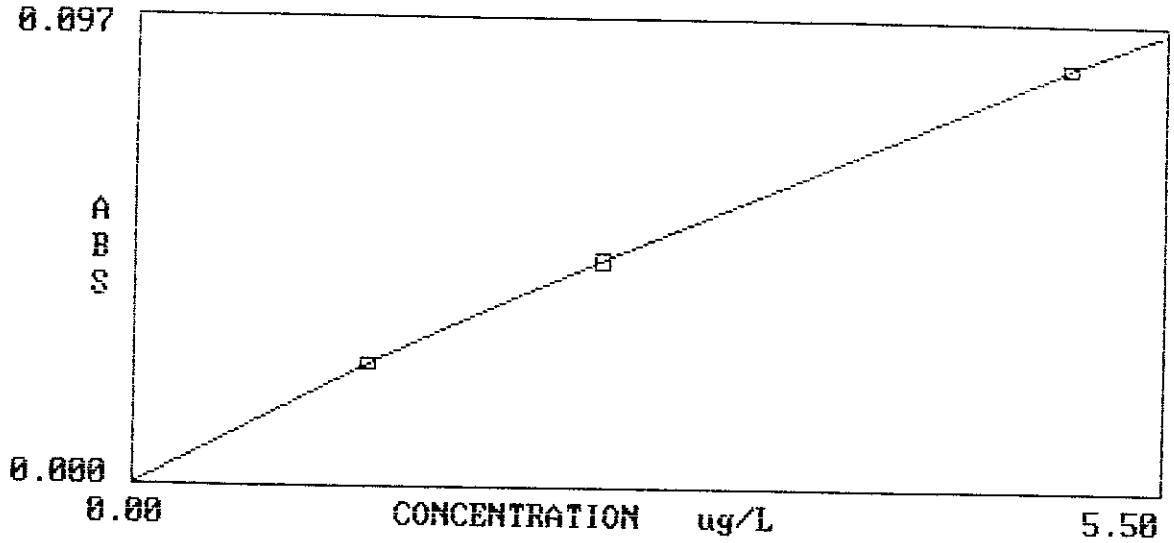
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT NO PRE INJECT NO

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	46
QC INITIAL BLANK POSITION	47
QC CONTINUING STANDARD POSITION	48
QC CONTINUING BLANK POSITION	49
QC STANDARD VOLUME (µL)	24
QC STANDARD CONCENTRATION	5.00 ug/L
QC STANDARD LIMITS (%)	90 TO 110
QC SPIKE RATE	0
QC SPIKE VOLUME (µL)	2
QC SPIKE CONCENTRATION	100.00ug/L
MATRIX SPIKE CONCENTRATION	5.00 ug/L
INSTRUMENT DETECTION LIMIT	2.00 ug/L
REQUIRED DETECTION LIMIT	3.00 ug/L

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
BLANK QC	0.00		0.012	05Dec94 12:34 CONCENTRATION LESS THAN IDL
BLANK QC	0.00		-0.000	05Dec94 12:44 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	1.25	2.2	0.025	05Dec94 12:47 CONCENTRATION LESS THAN IDL
STANDARD 2 QC	2.50	2.3	0.047	05Dec94 12:51
STANDARD 3 QC	5.00	0.9	0.088	05Dec94 12:54



PLE	CONC ug/L	%RSD	MEAN ABS	
ICV QC	5.34	3.7	0.094	05Dec94 12:58
ICV QC	4.51	1.1	0.043	05Dec94 13:01 DF = 2.00 %R = 90.2
ICB QC	0.79	0.4	0.016	05Dec94 13:04 ABS = 0.027 CONCENTRATION LESS THAN IDL
CRDL QC	1.01	2.2	0.020	05Dec94 13:08 CONCENTRATION LESS THAN IDL
CCV 1 QC	5.10	1.9	0.090	05Dec94 13:11
CCV 1 QC	4.62	0.8	0.044	05Dec94 13:14 DF = 2.00 %R = 92.4
CCB 1 QC	0.75	4.1	0.015	05Dec94 13:17 ABS = 0.027 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
LCSS 10061 QC	OVER	1.4	0.312	05Dec94 13:21
S 10061 QC	OVER	1.4	0.161	05Dec94 13:24 DF = 2.00
LCSS 10061 QC	18.52	0.8	0.082	05Dec94 13:27 DF = 4.00
PB 1061 QC	0.82	0.8	0.016	05Dec94 13:30 RPD = 183.0 CONCENTRATION LESS THAN IDL
9410061-01a QC	OVER	8.4	0.105	05Dec94 13:34
9410061-01a QC	-0.79	25.3 N	-0.008	05Dec94 13:37 DF = 2.00 %R = -15.7 CONCENTRATION LESS THAN IDL
9410061-01aD QC	-0.44	0.0	-0.009	05Dec94 13:40 CONCENTRATION LESS THAN IDL
BLANK QC	0.00		0.004	05Dec94 13:47 CONCENTRATION LESS THAN IDL
CCV 2 QC	4.82	1.5	0.085	05Dec94 13:51 %R = 96.4
CCB 2 QC	0.52	3.7	0.010	05Dec94 13:54 ABS = 0.026 CONCENTRATION LESS THAN IDL
9410061-01aS QC	OVER	3.0	0.284	05Dec94 13:57
9410061-01aS QC	OVER	6.6	0.158	05Dec94 14:00 DF = 2.00
9410061-01aS QC	19.29	0.2	0.085	05Dec94 14:04 DF = 4.00
3 QC	5.33	7.3	0.093	05Dec94 14:07
CCV 3 QC	4.97	2.2	0.046	05Dec94 14:10 DF = 2.00 %R = 99.5

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
CCB 3 QC	0.72	6.3	0.014	05Dec94 14:14 ABS = 0.030 CONCENTRATION LESS THAN IDL
9410061-03a QC	OVER	0.0	0.363	05Dec94 14:17
9410061-03a QC	OVER	2.5	0.197	05Dec94 14:20 DF = 2.00
9410061-03a QC	OVER	0.7	0.098	05Dec94 14:23 DF = 4.00
9410061-03a QC	16.47	9.8	0.039	05Dec94 14:27 DF = 8.00
9410061-04a QC	OVER	0.8	0.237	05Dec94 14:30
9410061-04a QC	OVER	0.4	0.123	05Dec94 14:33 DF = 2.00
9410061-04a	13.19	3.6	0.060	05Dec94 14:36 DF = 4.00 RPD = 22.1
9410061-05a QC	OVER	0.0	0.221	05Dec94 14:40
9410061-05a QC	OVER	2.5	0.114	05Dec94 14:43 DF = 2.00
9410061-05a QC	11.65 N	1.1	0.054	05Dec94 14:46 DF = 4.00 %R = -30.9
CCV 4 QC	OVER	2.2	0.103	05Dec94 14:49
CCV 4 QC	4.84	1.4	0.045	05Dec94 14:53 DF = 2.00 %R = 96.8
CCB 4 QC	0.80	5.8	0.016	05Dec94 14:56 ABS = 0.031 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
9410061-06a QC	OVER	1.7	0.221	05Dec94 14:59
0061-06a QC	OVER	1.8	0.112	05Dec94 15:02 DF = 2.00
9410061-06a QC	11.79	0.6	0.054	05Dec94 15:06 DF = 4.00
LCSW 10061 QC	OVER	0.2	0.392	05Dec94 15:09
LCSW 10061 QC	OVER	0.2	0.216	05Dec94 15:12 DF = 2.00
LCSW 10061 QC	OVER	1.4	0.112	05Dec94 15:15 DF = 4.00
LCSW 10061 QC	22.29	0.4	0.051	05Dec94 15:19 DF = 8.00
PB 10061	0.72	5.2	0.014	05Dec94 15:22 CONCENTRATION LESS THAN IDL
9410061-18a QC	-0.26	4.7	-0.005	05Dec94 15:25 CONCENTRATION LESS THAN IDL
9410061-18b QC	-0.42	11.2	-0.008	05Dec94 15:29 CONCENTRATION LESS THAN IDL
CCV 5 QC	5.38	6.9	0.094	05Dec94 15:32
CCV 5 QC	4.49	0.2 Q	0.042	05Dec94 15:35 DF = 2.00 %R = 89.9
CCB 5 QC	0.71	9.0	0.014	05Dec94 15:38 ABS = 0.029 CONCENTRATION LESS THAN IDL
9410061-18c QC	OVER	0.3	0.312	05Dec94 15:42
0061-18c QC	OVER	1.7	0.168	05Dec94 15:45 DF = 2.00

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
9410061-18c QC	18.90	3.1	0.084	05Dec94 15:48 DF = 4.00
9410061-18d QC	OVER	0.3	0.310	05Dec94 15:51
9410061-18d QC	OVER	1.3	0.170	05Dec94 15:55 DF = 2.00
9410061-18d QC	17.99	1.0	0.080	05Dec94 15:58 DF = 4.00
CCV 6 QC	OVER	0.4	0.100	05Dec94 16:01
CCV 6 QC	4.50	0.5	0.043	05Dec94 16:04 DF = 2.00 %R = 90.0
CCB 6 QC	0.66	1.1	0.013	05Dec94 16:08 ABS = 0.028 CONCENTRATION LESS THAN IDL

EBS RUN NUMBER: 66950\941119163900
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 1

TEST: SELENIUM **DATE ANALYZED: 11/19/94** **ANALYZED BY: JBA** **HOLDING TIME: 90 Days**

Total Number of Samples: 8
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 4
Number of LCS's: 2

Number of ICB's: 2
Number of CCB's: 3
Number of PB's: 3

Number of DUP's: 3
Number of SPK's: 3
Number of MSD'S: 2

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	SEWF	ug/L	39.38	40.0		98.4		90.0	110	NA	NA	NA
ICB	SEWF	ug/L	< 5							NA	NA	NA
CRA	SEWF	ug/L	< 5	5.00		78.6				NA	NA	NA
CCV	SEWF	ug/L	40.07	40.0		100		90.0	110	NA	NA	NA
CCB	SEWF	ug/L	< 5							NA	NA	NA
LCSW	SEWF	ug/L	9.62	10.00		96.2		80.0	120	NA	NA	NA
PB	SEWF	ug/L	< 5							NA	NA	NA
9410061-13A	SEWF	ug/L	< 5							10/07/94	09/29/94	YES
DUP	SEWF	ug/L	< 5	< 5			0			10/07/94	09/29/94	YES
SPK	SEWF	ug/L	< 5	< 5	10.0	0		75.0	125	10/07/94	NA	NA
MSD	SEWF	ug/L	< 5	< 5	10.0	0	0	75.0	125	10/07/94	NA	NA
ISPK	SEWF	ug/L	20.93	< 5	25.0	63.7		85.0	115	10/07/94	NA	NA
CCV	SEWF	ug/L	36.66	40.0		91.6		90.0	110	NA	NA	NA
CCB	SEWF	ug/L	< 5							NA	NA	NA
PB	SEWF	ug/L	< 5							NA	NA	NA
9410061-18A	SEWF	ug/L	< 5							10/07/94	09/29/94	YES
DUP	SEWF	ug/L	< 5	< 5			0			10/07/94	09/29/94	YES
SPK	SEWF	ug/L	< 5	< 5	10.0	0		75.0	125	10/07/94	NA	NA
MSD	SEWF	ug/L	< 5	< 5	10.0	0	0	75.0	125	10/07/94	NA	NA
ISPK	SEWF	ug/L	8.71	< 5	25.0	34.8		85.0	115	10/07/94	NA	NA
LCSS	SESF	mg/kg	8.78	10.0		87.8		80.0	120	NA	NA	NA
PB	SEWF	ug/L	< 5							NA	NA	NA
CCV	SEWF	ug/L	35.49	40.0		88.7		90.0	110	NA	NA	NA

EBS RUN NUMBER: 66950\941119163900
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: SELENIUM **DATE ANALYZED: 11/19/94** **ANALYZED BY: JBA** **HOLDING TIME: 90 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
CCB	SEWF	ug/L	< 5							NA	NA	NA
9410061-02A	SESF	mg/kg	< 1							10/07/94	09/29/94	YES
9410061-03A	SESF	mg/kg	< 1							10/07/94	09/29/94	YES
9410061-04A	SESF	mg/kg	< 1							10/07/94	09/29/94	YES
9410061-01A	SESF	mg/kg	< 1							10/07/94	09/29/94	YES
DUP	SESF	mg/kg	< 1	< 1			0			10/07/94	09/29/94	YES
SPK	SESF	mg/kg	< 1	< 1	2.44	0		75.0	125	10/07/94	NA	NA
ISPK	SESF	mg/kg	1.34	< 1	6.10	22.0		85.0	115	10/07/94	NA	NA
9410061-05A	SESF	mg/kg	< 1							10/07/94	09/29/94	YES
9410061-06A	SESF	mg/kg	< 1							10/07/94	09/29/94	YES
CCV	SEWF	ug/L	33.39	40.0		83.5		90.0	110	NA	NA	NA
CCB	SEWF	ug/L	< 5							NA	NA	NA

COMMENTS:

11/19/94 Se

Sample ID	DF	Result (ug/L)	Theoretical (ug/L)
ICV		39.38	40.00
ICB		0.21	
CROL		3.93	5.00
CCV		40.07	40.00
CCB		0.15	
LCSW		9.62	10.00
PB		0.11	
9410061-13A		1.65	
9410061-13Adup		1.74	
9410061-13Aspk		2.63	10.0
9410061-13A MSD		3.33	10.0
9410061-13A ISpk		20.93	25.00
CCV		36.66	40.00
CCB		0.74	
PB		0.99	
9410061-18A		0.39	
9410061-18A dup		0.24	
9410061-18A spk		2.25	10.0
9410061-18A MSD		1.86	10.0
9410061-18A ISpk		8.71	25.00
LCSS		8.78	10.00
PB		0.31	
CCV		35.49	40.00
CCB		0.15	
9410061-02A		0.17	
9410061-03A		0.59	
9410061-04A		0.53	
9410061-01A		0.13	
9410061-01Adup		0.24	
9410061-01Aspk		0.08	10.0
9410061-01A ISpk		5.48	25.00

11/19/94 Se

Sample ID	DF	Result	Theoretical
9410061-05A		0.40	
9410061-06A		0.57	
CCV		33.39	40.00
CCB		0.10	

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

OPERATOR	JOHN ALLEN
DATE	19 NOV 94
BATCH	DSM CLP

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	44
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	2
REPLICATE RSD LIMIT (%)	20.0

PROGRAM 5 Se

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK HEIGHT
LAMP POSITION	8
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	1.0
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	196.0
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.20

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	85	2.0	3.0	NORMAL	NO
2	95	25.0	3.0	NORMAL	NO
3	120	20.0	3.0	NORMAL	NO
4	1100	10.0	3.0	NORMAL	NO
5	1100	5.0	3.0	NORMAL	NO
6	1100	1.0	0.0	NORMAL	NO
7	2600	0.8	0.0	NORMAL	YES
8	2600	2.0	0.0	NORMAL	YES
9	2600	2.0	3.0	NORMAL	NO

SAMPLER PARAMETERS

VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	2	18	5
STANDARD 2	4	16	5
STANDARD 3	10	10	5
STANDARD 4	20		5
SAMPLE	20		5

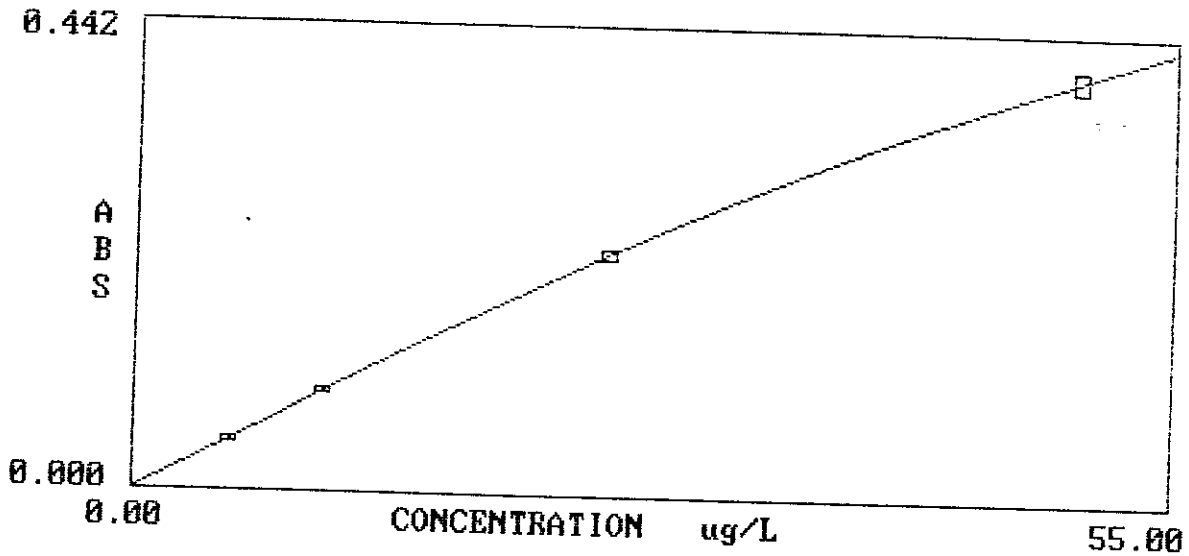
RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT NO PRE INJECT NO

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	46
QC INITIAL BLANK POSITION	47
QC CONTINUING STANDARD POSITION	48
QC CONTINUING BLANK POSITION	49
QC STANDARD VOLUME (µL)	20
QC STANDARD CONCENTRATION	40.00 ug/L
QC STANDARD LIMITS (%)	90 TO 110
QC SPIKE RATE	0
QC SPIKE VOLUME (µL)	1
QC SPIKE CONCENTRATION	500.00ug/L
MATRIX SPIKE CONCENTRATION	0.00 ug/L
INSTRUMENT DETECTION LIMIT	10.00 ug/L
REQUIRED DETECTION LIMIT	5.00 ug/L

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
BLANK	0.00		0.006	
QC				19Nov94 16:19 CONCENTRATION LESS THAN IDL
STANDARD 1	5.00	0.7	0.046	
QC				19Nov94 16:23 CONCENTRATION LESS THAN IDL
STANDARD 2	10.00	0.2	0.095	
QC				19Nov94 16:27
STANDARD 3	25.00	0.9	0.228	
QC				19Nov94 16:31
STANDARD 4	50.00	1.7	0.402	
QC				19Nov94 16:35



S PLE	CONC ug/L	%RSD	MEAN ABS	
ICV QC	39.38	1.5	0.336	
				19Nov94 16:39 %R = 98.5
ICB QC	0.21	28.9	0.002	
				19Nov94 16:43 ABS = 0.008 CONCENTRATION LESS THAN IDL
CRDL QC	3.93	3.3	0.036	
				19Nov94 16:47 CONCENTRATION LESS THAN IDL
CCV 1 QC	40.07	0.2	0.341	
				19Nov94 16:51 %R = 100.2
CCB 1 QC	0.15	68.4	0.001	
				19Nov94 16:55 ABS = 0.007 CONCENTRATION LESS THAN IDL
LCCH 10061 T Q	9.62	3.3	0.091	
				19Nov94 16:58 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
PB 10061 T QC	0.11	28.2	0.001	19Nov94 17:02 CONCENTRATION LESS THAN IDL
9410061-13a QC	1.65	2.0	0.015	19Nov94 17:06 CONCENTRATION LESS THAN IDL
9410061-13aD QC	1.74	45.3	0.016	19Nov94 17:10 CONCENTRATION LESS THAN IDL
9410061-13aS QC	2.63	14.1	0.024	19Nov94 17:13 CONCENTRATION LESS THAN IDL
9410061-13aS QC	3.33	3.2	0.031	19Nov94 17:17 CONCENTRATION LESS THAN IDL
061-13aINS S QC	20.93	3.2	0.193	19Nov94 17:20
LCSW 10061 D QC	OVER	2.0	0.850	19Nov94 17:24
LCSW 10061 D G	OVER	0.5	0.889	19Nov94 17:27 DF = 2.00
LCSW 10061 D QC	OVER	1.4	0.853	19Nov94 17:31 DF = 4.00
CCV 2 QC	36.66	1.1	0.317	19Nov94 17:35 %R = 91.7
CCB 2 QC	0.74	7.6	0.007	19Nov94 17:38 ABS = 0.013 CONCENTRATION LESS THAN IDL
LCSW 10061 D QC	OVER	0.9	0.657	19Nov94 17:42 DF = 10.00
LCSW 10061 D QC	OVER D	4.7	0.469	19Nov94 17:45 DF = 20.00 REDUCED SAMPLE VOLUME LESS THAN 1µL
PB 10061 D QC	0.99	48.6	0.009	19Nov94 17:49 CONCENTRATION LESS THAN IDL
9410061-18a QC	0.39	92.0	0.004	19Nov94 17:53 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
9410061-18aD QC	0.24	58.0	0.002	19Nov94 17:56 CONCENTRATION LESS THAN IDL
9[illegible]0061-18aS QC	2.25	6.7	0.021	19Nov94 18:00 CONCENTRATION LESS THAN IDL
9410061-18aS QC	1.86	3.9	0.017	19Nov94 18:03 CONCENTRATION LESS THAN IDL
061-18aINS S QC	8.71	0.4	0.082	19Nov94 18:07 CONCENTRATION LESS THAN IDL
LCSS 10061 QC	8.78	1.5	0.082	19Nov94 18:11 CONCENTRATION LESS THAN IDL
PB 10061 QC	0.31	36.2	0.003	19Nov94 18:14 CONCENTRATION LESS THAN IDL
CCV 3 QC	35.49	1.4 Q	0.309	19Nov94 18:18 %R = 88.7
[illegible] 3 [illegible]	0.15	27.5	0.001	19Nov94 18:22 ABS = 0.007 CONCENTRATION LESS THAN IDL
9410061-02a QC	0.17	42.0	0.002	19Nov94 18:26 CONCENTRATION LESS THAN IDL
9410061-03a QC	0.59	33.7	0.005	19Nov94 18:30 CONCENTRATION LESS THAN IDL
9410061-04a QC	0.53	99.9	0.005	19Nov94 18:33 CONCENTRATION LESS THAN IDL
9410061-01a QC	0.13	82.7	0.001	19Nov94 18:37 CONCENTRATION LESS THAN IDL
9410061-01aD QC	0.24	0.0	0.002	19Nov94 18:41 CONCENTRATION LESS THAN IDL
9[illegible]0061-01aS [illegible]	0.08	18.1	0.001	19Nov94 18:45 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
061-01aINS S QC	5.48	31.3	0.050	19Nov94 18:49 %RSD GREATER THAN LIMIT CONCENTRATION LESS THAN IDL
061-01aINS S QC	3.44	55.7	0.031	19Nov94 18:52 CONCENTRATION LESS THAN IDL
9410061-05a QC	0.40	9.3	0.004	19Nov94 18:56 CONCENTRATION LESS THAN IDL
9410061-06a QC	0.57	92.2	0.005	19Nov94 19:00 CONCENTRATION LESS THAN IDL
CCV 4 QC	33.39	0.6 Q	0.294	19Nov94 19:04 %R = 83.5
CCB 4 QC	0.10	12.7	0.001	19Nov94 19:08 ABS = 0.007 CONCENTRATION LESS THAN IDL
DI H20 QC	0.22	26.8	0.002	19Nov94 19:11 CONCENTRATION LESS THAN IDL
CCV 5 QC	33.34	0.4 Q	0.293	19Nov94 19:15 %R = 83.3
CCB 5 QC	0.17	85.1	0.002	19Nov94 19:19 ABS = 0.007 CONCENTRATION LESS THAN IDL

PROGRAM 19 As REG

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK HEIGHT
LAMP POSITION	4
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	1.0
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	197.2
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.10
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	0.95

EBS RUN NUMBER: 58310\941123000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/07/94
PAGE: 1

TEST: CLP METALS **DATE ANALYZED: 11/23/94** **ANALYZED BY: JP** **HOLDING TIME: 99 Days**

Total Number of Samples: 7
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 3
Number of LCS's: 2

Number of ICB's: 1
Number of CCB's: 3
Number of PB's: 2

Number of DUP's: 2
Number of SPK's: 2
Number of MSD'S: 1

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICC	Al3082	ug/L	20100	20000		100.50		95.0	105	NA	NA	NA
	Ca3179	ug/L	477000	500000		95.400		95.0	105	NA	NA	NA
	Fe2599	ug/L	9490	10000		94.90		95.0	105	NA	NA	NA
	Mg2790	ug/L	502000	500000		100.40		95.0	105	NA	NA	NA
	Na5889	ug/L	497000	500000		99.400		95.0	105	NA	NA	NA
ICV	Al3082	ug/L	10100	10000		101.00		90.0	110	NA	NA	NA
	Ba4554	ug/L	0	10000		0		90.0	110	NA	NA	NA
	Ca3179	ug/L	238000	250000		95.200		90.0	110	NA	NA	NA
	Fe2599	ug/L	4900	5000		98.00		90.0	110	NA	NA	NA
	Mg2790	ug/L	246000	250000		98.400		90.0	110	NA	NA	NA
	Na5889	ug/L	252000	250000		100.80		90.0	110	NA	NA	NA
ICB	Al3082	ug/L	96.6							NA	NA	NA
	Ca3179	ug/L	44.0							NA	NA	NA
	Fe2599	ug/L	3.94							NA	NA	NA
	Mg2790	ug/L	1.49							NA	NA	NA
	Na5889	ug/L	41.0							NA	NA	NA
ICSABI	Al3082	ug/L	SATURATED	500000		0				NA	NA	NA
	Ca3179	ug/L	460000	500000		92.000				NA	NA	NA
	Fe2599	ug/L	SATURATED	200000		0				NA	NA	NA
	Mg2790	ug/L	494000	500000		98.800				NA	NA	NA
LCSW	Al3082	ug/L	1790	2000		89.50		80.0	120	NA	NA	NA
	Fe2599	ug/L	904	1000		90.4		80.0	120	NA	NA	NA
LCSS	Al3082	ug/L	2330	2000		116.5		80.0	120	NA	NA	NA
	Fe2599	ug/L	1410	1000		141.0		80.0	120	NA	NA	NA
PBW	Al3082	ug/L	< 70							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Na5889	ug/L	< 100							NA	NA	NA
PBS	Al3082	ug/L	< 70							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA

EBS RUN NUMBER: 58310\941123000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: CLP METALS DATE ANALYZED: 11/23/94 ANALYZED BY: JP HOLDING TIME: 99 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
PBS	Mg2790	ug/L	< 100							NA	NA	NA
	Na5889	ug/L	< 100							NA	NA	NA
9410061-01A	Ca3179	mg/kg	233000							10/07/94	09/29/94	YES
	Fe2599	mg/kg	9210							10/07/94	09/29/94	YES
9410061-01 DUP	Ca3179	mg/kg	230000	233000			1.2959			10/07/94	09/29/94	YES
DUP	Fe2599	mg/kg	9130	9210			0.8724			10/07/94	09/29/94	YES
SPK	Ca3179	mg/kg	264000	233000						10/07/94	NA	NA
SPK	Fe2599	mg/kg	11400	9210						10/07/94	NA	NA
ISPK	Ca3179	mg/kg	5860000	116000	6100000	94.163				10/07/94	NA	NA
ISPK	Fe2599	mg/kg	120000	4600	122000	94.59				10/07/94	NA	NA
9410061-02A	Ca3179	mg/kg	268000							10/07/94	09/29/94	YES
	Fe2599	mg/kg	13600							10/07/94	09/29/94	YES
CCV	Al3082	ug/L	9570	10000		95.70		90.0	110	NA	NA	NA
	Ca3179	ug/L	225000	250000		90.000		90.0	110	NA	NA	NA
	Fe2599	ug/L	4550	5000		91.00		90.0	110	NA	NA	NA
	Mg2790	ug/L	228000	250000		91.200		90.0	110	NA	NA	NA
	Na5889	ug/L	249000	250000		99.600		90.0	110	NA	NA	NA
CCB	Al3082	ug/L	< 70							NA	NA	NA
	Ba4554	ug/L	< 17							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Na5889	ug/L	< 100							NA	NA	NA
9410061-03A	Fe2599	mg/kg	50900							10/07/94	09/29/94	YES
9410061-04A	Fe2599	mg/kg	48100							10/07/94	09/29/94	YES
9410061-05A	Fe2599	mg/kg	43800							10/07/94	09/29/94	YES
9410061-06A	Fe2599	mg/kg	46400							10/07/94	09/29/94	YES
CCV	Al3082	ug/L	10000	10000		100.00		90.0	110	NA	NA	NA
	Ca3179	ug/L	229000	250000		91.600		90.0	110	NA	NA	NA
	Fe2599	ug/L	4740	5000		94.80		90.0	110	NA	NA	NA
	Mg2790	ug/L	236000	250000		94.400		90.0	110	NA	NA	NA
	Na5889	ug/L	260000	250000		104.00		90.0	110	NA	NA	NA
CCB	Al3082	ug/L	< 70							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA

EBS RUN NUMBER: 58310\941123000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: CLP METALS

DATE ANALYZED: 11/23/94

ANALYZED BY: JP

HOLDING TIME: 99 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
CCB	Mg2790	ug/L	< 100							NA	NA	NA
	Na5889	ug/L	< 100							NA	NA	NA
9410061-13A	Al3082	ug/L	740000							10/07/94	09/29/94	YES
	Ca3179	ug/L	6140000							10/07/94	09/29/94	YES
	Fe2599	ug/L	1180000							10/07/94	09/29/94	YES
	Mg2790	ug/L	732000							10/07/94	09/29/94	YES
9410061-13 DUP	Al3082	ug/L	733000	740000			0.9504			10/07/94	09/29/94	YES
DUP	Ca3179	ug/L	6010000	6140000			2.1399			10/07/94	09/29/94	YES
DUP	Fe2599	ug/L	1200000	1180000			1.6806			10/07/94	09/29/94	YES
SPK	Al3082	ug/L	44200	740000	200000	-347.9		75.0	125	10/07/94	NA	NA
SPK	Fe2599	ug/L	120000	1180000	100000	-1060.		75.0	125	10/07/94	NA	NA
MSD	Al3082	ug/L	109000	740000	200000	-315.5	9.768	75.0	125	10/07/94	NA	NA
MSD	Fe2599	ug/L	326000	1180000	100000	-854.0	21.53	75.0	125	10/07/94	NA	NA
ISPK	Al3082	ug/L	1330000	370000	1000000	96.000				10/07/94	NA	NA
ISPK	Ca3179	ug/L	25600000	3070000	25000000	90.120				10/07/94	NA	NA
ISPK	Fe2599	ug/L	1070000	590000	500000	96.000				10/07/94	NA	NA
ICSAF	Al3082	ug/L	SATURATED	500000		0				NA	NA	NA
	Ca3179	ug/L	446000	500000		89.200				NA	NA	NA
	Fe2599	ug/L	SATURATED	200000		0				NA	NA	NA
	Mg2790	ug/L	472000	500000		94.400				NA	NA	NA
ICSABF	Al3082	ug/L	SATURATED	500000		0				NA	NA	NA
	Ca3179	ug/L	441000	500000		88.200				NA	NA	NA
	Fe2599	ug/L	SATURATED	200000		0				NA	NA	NA
	Mg2790	ug/L	469000	500000		93.800				NA	NA	NA
CCV	Al3082	ug/L	9860	10000		98.60		90.0	110	NA	NA	NA
	Ca3179	ug/L	225000	250000		90.000		90.0	110	NA	NA	NA
	Fe2599	ug/L	4520	5000		90.40		90.0	110	NA	NA	NA
	Mg2790	ug/L	231000	250000		92.400		90.0	110	NA	NA	NA
	Na5889	ug/L	256000	250000		102.40		90.0	110	NA	NA	NA
CCB	Al3082	ug/L	< 70							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Na5889	ug/L	< 100							NA	NA	NA

EBS RUN NUMBER: 58310\941123000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: CLP METALS

DATE ANALYZED: 11/23/94

ANALYZED BY: JP

HOLDING TIME: 99 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?

COMMENTS:

Analysis Report Summary Mon 12-05-94 10:39:12 AM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
-	ICC	941123	CLP	11/23/94	10:10	JP	S	CONC
2	ICV	941123	CLP	11/23/94	10:17	JP	S	CONC
3	ICB	941123	CLP	11/23/94	10:25	JP	S	CONC
4	ICSAI	941123	CLP	11/23/94	10:32	JP	S	CONC
5	ICSABI	941123	CLP	11/23/94	10:39	JP	S	CONC
6	CRII	941123	CLP	11/23/94	10:47	JP	S	CONC
7	LCSW	941123	CLP	11/23/94	10:54	JP	S	CONC
8	LCSS	941123	CLP	11/23/94	11:01	JP	S	CONC
9	PBW	941123	CLP	11/23/94	11:09	JP	S	CONC
10	PBS	941123	CLP	11/23/94	11:16	JP	S	CONC
11	9410061-01A	941123	CLP	11/23/94	11:23	JP	S	CONC
12	9410061-01 DUP	941123	CLP	11/23/94	11:30	JP	S	CONC
13	9410061-01 SPK #1	941123	CLP	11/23/94	11:38	JP	S	CONC
14	9410061-01 SPK INS	941123	CLP	11/23/94	11:45	JP	S	CONC
15	9410061-02A	941123	CLP	11/23/94	11:52	JP	S	CONC
16	CCV1	941123	CLP	11/23/94	12:00	JP	S	CONC
17	CCB1	941123	CLP	11/23/94	12:07	JP	S	CONC
18	9410061-03A	941123	CLP	11/23/94	12:14	JP	S	CONC
19	9410061-04A	941123	CLP	11/23/94	12:21	JP	S	CONC
20	9410061-05A	941123	CLP	11/23/94	12:29	JP	S	CONC
21	9410061-06A	941123	CLP	11/23/94	12:36	JP	S	CONC
22	CCV2	941123	CLP	11/23/94	12:43	JP	S	CONC
23	CCB2	941123	CLP	11/23/94	12:51	JP	S	CONC
24	9410061-13A	941123	CLP	11/23/94	12:58	JP	S	CONC
	9410061-13 DUP	941123	CLP	11/23/94	13:05	JP	S	CONC
26	9410061-13 SPK #1	941123	CLP	11/23/94	13:12	JP	S	CONC
27	9410061-13 SPK #2	941123	CLP	11/23/94	13:20	JP	S	CONC
28	9410061-13 SPK INST	941123	CLP	11/23/94	13:27	JP	S	CONC
29	CRIF	941123	CLP	11/23/94	13:34	JP	S	CONC
30	9410061-13A	941123	CLP	11/23/94	13:46	JP	S	CONC
31	9410061-13 DUP	941123	CLP	11/23/94	13:54	JP	S	CONC
32	9410061-13 SPK #1	941123	CLP	11/23/94	14:01	JP	S	CONC
33	9410061-13 SPK #2	941123	CLP	11/23/94	14:08	JP	S	CONC
34	9410061-13 SPK INST	941123	CLP	11/23/94	14:15	JP	S	CONC
35	CRIF	941123	CLP	11/23/94	14:23	JP	S	CONC
36	ICSAF	941123	CLP	11/23/94	14:30	JP	S	CONC
37	ICSABF	941123	CLP	11/23/94	14:37	JP	S	CONC
38	CCV3	941123	CLP	11/23/94	14:45	JP	S	CONC
39	CCB3	941123	CLP	11/23/94	14:52	JP	S	CONC

#	Element	061-13A-dup 941' DUP CF=10 DF=100	061-13A-spk 941'K #1 CF=10 DF=100	061-13A-lcs 941'K #2 CF=10 DF=100	061-13A-isp 941'INST CF=10 DF=100	CRIF	ICSAF
1	Al3082	73300.	4420.	10940.	132600.	D98.03	S222800.
2	Ca3179	600900.	206700.	610500.	2563e3	D94.57	446200.
3	Fe2599	119900.	12010.	32630.	106900.	D38.25	S34870.
4	Mg2790	70760.	D11830.	34730.	2380e3	D-11.02	472200.
5	Mn2576	2489.	639.6	1835.	8119.	25.98	16.49
6	Na5889	70310.	17540.	51810.	2673e3	d85.00	412.1

#	Element	ICSABF	CCV3	CCB3
1	Al3082	S223400.	9860.	D110.1
2	Ca3179	441300.	224700.	D23.51
3	Fe2599	S34830.	4516.	D2.638
4	Mg2790	469100.	230600.	D-50.65
5	Mn2576	372.3	567.1	D.0583
6	Na5889	372.3	256000.	D30.48

#	Element	ICC	ICV	ICB	ICSAI	ICSABI	CRII
1	Al3082	20120.	10100.	D96.59	S222400.	S223900.	D101.8
2	Ca3179	477400.	238500.	D44.04	469300.	459800.	D74.04
3	Fe2599	9492.	4895.	D3.942	S34800.	S34850.	D12.13
4	Mg2790	501900.	245500.	D1.494	498100.	493900.	D-20.41
5	Mn2576	1444.	606.2	D.0407	16.89	391.6	25.79
6	Na5889	497400.	252500.	D40.96	437.3	359.7	D93.39

#	Element	LCSW	LCSS	PBW	PBS	061-01A 941'-01A CF=200 DF=100	061-01A dup 941' DUP CF=200 DF=100
1	Al3082	1787.	2333.	D92.47	D70.75	d51200.	D46280.
2	Ca3179	258.8	6092.	D34.56	D59.83	1911e3	1889e3
3	Fe2599	903.5	1406.	D2.471	D4.525	75510.	74830.
4	Mg2790	D11.92	D168.4	D-11.02	D-22.49	D20320.	D9267.
5	Mn2576	351.8	389.6	D.0186	D.0010	D747.3	D840.7
6	Na5889	774.9	307.3	D15.80	D19.99	D18260.	D16160.

#	Element	061-01A spk 941'K #1 CF=200 DF=100	061-01A ins spk 941' INS CF=200 DF=100	061-02A 941'-02A CF=200 DF=100	CCV1	CCB1	061-03A 941'-03A CF=200 DF=100
1	Al3082	105400.	2000e3	d73920.	9567.	D79.90	281100.
2	Ca3179	2160e3	48e6	2031e3	225300.	D12.45	120000.
3	Fe2599	93540.	980200.	103000.	4548.	D2.027	402200.
4	Mg2790	D22620.	49e6	D37840.	228200.	D11.92	D87690.
5	Mn2576	D1662.	142100.	D1369.	572.5	D-.0122	11000.
6	Na5889	d18260.	51e6	28320.	249000.	D15.80	D7353.

#	Element	061-04A 941'-04A CF=200 DF=100	061-05A 941'-05A CF=200 DF=100	061-06A 941'-06A CF=200 DF=100	CCV2	CCB2	061-13A 941'-13A
1	Al3082	260300.	245200.	250900.	10010.	D72.90	834100.
2	Ca3179	360600.	402000.	371700.	229400.	D59.83	6639e3
3	Fe2599	385100.	352000.	369300.	4740.	D4.859	S351500.
4	Mg2790	D112300.	D108300.	D110800.	235800.	D-17.28	812900.
5	Mn2576	9244.	8076.	7936.	586.4	D.2081	27130.
6	Na5889	D11550.	D11970.	D10290.	260500.	D22.09	809600.

#	Element	061-13A dup 941' DUP	061-13A spk 941'K #1	061-13A MSD 941'K #2	061-13A ins spk 941'INST	CRIF	061-13A 941'-13A CF=10 DF=100
1	Al3082	862000.	59250.	134800.	507200.	D102.7	74000.
2	Ca3179	6756e3	2776e3	6858e3	5530e3	D51.93	614000.
3	Fe2599	S352200.	156100.	S351900.	S353000.	D19.35	118100.
4	Mg2790	827500.	160700.	387200.	2684e3	D22.35	73240.
5	Mn2576	27150.	8253.	20190.	20180.	24.55	2509.
6	Na5889	816900.	235800.	581400.	3007e3	d76.61	73280.
						Good	GOOD

Al	d 256.0	0 251.4	527.0	10000	369.6
Ca	9555	9445	10800	240000	10150
Fe	377.6	374.2	467.7	4901	515.0
Mg	0101.6	046.34	0113.1	245000	0189.2
Mn	03.737	04.203	0 8.310	710.5	06.845
Na	0 91.30	0 80.80	d 91.30	255000	141.6

	061-03A	061-04A	061-05A	061-06A	061-13A
Al	1405	1301	1226	1255	7400
Ca	600.0	1803	2010	1859	61400
Fe	2011	1925	1760	1847	11810
Mg	0438.5	0561.5	0541.5	0554	7324
Mn	55.00	46.22	40.38	39.68	250.9
Na	036.77	057.75	059.85	051.45	7328

	061-13A dp	061-13A spk	061-13A MSD	061-13A ispk	061-18A
Al	7330	442.0	1094	13260	
Ca	60090	20670	61050	256300	
Fe	11990	1201	3263	10690	
Mg	7076	01183	3473	238000	
Mn	248.9	63.96	183.5	811.9	
Na	7031	1754	5181	267300	

	061-18A dp	061-18A spk	061-18A MSD	061-18A ispk
Al				
Ca				
Fe				
Mg				
Mn				
Na				

Numbers were back calculated to remove corr. factors

Al, Ca, Fe, Na, Mn, Mg

Wed 11-23-94 09:37:04 AM page

Method: CLP Standard: BLANK

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	D151.0	D50.67	D-.6667	D286.3	D-.6667	D-1.667	D19.33
SDev	45.0	33.50	1.1547	11.9	1.5275	8.737	20.26
%RSD	29.79	66.12	173.2	4.167	229.1	524.2	104.8
#1	D168.0	D17.00	D.0000	D290.0	D1.000	D-9.000	D13.00
#2	D185.0	D84.00	D.0000	D296.0	D-2.000	D8.000	D3.000
#3	D100.0	D51.00	D-2.000	D273.0	D-1.000	D-4.000	D42.00

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	D22.00	D166.7	D-19.00	D3.000	D18.33	D14.00	D13.00
SDev	10.39	45.1	45.51	19.98	7.77	54.84	.00
%RSD	47.24	27.05	239.5	665.8	42.37	391.7	.0000
#1	D10.00	D118.0	D-58.00	D16.00	D27.00	D77.00	D13.00
#2	D28.00	D175.0	D31.00	D-20.00	D16.00	D-23.00	D13.00
#3	D28.00	D207.0	D-30.00	D13.00	D12.00	D-12.00	D13.00

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	D-15.00	D20.67	D-4.333	D25.00
SDev	24.25	36.02	20.232	10.54
%RSD	161.7	174.3	466.9	42.14
#1	D11.00	D-16.00	D-17.00	D26.00
#2	D-19.00	D22.00	D19.00	D14.00
#3	D-37.00	D56.00	D-15.00	D35.00

Ca, Fe, K, Al, Mg, Mn

Method: CLP Standard: STD A

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	1848.	3649.	9506.	10910.	10220.	3760.	4243.
SDev	14.	58.	57.	77.	32.	66.	59.
%RSD	.7658	1.597	.6003	.7049	.3132	1.759	1.397
#1	1832.	3688.	9444.	10930.	10220.	3741.	4175.
#2	1857.	3677.	9519.	10980.	10190.	3834.	4274.
#3	1856.	3582.	9556.	10830.	10250.	3706.	4281.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	1042.	5777.	11720.	2521.	14800.	11130.	7617.
SDev	27.	66.	73.	26.	38.	59.	39.
%RSD	2.593	1.150	.6239	1.026	.2557	.5258	.5120
#1	1041.	5832.	11670.	2526.	14820.	11070.	7590.
#2	1070.	5703.	11700.	2493.	14830.	11130.	7600.
#3	1016.	5795.	11810.	2544.	14760.	11190.	7662.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	2245.	D73.67	8665.	4701.
SDev	49.	28.57	16.	14.
%RSD	2.189	38.78	.1804	.2988
#1	2225.	D94.00	8663.	4714.
#2	2301.	D86.00	8651.	4702.
#3	2209.	D41.00	8682.	4686.

Method: CLP Standard: STD A

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	1890.	3717.	9877.	11180.	10650.	3875.	4296.
SDev	22.	11.	88.	26.	75.	64.	85.
%RSD	1.153	.2826	.8914	.2289	.7031	1.657	1.984
#1	1905.	3717.	9874.	11200.	10620.	3842.	4334.
#2	1865.	3727.	9791.	11180.	10590.	3949.	4355.
#3	1900.	3706.	9967.	11150.	10730.	3834.	4198.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	1043.	5994.	12230.	2557.	15130.	11490.	7893.
SDev	34.	44.	101.	16.	94.	38.	32.
%RSD	3.245	.7348	.8234	.6236	.6188	.3293	.4100
#1	1019.	6044.	12250.	2544.	15130.	11510.	7856.
#2	1082.	5960.	12130.	2553.	15040.	11440.	7907.
#3	1029.	5979.	12330.	2575.	15230.	11510.	7916.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	2305.	D37.33	8876.	4815.
SDev	23.	25.15	24.	12.
%RSD	.9895	67.36	.2726	.2538
#1	2319.	D46.00	8903.	4828.
#2	2279.	D57.00	8857.	4812.
#3	2318.	D9.000	8867.	4804.

Method: CLP Standard: STD B

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	9580.	18890.	51760.	54860.	53750.	19520.	21300.
SDev	65.	22.	569.	155.	348.	228.	260.
%RSD	.6765	.1150	1.100	.2832	.6473	1.169	1.220
#1	9610.	18890.	51990.	54840.	54110.	19770.	21010.
#2	9506.	18880.	52180.	55020.	53700.	19350.	21510.
#3	9625.	18920.	51110.	54710.	53420.	19430.	21390.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	5248.	30990.	60770.	14440.	82990.	57680.	40210.
SDev	34.	80.	224.	104.	345.	106.	434.
%RSD	.6535	.2588	.3687	.7192	.4162	.1831	1.078
#1	5209.	31060.	61010.	14560.	83390.	57670.	40090.
#2	5264.	31020.	60570.	14380.	82770.	57790.	39850.
#3	5272.	30900.	60730.	14370.	82810.	57580.	40690.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	11030.	1096.	45350.	24500.
SDev	95.	49.	214.	204.
%RSD	.8624	4.432	.4717	.8329

#1	11140.	1146.	45600.	24410.
#2	11000.	1093.	45250.	24360.
#3	10960.	1049.	45200.	24740.

Method: CLP Standard: STD C

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	19320.	37120.	100900.	103600.	102700.	35580.	40110.
SDev	181.	471.	616.	300.	566.	133.	284.
%RSD	.9354	1.270	.6106	.2891	.5515	.3737	.7078
#1	19220.	37650.	101600.	104000.	102500.	35450.	39830.
#2	19210.	36960.	100800.	103500.	102200.	35720.	40090.
#3	19530.	36750.	100300.	103400.	103300.	35570.	40400.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	9786.	60630.	116100.	28420.	162300.	110500.	79240.
SDev	77.	338.	499.	325.	1055.	910.	661.
%RSD	.7819	.5580	.4300	1.142	.6497	.8230	.8345
#1	9854.	61010.	116400.	28540.	162800.	111500.	79520.
#2	9703.	60500.	115600.	28670.	163000.	109900.	78480.
#3	9800.	60370.	116400.	28050.	161100.	110100.	79710.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	20730.	2045.	86290.	47170.
SDev	73.	48.	279.	265.
%RSD	.3514	2.368	.3231	.5620
#1	20770.	2066.	86540.	47220.
#2	20650.	2080.	86350.	46890.
#3	20780.	1990.	85990.	47410.

Method: CLP Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardi
Ag3280	328.068	Multiple	Standards	.054122	-8.12205	11/23/94 10:00
Al3082	308.215	Multiple	Standards	.538504	-27.0828	11/23/94 10:00
Ba4554	455.403	Multiple	Standards	.197879	.488346	11/23/94 10:00
Be3131	313.107	Multiple	Standards	.004668	-1.34489	11/23/94 10:00
Ca3179	317.933	Multiple	Standards	4.73727	-1.75782	11/23/94 10:00
Cd2265	226.502	Multiple	Standards	.066154	.044502	11/23/94 10:00
Co2286	228.616	Multiple	Standards	.119611	-2.42409	11/23/94 10:00
Cr2677	267.716	Multiple	Standards	.098592	-2.17825	11/23/94 10:00
Cu3247	324.754	Multiple	Standards	.041572	-6.86592	11/23/94 10:00
Fe2599	259.940	Multiple	Standards	.083279	1.38857	11/23/94 10:00
K_7664	766.490	Multiple	Standards	18.1038	-23.0546	11/23/94 10:00
Mg2790	279.079	Multiple	Standards	3.12862	-35.0067	11/23/94 10:00
Mn2576	257.610	Multiple	Standards	.013215	-.201602	11/23/94 10:00
Na5889	588.995	Multiple	Standards	6.29132	-78.5745	11/23/94 10:00
Ni2316	231.604	Multiple	Standards	.181744	2.53112	11/23/94 10:00
Pb2203	220.353	Multiple	Standards	1.72176	-33.7287	11/23/94 10:00
V_3110	311.071	Multiple	Standards	.056433	.222740	11/23/94 10:00

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardi
Zn2138	213.856	Multiple	Standards	.041667	-1.04181	11/23/94 10:00

Method: CLP

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ag3280	328.068	BLANK	.000000	.050402	-.05040
		STD A	100.000	94.1689	5.83107
		STD B	500.000	510.387	-10.386
		STD C	1000.00	1037.54	-37.537
CorCoef:	0.99994				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Al3082	308.215	BLANK	.000000	.201389	-.20138
		STD A	2000.00	1974.36	25.6442
		STD B	10000.0	10147.0	-147.04
		STD C	20000.0	19962.4	37.6484
CorCoef:	0.99996				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ba4554	455.403	BLANK	.000000	.356427	-.35642
		STD A	2000.00	1955.01	44.9937
		STD B	10000.0	10242.6	-242.57
		STD C	20000.0	19964.8	35.2227
CorCoef:	0.99989				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Be3131	313.107	BLANK	.000000	-.008335	.008335
		STD A	50.0000	50.8211	-.82112
		STD B	250.000	254.722	-4.7224
		STD C	500.000	482.344	17.6560
CorCoef:	0.99957				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ca3179	317.933	BLANK	.000000	-4.91600	4.91600
		STD A	50000.0	50443.8	-443.83
		STD B	250000.	254607.	-4607.4
		STD C	500000.	486347.	13653.3
CorCoef:	0.99970				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Cd2265	226.502	BLANK	.000000	-.065755	.065755
		STD A	250.000	256.393	-6.3929
		STD B	1250.00	1291.09	-41.092
		STD C	2500.00	2353.89	146.115
CorCoef:	0.99872				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Co2286	228.616	BLANK	.000000	-.111607	.111607
		STD A	500.000	511.386	-11.386
		STD B	2500.00	2545.66	-45.655
		STD C	5000.00	4794.83	205.173
CorCoef:	0.99948				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Cr2677	267.716	BLANK	.000000	-.009227	.009227

		STD A	100.000	100.686	-.68601
		STD B	500.000	515.265	-15.265
		STD C	1000.00	962.610	37.3904
CorCoef: 0.99931					

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Cu3247	324.754	BLANK	.000000	.062720	-.06272
		STD A	250.000	242.330	7.67049
		STD B	1250.00	1281.57	-31.569
		STD C	2500.00	2513.56	-13.564
CorCoef: 0.99993					

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Fe2599	259.940	BLANK	.000000	-.193730	.193730
		STD A	1000.00	1020.14	-20.140
		STD B	5000.00	5062.31	-62.310
		STD C	10000.0	9673.97	326.030
CorCoef: 0.99971					

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
K_7664	766.490	BLANK	.000000	31.2568	-31.256
		STD A	50000.0	46274.4	3725.55
		STD B	250000.	261366.	-11365.
		STD C	500000.	514524.	-14523.
CorCoef: 0.99989					

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Mg2790	279.079	BLANK	.000000	22.3514	-22.351
		STD A	50000.0	47303.1	2696.93
		STD B	250000.	259605.	-9604.8
		STD C	500000.	507760.	-7759.5
CorCoef: 0.99988					

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Mn2576	257.610	BLANK	.000000	-.016598	.016598
		STD A	150.000	151.577	-1.5767
		STD B	750.000	762.034	-12.033
		STD C	1500.00	1460.16	39.8352
CorCoef: 0.99974					

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Na5889	588.995	BLANK	.000000	3.21266	-3.2126
		STD A	50000.0	49578.8	421.164
		STD B	250000.	252889.	-2889.2
		STD C	500000.	498433.	1566.75
CorCoef: 0.99997					

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ni2316	231.604	BLANK	.000000	-.195031	.195031
		STD A	400.000	421.511	-21.510
		STD B	2000.00	2007.16	-7.1640
		STD C	4000.00	3770.56	229.438
CorCoef: 0.99944					

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Pb2203	220.353	BLANK	.000000	1.85438	-1.8543

	STD A	250.000	30.5504	219.450
	STD B	1250.00	1853.32	-603.32
	STD C	2500.00	3487.85	-987.85

CorCoef: 0.99495

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
V_3110	311.071	BLANK	.000000	-.021801	.021801
		STD A	500.000	501.099	-1.0994
		STD B	2500.00	2559.53	-59.533
		STD C	5000.00	4869.94	130.061

CorCoef: 0.99963

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Zn2138	213.856	BLANK	.000000	-.000127	.000127
		STD A	200.000	199.572	.427872
		STD B	1000.00	1019.89	-19.889
		STD C	2000.00	1964.50	35.5001

CorCoef: 0.99979

Method: CLP Sample Name: ICC Operator: JP
Run Time: 11/23/94 10:10:42
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 99%	ug/L 101	ug/L 100	ug/L 96	ug/L 95	ug/L 94%	ug/L 95
Avge	986.6	20120.	19980.	479.4	477400.	2350.	4723.
SDev	9.6	137.	124.	1.3	4098.	6.	3.
%RSD	.9687	.6790	.6223	.2812	.8585	.2415	.0707
#1	975.6	20060.	19900.	480.9	479300.	2345.	4720.
#2	991.2	20030.	19920.	479.1	480200.	2356.	4726.
#3	993.0	20280.	20120.	478.2	472700.	2349.	4724.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L 96	ug/L 101	ug/L 95	ug/L 101	ug/L 100	ug/L 96	ug/L 99
Avge	958.4	2524.	9492.	506800.	501900.	1444.	497400.
SDev	10.4	15.	33.	2010.	4295.	9.	3831.
%RSD	1.081	.5894	.3482	.3966	.8557	.5923	.7702
#1	952.4	2536.	9454.	508800.	497100.	1452.	500800.
#2	970.3	2507.	9512.	504800.	505200.	1445.	493200.
#3	952.4	2529.	9510.	506700.	503500.	1435.	498200.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L 93	ug/L	ug/L 98	ug/L 98
Avge	3726.	3436.	4904.	1950.
SDev	34.	69.	11.	18.
%RSD	.9247	2.003	.2150	.9281
#1	3708.	3374.	4909.	1933.
#2	3766.	3510.	4911.	1948.
#3	3704.	3424.	4892.	1969.

Method: CLP Sample Name: ICV Operator: JP
Run Time: 11/23/94 10:17:59
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	*Al3082	Ba4554	Be3131	*Ca3179	Cd2265	Co2286
Units	ug/L 83	ug/L 101	ug/L 100	ug/L 81	ug/L 95	ug/L 93	ug/L 80
Avge	414.6	10100.	10040.	202.6	238500.	232.4	2012.
SDev	3.4	100.	8.	.8	1991.	2.3	19.
%RSD	.8301	.9898	.0791	.4146	.8346	.9688	.9420
#1	411.5	10120.	10030.	201.6	240600.	229.9	2002.
#2	414.1	9985.	10050.	203.0	238400.	234.2	2000.
#3	418.3	10180.	10050.	203.1	236600.	233.2	2034.

Elem	Cr2677	Cu3247	*Fe2599	*K_7664	*Mg2790	*Mn2576	Na5889
Units	ug/L 82	ug/L 84	ug/L 98	ug/L 104	ug/L 98	ug/L 81 %	ug/L
Avge	410.3	1047.	4895.	259600.	245500.	606.2	252500.
SDev	7.4	8.	25.	2833.	825.	2.5	1765.
%RSD	1.814	.7963	.5199	1.091	.3362	.4179	.6988
#1	415.1	1052.	4872.	262900.	246400.	605.6	254500.
#2	414.2	1037.	4891.	258300.	244900.	609.0	251700.
#3	401.8	1051.	4923.	257800.	245200.	604.0	251300.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	1569.	D362.9	2064.	808.0
SDev	16.	73.6	13.	1.7
%RSD	.9945	20.28	.6131	.2118
#1	1581.	D277.9	2072.	808.6
#2	1551.	D407.0	2072.	809.4
#3	1574.	D403.6	2050.	806.1

Method: CLP Sample Name: ICB Operator: JP
Run Time: 11/23/94 10:25:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D96.59	D.4883	D.0000	D44.04	D.0000	D.0000
SDev	.8631	26.42	.1979	.0530	2.74	2.441	3.524
%RSD	23.66	27.35	40.52	70.46	6.211	369.2	161.3
#1	D.0000	D123.7	D.4883	D.0000	D40.88	D.0000	D.0000
#2	D.0000	D70.92	D.6862	D.0000	D45.61	D.0000	D.0000
#3	D.0000	D95.16	D.2905	D.0000	D45.61	D2.029	D1.643

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.4369	D3.942	D73.50	D1.494	D.0407	D40.96
SDev	1.355	1.509	1.500	171.1	9.558	.3625	.00
%RSD	85.42	345.4	38.04	232.8	639.8	891.3	.0000
#1	D.0000	D.6586	D5.469	D13.15	D.0000	D.4591	D40.96

#2	D.0000	D.0000	D3.887	D.0000	D.0000	D.0000	D40.96
#3	D.0000	D1.823	D2.471	D266.6	D11.92	D.0000	D40.96

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D1.077	D.0000	D.0000	D.0000
SDev	4.587	20.54	2.251	1.325
%RSD	425.8	100.1	67.54	227.1
#1	D.0000	D.0000	D.0000	D.0000
#2	D.0000	D.0000	D.0000	D.6249
#3	D6.348	D.0000	D.0000	D.0000

Method: CLP Sample Name: ICSAI Operator: JP
Run Time: 11/23/94 10:32:33
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	S222400.	24.56	D.0000	469300.	D8.887	D.0000
SDev	6.665	10.	.11	.0468	4891.	.795	3.406
%RSD	52.76	.0044	.4651	63.45	1.042	8.943	133.9
#1	D.0000	S222400.	24.63	D.0000	473800.	D9.703	D.0000
#2	D.0000	S222400.	24.63	D.0000	464100.	D8.115	D.4466
#3	D.0000	S222400.	24.43	D.0000	469900.	D8.843	D.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	139.3	D.0000	S34800.	D67.46	498100.	16.89	437.3
SDev	4.9	2.843	35.	243.6	4099.	.08	12.6
%RSD	3.517	9.311	.0995	361.0	.8229	.4448	2.877
#1	139.8	D.0000	S34840.	D266.6	500700.	16.83	437.3
#2	143.9	D.0000	S34780.	D139.9	493400.	16.87	424.7
#3	134.2	D.0000	S34780.	D.0000	500300.	16.98	449.9

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.2290	D343.9	D3.421	62.46
SDev	14.47	24.6	3.258	3.87
%RSD	6317.	7.156	95.24	6.203
#1	D.0000	D338.2	D2.649	62.00
#2	D.0000	D322.7	D6.995	66.54
#3	D15.62	D370.9	D.6178	58.83

Method: CLP Sample Name: ICSABI Operator: JP
Run Time: 11/23/94 10:39:50
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

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Avge	796.1	S223900.	523.1	386.0	459800.	872.8	373.8
SDev	.6	89.	3.6	3.0	2172.	9.0	1.7
%RSD	.0797	.0396	.6809	.7644	.4724	1.030	.4630
#1	796.4	S223900.	519.5	383.1	458200.	877.0	372.7
#2	796.6	S223900.	526.6	389.0	462300.	862.4	372.9
#3	795.4	S223800.	523.1	385.9	459000.	878.8	375.8

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	464.8	383.0	S34850.	D.0000	493900.	391.6	359.7
SDev	2.6	4.7	138.	154.0	2897.	4.8	13.1
%RSD	.5696	1.226	.3952	904.6	.5866	1.216	3.641
#1	461.7	380.5	S34770.	D139.9	490600.	397.1	349.2
#2	466.3	388.4	S34770.	D.0000	496200.	388.4	374.4
#3	466.2	380.1	S35010.	D.0000	494800.	389.4	355.5

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	714.4	1647.	396.2	788.3
SDev	6.9	54.	3.9	6.3
%RSD	.9664	3.287	.9944	.8037
#1	713.1	1585.	400.3	781.7
#2	708.2	1685.	392.5	788.9
#3	721.9	1671.	395.8	794.3

Method: CLP Sample Name: CRII Operator: JP
Run Time: 11/23/94 10:47:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D12.32	D101.8	D1.742	8.590	D74.04	D8.887	90.63
SDev	1.52	31.6	.695	.056	4.74	.306	4.77
%RSD	12.35	31.05	39.90	.6483	6.398	3.438	5.264
#1	D11.58	D67.16	D1.082	8.635	D69.30	D8.711	88.12
#2	D14.07	D109.2	D2.467	8.607	D74.04	D8.711	87.64
#3	D11.31	D129.1	D1.676	8.528	D78.78	D9.240	96.14

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D17.47	46.14	D12.13	D.0000	D.0000	25.79	D93.39
SDev	3.02	1.80	2.46	130.6	50.87	.51	7.26
%RSD	17.30	3.902	20.26	99.14	249.3	1.969	7.779
#1	D19.91	45.10	D14.55	D.0000	D.0000	26.15	D97.58
#2	D18.43	45.10	D12.21	D.0000	D24.44	26.02	D85.00
#3	D14.09	48.22	D9.633	D.0000	D.0000	25.21	D97.58

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	71.11	D16.20	87.34	38.90

SDev	4.09	22.38	2.76	1.29
%RSD	5.751	138.1	3.160	3.321
#1	75.77	D4.150	85.94	40.38
#2	69.41	D2.428	85.55	37.96
#3	68.14	D42.03	90.51	38.38

Method: CLP Sample Name: LCSW Operator: JP
Run Time: 11/23/94 10:54:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D30.52	1787.	1836.	37.58	258.8	D40.91	359.1
SDev	1.68	23.	18.	.21	8.2	3.42	2.8
%RSD	5.497	1.287	.9900	.5580	3.171	8.366	.7871
#1	D31.82	1763.	1821.	37.82	254.1	D44.83	356.9
#2	D31.12	1809.	1830.	37.41	254.1	D39.34	362.3
#3	D28.63	1790.	1856.	37.52	268.3	D38.55	358.1

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	146.2	192.8	903.5	D339.0	D11.92	351.8	774.9
SDev	2.4	.9	13.1	255.4	21.68	4.0	9.6
%RSD	1.644	.4899	1.452	75.33	181.8	1.137	1.240
#1	145.3	192.1	916.5	D103.7	D.0000	351.9	783.3
#2	149.0	193.8	903.7	D610.6	D.0000	347.7	777.0
#3	144.4	192.3	890.2	D302.8	D36.95	355.7	764.5

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	359.1	D561.4	361.6	343.1
SDev	10.3	34.0	4.0	3.7
%RSD	2.880	6.059	1.107	1.079
#1	351.1	D555.1	357.3	345.0
#2	355.3	D531.0	365.2	338.9
#3	370.7	D598.2	362.4	345.5

Method: CLP Sample Name: LCSS Operator: JP
Run Time: 11/23/94 11:01:43
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D28.52	2333.	1974.	39.01	6092.	D44.13	384.1
SDev	4.15	24.	5.	.60	110.	3.98	3.1
%RSD	14.54	1.040	.2356	1.526	1.798	9.013	.7990
#1	D24.03	2305.	1969.	39.07	6105.	D46.62	380.7
#2	D29.33	2346.	1978.	38.39	6195.	D39.54	386.7

#3	D32.20	2347.	1974.	39.57	5977.	D46.22	384.9

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	156.7	202.9	1406.	D.0000	D168.4	389.6	307.3
SDev	3.1	.3	16.	369.4	30.2	2.8	7.3
%RSD	2.000	.1344	1.147	2170.	17.92	.7069	2.364
#1	153.1	202.6	1418.	D67.46	D180.9	387.6	311.5
#2	158.9	202.9	1411.	D302.8	D190.3	388.5	311.5
#3	158.0	203.2	1387.	D.0000	D133.9	392.8	298.9

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	376.3	D537.3	391.4	452.4
SDev	1.6	34.0	5.5	5.5
%RSD	.4382	6.331	1.407	1.219
#1	374.6	D531.0	385.0	446.3
#2	376.6	D574.1	394.4	453.8
#3	377.8	D506.9	394.7	457.0

Method: CLP Sample Name: PBW Operator: JP
Run Time: 11/23/94 11:09:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D92.47	D.4224	D.0000	D34.56	D.0000	D.0000
SDev	.6584	14.57	.4570	.0415	7.24	1.069	2.797
%RSD	12.53	15.76	108.2	36.85	20.94	67.37	190.7
#1	D.0000	D78.46	D.6862	D.0000	D40.88	D.0000	D.2074
#2	D.0000	D107.5	D.6862	D.0000	D36.14	D.0000	D.0000
#3	D.0000	D91.39	D.0000	D.0000	D26.67	D.0000	D.0877

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D2.471	D.0000	D.0000	D.0186	D15.80
SDev	4.690	.1200	2.154	222.5	14.45	.4427	6.29
%RSD	182.3	3.458	87.16	233.0	131.1	2375.	39.83
#1	D.0000	D.0000	D4.803	D.0000	D.0000	D.4591	D22.09
#2	D.0000	D.0000	D.5558	D67.46	D5.665	D.0000	D15.80
#3	D1.272	D.0000	D2.055	D.0000	D.0000	D.0230	D9.504

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D.0000	D1.208
SDev	1.154	16.96	5.166	.433
%RSD	858.5	72.47	23700.	35.84
#1	D.0000	D.0000	D.0000	D1.458
#2	D.5319	D.0000	D3.101	D.7082
#3	D.5319	D.0000	D2.819	D1.458

Method: CLP Sample Name: PBS Operator: JP
Run Time: 11/23/94 11:16:17
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D70.75	D.6862	D.0000	D59.83	D.0000	D.0000
SDev	3.954	12.12	.1979	.0418	4.74	1.542	5.156
%RSD	73.24	17.13	28.84	31.50	7.918	249.8	4620.
#1	D.0000	D58.54	D.4883	D.0000	D64.56	D.0000	D.0000
#2	D.0000	D82.77	D.6862	D.0000	D55.09	D.0000	D.0000
#3	D.0000	D70.92	D.8841	D.0000	D59.83	D.6399	D5.470

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D4.525	D.0000	D.0000	D.0010	D19.99
SDev	1.430	2.460	1.462	320.3	47.24	.3134	3.63
%RSD	94.01	41.53	32.31	64.87	210.0	30670.	18.17
#1	D.0000	D.0000	D3.137	D.0000	D.0000	D.0000	D22.09
#2	D.0000	D.0000	D4.387	D.0000	D.0000	D.2609	D15.80
#3	D.0000	D.0000	D6.052	D.0000	D27.57	D.0891	D22.09

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D.0000	D.0832
SDev	1.649	23.92	3.378	.8868
%RSD	107.9	387.0	98.04	1066.
#1	D.0000	D21.37	D.0000	D.0000
#2	D.0000	D.0000	D.0000	D1.042
#3	D.0000	D.0000	D.0000	D.0000

Method: CLP Sample Name: 9410061-01A Operator: JP
Run Time: 11/23/94 11:23:34
Comment: (1:100)
Mode: CONC Corr. Factor: 200

233000.

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	d51200.	D308.7	D.0000	1911000.	D.0000	D.0000
SDev	503.5	4043.	82.4	7.007	18981.	528.6	519.9
%RSD	54.68	7.897	26.68	19.02	.9931	545.2	243.3
#1	D.0000	d55870.	D216.4	D.0000	1913000.	D.0000	D.0000
#2	D.0000	d48760.	D335.1	D.0000	1930000.	D.0000	D.0000
#3	D.0000	d48970.	D374.7	D.0000	1892000.	D511.7	D376.4

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L 9200.	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	75510.	D.0000	D20320.	D747.3	D18260.
SDev	112.1	637.7	757.	83e3	956.	61.0	

%RSD	23.93	183.4	1.002	167.6	4.703	8.158	.0000
#1	D.0000	D.0000	74980.	D.0000	D20530.	D768.4	D18260.
#2	D.0000	D65.20	76380.	D.0000	D19280.	D678.6	D18260.
#3	D.0000	D.0000	75180.	D24360.	D21160.	D794.8	D18260.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D130.6	D.0000	D.0000	D277.8
SDev	1081.	2942.	39.10	361.8
%RSD	827.5	537.5	329.0	130.2
#1	D.0000	D.0000	D10.69	D383.3
#2	D.0000	D2552.	D10.69	D575.0
#3	D1379.	D.0000	D.0000	D.0000

Method: CLP Sample Name: 9410061-01 DUP Operator: JP
Run Time: 11/23/94 11:30:51
Comment: 1:100
Mode: CONC Corr. Factor: 200

230000.

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D46280.	D308.7	D.0000	1889000.	D163.3	D.0000
SDev	547.6	655.	159.9	13.54	7599.	821.2	856.3
%RSD	47.69	1.416	51.81	34.71	.4023	503.0	308.6
#1	D.0000	D47030.	D453.9	D.0000	1881000.	D.0000	D.0000
#2	D.0000	D45960.	D137.2	D.0000	1896000.	D961.5	D.0000
#3	D.0000	D45850.	D335.1	D.0000	1890000.	D207.4	D711.3

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L 9110.	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	74830.	D.0000	D9267.	D840.7	D16160.
SDev	239.1	489.3	1446.	48e3	8693.	23.1	1922.
%RSD	63.50	83.88	1.932	121.7	93.80	2.747	11.89
#1	D.0000	D.0000	76460.	D.0000	D19280.	D866.2	D15740.
#2	D.0000	D.0000	74350.	D.0000	D4887.	D834.5	D14480.
#3	D.0000	D.0000	73700.	D.0000	D3636.	D821.3	D18260.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D.0000	D202.8
SDev	1506.	9650.	128.2	145.6
%RSD	238.0	196.6	70.75	71.82
#1	D1088.	D4962.	D.0000	D325.0
#2	D.0000	D.0000	D.0000	D41.64
#3	D.0000	D.0000	D.0000	D241.6

Method: CLP Sample Name: 9410061-01 SPK #1 Operator: JP
Run Time: 11/23/94 11:38:09
Comment: 1:100

Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	105400.	3950.	D36.61	2160000.	D154.4	D65.39
SDev	190.7	2139.	160.	26.18	5013.	192.2	810.2
%RSD	15.63	2.030	4.050	71.51	.2321	124.4	1239.
#1	D.0000	105800.	3976.	D13.89	2166000.	D141.2	D591.7
#2	D.0000	103000.	3778.	D30.70	2156000.	D.0000	D.0000
#3	D.0000	107200.	4095.	D65.24	2158000.	D352.9	D472.1

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	93540.	D7458.	D22620.	D1662.	d18260.
SDev	347.4	91.21	2259.	94e3	6268.	39.	1258.
%RSD	305.8	25.62	2.415	1257.	27.71	2.354	6.891
#1	D.0000	D.0000	91470.	D.0000	D16150.	D1707.	d18260.
#2	D77.03	D.0000	93200.	D42460.	D23030.	D1635.	d17000.
#3	D96.75	D.0000	95950.	D78670.	D28660.	D1643.	d19520.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D1342.	D.0000	D1136.	D1333.
SDev	441.	7875.	561.	210.
%RSD	32.83	266.2	49.36	15.72
#1	D1270.	D2896.	D1613.	D1225.
#2	D1815.	D.0000	D1275.	D1575.
#3	D942.4	D141.3	D518.6	D1200.

Method: CLP Sample Name: 9410061-01 SPK INS Operator: JP
Run Time: 11/23/94 11:45:26
Comment: 1:100
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	65210.	2000000.	2034000.	47380.	48e6	234600.	472100.
SDev	4909.	18082.	16303.	249.	212753.	2788.	778.
%RSD	7.528	.9039	.8016	.5263	.4448	1.189	.1647
#1	68820.	1980000.	2052000.	47130.	48e6	233000.	472100.
#2	67190.	2006000.	2027000.	47630.	48e6	232900.	472900.
#3	59620.	2015000.	2022000.	47370.	48e6	237800.	471400.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	96870.	248700.	980200.	53e6	49e6	142100.	51e6
SDev	386.	3095.	4920.	195701.	111698.	606.	21821
%RSD	.3980	1.245	.5019	.3676	.2282	.4263	.4315
#1	96970.	247200.	985900.	53e6	49e6	142700.	51e6
#2	97190.	252200.	977300.	53e6	49e6	141900.	51e6
#3	96440.	246500.	977500.	53e6	49e6	141600.	50e6

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	371300.	340200.	486000.	190100.
SDev	8631.	12171.	2416.	480.
%RSD	2.324	3.577	.4971	.2527
#1	381300.	326200.	486300.	189700.
#2	365800.	348300.	483500.	189800.
#3	366900.	346200.	488300.	190600.

Method: CLP Sample Name: 9410061-02A Operator: JP
Run Time: 11/23/94 11:52:44
Comment: (1:100)
Mode: CONC Corr. Factor: 200

268000.

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D2976.	d73920.	D744.1	D.0000	2031000.	D.0000	D.0000
SDev	403.	8812.	187.0	7.291	10940.	194.9	540.8
%RSD	13.55	11.92	25.14	29.90	.5386	442.7	130.9
#1	D2835.	d69330.	D533.0	D.0000	2038000.	D.0000	D.0000
#2	D3431.	d68360.	D889.2	D.0000	2019000.	D180.9	D.0000
#3	D2662.	84080.	D810.0	D.0000	2038000.	D.0000	D.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L 13600.	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	103000.	D.0000	D37840.	D1369.	28320.
SDev	670.8	124.5	1569.	47e3	5248.	43.	1258.
%RSD	316.2	23.59	1.524	91.62	13.87	3.138	4.442
#1	D550.3	D.0000	101200.	D.0000	D40550.	D1416.	27070.
#2	D.0000	D.0000	104100.	D.0000	D31790.	D1360.	29580.
#3	D.0000	D.0000	103600.	D.0000	D41180.	D1331.	28320.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D239.7	D.0000	D447.1	D177.8
SDev	1705.	11e3	289.6	312.0
%RSD	711.6	249.6	64.77	175.5
#1	D.0000	D.0000	D202.6	D533.3
#2	D1597.	D7373.	D371.9	D.0000
#3	D797.0	D.0000	D766.9	D49.98

Method: CLP Sample Name: CCV1 Operator: JP
Run Time: 11/23/94 12:00:03
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 96%	ug/L	ug/L	ug/L 90%	ug/L	ug/L
Avge	409.9	9567.	9814.	189.3	225300.	216.9	1866.
SDev	2.0	22.	37.	.5	2366.	6.9	29.
%RSD	.4827	.2308	.3786	.2855	1.050	3.194	1.546

#1	408.1	9567.	9775.	189.0	228000.	223.6	1863.
#2	409.5	9590.	9817.	189.9	223500.	217.5	1896.
#3	412.0	9545.	9849.	189.0	224400.	209.8	1839.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	375.8	1009.	4548.	254200.	228200.	572.5	249000.
SDev	.9	1.	14.	3439.	2159.	4.8	1277.
%RSD	.2381	.0751	.3139	1.353	.9460	.8397	.5130
#1	376.1	1008.	4539.	253400.	230700.	567.1	247500.
#2	374.7	1008.	4540.	258000.	226800.	576.4	249500.
#3	376.4	1009.	4564.	251300.	227200.	574.0	249900.

G/% G/%

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	1462.	D206.2	1957.	753.1
SDev	9.	83.8	11.	4.3
%RSD	.6489	40.62	.5658	.5735
#1	1465.	D293.4	1946.	755.9
#2	1470.	D126.4	1956.	748.1
#3	1452.	D198.7	1968.	755.2

Method: CLP Sample Name: CCB1 Operator: JP
Run Time: 11/23/94 12:07:20
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D79.90	D.0266	D.0000	D12.45	D.0000	D.0000
SDev	5.351	30.23	.4119	.0563	4.74	1.291	1.725
%RSD	123.5	37.84	1547.	52.91	38.04	106.5	42.09
#1	D1.458	D45.08	D.0000	D.0000	D12.45	D.0000	D.0000
#2	D.0000	D95.16	D.0000	D.0000	D7.717	D.1107	D.0000
#3	D.0000	D99.47	D.4883	D.0000	D17.19	D.0000	D.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D2.027	D.0000	D11.92	D.0000	D15.80
SDev	1.765	2.203	1.643	205.9	25.61	.2149	.00
%RSD	156.6	121.9	81.06	149.5	214.8	1762.	.0000
#1	D.0000	D.0000	D3.137	D31.26	D.0000	D.0000	D15.80
#2	D.3851	D.0000	D2.804	D.0000	D40.08	D.1552	D15.80
#3	D.0000	D.0000	D.1394	D.0000	D5.665	D.0627	D15.80

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.4714	D.0000	D.2604	D.0000
SDev	5.142	42.21	1.612	.8583
%RSD	1091.	372.0	619.3	220.6

#1	D5.984	D.0000	D1.803	D.0000
#2	D.0000	D29.98	D.3920	D.0000
#3	D.0000	D.0000	D.0000	D.5832

Method: CLP Sample Name: 9410061-03A Operator: JP
Run Time: 11/23/94 12:14:36
Comment: 1:100
Mode: CONC Corr. Factor: 200

35600. 15200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	281100.	1298.	D.0000	120000.	D247.1	D.0000
SDev	335.6	1718.	60.	2.349	1895.	368.8	910.0
%RSD	21.67	.6109	4.657	5.497	1.579	149.3	1165.
#1	D.0000	283100.	1285.	D.0000	121900.	D75.05	D.0000
#2	D.0000	280000.	1364.	D.0000	118100.	D670.4	D854.8
#3	D.0000	280300.	1245.	D.0000	120000.	D.0000	D.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L 50900.	ug/L	ug/L 11100.	ug/L	ug/L
Avge	D.0000	D.0000	402200.	D20730.	D87690.	11000.	D7353.
SDev	306.1	347.2	2263.	27336.	6921.	78.	1453.
%RSD	1420.	104.0	.5628	131.8	7.892	.7086	19.76
#1	D.0000	D.0000	404600.	D.0000	D81230.	11060.	D5676.
#2	D.0000	D65.20	400100.	D24360.	D86860.	11040.	D8192.
#3	D274.2	D.0000	401900.	D46080.	D94990.	10910.	D8192.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D857.2	D336.1
SDev	777.0	3200.	176.3	228.3
%RSD	421.4	236.9	20.57	67.92
#1	D70.04	D.0000	D970.0	D291.6
#2	D433.5	D2207.	D654.0	D583.3
#3	D.0000	D.0000	D947.5	D133.3

Method: CLP Sample Name: 9410061-04A Operator: JP
Run Time: 11/23/94 12:21:52
Comment: 1:100
Mode: CONC Corr. Factor: 200

32600. 45100.

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	260300.	1417.	D.0000	360600.	D4.490	D.0000
SDev	206.5	3887.	23.	6.881	3790.	684.5	194.8
%RSD	11.42	1.493	1.613	22.48	1.051	15240.	24.98
#1	D.0000	264800.	1404.	D.0000	364400.	D.0000	D.0000
#2	D.0000	258000.	1443.	D.0000	360600.	D723.4	D.0000
#3	D.0000	258100.	1404.	D.0000	356800.	D.0000	D.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889

			48200.		14100.		
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D123.0	D.0000	385100.	D.0000	D112300.	9244.	D11550.
SDev	210.8	118.8	5298.	16e3	6077.	144.	726.
%RSD	171.4	21.50	1.376	69.48	5.412	1.560	6.291
#1	D77.03	D.0000	390900.	D.0000	D113800.	9329.	D11970.
#2	D.0000	D.0000	380500.	D.0000	D117500.	9078.	D11970.
#3	D353.1	D.0000	384100.	D.0000	D105600.	9326.	D10710.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D724.3	D.0000	D1260.	D277.8
SDev	1408.	1896.	636.	77.4
%RSD	194.4	21.25	50.49	27.88
#1	D542.6	D.0000	D1986.	D241.6
#2	D2215.	D.0000	D800.7	D366.6
#3	D.0000	D.0000	D992.6	D225.0

Method: CLP Sample Name: 9410061-05A Operator: JP
Run Time: 11/23/94 12:29:09
Comment: 1:100
Mode: CONC Corr. Factor: 200

					50100.		
Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	245200.	d1074.	D.0000	402000.	D.0000	D.0000
SDev	482.2	862.	160.	15.66	2895.	186.6	903.1
%RSD	46.53	.3514	14.89	73.61	.7200	31.82	174.8
#1	D.0000	246100.	1245.	D.0000	399500.	D.0000	D.0000
#2	D.0000	245200.	d1047.	D.0000	401400.	D.0000	D472.1
#3	D.0000	244300.	d928.8	D.0000	405200.	D.0000	D.0000

			43900.		13500.		
Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D116.5	D.0000	352000.	D.0000	D108300.	8076.	D11970.
SDev	118.3	124.7	2162.	90e3	8333.	136.	.
%RSD	101.6	105.9	.6143	1546.	7.691	1.684	.0000
#1	D234.8	D.0000	354000.	D49700.	D113800.	8200.	D11970.
#2	D116.5	D.0000	349700.	D.0000	D112500.	8097.	D11970.
#3	D.0000	D7.001	352200.	D42460.	D98750.	7931.	D11970.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D1015.	D311.1
SDev	413.4	5260.	220.	227.5
%RSD	239.9	54.06	21.64	73.13
#1	D.0000	D.0000	D1263.	D49.98
#2	D.0000	D.0000	D936.2	D416.6
#3	D288.1	D.0000	D845.9	D466.6

Method: CLP Sample Name: 9410061-06A Operator: JP
Run Time: 11/23/94 12:36:27
Comment: 1:100
Mode: CONC Corr. Factor: 200

46600.

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	250900.	1351.	D.0000	371700.	D.0000	D89.32
SDev	440.8	2817.	60.	14.47	2384.	301.8	1150.
%RSD	110.9	1.123	4.475	54.49	.6415	214.0	1288.
#1	D107.5	247900.	1404.	D.0000	373900.	D.0000	D.0000
#2	D.0000	253500.	1364.	D.0000	369200.	D207.4	D591.7
#3	D.0000	251200.	1285.	D.0000	372000.	D.0000	D902.7

13900.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L 46300.	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	369300.	D.0000	D110800.	7936.	D10290.
SDev	454.1	590.8	3892.	29e3	4166.	31.	1453.
%RSD	96.92	155.1	1.054	44.71	3.759	.3926	14.12
#1	D.0000	D.0000	365500.	D.0000	D108800.	7910.	D9450.
#2	D.0000	D289.7	369100.	D.0000	D108100.	7928.	D11970.
#3	D.0000	D.0000	373200.	D.0000	D115600.	7970.	D9450.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D1039.	D2781.	D804.5	D363.9
SDev	434.	3086.	260.4	192.3
%RSD	41.72	111.0	32.37	52.84
#1	D906.1	D1174.	D992.6	D225.0
#2	D688.0	D830.0	D507.3	D583.3
#3	D1524.	D6340.	D913.6	D283.3

Method: CLP Sample Name: CCV2 Operator: JP
Run Time: 11/23/94 12:43:44
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 100%	ug/L	ug/L	ug/L 92%	ug/L	ug/L
Avge	406.0	10010.	10190.	196.1	229400.	214.5	1949.
SDev	.6	55.	48.	1.3	2187.	4.2	6.
%RSD	.1537	.5474	.4749	.6627	.9536	1.951	.2827
#1	406.7	9980.	10140.	194.6	227700.	217.1	1954.
#2	405.5	10070.	10230.	196.4	228500.	209.7	1944.
#3	405.8	9975.	10200.	197.1	231800.	216.8	1950.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L 95%	ug/L	ug/L 94%	ug/L	ug/L
Avge	394.5	1055.	4740.	266700.	235800.	586.4	260500.
SDev	2.5	6.	40.	8808.	1152.	5.1	1841.
%RSD	.6255	.5239	.8530	3.303	.4887	.8685	.7069
#1	392.1	1051.	4737.	263500.	236500.	580.6	262500.

#2	394.4	1061.	4782.	259900.	236400.	590.2	259900.
#3	397.0	1052.	4701.	276600.	234400.	588.3	259000.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	1503.	D331.3	2009.	771.2
SDev	31.	49.2	1.	4.1
%RSD	2.066	14.86	.0721	.5364
#1	1468.	D360.6	2009.	775.1
#2	1528.	D274.5	2008.	766.8
#3	1513.	D358.8	2011.	771.8

Method: CLP Sample Name: CCB2 Operator: JP
Run Time: 11/23/94 12:51:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D72.90	D.6862	D.0000	D59.83	D1.676	D.0000
SDev	2.788	13.84	.0000	.0143	8.21	.969	.4834
%RSD	51.14	18.98	.0000	5.110	13.71	57.78	50.94
#1	D.0000	D60.15	D.6862	D.0000	D50.35	D2.558	D.0000
#2	D.0000	D70.92	D.6862	D.0000	D64.56	D.6399	D.0000
#3	D.0000	D87.62	D.6862	D.0000	D64.56	D1.831	D.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D4.859	D.0000	D.0000	D.2081	D22.09
SDev	.9710	2.189	1.481	214.5	31.34	.3548	.00
%RSD	35.06	72.30	30.49	67.28	181.4	170.6	.0000
#1	D.0000	D.0000	D6.552	D.0000	D15.05	D.0000	D22.09
#2	D.0000	D.0000	D4.220	D.0000	D.0000	D.5913	D22.09
#3	D.0000	D.0000	D3.804	D.0000	D.0000	D.1420	D22.09

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0473	D.0000	D.0000	D1.264
SDev	5.272	45.24	1.638	.709
%RSD	11150.	617.3	41.63	56.08
#1	D.1685	D.0000	D.0000	D1.542
#2	D5.257	D.0000	D.0000	D.4582
#3	D.0000	D43.75	D.0000	D1.792

Method: CLP Sample Name: 9410061-13A Operator: JP
Run Time: 11/23/94 12:58:20
Comment: 1:10
Mode: CONC Corr. Factor: 10

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

DID NOT USE DATA

Avge	D.0000	834100.	2213.	29.18	6639000.	D140.9	887.6
SDev	13.93	5433.	3.	.54	34700.	16.1	21.5
%RSD	23.74	.6513	.1549	1.854	.5227	11.43	2.427
#1	D.0000	832600.	2211.	28.56	6600000.	D144.0	877.6
#2	D.0000	829600.	2217.	29.45	6652000.	D123.5	872.8
#3	D.0000	840100.	2211.	29.54	6665000.	D155.2	912.3

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	1900.	2047.	S351500.	139000.	812900.	27130.	809600.
SDev	13.	30.	1559.	3512.	1112.	189.	8011.
%RSD	.6747	1.457	.4437	2.526	.1367	.6985	.9895
#1	1913.	2078.	S352000.	140800.	812900.	27060.	816600.
#2	1900.	2019.	S352700.	141300.	814100.	27340.	800900.
#3	1887.	2044.	S349700.	135000.	811800.	26980.	811400.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	1059.	D87.41	2602.	2657.
SDev	83.	544.8	29.	18.
%RSD	7.818	623.3	1.130	.6747
#1	1094.	D213.7	2617.	2640.
#2	1119.	D.0000	2621.	2676.
#3	964.9	D558.0	2568.	2653.

Method: CLP Sample Name: 9410061-13 DUP Operator: JP
Run Time: 11/23/94 13:05:38
Comment: 1:10
Mode: CONC Corr. Factor: 10

DID NOT USE ANY DATA

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	862000.	2494.	30.34	6756000.	D114.5	911.1
SDev	16.78	3283.	7.	.33	38439.	13.9	37.1
%RSD	25.06	.3809	.2748	1.077	.5689	12.18	4.070
#1	D.0000	863900.	2490.	30.01	6799000.	D122.8	898.0
#2	D.0000	863900.	2490.	30.66	6725000.	D122.2	882.4
#3	D.0000	858200.	2502.	30.34	6745000.	D98.35	953.0

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	1950.	2071.	S352200.	144200.	827500.	27150.	816900.
SDev	18.	16.	3550.	1205.	3818.	213.	10436.
%RSD	.9397	.7623	1.008	.8361	.4614	.7851	1.278
#1	1937.	2089.	S356300.	145500.	826800.	27230.	807600.
#2	1971.	2069.	S350100.	143900.	831600.	27310.	814800.
#3	1941.	2057.	S350100.	143200.	824100.	26910.	828200.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	1078.	D586.7	2628.	2709.

SDev	31.	560.1	23.	45.
%RSD	2.902	95.47	.8929	1.647
#1	1056.	D558.0	2615.	2736.
#2	1065.	D41.50	2614.	2658.
#3	1114.	D1161.	2655.	2735.

Method: CLP Sample Name: 9410061-13 SPK #1 Operator: JP
Run Time: 11/23/94 13:12:55
Comment: 1:10
Mode: CONC Corr. Factor: 10

* DID NOT USE ANY DATA

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	59250.	2065.	D9.423	2776000.	D7.501	D208.2
SDev	9.787	361.	14.	.460	22404.	32.56	21.7
%RSD	13.49	.6090	.6640	4.879	.8070	434.0	10.43
#1	D.0000	59050.	2073.	D9.563	2767000.	D42.78	D199.4
#2	D.0000	59660.	2073.	D8.910	2760000.	D1.107	D192.3
#3	D.0000	59030.	2049.	D9.797	2802000.	D.0000	D232.9

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D66.29	D152.9	156100.	D19800.	160700.	8253.	235800.
SDev	10.63	28.5	1207.	3240.	1443.	54.	3225.
%RSD	16.04	18.64	.7730	16.36	.8980	.6580	1.368
#1	D70.89	D120.1	157200.	D22580.	161600.	8289.	238800.
#2	D54.13	D171.2	156300.	D16240.	161400.	8190.	232400.
#3	D73.85	D167.5	154800.	D20590.	159000.	8279.	236100.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D243.4	D.0000	d426.0	511.8
SDev	77.4	224.7	27.0	6.4
%RSD	31.79	59.53	6.335	1.246
#1	D205.2	D.0000	d446.9	508.3
#2	D192.5	D.0000	d395.6	519.2
#3	D332.5	D.0000	d435.6	507.9

Method: CLP Sample Name: 9410061-13 SPK #2 Operator: JP
Run Time: 11/23/94 13:20:11
Comment: 1:10
Mode: CONC Corr. Factor: 10

* DID NOT USE ANY DATA

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	134800.	8435.	31.18	6858000.	D48.74	d490.5
SDev	32.13	487.	34.	.41	91431.	8.60	24.4
%RSD	80.88	.3612	.4070	1.331	1.333	17.65	4.982
#1	D.0000	134300.	8464.	31.04	6757000.	D40.14	d500.9
#2	D.0000	134900.	8397.	31.64	6936000.	D57.34	d508.0

#3	D.0000	135300.	8442.	30.85	6880000.	D48.74	d462.6

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D179.7	446.0	S351900.	63190.	387200.	20190.	581400.
SDev	28.5	18.0	376.	3893.	7240.	130.	11536.
%RSD	15.87	4.037	.1068	6.160	1.870	.6421	1.984
#1	D169.5	456.0	S351900.	63130.	386200.	20140.	580600.
#2	D157.7	456.8	S352200.	67120.	395000.	20330.	570300.
#3	D211.9	425.2	S351500.	59330.	380600.	20080.	593400.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	528.7	D305.5	1159.	1163.
SDev	22.8	403.5	42.	19.
%RSD	4.307	132.1	3.612	1.667
#1	550.6	D764.6	1162.	1151.
#2	530.6	D7.065	1199.	1186.
#3	505.1	D144.8	1116.	1153.

Method: CLP Sample Name: 9410061-13 SPK INST Operator: JP
Run Time: 11/23/94 13:27:29
Comment: 1:10
Mode: CONC Corr. Factor: 10

* DID NOT USE ANY DATA

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	3542.	507200.	99430.	2335.	5530000.	10680.	22220.
SDev	14.	3161.	300.	17.	53193.	33.	248.
%RSD	.3964	.6232	.3018	.7115	.9618	.3052	1.117
#1	3547.	505500.	99220.	2345.	5538000.	10690.	22150.
#2	3554.	510900.	99770.	2344.	5579000.	10650.	22500.
#3	3527.	505300.	99290.	2316.	5474000.	10710.	22020.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	5263.	13550.	S353000.	2878000.	2684000.	20180.	3007000
SDev	79.	101.	1341.	18966.	8490.	87.	28944
%RSD	1.506	.7481	.3798	.6590	.3163	.4289	.9626
#1	5350.	13500.	S354300.	2894000.	2691000.	20240.	3009000
#2	5246.	13490.	S351600.	2883000.	2675000.	20210.	2977000
#3	5194.	13670.	S353000.	2857000.	2688000.	20080.	3034000

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	17690.	15650.	25150.	10380.
SDev	151.	831.	138.	77.
%RSD	.8564	5.312	.5490	.7436
#1	17800.	16600.	25300.	10360.
#2	17750.	15120.	25020.	10320.
#3	17510.	15210.	25120.	10470.

Method: CLP Sample Name: CRIF Operator: JP
Run Time: 11/23/94 13:34:46
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D21.50	D102.7	D2.929	8.027	D51.93	D10.08	82.50
SDev	2.46	19.3	.114	.051	7.24	2.60	1.77
%RSD	11.43	18.77	3.901	.6406	13.93	25.76	2.146
#1	D18.67	D96.77	D2.863	8.051	D50.35	D12.22	80.47
#2	D22.78	D87.08	D3.061	7.967	D59.83	D7.189	83.34
#3	D23.05	D124.2	D2.863	8.061	D45.61	D10.83	83.70

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D14.75	43.59	D19.35	D127.8	D22.35	24.55	d76.61
SDev	2.99	1.49	2.28	135.9	26.61	.41	3.63
%RSD	20.30	3.426	11.81	106.3	119.0	1.681	4.741
#1	D15.57	41.94	D21.96	D121.8	D21.31	24.68	d78.71
#2	D11.43	43.98	D17.71	D266.6	D.0000	24.09	d72.42
#3	D17.24	44.85	D18.38	D.0000	D49.47	24.88	d78.71

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	72.02	D.0000	83.16	36.81
SDev	.69	26.91	3.98	.55
%RSD	.9554	98.17	4.792	1.495
#1	71.23	D.0000	86.56	37.29
#2	72.50	D.0000	78.78	36.21
#3	72.32	D.0000	84.14	36.92

Method: CLP Sample Name: 9410061-13A Operator: JP
Run Time: 11/23/94 13:46:51
Comment: 1:10 1:100
Mode: CONC Corr. Factor: 10

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	74000.	266.7	D1.379	614000.	D16.32	D80.22
SDev	17.82	541.	2.3	.097	1039.	25.90	9.06
%RSD	23.17	.7313	.8566	7.045	.1693	158.7	11.29
#1	D.0000	74330.	268.1	D1.488	613600.	D.0000	D73.84
#2	D.0000	74300.	264.1	D1.348	613200.	D13.68	D76.23
#3	D.0000	73380.	268.1	D1.301	615200.	D43.45	D90.59

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D106.1	D172.2	118100.	D8761.	73240.	2509.	73280.
SDev	14.8	22.5	1179.	1507.	584.	25.	726.

%RSD	13.95	13.09	.9980	17.21	.7981	1.008	.9913
#1	D97.51	D195.7	119400.	D8278.	73140.	2481.	72450.
#2	D123.1	D170.0	118000.	D7554.	72700.	2531.	73700.
#3	D97.51	D150.8	117000.	D10450.	73860.	2515.	73700.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D116.2	D81.68	D196.7	D240.8
SDev	30.0	306.2	5.3	10.4
%RSD	25.85	374.9	2.711	4.325
#1	D150.7	D351.4	D200.9	D230.4
#2	D96.19	D144.8	D190.7	D251.3
#3	D101.6	D.0000	D198.6	D240.8

Method: CLP Sample Name: 9410061-13 DUP Operator: JP
Run Time: 11/23/94 13:54:04
Comment: 1:10
Mode: CONC Corr. Factor: 10 1:100

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	73300.	231.1	D1.084	600900.	D5.958	D40.75
SDev	16.20	454.	1.1	1.082	1663.	19.54	17.43
%RSD	37.71	.6193	.4943	99.85	.2767	327.9	42.77
#1	D.0000	72780.	230.5	D.0878	600100.	D7.060	D22.41
#2	D.0000	73560.	232.4	D.9280	599800.	D24.92	D57.09
#3	D.0000	73570.	230.5	D2.235	602800.	D.0000	D42.74

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D154.0	D155.8	119900.	D11360.	70760.	2489.	70310.
SDev	27.6	12.7	893.	1746.	821.	9.	786.
%RSD	17.94	8.123	.7452	15.37	1.160	.3725	1.118
#1	D182.3	D169.5	119300.	D10630.	70890.	2478.	69680.
#2	D127.1	D144.6	120900.	D13350.	69890.	2492.	71190.
#3	D152.7	D153.3	119400.	D10090.	71510.	2495.	70050.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D155.6	D.0000	D249.2	D239.6
SDev	48.4	241.2	14.7	18.4
%RSD	31.14	40.90	5.889	7.692
#1	D210.7	D.0000	D248.8	D246.3
#2	D119.8	D.0000	D234.7	D218.8
#3	D136.2	D.0000	D264.1	D253.8

Method: CLP Sample Name: 9410061-13 SPK #1 Operator: JP
Run Time: 11/23/94 14:01:21
Comment: 1:10

Mode: CONC Corr. Factor: 10

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	4420.	163.2	D.0000	206700.	D3.753	D.0000
SDev	10.24	16.	3.4	1.132	621.	42.40	35.57
%RSD	12.03	.3655	2.100	120.5	.3006	1130.	131.6
#1	D.0000	4420.	165.2	D.0000	206800.	D52.71	D.0000
#2	D.0000	4436.	165.2	D.0000	207200.	D.0000	D.0000
#3	D.0000	4403.	159.2	D.0000	206000.	D.0000	D5.662

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D15.35	D.0000	12010.	D1882.	D11830.	639.6	17540.
SDev	47.33	13.69	99.	6076.	36.	7.6	310.
%RSD	308.2	52.69	.8252	322.9	.3054	1.181	1.769
#1	D.0000	D.0000	11920.	D2304.	D11850.	631.4	17900.
#2	D.0000	D.0000	12000.	D7735.	D11850.	641.4	17330.
#3	D68.92	D.0000	12120.	D.0000	D11790.	646.2	17400.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D49.54	D.0000	D.0000	D36.80
SDev	63.75	206.6	23.41	15.82
%RSD	128.7	32.80	561.5	43.00
#1	D.0000	D.0000	D15.77	D29.17
#2	D110.7	D.0000	D1.663	D26.25
#3	D54.39	D.0000	D.0000	D55.00

Method: CLP Sample Name: 9410061-13 SPK #2 Operator: JP
Run Time: 11/23/94 14:08:38
Comment: 1:10 1:100
Mode: CONC Corr. Factor: 10

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	10940.	779.3	D.5390	610500.	D.0000	D26.39
SDev	36.84	366.	8.0	.6002	6799.	18.73	5.90
%RSD	275.2	3.348	1.026	111.3	1.114	119.6	22.35
#1	D28.65	11110.	786.5	D.7880	602600.	D.0000	D23.60
#2	D.0000	10520.	780.6	D.0000	614200.	D.0000	D22.41
#3	D.0000	11190.	770.7	D.9747	614500.	D.0000	D33.17

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.2115	32630.	D2545.	34730.	1835.	51810.
SDev	1.506	8.482	152.	1507.	1175.	12.	63.
%RSD	5.311	4011.	.4654	59.22	3.382	.6347	.1214
#1	D.0000	D.0000	32700.	D3752.	35440.	1824.	51810.
#2	D.0000	D9.496	32450.	D3028.	33380.	1835.	51870.
#3	D.0000	D.0000	32730.	D855.7	35380.	1847.	51750.

#1	D10.82	D125.3	D3.852	8.121	D102.5	D8.645	79.27
#2	D11.96	D64.46	D3.654	8.000	D92.99	D9.703	87.88
#3	D9.576	D104.3	D4.248	8.135	D88.25	D10.03	80.83

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D13.96	43.35	D38.25	D67.46	D.0000	25.98	d85.00
SDev	1.18	3.70	3.07	222.5	37.59	.21	.00
%RSD	8.486	8.536	8.024	329.7	341.1	.8269	.0000
#1	D12.81	47.59	D39.36	D320.9	D.0000	25.74	d85.00
#2	D13.89	41.69	D34.78	D.0000	D.0000	26.06	d85.00
#3	D15.17	40.78	D40.61	D.0000	D27.57	26.15	d85.00

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	66.08	D.0000	85.27	34.64
SDev	7.05	49.13	1.33	.65
%RSD	10.67	165.4	1.565	1.865
#1	73.59	D.0000	84.70	35.29
#2	65.05	D7.594	84.31	34.63
#3	59.60	D.0000	86.79	34.00

Method: CLP Sample Name: ICSAF Operator: JP
Run Time: 11/23/94 14:30:30
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	S222800.	24.50	D.0000	446200.	D7.718	D.0000
SDev	3.893	88.	.41	.0759	3015.	1.498	5.923
%RSD	41.56	.0393	1.681	130.6	.6758	19.41	8257.
#1	D.0000	S222900.	24.04	D.0000	442700.	D6.329	D6.666
#2	D.0000	S222800.	24.83	D.0000	448000.	D7.520	D.0000
#3	D.0000	S222800.	24.63	D.0088	447800.	D9.306	D.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	135.0	D.0000	S34870.	D.0000	472200.	16.49	412.1
SDev	2.8	2.599	160.	372.1	1419.	1.12	6.3
%RSD	2.080	10.65	.4599	2186.	.3005	6.788	1.526
#1	134.4	D.0000	S34780.	D339.0	470700.	15.30	418.4
#2	138.0	D.0000	S35050.	D.0000	473500.	16.66	412.1
#3	132.5	D.0000	S34770.	D13.15	472500.	17.52	405.9

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	d4.833	D183.8	D3.477	59.86
SDev	1.480	64.2	3.027	1.30
%RSD	30.63	34.93	87.04	2.170

#1	d6.529	D174.6	D3.722	59.38
#2	d3.803	D124.7	D.3356	58.88
#3	d4.167	D252.1	D6.374	61.33

Method: CLP Sample Name: ICSABF Operator: JP
Run Time: 11/23/94 14:37:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L 104	ug/L	ug/L	ug/L 82%	ug/L
Avge	786.7	S223400.	522.4	367.1	441300.	815.5	353.7
SDev	.9	200.	2.7	1.0	2594.	4.7	2.8
%RSD	.1194	.0895	.5143	.2658	.5879	.5741	.7779
#1	786.2	S223200.	523.9	368.2	438400.	820.6	350.9
#2	787.8	S223300.	519.3	366.3	441800.	811.3	353.7
#3	786.1	S223600.	524.1	366.8	443500.	814.7	356.4

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L 74%	ug/L
Avge	436.6	386.6	S34830.	D.0000	469100.	372.3	372.3
SDev	9.2	2.3	48.	165.9	3266.	4.2	3.6
%RSD	2.111	.5885	.1372	47.55	.6963	1.122	.9756
#1	436.7	384.0	S34780.	D.0000	465600.	372.6	374.4
#2	427.4	387.6	S34860.	D.0000	472100.	376.3	374.4
#3	445.8	388.1	S34860.	D.0000	469400.	368.0	368.1

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L 75%
Avge	704.7	1486.	380.7	746.0
SDev	9.0	78.	4.6	6.9
%RSD	1.278	5.257	1.199	.9306
#1	697.5	1475.	385.8	750.2
#2	701.7	1569.	379.3	738.0
#3	714.8	1414.	377.0	749.8

Method: CLP Sample Name: CCV3 Operator: JP
Run Time: 11/23/94 14:45:06
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 78	ug/L 99%	ug/L 101%	ug/L 76%	ug/L 90	ug/L 86	ug/L
Avge	392.7	9860.	10100.	191.3	224700.	215.0	1880.
SDev	4.2	65.	47.	.4	1246.	3.3	12.
%RSD	1.074	.6599	.4640	.2020	.5544	1.531	.6414
#1	397.3	9786.	10120.	191.2	226000.	211.2	1886.
#2	391.9	9892.	10040.	191.7	224700.	217.1	1887.
#3	388.9	9903.	10120.	190.9	223500.	216.7	1866.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889

Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	372.6	1039.	4516.	266700.	230600.	567.1	256000.
SDev	2.7	4.	14.	2656.	1744.	2.3	1452.
%RSD	.7300	.3955	.3163	.9960	.7559	.4045	.5674
#1	371.6	1037.	4510.	268100.	228600.	567.7	254500.
#2	375.7	1036.	4506.	263600.	231800.	569.1	256100.
#3	370.6	1044.	4533.	268300.	231500.	564.6	257400.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	1459.	D369.7	1981.	743.7
SDev	10.	55.9	7.	5.7
%RSD	.7163	15.12	.3331	.7656
#1	1466.	D407.0	1984.	737.3
#2	1447.	D396.7	1973.	748.1
#3	1463.	D305.5	1985.	745.8

Method: CLP Sample Name: CCB3 Operator: JP
Run Time: 11/23/94 14:52:23
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D110.1	D2.929	D.0000	D23.51	D.4414	D.0000
SDev	2.315	22.2	.412	.0397	2.74	1.998	1.868
%RSD	48.20	20.13	14.06	29.89	11.63	452.6	96.03
#1	D.0000	D114.5	D3.259	D.0000	D21.93	D2.294	D.0000
#2	D.0000	D129.6	D2.467	D.0000	D21.93	D.0000	D.2074
#3	D.0000	D86.00	D3.061	D.0000	D26.67	D.7060	D.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D1.305	D.0000	D2.638	D.0000	D.0000	D.0583	D30.48
SDev	3.018	2.702	2.082	294.9	16.55	.2267	3.63
%RSD	231.2	56.94	78.93	205.1	32.69	389.0	11.92
#1	D2.949	D.0000	D.5558	D194.2	D.0000	D.0000	D34.67
#2	D3.146	D.0000	D2.638	D.0000	D.0000	D.0230	D28.38
#3	D.0000	D.0000	D4.720	D.0000	D.0000	D.3006	D28.38

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D2.349	D.0000	D.0000	D.0000
SDev	2.714	26.51	2.411	.5422
%RSD	115.5	145.4	605.7	60.05
#1	D3.440	D.0000	D.0000	D.0000
#2	D4.349	D.0000	D.0000	D.0000
#3	D.0000	D4.150	D1.859	D.0000

EBS RUN NUMBER: 58310\941121000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/07/94
PAGE: 1

TEST: CLP METALS | DATE ANALYZED: 11/21/94 | ANALYZED BY: CMT | HOLDING TIME: 99 Days

Total Number of Samples: 8
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 3
Number of LCS's: 2

Number of ICB's: 1
Number of CCB's: 3
Number of PB's: 2

Number of DUP's: 3
Number of SPK's: 3
Number of MSD'S: 2

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICC	Ag3280	ug/L	991	1000		99.1		95.0	105	NA	NA	NA
	Al3082	ug/L	1990	2000		99.50		95.0	105	NA	NA	NA
	Ba4554	ug/L	1980	2000		99.00		95.0	105	NA	NA	NA
	Be3131	ug/L	471	500		94.2		95.0	105	NA	NA	NA
	Ca3179	ug/L	482000	500000		96.400		95.0	105	NA	NA	NA
	Cd2265	ug/L	2360	2500		94.40		95.0	105	NA	NA	NA
	Co2286	ug/L	4670	5000		93.40		95.0	105	NA	NA	NA
	Cr2677	ug/L	953	1000		95.3		95.0	105	NA	NA	NA
	Cu3247	ug/L	2470	2500		98.80		95.0	105	NA	NA	NA
	Fe2599	ug/L	9540	10000		95.40		95.0	105	NA	NA	NA
	K_7664	ug/L	502000	500000		100.40		95.0	105	NA	NA	NA
	Mg2790	ug/L	506000	500000		101.20		95.0	105	NA	NA	NA
	Mn2576	ug/L	1420	1500		94.67		95.0	105	NA	NA	NA
	Na5889	ug/L	488000	500000		97.600		95.0	105	NA	NA	NA
	Ni2316	ug/L	3750	4000		93.75		95.0	105	NA	NA	NA
	V_3110	ug/L	4810	5000		96.20		95.0	105	NA	NA	NA
	Zn2138	ug/L	1930	2000		96.50		95.0	105	NA	NA	NA
ICV	Ag3280	ug/L	509	500		102		80.0	120	NA	NA	NA
	Al3082	ug/L	10400	10000		104.00		90.0	110	NA	NA	NA
	Ba4554	ug/L	10300	10000		103.00		90.0	110	NA	NA	NA
	Be3131	ug/L	255	250		102		90.0	110	NA	NA	NA
	Ca3179	ug/L	251000	250000		100.40		90.0	110	NA	NA	NA
	Cd2265	ug/L	254	250		102		90.0	110	NA	NA	NA
	Co2286	ug/L	2550	2500		102.0		90.0	110	NA	NA	NA
	Cr2677	ug/L	511	500		102		90.0	110	NA	NA	NA
	Cu3247	ug/L	1280	1250		102.4		90.0	110	NA	NA	NA
	Fe2599	ug/L	5170	5000		103.4		90.0	110	NA	NA	NA
	K_7664	ug/L	252000	250000		100.80		90.0	110	NA	NA	NA
	Mg2790	ug/L	253000	250000		101.20		90.0	110	NA	NA	NA
	Mn2576	ug/L	760	750		101		90.0	110	NA	NA	NA
	Na5889	ug/L	253000	250000		101.20		90.0	110	NA	NA	NA
	Ni2316	ug/L	2040	2000		102.0		90.0	110	NA	NA	NA
	V_3110	ug/L	2560	2500		102.4		90.0	110	NA	NA	NA
	Zn2138	ug/L	996	1000		99.6		90.0	110	NA	NA	NA
ICB	Ag3280	ug/L	< 6							NA	NA	NA

EBS RUN NUMBER: 58310\941121000000
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SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/07/94

TEST: CLP METALS **DATE ANALYZED: 11/21/94** **ANALYZED BY: CMT** **HOLDING TIME: 99 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICSABI	Cu3247	ug/L	468	500		93.6		80.0	120	NA	NA	NA
	Fe2599	ug/L	SATURATED	200000		0				NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	507000	500000		101.40				NA	NA	NA
	Mn2576	ug/L	497	500		99.4		80.0	120	NA	NA	NA
	Na5889	ug/L	320							NA	NA	NA
	Ni2316	ug/L	946	1000		94.6		80.0	120	NA	NA	NA
	V_3110	ug/L	495	500		99.0		80.0	120	NA	NA	NA
	Zn2138	ug/L	987	1000		98.7		80.0	120	NA	NA	NA
CRII	Ag3280	ug/L	21.83	20.0		109				NA	NA	NA
	Al3082	ug/L	102.7							NA	NA	NA
	Ba4554	ug/L	0							NA	NA	NA
	Be3131	ug/L	10.70	10.0		107				NA	NA	NA
	Ca3179	ug/L	9.567							NA	NA	NA
	Cd2265	ug/L	12.21	10.0		122				NA	NA	NA
	Co2286	ug/L	124.5	100		124				NA	NA	NA
	Cr2677	ug/L	22.49	20.0		112				NA	NA	NA
	Cu3247	ug/L	55.82	50.0		112				NA	NA	NA
	Fe2599	ug/L	1.178							NA	NA	NA
	K_7664	ug/L	0							NA	NA	NA
	Mg2790	ug/L	22.35							NA	NA	NA
	Mn2576	ug/L	35.31	30.0		118				NA	NA	NA
	Na5889	ug/L	30.54							NA	NA	NA
	Ni2316	ug/L	97.36	80.0		122				NA	NA	NA
	V_3110	ug/L	110.9	100		111				NA	NA	NA
	Zn2138	ug/L	44.92	40.0		112				NA	NA	NA
LCSW	Ag3280	ug/L	45.0	50.0		90.0		80.0	120	NA	NA	NA
	Al3082	ug/L	1850	2000		92.50		80.0	120	NA	NA	NA
	Ba4554	ug/L	1910	2000		95.50		80.0	120	NA	NA	NA
	Be3131	ug/L	48.2	50.0		96.4		80.0	120	NA	NA	NA
	Ca3179	ug/L	270							NA	NA	NA
	Cd2265	ug/L	47.2	50.0		94.4		80.0	120	NA	NA	NA
	Co2286	ug/L	472	500		94.4		80.0	120	NA	NA	NA
	Cr2677	ug/L	190	200		95.0		80.0	120	NA	NA	NA
	Cu3247	ug/L	245	250		98.0		80.0	120	NA	NA	NA
	Fe2599	ug/L	971	1000		97.1		80.0	120	NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	460	500		92.0		80.0	120	NA	NA	NA
	Na5889	ug/L	781							NA	NA	NA
	Ni2316	ug/L	479	500		95.8		80.0	120	NA	NA	NA

EBS RUN NUMBER: 58310\941121000000
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SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/07/94

TEST: CLP METALS **DATE ANALYZED: 11/21/94** **ANALYZED BY: CMT** **HOLDING TIME: 99 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
LCSW	V_3110	ug/L	458	500		91.6		80.0	120	NA	NA	NA
	Zn2138	ug/L	440	500		88.0		80.0	120	NA	NA	NA
LCSS	Ag3280	ug/L	43.1	50.0		86.2		80.0	120	NA	NA	NA
	Al3082	ug/L	2500	2000		125.0		80.0	120	NA	NA	NA
	Ba4554	ug/L	2100	2000		105.0		80.0	120	NA	NA	NA
	Be3131	ug/L	51.5	50.0		103		80.0	120	NA	NA	NA
	Ca3179	ug/L	1660							NA	NA	NA
	Cd2265	ug/L	52.1	50.0		104		80.0	120	NA	NA	NA
	Co2286	ug/L	519	500		104		80.0	120	NA	NA	NA
	Cr2677	ug/L	209	200		104		80.0	120	NA	NA	NA
	Cu3247	ug/L	265	250		106		80.0	120	NA	NA	NA
	Fe2599	ug/L	1560	1000		156.0		80.0	120	NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	521	500		104		80.0	120	NA	NA	NA
	Na5889	ug/L	293							NA	NA	NA
	Ni2316	ug/L	522	500		104		80.0	120	NA	NA	NA
	V_3110	ug/L	510	500		102		80.0	120	NA	NA	NA
	Zn2138	ug/L	503	500		101		80.0	120	NA	NA	NA
PBW	Ag3280	ug/L	< 6							NA	NA	NA
	Al3082	ug/L	< 70							NA	NA	NA
	Ba4554	ug/L	< 17							NA	NA	NA
	Be3131	ug/L	< 5							NA	NA	NA
	Ca3179	ug/L	2090							NA	NA	NA
	Cd2265	ug/L	< 5							NA	NA	NA
	Co2286	ug/L	< 10							NA	NA	NA
	Cr2677	ug/L	< 10							NA	NA	NA
	Cu3247	ug/L	< 6							NA	NA	NA
	Fe2599	ug/L	45.9							NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA
	Na5889	ug/L	201							NA	NA	NA
	Ni2316	ug/L	< 20							NA	NA	NA
	V_3110	ug/L	< 10							NA	NA	NA
	Zn2138	ug/L	35.1							NA	NA	NA
PBS	Ag3280	ug/L	< 6							NA	NA	NA
	Al3082	ug/L	< 70							NA	NA	NA
	Ba4554	ug/L	< 17							NA	NA	NA
	Be3131	ug/L	< 5							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA

EBS RUN NUMBER: 58310\941121000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/07/94

TEST: CLP METALS **DATE ANALYZED: 11/21/94** **ANALYZED BY: CMT** **HOLDING TIME: 99 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
PBS	Cd2265	ug/L	< 5							NA	NA	NA
	Co2286	ug/L	< 10							NA	NA	NA
	Cr2677	ug/L	< 10							NA	NA	NA
	Cu3247	ug/L	< 6							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA
	Na5889	ug/L	257							NA	NA	NA
	Ni2316	ug/L	< 20							NA	NA	NA
	V_3110	ug/L	< 10							NA	NA	NA
	Zn2138	ug/L	< 10							NA	NA	NA
9410061-01A	Ag3280	mg/kg	< 1			N				10/07/94	09/29/94	YES
	Al3082	mg/kg	6280			*				10/07/94	09/29/94	YES
	Ba4554	mg/kg	33.5							10/07/94	09/29/94	YES
	Be3131	mg/kg	< 1							10/07/94	09/29/94	YES
	Cd2265	mg/kg	< 1							10/07/94	09/29/94	YES
	Co2286	mg/kg	< 2.4							10/07/94	09/29/94	YES
	Cr2677	mg/kg	33.0							10/07/94	09/29/94	YES
	Cu3247	mg/kg	8.43							10/07/94	09/29/94	YES
	K_7664	mg/kg	< 97.6							10/07/94	09/29/94	YES
	Mg2790	mg/kg	3690							10/07/94	09/29/94	YES
	Mn2576	mg/kg	167							10/07/94	09/29/94	YES
	Na5889	mg/kg	2020							10/07/94	09/29/94	YES
	Ni2316	mg/kg	29.2							10/07/94	09/29/94	YES
	V_3110	mg/kg	53.0							10/07/94	09/29/94	YES
	Zn2138	mg/kg	52.4			*N				10/07/94	09/29/94	YES
9410061-01 DUP	Ag3280	mg/kg	< 1	< 1			0			10/07/94	09/29/94	YES
DUP	Al3082	mg/kg	7810	6280			21.72			10/07/94	09/29/94	YES
DUP	Ba4554	mg/kg	36.3	33.5			8.02			10/07/94	09/29/94	YES
DUP	Be3131	mg/kg	< 1	< 1			0			10/07/94	09/29/94	YES
DUP	Cd2265	mg/kg	< 1	< 1			0			10/07/94	09/29/94	YES
DUP	Co2286	mg/kg	< 2.4	< 2.4			0			10/07/94	09/29/94	YES
DUP	Cr2677	mg/kg	31.5	33.0			4.65			10/07/94	09/29/94	YES
DUP	Cu3247	mg/kg	< 1	8.43			0			10/07/94	09/29/94	YES
DUP	K_7664	mg/kg	< 97.6	< 97.6			0			10/07/94	09/29/94	YES
DUP	Mg2790	mg/kg	3870	3690			4.762			10/07/94	09/29/94	YES
DUP	Mn2576	mg/kg	159	167			4.91			10/07/94	09/29/94	YES
DUP	Na5889	mg/kg	1890	2020			6.650			10/07/94	09/29/94	YES
DUP	Ni2316	mg/kg	< 4.9	29.2			0			10/07/94	09/29/94	YES
DUP	V_3110	mg/kg	52.3	53.0			1.33			10/07/94	09/29/94	YES

EBS RUN NUMBER: 58310\941121000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/07/94

TEST: CLP METALS **DATE ANALYZED: 11/21/94** **ANALYZED BY: CMT** **HOLDING TIME: 99 Days**

LAB NUMBER		ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-01	DUP	Zn2138	mg/kg	38.6	52.4			30.3			10/07/94	09/29/94	YES
	SPK	Ag3280	mg/kg	44.7	< 1	12.2	366				10/07/94	NA	NA
	SPK	Al3082	mg/kg	12300	6280						10/07/94	NA	NA
	SPK	Ba4554	mg/kg	521	33.5	488	99.9		75.0	125	10/07/94	NA	NA
	SPK	Be3131	mg/kg	12.3	< 1	12.2	101		75.0	125	10/07/94	NA	NA
	SPK	Cd2265	mg/kg	12.5	< 1	12.2	102		75.0	125	10/07/94	NA	NA
	SPK	Co2286	mg/kg	124	< 2.4	122	102		75.0	125	10/07/94	NA	NA
	SPK	Cr2677	mg/kg	80.2	33.0	48.8	96.7		75.0	125	10/07/94	NA	NA
	SPK	Cu3247	mg/kg	70.3	8.43	61.0	101		75.0	125	10/07/94	NA	NA
	SPK	K_7664	mg/kg	< 97.6	< 97.6						10/07/94	NA	NA
	SPK	Mg2790	mg/kg	4270	3690						10/07/94	NA	NA
	SPK	Mn2576	mg/kg	277	167	122	90.2		75.0	125	10/07/94	NA	NA
	SPK	Na5889	mg/kg	1960	2020						10/07/94	NA	NA
	SPK	Ni2316	mg/kg	128	29.2	122	81.0		75.0	125	10/07/94	NA	NA
	SPK	V_3110	mg/kg	176	53.0	122	101		75.0	125	10/07/94	NA	NA
	SPK	Zn2138	mg/kg	138	52.4	122	70.2		75.0	125	10/07/94	NA	NA
	ISPK	Ag3280	mg/kg	95.4	< 1	122	78.2				10/07/94	NA	NA
	ISPK	Al3082	mg/kg	5520	3140	2440	97.54				10/07/94	NA	NA
	ISPK	Ba4554	mg/kg	2430	16.8	2440	98.9				10/07/94	NA	NA
	ISPK	Be3131	mg/kg	60.2	< 1	61.0	98.7				10/07/94	NA	NA
	ISPK	Cd2265	mg/kg	293	< 1	305	96.1				10/07/94	NA	NA
	ISPK	Co2286	mg/kg	592	< 2.4	610	97.0				10/07/94	NA	NA
	ISPK	Cr2677	mg/kg	135	16.5	122	97.1				10/07/94	NA	NA
	ISPK	Cu3247	mg/kg	310	4.22	305	100				10/07/94	NA	NA
	ISPK	K_7664	mg/kg	62200	< 97.6	61000	101.97				10/07/94	NA	NA
	ISPK	Mg2790	mg/kg	62200	1840	61000	98.95				10/07/94	NA	NA
	ISPK	Mn2576	mg/kg	258	83.5	183	95.4				10/07/94	NA	NA
	ISPK	Na5889	mg/kg	59800	1010	61000	96.38				10/07/94	NA	NA
	ISPK	Ni2316	mg/kg	476	14.6	488	94.5				10/07/94	NA	NA
	ISPK	V_3110	mg/kg	624	26.5	610	98.0				10/07/94	NA	NA
	ISPK	Zn2138	mg/kg	260	26.2	244	95.8				10/07/94	NA	NA
9410061-02A		Ag3280	mg/kg	6.54			N				10/07/94	09/29/94	YES
		Al3082	mg/kg	8280			*				10/07/94	09/29/94	YES
		Ba4554	mg/kg	69.1							10/07/94	09/29/94	YES
		Be3131	mg/kg	< 1							10/07/94	09/29/94	YES
		Cd2265	mg/kg	4.24							10/07/94	09/29/94	YES
		Co2286	mg/kg	23.7							10/07/94	09/29/94	YES
		Cr2677	mg/kg	27.3							10/07/94	09/29/94	YES
		Cu3247	mg/kg	11.3							10/07/94	09/29/94	YES
		K_7664	mg/kg	1620							10/07/94	09/29/94	YES
		Mg2790	mg/kg	5240							10/07/94	09/29/94	YES

EBS RUN NUMBER: 58310\941121000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/07/94

TEST: CLP METALS **DATE ANALYZED: 11/21/94** **ANALYZED BY: CMT** **HOLDING TIME: 99 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-02A	Mn2576	mg/kg	226							10/07/94	09/29/94	YES
	Na5889	mg/kg	2450							10/07/94	09/29/94	YES
	Ni2316	mg/kg	35300							10/07/94	09/29/94	YES
	V_3110	mg/kg	53.3							10/07/94	09/29/94	YES
	Zn2138	mg/kg	26.0			*N				10/07/94	09/29/94	YES
CCV	Ag3280	ug/L	513	500		103		90.0	110	NA	NA	NA
	Al3082	ug/L	10300	10000		103.00		90.0	110	NA	NA	NA
	Ba4554	ug/L	10200	10000		102.00		90.0	110	NA	NA	NA
	Be3131	ug/L	258	250		103		90.0	110	NA	NA	NA
	Ca3179	ug/L	255000	250000		102.00		90.0	110	NA	NA	NA
	Cd2265	ug/L	256	250		102		90.0	110	NA	NA	NA
	Co2286	ug/L	2570	2500		102.8		90.0	110	NA	NA	NA
	Cr2677	ug/L	511	500		102		90.0	110	NA	NA	NA
	Cu3247	ug/L	1280	1250		102.4		90.0	110	NA	NA	NA
	Fe2599	ug/L	5190	5000		103.8		90.0	110	NA	NA	NA
	K_7664	ug/L	250000	250000		100.00		90.0	110	NA	NA	NA
	Mg2790	ug/L	256000	250000		102.40		90.0	110	NA	NA	NA
	Mn2576	ug/L	769	750		103		90.0	110	NA	NA	NA
	Na5889	ug/L	244000	250000		97.600		90.0	110	NA	NA	NA
	Ni2316	ug/L	2020	2000		101.0		90.0	110	NA	NA	NA
	V_3110	ug/L	2560	2500		102.4		90.0	110	NA	NA	NA
	Zn2138	ug/L	999	1000		99.9		90.0	110	NA	NA	NA
CCB	Ag3280	ug/L	< 6							NA	NA	NA
	Al3082	ug/L	< 70							NA	NA	NA
	Ba4554	ug/L	< 17							NA	NA	NA
	Be3131	ug/L	< 5							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Cd2265	ug/L	< 5							NA	NA	NA
	Co2286	ug/L	< 10							NA	NA	NA
	Cr2677	ug/L	< 10							NA	NA	NA
	Cu3247	ug/L	< 6							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA
	Na5889	ug/L	< 100							NA	NA	NA
	Ni2316	ug/L	< 20							NA	NA	NA
	V_3110	ug/L	< 10							NA	NA	NA
	Zn2138	ug/L	< 10							NA	NA	NA
9410061-03A	Ag3280	mg/kg	< 2			N				10/07/94	09/29/94	YES
	Al3082	mg/kg	36500			*				10/07/94	09/29/94	YES

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: CLP METALS **DATE ANALYZED: 11/21/94** **ANALYZED BY: CMT** **HOLDING TIME: 99 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-03A	Ba4554	mg/kg	163							10/07/94	09/29/94	YES
	Be3131	mg/kg	1.25							10/07/94	09/29/94	YES
	Ca3179	mg/kg	16400							10/07/94	09/29/94	YES
	Cd2265	mg/kg	< 1							10/07/94	09/29/94	YES
	Co2286	mg/kg	32.2							10/07/94	09/29/94	YES
	Cr2677	mg/kg	77.6							10/07/94	09/29/94	YES
	Cu3247	mg/kg	76.1							10/07/94	09/29/94	YES
	K_7664	mg/kg	1800							10/07/94	09/29/94	YES
	Mg2790	mg/kg	13900							10/07/94	09/29/94	YES
	Na5889	mg/kg	478							10/07/94	09/29/94	YES
	Ni2316	mg/kg	38.4							10/07/94	09/29/94	YES
	V_3110	mg/kg	178							10/07/94	09/29/94	YES
	Zn2138	mg/kg	86.4			*N				10/07/94	09/29/94	YES
9410061-04A	Ag3280	mg/kg	< 2			N				10/07/94	09/29/94	YES
	Al3082	mg/kg	33100			*				10/07/94	09/29/94	YES
	Ba4554	mg/kg	160							10/07/94	09/29/94	YES
	Be3131	mg/kg	1.20							10/07/94	09/29/94	YES
	Ca3179	mg/kg	48800							10/07/94	09/29/94	YES
	Cd2265	mg/kg	< 1							10/07/94	09/29/94	YES
	Co2286	mg/kg	26.7							10/07/94	09/29/94	YES
	Cr2677	mg/kg	70.9							10/07/94	09/29/94	YES
	Cu3247	mg/kg	65.0							10/07/94	09/29/94	YES
	K_7664	mg/kg	< 100							10/07/94	09/29/94	YES
	Mg2790	mg/kg	16200							10/07/94	09/29/94	YES
	Na5889	mg/kg	1020							10/07/94	09/29/94	YES
	Ni2316	mg/kg	33.7							10/07/94	09/29/94	YES
	V_3110	mg/kg	177							10/07/94	09/29/94	YES
	Zn2138	mg/kg	84.8			*N				10/07/94	09/29/94	YES
9410061-05A	Ag3280	mg/kg	< 1			N				10/07/94	09/29/94	YES
	Al3082	mg/kg	31700			*				10/07/94	09/29/94	YES
	Ba4554	mg/kg	130							10/07/94	09/29/94	YES
	Be3131	mg/kg	1.17							10/07/94	09/29/94	YES
	Ca3179	mg/kg	56000							10/07/94	09/29/94	YES
	Cd2265	mg/kg	< 1							10/07/94	09/29/94	YES
	Co2286	mg/kg	27.0							10/07/94	09/29/94	YES
	Cr2677	mg/kg	68.4							10/07/94	09/29/94	YES
	Cu3247	mg/kg	63.3							10/07/94	09/29/94	YES
	K_7664	mg/kg	< 99.6							10/07/94	09/29/94	YES
	Mg2790	mg/kg	14900							10/07/94	09/29/94	YES
	Na5889	mg/kg	999							10/07/94	09/29/94	YES
	Ni2316	mg/kg	31.8							10/07/94	09/29/94	YES

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: CLP METALS **DATE ANALYZED: 11/21/94** **ANALYZED BY: CMT** **HOLDING TIME: 99 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-05A	V_3110	mg/kg	168							10/07/94	09/29/94	YES
	Zn2138	mg/kg	71.1			*N				10/07/94	09/29/94	YES
9410061-06A	Ag3280	mg/kg	< 2			N				10/07/94	09/29/94	YES
	Al3082	mg/kg	33000			*				10/07/94	09/29/94	YES
	Ba4554	mg/kg	157							10/07/94	09/29/94	YES
	Be3131	mg/kg	1.25							10/07/94	09/29/94	YES
	Ca3179	mg/kg	50200							10/07/94	09/29/94	YES
	Cd2265	mg/kg	< 1							10/07/94	09/29/94	YES
	Co2286	mg/kg	28.1							10/07/94	09/29/94	YES
	Cr2677	mg/kg	72.4							10/07/94	09/29/94	YES
	Cu3247	mg/kg	64.7							10/07/94	09/29/94	YES
	K_7664	mg/kg	< 100							10/07/94	09/29/94	YES
	Mg2790	mg/kg	16300							10/07/94	09/29/94	YES
	Na5889	mg/kg	1010							10/07/94	09/29/94	YES
	Ni2316	mg/kg	33.9							10/07/94	09/29/94	YES
	V_3110	mg/kg	183							10/07/94	09/29/94	YES
	Zn2138	mg/kg	74.3			*N				10/07/94	09/29/94	YES
CCV	Ag3280	ug/L	507	500		101		90.0	110	NA	NA	NA
	Al3082	ug/L	10400	10000		104.00		90.0	110	NA	NA	NA
	Ba4554	ug/L	10300	10000		103.00		90.0	110	NA	NA	NA
	Be3131	ug/L	258	250		103		90.0	110	NA	NA	NA
	Ca3179	ug/L	256000	250000		102.40		90.0	110	NA	NA	NA
	Cd2265	ug/L	253	250		101		90.0	110	NA	NA	NA
	Co2286	ug/L	2590	2500		103.6		90.0	110	NA	NA	NA
	Cr2677	ug/L	526	500		105		90.0	110	NA	NA	NA
	Cu3247	ug/L	1300	1250		104.0		90.0	110	NA	NA	NA
	Fe2599	ug/L	5160	5000		103.2		90.0	110	NA	NA	NA
	K_7664	ug/L	250000	250000		100.00		90.0	110	NA	NA	NA
	Mg2790	ug/L	255000	250000		102.00		90.0	110	NA	NA	NA
	Mn2576	ug/L	768	750		102		90.0	110	NA	NA	NA
	Na5889	ug/L	246000	250000		98.400		90.0	110	NA	NA	NA
	Ni2316	ug/L	2050	2000		102.5		90.0	110	NA	NA	NA
	V_3110	ug/L	2580	2500		103.2		90.0	110	NA	NA	NA
	Zn2138	ug/L	999	1000		99.9		90.0	110	NA	NA	NA
CCB	Ag3280	ug/L	< 6							NA	NA	NA
	Al3082	ug/L	< 70							NA	NA	NA
	Ba4554	ug/L	< 17							NA	NA	NA
	Be3131	ug/L	< 5							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Cd2265	ug/L	< 5							NA	NA	NA
	Co2286	ug/L	< 10							NA	NA	NA

EBS RUN NUMBER: 58310\941121000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/07/94

TEST: CLP METALS DATE ANALYZED: 11/21/94 ANALYZED BY: CMT HOLDING TIME: 99 Days

LAB NUMBER		ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
CCB		Cr2677	ug/L	< 10							NA	NA	NA
		Cu3247	ug/L	< 6							NA	NA	NA
		Fe2599	ug/L	< 7							NA	NA	NA
		K_7664	ug/L	< 400							NA	NA	NA
		Mg2790	ug/L	< 100							NA	NA	NA
		Mn2576	ug/L	< 5							NA	NA	NA
		Na5889	ug/L	< 100							NA	NA	NA
		Ni2316	ug/L	< 20							NA	NA	NA
		V_3110	ug/L	< 10							NA	NA	NA
		Zn2138	ug/L	< 10							NA	NA	NA
9410061-13A		Ag3280	ug/L	< 6			N				10/07/94	09/29/94	YES
		Ba4554	ug/L	2240			N				10/07/94	09/29/94	YES
		Be3131	ug/L	26.9			N				10/07/94	09/29/94	YES
		Cd2265	ug/L	178			N				10/07/94	09/29/94	YES
		Co2286	ug/L	982			N				10/07/94	09/29/94	YES
		Cr2677	ug/L	2140			N				10/07/94	09/29/94	YES
		Cu3247	ug/L	2620			N				10/07/94	09/29/94	YES
		K_7664	ug/L	133000							10/07/94	09/29/94	YES
		Mg2790	ug/L	835000							10/07/94	09/29/94	YES
		Na5889	ug/L	734000							10/07/94	09/29/94	YES
		Ni2316	ug/L	1200			N				10/07/94	09/29/94	YES
		V_3110	ug/L	2980			*N				10/07/94	09/29/94	YES
		Zn2138	ug/L	3250			N				10/07/94	09/29/94	YES
9410061-13	DUP	Ag3280	ug/L	< 6	< 6			0			10/07/94	09/29/94	YES
	DUP	Ba4554	ug/L	2510	2240			11.37			10/07/94	09/29/94	YES
	DUP	Be3131	ug/L	23.6	26.9			13.1			10/07/94	09/29/94	YES
	DUP	Cd2265	ug/L	174	178			2.27			10/07/94	09/29/94	YES
	DUP	Co2286	ug/L	975	982			0.715			10/07/94	09/29/94	YES
	DUP	Cr2677	ug/L	2000	2140			6.763			10/07/94	09/29/94	YES
	DUP	Cu3247	ug/L	2720	2620			3.745			10/07/94	09/29/94	YES
	DUP	K_7664	ug/L	137000	133000			2.9629			10/07/94	09/29/94	YES
	DUP	Mg2790	ug/L	862000	835000			3.1820			10/07/94	09/29/94	YES
	DUP	Na5889	ug/L	768000	734000			4.5273			10/07/94	09/29/94	YES
	DUP	Ni2316	ug/L	1190	1200			0.8368			10/07/94	09/29/94	YES
	DUP	V_3110	ug/L	2360	2980			23.22			10/07/94	09/29/94	YES
	DUP	Zn2138	ug/L	3290	3250			1.223			10/07/94	09/29/94	YES
	SPK	Ag3280	ug/L	< 6	< 6	50.0	0				10/07/94	NA	NA
	SPK	Ba4554	ug/L	190	2240	2000	-102		75.0	125	10/07/94	NA	NA
	SPK	Be3131	ug/L	14.1	26.9	50.0	-25.6		75.0	125	10/07/94	NA	NA
	SPK	Cd2265	ug/L	31.2	178	50.0	-294		75.0	125	10/07/94	NA	NA
	SPK	Co2286	ug/L	288	982	500	-139		75.0	125	10/07/94	NA	NA

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: CLP METALS **DATE ANALYZED: 11/21/94** **ANALYZED BY: CMT** **HOLDING TIME: 99 Days**

LAB NUMBER		ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-13	SPK	Cr2677	ug/L	170	2140	200	-985		75.0	125	10/07/94	NA	NA
	SPK	Cu3247	ug/L	256	2620	250	-946		75.0	125	10/07/94	NA	NA
	SPK	K_7664	ug/L	23500	133000						10/07/94	NA	NA
	SPK	Mg2790	ug/L	177000	835000						10/07/94	NA	NA
	SPK	Na5889	ug/L	215000	734000						10/07/94	NA	NA
	SPK	Ni2316	ug/L	288	1200	500	-182		75.0	125	10/07/94	NA	NA
	SPK	V_3110	ug/L	671	2980	500	-462		75.0	125	10/07/94	NA	NA
	SPK	Zn2138	ug/L	641	3250	500	-522		75.0	125	10/07/94	NA	NA
	MSD	Ag3280	ug/L	< 6	< 6	50.0	0	0			10/07/94	NA	NA
	MSD	Ba4554	ug/L	4470	2240	2000	111.5	4490	75.0	125	10/07/94	NA	NA
	MSD	Be3131	ug/L	32.3	26.9	50.0	11.0	501	75.0	125	10/07/94	NA	NA
	MSD	Cd2265	ug/L	68.3	178	50.0	-219	29.2	75.0	125	10/07/94	NA	NA
	MSD	Co2286	ug/L	622	982	500	-72.0	63.5	75.0	125	10/07/94	NA	NA
	MSD	Cr2677	ug/L	350	2140	200	-895	9.57	75.0	125	10/07/94	NA	NA
	MSD	Cu3247	ug/L	558	2620	250	-825	13.7	75.0	125	10/07/94	NA	NA
	MSD	K_7664	ug/L	59300	133000						10/07/94	NA	NA
	MSD	Mg2790	ug/L	409000	835000						10/07/94	NA	NA
	MSD	Na5889	ug/L	544000	734000						10/07/94	NA	NA
	MSD	Ni2316	ug/L	630	1200	500	-114	45.9	75.0	125	10/07/94	NA	NA
	MSD	V_3110	ug/L	1440	2980	500	-308	40.0	75.0	125	10/07/94	NA	NA
	MSD	Zn2138	ug/L	1400	3250	500	-370	34.1	75.0	125	10/07/94	NA	NA
	ISPK	Ag3280	ug/L	478	< 6	500	95.6				10/07/94	NA	NA
	ISPK	Ba4554	ug/L	10300	1120	10000	91.80				10/07/94	NA	NA
	ISPK	Be3131	ug/L	232	13.4	250	87.4				10/07/94	NA	NA
	ISPK	Cd2265	ug/L	1100	89.0	1250	80.9				10/07/94	NA	NA
	ISPK	Co2286	ug/L	2620	491	2500	85.2				10/07/94	NA	NA
	ISPK	Cr2677	ug/L	1520	1070	500	90.0				10/07/94	NA	NA
	ISPK	Cu3247	ug/L	2480	1310	1250	93.60				10/07/94	NA	NA
	ISPK	K_7664	ug/L	314000	66500	250000	99.000				10/07/94	NA	NA
	ISPK	Mg2790	ug/L	668000	418000	250000	100.00				10/07/94	NA	NA
	ISPK	Na5889	ug/L	604000	367000	250000	94.800				10/07/94	NA	NA
	ISPK	Ni2316	ug/L	2300	600	2000	85.0				10/07/94	NA	NA
	ISPK	V_3110	ug/L	3780	1490	2500	91.60				10/07/94	NA	NA
	ISPK	Zn2138	ug/L	2530	1620	1000	91.00				10/07/94	NA	NA
9410061-18A		Ag3280	ug/L	< 6			N				10/07/94	09/29/94	YES
		Al3082	ug/L	< 70							10/07/94	09/29/94	YES
		Ba4554	ug/L	1140			N				10/07/94	09/29/94	YES
		Be3131	ug/L	< 5			N				10/07/94	09/29/94	YES
		Ca3179	ug/L	337000							10/07/94	09/29/94	YES
		Cd2265	ug/L	< 5			N				10/07/94	09/29/94	YES
		Co2286	ug/L	< 10			N				10/07/94	09/29/94	YES

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TEST: CLP METALS **DATE ANALYZED: 11/21/94** **ANALYZED BY: CMT** **HOLDING TIME: 99 Days**

LAB NUMBER		ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-18A		Cr2677	ug/L	< 10			N				10/07/94	09/29/94	YES
		Cu3247	ug/L	< 6			N				10/07/94	09/29/94	YES
		Fe2599	ug/L	73.2			*				10/07/94	09/29/94	YES
		K_7664	ug/L	38700							10/07/94	09/29/94	YES
		Mg2790	ug/L	120000							10/07/94	09/29/94	YES
		Mn2576	ug/L	416							10/07/94	09/29/94	YES
		Na5889	ug/L	868000							10/07/94	09/29/94	YES
		Ni2316	ug/L	< 20			N				10/07/94	09/29/94	YES
		V_3110	ug/L	< 10			*N				10/07/94	09/29/94	YES
		Zn2138	ug/L	96.4			N				10/07/94	09/29/94	YES
9410061-18	DUP	Ag3280	ug/L	< 6	< 6			0			10/07/94	09/29/94	YES
	DUP	Al3082	ug/L	< 70	< 70			0			10/07/94	09/29/94	YES
	DUP	Ba4554	ug/L	1120	1140			1.770			10/07/94	09/29/94	YES
	DUP	Be3131	ug/L	< 5	< 5			0			10/07/94	09/29/94	YES
	DUP	Ca3179	ug/L	342000	337000			1.4727			10/07/94	09/29/94	YES
	DUP	Cd2265	ug/L	< 5	< 5			0			10/07/94	09/29/94	YES
	DUP	Co2286	ug/L	< 10	< 10			0			10/07/94	09/29/94	YES
	DUP	Cr2677	ug/L	< 10	< 10			0			10/07/94	09/29/94	YES
	DUP	Cu3247	ug/L	< 6	< 6			0			10/07/94	09/29/94	YES
	DUP	Fe2599	ug/L	93.6	73.2			24.5			10/07/94	09/29/94	YES
	DUP	K_7664	ug/L	37600	38700			2.8834			10/07/94	09/29/94	YES
	DUP	Mg2790	ug/L	122000	120000			1.6528			10/07/94	09/29/94	YES
	DUP	Mn2576	ug/L	416	416			0			10/07/94	09/29/94	YES
	DUP	Na5889	ug/L	869000	868000			0.1151			10/07/94	09/29/94	YES
	DUP	Ni2316	ug/L	< 20	< 20			0			10/07/94	09/29/94	YES
	DUP	V_3110	ug/L	< 10	< 10			0			10/07/94	09/29/94	YES
	DUP	Zn2138	ug/L	94.9	96.4			1.57			10/07/94	09/29/94	YES
	SPK	Ag3280	ug/L	54.0	< 6	50.0	110				10/07/94	NA	NA
	SPK	Al3082	ug/L	1990	< 70	2000	99.50		75.0	125	10/07/94	NA	NA
	SPK	Ba4554	ug/L	3050	1140	2000	95.50		75.0	125	10/07/94	NA	NA
	SPK	Be3131	ug/L	50.5	< 5	50.0	101		75.0	125	10/07/94	NA	NA
	SPK	Ca3179	ug/L	342000	337000						10/07/94	NA	NA
	SPK	Cd2265	ug/L	47.6	< 5	50.0	95.2		75.0	125	10/07/94	NA	NA
	SPK	Co2286	ug/L	497	< 10	500	99.4		75.0	125	10/07/94	NA	NA
	SPK	Cr2677	ug/L	202	< 10	200	101		75.0	125	10/07/94	NA	NA
	SPK	Cu3247	ug/L	249	< 6	250	99.6		75.0	125	10/07/94	NA	NA
	SPK	Fe2599	ug/L	1260	73.2	1000	119		75.0	125	10/07/94	NA	NA
	SPK	K_7664	ug/L	38400	38700						10/07/94	NA	NA
	SPK	Mg2790	ug/L	120000	120000						10/07/94	NA	NA
	SPK	Mn2576	ug/L	908	416	500	98.4		75.0	125	10/07/94	NA	NA
	SPK	Na5889	ug/L	865000	868000						10/07/94	NA	NA

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LAB NUMBER		ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-18	SPK	Ni2316	ug/L	510	< 20	500	102		75.0	125	10/07/94	NA	NA
	SPK	V_3110	ug/L	520	< 10	500	104		75.0	125	10/07/94	NA	NA
	SPK	Zn2138	ug/L	566	96.4	500	93.9		75.0	125	10/07/94	NA	NA
	MSD	Ag3280	ug/L	49.4	< 6	50.0	98.8	10.7			10/07/94	NA	NA
	MSD	Al3082	ug/L	2010	< 70	2000	100.5	1.000	75.0	125	10/07/94	NA	NA
	MSD	Ba4554	ug/L	3120	1140	2000	99.00	3.599	75.0	125	10/07/94	NA	NA
	MSD	Be3131	ug/L	51.1	< 5	50.0	102	0.985	75.0	125	10/07/94	NA	NA
	MSD	Ca3179	ug/L	345000	337000						10/07/94	NA	NA
	MSD	Cd2265	ug/L	52.0	< 5	50.0	100	4.92	75.0	125	10/07/94	NA	NA
	MSD	Co2286	ug/L	498	< 10	500	99.6	0.201	75.0	125	10/07/94	NA	NA
	MSD	Cr2677	ug/L	199	< 10	200	99.5	1.50	75.0	125	10/07/94	NA	NA
	MSD	Cu3247	ug/L	248	< 6	250	99.2	0.402	75.0	125	10/07/94	NA	NA
	MSD	Fe2599	ug/L	1040	73.2	1000	96.7	20.7	75.0	125	10/07/94	NA	NA
	MSD	K_7664	ug/L	38800	38700						10/07/94	NA	NA
	MSD	Mg2790	ug/L	121000	120000						10/07/94	NA	NA
	MSD	Mn2576	ug/L	913	416	500	99.4	1.01	75.0	125	10/07/94	NA	NA
	MSD	Na5889	ug/L	876000	868000						10/07/94	NA	NA
	MSD	Ni2316	ug/L	505	< 20	500	101	0.985	75.0	125	10/07/94	NA	NA
	MSD	V_3110	ug/L	525	< 10	500	105	0.957	75.0	125	10/07/94	NA	NA
	MSD	Zn2138	ug/L	565	96.4	500	93.7	0.213	75.0	125	10/07/94	NA	NA
	ISPK	Ag3280	ug/L	504	< 6	500	101				10/07/94	NA	NA
	ISPK	Al3082	ug/L	9950	< 70	10000	99.50				10/07/94	NA	NA
	ISPK	Ba4554	ug/L	10800	570	10000	102				10/07/94	NA	NA
	ISPK	Be3131	ug/L	254	< 5	250	102				10/07/94	NA	NA
	ISPK	Ca3179	ug/L	428000	168000	250000	104.00				10/07/94	NA	NA
	ISPK	Cd2265	ug/L	1240	< 5	1250	99.20				10/07/94	NA	NA
	ISPK	Co2286	ug/L	2480	< 10	2500	99.20				10/07/94	NA	NA
	ISPK	Cr2677	ug/L	498	< 10	500	99.6				10/07/94	NA	NA
	ISPK	Cu3247	ug/L	1250	< 6	1250	100.0				10/07/94	NA	NA
	ISPK	Fe2599	ug/L	5010	36.6	5000	99.5				10/07/94	NA	NA
	ISPK	K_7664	ug/L	275000	19400	250000	102.24				10/07/94	NA	NA
	ISPK	Mg2790	ug/L	316000	60000	250000	102.40				10/07/94	NA	NA
	ISPK	Mn2576	ug/L	958	208	750	100				10/07/94	NA	NA
	ISPK	Na5889	ug/L	676000	434000	250000	96.800				10/07/94	NA	NA
	ISPK	Ni2316	ug/L	1950	< 20	2000	97.50				10/07/94	NA	NA
	ISPK	V_3110	ug/L	2500	< 10	2500	100.0				10/07/94	NA	NA
	ISPK	Zn2138	ug/L	1040	48.2	1000	99.2				10/07/94	NA	NA
CRIF		Ag3280	ug/L	17.22	20.0		86.1				NA	NA	NA
		Al3082	ug/L	15.23							NA	NA	NA
		Ba4554	ug/L	2.158							NA	NA	NA
		Be3131	ug/L	10.51	10.0		105				NA	NA	NA

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LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
CRIF	Ca3179	ug/L	32.32							NA	NA	NA
	Cd2265	ug/L	9.643	10.0		96.4				NA	NA	NA
	Co2286	ug/L	126.5	100		126				NA	NA	NA
	Cr2677	ug/L	23.07	20.0		115				NA	NA	NA
	Cu3247	ug/L	54.43	50.0		109				NA	NA	NA
	Fe2599	ug/L	71.18							NA	NA	NA
	K_7664	ug/L	-22.98							NA	NA	NA
	Mg2790	ug/L	-31.76							NA	NA	NA
	Mn2576	ug/L	35.19	30.0		117				NA	NA	NA
	Na5889	ug/L	120.3							NA	NA	NA
	Ni2316	ug/L	106.0	80.0		132				NA	NA	NA
	V_3110	ug/L	111.2	100		111				NA	NA	NA
	Zn2138	ug/L	45.51	40.0		114				NA	NA	NA
ICSAF	Ag3280	ug/L	< 6							NA	NA	NA
	Al3082	ug/L	194000	500000		38.800				NA	NA	NA
	Ba4554	ug/L	24.4							NA	NA	NA
	Be3131	ug/L	< 5							NA	NA	NA
	Ca3179	ug/L	515000	500000		103.00				NA	NA	NA
	Cd2265	ug/L	< 5							NA	NA	NA
	Co2286	ug/L	< 10							NA	NA	NA
	Cr2677	ug/L	183							NA	NA	NA
	Cu3247	ug/L	< 6							NA	NA	NA
	Fe2599	ug/L	36800	200000		18.400				NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	527000	500000		105.40				NA	NA	NA
	Mn2576	ug/L	22.6							NA	NA	NA
	Na5889	ug/L	375							NA	NA	NA
	Ni2316	ug/L	< 20							NA	NA	NA
	V_3110	ug/L	< 10							NA	NA	NA
	Zn2138	ug/L	63.8							NA	NA	NA
ICSABF	Ag3280	ug/L	1000	1000		100.0		80.0	120	NA	NA	NA
	Al3082	ug/L	194000	500000		38.800				NA	NA	NA
	Ba4554	ug/L	522	500		104		80.0	120	NA	NA	NA
	Be3131	ug/L	501	500		100		80.0	120	NA	NA	NA
	Ca3179	ug/L	510000	500000		102.00				NA	NA	NA
	Cd2265	ug/L	981	1000		98.1		80.0	120	NA	NA	NA
	Co2286	ug/L	492	500		98.4		80.0	120	NA	NA	NA
	Cr2677	ug/L	588	500		118		80.0	120	NA	NA	NA
	Cu3247	ug/L	464	500		92.8		80.0	120	NA	NA	NA
	Fe2599	ug/L	36700	200000		18.350				NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA

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TEST: CLP METALS **DATE ANALYZED: 11/21/94** **ANALYZED BY: CMT** **HOLDING TIME: 99 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICSABF	Mg2790	ug/L	521000	500000		104.20				NA	NA	NA
	Mn2576	ug/L	509	500		102		80.0	120	NA	NA	NA
	Na5889	ug/L	357							NA	NA	NA
	Ni2316	ug/L	988	1000		98.8		80.0	120	NA	NA	NA
	V_3110	ug/L	502	500		100		80.0	120	NA	NA	NA
	Zn2138	ug/L	1000	1000		100.0		80.0	120	NA	NA	NA
CCV	Ag3280	ug/L	506	500		101		90.0	110	NA	NA	NA
	Al3082	ug/L	10200	10000		102.00		90.0	110	NA	NA	NA
	Ba4554	ug/L	10200	10000		102.00		90.0	110	NA	NA	NA
	Be3131	ug/L	261	250		104		90.0	110	NA	NA	NA
	Ca3179	ug/L	262000	250000		104.80		90.0	110	NA	NA	NA
	Cd2265	ug/L	257	250		103		90.0	110	NA	NA	NA
	Co2286	ug/L	2580	2500		103.2		90.0	110	NA	NA	NA
	Cr2677	ug/L	527	500		105		90.0	110	NA	NA	NA
	Cu3247	ug/L	1270	1250		101.6		90.0	110	NA	NA	NA
	Fe2599	ug/L	5220	5000		104.4		90.0	110	NA	NA	NA
	K_7664	ug/L	246000	250000		98.400		90.0	110	NA	NA	NA
	Mg2790	ug/L	256000	250000		102.40		90.0	110	NA	NA	NA
	Mn2576	ug/L	774	750		103		90.0	110	NA	NA	NA
	Na5889	ug/L	241000	250000		96.400		90.0	110	NA	NA	NA
	Ni2316	ug/L	2060	2000		103.0		90.0	110	NA	NA	NA
	V_3110	ug/L	2610	2500		104.4		90.0	110	NA	NA	NA
	Zn2138	ug/L	1010	1000		101.0		90.0	110	NA	NA	NA
CCB	Ag3280	ug/L	< 6							NA	NA	NA
	Al3082	ug/L	< 70							NA	NA	NA
	Ba4554	ug/L	< 17							NA	NA	NA
	Be3131	ug/L	< 5							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Cd2265	ug/L	< 5							NA	NA	NA
	Co2286	ug/L	< 10							NA	NA	NA
	Cr2677	ug/L	< 10							NA	NA	NA
	Cu3247	ug/L	< 6							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA
	Na5889	ug/L	< 100							NA	NA	NA
	Ni2316	ug/L	< 20							NA	NA	NA
	V_3110	ug/L	< 10							NA	NA	NA
	Zn2138	ug/L	< 10							NA	NA	NA

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SOUTHWESTERN LABORATORIES
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COMMENTS:

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICC	941120	CLP	11/21/94	17:10	JP	S	CONC
2	ICV	941120	CLP	11/21/94	17:18	JP	S	CONC
3	ICB	941120	CLP	11/21/94	17:25	JP	S	CONC
4	ICSAI	941120	CLP	11/21/94	17:32	JP	S	CONC
5	ICSABI	941120	CLP	11/21/94	17:39	JP	S	CONC
6	CRII	941120	CLP	11/21/94	17:47	JP	S	CONC
7	LCSW	941120	CLP	11/21/94	17:54	JP	S	CONC
8	LCSS	941120	CLP	11/21/94	18:01	JP	S	CONC
9	PBW	941120	CLP	11/21/94	18:09	JP	S	CONC
10	PBS	941120	CLP	11/21/94	18:16	JP	S	CONC
11	9410061-01A	941120	CLP	11/21/94	18:23	JP	S	CONC
12	9410061-01 DUP	941120	CLP	11/21/94	18:30	JP	S	CONC
13	9410061-01 SPK #1	941120	CLP	11/21/94	18:38	JP	S	CONC
14	9410061-01 SPK INS	941120	CLP	11/21/94	18:45	JP	S	CONC
15	9410061-02A	941120	CLP	11/21/94	18:52	JP	S	CONC
16	CCV1	941120	CLP	11/21/94	19:00	JP	S	CONC
17	CCB1	941120	CLP	11/21/94	19:07	JP	S	CONC
18	9410061-03A	941120	CLP	11/21/94	19:14	JP	S	CONC
19	9410061-04A	941120	CLP	11/21/94	19:21	JP	S	CONC
20	9410061-05A	941120	CLP	11/21/94	19:29	JP	S	CONC
21	9410061-06A	941120	CLP	11/21/94	19:36	JP	S	CONC
22	CCV2	941120	CLP	11/21/94	19:43	JP	S	CONC
23	CCB2	941120	CLP	11/21/94	19:51	JP	S	CONC
24	9410061-13A	941120	CLP	11/21/94	19:58	JP	S	CONC
25	9410061-13 DUP	941120	CLP	11/21/94	20:05	JP	S	CONC
26	9410061-13 SPK #1	941120	CLP	11/21/94	20:13	JP	S	CONC
27	9410061-13 SPK #2	941120	CLP	11/21/94	20:20	JP	S	CONC
28	9410061-13 SPK INST	941120	CLP	11/21/94	20:27	JP	S	CONC
29	9410061-18A	941120	CLP	11/21/94	20:34	JP	S	CONC
30	9410061-18 DUP	941120	CLP	11/21/94	20:42	JP	S	CONC
31	9410061-18 SPK #1	941120	CLP	11/21/94	20:49	JP	S	CONC
32	9410061-18 SPK #2	941120	CLP	11/21/94	20:56	JP	S	CONC
33	9410061-18 SPK INS	941120	CLP	11/21/94	21:04	JP	S	CONC
34	CRIF	941120	CLP	11/21/94	21:11	JP	S	CONC
35	ICSAF	941120	CLP	11/21/94	21:18	JP	S	CONC
36	ICSABF	941120	CLP	11/21/94	21:25	JP	S	CONC
37	CCV3	941120	CLP	11/21/94	21:33	JP	S	CONC
38	CCB3	941120	CLP	11/21/94	21:40	JP	S	CONC

#	Element	ICC	ICV	ICB	ICSAI	ICSABI	CRII
	Ag3280	990.8	509.0	D-3.828	D-4.781	1045.	D21.83
2	Al3082	1986.	1036.	D4.960	S19420.	S19480.	D10.27
3	Ba4554	1980.	1032.	.1705	2.316	52.53	d-.0220
4	Be3131	471.3	254.7	d-.0059	d.1258	492.5	10.70
5	Ca3179	482400.	251300.	D14.44	483900.	489700.	D9.567
6	Cd2265	2361.	253.7	D-3.095	d22.54	948.0	D12.21
7	Co2286	4673.	2546.	D3.018	D3.570	479.9	124.5
8	Cr2677	952.7	510.8	D2.047	158.3	573.3	D22.49
9	Cu3247	2474.	1283.	D-3.254	D-38.81	467.6	55.82
10	Fe2599	9545.	5168.	D3.341	S36610.	S36910.	D1.178
11	Mg2790	505700.	253300.	D11.95	503800.	507000.	D22.35
12	Mn2576	1425.	759.9	D.0391	21.04	496.6	35.31
13	Na5889	488100.	253300.	D12.59	330.3	319.5	D30.54
14	Ni2316	3751.	2035.	D-4.790	D3.618	945.7	97.36
15	V_3110	4807.	2559.	D-3.665	D2.663	495.0	110.9
16	Zn2138	1928.	996.4	D-.6795	59.96	987.0	44.92
17	Pb2203	2421.	D276.0	D-32.04	D165.4	1227.	D-60.13
18	K_7664	502300.	251900.	D120.6	D170.5	D-366.3	D-154.1

#	Element	LCSW	LCSS	PBW	PBS	941'-01A	941' DUP
1	Ag3280	D45.05	D43.12	D-3.752	D-1.426	D-647.4	D-803.7
2	Al3082	184.8	249.6	D5.133	D4.376	514900	639800.
	Ba4554	190.7	209.5	.1422	d.0573	2748	2977.
4	Be3131	48.16	51.51	d-.0499	d-.0027	348.8	348.1
5	Ca3179	269.6	1661.	2087.	D138.0	248BG ~~340.8~~	~~348.1~~ 243EG
6	Cd2265	47.21	52.14	D-.7583	D.4101	D718.9	D554.0
7	Co2286	472.4	519.2	D2.415	D4.926	D4008	D2853.
8	Cr2677	189.5	209.1	D3.299	D1.797	27070	25800
9	Cu3247	245.2	265.2	D.3977	D.9853	6910.	d6591.
10	Fe2599	971.4	1560.	45.86	D14.31	S7443e3	S7440e3
11	Mg2790	D12.99	D77.50	D35.88	D11.95	3028e3	3175e3
12	Mn2576	460.3	520.6	D1.638	D.9130	136500	130700
13	Na5889	780.8	292.6	201.0	256.7	1653e3	1546e3
14	Ni2316	478.8	522.4	D1.749	D-6.192	23970	D8665.
15	V_3110	457.7	510.2	D-4.398	D-2.722	43420	42890.
16	Zn2138	439.7	503.0	35.14	D4.353	42910	31670.
17	Pb2203	D395.9	D473.9	D-21.34	D-19.12	D3755.	D-5249
18	K_7664	D145.6	D545.1	D-166.6	D176.8	D762000	D725800

#	Element	941'K #1	941' INS	941'-02A	CCV1	CCB1	941'-03A
1	Ag3280	D8941	78160.	D1308.	512.6	D-3.123	D-1795
2	Al3082	1006e3	452500.	627100	1032.	D3.572	S2883e3
3	Ba4554	42740.	199200	5238.	1023.	d.0346	12910.
4	Be3131	10080	49350.	327.6	257.8	d.0575	989.5
5	Ca3179	~~10080~~ 248EG	~~49350~~ 1756	~~327.6~~ 21156	254700.	D-32.69	13e6
	Cd2265	10250	240500.	D847.2	256.0	D-2.706	d4297.
	Co2286	101300	484900	D4741.	2573.	D-.0455	25420.
8	Cr2677	65760	110800.	20690.	510.8	D1.297	61360
9	Cu3247	57630	253800.	8527.	1282.	D-1.337	60180.

#	Element	941'K #1	941' INS	941'-02A	CCV1	CCB1	941'-03A
	Fe2599	S7439e3✓	S5808e3✓	S7431e3✓	5186.	D-.7814	S7348e3✓
	Mg2790	3504e3✓	51e6✓	3968e3✓	255900.	D-4.703	11e6✓
12	Mn2576	226800.✓	211700✓	171300✓	769.3	D-.9178	S1403e3✓
13	Na5889	1606e3✓	49e6✓	1854e3✓	244200.	D3.620	378000.✓
14	Ni2316	104800.✓	390000✓	D7061.✓	2020.	D-.9754	30390.✓
15	V_3110	144500.✓	511600.✓	40380.✓	2560.	D-5.237	140500.✓
16	Zn2138	112800.✓	213100✓	19720.✓	999.3	D-.6287	68320.✓
17	Pb2203	D88360.✓	257800.✓	D6608.✓	D257.3	D-44.52	D5806.✓
18	K_7664	D906800.✓	51e6✓	1225e3✓	249500.	D264.2	1422e3✓

#	Element	941'-04A	941'-05A	941'-06A	CCV2	CCB2	941'-13A
1	Ag3280	D-1170.✓	D-1032.✓	D-1772.✓	506.6	D-2.913	D-26.28
2	Al3082	2651e3✓	2544e3✓	2626e3✓	1039.	D5.023	S18710.
3	Ba4554	12810.✓	10410.✓	12510.✓	1026.	.1761	223.5
4	Be3131	961.9✓	940.7✓	994.7✓	257.7	D-.9378	26.93
5	Ca3179	39e6✓	45e6✓	40e6✓	255900.	D22.57	S2067e3
6	Cd2265	D2268.✓	d4976.✓	D2552.✓	253.3	D1.372	177.8
7	Co2286	21350✓	21700✓	22380.✓	2587.	D-.7486	982.1
8	Cr2677	56690.✓	54900✓	57650.✓	526.0	D-1.665	2138.
9	Cu3247	52000.✓	50880.✓	51570.✓	1296.	D-2.471	2620.
10	Fe2599	S7341e3✓	S7337e3✓	S7346e3✓	5164.	D.9730	D21040.
11	Mg2790	13e6✓	12e6✓	13e6✓	254900.	D4.662	835300.
12	Mn2576	S1165e3✓	S1079e3✓	S1054e3✓	767.7	D-.0383	S6863.
	Na5889	815900.✓	802300✓	803300.✓	246400.	D-3.559	733900.
14	Ni2316	26950.✓	25540.✓	27040.✓	2048.	D3.462	1201.
15	V_3110	141700✓	135000.✓	145900✓	2581.	D-2.974	2985.
16	Zn2138	67810.✓	57110✓	59210.✓	999.2	D.4218	3246.
17	Pb2203	D13740✓	D11780✓	D17660.✓	D229.2	D-25.80	D521.2
18	K_7664	D658300✓	D578400.✓	D618400✓	249800.	D214.2	133100.

#	Element	941' DUP	941'K #1	941'K #2	941'INST	941'-18A	941' DUP
1	Ag3280	D-28.34	D-6.192	D-3.752	478.1	D-4.743	D-2.837
2	Al3082	S18720.	6416.	S14510.	S19390.	D4.644	D4.124
3	Ba4554	251.1	190.1	446.8	1026.	114.0	112.0
4	Be3131	23.59	14.08	32.34	232.2	.1632	d.1160
5	Ca3179	S2066e3	S2072e3	S2060e3	S2070e3	337100.	341500.
6	Cd2265	174.5	31.20	68.31	1105.	D-2.247	D.4330
7	Co2286	975.1	288.1	622.5	2621.	D5.478	D-2.355
8	Cr2677	2002.	169.7	350.3	1522.	D5.051	D-1.915
9	Cu3247	2717.	255.9	558.3	2475.	D2.217	D2.161
10	Fe2599	D21180.	S36740.	S36110.	S35190.	73.22	93.57
11	Mg2790	861900.	177300.	408800.	667600.	119700.	121700.
12	Mn2576	S6889.	S7059.	S6955.	S6963.	416.0	416.1
13	Na5889	768100.	214700.	544100.	603700.	867500.	869300.
14	Ni2316	1187.	288.3	629.6	2300.	D-3.778	D8.679
15	V_3110	2358.	671.1	1438.	3783.	D18.92	D16.51
[illegible]	Zn2138	3293.	641.1	1404.	2533.	96.42	94.92
[illegible]	Pb2203	D488.2	D137.4	D363.8	1470.	D4.065	D-15.10
18	K_7664	137000.	23490.	59320.	314000.	38670.	37570.

#	Element	941'K #1	941'K #2	941' INS	CRIF	ICSAF	ICSABF
	Ag3280	d53.99	D49.40	503.9	D17.22	D-11.21	1003.
2	Al3082	199.0	201.2	994.9	D1.523	S19430.	S19380.
3	Ba4554	305.4	311.5	1077.	.2158	2.435	52.24
4	Be3131	50.46	51.11	253.8	10.51	d-.0076	501.1
5	Ca3179	341500.	344800.	428400.	D32.32	514600.	510400.
6	Cd2265	47.58	52.05	1235.	D9.643	D7.375	980.9
7	Co2286	496.7	497.8	2478.	126.5	D13.06	492.3
8	Cr2677	201.6	198.9	497.6	D23.07	182.7	587.9
9	Cu3247	249.1	248.3	1252.	54.43	D-39.32	464.4
10	Fe2599	1264.	1039.	5013.	71.18	S36800.	S36660.
11	Mg2790	120200.	121400.	316000.	D-31.76	527100.	521200.
12	Mn2576	908.0	913.2	957.8	35.19	22.61	508.8
13	Na5889	865400.	876400.	676100.	120.3	375.1	357.2
14	Ni2316	510.5	505.4	1947.	106.0	D-8.917	987.6
15	V_3110	520.5	524.7	2498.	111.2	D5.931	502.3
16	Zn2138	565.9	564.8	1043.	45.51	63.81	1004.
17	Pb2203	D383.0	D420.9	1265.	D-38.28	D162.8	1226.
18	K_7664	38350.	38790.	275100.	D-22.98	D-60.44	D345.3

#	Element	CCV3	CCB3
1	Ag3280	506.5	D-2.646
2	Al3082	1023.	D4.881
	Ba4554	1016.	d.0346
4	Be3131	261.1	d-.1409
5	Ca3179	262300.	D-1.809
6	Cd2265	257.4	D-.4834
7	Co2286	2583.	D4.574
8	Cr2677	527.0	D1.589
9	Cu3247	1269.	D-1.939
10	Fe2599	5219.	D.5929
11	Mg2790	256300.	D33.80
12	Mn2576	773.6	D.1553
13	Na5889	240900.	d52.08
14	Ni2316	2055.	D.4259
15	V_3110	2608.	D-2.345
16	Zn2138	1006.	D-.0696
17	Pb2203	D217.1	D-14.21
18	K_7664	245700.	D257.9

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#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICC	941120	CLP	11/21/94	17:10	JP	S	CONC
2	ICV	941120	CLP	11/21/94	17:18	JP	S	CONC
3	ICB	941120	CLP	11/21/94	17:25	JP	S	CONC
4	ICSAI	941120	CLP	11/21/94	17:32	JP	S	CONC
5	ICSABI	941120	CLP	11/21/94	17:39	JP	S	CONC
6	CRII	941120	CLP	11/21/94	17:47	JP	S	CONC
7	LCSW	941120	CLP	11/21/94	17:54	JP	S	CONC
8	LCSS	941120	CLP	11/21/94	18:01	JP	S	CONC
9	PBW	941120	CLP	11/21/94	18:09	JP	S	CONC
10	PBS	941120	CLP	11/21/94	18:16	JP	S	CONC
11	9410061-01A	941120	CLP	11/21/94	18:23	JP	S	CONC
12	9410061-01 DUP	941120	CLP	11/21/94	18:30	JP	S	CONC
13	9410061-01 SPK #1	941120	CLP	11/21/94	18:38	JP	S	CONC
14	9410061-01 SPK INS	941120	CLP	11/21/94	18:45	JP	S	CONC
15	9410061-02A	941120	CLP	11/21/94	18:52	JP	S	CONC
16	CCV1	941120	CLP	11/21/94	19:00	JP	S	CONC
17	CCB1	941120	CLP	11/21/94	19:07	JP	S	CONC
18	9410061-03A	941120	CLP	11/21/94	19:14	JP	S	CONC
19	9410061-04A	941120	CLP	11/21/94	19:21	JP	S	CONC
20	9410061-05A	941120	CLP	11/21/94	19:29	JP	S	CONC
21	9410061-06A	941120	CLP	11/21/94	19:36	JP	S	CONC
22	CCV2	941120	CLP	11/21/94	19:43	JP	S	CONC
23	CCB2	941120	CLP	11/21/94	19:51	JP	S	CONC
[illegible]	9410061-13A	941120	CLP	11/21/94	19:58	JP	S	CONC
[illegible]	9410061-13 DUP	941120	CLP	11/21/94	20:05	JP	S	CONC
26	9410061-13 SPK #1	941120	CLP	11/21/94	20:13	JP	S	CONC
27	9410061-13 SPK #2	941120	CLP	11/21/94	20:20	JP	S	CONC
28	9410061-13 SPK INST	941120	CLP	11/21/94	20:27	JP	S	CONC
29	9410061-18A	941120	CLP	11/21/94	20:34	JP	S	CONC
30	9410061-18 DUP	941120	CLP	11/21/94	20:42	JP	S	CONC
31	9410061-18 SPK #1	941120	CLP	11/21/94	20:49	JP	S	CONC
32	9410061-18 SPK #2	941120	CLP	11/21/94	20:56	JP	S	CONC
33	9410061-18 SPK INS	941120	CLP	11/21/94	21:04	JP	S	CONC
34	CRIF	941120	CLP	11/21/94	21:11	JP	S	CONC
35	ICSAF	941120	CLP	11/21/94	21:18	JP	S	CONC
36	ICSABF	941120	CLP	11/21/94	21:25	JP	S	CONC
37	CCV3	941120	CLP	11/21/94	21:33	JP	S	CONC
38	CCB3	941120	CLP	11/21/94	21:40	JP	S	CONC

#	Sample Name	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265
1	ICC	990.8	1986.	1980.	471.3	482400.	2361.
2	ICV	509.0	1036.	1032.	254.7	251300.	253.7
3	ICB	D-3.828	D4.960	.1705	d-.0059	D14.44	D-3.095
4	ICSAI	D-4.781	S19420.	2.316	d.1258	483900.	d22.54
5	ICSABI	1045.	S19480.	52.53	492.5	489700.	948.0
6	CRII	D21.83	D10.27	d-.0220	10.70	D9.567	D12.21
7	LCSW	D45.05	184.8	190.7	48.16	269.6	47.21
8	LCSS	D43.12	249.6	209.5	51.51	1661.	52.14
9	PBW	D-3.752	D5.133	.1422	d-.0499	2087.	D-.7583
10	PBS	D-1.426	D4.376	d.0573	d-.0027	D138.0	D.4101
11	9410061-01A	D-647.4	514900.	2748.	348.8	348.8	D718.9
12	9410061-01 DUP	D-803.7	639800.	2977.	348.1	348.1	D554.0
13	9410061-01 SPK #1	D8941.	1006e3	42740.	10080.	10080.	10250.
14	9410061-01 SPK INS	78160.	452500.	199200.	49350.	49350.	240500.
15	9410061-02A	D1308.	627100.	5238.	327.6	327.6	D847.2
16	CCV1	512.6	1032.	1023.	257.8	254700.	256.0
17	CCB1	D-3.123	D3.572	d.0346	d.0575	D-32.69	D-2.706
18	9410061-03A	D-1795.	S2883e3	12910.	989.5	13e6	d4297.
19	9410061-04A	D-1170.	2651e3	12810.	961.9	39e6	D2268.
20	9410061-05A	D-1032.	2544e3	10410.	940.7	45e6	d4976.
21	9410061-06A	D-1772.	2626e3	12510.	994.7	40e6	D2552.
22	CCV2	506.6	1039.	1026.	257.7	255900.	253.3
23	CCB2	D-2.913	D5.023	.1761	D-.9378	D22.57	D1.372
[illegible]	9410061-13A	D-26.28	S18710.	223.5	26.93	S2067e3	177.8
	9410061-13 DUP	D-28.34	S18720.	251.1	23.59	S2066e3	174.5
26	9410061-13 SPK #1	D-6.192	6416.	190.1	14.08	S2072e3	31.20
27	9410061-13 SPK #2	D-3.752	S14510.	446.8	32.34	S2060e3	68.31
28	9410061-13 SPK INST	478.1	S19390.	1026.	232.2	S2070e3	1105.
29	9410061-18A	D-4.743	D4.644	114.0	.1632	337100.	D-2.247
30	9410061-18 DUP	D-2.837	D4.124	112.0	d.1160	341500.	D.4330
31	9410061-18 SPK #1	d53.99	199.0	305.4	50.46	341500.	47.58
32	9410061-18 SPK #2	D49.40	201.2	311.5	51.11	344800.	52.05
33	9410061-18 SPK INS	503.9	994.9	1077.	253.8	428400.	1235.
34	CRIF	D17.22	D1.523	.2158	10.51	D32.32	D9.643
35	ICSAF	D-11.21	S19430.	2.435	d-.0076	514600.	D7.375
36	ICSABF	1003.	S19380.	52.24	501.1	510400.	980.9
37	CCV3	506.5	1023.	1016.	261.1	262300.	257.4
38	CCB3	D-2.646	D4.881	d.0346	d-.1409	D-1.809	D-.4834

#	Sample Name	Co2286	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576
1	ICC	4673.	952.7	2474.	9545.	505700.	1425.
2	ICV	2546.	510.8	1283.	5168.	253300.	759.9
3	ICB	D3.018	D2.047	D-3.254	D3.341	D11.95	D.0391
4	ICSAI	D3.570	158.3	D-38.81	S36610.	503800.	21.04
5	ICSABI	479.9	573.3	467.6	S36910.	507000.	496.6
6	CRII	124.5	D22.49	55.82	D1.178	D22.35	35.31
7	LCSW	472.4	189.5	245.2	971.4	D12.99	460.3
	LCSS	519.2	209.1	265.2	1560.	D77.50	520.6
	PBW	D2.415	D3.299	D.3977	45.86	D35.88	D1.638
10	PBS	D4.926	D1.797	D.9853	D14.31	D11.95	D.9130
11	9410061-01A	D4008.	27070.	6910.	S7443e3	3028e3	136500.

#	Sample Name	Co2286	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576
	9410061-01 DUP	D2853.	25800.	d6591.	S7440e3	3175e3	130700.
	9410061-01 SPK #1	101300.	65760.	57630.	S7439e3	3504e3	226800.
14	9410061-01 SPK INS	484900.	110800.	253800.	S5808e3	51e6	211700.
15	9410061-02A	D4741.	20690.	8527.	S7431e3	3968e3	171300.
16	CCV1	2573.	510.8	1282.	5186.	255900.	769.3
17	CCB1	D-.0455	D1.297	D-1.337	D-.7814	D-4.703	D-.9178
18	9410061-03A	25420.	61360.	60180.	S7348e3	11e6	S1403e3
19	9410061-04A	21350.	56690.	52000.	S7341e3	13e6	S1165e3
20	9410061-05A	21700.	54900.	50880.	S7337e3	12e6	S1079e3
21	9410061-06A	22380.	57650.	51570.	S7346e3	13e6	S1054e3
22	CCV2	2587.	526.0	1296.	5164.	254900.	767.7
23	CCB2	D-.7486	D-1.665	D-2.471	D.9730	D4.662	D-.0383
24	9410061-13A	982.1	2138.	2620.	D21040.	835300.	S6863.
25	9410061-13 DUP	975.1	2002.	2717.	D21180.	861900.	S6889.
26	9410061-13 SPK #1	288.1	169.7	255.9	S36740.	177300.	S7059.
27	9410061-13 SPK #2	622.5	350.3	558.3	S36110.	408800.	S6955.
28	9410061-13 SPK INST	2621.	1522.	2475.	S35190.	667600.	S6963.
29	9410061-18A	D5.478	D5.051	D2.217	73.22	119700.	416.0
30	9410061-18 DUP	D-2.355	D-1.915	D2.161	93.57	121700.	416.1
31	9410061-18 SPK #1	496.7	201.6	249.1	1264.	120200.	908.0
32	9410061-18 SPK #2	497.8	198.9	248.3	1039.	121400.	913.2
33	9410061-18 SPK INS	2478.	497.6	1252.	5013.	316000.	957.8
34	CRIF	126.5	D23.07	54.43	71.18	D-31.76	35.19
35	ICSAF	D13.06	182.7	D-39.32	S36800.	527100.	22.61
36	ICSABF	492.3	587.9	464.4	S36660.	521200.	508.8
	CCV3	2583.	527.0	1269.	5219.	256300.	773.6
38	CCB3	D4.574	D1.589	D-1.939	D.5929	D33.80	D.1553

#	Sample Name	Na5889	Ni2316	V_3110	Zn2138	Pb2203	K_7664
1	ICC	488100.	3751.	4807.	1928.	2421.	502300.
2	ICV	253300.	2035.	2559.	996.4	D276.0	251900.
3	ICB	D12.59	D-4.790	D-3.665	D-.6795	D-32.04	D120.6
4	ICSAI	330.3	D3.618	D2.663	59.96	D165.4	D170.5
5	ICSABI	319.5	945.7	495.0	987.0	1227.	D-366.3
6	CRII	D30.54	97.36	110.9	44.92	D-60.13	D-154.1
7	LCSW	780.8	478.8	457.7	439.7	D395.9	D145.6
8	LCSS	292.6	522.4	510.2	503.0	D473.9	D545.1
9	PBW	201.0	D1.749	D-4.398	35.14	D-21.34	D-166.6
10	PBS	256.7	D-6.192	D-2.722	D4.353	D-19.12	D176.8
11	9410061-01A	1653e3	23970.	43420.	42910.	D3755.	D762000.
12	9410061-01 DUP	1546e3	D8665.	42890.	31670.	D-5249.	D725800.
13	9410061-01 SPK #1	1606e3	104800.	144500.	112800.	D88360.	D906800.
14	9410061-01 SPK INS	49e6	390000.	511600.	213100.	257800.	51e6
15	9410061-02A	1854e3	D7061.	40380.	19720.	D6608.	1225e3
16	CCV1	244200.	2020.	2560.	999.3	D257.3	249500.
17	CCB1	D3.620	D-.9754	D-5.237	D-.6287	D-44.52	D264.2
18	9410061-03A	378000.	30390.	140500.	68320.	D5806.	1422e3
19	9410061-04A	815900.	26950.	141700.	67810.	D13740.	D658300.
[illegible]	9410061-05A	802300.	25540.	135000.	57110.	D11780.	D578400.
[illegible]	9410061-06A	803300.	27040.	145900.	59210.	D17660.	D618400.
22	CCV2	246400.	2048.	2581.	999.2	D229.2	249800.
23	CCB2	D-3.559	D3.462	D-2.974	D.4218	D-25.80	D214.2

#	Sample Name	Na5889	Ni2316	V_3110	Zn2138	Pb2203	K_7664
	9410061-13A	733900.	1201.	2985.	3246.	D521.2	133100.
	9410061-13 DUP	768100.	1187.	2358.	3293.	D488.2	137000.
26	9410061-13 SPK #1	214700.	288.3	671.1	641.1	D137.4	23490.
27	9410061-13 SPK #2	544100.	629.6	1438.	1404.	D363.8	59320.
28	9410061-13 SPK INST	603700.	2300.	3783.	2533.	1470.	314000.
29	9410061-18A	867500.	D-3.778	D18.92	96.42	D4.065	38670.
30	9410061-18 DUP	869300.	D8.679	D16.51	94.92	D-15.10	37570.
31	9410061-18 SPK #1	865400.	510.5	520.5	565.9	D383.0	38350.
32	9410061-18 SPK #2	876400.	505.4	524.7	564.8	D420.9	38790.
33	9410061-18 SPK INS	676100.	1947.	2498.	1043.	1265.	275100.
34	CRIF	120.3	106.0	111.2	45.51	D-38.28	D-22.98
35	ICSAF	375.1	D-8.917	D5.931	63.81	D162.8	D-60.44
36	ICSABF	357.2	987.6	502.3	1004.	1226.	D345.3
37	CCV3	240900.	2055.	2608.	1006.	D217.1	245700.
38	CCB3	d52.08	D.4259	D-2.345	D-.0696	D-14.21	D257.9

	9410061-01A	9410061-01A Dup	9410061-01A spk	9410061-01A Isp k
Ag	D-3.237	D-4.0185	D44.705	390.8
Al	25745	31990	50300	22625
Ba	137.4	148.85	2137	9960
Be	1.744	1.7405	50.4	246.75
Ca	~~S 1,240,000~~ ~~1.744~~ S1,240,000	S1,215,000	S1240000	S8650000
Cd	D3.5945	D2.770	51.25	1202.5
Co	D20.04	D14.265	506.5	2424.5
Cr	135.35	129	328.8	554
Cu	34.55	d32.955	288.15	1269
Fe	S37215	S37200	S37195	S29040
Mg	15140	15875	17520	255000
Mn	682.5	653.5	1134	1058.5
Na	8265	7730	8030	245000
Ni	119.85	D43.325	524	1950
V	217.1	214.45	722.5	2558
Zn	214.55	158.35	564	1065.5
Pb	D18.775	D-26.245	D441.8	1289
K	D3810	D3629	D4534	255000

Numbers had to be back calculated on soils to remove Corr. Factor of 200.

	9410061-02A	9410061-03A	9410061-04A	9410061-05A	9410061-06A
Ag	D 6.54	D -8.975	D -5.85	D -5.16	D -8.86
Al	31355	~~X~~ 144150	~~X~~ 132550	127200	131300
Ba	261.9	645.5	640.5	520.5	625.5
Be	1.638	4.9475	4.8095	4.7035	4.9735
Ca	S 1055000	65000	195000	225000	200000
Cd	D 4.236	d 21.485	D 11.34	D 24.88	D 12.76
Co	D 23.705	127.1	106.75	108.5	111.9
Cr	103.45	306.8	283.45	274.5	288.25
Cu	42.635	306.9	260.0	254.4	257.85
Fe	S 37155	S 36740	S 36705	S 36685	S 36730
Mg	19840	55000	65000	60000	65000
Mn	856.5	S 7015	S 5825	S 5395	S 5270
Na	9270	1890	4079.5	4011.5	4016.5
Ni	D 35.305	151.95	134.75	127.7	135.2
V	201.9	702.5	708.5	675.0	729.5
Zn	98.6	341.6	339.05	285.55	296.05
Pb	D 33.04	D 29.03	D 68.7	D 58.9	D 88.3
K	6125	7110	D 3291.5	D 2892	D 3092

All Al + Ba numbers should be multiplied by 10. Theoretical concentrations of standards were entered incorrectly.

For soils

$$\frac{\frac{\mu g}{L} \times \frac{0.200\ L}{wt}}{\text{solids in decimal form}}$$

Method: CLP Standard: BLANK

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	D94.00	D218.7	d-1.333	580.3	D6.667	D6.333	D-11.00
SDev	54.06	35.4	1.155	21.5	.577	55.19	20.22
%RSD	57.52	16.18	86.60	3.697	8.660	871.3	183.9
#1	D45.00	D179.0	d-2.000	566.0	D6.000	D-15.00	D-26.00
#2	D152.0	D230.0	d.0000	605.0	D7.000	D-35.00	D-19.00
#3	D85.00	D247.0	d-2.000	570.0	D7.000	D69.00	D12.00

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Avge	D7.667	D134.0	D101.0	D5.333	D7.333	D12.00	D-19.67
SDev	7.638	23.3	20.9	18.01	43.50	.00	12.66
%RSD	99.62	17.36	20.67	337.7	593.2	.0000	64.38
#1	D16.00	D138.0	D91.00	D6.000	D57.00	D12.00	D-34.00
#2	D6.000	D155.0	D87.00	D-13.00	D-24.00	D12.00	D-10.00
#3	D1.000	D109.0	D125.0	D23.00	D-11.00	D12.00	D-15.00

Elem	V_3110	Zn2138	Pb2203	K_7664
Avge	D28.00	D32.67	D22.00	D-7.667
SDev	42.76	19.76	16.70	16.010
%RSD	152.7	60.48	75.92	208.8
#1	D62.00	D29.00	D25.00	D-7.000
#2	D42.00	D15.00	D4.000	D-24.00
#3	D-20.00	D54.00	D37.00	D8.000

Method: CLP Standard: STD A

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	1872.	4497.	11870.	11380.	10710.	3870.	3530.
SDev	39.	13.	30.	27.	49.	51.	23.
%RSD	2.092	.2908	.2547	.2382	.4528	1.309	.6374
#1	1835.	4488.	11860.	11350.	10660.	3907.	3548.
#2	1868.	4491.	11850.	11370.	10760.	3890.	3505.
#3	1913.	4512.	11910.	11400.	10710.	3812.	3538.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Avge	840.3	6141.	11970.	15860.	9570.	9466.	1827.
SDev	32.9	40.	58.	130.	107.	93.	43.
%RSD	3.911	.6575	.4822	.8168	1.115	.9822	2.362
#1	804.0	6097.	11990.	15720.	9460.	9361.	1808.
#2	868.0	6151.	11910.	15920.	9578.	9501.	1796.
#3	849.0	6176.	12020.	15960.	9673.	9537.	1876.

Elem	V_3110	Zn2138	Pb2203	K_7664
Avge	8318.	4121.	D203.7	2605.
SDev	71.	32.	19.1	9.
%RSD	.8591	.7660	9.372	.3354
#1	8242.	4132.	D211.0	2612.
#2	8327.	4145.	D182.0	2607.
#3	8284.	4085.	D218.0	2595.

Method: CLP Standard: STD B

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	8862.	21480.	59510.	51810.	51400.	18290.	16510.
SDev	55.	14.	347.	148.	167.	32.	146.
%RSD	.6232	.0660	.5828	.2859	.3259	.1726	.8866
#1	8922.	21460.	59820.	51910.	51340.	18250.	16480.
#2	8852.	21490.	59590.	51890.	51270.	18310.	16670.
#3	8813.	21480.	59140.	51640.	51590.	18310.	16380.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Avge	4034.	30260.	57280.	81400.	45090.	47260.	8461.
SDev	26.	125.	39.	343.	110.	585.	63.
%RSD	.6516	.4128	.0682	.4208	.2439	1.238	.7404
#1	4015.	30390.	57280.	81050.	45180.	46740.	8533.
#2	4023.	30140.	57320.	81400.	45130.	47140.	8425.
#3	4064.	30250.	57240.	81740.	44970.	47890.	8424.

Elem	V_3110	Zn2138	Pb2203	K_7664
Avge	39730.	19710.	992.7	13720.
SDev	96.	23.	69.0	191.
%RSD	.2409	.1190	6.953	1.389
#1	39810.	19740.	1047.	13880.
#2	39620.	19690.	915.0	13510.
#3	39760.	19700.	1016.	13760.

Method: CLP Standard: STD C

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	17240.	41790.	115600.	97670.	97880.	33960.	31130.
SDev	107.	307.	347.	610.	263.	66.	303.
%RSD	.6228	.7347	.2998	.6243	.2683	.1932	.9734
#1	17320.	41490.	116000.	97810.	97740.	33950.	31370.
#2	17280.	42110.	115300.	98200.	98190.	34020.	30790.
#3	17120.	41790.	115500.	97000.	97720.	33890.	31230.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Avge	7606.	58500.	109100.	159200.	85460.	89580.	15950.
SDev	13.	192.	160.	531.	218.	1002.	50.
%RSD	.1665	.3284	.1466	.3338	.2547	1.119	.3133
#1	7611.	58280.	109300.	159300.	85440.	89130.	15910.
#2	7592.	58590.	109000.	158600.	85260.	88890.	15940.
#3	7616.	58620.	109000.	159600.	85690.	90730.	16000.

Elem	V_3110	Zn2138	Pb2203	K_7664
Avge	76400.	37860.	1872.	26510.
SDev	415.	90.	45.	165.
%RSD	.5426	.2374	2.383	.6222

#1	75980.	37780.	1821.	26400.
#2	76810.	37960.	1905.	26440.
#3	76410.	37830.	1889.	26700.

Method: CLP Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardi
Ag3280	328.068	Multiple	Standards	.057189	-5.39111	11/21/94 05:00
Al3082	308.215	Multiple	Standards	.047293	-10.3632	11/21/94 05:00
Ba4554	455.403	Multiple	Standards	.016981	.006332	11/21/94 05:00
Be3131	313.107	Multiple	Standards	.004879	-2.85517	11/21/94 05:00
Ca3179	317.933	Multiple	Standards	4.87546	-52.1889	11/21/94 05:00
Cd2265	226.502	Multiple	Standards	.068729	-.575043	11/21/94 05:00
Co2286	228.616	Multiple	Standards	.150650	1.36055	11/21/94 05:00
Cr2677	267.716	Multiple	Standards	.125135	-.997552	11/21/94 05:00
Cu3247	324.754	Multiple	Standards	.041974	-5.64651	11/21/94 05:00
Fe2599	259.940	Multiple	Standards	.087719	-9.23161	11/21/94 05:00
Mg2790	279.079	Multiple	Standards	3.12154	-13.0268	11/21/94 05:00
Mn2576	257.610	Multiple	Standards	.016593	-.198724	11/21/94 05:00
Na5889	588.995	Multiple	Standards	5.38434	-73.5555	11/21/94 05:00
Ni2316	231.604	Multiple	Standards	.233564	4.31868	11/21/94 05:00
V_3110	311.071	Multiple	Standards	.062858	-1.94700	11/21/94 05:00
Zn2138	213.856	Multiple	Standards	.050831	-1.73003	11/21/94 05:00
Pb2203	220.353	Multiple	Standards	1.33733	-29.3679	11/21/94 05:00
K_7664	766.490	Multiple	Standards	18.7270	151.802	11/21/94 05:00

Method: CLP

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ag3280	328.068	BLANK	.000000	-.015297	.015297
		STD A	100.000	101.668	-1.6676
		STD B	500.000	501.441	-1.4411
		STD C	1000.00	980.441	19.5587

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Al3082	308.215	BLANK	.000000	-.021869	.021869
		STD A	200.000	202.311	-2.3112
		STD B	1000.00	1005.34	-5.3380
		STD C	2000.00	1966.21	33.7885

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ba4554	455.403	BLANK	.000000	-.016308	.016308
		STD A	200.000	201.577	-1.5765
		STD B	1000.00	1010.60	-10.597
		STD C	2000.00	1963.04	36.9595

CorCoef: 0.99988

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Be3131	313.107	BLANK	.000000	-.023831	.023831
		STD A	50.0000	52.6495	-2.6494
		STD B	250.000	249.929	.070847
		STD C	500.000	473.647	26.3529

CorCoef: 0.99959

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ca3179	317.933	BLANK	.000000	-19.6858	19.6858
		STD A	50000.0	52175.4	-2175.3
		STD B	250000.	250537.	-536.78
		STD C	500000.	477173.	22827.4

CorCoef: 0.99966

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Cd2265	226.502	BLANK	.000000	-.139758	.139758
		STD A	250.000	265.384	-15.384
		STD B	1250.00	1256.51	-6.5052
		STD C	2500.00	2333.15	166.852

CorCoef: 0.99920

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Co2286	228.616	BLANK	.000000	-.296603	.296603
		STD A	500.000	533.206	-33.206
		STD B	2500.00	2488.75	11.2539
		STD C	5000.00	4690.45	309.552

CorCoef: 0.99949

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Cr2677	267.716	BLANK	.000000	-.038181	.038181
		STD A	100.000	104.158	-4.1578
		STD B	500.000	503.799	-3.7986
		STD C	1000.00	950.824	49.1760

CorCoef: 0.99952

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Cu3247	324.754	BLANK	.000000	-.022054	.022054
		STD A	250.000	252.127	-2.1272
		STD B	1250.00	1264.54	-14.543
		STD C	2500.00	2449.64	50.3601

CorCoef: 0.99986

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Fe2599	259.940	BLANK	.000000	-.372020	.372020
		STD A	1000.00	1041.00	-40.995
		STD B	5000.00	5015.30	-15.297
		STD C	10000.0	9559.45	440.551

CorCoef: 0.99967

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Mg2790	279.079	BLANK	.000000	3.62141	-3.6214
		STD A	50000.0	49507.1	492.852
		STD B	250000.	254071.	-4071.3
		STD C	500000.	496786.	3214.06

CorCoef: 0.99992

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Mn2576	257.610	BLANK	.000000	-.077041	.077041
		STD A	150.000	158.604	-8.6037
		STD B	750.000	748.033	1.96674
		STD C	1500.00	1417.90	82.1045

CorCoef: 0.99959

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat:
Na5889	588.995	BLANK	.000000	-8.94341	8.94341
		STD A	50000.0	50896.4	-896.39:
		STD B	250000.	254380.	-4379.5:
		STD C	500000.	482277.	17722.9

CorCoef: 0.99959

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat:
Ni2316	231.604	BLANK	.000000	-.274751	.274751
		STD A	400.000	430.963	-30.962
		STD B	2000.00	1980.43	19.5713
		STD C	4000.00	3729.51	270.486

CorCoef: 0.99947

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat:
V_3110	311.071	BLANK	.000000	-.186987	.186987
		STD A	500.000	520.881	-20.880
		STD B	2500.00	2495.30	4.70215
		STD C	5000.00	4800.60	199.404

CorCoef: 0.99979

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat:
Zn2138	213.856	BLANK	.000000	-.069558	.069558
		STD A	200.000	207.727	-7.7269
		STD B	1000.00	1000.08	-.07830
		STD C	2000.00	1922.57	77.4263

CorCoef: 0.99978

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Pb2203	220.353	BLANK	.000000	.053351	-.05335
		STD A	250.000	243.002	6.99818
		STD B	1250.00	1298.16	-48.155
		STD C	2500.00	2473.67	26.3303

CorCoef: 0.99962

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
K_7664	766.490	BLANK	.000000	8.22815	-8.2281
		STD A	50000.0	48929.5	1070.48
		STD B	250000.	257031.	-7030.7
		STD C	500000.	496643.	3356.69

CorCoef: 0.99981

Method: CLP Sample Name: ICC Operator: JP
Run Time: 11/21/94 17:10:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 99	ug/L 99	ug/L 99	ug/L 94	ug/L 96	ug/L 94	ug/L 93
Avge	990.8	1986.	1980.	471.3	482400.	2361.	4673.
SDev	4.3	7.	3.	1.3	2329.	27.	2.
%RSD	.4354	.3537	.1406	.2821	.4828	1.155	.0518
#1	994.2	1985.	1978.	469.9	483800.	2384.	4676.

#2	992.3	1980.	1983.	472.5	483800.	2331.	4672.
#3	986.0	1994.	1978.	471.5	479800.	2368.	4672.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 95	ug/L 99	ug/L 95	ug/L 101	ug/L 95	ug/L 98	ug/L 94
Avge	952.7	2474.	9545.	505700.	1425.	488100.	3751.
SDev	10.5	20.	40.	1103.	5.	2714.	30.
%RSD	1.106	.8207	.4154	.2181	.3332	.5561	.8103
#1	956.0	2475.	9500.	504500.	1430.	491000.	3783.
#2	940.9	2453.	9563.	506700.	1422.	485700.	3748.
#3	961.2	2494.	9573.	505800.	1422.	487500.	3723.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 96	ug/L 96	ug/L 97	ug/L 100%
Avge	4807.	1928.	2421.	502300.
SDev	14.	13.	6.	6619.
%RSD	.2994	.6846	.2491	1.318
#1	4819.	1943.	2421.	494800.
#2	4791.	1923.	2415.	506900.
#3	4811.	1918.	2427.	505300.

Method: CLP Sample Name: ICV Operator: JP
Run Time: 11/21/94 17:18:06
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 101	ug/L 104	ug/L 103	ug/L 102	ug/L 101	ug/L 101	ug/L 102
Avge	509.0	1036.	1032.	254.7	251300.	253.7	2546.
SDev	3.4	5.	3.	.5	1444.	1.6	24.
%RSD	.6726	.5168	.2568	.2003	.5748	.6349	.9295
#1	505.0	1041.	1035.	254.5	251700.	252.6	2532.
#2	510.7	1036.	1031.	254.3	249700.	252.8	2573.
#3	511.1	1030.	1029.	255.3	252500.	255.5	2532.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 102	ug/L 103	ug/L 103	ug/L 101	ug/L 101	ug/L 101	ug/L 102
Avge	510.8	1283.	5168.	253300.	759.9	253300.	2035.
SDev	9.0	7.	9.	491.	5.7	2558.	12.
%RSD	1.768	.5232	.1695	.1939	.7524	1.010	.5775
#1	514.8	1276.	5169.	253000.	762.4	250400.	2041.
#2	517.1	1284.	5159.	253900.	764.0	254100.	2021.
#3	500.4	1290.	5177.	253000.	753.3	255300.	2042.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 102	ug/L 100	ug/L	ug/L 101.5
Avge	2559.	996.4	D276.0	251900.
SDev	12.	5.7	49.6	4291.
%RSD	.4564	.5740	17.96	1.703
#1	2570.	996.5	D224.7	256800.
#2	2547.	1002.	D279.6	248900.

#3	2561.	990.6	D323.7	250100.

Method: CLP Sample Name: ICB Operator: JP
Run Time: 11/21/94 17:25:23
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D4.960	.1705	d.0000	D14.44	D.0000	D3.018
SDev	2.325	.667	.0098	.1116	5.63	1.531	3.024
%RSD	60.73	13.45	5.751	1878.	38.98	49.47	100.2
#1	D.0000	D5.669	.1761	d.1209	D11.19	D.0000	D6.483
#2	D.0000	D4.865	.1592	d.0000	D11.19	D.0000	D1.662
#3	D.0000	D4.345	.1761	d.0000	D20.94	D.0000	D.9086

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D2.047	D.0000	D3.341	D11.95	D.0391	D12.59	D.0000
SDev	2.893	.8612	2.093	22.51	.4303	5.38	.4671
%RSD	141.3	26.47	62.64	188.4	1100.	42.75	9.751
#1	D4.759	D.0000	D5.681	D30.67	D.0000	D7.210	D.0000
#2	D.0000	D.0000	D1.646	D.0000	D.5314	D17.98	D.0000
#3	D2.381	D.0000	D2.698	D18.19	D.0000	D12.59	D.0000

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D.0000	D120.6
SDev	1.984	1.376	3.538	598.8
%RSD	54.13	202.4	11.04	496.5
#1	D.0000	D.8623	D.0000	D1.986
#2	D.0000	D.0000	D.0000	D.0000
#3	D.0000	D.0000	D.0000	D769.8

Method: CLP Sample Name: ICSAI Operator: JP
Run Time: 11/21/94 17:32:40
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	S19420.	2.316	d.1258	483900.	d22.54	D3.570
SDev	4.141	16.	.029	.0509	478.	2.86	1.759
%RSD	86.62	.0825	1.270	40.49	.0988	12.71	49.27
#1	D.0000	S19400.	2.299	d.0672	484300.	25.06	D5.127
#2	D.0000	S19420.	2.299	d.1599	483900.	d23.14	D1.662
#3	D.0000	S19430.	2.350	d.1502	483400.	d19.43	D3.922

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	158.3	D.0000	S36610.	503800.	21.04	330.3	D3.618

SDev	5.1	3.178	16.	3155.	1.81	9.3	18.62
%RSD	3.234	8.190	.0428	.6263	8.590	2.824	514.7
#1	164.1	D.0000	S36630.	506200.	19.15	335.7	D13.66
#2	156.8	D.0000	S36600.	505000.	21.22	319.5	D.0000
#3	154.2	D.0000	S36610.	500300.	22.75	335.7	D15.06

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D2.663	59.96	D165.4	D170.5
SDev	3.540	1.52	94.9	590.1
%RSD	133.0	2.538	57.39	346.1
#1	D1.007	58.91	D266.2	D189.3
#2	D.2530	59.27	D152.5	D.0000
#3	D6.727	61.71	D77.62	D751.1

Method: CLP Sample Name: ICSABI Operator: JP
Run Time: 11/21/94 17:39:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L 105	ug/L 99	ug/L	ug/L 95	ug/L 96
Avge	1045.	S19480.	52.53	492.5	489700.	948.0	479.9
SDev	3.	11.	.12	1.4	3764.	8.4	4.5
%RSD	.3297	.0590	.2200	.2821	.7687	.8881	.9430
#1	1045.	S19470.	52.44	492.1	486500.	948.0	477.4
#2	1041.	S19480.	52.49	494.1	488700.	956.4	485.1
#3	1048.	S19490.	52.66	491.4	493800.	939.6	477.1

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 115	ug/L 94	ug/L	ug/L	ug/L 99	ug/L	ug/L 95
Avge	573.3	467.6	S36910.	507000.	496.6	319.5	945.7
SDev	6.1	4.8	267.	2607.	1.3	.0	8.2
%RSD	1.057	1.035	.7245	.5142	.2664	.0000	.8628
#1	580.1	473.1	S37030.	507700.	496.0	319.5	944.2
#2	568.5	465.9	S37090.	504100.	498.1	319.5	954.5
#3	571.4	463.8	S36600.	509100.	495.7	319.5	938.3

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 99	ug/L 99	ug/L	ug/L
Avge	495.0	987.0	1227.	D.0000
SDev	1.6	1.7	34.	88.50
%RSD	.3236	.1771	2.737	24.16
#1	496.8	989.0	1258.	D.0000
#2	494.2	985.7	1192.	D.0000
#3	493.9	986.3	1230.	D.0000

Method: CLP Sample Name: CRII Operator: JP
Run Time: 11/21/94 17:47:15

Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D21.83	D10.27	d.0000	10.70	D9.567	D12.21	124.5
SDev	3.48	1.87	.0546	.05	5.630	1.20	4.5
%RSD	15.94	18.21	248.5	.5086	58.85	9.816	3.593
#1	D23.15	D11.77	d.0403	10.72	D6.317	D11.38	121.0
#2	D24.46	D10.87	d.0000	10.74	D16.07	D13.58	129.6
#3	D17.89	D8.175	d.0000	10.63	D6.317	D11.66	123.1

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D22.49	55.82	D1.178	D22.35	35.31	D30.54	97.36
SDev	1.20	1.88	3.151	43.74	.30	3.11	10.42
%RSD	5.347	3.375	267.6	195.7	.8575	10.18	10.70
#1	D22.28	57.99	D1.733	D71.25	35.16	D28.75	105.5
#2	D21.40	54.88	D.0000	D.0000	35.11	D34.13	101.0
#3	D23.78	54.59	D4.014	D8.824	35.66	D28.75	85.60

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	110.9	44.92	D.0000	D.0000
SDev	1.2	.58	38.85	302.7
%RSD	1.101	1.287	64.62	196.5
#1	112.2	45.09	D.0000	D.0000
#2	110.6	45.39	D.0000	D.0000
#3	109.8	44.27	D.0000	D170.5

Method: CLP Sample Name: LCSW Operator: JP
Run Time: 11/21/94 17:54:33
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D45.05/50.0	184.8/200.	190.7/200.	48.16/50.0	269.6	47.21/50.0	472.4/50
SDev	3.15	.3	.7	.21	4.9	1.45	3.2
%RSD	6.984 90	.1704 92	.3428 95	.4400 96	1.808	3.075 94	.6737 9
#1	D47.51	185.1	191.4	47.93	269.6	47.40	476.1
#2	D46.14	184.5	190.1	48.34	274.5	45.68	470.3
#3	D41.50	184.7	190.7	48.21	264.7	48.57	470.8

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	189.5/200.	245.2/250.	971.4/1000.	D12.99	460.3/500.	780.8	478.8/50
SDev	5.5	2.6	3.0	44.62	1.0	6.2	2.2
%RSD	2.895 95	1.074 98	.3045 97	343.6	.2200 92	.7963	.4688 98
#1	184.5	242.2	968.0	D.0000	461.4	777.2	480.8
#2	188.7	246.9	972.8	D61.89	459.5	777.2	476.4
#3	195.3	246.6	973.5	D2.581	460.0	787.9	479.2

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	457.7/500	439.7/500	D395.9	D145.6
SDev	2.1	1.7	34.1	244.4
%RSD	.4607 91	.3805 88	8.619	167.9
#1	458.8	440.7	D430.7	D.0000
#2	455.3	440.7	D394.6	D170.5
#3	459.0	437.8	D362.5	D376.5

Method: CLP Sample Name: LCSS Operator: JP
Run Time: 11/21/94 18:01:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L 104
Avge	D43.12/50	249.6/200	209.5/105	51.51/50	1661.	52.14/50	519.2
SDev	2.69	4.2	1.1	.21	15.	.91	8.4
%RSD	6.243 86	1.689/25%	.5271	.4117 103	.8969	1.744 104	1.619
#1	D42.02	245.0	208.4	51.29	1644.	52.83	509.7
#2	D41.16	250.5	210.6	51.70	1664.	52.48	525.3
#3	D46.19	253.2	209.6	51.55	1674.	51.11	52[illegible]

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 105	ug/L 106	ug/L 156	ug/L	ug/L 104	ug/L	ug/L 104
Avge	209.1	265.2	1560.	D77.50	520.6	292.6	522.4
SDev	3.5	.8	8.	36.80	1.4	.0	18.7
%RSD	1.651	.3102	.5048	47.49	.2720	.0000	3.575
#1	211.7	266.0	1558.	D36.92	519.3	292.6	501.1
#2	205.2	265.3	1552.	D108.7	522.1	292.6	536.1
#3	210.5	264.4	1568.	D86.86	520.3	292.6	529.8

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 102	ug/L 102	ug/L	ug/L
Avge	510.2	503.0	D473.9	D545.1
SDev	2.3	7.6	39.0	211.0
%RSD	.4471	1.510	8.224	38.72
#1	509.3	498.2	D442.7	D657.4
#2	508.4	511.7	D517.6	D676.2
#3	512.7	498.9	D461.4	D301.6

Method: CLP Sample Name: PBW Operator: JP
Run Time: 11/21/94 18:09:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D5.133	.1422	d.0000	2087.	D.0000	D2.415
SDev	2.346	2.162	.0340	.0213	16.	1.704	3.562

%RSD	62.52	42.12	23.89	42.66	.7511	224.6	14[illegible]
#1	D.0000	D7.040	.1761	d.0000	2069.	D.0000	D.0000
#2	D.0000	D2.784	.1082	d.0000	2098.	D.0000	D1.963
#3	D.0000	D5.574	.1422	d.0000	2093.	D.4559	D6.181

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D3.299	D.3977	45.86	D35.88	D1.638	201.0	D1.749
SDev	5.709	.3278	1.37	31.58	.314	9.3	2.526
%RSD	173.1	82.43	2.988	88.02	19.15	4.639	144.4
#1	D.0000	D.2298	46.56	D.0000	D1.394	195.7	D.0000
#2	D.1287	D.7754	44.28	D52.53	D1.992	195.7	D1.049
#3	D9.889	D.1878	46.73	D55.65	D1.527	211.8	D4.552

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	35.14	D.0000	D.0000
SDev	3.201	1.63	53.29	112.4
%RSD	72.77	4.630	249.7	67.46
#1	D.0000	34.00	D.0000	D.0000
#2	D.0000	37.00	D40.17	D.0000
#3	D.0000	34.41	D.0000	D.0000

Method: CLP Sample Name: PBS Operator: JP
Run Time: 11/21/94 18:16:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D4.376	d.0573	d.0000	D138.0	D.4101	D4.926
SDev	1.536	3.304	.0449	.0461	4.9	2.413	6.295
%RSD	107.7	75.49	78.44	1715.	3.534	588.4	127.8
#1	D.3278	D6.284	.0912	d.0136	D133.1	D.0000	D7.537
#2	D.0000	D6.284	d.0743	d.0000	D142.8	D1.556	D9.496
#3	D.0000	D.5614	d.0063	d.0331	D138.0	D2.037	D.0000

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D1.797	D.9853	D14.31	D11.95	D.9130	256.7	D.0000
SDev	2.349	1.757	2.71	14.30	.5176	6.2	4.092
%RSD	130.7	178.4	18.94	119.7	56.69	2.422	66.09
#1	D4.508	D.0000	D12.70	D15.07	D.3654	249.5	D.0000
#2	D.3789	D3.000	D17.43	D24.43	D1.394	260.3	D.00[illegible]
#3	D.5041	D.1878	D12.79	D.0000	D.9794	260.3	D.0[illegible]

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D4.353	D.0000	D176.8
SDev	1.671	.338	13.19	54.1
%RSD	61.37	7.776	69.02	30.58

#1	D.0000	D4.725	D.0000	D208.0
#2	D.0000	D4.268	D.0000	D114.3
#3	D.0000	D4.065	D.0000	D208.0

Method: CLP Sample Name: 9410061-01A Operator: JP
Run Time: 11/21/94 18:23:41
Comment:
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	mg/kg ~~ug/L~~ 627.1	ug/L ~~5.35~~ 33.5	ug/L 0.425	ug/L ?	ug/L 0.876	ug/L 4.88
Avge	D.0000	514900.	2748.	348.8	248e6	D718.9	D4008.
SDev	314.6	2432.	19.	17.2	1126910.	70.5	574.
%RSD	48.59	.4724 6271	.6808	4.928	.4543	9.812	14.32
#1	D.0000	515900.	2728.	364.7	247e6	D778.5	D3677.
#2	D.0000	512100.	2766.	351.1	249e6	D737.2	D3677.
#3	D.0000	516600.	2749.	330.6	248e6	D641.0	D4671.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 32.97	ug/L 8.42	ug/L	ug/L 3688.	ug/L 166.	ug/L 2013.	ug/L 29.1
Avge	27070.	6910.	S7443000.	3028000.	136500.	1653000.	23970.
SDev	1306.	281.	2800.	6254.	733.	15191.	1565.
%RSD	4.823	4.070	.0376	.2065	.5368	.9188	6.528
#1	25950.	6627.	S7443000.	3028000.	135900.	1667000.	24830.
#2	26750.	7190.	S7441000.	3022000.	137300.	1637000.	24920.
#3	28510.	6913.	S7446000.	3034000.	136400.	1656000.	22160.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 52.88	ug/L 52.26	ug/L	ug/L 928.0
Avge	43420.	42910.	D3755.	D762000.
SDev	603.	290.	8352.	40397.
%RSD	1.389	.6760	222.4	5.302
#1	43320.	43200.	D6430.	D779400.
#2	44060.	42620.	D.0000	D790700.
#3	42870.	42930.	D10440.	D715800.

Method: CLP Sample Name: 9410061-01 DUP Operator: JP
Run Time: 11/21/94 18:30:59
Comment:
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 779.2	ug/L ~~5.65~~ 36.3	ug/L 0.424	ug/L	ug/L 0.675	ug/L 3.41
Avge	D.0000	639800.	2977.	348.1	243e6	D554.0	D2853.
SDev	297.4	4456 7792.	17.	13.6	1293227.	579.3	743.
%RSD	37.00	.6966	.5741	3.894	.5327	104.6	26.05
#1	D.0000	634700.	2959.	356.9	243e6	D888.4	D2502.
#2	D.0000	641400.	2980.	355.0	241e6	D.0000	D2351.
#3	D.0000	643100.	2993.	332.5	244e6	D888.4	D3707.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 31.4	ug/L 8.03	ug/L	ug/L 3866.	ug/L 159.	ug/L 1883.	ug/L 10.6
Avge	25800.	d6591.	S7440000.	3175000.	130700.	1546000.	D8665.
SDev	364.	439.	4487.	31023.	407.	8130.	2412.
%RSD	1.409	6.664	.0603	.9770	.3114	.5260	27.84
#1	26180.	d6182.	S7435000.	3192000.	131200.	1538000.	D5909.
#2	25450.	d6535.	S7441000.	3194000.	130400.	1545000.	D10390.
#3	25780.	7056.	S7443000.	3140000.	130600.	1554000.	D9692.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 52.23	ug/L 38.57	ug/L	ug/L 884.
Avge	42890.	31670.	D.0000	D725800.
SDev	495.	316.	2528.	30274.
%RSD	1.153	.9977	48.16	4.171
#1	43350.	31310.	D.0000	D693300.
#2	42370.	31890.	D.0000	D753200.
#3	42970.	31820.	D.0000	D730800.

Method: CLP Sample Name: 9410061-01 SPK #1 Operator: JP
Run Time: 11/21/94 18:38:16
Comment:
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 10.8/50.0	ug/L	ug/L ~~52.1~~	ug/L 12.3-.425	ug/L	ug/L 12.5-.876	ug/L
Avge	D8941.	1006000.	42740.	10080. 50.0	248e6	10250. 50.	101300.
SDev	259.	5768.	202.	50 x100	1133031.	252.	1462.
%RSD	2.892 x100 =22%	.5731	.4718	.4987 =25%	.4563	2.462 23%	1.442
		12251-6271/2000	521-33.5/2000				123.-4.88/1014005
#1	D8644.	1001000. 30%	42570. 24%	10120.	249e6	10540.	
#2	D9067.	1006000.	42690.	10090.	247e6	10070.	99850. x100
#3	D9113.	1012000.	42970.	10020.	248e6	10140.	102800.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	65760.	57630.	S7439000.	3504000.	226800.	1606000.	104800.
SDev	537.	282.	5821.	34025.	710.	9031.	1270.
%RSD	.8165	.4895	.0782	.9711	.3131	.5625	1.212
	80.1-33.0/200 x100=24%	70.2-8.42/250			276-166/500		128-29.2/500
#1	66120.	57920.	S7443000.	3504000.	227400. 22%	1611000. 20%	103400.
#2	65150.	57360. x100	S7432000.	3470000.	227100.	1610000.	105100.
#3	66020.	57600. =25%	S7442000.	3538000.	226000.	1595000.	105900.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	144500.	112800.	D88360.	D906800.
SDev	710.	1032.	5523.	49547.
%RSD	.4913	.9149	6.250	5.464
	176-52.9/500.	137.-52.3/500=17%		
#1	144600. 25%	112500.	D94690.	D944200.
#2	145100.	114000.	D84530.	D850600.
#3	143700.	111900.	D85870.	D925500.

Method: CLP Sample Name: 9410061-01 SPK INS Operator: JP
Run Time: 11/21/94 18:45:34
Comment:
Mode: CONC Corr. Factor: 200

591-2.44/60

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L x100 = %
Avge	78160.	452500.	199200.	49350.	173e6	240500.	484900.
SDev	6122.	1730.	887.	128.	671521.	2070.	2504.
%RSD	7.833	.3823	.4452	.2599	.3878	.8607	.5164
	95.2-122.7 78%	5510-3140/48.7x100		60.1-.213/60.9		293-.438/304 x100	
#1	71620.	451900 =	198200.	49440. x100	174e6	239000 = 96	482900.
#2	79100.	454400.	199800.	49200. = 98%	173e6	242900.	487700.
#3	83760.	451100.	199700.	49410.	172e6	239700.	484200.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	110800.	253800.	S5808000.	51e6	211700.	49e6	390000.
SDev	365.	1841.	33236.	261151.	303.	228948.	2460.
%RSD	.3293	.7252	.5722	.5098	.1433	.4646	.6307
	135.-16.5/122	309-4.21/304x100			258-83/183x100	475.-14.6/487	
#1 x100	110300.	253600 =	S5770000.	51e6	211400. = 93%	49e6 x100	388300.
#2 = 97%	110900.	255700. 100%	S5831000.	51e6	211600.	49e6 = 95%	388900.
#3	111000.	252100.	S5824000.	51e6	212000.	49e6	392800.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	511600.	213100.	257800.	51e6
SDev	2416.	464.	5268.	87116.
%RSD	.4722	.2176	2.043	.1717
	623-26.5/609x100=98%		260-26.2/234x100=96%	
#1	514400.	213400.	259500.	51e6
#2	510400.	213400.	252000.	51e6
#3	509900.	212600.	262100.	51e6

Method: CLP Sample Name: 9410061-02A Operator: JP
Run Time: 11/21/94 18:52:50
Comment:
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 4.00	ug/L 8287.	ug/L 69.22	ug/L 0.433	ug/L	ug/L 1.12	ug/L 6.2
Avge	D1308.	627100.	5238.	327.6	211e6	D847.2	D4741.
SDev	379.	4237.	21.	10.3	779318.	478.7	1147.
%RSD	29.00	.6757	.4049	3.152	.3686	56.51	24.19
#1	D1221.	626600.	5221.	315.9	211e6	D998.4	D3556.
#2	D1724.	623100.	5262.	335.4	212e6	D311.1	D5846.
#3	D980.6	631500.	5231.	331.5	212e6	D1232.	D4822.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 27.34	ug/L 11.3	ug/L	ug/L 5243.	ug/L 226.	ug/L 2450.	ug/L 9.3.
Avge	20690.	8527.	S7431000.	3968000.	171300.	1854000.	D7061.
SDev	844.	392.	750.	22822.	573.	3109.	1041.
%RSD	4.078	4.597	.0101	.5752	.3344	.1677	14.74
#1	21470	8970	S7431000	3963000.	171400	1850000	D7721

#2	20800.	8390.	S7431000.	3992000.	171900.	1856000.	D7590.
#3	19800.	8222.	S7430000.	3947000.	170700.	1856000.	D5862.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 53.4	ug/L 26.06	ug/L	ug/L 1619.
Avge	40380.	19720.	D6608.	1225000.
SDev	641.	325.	13e3	56554.
%RSD	1.588	1.650	191.1	4.616
#1	40370.	19710.	D.0000	1173000.
#2	41030.	20050.	D18470.	1218000.
#3	39750.	19400.	D8035.	1285000.

Method: CLP Sample Name: CCV1 Operator: JP
Run Time: 11/21/94 19:00:09
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 103%	ug/L 103%	ug/L 102%	ug/L 103%	ug/L 102%	ug/L 102%	ug/L 103
Avge	512.6	1032.	1023.	257.8	254700.	256.0	2573.
SDev	3.6	10.	7.	.7	656.	3.4	11.
%RSD	.7116	.9265	.7079	.2817	.2576	1.339	.4128
#1	508.8	1024.	1024.	258.2	255200.	252.1	2561.
#2	516.1	1042.	1015.	257.0	254900.	258.6	2577.
#3	513.0	1029.	1029.	258.3	253900.	257.4	2581.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 102%	ug/L 103	ug/L 107	ug/L 103	ug/L 103	ug/L 98	ug/L 101
Avge	510.8	1282.	5186.	255900.	769.3	244200.	2020.
SDev	.4	2.	11.	1588.	3.0	625.	22.
%RSD	.0748	.1658	.2037	.6206	.3856	.2558	1.070
#1	510.4	1284.	5198.	254200.	772.4	244000.	2044.
#2	511.2	1281.	5178.	256000.	769.1	244900.	2003.
#3	510.7	1280.	5181.	257400.	766.5	243800.	2013.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 102	ug/L 100	ug/L	ug/L 100%
Avge	2560.	999.3	D257.3	249500.
SDev	20.	8.5	8.9	3235.
%RSD	.7953	.8538	3.461	1.297
#1	2575.	989.9	D264.8	252300.
#2	2537.	1007.	D247.5	250200.
#3	2569.	1001.	D259.5	245900.

Method: CLP Sample Name: CCB1 Operator: JP
Run Time: 11/21/94 19:07:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

Avge	D.0000	D3.572	d.0346	d.0575	D.0000	D.0000	D.0000
SDev	.9778	.322	.0098	.0894	4.875	1.373	5.983
%RSD	31.31	9.011	28.31	155.6	14.92	50.74	13140.
#1	D.0000	D3.683	d.0403	d.0000	D.0000	D.0000	D6.784
#2	D.0000	D3.210	d.0233	d.1551	D.0000	D.0000	D.0000
#3	D.0000	D3.825	d.0403	d.0380	D.0000	D.0000	D.0000

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D1.297	D.0000	D.0000	D.0000	D.0000	D3.620	D.0000
SDev	3.398	1.329	3.749	15.40	.3498	6.217	10.05
%RSD	262.1	99.38	479.8	327.4	38.11	171.7	1030.
#1	D.0000	D.0619	D1.470	D5.702	D.0000	D7.210	D.0000
#2	D.8795	D.0000	D.0000	D2.581	D.0000	D.0000	D9.224
#3	D4.884	D.0000	D1.295	D.0000	D.0000	D7.210	D.0000

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D.0000	D264.2
SDev	3.143	.7978	35.29	99.1
%RSD	60.02	126.9	79.26	37.51
#1	D.0000	D.0000	D.0000	D376.5
#2	D.0000	D.0000	D.0000	D189.3
#3	D.0000	D.0000	D.0000	D226.7

Method: CLP Sample Name: 9410061-03A Operator: JP
Run Time: 11/21/94 19:14:42
Comment:
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 4.07	ug/L	ug/L 163.4	ug/L 125.	ug/L	ug/L 544	ug/L 32.1
Avge	D.0000	S2883000.	12910.	989.5	13e6	d4297.	25420.
SDev	207.6	10948.	7.	4.4	32463.	1003.	1246.
%RSD	11.56	.3798	.0548	.4446	.2444	23.34	4.902
#1	D.0000	S2895000.	12900.	985.3	13e6	d3555.	26790.
#2	D.0000	S2877000.	12910.	989.2	13e6	d5438.	24350.
#3	D.0000	S2876000.	12920.	994.1	13e6	d3899.	25130.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 776.	ug/L 76.15	ug/L	ug/L	ug/L	ug/L 478.3	ug/L 38.
Avge	61360.	60180.	S7348000.	11e6	S1403000.	378000.	30390.
SDev	1815.	763.	15742.	27292.	4577.	1645.	531.
%RSD	2.958	1.267	.2142	.2519	.3262	.4352	1.746
#1	61320.	61060.	S7356000.	11e6	S1403000.	379400.	30620.
#2	59570.	59790.	S7330000.	11e6	S1398000.	376200.	30760.
#3	63190.	59690.	S7358000.	11e6	S1407000.	378300.	29780.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 178.	ug/L 86.45	ug/L	ug/L 1799.
Avge	140500.	68320.	D5806.	1422000.

SDev	7.	773.	4757.	41426.
%RSD	.0052	1.131	81.94	2.912
#1	140500.	68320.	D10980.	1427000.
#2	140500.	69100.	D1615.	1379000.
#3	140500.	67550.	D4825.	1461000.

Method: CLP Sample Name: 9410061-04A Operator: JP
Run Time: 11/21/94 19:21:59
Comment:
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 33187.	ug/L 160.4	ug/L 1.20	ug/L	ug/L 2.84	ug/L 26.
Avge	D.0000	2651000.	12810.	961.9	39e6	D2268.	21350.
SDev	357.3	4211.	44.	12.9	62049.	688.	1356.
%RSD	30.55	.1588	.3447	1.342	.1597	30.35	6.349
#1	D.0000	2655000.	12830.	947.3	39e6	D1919.	22810.
#2	D.0000	2647000.	12760.	966.8	39e6	D3060.	20130.
#3	D.0000	2653000.	12840.	971.6	39e6	D1823.	21120.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 70.97	ug/L 65.09	ug/L	ug/L	ug/L	ug/L 1021.	ug/L 33.
Avge	56690.	52000.	S7341000.	13e6	S1165000.	815900.	26950.
SDev	902.	538.	2890.	104083.	2373.	9031.	1472.
%RSD	1.592	1.034	.0394	.8301	.2038	1.107	5.461
#1	57440.	52520.	S7338000.	13e6	S1162000.	811200.	28420.
#2	55690.	51450.	S7342000.	12e6	S1165000.	826300.	26930.
#3	56940.	52020.	S7343000.	12e6	S1167000.	810200.	25480.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 177.4	ug/L 84.89	ug/L	ug/L 824.1
Avge	141700.	67810.	D13740.	D658300.
SDev	366.	305.	20342.	78057.
%RSD	.2585	.4498	148.0	11.86
#1	141300.	67500.	D.0000	D727000.
#2	141900.	68110.	D34510.	D573400.
#3	142000.	67810.	D12850.	D674600.

Method: CLP Sample Name: 9410061-05A Operator: JP
Run Time: 11/21/94 19:29:16
Comment:
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 31730.	ug/L 129.8	ug/L 1.17	ug/L	ug/L 6.21	ug/L 27.0
Avge	D.0000	2544000.	10410.	940.7	45e6	d4976.	21700.
SDev	384.8	11108.	35.	17.2	343512.	626.	723.
%RSD	37.27	.4366	.3390	1.833	.7644	12.59	3.333
#1	D.0000	2542000.	10430.	952.1	45e6	5191.	21330.
#2	D.0000	2556000.	10370.	920.9	45e6	d4270.	22540.

#3	D.0000	2534000.	10430.	949.2	45e6	5466.	21240.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 68.48	ug/L 63.47	ug/L	ug/L	ug/L	ug/L 1001.	ug/L 31.8
Avge	54900.	50880.	S7337000.	12e6	S1079000.	802300.	25540.
SDev	1000.	530.	3700.	40053.	2794.	9159.	495.
%RSD	1.821	1.042	.0504	.3205	.2589	1.142	1.938
#1	55210.	50930.	S7336000.	12e6	S1081000.	809100.	25620.
#2	55710.	51390.	S7342000.	12e6	S1081000.	791900.	25010.
#3	53780.	50330.	S7335000.	13e6	S1076000.	805900.	26000.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 168.4	ug/L 71.24	ug/L	ug/L 721.5
Avge	135000.	57110.	D11780.	D578400.
SDev	670.	493.	9762.	28360.
%RSD	.4962	.8637	82.87	4.903
#1	135400.	57610.	D16590.	D610900.
#2	134200.	57090.	D18200.	D558500.
#3	135300.	56630.	D545.6	D566000.

Method: CLP Sample Name: 9410061-06A Operator: JP
Run Time: 11/21/94 19:36:33
Comment:
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 32944.	ug/L 156.9	ug/L 1.25.	ug/L	ug/L 3.20	ug/L 28.6
Avge	D.0000	2626000.	12510.	994.7	40e6	D2552.	22380.
SDev	241.6	12397.	140.	6.3	90553.	798.	302.
%RSD	13.64	.4722	1.116	.6306	.2237	31.26	1.349
#1	D.0000	2629000.	12640.	990.2	41e6	D3143.	22360.
#2	D.0000	2612000.	12540.	1002.	40e6	D2868.	22090.
#3	D.0000	2636000.	12360.	992.1	40e6	D1644.	22690.

Elem	Cr2677 72.32	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L ~~722.7~~	ug/L 64.70	ug/L	ug/L	ug/L	ug/L 1008.	ug/L 33.9
Avge	57650.	51570.	S7346000.	13e6	S1054000.	803300.	27040.
SDev	420.	672.	7228.	7705.	4408.	3290.	454.
%RSD	.7281	1.304	.0984	.0597	.4183	.4095	1.678
#1	57390.	50800.	S7347000.	13e6	S1053000.	806900.	26930.
#2	57440.	52040.	S7353000.	13e6	S1059000.	802600.	27540.
#3	58140.	51870.	S7338000.	13e6	S1050000.	800500.	26650.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 183.0	ug/L 74.28	ug/L	ug/L 775.8
Avge	145900.	59210.	D17660.	D618400.
SDev	604.	981.	7715.	133318.
%RSD	.4139	1.658	43.68	21.56
#1	145500.	59180.	D26220.	D532200.
#2	146500.	58240.	D11240.	D772000.
#3	145500.	60200.	D15520.	D551000.

Method: CLP Sample Name: CCV2 Operator: JP
Run Time: 11/21/94 19:43:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 101	ug/L 104	ug/L 103	ug/L 103	ug/L 102	ug/L 101	ug/L 103
Avge	506.6	1039.	1026.	257.7	255900.	253.3	2587.
SDev	2.4	2.	7.	1.0	690.	2.1	17.
%RSD	.4717	.1819	.6347	.3954	.2696	.8372	.6735
#1	509.1	1041.	1027.	257.1	255200.	254.3	2594.
#2	506.3	1038.	1032.	257.0	255900.	250.9	2567.
#3	504.4	1037.	1019.	258.8	256600.	254.8	2599.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 105	ug/L ~~108~~	ug/L 103	ug/L 102	ug/L 103	ug/L 99	ug/L 102
Avge	526.0	1296. 104	5164.	254900.	767.7	246400.	2048.
SDev	10.9	3.	17.	796.	.6	1177.	15.
%RSD	2.072	.2560	.3389	.3125	.0831	.4777	.7434
#1	526.6	1294.	5165.	255800.	767.9	246400.	2038.
#2	536.6	1294.	5180.	254200.	768.1	247600.	2066.
#3	514.8	1300.	5145.	254600.	766.9	245300.	2041.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 103	ug/L 100	ug/L	ug/L 100
Avge	2581.	999.2	D229.2	249800.
SDev	8.	2.0	67.9	2457.
%RSD	.3259	.2049	29.61	.9839
#1	2585.	1002.	D292.9	249100.
#2	2586.	998.2	D236.8	252500.
#3	2571.	997.8	D157.9	247700.

Method: CLP Sample Name: CCB2 Operator: JP
Run Time: 11/21/94 19:51:09
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D5.023	.1761	D.0000	D22.57	D1.372	D.0000
SDev	5.656	1.653	.0340	.0550	2.81	1.481	1.529
%RSD	194.2	32.92	19.28	5.863	12.47	107.9	204.3
#1	D3.130	D5.905	.2101	D.0000	D20.94	D1.487	D.0000
#2	D.0000	D3.115	.1761	D.0000	D25.82	D2.793	D.0000
#3	D.0000	D6.047	.1422	D.0000	D20.94	D.0000	D.6073

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D.9730	D4.662	D.0000	D.0000	D3.462
SDev	4.840	.8121	.9702	83.14	.2259	5.384	1.888

%RSD	290.7	32.87	99.71	1783.	589.4	151.3	54.53
#1	D.0000	D.0000	D.0666	D.0000	D.2161	D.0000	D1.749
#2	D2.882	D.0000	D.8560	D46.28	D.0000	D1.825	D3.151
#3	D.0000	D.0000	D1.996	D58.77	D.0000	D.0000	D5.487

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.4218	D.0000	D214.2
SDev	1.196	1.132	18.25	161.5
%RSD	40.24	268.5	70.75	75.37
#1	D.0000	D.0000	D.0000	D245.4
#2	D.0000	D1.726	D.0000	D357.8
#3	D.0000	D.0000	D.0000	D39.44

Method: CLP Sample Name: 9410061-13A Operator: JP
Run Time: 11/21/94 19:58:27
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L 2235	ug/L 26.9	ug/L	ug/L	ug/L
Avge	D.0000	S18710.	223.5	26.93	S2067000.	177.8	982.1
SDev	1.471	45.	1.8	.26	10756.	3.7	14.5
%RSD	5.595	.2429	.8275	.9777	.5204	2.087	1.479
#1	D.0000	S18690.	223.2	27.22	S2061000.	175.6	990.5
#2	D.0000	S18690.	225.5	26.72	S2079000.	175.6	965.4
#3	D.0000	S18770.	221.9	26.85	S2060000.	182.0	990.5

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	2138.	2620.	D21040.	835300.	S6863.	733900.	1201.
SDev	8.	30.	25.	3345.	1.	2466.	10.
%RSD	.3520	1.161	.1187	.4004	.0207	.3359	.8459
#1	2147.	2655.	D21060.	837100.	S6861.	732800.	1196.
#2	2135.	2598.	D21010.	831400.	S6862.	736800.	1212.
#3	2133.	2608.	D21030.	837300.	S6864.	732200.	1194.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	2985.	3246.	D521.2	133100.
SDev	16.	21.	45.5	514.
%RSD	.5375	.6577	8.730	.3864
#1	2975.	3259.	D474.8	133500.
#2	3003.	3257.	D565.7	132500.
#3	2975.	3221.	D522.9	133300.

Method: CLP Sample Name: 9410061-13 DUP Operator: JP
Run Time: 11/21/94 20:05:44
Comment:

Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L 2510.	ug/L 23.6	ug/L	ug/L	ug/L
Avge	D.0000	S18720.	251.1	23.59	S2066000.	174.5	975.1
SDev	2.777	10.	.3	.30	9593.	2.1	14.3
%RSD	9.799	.0529	.1164	1.262	.4644	1.221	1.465
#1	D.0000	S18730.	251.3	23.29	S2060000.	176.6	962.1
#2	D.0000	S18710.	250.8	23.89	S2060000.	172.3	990.4
#3	D.0000	S18720.	251.2	23.60	S2077000.	174.5	972.9

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	2002.	2717.	D21180.	861900.	S6889.	768100.	1187.
SDev	15.	9.	26.	2622.	17.	5665.	15.
%RSD	.7441	.3477	.1241	.3042	.2510	.7375	1.285
#1	2017.	2718.	D21210.	864500.	S6903.	774600.	1175.
#2	2001.	2707.	D21160.	859300.	S6869.	765700.	1183.
#3	1987.	2725.	D21160.	861800.	S6894.	764100.	1204.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	2358.	3293.	D488.2	137000.
SDev	4.	13.	80.7	395.
%RSD	.1613	.3834	16.52	.2881
#1	2353.	3279.	D397.2	137000.
#2	2360.	3294.	D516.3	137300.
#3	2360.	3305.	D551.0	136500.

Method: CLP Sample Name: 9410061-13 SPK #1 Operator: JP
Run Time: 11/21/94 20:13:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	6416.	190.1	14.08	S2072000.	31.20	288.1
SDev	2.378	46.	1.0	.06	3871.	.14	7.3
%RSD	38.41	.7196	.5239 1901-2235	.4524	.1868	.4585	2.540
#1	D.0000	6464.	190.2	14.15	S2070000.	31.32	282.8
#2	D.0000	6412.	189.0	14.05	S2077000.	31.25	296.5
#3	D.0000	6371.	191.0	14.03	S2070000.	31.04	285.2

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	169.7	255.9	S36740.	177300.	S7059.	214700.	288.3
SDev	4.4	2.0	10.	1179.	30.	401.	16.4
%RSD	2.615	.7858	.0265	.6648	.4190	.1869	5.675
#1	173.7	253.7	S36730.	176800.	S7025.	214200.	285.1
#2	164.9	257.6	S36740.	176500.	S7076.	214900.	273.9
#3	170.6	256.3	S36750.	178700.	S7076.	214900.	306.1

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	671.1	641.1	D137.4	23490.
SDev	5.0	3.9	63.3	396.
%RSD	.7509	.6070	46.11	1.688
#1	672.6	637.9	D204.7	23190.
#2	665.5	645.4	D78.96	23340.
#3	675.2	640.0	D128.4	23940.

Method: CLP Sample Name: 9410061-13 SPK #2 Operator: JP
Run Time: 11/21/94 20:20:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	S14510.	446.8	32.34	S2060000.	68.31	622.5
SDev	1.867	23.	3.4	.06	225.	5.27	8.5
%RSD	49.78	.1594	.7637	.1779	.0109	7.719	1.364
#1	D.0000	S14520.	443.1	32.40	S2060000.	72.83	629.3
#2	D.0000	S14520.	447.2	32.29	S2060000.	62.52	613.0
#3	D.0000	S14480.	449.9	32.32	S2060000.	69.60	625.4

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	350.3	558.3	S36110.	408800.	S6955.	544100.	629.6
SDev	9.7	6.8	31.	1360.	4.	3336.	9.7
%RSD	2.756	1.211	.0849	.3326	.0507	.6132	1.544
#1	360.8	557.3	S36070.	407300.	S6958.	540300.	618.4
#2	341.7	552.0	S36130.	409600.	S6957.	546200.	635.6
#3	348.4	565.4	S36120.	409600.	S6951.	545900.	634.7

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	1438.	1404.	D363.8	59320.
SDev	6.	9.	27.8	630.
%RSD	.4054	.6556	7.649	1.062
#1	1432.	1401.	D331.7	58600.
#2	1439.	1397.	D381.2	59570.
#3	1443.	1414.	D378.5	59780.

Method: CLP Sample Name: 9410061-13 SPK INST Operator: JP
Run Time: 11/21/94 20:27:33
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	478.1 /500	S19390.	1026 /1000	232.2 -11.8	S2070000.	1105. -87.3	2621 -48
SDev	.9 x100	10.	5. x100	1.9 250	682.	16. 12.50	5. 250 x100
%RSD	.1810 = 96%	.0538	.4609 = 103%	.8232 x100 = 88%	.0330	1.484 x100 = 81%	.1869 = 85

#1	477.1	S19390.	1030.	230.1	S2069000.	1103.	2616.
#2	478.8	S19390.	1021.	233.9	S2070000.	1090.	2625.
#3	478.4	S19400.	1026.	232.6	S2071000.	1122.	2621.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	1522. -1069	2475. -1310	S35190.	667600.	S6963.	603700.	2300. -600
SDev	~~16.~~ 500	1 1250	16.	486.	1.	6298.	39. 200
%RSD	1.033 91%	.0379 x100 =93%	.0445	.0728	.0115	1.043	1.697 85
#1	1504.	2474.	S35210.	667100.	S6963.	597700.	2327.
#2	1531.	2476.	S35180.	668100.	S6962.	610300.	2256.
#3	1531.	2475.	S35180.	667500.	S6964.	603100.	2319.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	3783. -1493	2533. -1623	1470.	314000.
SDev	11. 2500	29. 1000	62.	4192.
%RSD	.2823 x100 =92%	1.133 x100 =91%	4.189	1.335
#1	3776.	2502.	1455.	318800.
#2	3779.	2538.	1418.	312200.
#3	3796.	2559.	1538.	311000.

Method: CLP Sample Name: 9410061-18A Operator: JP
Run Time: 11/21/94 20:34:50
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 46.44	ug/L 1140.	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D4.644	114.0	.1632	337100.	D.0000	D5.478
SDev	2.790	1.587	.5	.0123	1521.	2.265	6.183
%RSD	58.83	34.17	.4532	7.524	.4512	100.8	112.9
#1	D.0000	D5.101	114.4	.1746	336500.	D.0000	D9.345
#2	D.0000	D2.879	113.5	.1648	336000.	D.0000	D8.742
#3	D.0000	D5.953	114.3	.1502	338800.	D.0000	D.0000

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D5.051	D2.217	73.22	119700.	416.0	867500.	D.0000
SDev	8.900	.798	4.26	250.	4.1	5094.	8.426
%RSD	176.2	36.00	5.815	.2092	.9950	.5872	223.0
#1	D.8795	D1.405	77.96	120000.	413.1	871600.	D.0000
#2	D.0000	D2.245	69.72	119500.	414.2	861800.	D4.319
#3	D15.27	D3.000	72.00	119600.	420.7	869200.	D.0000

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D18.92	96.42	D4.065	38670.
SDev	1.20	2.34	33.41	276.
%RSD	6.338	2.425	821.7	.7133

#1	D19.55	94.09	D.0000	38970.
#2	D19.68	98.76	D30.81	38430.
#3	D17.54	96.42	D14.76	38620.

Method: CLP Sample Name: 9410061-18 DUP Operator: JP
Run Time: 11/21/94 20:42:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 41.24	ug/L 1120.	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D4.124	112.0	d.1160	341500.	D.4330	D.0000
SDev	.4368	2.748	.5	.0352	451.	1.389	5.424
%RSD	15.40	66.63	.4576	30.32	.1319	320.8	230.3
#1	D.0000	D1.082	111.4	d.0770	341400.	D.0000	D.0000
#2	D.0000	D4.865	112.2	d.1453	341900.	D2.037	D3.018
#3	D.0000	D6.426	112.3	d.1258	341000.	D.0000	D.0000

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D2.161	93.57	121700.	416.1	869300.	D8.679
SDev	3.784	.764	.55	685.	4.0	8362.	11.45
%RSD	197.6	35.34	.5854	.5632	.9546	.9620	131.9
#1	D.0000	D3.042	93.40	122400.	411.8	859700.	D20.20
#2	D.0000	D1.699	93.14	121400.	416.6	873300.	D8.523
#3	D2.256	D1.741	94.19	121100.	419.7	874900.	D.0000

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D16.51	94.92	D.0000	37570.
SDev	1.04	1.36	56.43	654.
%RSD	6.282	1.433	373.6	1.742
#1	D15.65	93.78	D.0000	37030.
#2	D17.66	96.42	D48.20	37400.
#3	D16.22	94.54	D.0000	38300.

Method: CLP Sample Name: 9410061-18 SPK #1 Operator: JP
Run Time: 11/21/94 20:49:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 1990-46.40 / 2000	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	d53.99/50.0	199.0 97%	305.4	50.46 -.113 / 50.0	341500.	47.58/50.0	496.7-5. / 5x
SDev	3.86 x100	3.5	.4	.19	1595.	1.56 x100	8.8
%RSD	7.148 = 108	1.758	.1161	.3832 x100 = 101%	.4669	3.276 = 95%	1.764 98
			3054.-1140/2000				
#1	d58.43	203.0	305.6 x100	50.64	339700.	45.82	490.7
#2	d52.08	197.1	305.0 = 96%	50.48	342700.	48.15	492.8
#3	d51.46	196.8	305.7	50.26	342200.	48.77	506.8

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316

Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	201.6 -5.05	249.1 -2.22	1264. -73.2	120200.	908.0 -416	865400.	510.5 /50
SDev	4.0 200	1.6 250 x100	6. 1000 x100	733.	5.6 500	4178.	8.1 x10
%RSD	1.995 x100 =98%	.6427 =99%	.4794 =119%	.6096	.6119 x100 =98%	.4828	1.586 =10%
#1	200.1	250.9	1257.	121000.	909.7	865200.	519.8
#2	198.5	247.7	1264.	119500.	901.8	861300.	505.5
#3	206.1	248.6	1270.	120100.	912.5	869600.	506.0

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	520.5 -18.9	565.9 -96.4	D383.0	38350.
SDev	1.0 500	2.9 500	68.2	414.
%RSD	.1993 x100 =100%	.5172 x100 =94%	17.80	1.080
#1	521.5	569.3	D349.1	38820.
#2	520.5	564.6	D338.4	38040.
#3	519.5	563.9	D461.4	38210.

Method: CLP Sample Name: 9410061-18 SPK #2 Operator: JP
Run Time: 11/21/94 20:56:44
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D49.40	201.2	311.5	51.11	344800.	52.05	497.8
SDev	1.59	3.1	2.8	.22	1270.	2.76	4.1
%RSD	3.223	1.558	.9128	.4250	.3684	5.309	.8239
#1	D51.11	197.6	311.2	51.35	344700.	55.23	493.1
#2	D49.11	203.4	314.4	51.05	346200.	50.28	499.4
#3	D47.97	202.6	308.8	50.93	343600.	50.63	500.8

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	198.9	248.3	1039.	121400.	913.2	876400.	505.4
SDev	2.6	2.5	4.	412.	3.8	5303.	1.9
%RSD	1.308	.9918	.3410	.3396	.4197	.6051	.3848
#1	200.0	250.8	1035.	121500.	911.7	880700.	506.9
#2	200.8	245.9	1041.	120900.	910.4	878000.	506.0
#3	196.0	248.0	1040.	121700.	917.6	870400.	503.2

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	524.7	564.8	D420.9	38790.
SDev	4.4	1.9	49.3	395.
%RSD	.8447	.3420	11.70	1.018
#1	519.6	562.9	D387.9	38350.
#2	526.2	566.8	D477.5	38900.
#3	528.1	564.8	D397.2	39120.

Method: CLP Sample Name: 9410061-18 SPK INS Operator: JP
Run Time: 11/21/94 21:04:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	503.9	994.9	1077.	253.8	428400.	1235.	2478.
SDev	1.4	2.7	5.	.8	2831.	10.	9.
%RSD	.2810	.2761	.4483	.3228	.6607	.8094	.3731
#1	505.5	996.6	1080.	254.8	425400.	1224.	2484.
#2	503.4	996.4	1071.	253.5	429100.	1244.	2482.
#3	502.9	991.7	1079.	253.3	430900.	1236.	2467.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	497.6	1252.	5013.	316000.	957.8	676100.	1947.
SDev	8.8	2.	17.	1084.	1.9	3074.	31.
%RSD	1.761	.1601	.3398	.3430	.1972	.4547	1.598
#1	489.0	1250.	5015.	317100.	956.7	674900.	1951.
#2	506.6	1253.	4994.	314900.	960.0	679600.	1976.
#3	497.3	1253.	5028.	316000.	956.8	673800.	1914.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	2498.	1043.	1265.	275100.
SDev	6.	5.	119.	1913.
%RSD	.2296	.4855	9.419	.6954
#1	2505.	1040.	1315.	275000.
#2	2494.	1040.	1351.	273300.
#3	2495.	1049.	1129.	277100.

Method: CLP Sample Name: CRIF Operator: JP
Run Time: 11/21/94 21:11:17
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D17.22	D1.523	.2158	10.51	D32.32	D9.643	126.5
SDev	3.13	1.373	.0098	.01	2.81	1.698	4.4
%RSD	18.18	90.12	4.544	.1072	8.710	17.61	3.478
#1	D20.17	D1.460	.2101	10.49	D30.69	D11.45	124.1
#2	D17.54	D2.926	.2271	10.51	D30.69	D9.391	123.7
#3	D13.94	D.1831	.2101	10.51	D35.57	D8.085	131.5

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D23.07	54.43	71.18	D.0000	35.19	120.3	106.0
SDev	2.54	1.37	.71	16.22	.60	9.3	4.1
%RSD	11.01	2.516	1.004	51.08	1.698	7.753	3.882
#1	D20.15	55.93	72.00	D.0000	35.08	125.7	102.6

#2	D24.78	54.12	70.86	D.0000	34.66	125.7	110.6
#3	D24.28	53.24	70.68	D.0000	35.84	109.5	104.8

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	111.2	45.51	D.0000	D.0000
SDev	2.7	2.43	28.60	348.0
%RSD	2.468	5.348	74.70	1514.
#1	114.1	44.73	D.0000	D76.89
#2	110.9	48.24	D.0000	D264.2
#3	108.6	43.56	D.0000	D.0000

Method: CLP Sample Name: ICSAF Operator: JP
Run Time: 11/21/94 21:18:34
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L 103	ug/L	ug/L
Avge	D.0000	S19430.	2.435	d.0000	514600.	D7.375	D13.06
SDev	1.754	5.	.017	.0614	712.	4.702	9.61
%RSD	15.65	.0264	.6975	811.2	.1384	63.76	73.54
#1	D.0000	S19440.	2.452	d.0000	514800.	D9.185	D14.77
#2	D.0000	S19430.	2.418	d.0000	515200.	D10.90	D2.716
#3	D.0000	S19430.	2.435	d.0575	513900.	D2.037	D21.70

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L 105	ug/L	ug/L	ug/L
Avge	182.7	D.0000	S36800.	527100.	22.61	375.1	D.0000
SDev	6.9	.8808	210.	2622.	1.15	3.1	2.562
%RSD	3.767	2.240	.5720	.4973	5.079	.8287	28.73
#1	177.7	D.0000	S36940.	526900.	23.88	373.3	D.0000
#2	179.9	D.0000	S36560.	524600.	21.64	378.7	D.0000
#3	190.6	D.0000	S36890.	529900.	22.32	373.3	D.0000

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D5.931	63.81	D162.8	D.0000
SDev	4.419	1.67	4.3	309.0
%RSD	74.50	2.614	2.641	511.3
#1	D4.276	63.03	D157.9	D.0000
#2	D10.94	62.67	D164.5	D.0000
#3	D2.579	65.72	D165.9	D282.9

Method: CLP Sample Name: ICSABF Operator: JP
Run Time: 11/21/94 21:25:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

	100		104	100		98	98
Avge	1003.	S19380.	52.24	501.1	510400.	980.9	492.3
SDev	2.	3.	.13	.8	1198.	1.3	13.5
%RSD	.1607	.0163	.2525	.1542	.2348	.1370	2.737
#1	1005.	S19380.	52.20	500.2	510100.	981.2	477.4
#2	1002.	S19380.	52.14	501.4	511700.	979.4	503.6
#3	1003.	S19380.	52.39	501.7	509400.	982.0	495.9

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 118	ug/L 93	ug/L	ug/L	ug/L 102	ug/L	ug/L 99%
Avge	587.9	464.4	S36660.	521200.	508.8	357.2	987.6
SDev	5.0	.8	24.	973.	1.9	.0	13.6
%RSD	.8472	.1659	.0655	.1867	.3790	.0000	1.372
#1	592.0	465.0	S36650.	520700.	506.5	357.2	987.2
#2	589.4	463.5	S36640.	520500.	509.6	357.2	974.3
#3	582.4	464.8	S36690.	522300.	510.1	357.2	1001.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 100	ug/L 100	ug/L	ug/L
Avge	502.3	1004.	1226.	D345.3
SDev	3.8	.	61.	328.8
%RSD	.7652	.0279	4.941	95.23
#1	497.9	1003.	1268.	D1.986
#2	504.0	1004.	1157.	D376.5
#3	505.0	1004.	1254.	D657.4

Method: CLP Sample Name: CCV3 Operator: JP
Run Time: 11/21/94 21:33:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 101	ug/L 102	ug/L 102	ug/L 104	ug/L 105	ug/L 103	ug/L 103
Avge	506.5	1023.	1016.	261.1	262300.	257.4	2583.
SDev	2.1	.	2.	1.0	515.	2.8	15.
%RSD	.4117	.0315	.2202	.3903	.1963	1.091	.5928
#1	508.7	1024.	1014.	261.7	262300.	259.2	2574.
#2	504.6	1023.	1018.	259.9	262700.	258.7	2574.
#3	506.1	1023.	1017.	261.6	261700.	254.1	2601.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 105	ug/L 102	ug/L 104	ug/L 103	ug/L 103	ug/L 96	ug/L 82
Avge	527.0	1269.	5219.	256300.	773.6	240900.	2055.
SDev	1.9	4.	8.	944.	4.6	899.	24. 103
%RSD	.3689	.3218	.1589	.3681	.5882	.3733	1.145
#1	525.4	1274.	5228.	256700.	768.7	241800.	2029.
#2	526.4	1267.	5212.	255300.	777.7	240900.	2065.
#3	529.2	1267.	5218.	257100.	774.6	240000.	2073.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 104	ug/L 101	ug/L	ug/L 98%
Avge	2608.	1006.	D217.1	245700.

SDev	11.	5.	17.5	1226.
%RSD	.4205	.5204	8.038	.4993
#1	2619.	1001.	D236.8	244300.
#2	2609.	1006.	D211.4	246600.
#3	2597.	1011.	D203.3	246000.

Method: CLP Sample Name: CCB3 Operator: JP
Run Time: 11/21/94 21:40:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D4.881	d.0346	d.0000	D.0000	D.0000	D4.574
SDev	1.116	3.354	.0490	.0406	7.447	1.409	2.023
%RSD	42.19	68.72	141.5	28.83	411.7	291.5	44.23
#1	D.0000	D1.980	d.0912	d.0000	D6.317	D.9370	D6.031
#2	D.0000	D4.108	d.0063	d.0000	D.0000	D.0000	D5.428
#3	D.0000	D8.554	d.0063	d.0000	D.0000	D.0000	D2.264

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D1.589	D.0000	D.5929	D33.80	D.1553	d52.08	D.4259
SDev	.072	1.298	2.887	36.00	.1351	3.11	7.797
%RSD	4.548	66.95	486.9	106.5	87.04	5.969	1830.
#1	D1.630	D.0000	D3.838	D.0000	D.0004	d50.28	D4.085
#2	D1.630	D.0000	D.0000	D46.28	D.2161	d55.67	D.0000
#3	D1.505	D.0000	D.0000	D61.89	D.2493	d50.28	D5.720

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D.0000	D257.9
SDev	3.144	1.230	7.604	502.6
%RSD	134.1	1768.	53.51	194.9
#1	D.5044	D.0000	D.0000	D76.89
#2	D.0000	D.0000	D.0000	D.0000
#3	D.0000	D1.320	D.0000	D826.0

EBS RUN NUMBER: 58310\941129000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/06/94
PAGE: 1

TEST: CLP METALS | DATE ANALYZED: 11/29/94 | ANALYZED BY: JP | HOLDING TIME: 99 Days

Total Number of Samples: 5
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 3
Number of LCS's: 2

Number of ICB's: 1
Number of CCB's: 2
Number of PB's: 2

Number of DUP's: 1
Number of SPK's: 1
Number of MSD'S: 1

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	Al3082	ug/L	9890	10000		98.90		90.0	110	NA	NA	NA
	Ca3179	ug/L	243000	250000		97.200		90.0	110	NA	NA	NA
	Fe2599	ug/L	4940	5000		98.80		90.0	110	NA	NA	NA
	Mg2790	ug/L	240000	250000		96.000		90.0	110	NA	NA	NA
	Mn2576	ug/L	744	750		99.2		90.0	110	NA	NA	NA
ICB	Al3082	ug/L	< 70							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA
ICSAI	Al3082	ug/L	SATURATED	500000		0				NA	NA	NA
	Ca3179	ug/L	474000	500000		94.800				NA	NA	NA
	Fe2599	ug/L	SATURATED	200000		0				NA	NA	NA
	Mg2790	ug/L	497000	500000		99.400				NA	NA	NA
ICSABI	Al3082	ug/L	SATURATED	500000		0				NA	NA	NA
	Ca3179	ug/L	472000	500000		94.400				NA	NA	NA
	Fe2599	ug/L	SATURATED	200000		0				NA	NA	NA
	Mg2790	ug/L	488000	500000		97.600				NA	NA	NA
	Mn2576	ug/L	495	500		99.0		80.0	120	NA	NA	NA
CRII	Mn2576	ug/L	33.37	30.0		111				NA	NA	NA
LCSW	Mn2576	ug/L	494	500		98.8		80.0	120	NA	NA	NA
LCSS	Mn2576	ug/L	510	500		102		80.0	120	NA	NA	NA
PBW	Al3082	ug/L	< 70							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA
PBS	Mn2576	ug/L	< 5							NA	NA	NA
CCV	Al3082	ug/L	10100	10000		101.00		90.0	110	NA	NA	NA
	Ca3179	ug/L	253000	250000		101.20		90.0	110	NA	NA	NA
	Fe2599	ug/L	5180	5000		103.6		90.0	110	NA	NA	NA

EBS RUN NUMBER: 58310\941129000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/06/94
PAGE: 2

TEST: CLP METALS **DATE ANALYZED: 11/29/94** **ANALYZED BY: JP** **HOLDING TIME: 99 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
CCV	Mg2790	ug/L	254000	250000		101.60		90.0	110	NA	NA	NA
	Mn2576	ug/L	770	750		103		90.0	110	NA	NA	NA
CCB	Al3082	ug/L	< 70							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA
9410061-03A	Mn2576	mg/kg	1740							10/07/94	09/29/94	YES
9410061-04A	Mn2576	mg/kg	181							10/07/94	09/29/94	YES
9410061-05A	Mn2576	mg/kg	180							10/07/94	09/29/94	YES
9410061-06A	Mn2576	mg/kg	305							10/07/94	09/29/94	YES
CCV	Mn2576	ug/L	722	750		96.3		90.0	110	NA	NA	NA
9410061-13A	Mn2576	ug/L	272							10/07/94	09/29/94	YES
9410061-13 DUP	Mn2576	ug/L	271	272			0.368			10/07/94	09/29/94	YES
SPK	Mn2576	ug/L	95.6	272	500	-35.3		75.0	125	10/07/94	NA	NA
MSD	Mn2576	ug/L	94.8	272	500	-35.4	0.283	75.0	125	10/07/94	NA	NA
ISPK	Mn2576	ug/L	1960	136	1500	122				10/07/94	NA	NA
CRIF	Mn2576	ug/L	35.72	30.0		119				NA	NA	NA
ICSAF	Al3082	ug/L	SATURATED	500000		0				NA	NA	NA
	Ca3179	ug/L	476000	500000		95.200				NA	NA	NA
	Fe2599	ug/L	SATURATED	200000		0				NA	NA	NA
	Mg2790	ug/L	494000	500000		98.800				NA	NA	NA
ICSABF	Al3082	ug/L	SATURATED	500000		0				NA	NA	NA
	Ca3179	ug/L	477000	500000		95.400				NA	NA	NA
	Fe2599	ug/L	SATURATED	200000		0				NA	NA	NA
	Mg2790	ug/L	498000	500000		99.600				NA	NA	NA
	Mn2576	ug/L	494	500		98.8		80.0	120	NA	NA	NA
CCV	Al3082	ug/L	10100	10000		101.00		90.0	110	NA	NA	NA
	Ca3179	ug/L	257000	250000		102.80		90.0	110	NA	NA	NA
	Fe2599	ug/L	5180	5000		103.6		90.0	110	NA	NA	NA
	Mg2790	ug/L	259000	250000		103.60		90.0	110	NA	NA	NA
	Mn2576	ug/L	774	750		103		90.0	110	NA	NA	NA
CCB	Al3082	ug/L	< 70							NA	NA	NA

EBS RUN NUMBER: 58310\941129000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/06/94
PAGE: 3

TEST: CLP METALS **DATE ANALYZED: 11/29/94** **ANALYZED BY: JP** **HOLDING TIME: 99 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
CCB	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA

COMMENTS:

Analysis Report Summary Tue 12-06-94 08:22:49 AM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	941129	CLP	11/29/94	10:27	JP	S	CONC
2	ICB	941129	CLP	11/29/94	10:32	JP	S	CONC
3	ICSAI	941129	CLP	11/29/94	10:36	JP	S	CONC
4	ICSABI	941129	CLP	11/29/94	10:41	JP	S	CONC
5	CRII	941129	CLP	11/29/94	10:45	JP	S	CONC
6	LCSW	941129	CLP	11/29/94	10:50	JP	S	CONC
7	LCSS	941129	CLP	11/29/94	10:54	JP	S	CONC
8	PBW	941129	CLP	11/29/94	10:59	JP	S	CONC
9	PBS	941129	CLP	11/29/94	11:03	JP	S	CONC
10	9410061-01A	941129	CLP	11/29/94	11:08	JP	S	CONC
11	9410061-01 DUP	941129	CLP	11/29/94	11:12	JP	S	CONC
12	9410061-01 SPK #1	941129	CLP	11/29/94	11:17	JP	S	CONC
13	9410061-01 SPK INS	941129	CLP	11/29/94	11:21	JP	S	CONC
14	9410061-02A	941129	CLP	11/29/94	11:26	JP	S	CONC
15	CCV1	941129	CLP	11/29/94	11:30	JP	S	CONC
16	CCB1	941129	CLP	11/29/94	11:35	JP	S	CONC
17	9410061-03A	941129	CLP	11/29/94	11:39	JP	S	CONC
18	9410061-04A	941129	CLP	11/29/94	11:44	JP	S	CONC
19	9410061-05A	941129	CLP	11/29/94	11:48	JP	S	CONC
20	9410061-06A	941129	CLP	11/29/94	11:53	JP	S	CONC
21	CCV2	941129	CLP	11/29/94	11:57	JP	S	CONC
22	CCB2	941129	CLP	11/29/94	12:02	JP	S	CONC
23	9410061-13A	941129	CLP	11/29/94	12:06	JP	S	CONC
[illegible]	9410061-13 DUP	941129	CLP	11/29/94	12:11	JP	S	CONC
[illegible]	9410061-13 SPK #1	941129	CLP	11/29/94	12:15	JP	S	CONC
26	9410061-13 SPK #2	941129	CLP	11/29/94	12:20	JP	S	CONC
27	9410061-13 SPK INST	941129	CLP	11/29/94	12:24	JP	S	CONC
28	CRIF	941129	CLP	11/29/94	12:29	JP	S	CONC
29	ICSAF	941129	CLP	11/29/94	12:33	JP	S	CONC
30	ICSABF	941129	CLP	11/29/94	12:38	JP	S	CONC
31	CCV3	941129	CLP	11/29/94	12:42	JP	S	CONC
32	CCB3	941129	CLP	11/29/94	12:47	JP	S	CONC

Numbers were back calculated to remove corr. factors

#	Element	ICV	ICB	ICSAI	ICSABI	CRII	LCSW
1	Al3082	9890.	D47.62	S202600.	S201600.	D151.4	1953.
2	Ca3179	242600.	D42.17	474000.	471500.	d163.5	D84.64
3	Fe2599	4941.	D1.091	S39830.	S39800.	48.89	1220.
4	Mn2576	743.6	D.6792	21.43	495.1	33.37	494.5
5	Mg2790	240400.	D48.09	496800.	487500.	D155.8	D84.99

#	Element	LCSS	PBW	PBS	941'-01A	941' DUP	941'K #1
1	Al3082	2477.	D103.7	D79.86	491300.	492700.	965400.
2	Ca3179	8193.	D19.42	D30.04	25e6	25e6	25e6
3	Fe2599	1522.	D3.593	D1.439	980800.	1007e3	1092e3
4	Mn2576	509.7	D.9972	D-.0227	14200.	14580.	23890.
5	Mg2790	D315.3	D71.02	D43.10	D307800.	D288000.	D351500.

#	Element	941' INS	941'-02A	CCV1	CCB1	061-03A 941'-03A CF=200 DF=10	061-04A 941'-04A CF=200 DF=10
1	Al3082	2110e3	581400.	10120.	D139.4	2612e3	485600.
2	Ca3179	58e6	20e6	253200.	392.5	1250e3	25e6
3	Fe2599	1407e3	1014e3	5182.	D4.069	4240e3	989700.
4	Mn2576	148200.	17060.	770.5	D1.609	137900.	14480.
5	Mg2790	47e6	D392700.	254300.	D311.4	1029e3	D276700.

#	Element	061-05A 941'-05A CF=200 DF=10	941'-06A CF=200 DF=10	CCV2	CCB2	061-13A 941'-13A CF=100 DF=100	061-13A dup 941' DUP CF=100 DF=100
1	Al3082	488600.	958800.	10410.	2879.	606400.	607900.
2	Ca3179	25e6	25e6	290400.	100900.	5473e3	5488e3
3	Fe2599	998000.	1110e3	6916.	5072.	1041e3	1052e3
4	Mn2576	14450.	24280.	722.1	86.79	27170.	27060.
5	Mg2790	D271900.	D331900.	234800.	D1801.	650700.	628200.

#	Element	061-13A spk 941'K #1 CF=100 DF=100	061-13A dup 941'K #2 CF=100 DF=100	061-13A spk 941'INST CF=100 DF=100	CRIF	ICSAF	ICSABF
1	Al3082	48570.	48100.	4001e3	D122.9	S202900.	S201500.
2	Ca3179	2580e3	2554e3	49e6	d198.4	475700.	477300.
3	Fe2599	147300.	142500.	S4029e3	64.04	D38970.	S39820.
4	Mn2576	9562.	9485.	196200.	35.72	20.92	493.7
5	Mg2790	D131900.	D137300.	26e6	D88.97	494400.	498300.

#	Element	CCV3	CCB3
1	Al3082	10140.	D59.73
2	Ca3179	257300.	d148.3
3	Fe2599	5179.	D6.856
4	Mn2576	774.1	D.3852
	Mg2790	259400.	D198.7

	Mn
61-03A	689.5
-04A	72.40
-05A	72.25
-06A	121.4
-13A	271.7
-13Adp	270.6
-13Aspk	95.62
-13Ansd	94.85
-13Aispk	1962

Method: CLP Standard: BLANK

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	D62.33	D49.00	D-.6667	492.0	D3.000	D37.00	D-1.000
SDev	32.01	39.05	1.1547	21.3	1.000	21.66	27.875
%RSD	51.35	79.70	173.2	4.326	33.33	58.53	2787.
#1	D63.00	D24.00	D.0000	488.0	D2.000	D12.00	D-14.00
#2	D94.00	D94.00	D.0000	473.0	D3.000	D50.00	D-20.00
#3	D30.00	D29.00	D-2.000	515.0	D4.000	D49.00	D31.00

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	D-21.00	D124.0	D14.00	D-10.67	D-11.33	D-5.000	D13.33
SDev	7.55	26.9	35.37	19.55	9.07	26.457	1.53
%RSD	35.95	21.70	252.6	183.3	80.06	529.2	11.46
#1	D-28.00	D146.0	D-16.00	D-9.000	D-10.00	D-25.00	D12.00
#2	D-22.00	D132.0	D5.000	D-31.00	D-21.00	D-15.00	D15.00
#3	D-13.00	D94.00	D53.00	D8.000	D-3.000	D25.00	D13.00

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	D19.33	D-20.00	D35.67	D35.33
SDev	28.73	12.53	95.04	13.58
%RSD	148.6	62.65	266.5	38.43
#1	D-2.000	D-32.00	D39.00	D37.00
#2	D8.000	D-7.000	D129.0	D21.00
#3	D52.00	D-21.00	D-61.00	D48.00

Method: CLP Standard: STD A

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	1717.	4109.	10470.	10320.	11010.	3130.	3019.
SDev	62.	38.	89.	76.	134.	77.	22.
%RSD	3.629	.9129	.8525	.7337	1.221	2.467	.7144
#1	1659.	4072.	10540.	10370.	11120.	3218.	3004.
#2	1783.	4108.	10510.	10360.	10860.	3096.	3010.
#3	1710.	4147.	10370.	10230.	11050.	3075.	3044.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	749.3	5485.	10520.	2827.	16080.	8374.	9392.
SDev	17.2	2.	20.	63.	47.	50.	144.
%RSD	2.290	.0278	.1913	2.240	.2904	.5929	1.538
#1	765.0	5485.	10520.	2894.	16060.	8403.	9558.
#2	731.0	5484.	10510.	2768.	16040.	8317.	9319.
#3	752.0	5487.	10550.	2820.	16130.	8403.	9298.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	1578.	D91.00	7790.	4153.
SDev	25.	44.24	78.	89.
%RSD	1.594	48.61	.9950	2.142
#1	1575.	D140.0	7822.	4050.
#2	1555.	D54.00	7702.	4207.
#3	1605.	D70.00	[illegible]	[illegible]

Method: CLP Standard: STD B

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	8596.	21070.	54310.	51170.	56110.	15460.	15160.
SDev	113.	132.	226.	203.	323.	21.	93.
%RSD	1.315	.6287	.4157	.3961	.5757	.1373	.6112
#1	8509.	21090.	54570.	51380.	55800.	15480.	15160.
#2	8556.	20930.	54190.	51160.	56450.	15450.	15060.
#3	8724.	21190.	54180.	50980.	56080.	15440.	15250.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	3807.	28450.	54100.	15670.	86060.	42620.	45510.
SDev	33.	327.	122.	95.	284.	262.	679.
%RSD	.8669	1.148	.2254	.6087	.3294	.6151	1.493
#1	3774.	28090.	53970.	15770.	85920.	42910.	46170.
#2	3808.	28710.	54200.	15590.	86390.	42400.	45530.
#3	3840.	28560.	54140.	15630.	85870.	42540.	44810.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	7915.	864.0	40900.	21130.
SDev	56.	32.5	116.	116.
%RSD	.7101	3.756	.2845	.5480
#1	7960.	900.0	40790.	21120.
#2	7933.	837.0	41020.	21010.
#3	7852.	855.0	40890.	21240.

Method: CLP Standard: STD C

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	16820.	39620.	104700.	95270.	107400.	29580.	28780.
SDev	53.	78.	743.	382.	117.	259.	269.
%RSD	.3128	.1963	.7101	.4012	.1090	.8768	.9340
#1	16830.	39540.	105400.	95070.	107500.	29480.	28930.
#2	16760.	39660.	103900.	95720.	107300.	29870.	28470.
#3	16860.	39680.	104800.	95040.	107400.	29380.	28930.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	7461.	54000.	102400.	29390.	168300.	80970.	87530.
SDev	40.	341.	1039.	420.	951.	330.	645.
%RSD	.5301	.6309	1.015	1.429	.5649	.4080	.7367
#1	7429.	53980.	101300.	29200.	167200.	81010.	86820.
#2	7505.	53670.	102600.	29870.	168800.	81280.	87690.
#3	7448.	54350.	103300.	29100.	168900.	80620.	88070.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	14680.	1671.	75990.	40920.
SDev	142.	5.	85.	344.
%RSD	.9645	.3110	.1125	.8396

#1	14520.	1674.	75890.	40570.
#2	14790.	1674.	76010.	40910.
#3	14720.	1665.	76060.	41260.

Method: CLP Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardi:
Ag3280	328.068	Multiple	Standards	.059555	-3.70107	11/29/94 10:15
Al3082	308.215	Multiple	Standards	.490944	-24.0592	11/29/94 10:15
Ba4554	455.403	Multiple	Standards	.188643	.293024	11/29/94 10:15
Be3131	313.107	Multiple	Standards	.005095	-2.50888	11/29/94 10:15
Ca3179	317.933	Multiple	Standards	4.55018	-15.4611	11/29/94 10:15
Cd2265	226.502	Multiple	Standards	.082142	-3.07857	11/29/94 10:15
Co2286	228.616	Multiple	Standards	.167993	.092870	11/29/94 10:15
Cr2677	267.716	Multiple	Standards	.131345	2.74717	11/29/94 10:15
Cu3247	324.754	Multiple	Standards	.045687	-5.62888	11/29/94 10:15
Fe2599	259.940	Multiple	Standards	.095037	-1.34856	11/29/94 10:15
K_7664	766.490	Multiple	Standards	16.8258	196.801	11/29/94 10:15
Mg2790	279.079	Multiple	Standards	2.99162	49.0862	11/29/94 10:15
Mn2576	257.610	Multiple	Standards	.017999	.079249	11/29/94 10:15
Na5889	588.995	Multiple	Standards	5.50972	-88.5021	11/29/94 10:15
Ni2316	231.604	Multiple	Standards	.260675	-5.10827	11/29/94 10:15
Pb2203	220.353	Multiple	Standards	1.63988	33.3643	11/29/94 10:15
V_3110	311.071	Multiple	Standards	.063766	-2.24609	11/29/94 10:15
Zn2138	213.856	Multiple	Standards	.048296	-1.69987	11/29/94 10:15

Method: CLP

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ag3280	328.068	BLANK	.000000	.011180	-.01118
		STD A	100.000	98.5744	1.42562
		STD B	500.000	508.252	-8.2518
		STD C	1000.00	997.753	2.24744

CorCoef: 0.99994

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Al3082	308.215	BLANK	.000000	-.002920	.002920
		STD A	2000.00	1993.23	6.77124
		STD B	10000.0	10319.3	-319.30
		STD C	20000.0	19429.1	570.904

CorCoef: 0.99945

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ba4554	455.403	BLANK	.000000	.167262	-.16726
		STD A	2000.00	1975.95	24.0536
		STD B	10000.0	10246.1	-246.09
		STD C	20000.0	19748.3	251.662

CorCoef: 0.99979

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Be3131	313.107	BLANK	.000000	-.002262	.002262
		STD A	50.0000	50.0689	-.06891
		STD B	250.000	258.211	-8.2114
		STD C	500.000	482.888	17.1119

CorCoef: 0.99933

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat.
Ca3179	317.933	BLANK	.000000	-1.81054	1.81054
		STD A	50000.0	50083.5	-83.503
		STD B	250000.	255295.	-5294.9
		STD C	500000.	488575.	11425.0

CorCoef: 0.99972

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat.
Cd2265	226.502	BLANK	.000000	-.039335	.039335
		STD A	250.000	253.997	-3.9971
		STD B	1250.00	1266.80	-16.802
		STD C	2500.00	2426.42	73.5774

CorCoef: 0.99973

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat.
Co2286	228.616	BLANK	.000000	-.075123	.075123
		STD A	500.000	507.319	-7.3192
		STD B	2500.00	2546.25	-46.248
		STD C	5000.00	4834.31	165.689

CorCoef: 0.99961

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat.
Cr2677	267.716	BLANK	.000000	-.011081	.011081
		STD A	100.000	101.169	-1.1685
		STD B	500.000	502.822	-2.8222
		STD C	1000.00	982.670	17.3298

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Cu3247	324.754	BLANK	.000000	.036315	-.03631
		STD A	250.000	244.980	5.02022
		STD B	1250.00	1294.33	-44.335
		STD C	2500.00	2461.53	38.4678

CorCoef: 0.99961

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Fe2599	259.940	BLANK	.000000	-.018050	.018050
		STD A	1000.00	998.882	1.11792
		STD B	5000.00	5140.55	-140.55
		STD C	10000.0	9730.07	269.929

CorCoef: 0.99955

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
K_7664	766.490	BLANK	.000000	17.3262	-17.326
		STD A	50000.0	47768.8	2231.18
		STD B	250000.	263772.	-13772.
		STD C	500000.	494767.	5232.59

CorCoef: 0.99932

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat.
Mg2790	279.079	BLANK	.000000	15.1811	-15.181
		STD A	50000.0	48146.4	1853.61
		STD B	250000.	257507.	-7507.0
		STD C	500000.	503522.	-3522.0

CorCoef: 0.99990

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Mn2576	257.610	BLANK	.000000	-.010749	.010749
		STD A	150.000	150.813	-.81288
		STD B	750.000	767.163	-17.163
		STD C	1500.00	1457.55	42.4550

CorCoef: 0.99962

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Na5889	588.995	BLANK	.000000	-15.0391	15.0391
		STD A	50000.0	51656.9	-1656.9
		STD B	250000.	250633.	-633.10
		STD C	500000.	482164.	17835.6

CorCoef: 0.99979

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ni2316	231.604	BLANK	.000000	-.068548	.068548
		STD A	400.000	406.325	-6.3245
		STD B	2000.00	2058.14	-58.138
		STD C	4000.00	3820.48	179.521

CorCoef: 0.99918

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Pb2203	220.353	BLANK	.000000	.566608	-.56660
		STD A	250.000	182.594	67.4062
		STD B	1250.00	1450.22	-200.22
		STD C	2500.00	2773.61	-273.61

CorCoef: 0.99891

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
V_3110	311.071	BLANK	.000000	.028226	-.02822
		STD A	500.000	494.511	5.48911
		STD B	2500.00	2605.88	-105.88
		STD C	5000.00	4843.13	156.873

CorCoef: 0.99918

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Zn2138	213.856	BLANK	.000000	.006582	-.00658
		STD A	200.000	198.856	1.14357
		STD B	1000.00	1018.55	-18.548
		STD C	2000.00	1974.34	25.6616

CorCoef: 0.99985

Method: CLP Sample Name: ICV Operator: JP
Run Time: 11/29/94 10:27:49
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L 98	ug/L 97	ug/L 99	ug/L 98	ug/L 96	ug/L 99
Avge	9890.	242600.	4941.	246200.	240400.	743.6
SDev	55.	1498.	26.	625.	320.	4.7
%RSD	.5513	.6174	.5268	.2540	.1331	.6328
#1	9892.	244100.	4912.	245500.	240100.	744.9

#2	9943.	242700.	4948.	246300.	240300.	738.3
#3	9834.	241100.	4962.	246800.	240700.	747.4

Method: CLP Sample Name: ICB Operator: JP
Run Time: 11/29/94 10:32:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D47.62	D42.17	D1.091	D.0000	D48.09	D.6792
SDev	9.37	5.25	.883	159.0	50.62	.3221
%RSD	19.67	12.46	80.96	167.7	105.3	47.43
#1	D46.64	D39.14	D2.073	D.0000	D.0000	D.6012
#2	D38.78	D48.24	D.8373	D28.54	D90.97	D.4032
#3	D57.44	D39.14	D.3621	D.0000	D61.05	D1.033

Method: CLP Sample Name: ICSAI Operator: JP
Run Time: 11/29/94 10:36:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	S202600.	474000.	S39830.	D342.6	496800.	21.43
SDev	1453.	536.	33.	83.0	4130.	.24
%RSD	.7172	.1132	.0827	24.22	.8313	1.140
#1	S201800.	474600.	S39840.	D398.7	494100.	21.30
#2	S204300.	473600.	S39790.	D247.3	501600.	21.28
#3	S201800.	473900.	S39860.	D381.9	494900.	21.71

Method: CLP Sample Name: ICSABI Operator: JP
Run Time: 11/29/94 10:41:18
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	S201600.	471500.	S39800.	D.0000	487500.	495.1 1500
SDev	37.	3728.	22.	340.3	4074.	3.8
%RSD	.0181	.7907	.0550	104.8	.8358	.7741 99%
#1	S201600.	472900.	S39780.	D62.19	484500.	490.7
#2	S201600.	467200.	S39800.	D.0000	492100.	496.8
#3	S201600.	474300.	S39820.	D.0000	485800.	497.8

Method: CLP Sample Name: CRII Operator: JP
Run Time: 11/29/94 10:45:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D151.4	d163.5	48.89	D.0000	D155.8	33.37
SDev	.7	9.5	2.88	448.0	18.0	.76
%RSD	.4954	5.793	5.900	2043.	11.58	2.272
#1	D152.2	d166.5	51.49	D398.7	D138.8	32.69
#2	D151.2	d171.1	45.79	D.0000	D174.7	33.22
#3	D150.7	d152.9	49.40	D28.54	D153.8	34.19

Method: CLP Sample Name: LCSW Operator: JP
Run Time: 11/29/94 10:50:18
Comment:
Mode: CONC Corr. Factor: 1

122%

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	1953.	D84.64	1220.	D202.4	D84.99	494.5/500
SDev	11.	.00	17.	102.8	19.62	5.2 x100
%RSD	.5516	.0000	1.406	50.79	23.08	1.059 = 99%
#1	1956.	D84.64	1223.	D112.7	D81.99	499.8
#2	1941.	D84.64	1201.	D314.6	D67.04	489.3
#3	1961.	D84.64	1235.	D180.0	D105.9	494.4

Method: CLP Sample Name: LCSS Operator: JP
Run Time: 11/29/94 10:54:49
Comment:
Mode: CONC Corr. Factor: 1

152%

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	2477.	8193.	1522.	D337.0	D315.3	509.7/500.0
SDev	35.	92.	5.	243.4	81.0	1.0 x100
%RSD	1.418	1.123	.3267	72.23	25.68	.2046 = 102%
#1	2476.	8125.	1518.	D213.6	D372.2	509.5
#2	2512.	8157.	1527.	D180.0	D351.2	508.8
#3	2442.	8298.	1519.	D617.4	D222.6	510.8

Method: CLP Sample Name: PBW Operator: JP
Run Time: 11/29/94 10:59:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D103.7	D19.42	D3.593	D22.93	D71.02	D.9972
SDev	31.4	2.63	1.780	404.3	15.35	1.061
%RSD	30.29	13.53	49.55	1763.	21.61	106.4
#1	D72.17	D16.39	D2.168	D415.5	D67.04	D.4212
#2	D104.1	D20.94	D5.589	D45.37	D58.06	D2.221
#3	D135.0	D20.94	D3.023	D.0000	D87.98	D.3492

Method: CLP Sample Name: PBS Operator: JP
Run Time: 11/29/94 11:03:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D79.86	D30.04	D1.439	D140.7	D43.10	D.0000
SDev	40.45	9.10	1.690	136.0	61.09	.5478
%RSD	50.66	30.29	117.4	96.65	141.7	2408.
#1	D125.7	D39.14	D2.928	D163.1	D64.04	D.1692
#2	D49.09	D20.94	D.0000	D.0000	D.0000	D.0000
#3	D64.80	D30.04	D1.788	D264.1	D90.97	D.4032

O.d not use

Method: CLP Sample Name: 9410061-01A Operator: JP
Run Time: 11/29/94 11:08:18
Comment: ~~1:100~~ 1:10
Mode: CONC Corr. Factor: 200

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	491300.	25e6	980800.	D93200.	D307800.	14200.
SDev	7285.	141747.	10228.	90859.	11952.	128.
%RSD	1.483	.5759	1.043	97.49	3.883	.8983
#1	493300.	25e6	986600.	D2344.	D300000.	14150.
#2	497300.	25e6	986800.	D184100.	D321500.	14120.
#3	483200.	25e6	969000.	D93200.	D301800.	14350.

O.d not use

Method: CLP Sample Name: 9410061-01 DUP Operator: JP
Run Time: 11/29/94 11:12:51
Comment: ~~1:100~~ 1:10
Mode: CONC Corr. Factor: 200

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	492700.	25e6	1007000.	D47210.	D288000.	14580.
SDev	2603.	119017.	636.	45936.	17980.	40.
%RSD	.5284	.4716	.0632	97.30	6.242	.2716
#1	490200.	25e6	1008000.	D15800.	D294600.	14620.
#2	492600.	25e6	1006000.	D99930.	D267700.	14580.
#3	495400.	25e6	1007000.	D25900.	D301800.	14540.

O.d not use

Method: CLP Sample Name: 9410061-01 SPK #1 Operator: JP
Run Time: 11/29/94 11:17:20
Comment: 1:100
Mode: CONC Corr. Factor: 200 1:10

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

291 - 173.
29.1 - 17.29

Avge	965400.	25e6	1092000.	D93200.	D351500.	23890. ~~600~~ 0.608
SDev	7740.	5684.	5510.	92526.	8312.	15.
%RSD	.8018	.0224	.5046	99.27	2.365	.0609
#1	970500.	25e6	1089000.	D194200.	D341900.	23900.
#2	969100.	25e6	1098000.	D12440.	D355600.	23880.
#3	956500.	25e6	1089000.	D73010.	D356800.	23900.

Did not use

Method: CLP Sample Name: 9410061-01 SPK INS Operator: JP
Run Time: 11/29/94 11:21:50
Comment: ~~1:100~~
Mode: CONC Corr. Factor: 200

88.5

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	2110000.	58e6	1407000.	51e6	47e6	148200.
SDev	2850.	386854.	6637.	722818.	172994.	621.
%RSD	.1350	.6689	.4717	1.417	.3696	.4190
#1	2112000.	58e6	1409000.	52e6	47e6	148800.
#2	2107000.	57e6	1412000.	51e6	47e6	147600.
#3	2112000.	58e6	1400000.	51e6	47e6	148100.

~~177.~~ 1800 ~~17.76~~ 1826 x100 = 94%

25700 - 2990/122 x 100 = 186%

Did not use

Method: CLP Sample Name: 9410061-02A Operator: JP
Run Time: 11/29/94 11:26:22
Comment: ~~1:100~~ 1:10
Mode: CONC Corr. Factor: 200

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	581400.	20e6	1014000.	D162700.	D392700.	17060.
SDev	4127.	98728.	4101.	66825.	6304.	83.
%RSD	.7097	.4855	.4045	41.06	1.605	.4892
#1	580700.	20e6	1010000.	D211000.	D386200.	16980.
#2	577700.	20e6	1018000.	D190800.	D393300.	17150.
#3	585900.	20e6	1014000.	D86470.	D398700.	17050.

7080. 13400. 2150. 4782. 208.

Method: CLP Sample Name: CCV1 Operator: JP
Run Time: 11/29/94 11:30:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	10120.	253200.	5182.	254300.	254300.	770.5
SDev	28.	221.	35.	3028.	1022.	3.4
%RSD	.2756	.0872	.6756	1.190	.4019	.4420
#1	10150.	253200.	5189.	257800.	254700.	772.6
#2	10120.	253500.	5144.	253100.	255000.	766.6
#3	10100.	253000.	5213.	252100.	253100.	772.4

101 101 104 102 102 103%

Method: CLP Sample Name: CCB1 Operator: JP
Run Time: 11/29/94 11:35:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D139.4	392.5	D4.069	D544.5	D311.4	D1.609
SDev	19.5	7.0	2.870	286.2	43.0	.174
%RSD	13.97	1.771	70.54	52.56	13.80	10.79
#1	D124.7	394.1	D3.688	D533.3	D279.4	D1.483
#2	D132.1	398.6	D1.408	D264.1	D294.4	D1.807
#3	D161.5	385.0	D7.110	D836.2	D360.2	D1.537

Method: CLP Sample Name: 9410061-03A Operator: JP
Run Time: 11/29/94 11:39:53
Comment: ~~1:100~~ 1:10
Mode: CONC Corr. Factor: 200

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	2612000.	1250000.	4240000.	D123500.	1029000. 13000.	137900. 1740.
SDev	18262.	3967.	31165.	63938.	15266.	716.
%RSD	.6992	.3173	.7350	51.78	1.484	.5193
#1	2591000.	1245000.	4228000.	D69650.	1046000.	138600.
#2	2626000.	1253000.	4275000.	D106700.	1017000.	137800.
#3	2618000.	1252000.	4216000.	D194200.	1023000.	137200.

Method: CLP Sample Name: 9410061-04A Operator: JP
Run Time: 11/29/94 11:44:24
Comment: ~~1:100~~ 1:10
Mode: CONC Corr. Factor: 200

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	485600.	25e6	989700.	D151500. ~~18~~ 1900.	D276700.	14480. 181.3
SDev	5767.	137816.	4558.	25481.	9034.	166.
%RSD	1.188	.5602	.4605	16.82	3.265	1.146
#1	479000.	24e6	990500.	D133600.	D267100.	14610.
#2	488200.	25e6	984700.	D180700.	D285000.	14290.
#3	489600.	25e6	993800.	D140300.	D277900.	14550.

Method: CLP Sample Name: 9410061-05A Operator: JP
Run Time: 11/29/94 11:48:53
Comment: ~~1:100~~ 1:10
Mode: CONC Corr. Factor: 200

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	488600.	25e6	998000.	D86470. 1080.	D271900.	14450. 180.
SDev	4068.	107847.	4049.	72409.	3331.	136.
%RSD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

#1	491500.	25e6	996200.	D160500.	D268900.	14300.
#2	484000.	25e6	1003000.	D15800.	D271300.	14480.
#3	490400.	25e6	995200.	D83110.	D275500.	14570.

Method: CLP Sample Name: 9410061-06A Operator: JP
Run Time: 11/29/94 11:53:23
Comment: ~~1:100~~ 1:10
Mode: CONC Corr. Factor: 200

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	958800.	25e6	1110000.	D136900.	D331900.	24280.
SDev	9633.	94688.	8359.	56007.	13168.	261.
%RSD	1.005	.3731	.7531	40.90	3.967	1.073
#1	968100.	25e6	1120000.	D113400.	D318600.	23980.
#2	959300.	25e6	1105000.	D96570.	D332300.	24400.
#3	948900.	25e6	1105000.	D200900.	D344900.	24460.

Method: CLP Sample Name: CCV2 Operator: JP
Run Time: 11/29/94 11:57:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	10410.	290400.	6916.	248200.	234800.	722.1
SDev	37.	1176.	20.	1460.	759.	2.0
%RSD	.3526	.4048	.2880	.5884	.3232	.2790
#1	10450.	291400.	6932.	246500.	234400.	721.7
#2	10400.	290700.	6894.	249300.	234300.	724.3
#3	10370.	289100.	6922.	248800.	235700.	720.3

Method: CLP Sample Name: CCB2 Operator: JP
Run Time: 11/29/94 12:02:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	2879.	100900.	5072.	D522.1	D1801.	86.79
SDev	26.	149.	5.	225.9	64.	.57
%RSD	.8918	.1479	.0927	43.28	3.571	.6612
#1	2907.	100900.	5066.	D264.1	D1730.	87.30
#2	2857.	100700.	5074.	D617.4	D1856.	86.89
#3	2872.	101000.	5075.	D684.7	D1817.	86.17

Method: CLP Sample Name: 9410061-13A Operator: JP
Run Time: 11/29/94 12:06:55

Comment: ~~1:10~~
Mode: CONC Corr. Factor: 100 1040000

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576 27170
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	606400.	5473000.	1041000.	D78570.	650700.	27170. 27200.
SDev	2045.	18633.	2359.	22067.	15214.	92.
%RSD	.3371	.3404	.2267	28.09	2.338	.3392
#1	604100.	5470000.	1042000.	D81940.	638800.	27270.
#2	607300.	5456000.	1042000.	D98760.	667900.	27080.
#3	607900.	5493000.	1038000.	D55010.	645400.	27150.

Method: CLP Sample Name: 9410061-13 DUP Operator: JP
Run Time: 11/29/94 12:11:26
Comment: ~~1:10~~
Mode: CONC Corr. Factor: 100 1050000 27100

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	607900.	5488000.	1052000.	D79130.	628200.	27060.
SDev	3642.	30736.	5005.	21700.	5159.	128.
%RSD	.5992	.5601	.4756	27.42	.8212	.4729
#1	604500.	5506000.	1057000.	D85300.	623600.	27110.
#2	607300.	5452000.	1053000.	D55010.	633700.	26920.
#3	611800.	5506000.	1047000.	D97080.	627200.	27170.

Method: CLP Sample Name: 9410061-13 SPK #1 Operator: JP
Run Time: 11/29/94 12:15:56
Comment: ~~1:10~~
Mode: CONC Corr. Factor: 100 ? 0

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	48570.	2580000.	147300.	D40430.	D131900.	9562.
SDev	2003.	16003.	1224.	12629.	5804.	39.
%RSD	4.124	.6202	.8308	31.23	4.402	.4103
#1	50420.	2565000.	145900.	D39870.	D135600.	9535.
#2	48850.	2578000.	148200.	D28090.	D134700.	9544.
#3	46440.	2597000.	147800.	D53330.	D125200.	9607.

Method: CLP Sample Name: 9410061-13 SPK #2 Operator: JP
Run Time: 11/29/94 12:20:25
Comment: ~~1:10~~
Mode: CONC Corr. Factor: 100

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	48100.	2554000.	142500.	D26970.	D137300.	9485.
SDev	854.	10758.	494.	20354.	6745.	95.
%RSD	1.775	.4213	.3463	75.46	4.911	.9997
#1	47130.	2565000.	142100.	D19680.	D130900.	9575.

#2	48750.	2544000.	143100.	D49970.	D136800.	9386.
#3	48410.	2552000.	142400.	D11270.	D144300.	9494.

Method: CLP Sample Name: 9410061-13 SPK INST Operator: JP
Run Time: 11/29/94 12:24:55
Comment: ~~1:10~~
Mode: CONC Corr. Factor: 100

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	4001000.	49e6	S4029000.	24e6	26e6	196200. - 136000
SDev	19999.	142153.	4636.	225454.	86305.	1121. 50000
%RSD	.4998	.2879	.1150	.9208	.3274	.5715 x100
						=120%
#1	4024000.	49e6	S4024000.	24e6	26e6	195700.
#2	3990000.	49e6	S4034000.	25e6	26e6	195300.
#3	3990000.	49e6	S4030000.	25e6	26e6	197400.

Method: CLP Sample Name: CRIF Operator: JP
Run Time: 11/29/94 12:29:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D122.9	d198.4	64.04	D230.5	D88.97	35.72
SDev	12.8	13.7	1.46	178.1	21.22	.27
%RSD	10.42	6.880	2.285	77.27	23.85	.7580
#1	D113.4	d184.7	64.42	D365.1	D70.03	35.47
#2	D137.5	d198.4	62.42	D28.54	D111.9	36.01
#3	D117.8	212.0	65.27	D297.8	D84.99	35.70

Method: CLP Sample Name: ICSAF Operator: JP
Run Time: 11/29/94 12:33:55
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	S202900.	475700.	D38970.	D303.4	494400.	20.92
SDev	160.	1686.	11.	448.4	5234.	1.94
%RSD	.0786	.3544	.0288	147.8	1.059	9.285
#1	S203000.	476100.	D38960.	D482.8	500300.	23.06
#2	S203000.	477200.	D38960.	D.0000	490500.	19.28
#3	S202700.	473900.	D38980.	D634.3	492400.	20.40

Method: CLP Sample Name: ICSABF Operator: JP
Run Time: 11/29/94 12:38:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	S201500.	477300.	S39820.	D230.5	498300.	493.7 /500
SDev	78.	2655.	80.	105.1	3083.	1.7
%RSD	.0386	.5562	.2020	45.60	.6187	.3461 99%
#1	S201400.	479900.	S39870.	D146.3	494900.	494.1
#2	S201500.	474600.	S39870.	D196.8	500900.	491.8
#3	S201500.	477600.	S39730.	D348.2	499100.	495.2

Method: CLP Sample Name: CCV3 Operator: JP
Run Time: 11/29/94 12:42:56
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L /101%	ug/L /103%	ug/L	ug/L	ug/L	ug/L
Avge	10140.	257300.	5179.	260300.	259400.	774.1
SDev	38.	491.	24.	3826.	1581.	.7
%RSD	.3782	.1907	.4659	1.470	.6093	.0945
#1	10100.	257200.	5153.	256200.	258200.	773.5
#2	10180.	256800.	5201.	263800.	258900.	774.9
#3	10150.	257800.	5184.	260800.	261200.	773.8

104% 104% 104% - 103%

Method: CLP Sample Name: CCB3 Operator: JP
Run Time: 11/29/94 12:47:28
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D59.73	d148.3	D6.856	D180.0	D198.7	D.3852
SDev	9.92	9.1	9.109	60.7	27.4	.5069
%RSD	16.61	6.135	132.9	33.71	13.80	131.6
#1	D68.73	d157.4	D.0000	D129.5	D174.7	D.0073
#2	D49.09	d148.3	D8.250	D247.3	D192.7	D.9612
#3	D61.37	d139.2	D15.19	D163.1	D228.6	D.1872

CYANIDE

EPA METHOD 335.1

Due to the nature of the samples and the requested inclusion of specific QA by client, the holding times for Cyanide were not met. Several digestions and analytical runs were required in order to achieve acceptable data.

Report No. 9410061 Reviewer JM Test Code CN-A Date 11/02/94

VAIDATION CHECKLIST: WET CHEMISTRY

	Acceptable	Not Acceptable	NA
1. Holding times		✓	
2. Calibration co-efficient >0.995	✓		
3. ICV and ICB acceptable	✓		
4. Prep blank			
-one per digestion group	✓		
-< CRDL or all samples associated	✓		
> 10X blank value			
5. Samples			
-within calibration range	✓		
-soils corrected for percent solids			✓
6. Matrix spike			
- performed at 10% frequency	✓		
-within calibration range	✓		
-percent recovery in limits	✓		
7. Duplicate			
-performed at 10% frequency	✓		
-within calibration range	✓		
-% RPD within range	✓		
8. LCS			
-one per digestion group			✓
-% recovery in range			✓
9. Check for transcription errors	✓		

FILE: &L_WK68.NAM 11/18/94 07:23:51 WORK for TEST: TC-CN_A

DEPT	START	DUE	TEST	ORDER#	STAT	CLIENT	DASH#	RESULT	UNITS	STORED	DATE
TC	10/14	10/21	CN_A	94-10-061/T		DSM_ENV	|14A	<0.01	mg/L	REF	11/04
							|14B	<0.01	mg/L	REF	11/04
							|14C	0.24	mg/L	REF	11/04
							|14D	0.26	mg/L	REF	11/04

SOUTHWESTERN LABORATORIES QUALITY CONTROL LOG

METHOD OF ANALYSIS: EPA: 335.1

DATE OF TEST: 11/02/94 PARAMETER: CN MATRIX: NAOH ANALYST: JD MDL: .010

CALIBRATION STANDARDS/BLANKS	ABSORBANCE	STANDARDS	THEORETICAL CONCENTRATION	MEASURED CONCENTRATION	% RECOVERY
0.00/.010	0.00/4.00	ICV	0.2000	0.2043	102.2
.020	8.00	ICB	0.0000	0.0000	ERR
.100	42.50	CCV	0.2000	0.1980	99.0
.200	86.00	CCB	0.0000	0.0000	ERR
L.R.(R) =	.9996				ERR

SAMPLE ID NUMBERS IN THIS RUN: 94-10-061

UNITS = mg/L

SAMPLE ID	BACKGROUND CONC.	DUPLICATE CONC	% DIFF.	SPIKE CONC	RECOVERED CONC	P* % RECOVERY
94-061-014	<.100	<.100	ERR	0.1000	0.1036	103.6
			ERR			ERR
			ERR			ERR
			ERR			ERR

CYANIDE

Operator Jose Dávila

Date/Time NOV. 1, 1994

Std. Cal.

Lin. Rigr. 0.9997

Calculated Manually 10/23

Lab No.	Cup #	Dil.(s)	Pk. Ht.	Bs. Line	Diff.	Calculations	Conc'n.
STNC	1		55.50	10.50	45.00	0.1007/0.100	101
STD 0.00	2/3		10.50		0.00		
0.01	4/5		15.00		4.50		
0.02	6/7		19.50		9.00	0.9999	
0.10	8/9		56.00		45.50		
0.20	10/11		99.00		88.50		
BIK	12						
ICV	13		99.00		88.50	0.199/0.200	100%
ICB	14						
140-74-1	15	13.50/500	11.00		0.50		<0.40
DUP	16	13.50/500	11.00		0.50		<0.40
SPK	17		55.00		44.50	0.0995 - 0.40 / 0.100	99%
BIK	18						
174-2	19	14.50/500	11.00				<0.40
-3	20	12.00/500	11.00				<0.40
-4	21	12.50/500	11.00				<0.40
-5	22	10.00/500	11.00				<0.40
BIK	23						
CCV	24		99.00		88.50	0.199/0.200	100%
CCB	25						
140-210-1	26	13.17/500	10.50				<0.40
-2	27	12.94/500	10.50				<0.40
-3	28	14.50/500	10.50				<0.40
-4	29	12.04/500	10.50				<0.40
-5	30	13.50/500	10.50	10.50			<0.40

CYANIDE

Operator _____ Std. Cal. _____

Date/Time _____ Lin. Rigr. _____

2863

Lab No.	Cup #	Dil.(s)	Pk. Ht.	Bs. Line	Diff.	Calculations	Conc'n.
9410-276-6	31	12.65/500	10.50	10.50	—		<0.40
-7	32	12.95/500	10.50		—		<0.40
BLK	33						
CCV	34		97.00		86.50	0.194/0.200	97%
CCB	35						
9410-107-1	36	12.40/500	10.50		—		<0.40
2	37	14.30/500	10.50		—		<0.40
2DUP	38	12.50/500	10.50		—		<0.40
DUP	39	14.39/500	10.50		—		<0.40
SPK	40		55.00		44.50	0.0448 - <0.40 / 0.100	99%
BLK	41						
CCV	42		98.00		88.50	0.199/0.200	100
CCB	43						
9410-283-1	44	13.54/500	10.50		—		<0.40
9410-271-1	45	13.20/500	10.50		—		<0.40
9410-224-1	46		67.00		56.50		0.1269
BLK	47						
9410-061-14A T+	48						
Dup -14A	49						
T+ -14B	50						
Dup -14B	51						
T+ -14C	52						
Dup -14C	53						
T+ -14D	54						
Dup -14D	55			10.50			

CYANIDE

Operator _____ Std. Cal. _____

ate/Time _____ Lin. Rigr. _____

3 of 3

Lab No.	Cup #	Dil.(s)	Pk. Ht.	Bs. Line	Diff.	Calculations	Conc'n.
BLK	56			10.50			
CCV	57		97.00		86.50	0.1944/0.200	97%
CCB	58						
9410-321-1	59	12.50/500	11.00		0.50		<0.40
275-1	60		10.50				
-2	61		10.50				
DUP	62		10.50				
SPK	63		56.00		45.50	0.104 − <0.01 / 0.100	97%
BLK	64						
CCV	65		99.00		88.50	0.197/0.200	100%
CCB	66			10.50			

CYANIDE

Operator Jose Dario

Date/Time 11/2/94

Std. Cal.

Lin. Rigr.

1 of 2

Lab No.	Cup #	Dil.(s)	Pk. Ht.	Bs. Line	Diff.	Calculations	Conc'n.
STDC	1		54.50	11.00	43.50	0.1054/0.100	[illegible]
STD 0.00	2/3		11.00		0.00		
0.01	4/5		15.00		4.00		
0.02	6/7		19.00		8.00		
0.10	8/9		53.50		42.50		
0.20	10/11		97.00		86.00		
BLK	12						
ICV	13		95.00		84.00	0.2045/[illegible]	[illegible]
ICB	14						
9410-001-14	15	25.00/250	13.00		2.00		[illegible]
-14B	16	25.00/250	12.50		1.50	0.0274	[illegible]
-14C	17	25.00/250	30.00		19.00		[illegible]
-14D	18	25.00/250	15.00		4.00		[illegible]
-14A PIC	19		55.50		44.50	(0.1075 − 0.0127)/0.100 × 100	[illegible]
BLK	20						
ICV	21		95.50		81.50	0.1964/0.200	[illegible]
[illegible]	22	25.00/250	11.50		0.50		[illegible]
9410-001-14	23	25.00/250	11.50		0.50		[illegible]
[illegible]	24	25.00/250	11.50		0.50		[illegible]
-14	25	25.00/250	40.00		29.00		[illegible]
-14D	26	25.00/250	27.00		16.00		[illegible]
-14A PIC	27					(0.1036 − 0.01)/0.100 × 100	[illegible]
BLK	28						[illegible]
9414-214-1	[illegible]	2.00	45.00		34.00	0.0717 × 2	[illegible]
[illegible]	[illegible]	2.00	45.00	11.00	34.00		[illegible]

CYANIDE

Operator _____ Std. Cal. _____

Date/Time _____ Lin. Rigr. _____

2.72

Lab No.	Cup #	Dil.(s)	Pk. Ht.	Bs. Line	Diff.	Calculations	Conc'n.
[illegible]	31						
Blk	32						
[illegible]	33		96.00	11.00	85.00	0.1130/0.200 x100	99%
[illegible]3	34						

SULFIDE

EPA METHOD 376.1

Report No. 96100061 Reviewer SM Test Code S-WAT Date 10/14/96

VAIDATION CHECKLIST: WET CHEMISTRY

	Acceptable	Not Acceptable	NA
1. Holding times			
2. Calibration co-efficient >0.995			✓
3. ICV and ICB acceptable			✓
4. Prep blank			
-one per digestion group	✓		
-< CRDL or all samples associated			
> 10X blank value	✓		
5. Samples			
-within calibration range			✓
-soils corrected for percent solids			✓
6. Matrix spike			
- performed at 10% frequency			✓
-within calibration range			✓
-percent recovery in limits			✓
7. Duplicate			
-performed at 10% frequency	✓		
-within calibration range			✓
-% RPD within range	✓		
8. LCS			
-one per digestion group	✓		
-% recovery in range	✓		
9. Check for transcription errors	✓		

SULFIDE IN WATER/WASTEWATER - EPA 376.1 11/17/94 14:50:44

Date: 10/14/94
Run No: 1
Analyst: LN
OK to Log: YES
Logged:
Created: 10/14/94
Updated: 11/17/94
By: GMARTIN
Comments: NO

Standardization of Iodine

mLs 0.025 N Na2S2O3	mLs Iodine
19.80	20.00
19.80	20.00
19.80	20.00

Normality of Iodine 0.024750

Lab Number	Class\Sub\ Dup\Matrix	Sample Vol, mL	mL's Iodine	mL's Na2S2O3	Result, mg/L
#PB	B P W	200.00	20.00	19.80	0
#LCS	T L W	50.00	20.00	14.20	44.8
#9410039-01A	S C W	940.00	20.00	20.00	-0.085
#9410061-15A	S C W	100.00	20.00	19.90	-0.400
#9410061-15B	S C W	110.00	20.00	20.00	-0.727
#9410061-15	S C D W	110.00	20.00	19.90	-0.364
#9410061-15C	S C W	110.00	20.00	19.90	-0.364
#9410061-15D	S C W	110.00	20.00	19.90	-0.364
#CCB	B C W	200.00	20.00	19.80	0
#CCV	T C W	50.00	20.00	14.20	44.8

DEPT	START	DUE	TEST	ORDER#	STAT	CLIENT	DASH#	RESULT	UNITS	STORED	DATE
WC	10/14	10/21	S	94-10-061/T		DSM_ENV	|15A	<0.4	mg/L	REF	11/04
							|15B	<0.4	mg/L	REF	11/04
							|15C	<0.4	mg/L	REF	11/04
							|15D	<0.4	mg/L	REF	11/04

EBS RUN NUMBER: S_WAT\941014000000
INSTRUMENT ID: S_WAT

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 11/18/94
PAGE: 1

TEST: SULFIDE IN WATER **DATE ANALYZED: 10/14/94** **ANALYZED BY: LN** **HOLDING TIME: 7 Days**

Total Number of Samples: 5
QA Acceptable? ____
Initials: ____

Number of ICV's: 0
Number of CCV's: 1
Number of LCS's: 1

Number of ICB's: 0
Number of CCB's: 1
Number of PB's: 1

Number of DUP's: 1
Number of SPK's: 0
Number of MSD'S: 0

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
PB	S_WAT	mg/l	<.40						0.050	NA	NA	NA
LCS	S_WAT	mg/l	44.8	57.0		78.6		50	150	NA	NA	NA
9410039-01A	S_WAT	mg/l	<.40							10/05/94	10/04/94	NO
9410061-15A	S_WAT	mg/l	<.40							10/07/94	09/29/94	NO **
9410061-15B	S_WAT	mg/l	<.40							10/07/94	09/29/94	NO **
9410061-15 DUP	S_WAT	mg/l	<.40	<.40			0		15	10/07/94	09/29/94	NO **
9410061-15C	S_WAT	mg/l	<.40							10/07/94	09/29/94	NO **
9410061-15D	S_WAT	mg/l	<.40							10/07/94	09/29/94	NO **
CCB	S_WAT	mg/l	<.40							NA	NA	NA
CCV	S_WAT	mg/l	44.8	57.0		78.6				NA	NA	NA

COMMENTS:

TOTAL PETROLEUM HYDROCARBONS

EPA METHOD 418.1

Report No. 9410061 Reviewer JM Test Code TPH-S Date 10/10/94

VAIDATION CHECKLIST: WET CHEMISTRY

	Acceptable	Not Acceptable	NA
1. Holding times	✓		
2. Calibration co-efficient >0.995	✓		
3. ICV and ICB acceptable	✓		
4. Prep blank			
-one per digestion group	✓		
-< CRDL or all samples associated			
> 10X blank value			
5. Samples			
-within calibration range	✓		
-soils corrected for percent solids	✓		
6. Matrix spike			
- performed at 10% frequency	✓		
-within calibration range	✓		
-percent recovery in limits	✓		
7. Duplicate			
-performed at 10% frequency	✓		
-within calibration range	✓		
-% RPD within range	✓		
8. LCS			
-one per digestion group			✓
-% recovery in range			
9. Check for transcription errors	✓		

BALANCE CALIB. LOG

Sept. 94

Date	Initials	Actual wt.	Measured wt.
9/19/94	HP 0600	1.0000g	1.0000g
9/20/94	HP 0610	1.0000g	1.0000g
9/21/94	HP 0600	1.0000g	1.0000g
9/ 4	HP 0600	1.0000g	1.0000g
9/22/94	HP 0620	1.0000g	1.0000g
9/23/94	HP 0620	50.0000g	50.0000g
9/26/94	HP 0610	1.0000g	1.0000g
9/27/94	HP 0630	1.0000g	1.0000g
9/28/94	HP 0600	1.0000g	1.0000g
9/29/94	HP 0600	1.0000g	1.0000
9/30/94	HP 0630	1.0000g	1.0000g
9/30/94	HP 0630	50.0000g	49.9999g

Oct. 94

Date	Initials	Actual wt.	Measured wt.
10/3/94	HP 0610	1.0000g	1.0000g
10/4/94	HP 0600	1.0000g	1.0000g
10/5/94	HP 0620	1.0000g	1.0000g
10/6/94	HP 0620	1.0000g	1.0000g
10/7/94	HP 0610	1.0000g	1.0000g
10/7/94	HP 0610	50.0000g	50.0000g
10/ 1994	HP 0645	1.0000g	1.0000g
10/ .94	HP 0645	50.0000g	49.9999g
10/11/94	HP 0610	~~50.0000~~ 1.0000g	1.0000g
10/12/94	HP 0630	1.0000g	1.0000g
10/13/94	HP 0622	1.0000g	1.0000g
10/17/94	HP 0600	1.0000g	1.0000

Oct 94

Date	Initials	Actual wt.	Measured wt.
10/18/94	HP 0610	1.0000g	1.000
10/19/94	HP 0620	1.0000g	1.000
10/20/94	HP 0625	1.0000g	1.000
10/20/94	HP 0625	50.0000g	49.9
10/21/94	HP 0600	1.0000g	1.000
10/25/94	HP 0605	1.0000g	1.000
10/26/94	HP 0610	1.0000g	1.00
10/27/94	HP 0600	1.0000g	1.00
10/28/94	0620 HP	1.0000g	1.00
10/28/94	0620 HP	50.0000g	50.0
10/31/94	0610 HP	~~50.0000g~~ 1.0000g	1.0

NOV. 94

Date	Initials	Actual wt.	Measured wt.
11/1/94	HP 0640	1.0000g	1.00
11/2/94	HP 0615	1.0000g	1.00
11/3/94	HP 0630	1.0000g	1.00
11/4/94	HP 0634	1.0000g	1.00
11/4/94	HP 0634	50.0000g	49.9
11/7/94	HP 0600	1.0000g	1.00
11/8/94	HP 0625	1.0000g	1.0
11/9/94	HP 0620	1.0000g	1.00
11/10/94	HP 0610	1.0000g	1.000
11/11/94	HP 0625	1.0000g	1.00
11/14/94	HP 0615	50.0000g	49.7
11/14/94	HP 0710	1.0000g	1.00

HUNTINGDON-HOU WORK LIST

ALL FRACTIONS

FILE: &L_WK68.NAM

11/17/94 13:46:58

WORK for TEST: WC-TPH_S

DEPT	START	DUE	TEST	ORDER#	STAT	CLIENT	DASH#	RESULT	UNITS	STORED	DATE
WC	10/16	10/21	TPH_S	94-10-061/T		DSM_ENV	|07A	3500	mg/kg	REF	11/04
							|08A	1550	mg/kg	REF	11/04
							|09A	1700	mg/kg	REF	11/04
							|10A	4640	mg/kg	REF	11/04

==========

EBS RUN NUMBER: TPH_S\941010000000
INSTRUMENT ID: TPH_S

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 10/11/94
PAGE: 1

TEST: TOT.PET. HYDROCARBONS SOIL DATE ANALYZED: 10/10/94 ANALYZED BY: DA HOLDING TIME: 28 Days

Total Number of Samples: 20
QA Acceptable?
Initials:

Number of ICV's: 2
Number of CCV's: 3
Number of LCS's: 0

Number of ICB's: 2
Number of CCB's: 3
Number of PB's: 0

Number of DUP's: 2
Number of SPK's: 2
Number of MSD'S: 0

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICB	TPH_S	mg/kg	< 10						5.00	NA	NA	NA
ICV	TPH_S	mg/kg	1040	1000.0		104.0		90.0	110	NA	NA	NA
9409348-02A	TPH_S	mg/kg	74500							09/26/94	?	?
9409348-02B	TPH_S	mg/kg	71200							09/26/94	?	?
9409348-02C	TPH_S	mg/kg	70400							09/26/94	?	?
CCB	TPH_S	mg/kg	< 10						1.25	NA	NA	NA
CCV	TPH_S	mg/kg	1040	1000.0		104.0		90.0	110	NA	NA	NA
ICB	TPH_S	mg/kg	< 4						5.00	NA	NA	NA
ICV	TPH_S	mg/kg	416	400.00		104		90.0	110	NA	NA	NA
9409315-13A	TPH_S	mg/kg	300							09/27/94	09/22/94	YES
9409315-14A	TPH_S	mg/kg	116							09/27/94	09/22/94	YES
9409315-15A	TPH_S	mg/kg	124							09/27/94	09/22/94	YES
9409315-16A	TPH_S	mg/kg	204							09/27/94	09/22/94	YES
9409315-17A	TPH_S	mg/kg	172							09/27/94	09/22/94	YES
9409315-18A	TPH_S	mg/kg	71.3							09/27/94	09/22/94	YES
9409315-18 DUP	TPH_S	mg/kg	74.5	71.3			4.39		22.1	09/27/94	09/22/94	YES
9409315-18 SPK	TPH_S	mg/kg	447	71.3	399.20	94.1		85.6	125	09/27/94	NA	NA
9409315-19A	TPH_S	mg/kg	1700							09/27/94	09/22/94	YES
9409315-20A	TPH_S	mg/kg	67.6							09/27/94	09/22/94	YES
9409315-21A	TPH_S	mg/kg	74.3							09/27/94	09/22/94	YES
9409315-22A	TPH_S	mg/kg	458							09/27/94	09/22/94	YES
CCB	TPH_S	mg/kg	< 4						1.25	NA	NA	NA
CCV	TPH_S	mg/kg	416	400.00		104		90.0	110	NA	NA	NA

TPH SOILS - EPA 418.1

Date: 10/10/94
Run No: 2
Analyst: DA
OK to Log? YES
Logged? YES
Created: 10/11/94
Updated: 10/11/94

Conc	Abs
0.00	0.000
10.00	0.022
50.00	0.134
100.00	0.260
200.00	0.490

STANDARD CURVE

Regress. Const. (A) 0.00393168
Regress. Coeff. (B) 0.00246206
Correl. Coeff. (r) 0.99924557

Note: Concentration of Standards = mg of TPH per liter Freon

Lab Number	Class\Dup	Sub\Matrix			Soil Weight,g	Prep / Vol.,ml	DF	Abs	Result, mg/kg
#ICB	B	I		S	25.0000	100.0000		0.000	-6.4
#ICV	T	I		S	25.0000	100.0000		0.260	416
#9409315-13A	S	C		S	25.1500	100.0000		0.190	300
#9409315-14A	S	C		S	25.1400	100.0000		0.076	116
#9409315-15A	S	C		S	25.0100	100.0000		0.080	124
#9409315-16A	S	C		S	25.0500	100.0000		0.130	204
#9409315-17A	S	C		S	25.0700	100.0000		0.110	172
#9409315-18A	S	C		S	25.1200	100.0000		0.048	71.3
#9409315-18	S	C	D	S	25.1100	100.0000		0.050	74.5
#9409315-18	K	M		S	25.1000	100.0000		0.280	447
#9409315-19A	S	C		S	25.3100	100.0000	10	0.110	1700
#9409315-20A	S	C		S	25.2900	100.0000		0.046	67.6
#9409315-21A	S	C		S	25.2000	100.0000		0.050	74.3
#9409315-22A	S	C		S	25.3600	100.0000		0.290	458
#CCB	B	C		S	25.0000	100.0000		0.000	-6.4
#CCV	T	C		S	25.0000	100.0000		0.260	416
#9409315-23A	S	C		S	25.2800	100.0000		0.084	129
#9409315-23	S	C	D	S	25.2500	100.0000		0.080	122
#9409315-23	K	M		S	25.3000	100.0000		0.320	507
#9410067-01A	S	C		S	25.0300	100.0000	100	0.260	41600
#9410011-01A	S	C		S	25.1200	100.0000	10	0.072	1100
#9410061-07A	S	C		S	25.0500	100.0000	10	0.220	3500
#9410061-08A	S	C		S	25.1300	100.0000	10	0.100	1550
#9410061-09A	S	C		S	25.3000	100.0000	10	0.110	1700
#9410061-10A	S	C		S	25.0600	100.0000	10	0.290	4640
#CCB	B	C		S	25.0000	100.0000		0.000	-6.4
#CCV	T	C		S	25.0000	100.0000		0.260	416

EBS RUN NUMBER: TPH_S\941010000000
INSTRUMENT ID: TPH_S

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 10/11/94
PAGE: 2

TEST: TOT.PET. HYDROCARBONS SOIL DATE ANALYZED: 10/10/94 ANALYZED BY: DA HOLDING TIME: 28 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9409315-23A	TPH_S	mg/kg	129							09/27/94	09/22/94	YES
9409315-23 DUP	TPH_S	mg/kg	122	129			5.58		22.1	09/27/94	09/22/94	YES.
9409315-23 SPK	TPH_S	mg/kg	507	129	396.05	95.4		85.6	125	09/27/94	NA	NA
9410067-01A	TPH_S	mg/kg	41600							10/07/94	10/07/94	YES
9410011-01A	TPH_S	mg/kg	1100							10/03/94	10/03/94	YES
9410061-07A	TPH_S	mg/kg	3500							10/07/94	09/29/94	YES
9410061-08A	TPH_S	mg/kg	1550							10/07/94	09/29/94	YES
9410061-09A	TPH_S	mg/kg	1700							10/07/94	09/29/94	YES
9410061-10A	TPH_S	mg/kg	4640							10/07/94	09/29/94	YES
CCB	TPH_S	mg/kg	< 4						1.25	NA	NA	NA
CCV	TPH_S	mg/kg	416	400.00		104		90.0	110	NA	NA	NA

COMMENTS: * SOME SAMPLES RUN IN TRIP. AS PER CLIENT.

DSM ENVIRONMENTAL SERVICES INC.

February 8, 1995

Mr. Andrew Bellina
Chief, Hazardous Waste Facilities Branch
290 Broadway, 22nd Floor
New York, NY 10007-1866

RE: **Submittal of the Eastern Oil Lagoon Impoundment Closure Plan for Commonwealth Oil Refining Company (CORCO), Petrochemical Complex, Peñuelas, Puerto Rico 00731**

Dear Mr. Bellina:

DSM Environmental Services, Inc. is pleased to submit the Eastern Oil Lagoon Closure Plan Closure Plan on behalf of Commonwealth Oil Refining Company. The closure plan contains the risk evaluation and closure methodologies for the impoundment. The closure plan also contains a schedule for final closure activities.

If you have any questions, please feel free to contact our office at (713) 870-8676.

Sincerely,
DSM Environmental Services, Inc.

Gerardo H. Garcia

Gerardo H. Garcia R.G.
Geologist

w/enclosure

cc: Mr. Roberto Berberena - P.R.EQB
Mr. Dale Byars - CORCO
Mr. Edert Ortiz - CORCO

1830 S. Kirkwood Suite 201 A. Houston, Texas 77077 Tel.: 713/870-8676

The HERCOR Chemical Plant was jointly owned by CORCO and Hercules Chemical Corporation until 1981. In 1981, CORCO withdrew from the HERCOR operations and the chemical plant became the property of HERCOR Chemical. The plant received feedstock from the petrochemical complex and produced paraxylenes. CORCO does not own the property occupied by the HERCOR Chemical Plant.

CORCO has operated docking facilities on Tallaboa Bay and Guayanilla Bay. The Tallaboa dock was leased from the Puerto Rico Port Authority and is no longer under the lease agreement, but is still utilized by CORCO. The Guayanilla Bay dock, which is owned by CORCO, was used for the loading and unloading of refinery, petrochemical, and propylene products. The dock is still used for the loading/unloading of diesel, LPG, jet fuel, and gasoline.

The CORCO Tank Farm is used for the storage of hydrocarbon products. The largest portion of the Tank Farm is located north of Route 127 and is situated on the Ponce Limestone. A number of tanks (8) are located to the south of Route 127 on the Quaternary Alluvium. The tanks north of Route 127 on the Ponce Limestone, have been cut into the hillside and back filled with caliche along the margins. The elevation of the Tank Farm, north of Route 127, ranges from 35 to 280 feet above msl. The elevation of the Tank Farm, south of Route 127, ranges from 8 to 20 feet above msl.

2.3 Description of Historical Waste Management

The historical wastewater effluent from the various plants were separated into three (3) main waste streams. The wastewater streams included: 1) Storm Water, 2) Non-Contact Cooling Water, and 3) Oily Sewers. The three wastewater effluent streams from the historical refinery complex operations were treated by the refinery complex wastewater treatment system. The wastewater treatment system consisted of an American Petroleum Institute (API) Separator; a Depurator Dissolved Air Floatation (DAF) Unit; a system of four lagoon impoundments (an Eastern and Western Cooling Water Lagoon Impoundments, an Aeration Lagoon Impoundment, and an Oxidation Lagoon Impoundment; a stormwater ditch; an effluent ditch; an Eastern Oil Lagoon Impoundment); and two slop oil tanks (Tank 1008 and Tank 1030). This historical wastewater treatment system is shown in **Figure 3**.

2.3.1 Eastern Oil Lagoon Impoundment

The Eastern Oil Lagoon Impoundment is located south of Highway 127 and south and east of the refinery as depicted in **Figure 2**. The impoundment measures approximately 280 feet long, 280 feet wide, and eight feet deep. According to the RCRA Part A Permit Application filed by CORCO in 1980, the unit received API separator sludge (K051) and wastewater treatment lagoon sludge on an annual basis when the refinery was operational. The Eastern Oil Lagoon Impoundment does not presently receive any solid or hazardous waste.

The Eastern Oil Lagoon Impoundment is an unlined earthen impoundment with a surface area of 78,400 ft^2. Three sides of the Eastern Oil Lagoon Impoundment are bermed, and the fourth side (the western most side) is excavated into natural soils. The total capacity of the Eastern Oil Lagoon Impoundment is approximately 5,200,000 gallons.

Based on the four hand-augered borings and the two excavated test pits reported by GDC Engineering, the Eastern Oil Lagoon Impoundment contains sludge that is approximately three feet thick at its western boundary and pinches out to only several inches at approximately the midpoint of the lagoon. GDC concluded that a wedge of sludge exists primarily in the western half of the lagoon and that the eastern half of the lagoon is native soil. Based on the GDC reported measurements obtained from the augered borings, the test pits, and observations made during the sampling activities, the Eastern Oil Lagoon Impoundment contains an average thickness of two feet of sludge over one-half of the lagoon surface are (78,000 square feet). The estimated sludge volume for the Eastern Oil Lagoon Impoundment, as reported by GDC, is 2,900 cubic yards.

On October 3, 1994 a grid was constructed by Gerardo H. Garcia, of DSM Environmental Services, Inc., within the Eastern Oil Lagoon Impoundment as depicted in **Figure 9** of the Site Assessment Addendum Report in **Appendix A**. This grid was constructed in order to determine a rough order of magnitude of the volume of sludge present within the unit. Grid point AA' represents a location approximately 30 feet south and 50 feet east of the northwest corner of the unit. This point indicates the presence of nine inches of sludge. Grid point DC' represents a location approximately 180 feet south and 150 feet east of the northwest corner of the unit. This point indicates the presence of one inch of sludge. A shovel was used to dig through the sludge blanket into native soils. The thickness and description of the sludge was noted in the field book. The results of this investigation are presented in **Table 5** of the Site Assessment Report Addendum in **Appendix A**. **Figure 9** of the Site Assessment Addendum Report, which can be found in **Appendix A**, depicts the thickness of sludge within the impoundment.

The sludge blanket ranges from a western thickness of 2.3 feet thick to an eastern thickness of 1 to 3 inches across the Eastern Oil Lagoon Impoundment during the Site Assessment Addendum (See **Figure 9**). A layer of water was not present on top of the sludge blanket. The estimated volume of in-situ sludge within the Eastern Oil Lagoon Impoundment is approximately 1,402 cubic yards. The minimum volume of in-situ affected soil and sludge within the Eastern Oil Lagoon Impoundment is approximately 3,428 cubic yards. This information is presented in **Table 6** of the Site Assessment Addendum Report which can be found in **Appendix A**.

On October 4, 1994, Gerardo H. Garcia collected four soil samples within the Eastern Oil Lagoon Impoundment at locations as depicted in **Figure 8** of the Site Assessment Addendum Report in **Appendix A**. The four samples were collected six inches to one foot beneath the sludge blanket present in the basin. The samples were analyzed for total petroleum hydrocarbons. The thickness of the sludge layer was noted and recorded in

the field book at these locations. The sludge layer was removed with the use of a shovel. The discrete soil samples were collected with the use of a post hole digger. The soil samples provide DSM with a rough estimate of vertical migration of total petroleum hydrocarbons within the basin. The analytical results and depth of collection of the samples below ground surface elevation are presented in **Table 2** of the Site Assessment Addendum Report in **Appendix A**. It appears that hydrocarbons have migrated vertically a minimum of one foot below the sludge layer at every sample location.

3.0 SITE CHARACTERIZATION

3.1 Site Physiography

Puerto Rico is the most easterly and smallest of the four major islands that form the Greater Antilles. The other three land masses within the Greater Antilles island cluster include Cuba, Jamaica, and Hispaniola. Puerto Rico is surrounded by the Atlantic Ocean to the north and the Caribbean Sea to the south. The Island's most noteworthy geological feature is the Cordillera, a chain of towering mountains that rise above the Central Region. The mountain summits are the high parts of a chain that's mass is buried mostly beneath the sea. The mountain peaks are the result of volcanic activity that deposited lava and igneous rock in consecutive layers. To a lesser degree, the island is composed of quartz, diomites, and along some of the edges, coral limestone.

The daily temperatures in Puerto Rico average in the mid-70's and seldom go above 85 degrees or below 70 degrees. Most rain falls in May but there is no definite rainy season. The sun shines most days of the year. The CORCO Facility is located on the Caribbean Island of Puerto Rico. The facility is situated south of the Central Cordillera Mountains in the southwest region. The CORCO Facility is near Ponce, which is the second largest city in Puerto Rico.

3.2 Regional Geology and Hydrogeology

The CORCO Facility is located in the Tallaboa-Guayanilla-Guanica subarea of the south coast region of Puerto Rico (USGS, 1987). The three formations in the Tallaboa-Guayanilla-Guanica subarea are Quarternary Alluvium, and the Tertiary Limestones which are made up of the Ponce Limestone and Juana Diaz Limestone. Thick deposits of unconsolidated Quarternary Alluvial of boulders, gravel, sands, silts and clays underlie large portions of the Tallaboa Valley. These alternating alluvial sequences grade southward towards the Caribbean Sea to finer-grained deposits of lacustrine origin. The Quarternary lacustrine deposit composition is generally fine-grained sequences of sand, silts, clays and peat. Further southward towards the Caribbean Sea, the benthic deposits are generally thin re-worked beach deposits of quartz sand and calcite reef rubble. The Quarternary deposits thicken seaward and are underlain by the Tertiary Limestone formations. The Quaternary Alluvial Deposits are underlain by the Tertiary Ponce Limestone in the south and by the older Tertiary Juana Diaz Limestone to the north.

The Ponce Limestone is comprised of an upper Miocene member and a lower Oligocene member with a total thickness of 2,260 feet. Tallaboa Valley Basin is underlain by the Ponce Limestone. Most of the Ponce Limestone is a yellowish-white chalky limestone. The Ponce Limestone is generally massive, but includes some thin dense strata and clay facies. The formation is commonly fossiliferous (USGS, 1972). The limestone strikes east-west and

dips south at an angle of ten to twenty degrees. The Ponce Limestone at the CORCO Facility trends 86 to 94 degrees east and dips 18 to 22 degrees south.

The regional hydrogeology discussion is based primarily on the U.S. Geological Survey report on the water resources of the Tallaboa Valley by Grossman et. al. (1972). Unconsolidated deposits of sand and gravel, in the central portion of the valley, are by far the most productive water-bearing material in the Tallaboa Valley region. The Ponce Limestone may serve as a supplemental source of water to wells tapping the overlying sand and gravel. Wells in the Quarternary Alluvial have the highest specific capacity and yield. The maximum yield is reported at 1,200 gpm (Grossman, 1972). The average yield of forty nine (49) wells tapping the sand and gravel aquifer is about 260 gallons per minute (gpm), with individual wells yielding upwards to 1,650 gpm. In spite of the low yield and a wide range in chemical quality of groundwater, the Ponce Limestone is the only productive bedrock in the area and is second only to the unconsolidated sand and gravel as a source of water. The average yield of four wells tapping this rock is 30 gpm, the maximum yield being 100 gpm. Salt water intrusion in the alluvium is common near the sea and inland in heavily pumped supply wells. The beach and dune deposits commonly contain salt water.

Saltwater intrusion from the sea was reported as early as 1961 to be affecting wells south of Route 127. Further studies by the USGS in 1966 showed many wells in this area reporting increased chloride concentrations, the predominant anion of sea water (Grossman, 1972). The fresh water supplies for potable and industrial use are obtained from well fields owned and operated by the industries or by the Puerto Rico Aqueduct Authority. The Puerto Rico Aqueduct Authority public potable water is partially supplied from the Grazas Dam, the Yauco Reservoir, and a well field. The well field is located north of Highway 2, in the north Tallaboa Valley, and is completed in the alluvial gravel and sand aquifer. Saltwater intrusion, has shut down most potable water wells in the Tallaboa Valley Region south of Route 127.

Groundwater exists under water table conditions within the alluvial deposits and in the upper part of the Ponce Limestone beneath the valleys (Weston, 1992). The groundwater of the Tallaboa Valley Alluvial deposits occurs under water table conditions with a gradient to the south towards the Bahia de Tallaboa. Groundwater recharge is due to infiltration and percolation. The fractured limestone recharges from the alluvial sands and gravel in the central valley region. The upland region is not favorable to recharge as the limestone is more competent with fewer joints and fractures. The yields in the upland regions of the Ponce Limestone is generally low with high concentrations of dissolved solids. The Juana Diaz Formation may supply small yields of water in the valley, but is of poor chemical quality with a high content of chloride and sulfate (Grossman, 1972).

3.3 Site Specific Lithology

The site specific lithology, as determined by previous subsurface investigations conducted at the CORCO facility, is the Quaternary Alluvial Deposits and the Tertiary Ponce

Limestone. Previous investigations in these two formations were conducted by Versar, Inc. (1986), Roy F. Weston, Inc. (1989), GDC Engineering, Inc. (1994) and DSM Environmental Services, Inc. (1994). The geology at the Solid Waste Management Units area has been determined to be the Quarternary Alluvial Deposits. The Quarternary Alluvial Deposits formation is the lithographic unit of interest during closure actions.

The road, Route 127, bisects the CORCO Facility on an east to west bearing. The roadway is built on/at the interface between the Ponce Limestone and Alluvial Deposits. Route 127 is built on the Alluvial flats and follows the contour of the Ponce Limestone hill-sides. The road base has been raised above the surrounding land surface approximately one foot. The road is the main route for heavy equipment and traffic in and through the Petrochemical Complex. The presence of this roadway is significant as it appears to impact the geohydrology at the CORCO Facility.

The Quarternary Alluvial Deposits are located in the low lying regions, at the CORCO Facility, south of Route 127. The Site Assessment advanced eight (8) soil borings in the alluvial to a maximum depth of thirty five (35) feet bls. The Phase I: Subsurface Oil Investigation advanced eight (8) piezometer soil borings in the alluvial deposits to a maximum depth of thirty (30) feet below-land-surface. The elevation range, for the soil borings, was from 4.69 to 15.11 feet above mean sea level (ft. msl).

The soil borings, in the alluvial, indicate that there were two or more depositional environments in the area investigated. The soil facies range from peat, to mixtures of sand, silt, clay and gravel. This composition of the facies indicates a wide energy range during the depositional environments. This energy was applied by wave action and currents affecting the composition during deposition of the facies. The exhibited rounding, sorting and winnowing in the alluvial facies exhibit the medium energy ranges and textural maturity, while the high energy ranges are exhibited as textural inversions. A supra-tidal environment has a wide energy range and textural maturity range.
The lithology can be interpreted as being constructed of three zones. The first zone is varying grades of silty clay to silty clayey gravel. This zone appears to be fill material. The fill material originates from the Ponce Limestone and most likely was deposited during construction of the CORCO Tank Farm. The second zone shows facies of diverse compositions of peat to organic silty clays. The third zone shows facies of clay, silt and sands with some gravels.

The soil borings WL-1, WL-3, WL-4, and PD-2 indicate a relatively moderate energy depositional environment within the second depositional zone. These facies were encountered at six to ten (6 to 10) ft. bls. The facies, in these borings, are varying compositions of peat to organic silty clays. A peat zone was found in PD-2 at ten to twelve (10 to 12) ft. bls.

The third zone was encountered at twelve to fourteen (12 to 14) ft. bls. in wells PD-2 and WL-1. This zone has silty sand, clayey sand and gravelly sand facies. The sediments range from well sorted grains in a clay matrix to sub-rounded grains in a silty clay matrix. This

is indicative of a high energy depositional environment, by the textural inversions of the facies.

The lithology at the Eastern Oil Lagoon Impoundment is similar to the lithology at the Western Lagoon Area as can be seen in **Figure 4: Cross Section A-A'**. The lithology of the native soils encountered in boring EL-1, completed to a depth of 24.2 feet, consists of a thin veneer of humus, silty clays (CL), clayey silts (ML), and clayey very fine sand (SM) overlaying unconsolidated sands and fine and coarse gravelly sands (SP). The lithology of the soils encountered in boring EL-2, completed to a depth of 28.5 feet, consists of twelve feet of fill (tan calcareous clay with calcareous nodules), clays (CH), silty clays (CL), and sandy clays (CL) overlaying unconsolidated sands (SP). Field screening of soils with the PID did not detect any organic vapors within these borings located upgradient and downgradient of the Eastern Oil Lagoon Impoundment. Initial groundwater levels ranged between 7.5 and 20 feet below ground surface elevation at EL-1 and EL-2, respectively.

The Alluvial Deposits show a range of energy during the depositional environment. The textural maturity of the facies falls within the immature, sub-mature to mature ranges. The depositional environments in these energy ranges are flood plain, lagoon/swamp, river channel, and beach and bar environs. The facies also exhibit textural inversions that indicate multiple source material or reworked older sediments into primary deposits.

The depositional environment, encountered during the investigation of the Alluvial Deposits, is reflected by the textural maturity and textural inversions of the facies composition. The older facies, the third depositional zone, exhibit a beach-bar composition. The second depositional zone shows a range of maturity and textural inversions that is indicative of low to moderate energy environs. The winnowing and sorting of the second zone facies exhibits deposition features of lagoon/swamp and river/splay deposits. These findings are consistent with the U.S. Geological Survey report on the water resources of the Tallaboa Valley (Grossman, et. al. 1972).

4.0 RISK EVALUATION

The purpose of this subsection is to derive acceptable risk based clean-up levels for constituents detected within the Eastern Oil Lagoon Impoundment. Those constituents which are systemic toxicants and/or carcinogenic and which have scientifically valid inhalation or ingestion Reference Doses (RfDs) or carcinogenic Slope Factors found in the Integrated Risk Information System (IRIS March, 1994), the EPA's risk database, are evaluated in this section.

4.1 Selection of Indicator Chemicals for the Eastern Oil Lagoon Impoundment

The selection of indicator chemicals is based on sample data collected by GDC Engineering, Inc. during a Site Assessment conducted between October 13, 1993 and November 8, 1993. Forty-one organic and inorganic chemicals were identified in sludge and soil samples collected within the Eastern Oil Lagoon Impoundment. **Table 1** lists the constituents detected within this waste management unit during the GDC Engineering site assessment. Thirty-three of these chemicals were eliminated from further evaluation for the baseline risk assessment and the development of clean-up levels for clean closure of the unit.

The elimination criteria outlined in the Risk Assessment Guidance for Superfund Volume I, Human Health Evaluation Manual (Part A) was applied to the forty-one constituents detected within the Eastern Oil Lagoon Impoundment. Chemicals that are essential human nutrients, are present at low concentrations (only slightly above naturally occurring levels), or toxic only at very high doses were eliminated from further quantitative risk assessment evaluation.

Chemicals that are nutrients essential to human health and which were eliminated from further consideration are Calcium, Iron, Magnesium, Manganese, Potassium, and Sodium. Aluminum, Chrysene, Cobalt, Copper, Famphur, Hexachlorodibenzofuran, 2-Methylnaphthalene, Mercury, Naphthalene, Phenanthrene, and Vanadium were eliminated from further evaluation since toxicity values (slope factors and RfDs) are not available from the IRIS. Barium was eliminated since this metal substitutes for Calcium within carbonate geological formations which are present upgradient of the site and within fill composed of limestone and calcareous clays located south and southwest of the site. Beryllium, Chromium, Silver, and Tin were eliminated as indicators since the average concentration of these constituents within background soil samples collected for this area were comparable to average concentrations detected within samples of soil and sludge collected within the unit. Benzene, Pentachlorodibenzodioxin, Pentachlorodibenzofuran, Xylenes, and Cadmium were eliminated from consideration since these constituents were detected in only one sample and would not serve as a good indicators due to a lack of consistency. Acenaphthene, Anthracene, Benzo(a)Anthracene, Benzo(b)fluoranthene, Bis(2-ethylhexyl)phthalate, Di-n-butyl phthalate, Disulfoton, Famphur, Fluoranthene, Methylene Chloride, Phorate, Arsenic, Lead, and Selenium were detected at non-quantifiable concentrations. Therefore, these constituents are not evaluated in the quantitative risk assessment.

This selection process resulted in the selection of the following eight indicator chemicals:

- Acetone
- Ethylbenzene
- Fluorene
- Hexachlorodibenzodioxin
- Nickel
- Pyrene
- Toluene
- Zinc

Hexachlorodibenzodioxin is carcinogenic through the ingestion pathway. The remainder of the chemicals are systemic toxicants and are currently not classified as carcinogens. The Risk Evaluation for the Eastern Oil Lagoon Impoundment focusses on these eight indicator chemicals.

4.2 Analysis of Exposure Pathways and Potentially Exposed Populations Based on Remediation of the Site

The critical routes of exposure specific to the Eastern Oil Lagoon Impoundment are:

- Incidental ingestion of soils/wastes at the site
- Inhalation of air-borne soil/waste volatile and particulate contaminants

It is assumed that the site will be used for industrial purposes in the future (La Junta De Plantificacion De Puerto Rico). A worker exposure scenario is appropriate in deriving cleanup levels since it is more conservative, from an exposure standpoint, than an adult and child trespasser scenario and since this site has no future potential of being developed as a residential area. Thus, the incidental ingestion of soils and inhalation of volatile and air-borne soil particulates will be evaluated for a worker exposure scenario.

4.3 Estimation of Exposure Intake

The worker scenario assumes contact of an adult worker with contaminated soils through the ingestion and inhalation exposure routes. The worker scenario was used instead of the trespasser scenario because this scenario is associated with a higher risk due to prolonged

exposure. This scenario is also more conservative than other identified scenarios. Models were used to estimate the exposure doses through these two exposure routes. Soil contaminant levels currently associated with the Eastern Oil Lagoon Impoundment are reported in **Table 2** and are used in the models to estimate exposure intake.

4.4 Current Risk Associated with the Site (Based on the Worker Exposure Scenario)

4.4.1 Baseline Noncarcinogenic Hazard Index

Noncarcinogenic risk was evaluated by comparing the predicted exposure intakes to reference doses for chronic exposure reported in IRIS. This comparison is performed by dividing the estimated intake by the Reference Dose (RfD) to derive a ratio called the Hazard Index (HI). If the estimated exposure intake exceeds the Reference Dose (i.e., the ratio exceeds one), it indicates that there is a potential for noncarcinogenic health effects occurring under the defined exposure conditions. In the worker exposure scenario it is assumed that an individual may be exposed to the chemical for a total of 25 years. The exposure frequency is assumed to be 250 days per year. The soil ingestion rate is 50 mg/day. The assumed body weight of the exposed worker is 70 kg. The time over which the exposure is averaged is 25 years. The exposure dose model for calculating contaminant intake for systemic toxicants is presented in **Table 3**. **Table 4** presents the oral hazard index for various indicator constituents currently associated with the Eastern Oil Lagoon Impoundment, based on the worker exposure scenario. The oral hazard index for the soil ingestion route of exposure does not exceed one for either the average detected value of the indicator chemicals or the maximum detected value of the indicator chemicals. Furthermore, the cumulative average values for all indicator chemicals do not exceed one. The cumulative maximum values do exceed one. It can be seen that Toluene and Nickel drive this exceedance. **Table 5** presents the cumulative health index for specific target tissues, organs, or health systems. The cumulative health index for each of the individual health endpoints do not exceed one.

4.4.2 Carcinogenic Risk

The carcinogenic risk posed by exposure to a chemical is derived by multiplying two factors: intake and the carcinogenic slope factor of the chemical (EPA, 1991). In the worker exposure scenario it is assumed that an individual may be exposed to the chemical for a total of 25 years. The exposure frequency is assumed to be 250 days per year. The soil ingestion rate is 50 mg/day. The assumed body weight of the exposed worker is 70 kg. The time over which the exposure is averaged is 70 years. The exposure dose model for calculating contaminant intake is presented in **Table 3**. **Table 6** presents the estimates of carcinogenic risk currently associated with the Eastern Oil Lagoon Impoundment, based on the worker exposure scenario. The estimated lifetime cancer risk currently posed by the average value of Hexachlorodibenzodioxin detected within the Eastern Oil Lagoon Impoundment exceeds one in 100 thousand. The estimated lifetime

cancer risk currently posed by the maximum value of Hexachlorodibenzodioxin detected within the Eastern Oil Lagoon Impoundment exceeds one in 10 thousand. The cancer risk posed by the Hexachlorodbenzodioxin indicates the need for remediation of the impoundment in order to achieve a target risk level between one in 10 thousand and one in a million for the site.

4.5 Clean-up Levels Derived from the Baseline Risk Assessment

Clean-up levels are derived in this subsection based on carcinogenic and noncarcinogenic health effects. An evaluation of carcinogenic risk is usually the most sensitive indicator of potential health risks, and consequently reflects the more stringent clean-up criteria. Both clean-up levels are evaluated to be consistent with EPA guidelines. The clean-up levels derived here are based on two exposure pathways (soil ingestion and soil inhalation) and one exposure scenario (worker) as discussed in the preceding sections.

4.6 Carcinogenic Effects for the Eastern Oil Lagoon Impoundment

Table 6 summarizes the estimated carcinogenic risks for the exposure levels discussed in Section 4.4.2. Carcinogenic risk at the Eastern Oil Lagoon Impoundment is based on the worker exposure scenario, and was estimated within the range of one in one million and one in 10 thousand excess cancers. Clean-up levels in soils which would result in one in one million, one in 100 thousand, and one in 10 thousand excess cancers were calculated for the Eastern Oil Lagoon Impoundment. The equation used to estimate carcinogenic risk was rearranged to solve for the clean-up level. This approach is presented in **Table 7**. **Table 8** presents clean-up levels based on protecting against carcinogenic effects for the worker exposure scenario. The target action level for Hexachlorodibenzodioxin correlating to a one in one million and one in 100 thousand carcinogenic risk may not be achievable due to the technical limitations of the analytical instrument. An alternate clean-up level matching the detection limit of 1 μg/kg is recommended for this compound (TRC, 1993).

4.7 Noncarcinogenic Effects for the Eastern Oil Lagoon Impoundment

As indicated in **Table 4**, the Hazard Indices (HIs) for the soil inhalation and soil ingestion pathways, based on the worker exposure scenario, are less than one (i.e. exposure intakes do not exceed their Reference Doses for Chronic Exposure). Both of these pathways were used to derive non-carcinogenic clean-up levels.

The first step in deriving clean-up levels was to separate the indicator chemicals based on the health endpoints they produce (i.e., target tissues/organs they could potentially affect). **Table 5** lists the health endpoints associated with the indicator chemicals by pathway as well as the HI associated with each of these effects based on current conditions at the site. This new HI assumes that for each of the individual health endpoints, the effects of more than one

chemical are additive. Where the same health effects would result from exposure through both the inhalation and ingestion pathways, it was found that the soil inhalation route of exposure was slightly greater than the soil ingestion route of exposure in the HI calculation. Referring back to **Table 4**, it can be seen that Nickel drives the HIs for the soil ingestion pathway, and Toluene drives the HIs for the soil inhalation pathway.

Target action clean-up levels are derived for Acetone, Ethylbenzene, Fluorene, Nickel, Pyrene, Toluene, and Zinc based on noncarcinogenic effects and are presented in **Table 8**. The approach used to derive these target action clean-up levels is presented in **Table 7**. **Table 9** presents the new HIs for each health effect based on these clean-up levels. **Table 10** presents a comparison between HIs based on worst case (maximum contaminant levels for each indicator chemical), current conditions and HIs based on calculated target action levels (i.e. HI=1). Nickel is the only chemical which is present within the Eastern Lagoon Impoundment above the calculated target action levels.

4.8 Recommended Target Action Levels

Since this property is classified and will be used as an industrial site in the future, the following target action levels are appropriate:

- Hexachlorodibenzodioxin (1 μg/kg)
- Acetone (2,920 mg/kg)
- Ethylbenzene (2,919 mg/kg)
- Fluorene (1,168 mg/kg)
- Nickel (584 mg/kg)
- Pyrene (876 mg/kg)
- Toluene (5,828 mg/kg)
- Zinc (8,760 mg/kg)

The target action level for Hexachlorodibenzodioxin represents a value between one in ten thousand and one in 100 thousand excess cancer risk. This action level is appropriate for an industrial site and is technologically achievable.

5.0 CLOSURE METHODOLOGY

The Eastern Oil Lagoon Impoundment will be closed by excavating all sludge and contaminant affected sediment and soil to risk based concentrations of indicator chemicals as described in Sections 4.6 and 4.7. A trackhoe excavator will be used to remove the material from the impoundment. The material will be transferred from the trackhoe to a front end loader within the impoundment. Once the material is placed into the loader, it will be transferred into a visqueen lined dump truck with an appropriate cover system. The excavated material will be transported to a Corrective Action Management Unit (CAMU) for land treatment. The material will be treated to meet risk based concentrations of indicator chemicals described in Section 4.6 and 4.7.

5.1 Closure Schedule

The schedule for closure of the Eastern Oil Lagoon Impoundment depends upon the time needed by the U.S. EPA to review and approve the Part "B" permit application and the Corrective Action Management Unit application. Once the Part "B" and CAMU application are approved, closure of the Eastern Oil Lagoon Impoundment will commence within 90 days. It is estimated that a total of 100 cubic yards of waste material can be safely removed from the impoundment on a daily basis. The closure implementation schedule is depicted in **Figure 7**. It is anticipated that closure of the Eastern Oil Lagoon will be completed in calendar year 1996.

5.2 Request for Extension

Due to the time constraints involved with the EPA approval of the Part B and CAMU applications, the closure activities for the Eastern Oil Lagoon Impoundment may extend beyond 180 days after approval of the Closure Plan. In the event that this occurs, CORCO will submit a written request to EPA to extend the closure period.

5.3 Closure Certification

Within 60 days of completion of final closure of the Eastern Oil Lagoon Impoundment, a certification of closure will be prepared and certified by an independent Professional Engineer registered in Puerto Rico and by CORCO. The certification will be sent to the U.S. EPA Regional Administrator via registered mail indicating that the Eastern Oil Lagoon Impoundment has been closed in accordance with the specifications in the U.S. EPA approved Closure Plan. The certification will be signed by CORCO and by an independent registered professional engineer.

The certification of the closure will be preceded by a series of inspections by the independent Professional Engineer, or his representative, at critical points during the closure, and during possible random unannounced inspections, and upon review of data gathered during closure.

Comments concerning closure progress inspections and related adherence to the closure plan will be recorded in a field log book which will be maintained by the independent Professional Engineer, or his representative. Documentation supporting the independent registered Professional Engineer's certification will be furnished to the U.S. EPA Regional Administrator upon request.

5.4 Closure Plan Amendment

In the event that procedures outlined in the Eastern Oil Lagoon Impoundment closure plan prove to not be successful, or other unexpected events occur which prevent CORCO from implementing the closure plan as approved, a written request to the Regional Administrator to authorize a change to the approved closure plan will be prepared and submitted. The written request will include a copy of the amended closure plan for approval by the Regional Administrator. Possible reasons to amend the closure plan include:

- a change in the expected year of closure, or

- in conducting final closure activities, unexpected events require modification of the closure plan. The plan will be amended no later than 30 days after an unexpected event has occurred which has affected the closure plan during the final closure period. This provision applies to CORCO in the event the Eastern Oil Lagoon Impoundment is required to close as a landfill in accordance with §265.310 (pertaining to closure and post-closure care for a landfill).

- In the event the Regional Administrator requests modifications to the plan, CORCO will submit a modified plan within 30 days of the request from the Regional Administrator

5.5 Decontamination of Equipment

All equipment used during the closure of the Eastern Oil Lagoon Impoundment will be decontaminated once closure is completed. A decontamination area will be constructed adjacent to the Eastern Oil Lagoon Impoundment as shown on **Figure 8**. The area will be rectangular in shape and measure approximately 25 feet by 35 feet. The area will be lined with a synthetic membrane liner with a minimum thickness of 30 millimeters. A two foot high berm will be constructed at the perimeter of this lined area to contain liquids generated during decontamination procedures. Once the initial removal of sludge, sediments, and soils from the Eastern Oil Lagoon Impoundment has been completed (immediately prior to verification sampling), all equipment that came in contact with waste during these procedures will be decontaminated within the decontamination area. The contaminated surfaces of equipment will be washed with tap water with the use of a high temperature/high pressure cleaning unit. Cleaning will continue until visual contaminants, sediment, soil, and sludge have been removed.

The liquids generated during these procedures will be pumped into a vacuum truck and transported to the company's wastewater treatment plant. The wastewater treatment unit will meet the definition of a tank, will be in compliance with all NPDES conditions and standards, and decontamination fluids will be compatible with influx of other wastewater. All solids will be transported with the use of a visqueen lined dump truck to the Corrective Action Management Unit.

5.6 Sampling Plan

CORCO will verify that all indicator hazardous waste constituents are removed from the Eastern Oil Lagoon Impoundment. This sampling plan is designed to generate analytical deliverables which meet the requirements of EPA's Contract Laboratory Program (CLP Level 4) Statement of Work. Four discrete soil samples will be collected within the Eastern Oil Lagoon Impoundment at locations as depicted in **Figure 9**. The four samples will be collected from the excavated ground surface (zero feet) to a depth of six inches below ground surface once all hazardous waste sludge and visually affected soil have been excavated and transported to the CAMU. The samples will be analyzed for the risk based indicator parameters which are Acetone, Ethylbenzene, Fluorene, Hexachlorodibenzodioxin, Nickel, Pyrene, Toluene, and Zinc. The discrete soil samples will be collected with the use of a stainless steel trowel.

If the analytical results indicate that all four sample locations are below the designated risk based values for clean closure, the Eastern Oil Lagoon Impoundment will be certified as being closed in accordance with the U.S. EPA approved closure plan. If the analytical results indicate that indicator hazardous constituents remain, additional affected soil will be excavated, removed, and transported to the Corrective Action Management Unit from the quadrant(s) which have the contaminant affected soil. This process will continue until groundwater is encountered during excavation.

5.6.1 Decontamination Procedures

The sampling trowel will be decontaminated between the collection of individual samples (between sampling locations). Decontamination of sampling equipment between successive samples will be performed as follows:

1) Washing in Alconox soap solution;

2) Rinse with tap water;

3) Wash with 1% nitric acid solution;

4) Rinse with distilled or deionized water;

5) Wash with reagent grade methane;

6) Wash with pesticide grade hexane;

7) Rinse with distilled or deionized water and allow to air dry

The fluids generated during decontamination will be accumulated on-site in an environmentally safe manner. The generated waste will be accumulated on-site in a 55-gallon steel drum. The material will then be transported to CORCOs wastewater treatment unit and disposed of with other plant wastewater. The wastewater treatment unit will meet the definition of a tank, will be in compliance with all NPDES conditions and standards, and decontamination fluids will be compatible with influx of other wastewater.

5.6.2 Sample Preservation

Samples will be collected in labeled sample containers at the time of collection. Pertinent information, such as field sample identification number, field sample location, date and time of collection, size and material of sample container, sample type, preservative, requested analysis, sampler identity, and signature will be recorded on the sample container and chain-of-custody form. All of this information along with the quantity of sample bottles used will be recorded on the chain-of-custody form and the field log book. Personnel will use a new pair of clean disposable surgical gloves at all sampling points. Samples will be sealed with custody tape, placed in a ziploc bag and sealed, then stored on ice in portable coolers. All samples will be shipped in coolers secured with custody tape accompanied by a completed chain-of-custody form.

Sample containers, volumes, preservation, and holding times are as specified by the methods outlined in SW-846 and are given in **Table 11**. Sample methods and quantitation limits are given in **Table 12**.

5.6.3 Field and Laboratory Quality Control Samples

One soil duplicate sample will be collected during the implementation of the sampling plan. This sample will be analyzed for Acetone, Ethylbenzene, Fluorene, Hexachlorodibenzodioxin, Nickel, Pyrene, Toluene, and Zinc. One matrix spike/matrix spike duplicate sample will be collected and analyzed for Acetone, Ethylbenzene, Toluene. One trip blank sample will accompany the four soil samples, soil duplicate sample, and matrix spike/matrix spike duplicate and will be analyzed for Acetone, Ethylbenzene, and Toluene.

5.6.4 Data Validation

The analytical results from the laboratory will be validated by personnel not directly involved with the analytical testing. All data will be validated with regard to usability according to the quality assurance set forth in the U.S. EPA's National Functional Guidelines (Level 4) for Organic and Inorganic Data Review. The reported data will be reviewed and deemed acceptable (or unacceptable) and representative (or unrepresentative) with the applied qualifiers by a data validator not directly involved with the analytical testing.

5.6.5 Site Health and Safety Plan

A site Health and Safety Plan (HSP) will be developed prior to beginning site closure field procedures. The plan will identify specific procedures which will be adhered to throughout the implementation of the closure project pertaining to worker health and safety. Chemical and physical hazards will be identified within the text of the plan. The level of protection and type of personal protective equipment needed for each worker will be outlined in the plan. The designated work zones will be identified and delineated on a site diagram.

A copy of the HSP will be kept at the project site at all times during the implementation of closure activities. All workers operating within the Eastern Oil Lagoon Impoundment during closure will be required to be receive a briefing concerning HSP plan requirements. All workers operating within the Eastern Oil Lagoon Impoundment during closure will be required to adhere to the safety procedures outlined in the HSP.

6.0 POST CLOSURE CARE PLAN

When the Eastern Oil Lagoon Impoundment has been clean closed pursuant to 40 CFR §265.111, a groundwater monitoring program pursuant to 40 CFR §265 Subpart F will begin. The program will continue for a minimum of three years in order to demonstrate that the "clean" closure standard has been met.

6.1 Groundwater Monitoring

Samples of groundwater will be obtained and analyzed from monitoring wells EL-1, EL-2, EL-3, and EL-4. A groundwater sampling and analysis plan will be developed and followed by CORCO. The plan will be maintained at the facility and will include procedures and techniques for:

- Sample collection;
- Sample preservation and shipment;
- Analytical procedures;
- Chain of custody control.

Parameters characterizing the suitability of the groundwater as a drinking water supply will be determined, as specified in Appendix III. Parameters establishing groundwater quality and groundwater contamination will also be determined.

Parameters establishing groundwater quality are:

- Chloride
- Iron
- Manganese
- Phenols
- Sodium
- Sulfate

Parameters used as indicators of groundwater contamination are:

- pH

- Specific Conductance
- Total Organic Carbon
- Total Organic Halogen

Samples of groundwater will be obtained and analyzed from monitoring wells EL-1, EL-2, EL-3, and EL-4 each quarter for the first year after closure is certified. Four replicate measurements will be obtained and analyzed for Specific Conductance, Ph, Total Organic Carbon, and Total Organic Halogen for each sample. The initial background arithmetic mean and variance will be determined by pooling the replicate measurements for the respective parameter concentrations or values in samples obtained from upgradient wells during the first year.

After the first year, monitoring wells EL-1, EL-2, EL-3, and EL-4 will be sampled and samples analyzed with the following frequencies:

- Samples collected to establish groundwater quality (chloride, iron, manganese, phenols, sodium, and sulfate) will be obtained and analyzed annually;
- Samples collected to indicate groundwater contamination (Ph, Specific Conductance, Total Organic Carbon, and Total Organic Halogen) will be obtained and analyzed semi-annually;

The elevation of the groundwater surface at monitoring wells EL-1, EL-2, EL-3, and EL-4 will be determined each time a sample is obtained.

6.2 Preparation, Evaluation, and Response

CORCO will prepare an outline of a groundwater quality assessment program. The outline will describe a more comprehensive groundwater monitoring program capable of determining:

- Whether hazardous waste or hazardous waste constituents have entered the groundwater; and
- The rate and extent of migration of hazardous waste constituents in the groundwater; and
- The concentrations of hazardous waste or hazardous waste constituents in the groundwater.
- CORCO will calculate the arithmetic mean and variance for pH, specific conductance, total organic carbon, and total organic halogen based on at least four

replicate measurements on each sample, for each monitor well. These results will be compared to the original background arithmetic mean. The comparison will consider individually each of the wells in the monitoring system, and must use the Student's t-test at the 0.01 level of significance to determine statistically significant increases (and decreases, in the case of pH) over initial background.

If the comparisons for the upgradient well show a significant increase (or pH decrease), CORCO will submit the concentrations of pH, specific conductance, total organic carbon, and total organic halogen for each groundwater monitoring well.

If the comparisons for the downgradient wells show a significant increase (or pH decrease), CORCO will immediately (within two weeks of discovery) obtain additional groundwater samples from those downgradient wells where a significant difference was detected, split the samples in two, and obtain analyses of all additional samples to determine whether the significant difference was a result of laboratory error. If the analyses performed confirm the significant increase (or pH decrease), CORCO will provide a written notice to the Regional Administrator within seven days of the date of such confirmation that the facility may be affecting groundwater quality. Within 15 days after the notification, CORCO will develop and submit to the Regional Administrator a specific plan for a groundwater quality assessment program at the facility. The groundwater quality assessment program will be certified by a qualified geologist or geotechnical engineer and will address the following points:

- Whether hazardous waste or hazardous waste constituents have entered the groundwater; and
- The rate and extent of migration of hazardous waste constituents in the groundwater; and
- The concentrations of hazardous waste or hazardous waste constituents in the groundwater.

The plan will specify the following items:

- Number, location, and depth of the monitoring wells;
- Sampling and analytical methods for those hazardous wastes or hazardous waste constituents in the facility;
- Evaluation procedures, including any use of previously gathered; groundwater quality information; and
- A schedule of implementation.

CORCO will implement the groundwater quality assessment plan in accordance with the requirements of 40 CFR §265.93 (d) (3) and at a minimum, will determine the following:

- The rate and extent of migration of the hazardous waste or hazardous waste constituents in the groundwater; and

- The concentrations of the hazardous waste or hazardous waste constituents in the groundwater.

CORCO will determine the concentrations of the hazardous waste or hazardous waste constituents in the groundwater as soon as it is technically feasible, and, within 15 days after that determination, submit to the Regional Administrator a written report containing an assessment of the groundwater quality. If CORCO determines that no hazardous waste or hazardous waste constituents from the facility have entered the groundwater, the indicator evaluation program pertaining to groundwater quality (chloride, iron, manganese, phenols, sodium, and sulfate) and groundwater contamination (pH, specific conductance, total organic carbon, and total organic halogen) will be reinstated. If this course of action is taken, CORCO will notify the Regional Administrator within the text of the written report pertaining to assessment of the groundwater quality.

If CORCO determines, based on the first determination, that hazardous waste or hazardous waste constituents from the facility have entered the groundwater, CORCO may cease making the determinations pertaining to the rate and extent of migration of the hazardous waste or hazardous waste constituents in the groundwater since the groundwater quality assessment plan will be implemented (if necessary) during the post-closure care period.

The groundwater surface elevations of the monitoring wells will be obtained at least annually unless a groundwater quality assessment plan is necessary. In that case, the elevations will be obtained in accordance to the implementation schedule. CORCO will evaluate this data and determine whether the following is correct:

- At least one monitoring well is installed upgradient;

- The well quantity, location, and depth is sufficient to yield groundwater samples that are representative of background groundwater quality in the uppermost aquifer near the facility and is not affected by the facility;

- The number, location, and depth of the three monitoring wells installed hydraulically downgradient at the limit of the waste management area must be able to immediately detect any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to the uppermost aquifer.

If the evaluation indicates that the above referenced points are no longer satisfied, CORCO will modify the number, location, or depth of the monitoring wells within 120 days to bring the groundwater monitoring system into compliance with these requirements.

6.3 Recordkeeping and Reporting

Corco must keep records of all analyses required in 40 CFR §265.92 (c) and (d), and associated groundwater surface elevations required in 40 CFR §265.92 (e), and the evaluations required in 40 CFR §265.93 (b) throughout the post-closure care period. The following groundwater monitoring information must be reported to the Regional Administrator:

- During the first year when initial background concentrations are being established for the facility, the concentrations or values of the parameters listed in 40 CFR §265.92 (b) (1) for each groundwater monitoring well within 15 days after completing each quarterly analysis. CORCO must separately identify for each monitoring well any parameters whose concentration or value has been found to exceed the maximum contaminant levels listed in Appendix III;

- Concentrations or values of the parameters listed in 40 CFR §265.92 (b) (3) for each groundwater monitoring well, along with the required evaluations for these parameters under 40 CFR §265.93 (b) will be reported annually. CORCO will separately identify any significant differences from initial background found in the upgradient wells, in accordance with 40 CFR §265.93 (c) (1) on an annual basis. This information will be submitted no later than March 1 following each calendar year;

- Results of the evaluations of groundwater surface elevations under 40 CFR §265.93 (f) and a description of the response to that evaluation, where applicable, is to be submitted no later than March 1 of the following calendar year;

- If groundwater is monitored to satisfy the requirements of 40 CFR §265.93 (d) (4), CORCO will keep records of the analyses and evaluations specified in the plan, which satisfies the requirements of 40 CFR §265.93 (d) (3) throughout the post-closure care period;

- Submit annually to the Regional Administrator a report containing the results of the groundwater quality assessment program which includes, but is not limited to, the calculated (or measured) rate of migration of hazardous waste or hazardous waste constituents in the groundwater during the reporting period. This information will be submitted no later than March 1 following each calendar year.

7.0 REFERENCES

Briggs, R.P. and Akers, J.P. Hydrogeologic Map of Puerto Rico and Adjacent Islands. U.S. Geological Survey in Cooperation with the Commonwealth of Puerto Rico. Hydrologic Investigations Atlas HA-197, 1965.

The Conservation Federation, Washington, D.C. "Coastal Ecological Systems of the United States". 1974.

DSM Environmental Services, Inc. "Phase I Subsurface Oil Investigation", Commonwealth Oil Refining Company, Inc., Ponce, Puerto Rico, 1994.

Gallant, R.W. "Physical Properties of Hydrocarbons", Volume 2, Third Edition. Gulf Publishing Co. 1993.

GDC Engineering, Inc. "Site Assessment Report, Commonwealth Oil Refining Company, Inc., Ponce, Puerto Rico, 1994

Gomez, F.G. "Planning Report for the Caribbean Islands Regional Aquifer-System Analysis Project". Water Resources Investigations Report 86-4074, U.S. Geological Survey. San Juan, Puerto Rico, 1987.

Gomez, F.G. and Heisel, J.E. "Summary Appraisals of the Nation's Ground Water Resources - Caribbean Region". Professional Paper 813-U. U.S. Geological Survey, 1980.

Grossman, Bogart, Crooks, and Diaz. "Water Resources of the Tallaboa Valley, Puerto Rico". Water Resources Bulletin 7, U.S. Geological Survey, in Cooperation with the Commonwealth of Puerto Rico, 1972.

"La Junta De Plantificacion De Puerto Rico", Mapa De Zonificacion De Peñuelas, map page #14, #5, and #20. October 29, 1972.

TRC Environmental Corporation. "Letter Report, Preliminary Action Level Calculations for Surface Soil, Commonwealth Oil Refining Company (CORCO), Incorporated, Penuelas, Puerto Rico". July 1993.

United States Environmental Protection Agency. Lair, M.D., R.G. Rogers, M.R. Weldon (Region IV). "Environmental Effect of Petrochemical Waste Discharges on Tallaboa and Guayanilla Bays, Puerto Rico". October 1971.

United States Environmental Protection Agency. Office of Remedial Response. "Superfund Exposure Assessment Manual".
EPA/540/1-88/001. April 1988.

REFERENCES (continued)

United States Environmental Protection Agency. Office of Emergency and Remedial Response. "Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part A), Interim Final". EPA/540/1-89/002. December 1989.

United States Environmental Protection Agency. Office of Emergency and Remedial Response. "Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part B), Interim". EPA/540/1-89/002. December 1991.

Versar, Inc. "Commonwealth Oil Refining Company, Inc. - Preliminary Assessment/Site Investigation Final Report for the U.S. EPA Office of Waste Programs Enforcement". November 1986.

Roy F. Weston, Inc. (WESTON). "Draft Environmental Impact Statement - Modular Incineration Systems, Inc. CORCO Site, Ponce, Puerto Rico". December 1989.

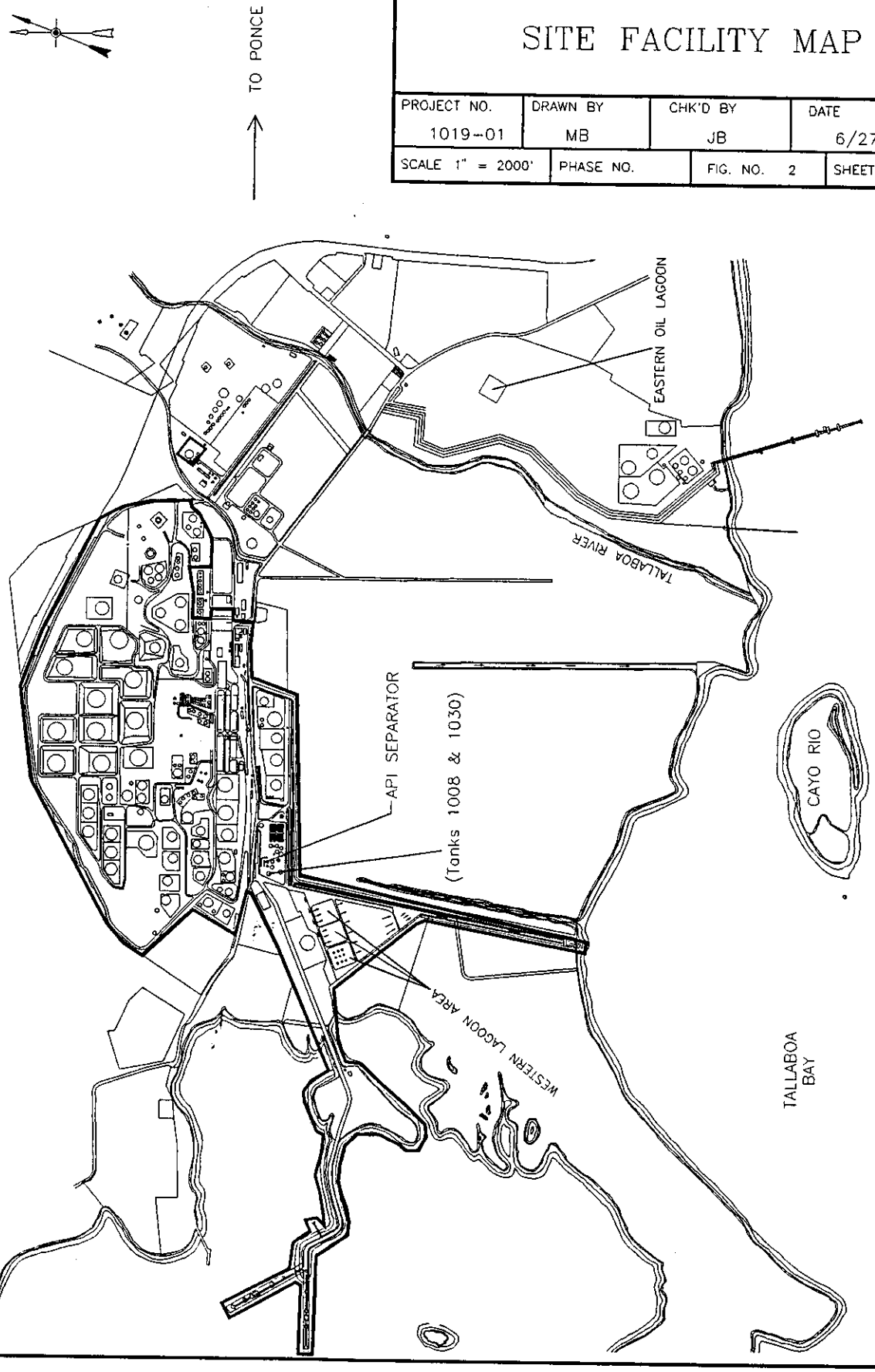
Roy F. Weston, Inc. (WESTON). "Closure Plan For Specified Waste Handling Units at The Commonwealth Oil Refining Company, Inc. (CORCO), Ponce, Puerto Rico". August 1990.

Roy F. Weston, Inc. (WESTON). "Site Assessment Work Plan For Specified Waste Handling Units At The Commonwealth Oil Refining Company, Inc. (CORCO)". May 1992.

DSM Environmental Services, Inc.

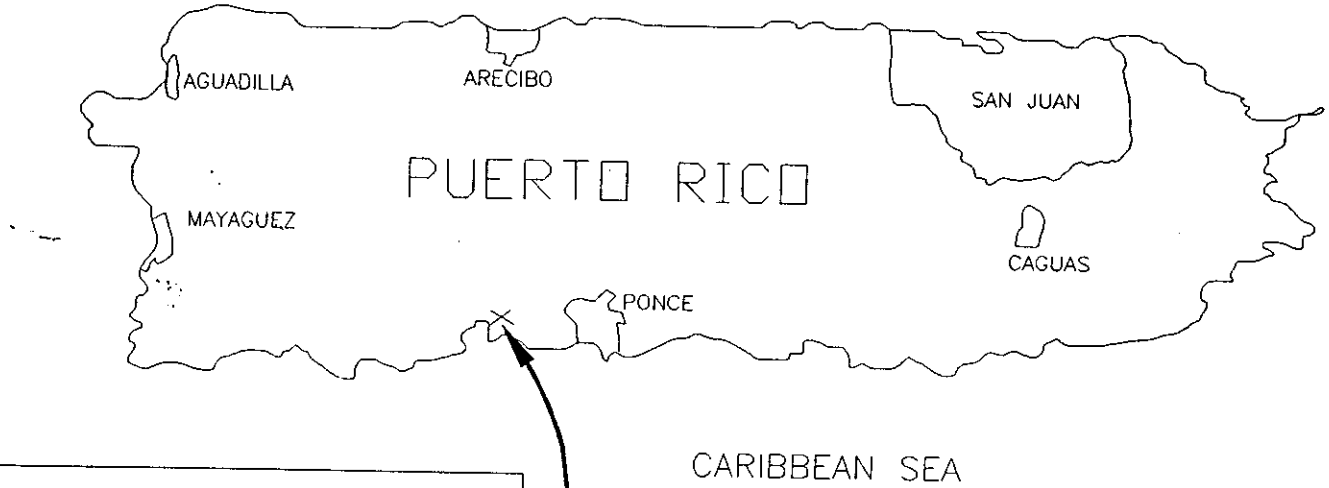
SITE FACILITY MAP

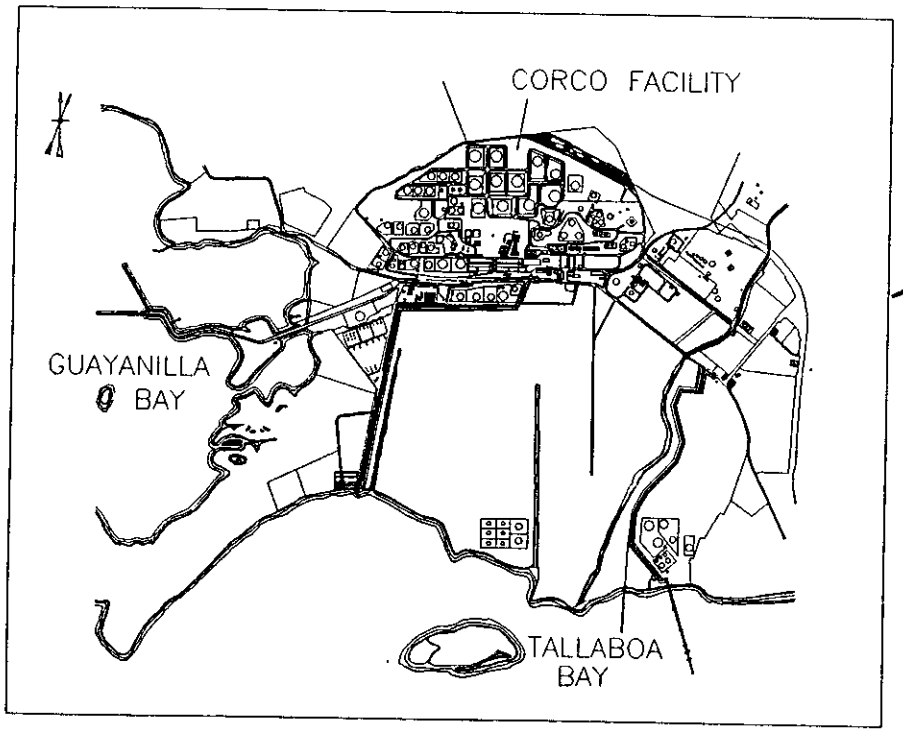
PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-01	MB	JB	6/27/94	
SCALE 1" = 2000'	PHASE NO.	FIG. NO. 2	SHEET 1 OF 1	



FIGURES

FIGURES





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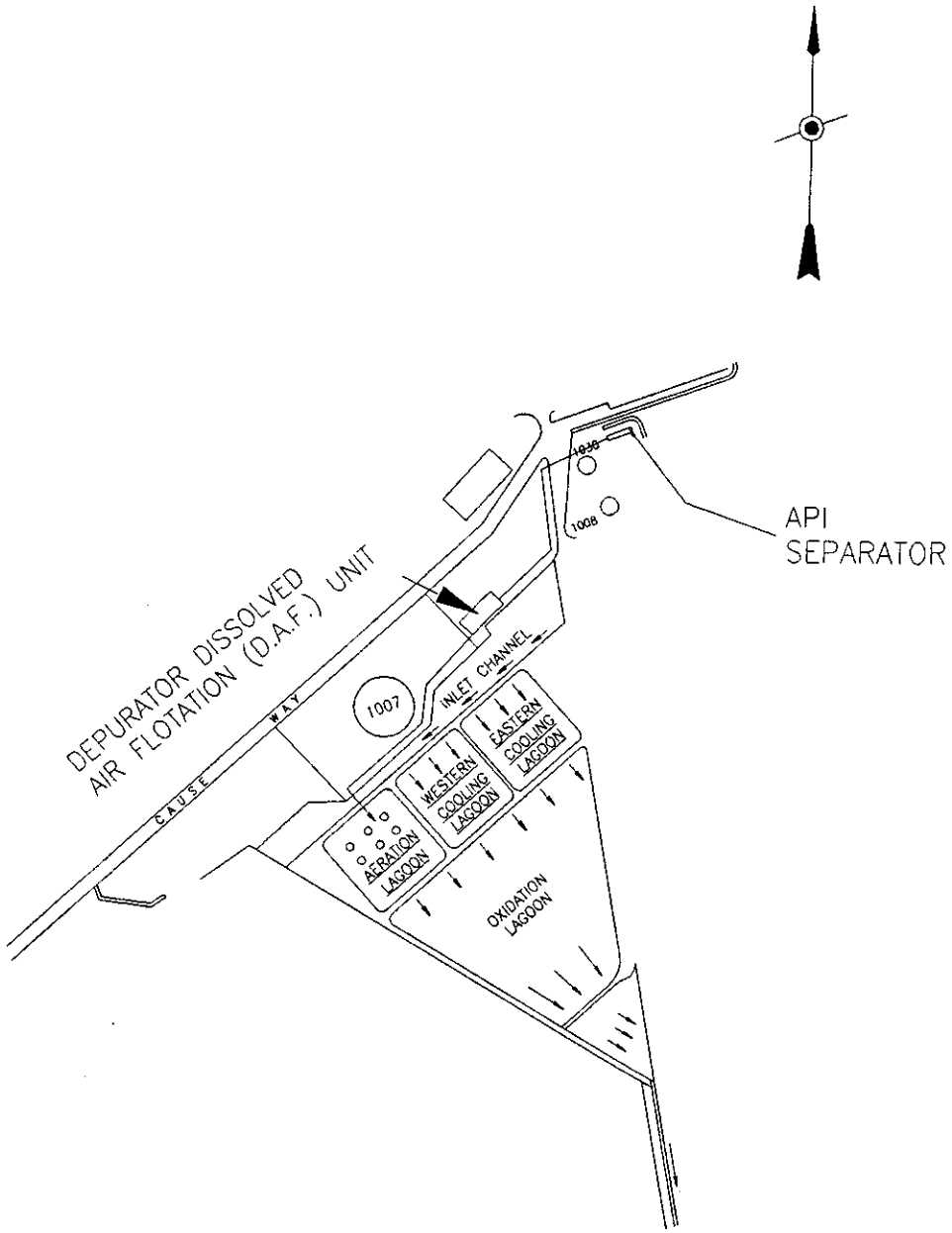
CORCO FACILITY
SITE LOCATION MAP

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-01	DWM		1-23-95	

SCALE N.T.S.	PHASE NO.	FIG. NO. 1	SHEET 1 OF 1



DSM Environmental Services, Inc.

HISTORICAL WASTE WATER TREATMENT SYSTEM
CORCO FACILITY

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
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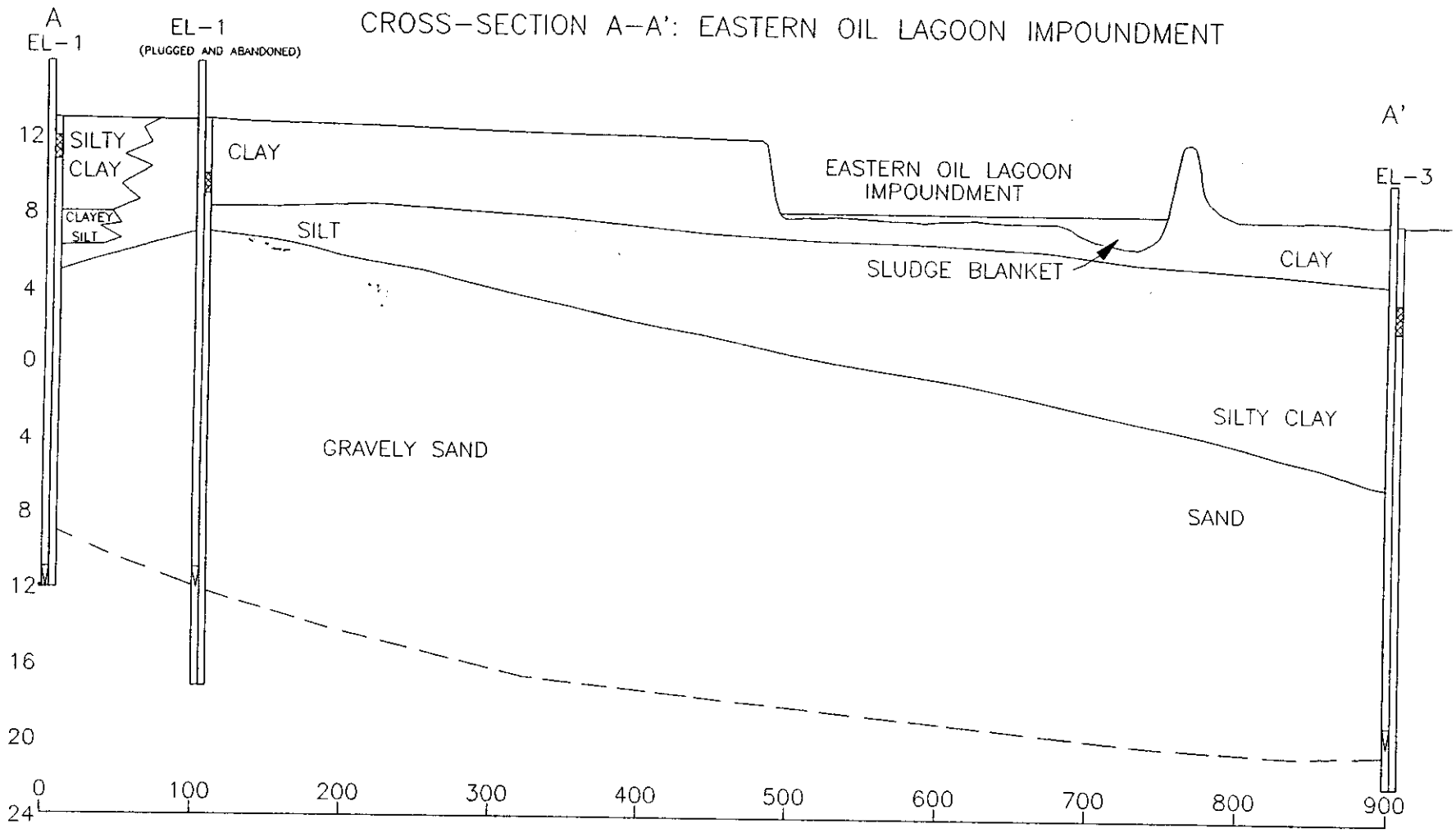
SCALE NOTED	PHASE NO.	FIG. NO. 3	SHEET 1 OF 1	



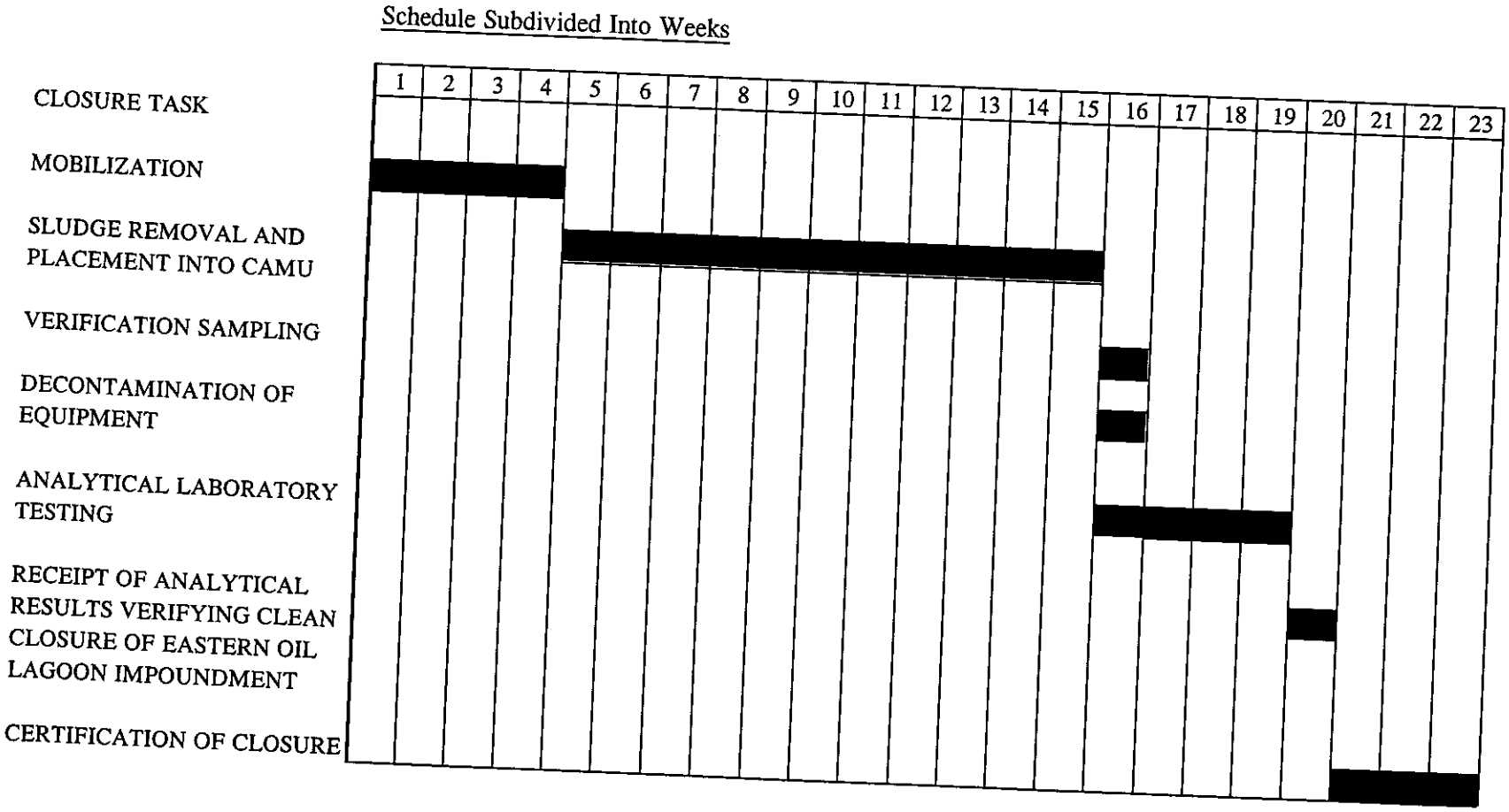
DSM Environmental Services, Inc.

CROSS-SECTION A-A'
EASTERN OIL LAGOON IMPOUNDMENT

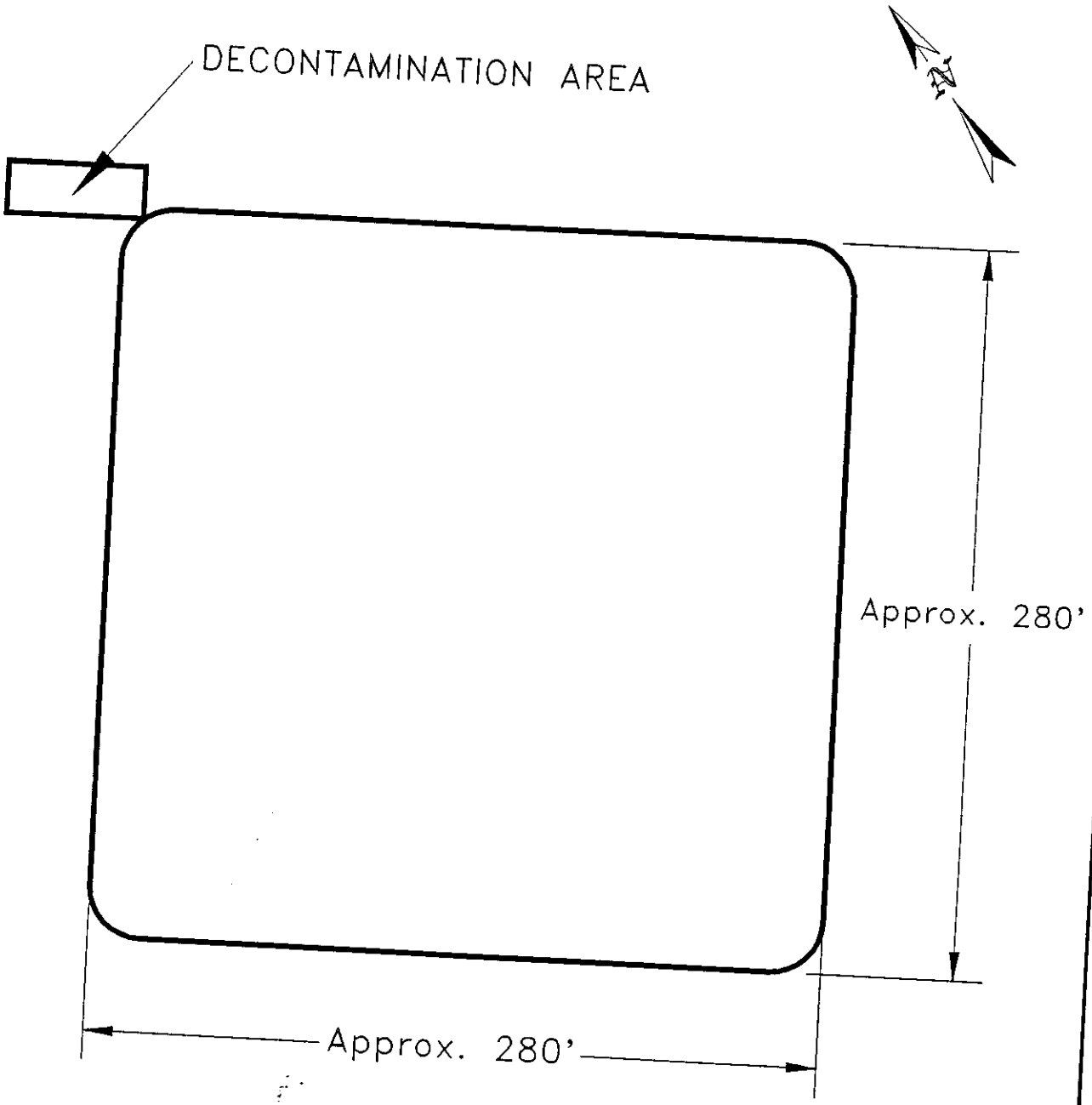
PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-01	DWM		1-27-95	
SCALE AS NOTED	PHASE NO.	FIG. NO. 4	SHEET 1 OF 1	

Figure 5

CLOSURE IMPLEMENTATION SCHEDULE FOR THE EASTERN OIL LAGOON IMPOUNDMENT



NOTE: CLOSURE IMPLEMENTATION BEGINS UPON EPA REGION II APPROVAL OF EASTERN OIL LAGOON IMPOUNDMENT CLOSURE PLAN, CAMU APPLICATION, AND PART "B" PERMIT APPLICATION



DSM Environmental Services, Inc.

Eastern Oil Lagoon Decontamination Area Location Map

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
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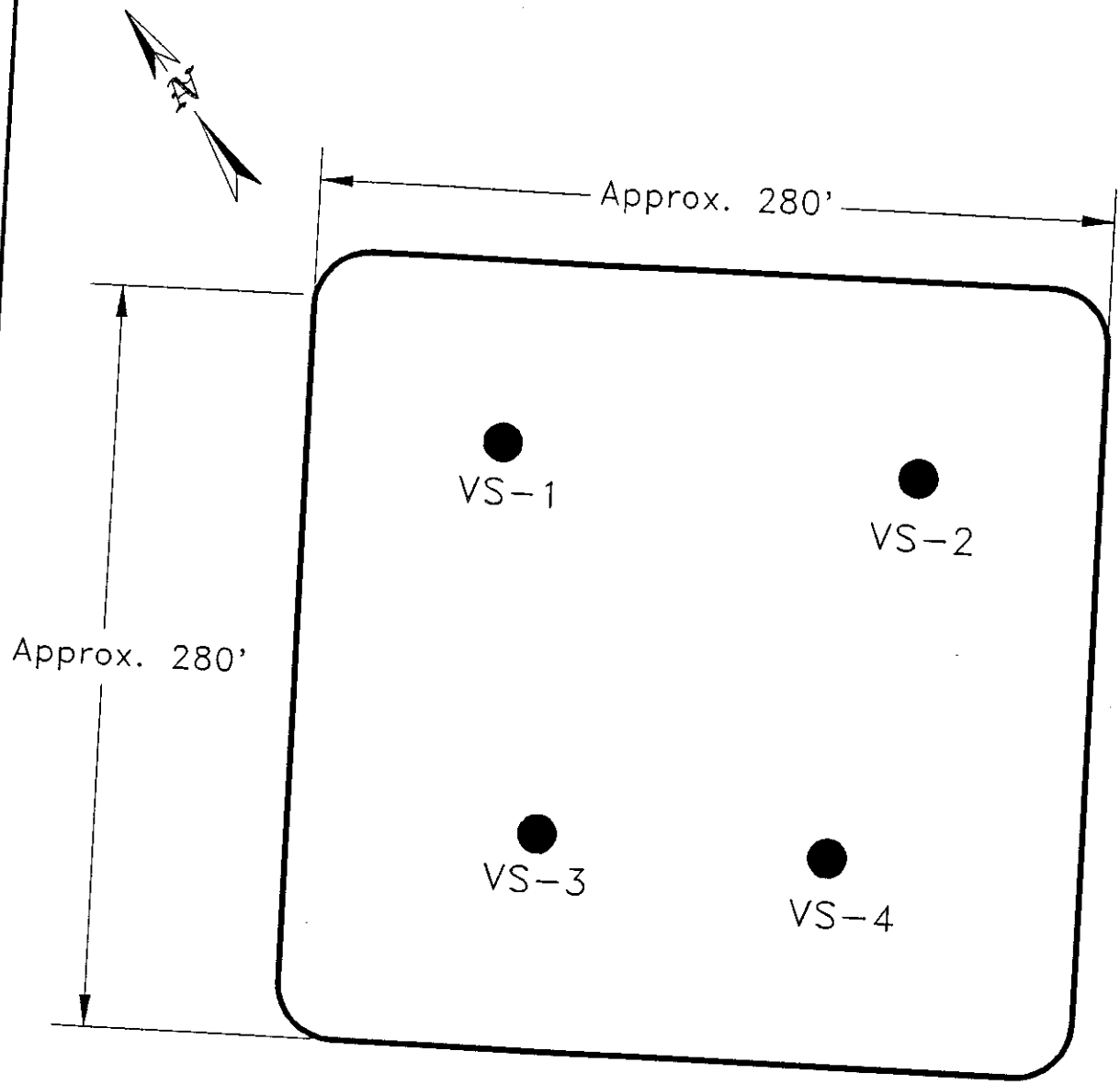
SCALE NONE	PHASE NO.	FIG. NO. 6	SHEET 1 OF 1	



LEGEND
● VS-3 VERIFICATION SOIL SAMPLE LOCATION

DSM Environmental Services, Inc.

Eastern Oil Lagoon Impoundment
Verification Sampling Locations

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-01	MB	GHG	11/9/94	
SCALE NONE	PHASE NO.	FIG. NO. 7	SHEET 1 OF 1	

TABLES

TABLES

Table 1

Chemical Compounds Detected Within Sludge and Soil at The Eastern Oil Lagoon Impoundment During GDC Engineering Site Assessment

FIELD I.D. LABORATORY I.D. MATRIX CHEMICAL	EL-NW-1 9212L982-001 Native Soil	EL-NW-1(DUP) 9212L982-002 Native Soil	EL-SW-1 9212L982-003 Native Soil	EL-SE-1 9212L982-004 Native Soil	EL-NE-1 9212L982-005 Native Soil	EL-SW-2 9212L994-002 Test Pit A\Sludge	EL-NW-2 9212L994-003 Boring Sludge	EL-S-1 9212L994-004 Test Pit B\Sludge	EL-S-2 9212L994-005 Test Pit B\Native Soil
Acenaphthene (ug/kg)	<430	<390	300J	<420	<430	21,000J	44,000J	22,000J	470J
Acetone (ug/kg)	35J	27J	UJ	<13	5J	<300,000J	<170,000	<70,000	<130
Anthracene (ug/kg)	80J	71J	UJ	<420	<430	9,700J	21,000J	<92,000	<2,100
Benzene (ug/kg)	<6	<6	UJ	<6	UJ	1,200,000	<83,000	<35,000	<6
Benzo(a)Anthracene (ug/kg)	50J	55J	UJ	<420	<430	19,000J	16,000J	<92,000	220J
Benzo(b)Fluoranthene (ug/kg)	UJ	<390	UJ	<420	<430	62,000J	<110,000	<92,000	<2,100
Bis(2-Ethylhexyl)Phthalate (ug/kg)	110J	120J	UJ	90J	54J	9,700J	<110,000	<92,000	230J
Chrysene (ug/kg)	170J	180J	930J	<420	<430	100,000	27,000J	18,000J	510J
Di-n-butyl phthalate (ug/kg)	UJ	<390	UJ	<420	<430	<68,000	<110,000	<92,000	560J
Disulfoton (ug/kg)	UJ	UJ	UJ	UJ	UJ	UJ	33J	66J	UJ
Ethylbenzene (ug/kg)	<6	<6	250J	<6	<6	960,000	<83,000	<35,000	<6
Famphur (ug/kg)	UJ	UJ	UJ	UJ	UJ	350J	870J	1,200J	UJ
Fluoranthene (ug/kg)	94J	98J	UJ	<420	<430	25,000J	<110,000	<92,000	<2,100
Fluorene (ug/kg)	230J	<390	720J	<420	<430	170,000	45,000J	45,000J	1,400J
Hexachlorodibenzodioxin (ug/kg)	<0.1	<0.1	<0.1	<0.6	<0.2	12	UJ	0.4J	<0.1
Hexachlorodibenzofuran (ug/kg)	<0.1	<0.1	<0.1	<0.4	<0.1	2.9	UJ	0.2J	<0.1
Methylene Chloride (ug/kg)	<6	<6	UJ	<6	5J	<520,000	<83,000	<35,000	<6
2-Methylnaphthalene (ug/kg)	870	690	3,900	<420	<430	290,000	360,000	120,000	5,000
Naphthalene (ug/kg)	130J	92J	1500J	<420	<430	130,000	59,000J	21,000J	780J
Pentachlorodibenzodioxin (ug/kg)	<0.3	<0.4	<0.1	<0.3	<0.5	1.6J	UJ	<0.2	<0.1
Pentachlorodibenzofuran (ug/kg)	<0.2	<0.2	<0.1	<0.2	<0.3	0.4J	UJ	<0.1	<0.1

J = Analyte was positively identified. Reported value may not be accurate or precise.

UJ = Analyte was not detected above the CRQL. The reported quantitation limit is qualified estimated.

Table 1 (Continued)

Chemical Compounds Detected Within Sludge and Soil at The Eastern Oil Lagoon Impoundment During GDC Engineering Site Assessment

FIELD I.D. LABORATORY I.D. MATRIX CHEMICAL	EL-NW-1 9212L982-001 Native Soil	EL-NW-1(DUP) 9212L982-002 Native Soil	EL-SW-1 9212L982-003 Native Soil	EL-SE-1 9212L982-004 Native Soil	EL-NE-1 9212L982-005 Native Soil	EL-SW-2 9212L994-002 Test Pit A\Sludge	EL-NW-2 9212L994-003 Boring Sludge	EL-S-1 9212L994-004 Test Pit B\Sludge	EL-S-2 9212L994-005 Test Pit B\Native Soil
Phenanthrene (ug/kg)	920J	760	1,400J	<420	<430	240,000	270,000	98,000	3,500
Phorate (ug/kg)	UJ	UJ	UJ	UJ	UJ	UJ	23J	UJ	UJ
Pyrene (ug/kg)	410J	420	1,200J	<420	<430	41,000J	60,000J	35,000J	<2,100
Toluene (ug/kg)	<6	<6	UJ	<6	<6	1,700,000	<83,000	<35,000	3J
Xylenes, Total (ug/kg)	<6	<6	UJ	<6	<6	4,200,000	<83,000	<35,000	<6
Arsenic (mg/kg)	1.4J	1.3J	2.0J	3.1J	2.4J	11.7J	4.0J	1.8J	0.89J
Barium (mg/kg)	158	134	211	184	186	169	528	291	126
Beryllium (mg/kg)	1.4	1.1	1.5	1.4	1.3	17.8	1.7	1.8	0.92
Cadmium (mg/kg)	<1.3	<0.72	<0.87	<0.88	<0.99	18.0	<1.6	<1.4	<1.3
Chromium (mg/kg)	46.1	38.3	47.4	46.5	48.8	294	42.5	34.5	25.8
Cobalt (mg/kg)	30.2	24.9	34.1	31.2	30	140	76	51.9	21.8
Copper (mg/kg)	78	63	93.3	71.4	68.7	7,320	335	232	59.4
Lead (mg/kg)	5.1J	4.3J	6.4J	5.5J	6.0J	390.0J	99.0J	111.0J	5.0J
Mercury (mg/kg)	<0.13	<0.12	0.16	<0.13	<0.13	8.56	4.23	0.83	<0.13
Nickel (mg/kg)	32.2	25.9	39.8	30.6	30	1,920	230	174	21.7
Selenium (mg/kg)	UJ	UJ	UJ	UJ	UJ	UJ	UJ	0.69J	UJ
Silver (mg/kg)	<2.6	<1.4	1.8	1.9	5	<4.0	<3.1	<2.8	<2.6
Tin (mg/kg)	<26.3	22.1	24.5	26.2	28.3	60.8	<31.4	<27.5	<25.5
Vanadium (mg/kg)	148	118	172	140	149	3,060	251	257	92.5
Zinc (mg/kg)	86.5	71	94.2	75.2	76	4,630	1,060	433	56.6

J = Analyte was positively identified. Reported value may not be accurate or precise.

UJ = Analyte was not detected above the CRQL. The reported quantitation limit is qualified estimated.

Table 2

Frequency, Range, and Average Concentration of Chemical Compounds Detected Within Sludge and Soil at The Eastern Oil Lagoon Impoundment During GDC Engineering Site Assessment

CHEMICAL	Frequency of Detection	Range of Sample Quantitation Limits	Range of Detected Concentrations	Average Concentration of Chemical	Background Levels
Acetone (ug/kg)	3/9	unknown	5-35	22.3	N/A
Benzene (ug/kg)	1/9	6-83,000	1,200,000	1,200,000	N/A
Chrysene (ug/kg)	7/9	420-430	170-100,000	20,970	N/A
Ethylbenzene (ug/kg)	2/9	6-83,000	250-960,000	480,125	N/A
Fluorene (ug/kg)	6/9	390-430	230-170,000	43,725	N/A
Hexachlorodibenzodioxin (ug/kg)	2/9	.1-.6	0.4-12	6.2	N/A
Hexachlorodibenzofuran (ug/kg)	2/9	.1-.4	.2-2.9	1.5	N/A
2-Methylnaphthalene (ug/kg)	7/9	420-430	690-360,000	111,494	N/A
Naphthalene (ug/kg)	7/9	420-430	92-130,000	30,357	N/A
Pentachlorodibenzodioxin (ug/kg)	1/9	.1-.5	1.6	1.6	N/A
Pentachlorodibenzofuran (ug/kg)	1/9	.1-.3	0.4	0.4	N/A
Phenanthrene (ug/kg)	7/9	420-430	760-270,000	87,797	N/A
Pyrene (ug/kg)	6/9	420-430	410-60,000	23,005	N/A
Toluene (ug/kg)	2/9	6-83,000	3-1,700,000	850,001	N/A
Xylenes, Total (ug/kg)	1/9	6-83,000	4,200,000	4,200,000	N/A
Barium (mg/kg)	9/9	unknown	126-528	220	161.5
Beryllium (mg/kg)	9/9	unknown	.92-17.8	3.21	1.23
Cadmium (mg/kg)	1/9	0.72-1.6	18	18	<1.0
Chromium (mg/kg)	9/9	unknown	25.8-294	69.3	74.3
Cobalt (mg/kg)	9/9	unknown	21.8-140	48.9	29.5
Copper (mg/kg)	9/9	unknown	59.4-7,320	924	70.5
Mercury (mg/kg)	4/9	0.12-.13	.16-8.56	3.4	<.126
Nickel (mg/kg)	9/9	unknown	21.7-1920	278	36
Silver (mg/kg)	3/9	1.4-4	1.8-5	2.9	<2.0
Tin (mg/kg)	5/9	25.5-31.4	22.1-60.8	32.4	<25.2
Vanadium (mg/kg)	9/9	unknown	92.5-3,060	487	177.5
Zinc (mg/kg)	9/9	unknown	56.6-4,630	731	85.6

N/A - Not Applicable for volatile and semi-volatile constituents

Table 3
EXPOSURE DOSE MODEL

Model for Estimating Contaminant Intake: Incidental Soil Ingestion of Carcinogens

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF_1 \times EF \times ED}{BW \times AT \times CF_2}$$

Variables:

Intake	=	Soil Ingestion Dose (mg/kg-day)
CS	=	Chemical Concentration in soil (mg/kg)
IR	=	Soil Ingestion Rate (mg/day)
CF_1	=	Conversion Factor (10^{-6} kg/mg)
CF_2	=	Conversion Factor (365 days/year)
EF	=	Exposure Frequency (days/year)
ED	=	Exposure Duration (years)
BW	=	Body Weight (kg)
AT	=	Averaging Time (period over which exposure is averaged-days)

Assumptions:

1) Soil Ingestion Rate (IR) = 50 mg/day (EPA, 1991)

2) Exposure Frequency (EF) = 250 days/yr (EPA, 1991)

3) Exposure Duration (ED) = 25 years (EPA, 1991).

4) Body Weight (BW) = 70 kg (EPA, 1991).

5) Averaging Time (AT) = 70 years (EPA, 1991).

Table 3 (continued)
EXPOSURE DOSE MODEL

Model for Estimating Contaminant Intake: Incidental Soil Inhalation of Systemic Toxicants

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times EF \times ED \times (1/VF + 1/PEF)}{BW \times AT \times CF_1}$$

Variables:

Intake	=	Soil Ingestion Dose (mg/kg-day)
CS	=	Chemical Concentration in soil (mg/kg)
IR	=	Inhalation Rate (m^3/day)
CF_1	=	Conversion Factor (365 days/year)
EF	=	Exposure Frequency (days/year)
ED	=	Exposure Duration (years)
BW	=	Body Weight (kg)
AT	=	Averaging Time (period over which exposure is averaged-days)
VF	=	Soil-to-Air Volatilization Factor (m^3/kg)
PEF	=	Particulate Emission Factor (m^3/kg)

Assumptions:

1) Soil Inhalation Rate (IR) = 20 m^3/day (EPA, 1991)

2) Exposure Frequency (EF) = 250 days/yr (EPA, 1991)

3) Exposure Duration (ED) = 25 years (EPA, 1991).

4) Body Weight (BW) = 70 kg (EPA, 1991).

5) Averaging Time (AT) = 25 years (EPA, 1991).

Table 3 (continued)
EXPOSURE DOSE MODEL

Model for Estimating Contaminant Intake: Incidental Soil Ingestion of Systemic Toxicants

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF_1 \times EF \times ED}{BW \times AT \times CF_2}$$

Variables:

Intake	=	Soil Ingestion Dose (mg/kg-day)
CS	=	Chemical Concentration in soil (mg/kg)
IR	=	Soil Ingestion Rate (mg/day)
CF_1	=	Conversion Factor (10^{-6} kg/mg)
CF_2	=	Conversion Factor (365 days/year)
EF	=	Exposure Frequency (days/year)
ED	=	Exposure Duration (years)
BW	=	Body Weight (kg)
AT	=	Averaging Time (period over which exposure is averaged-days)

Assumptions:

1) Soil Ingestion Rate (IR) = 50 mg/day (EPA, 1991)

2) Exposure Frequency (EF) = 250 days/yr (EPA, 1991)

3) Exposure Duration (ED) = 25 years (EPA, 1991).

4) Body Weight (BW) = 70 kg (EPA, 1991).

5) Averaging Time (AT) = 25 years (EPA, 1991).

Table 4

Eastern Oil Lagoon Impoundment
Estimated Contaminant Intake Compared to Reference Doses
Based on Current Conditions at the Site For Adult Workers

CHEMICAL	Soil Ingestion					Average Detected Value of the Chemical (mg/kg)	Highest Detected Value of the Chemical (mg/kg)
	Intake (mg/kg-day) Average	Intake (mg/kg-day) Maximum	Chronic Oral RfD (mg/kg/day)	Oral Hazard Index			
				Average	Maximum		
Acetone	1.09E-07	1.71E-07	1.0E-01	1.09E-06	1.71E-06	0.0223	0.035
Ethylbenzene	2.35E-03	4.70E-03	1.0E-01	2.35E-02	4.70E-02	480	960
Fluorene	2.14E-04	8.32E-04	4.0E-02	5.34E-03	2.08E-02	43.7	170
Nickel	1.36E-03	9.39E-03	2.0E-02	6.80E-02	4.70E-01	278	1920
Pyrene	1.13E-04	2.94E-04	3.0E-02	3.75E-03	9.78E-03	23	60
Toluene	4.16E-03	8.32E-03	2.0E-01	2.08E-02	4.16E-02	850	1700
Zinc	3.58E-03	2.27E-02	3.0E-01	1.19E-02	7.55E-02	731	4630
			Total =	1.33E-01	6.64E-01		

CHEMICAL	Soil Inhalation					Average Detected Value of the Chemical (mg/kg)	Highest Detected Value of the Chemical (mg/kg)
	Intake (mg/kg-day) Average	Intake (mg/kg-day) Maximum	Inhalation Slope Factor (mg/kg/day)-1	Inhalation Hazard Index			
				Average	Maximum		
Ethylbenzene	2.85E-02	5.69E-02	1.0E+00	2.85E-02	5.69E-02	480	960
Toluene	1.10E-01	2.20E-01	4.0E-01	2.75E-01	5.51E-01	850	1700
			Total =	3.04E-01	6.08E-01		

CHEMICAL	Total Intake All Pathways		Total Hazard Index	
	Average (mg/kg/day)-1	Maximum (mg/kg/day)-1	Average (mg/kg/day)-1	Maximum (mg/kg/day)-1
Acetone	1.09E-07	1.71E-07	1.09E-06	1.71E-06
Ethylbenzene	3.08E-02	6.16E-02	5.19E-02	1.04E-01
Fluorene	2.14E-04	8.32E-04	5.34E-03	2.08E-02
Nickel	1.36E-03	9.39E-03	6.80E-02	4.70E-01
Pyrene	1.13E-04	2.94E-04	3.75E-03	9.78E-03
Toluene	1.14E-01	2.29E-01	2.96E-01	5.92E-01
Zinc	3.58E-03	2.27E-02	1.19E-02	7.55E-02
		Total =	4.37E-01	1.27E+00

Table 5

HEALTH ENDPOINTS FOR THE INDICATOR CHEMICALS AND RESULTING CUMULATIVE HAZARD INDICES BASED ON CURRENT CONDITIONS AT THE EASTERN OIL LAGOON IMPOUNDMENT

Health Endpoint [a]	Chemicals Affecting Health Endpoint	Relevant Exposure Pathway	Cumulative Hazard Index [b]
Blood	Flourene	Oral	.0208
Developmental Toxicity	Ethylbenzene	Inhalation	.047
Immune System	Zinc	Oral	.0755
Kidney	Acetone, Ethylbenzene, Pyrene, Toluene, Nickel	Oral	.568
	Ethylbenzene, Toluene	Inhalation	.608
Liver	Acetone, Ethylbenzene, Toluene, Nickel	Oral	.558
	Ethylbenzene, Toluene	Inhalation	.608

[a] Affected target tissue/organ/system

[b] For breakdown of the contribution from each chemical to the total hazard index, see Table 4.

Table 5 (continued)

HEALTH ENDPOINTS FOR THE INDICATOR CHEMICALS AND RESULTING CUMULATIVE HAZARD INDICES BASED ON CURRENT CONDITIONS AT THE EASTERN OIL LAGOON IMPOUNDMENT

Health Endpoint [a]	Chemicals Affecting Health Endpoint	Relevant Exposure Pathway	Cumulative Hazard Index [b]
Nephrotoxicity	Acetone	Oral	.00000171
Neurological Effects	Toluene	Inhalation	.551
Tubular Pathology	Pyrene	Oral	.00978

[a] Affected target tissue/organ/system

[b] For breakdown of the contribution from each chemical to the total hazard index, see Table 7.

Table 6

Eastern Oil Lagoon Impoundment

Carcinogenic Risk Level For Adult Workers

CARCINOGENIC COMPOUNDS	Ingestion						
	Intake (mg/kg-day) Average	Intake (mg/kg-day) Maximum	Oral Slope Factor (mg/kg/day)-1	Average CARCINOGENIC RISK (a)	Maximum CARCINOGENIC RISK	Average Detected Value of the Chemical (mg/Kg)	Highest Detected Value of the Chemical (mg/Kg)
Hexachlorodibenzodioxin	1.08E-08	2.10E-08	6.20E+03	6.72E-05 (b)	1.30E-04 (c)	0.0062	0.012
			Total Average and Maximum Risk	6.72E-05	1.30E-04		

(a) Values represent an estimate of an individual's risk (i.e., likelihood or probability) of developing cancer as a result of exposure to site contaminants(s) over a 25-year work period averaged over a 70-year lifespan, above and beyond naturally occuring background levels. The actual risk may be less. The "Total" values represent the excess lifetime cancer risk associated with the impoundment as a whole. Values in this table are influenced by the assumed exposure conditions, frequencies, and durations.

(b) Estimated Lifetime Cancer Risk Exceeds 1 in 100,000

(c) Estimated Lifetime Cancer Risk Exceeds 1 in 10,000

Table 7

CALCULATION OF TARGET ACTION LEVELS FOR SOILS FOR THE EASTERN OIL LAGOON IMPOUNDMENT

Carcinogenic

By using the equation CRL = SF x Intake

one can solve for the target action level of interest for a given carcinogenic risk level:

Therefore:

$$\text{Target Action Level (mg/kg)} = \frac{CRL \times BW \times AT \times CF_2}{SF \times IR \times CF_1 \times EF \times ED}$$

Variables:

CRL	=	Carcinogenic Risk Level
BW	=	Body Weight (kg)
AT	=	Averaging Time (period over which exposure is averaged-days)
SF	=	Carcinogenic Slope Factor (mg/kg/day^{-1})
IR	=	Soil Ingestion Rate (mg/day)
CF_1	=	Conversion Factor (10^{-6} kg/mg)
CF_2	=	Conversion Factor (365 days/year)
EF	=	Exposure Frequency (days/year)
ED	=	Exposure Duration (years)

Assumptions:

1) Soil Ingestion Rate (IR) = 50 mg/day (EPA, 1991)

2) Exposure Frequency (EF) = 250 days/year (EPA, 1991)

3) Exposure Duration (ED) = 25 years (EPA, 1991).

4) Body Weight (BW) = 70 kg (EPA, 1991).

5) Averaging Time (AT) = 70 years

A Target Action level was calculated for one in ten thousand, one one in hundred thousand, and one in one million cancer risk for Hexachlorodibenzodioxin. The carcinogenic slope factor is presented in Table 6.

Table 7 (continued)

CALCULATION OF TARGET ACTION LEVELS FOR SOILS FOR THE EASTERN OIL LAGOON IMPOUNDMENT

Noncarcinogenic Chemicals which do not have a Chronic Oral RfD through the Inhalation Route

By using the equation:

Hazard Index = Intake/Chronic Oral Reference Dose

one can solve for the target action level of interest for a given noncarcinogenic chemical:

Therefore:

$$\text{Target Action Level (mg/kg)} = \frac{RfD \times THI \times BW \times AT \times CF_2}{IR \times CF_1 \times EF \times ED}$$

Variables:

Intake	=	Soil ingestion dose (mg/kg-day)
RfD	=	Chronic Oral Reference Dose
CS	=	Chemical Concentration in soil (mg/kg)
THI	=	Target Hazard Index
IR	=	Soil Ingestion Rate (mg/day)
CF_1	=	Conversion Factor (10^{-6} kg/mg)
CF_2	=	Conversion Factor (365 days/year)
EF	=	Exposure Frequency (days/year)
ED	=	Exposure Duration (years)
BW	=	Body Weight (kg)
AT	=	Averaging Time (period over which exposure is averaged-days)

Assumptions:

1) Soil Ingestion Rate (IR) = 50 mg/day (EPA, 1991)

2) Exposure Frequency (EF) = 250 days/yr (EPA, 1991)

3) Exposure Duration (ED) = 25 years (EPA, 1991).

4) Body Weight (BW) = 70 kg (EPA, 1991).

5) Averaging Time (AT) = 25 years (EPA, 1991).

Table 7 (continued)

CALCULATION OF TARGET ACTION LEVELS FOR SOILS FOR THE EASTERN OIL LAGOON IMPOUNDMENT

Noncarcinogenic Chemicals Which have a Chronic Oral RfD through the Inhalation Route

$$THI = \frac{C \times CF \times EF \times ED \times IR_{soil}}{RfD_o \times BW \times AT \times 365 days/yr} + \frac{C \times EF \times ED \times IR_{air} \times (1/VF + 1/PEF)}{RfD_i \times BW \times AT \times 365 \text{ days/yr}}$$

$$C = \frac{THI \times BW \times AT \times 365 \text{ days/yr}}{ED \times EF \times [((1/RfD_o) \times CF \times IR_{soil}) + ((1/RfD_i \times IR_{air} \times (1/VF + 1/PEF))]}$$

where,

C	=	Chemical concentration in soil (mg/kg)
THI	=	Target Hazard Index (unitless)
RfD_o	=	Chronic Oral Reference Dose (mg/kg-day)
RfD_i	=	Chronic Inhalation Reference Dose (mg/kg-day)
BW	=	Adult Body Weight (kg)
AT	=	Averaging Time (yr)
EF	=	Exposure Frequency (days/yr)
ED	=	Exposure Duration (yr)
IR_{soil}	=	Soil Ingestion Rate (mg/day)
IR_{air}	=	Workday Inhalation Rate (m^3/day)
VF	=	soil-to-air Volatilization Factor (m^3/kg)
PEF	=	Particulate Emission Factor (m^3/kg)
CF	=	Conversion Factor (10^{-6} kg/mg)

Assumptions:

1) Body Weight (BW) = 70 kg

2) Averaging Time (AT) = 25 years

3) Exposure Frequency (EF) = 250 days/year

4) Exposure Duration (ED) = 25 years

5) Soil Ingestion Rate (IR_{soil}) = 50 mg/day

6) Workday Inhalation Rate (IR_{air}) = 20 m^3/day

Table 7 (continued)

CALCULATION OF TARGET ACTION LEVELS FOR SOILS FOR THE EASTERN OIL LAGOON IMPOUNDMENT

Soil-To-Air Volatilization Factor

$$VF\ (m^3/kg) = \frac{(LS \times V \times DH)}{A} \times \frac{(3.14 \times \alpha \times T)^{1/2}}{(2 \times D_{ei} \times E \times K_{as} \times 10^{-3}\ kg/g)}$$

where:

$$\alpha\ (cm^2/s) = \frac{(D_{ei} \times E)}{E + (p_s)(1-E)/K_{as}}$$

VF = Volatilization Factor (m^3/kg)
LS = Length of Side of contaminated area (m)
V = wind speed in mixing zone (m/s)
DH = Diffusion Height (m)
A = Area of contamination (cm^2)
D_{ei} = Effective Diffusivity (cm^2/s)
E = true soil porosity (unitless)
K_{as} = soil/air partition coefficient (g soil/cm^3)
p_s = true soil density or particulate density (g/cm^3)
T = exposure interval (s)
D_i = molecular diffusivity (cm^2/s)
H = Henry's law constant (atm-m^3/mol)
K_d = soil-water partition coefficient (cm^3/g)
K_{oc} = organic carbon partition coefficient (cm^3/g)
OC = Organic Carbon content of soil (fraction)

Table 7 (continued)

CALCULATION OF TARGET ACTION LEVELS FOR SOILS FOR THE EASTERN OIL LAGOON IMPOUNDMENT

Particulate Emission Factor

$$PEF\ (m^3/kg) = \frac{LS \times V \times DH \times 3600\ s/hr}{A} \times \frac{1000\ g/kg}{.036 \times (1-G) \times (U_m/U_t)^3 \times F(x)}$$

PEF = Particulate Emission Factor (m^3/kg)
LS = Width of contaminated area (m)
V = wind speed in mixing zone (m/s)
DH = Diffusion Height (m)
A = Area of contamination (m^2)
0.036 = respirable fraction (g/m^2-hr)
G = fraction of vegetative cover (unitless)
U_m = mean annual wind speed
U_t = equivalent threshold value of wind speed at 10 m (m/s)
F (x) = function dependent on U_m/U_t (unitless)

Table 7 (continued)

CALCULATION OF TARGET ACTION LEVELS FOR SOILS FOR THE EASTERN OIL LAGOON IMPOUNDMENT

	Ethylbenzene	Toluene	Xylene	Benzene
Koc (cm^3/g)	1.10E+03	3.00E+02	2.40E+02	8.30E+01
s	3.00E+02	5.35E+02	1.98E+02	1.75E+03
H	6.43E-03	6.37E-03	7.04E-03	5.59E-03
M	106.16	92.13	106.16	78.11
Di	.0747	.0819	.0747	.0912

Koc = Organic carbon partition coefficient (cm^3/g)

s = Solubility (mg/L)

H = Henry's Law Constant

M = Molecular weight

Kas = Soil/air partition coefficient (g soil/cm^3 air)

Di = molecular diffusivity (cm^2/s)

Kd = soil-water partition coeffieient (cm^3/g)

oc = organic carbon content of soil

Table 8
CONTAMINANT TARGET ACTION LEVELS
FOR SOILS AT THE EASTERN OIL LAGOON IMPOUNDMENT

WORKER EXPOSURE SCENARIO

Indicator Chemical	Concentration (mg/kg)		Based on Carcinogenic Risk (mg/kg)			Based on Noncarcinogenic Effects (mg/kg)
	Avg.	Max.	1E4 Risk	1E5 Risk	1E6 Risk	
Acetone	.0223	.035	N/A	N/A	N/A	2,920
Ethylbenzene	480	960	N/A	N/A	N/A	2,919
Flourene	43.7	170	N/A	N/A	N/A	1,168
HXDD	.0062	.012	.00925	.000925	.0000925	N/A
Nickel	278	1,920	N/A	N/A	N/A	584
Pyrene	23	60	N/A	N/A	N/A	876
Toluene	850	1,700	N/A	N/A	N/A	5,828
Zinc	731	4,630	N/A	N/A	N/A	8,760

HXDD-Hexachlorodibenzodioxin

Table 9

HEALTH ENDPOINTS FOR THE INDICATOR CHEMICALS AND RESULTING CUMULATIVE HAZARD INDICES BASED ON RISK DERIVED CLEAN-UP LEVELS AT THE EASTERN OIL LAGOON IMPOUNDMENT

Health Endpoint [a]	Chemicals Affecting Health Endpoint	Relevant Exposure Pathway	Cumulative Hazard Index
Blood	Flourene	Oral	.143
Developmental Toxicity	Ethylbenzene	Inhalation	.143
Immune System	Zinc	Oral	.143
Kidney	Acetone, Ethylbenzene, Pyrene, Toluene, Nickel	Oral	.714
	Ethylbenzene, Toluene	Inhalation	.286
			1
Liver	Acetone, Ethylbenzene, Toluene, Nickel	Oral	.572
	Ethylbenzene, Toluene	Inhalation	.286
			.858

[a] Affected target tissue/organ/system

Table 9 (continued)

HEALTH ENDPOINTS FOR THE INDICATOR CHEMICALS AND RESULTING CUMULATIVE HAZARD INDICES BASED ON RISK DERIVED CLEAN-UP LEVELS AT THE EASTERN OIL LAGOON IMPOUNDMENT

Health Endpoint [a]	Chemicals Affecting Health Endpoint	Relevant Exposure Pathway	Cumulative Hazard Index
Neurological Effects	Toluene	Inhalation	.143
Tubular Pathology	Pyrene	Oral	.143

[a] Affected target tissue/organ/system

Table 10

Eastern Oil Lagoon Impoundment

Estimated Contaminant Intake Compared to Reference Doses for Maximum Levels of Indicator Constituents and Levels of Indicator Constituents Yielding a Hazard Index of One for the Site

CHEMICAL	Soil Ingestion					Maximum Detected Value of the Chemical (mg/kg)	Target Value of the Chemical HI=1 (mg/kg)
	Intake (mg/kg-day) Maximum	Intake (mg/kg-day) Yielding Hazard Index of One	Chronic Oral RfD (mg/kg/day)	Oral Hazard Index			
				Maximum	HI=1		
Acetone	1.71E-07	1.43E-02	1.0E-01	1.71E-06	1.43E-01	0.035	2920
Ethylbenzene	4.70E-03	1.43E-02	1.0E-01	4.70E-02	1.43E-01	960	2920
Fluorene	8.32E-04	5.71E-03	4.0E-02	2.08E-02	1.43E-01	170	1168
Nickel	9.39E-03	2.86E-03	2.0E-02	4.70E-01	1.43E-01	1920	584
Pyrene	2.94E-04	4.29E-03	3.0E-02	9.78E-03	1.43E-01	60	876
Toluene	8.32E-03	2.86E-02	2.0E-01	4.16E-02	1.43E-01	1700	5840
Zinc	2.27E-02	4.29E-02	3.0E-01	7.55E-02	1.43E-01	4630	8760

Total = 6.64E-01 1.00E+00

CHEMICAL	Soil Inhalation					Maximum Detected Value of the Chemical (mg/kg)	Target Value of the Chemical HI=1 (mg/kg)
	Intake (mg/kg-day) Maximum	Intake (mg/kg-day) Yielding Hazard Index of One	Chronic Inhalation RfD (mg/kg/day)-1	Inhalation Hazard Index			
				Maximum	HI=1		
Ethylbenzene	5.69E-02	5.00E-01	1.0E+00	5.69E-02	5.00E-01	960	8431
Toluene	2.20E-01	2.00E-01	4.0E-01	5.51E-01	5.00E-01	1700	1543

Total = 6.08E-01 1.00E+00

CHEMICAL	Total Intake All Pathways	
	Maximum (mg/kg/day)-1	Intake HI=1 (mg/kg/day)-1
Acetone	1.71E-07	1.43E-02
Ethylbenzene	6.16E-02	5.14E-01
Fluorene	8.32E-04	5.71E-03
Nickel	9.39E-03	2.86E-03
Pyrene	2.94E-04	4.29E-03
Toluene	2.29E-01	2.29E-01
Zinc	2.27E-02	4.29E-02

Total Hazard Index		
Maximum (mg/kg/day)-1	HI=1 (mg/kg/day)-1	Target Value of Chemical (mg/kg)
1.71E-06	1.43E-01	2920
1.04E-01	1.43E-01	2919
2.08E-02	1.43E-01	1168
4.70E-01	1.43E-01	584
9.78E-03	1.43E-01	876
5.93E-01	1.43E-01	5828
7.55E-02	1.43E-01	8760

Total = 1.27E+00 1.00E+00

Table 11

Sample Containers, Sample Volumes, Preservation, and Holding Times

ANALYTE	CONTAINER	VOLUME (a)	PRESERVATION	MAXIMUM HOLDING TIME (b)
VOLATILE ORGANICS (Liquid Sample)	GLASS, W/TEFLON-LINED SILICONE RUBBER SEPTUM	2 X 40 ML	COOL, 4 DEGREES C	10 DAYS
VOLATILE ORGANICS (Soil Sample)	GLASS, W/TEFLON-LINED CAP	2 OZ	COOL, 4 DEGREES C	10 DAYS
SEMI-VOLATILE ORGANICS (Soil Sample)	GLASS, WIDE-MOUTH,TEFLON-LINED CAP	32 OZ	COOL, 4 DEGREES C	10/40 (c)
DIOXINS (Soil Sample)	GLASS, WIDE-MOUTH,TEFLON-LINED CAP	32 OZ	COOL, 4 DEGREES C	30/45 (d)
METALS (Soil Sample)	GLASS, WIDE-MOUTH,TEFLON-LINED CAP	32 OZ	COOL, 4 DEGREES C	180 DAYS

(a) - This is the maximum holding time from verified time of sample receipt in compliance with U.S. EPA-CLP requirements.

(b) - For laboratory QC (MS/MSD) 2 x volume will be supplied for soil samples.

(c) - Extraction within 10 days, analyses within 40 days for soils.

(d) - Extraction within 30 days, analyses within 45 days of extraction.

Table 12

Methods and Practical Quantitation Limits for Soil Samples

CONSTITUENT	EPA METHODS		PQL(a) (ug/kg)
	EXTRACTION	ANALYSIS	
Acetone	5030	8240	10
Ethylbenzene	5030	8240	5
Toluene	5030	8240	5
Flourene	3500	8270	330
Pyrene	3500	8270	330
Copper	3050	6010	5000
Nickel	3050	6010	8000
Zinc	3050	6010	4000
Hexachlorodibenzodioxin	----------	8280	1

(a) - Practical Quantitation Limit

APPENDIX A

APPENDIX A

ADDENDUM TO SITE ASSESSMENT REPORT PREPARED BY GDC ENGINEERING, INC. AND DATED AUGUST 31, 1994

MONITOR WELL INSTALLATION, MONITOR WELL PLUG AND ABANDONMENT, EASTERN OIL LAGOON IMPOUNDMENT SAMPLING, AND MONITOR WELL WATER LEVEL MEASUREMENT ADDENDUM PROJECT

Commonwealth Oil Refining Company
Petrochemical Complex
Peñuelas, Puerto Rico 00731

DSM Project No. 1019-01

February 8, 1995

Prepared by:
DSM Environmental Services, Inc.
1830 South Kirkwood, Suite 201-A
Houston, Texas 77077

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1.0 EXECUTIVE SUMMARY

This addendum to the Site Assessment Report, written by GDC Engineering Inc. (GDC) and dated August 31, 1994, has been prepared for Commonwealth Oil Refining Company (CORCO) by DSM Environmental Services, Inc. (DSM) in order to document the installation of two monitor wells, the plugging and abandonment of two monitor wells, the collection of background soil samples at two locations, the sampling of soils at the Eastern Oil Lagoon Impoundment, the determination of sludge thickness within the Eastern Oil Lagoon Impoundment, and the measurement of water levels within eight (8) groundwater wells monitoring five (5) solid waste management units located at the CORCO Petrochemical Complex, Ponce, Puerto Rico (the Site).

The following conclusions can be drawn from the completion of this project:

- Groundwater analysis from monitor well PD-2 indicates that all volatile and semi-volatile organics, sulfide, cyanide, pesticides/PCB, chlorinated herbicides, and organo-phosphorus pesticides were not detected above the method detection limits for each parameter. Total heavy metals were detected at concentrations which are thought to reflect background levels within the silt considering the silty groundwater matrix. This conclusion is substantiated by a comparison with the dissolved metals sample which only detected Barium, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium, and Zinc at low concentrations. Total Tetrachlorodibenzofuran and Total Pentachlorinated dibenzofuran were detected at a concentration of .11 and .04 ng/l, respectively. These concentrations are in the part per trillion range.

- The groundwater in the vicinity of the Eastern Oil Lagoon Impoundment is flowing to the south with a 6.47×10^{-3}ft/ft hydraulic gradient.

- The groundwater in the vicinity of the Eastern Cooling Water Lagoon Impoundment, Western Cooling Water Lagoon impoundment, Aeration Lagoon Impoundment, and Oxidation Lagoon Impoundment is flowing to the west southwest with a 9.07×10^{-4}ft/ft hydraulic gradient.

- Soil samples from within the Eastern Oil Lagoon Impoundment indicate that hydrocarbons have migrated vertically a minimum of one foot beneath the sludge layer overlying the impoundment. The minimum volume of in-situ sludge and hydrocarbon affected soil within the Eastern Oil Lagoon Impoundment is approximately 3,248 cubic yards.

2.0 INTRODUCTION

The original site assessment was implemented by GDC and Roy F. Weston (Weston) as an initial step to determine closure methodology for seven specified solid waste management units at the CORCO facility in Ponce, Puerto Rico. The addendum field work was performed by DSM for CORCO from September 29, 1994 through October 6, 1994 in order to fill data gaps presented by the original site assessment. The work performed by DSM entailed the installation of monitor wells, plug and abandonment of monitor wells, the collection of background soil samples at two locations, sampling of the Eastern Oil Lagoon Impoundment, and the measurement of water levels in eight (8) monitor wells located at the CORCO Petrochemical Complex, Ponce, Puerto Rico (the Site).

The overall objectives of the work performed by DSM were:

- to evaluate the soil conditions at two background monitor well locations;
- to plug and abandon two monitor wells which were defective;
- to replace two monitor wells which were defective;
- to determine the thickness of sludge present within the Eastern Oil Lagoon Impoundment in order to ascertain a rough order of magnitude sludge volume estimate;
- to collect samples of native soils beneath the sludge present within the Eastern Oil Lagoon Impoundment to determine a rough estimate of the vertical extent of petroleum hydrocarbons within the Eastern Oil Lagoon Impoundment as well as determine an estimate of the volume of hydrocarbon affected soils;
- to collect groundwater level data from eight (8) monitor wells in order to determine the potentiometric surface and hydraulic gradient of the area adjacent to the Eastern Cooling Water Lagoon Impoundment, Western Cooling Water Lagoon Impoundment, Aeration Lagoon Impoundment, Oxidation Lagoon Impoundment, and the Eastern Oil Lagoon Impoundment.

This addendum presents the procedures which were used to install two (2) monitor wells, plug and abandon two (2) monitor wells, develop an estimate of the volume of sludge within the Eastern Oil Lagoon Impoundment, sample soils at four locations within the Eastern Oil Lagoon Impoundment to ascertain an estimate of hydrocarbon affected soils, and measure groundwater levels at eight (8) monitor wells at the subject site.

3.0 MONITOR WELL INSTALLATION

On September 30, 1994, two (2) monitor wells were installed in the uppermost aquifer adjacent to the Eastern Oil Lagoon Impoundment (**See Figure 1**). Monitor well EL-1 was installed upgradient of the Eastern Oil Lagoon Impoundment in order to determine background concentrations of waste constituents in soil and groundwater. EL-2 was installed downgradient of the Eastern Oil Lagoon Impoundment in order to detect potential releases of waste constituents from the unit. Monitor wells EL-1 and EL-2 were installed to replace defective wells which were plugged and abandoned as described in Section 4.0 of this addendum.

A Mobile B-53 trailer-mounted drill rig equipped with 6.75-inch O.D. hollow stem augers was used to advance a borehole for the construction of monitor wells and for background soil sample collection. Each boring was sampled with a 2-foot long split spoon sampler, driven in advance of the auger according to ASTM (D-1586) Standard Penetration Test. Continuous soil samples were obtained from ground surface to the saturated zone, characterized, and screened with a Thermoenvironmental 580B Photoionization Detector. Geotechnical samples were collected at roughly five (5) foot intervals beneath the saturated zone only if downhole conditions were favorable for sample collection. PID readings were recorded on the monitor well construction diagrams which are included as **Figures 2 and 3**.

The lithology of the native soils encountered in boring EL-1, completed to a depth of 24.2 feet, consists of a thin veneer of humus, silty clays (CL), clayey silts (ML), and clayey very fine sand (SM) overlaying unconsolidated sands and fine and coarse gravelly sands (SP). The lithology of the soils encountered in boring EL-2, completed to a depth of 28.5 feet, consists of twelve feet of fill (tan calcareous clay with calcareous nodules), clays (CH), silty clays (CL), and sandy clays (CL) overlaying unconsolidated sands (SP). Field screening of soils with the PID did not detect any organic vapors within these borings located upgradient and downgradient of the Eastern Oil Lagoon Impoundment. Initial groundwater levels ranged between 7.5 and 20 feet below ground surface elevation at EL-1 and EL-2, respectively.

The well materials used to construct the wells were clean, two-inch diameter, flush-joint threaded PVC riser with a 20-foot long screen (0.010-inch slot) and a 6-inch long conically shaped bottom cap. A filter pack, consisting of pea gravel, was placed in the annulus to approximately two feet and five feet above the top of the screen in EL-1 and EL-2, respectively. Heaving sands were present in both EL-1 and EL-2. The formation sand is adjacent to the screen from a depth of 11.5 feet and 24.7 feet below ground surface elevation to total depth of the boring in EL-1 and EL-2, respectively. Approximately one-two feet of bentonite pellets were placed above the filter pack and allowed to hydrate prior to constructing the final monitor well completions. Well completions consisted of four-inch diameter steel protective casings with locking caps and four feet by four feet by six inch thick surface concrete pad.

Monitor wells EL-1 and EL-2 were developed after installation by personnel from Victor E. Rivera Associates. Five well volumes were removed from each well with the use of a bailer.

Temperature, pH, and specific conductivity were recorded after each well volume was removed. This data is presented in **Table 1**.

A monitor well was to have been installed upgradient of the Western Cooling Water Lagoon Area in order to collect background soil and groundwater samples for the Western Cooling Water Lagoon Impoundment, Eastern Cooling Water Lagoon Impoundment, Aeration Lagoon Impoundment, and Oxidation Lagoon Impoundment. A background monitor well was not installed at this location due to the presence of hydrocarbons.

Boring WL-5-1 was performed approximately 150 feet northeast of the northeastern bank of the Eastern Cooling Water Lagoon Impoundment (**See Figure 4**). Organic vapors were detected in the auger head space (57 ppm) and a strong smell of hydrocarbons were noted on a sample of native soil collected at a depth of 6 to 8 feet below ground surface (60 ppm PID reading). Since the purpose of this monitor well was to provide background analytical data for soil and groundwater unaffected by site operations, the boring was abandoned and grouted with a Portland cement and bentonite mixture (95%/5% by dry weight) hydrated with 3-4 gallons of water per 47 pound sack of cement.

Subsequently to abandoning boring WL-5-1, boring WL-5-2 was performed approximately 45 feet northeast of the northeastern bank of the Eastern Cooling Water Lagoon Impoundment (**See Figure 4**). Organic vapors were detected while performing the boring (60-88 PPM). The sample of native soil collected at a depth of 6 to 8 feet below ground surface elevation was saturated with hydrocarbons. This boring was therefore abandoned and grouted to total depth in the same manner as boring WL-5-1. Lithographic logs of WL-5-1 and WL-5-2 are included as **Figures 5 and 6**, respectively.

The decision was made to use monitor well PD-2, previously installed by DSM, as a background monitor well for the Eastern Cooling Water Lagoon Impoundment, Western Cooling Water Lagoon Impoundment, Aeration Lagoon Impoundment, and Oxidation Lagoon Impoundment. A boring was performed in order to collect soil samples for background determination adjacent to monitor well PD-2. This subject is discussed in the next section of this addendum report.

3.1 Background Soil Sample Collection

Two soil samples were collected for analysis from borings EL-1 and PD-2. The samples were collected from native soils in EL-1 at a depth of 0 to 2 feet below ground surface elevation and from 2 to 7.5 feet below ground surface elevation just above the water table. At location PD-2, the soil samples were collected from native soils at a depth of 7.5 to 9.5 feet below ground surface elevation. The four samples were analyzed for Target Compound List (TCL) metals.

All soil samples were logged in the field by a qualified professional in geology. Boring logs and field records include discussions of the lithographic characteristics encountered according to the

Unified Soil Classification System (USCS). The structure, texture, mineral composition, moisture content, color and name is described in the monitor well construction diagram presented as **Figure 2** for monitor well EL-1, and the lithographic log presented as **Figure 7** for boring PD-2. No visual or olfactory evidence indicating the presence of hydrocarbons was noted at either of the two locations.

The purpose of boring PD-2 was to collect background soil samples from a location upgradient of the Eastern Cooling Water Lagoon Impoundment, Western Cooling Water Lagoon Impoundment, Aeration Lagoon Impoundment, and Oxidation Lagoon Impoundment. The boring was performed 25 feet south of monitor well PD-2. The boring was continuously logged to a depth of 11.5 feet below ground surface elevation. Fill was encountered to a depth of 7.5 feet below ground surface elevation. Groundwater was encountered at a depth of 9 feet below ground surface elevation.

Samples PD-2A and PD-2B were collected in native soils from a depth of 7.5 to 9.5 feet below ground surface elevation. The top half of the recovered sample was labeled as PD-A. The bottom half of the recovered sample was labeled as PD-B. The samples were analyzed for TCL metals. **Table 2** summarizes the analytical results of these samples.

The lithology of the soils encountered in boring PD-2 consists of fill (limestone gravel with tan calcareous clay) to a depth of 7.5 feet below ground surface elevation. Tan silty clay (CL) with calcareous nodules was present from 7.5 feet to 9.5 feet below ground surface elevation. The silty clay was saturated below a depth of 9 feet and gray below 9.5 feet. The boring was terminated at a depth of 11.5 feet below ground surface elevation. The boring was grouted to total depth with a Portland cement and bentonite mixture (95%/5% by dry weight) hydrated with 3-4 gallons of water per 47 pound sack of cement once the samples had been collected.

The purpose of boring EL-1 was to collect background soil samples from a location upgradient of the Eastern Oil Lagoon Impoundment and to install a replacement monitor well as described in Section 3.0. The boring is located approximately 100 feet north of the original monitor well labeled EL-1, which was plugged and abandoned by DSM. The boring was continuously logged to a depth of 10 feet below ground surface elevation. Groundwater was encountered at a depth of 7.5 feet below ground surface elevation.

The lithology of the soils encountered in boring EL-1 consists of Silty Clay (CL) from a depth of .3 feet to 4 feet below ground surface elevation and from 6 to 8 feet below ground surface elevation. Clayey Silt (ML) was present from 4 to 6 feet below ground surface elevation. Clayey very fine Sand (SM) was present from 8 to 10 feet below ground surface elevation. The silty clay was saturated below a depth of 7.5 feet below ground surface elevation. Silty Gravel (SM) was present from 14 to 16 feet below ground surface elevation. The boring was completed as replacement monitor well EL-1 as described in Section 3.0.

Four soil samples were collected within boring EL-1 and analyzed for TCL metals. Sample EL-1A was collected in native soils from a depth of zero to 2 feet below ground surface elevation. Samples EL-1B, Dup #1, and Dup #2 were collected from 2 to 7.5 feet below ground surface elevation. These soil samples were collected in a clean stainless steel bowl, mixed, and placed in three separate sample containers. **Table 2** summarizes the analytical results of these samples.

3.2 Groundwater Sample Collection

A groundwater sample was collected from monitor well PD-2. Upon opening the 2-inch diameter well cap, a water level measurement was taken to the nearest 0.01 foot with respect to the established survey point on top of the 2-inch well casing using an E-line. The E-line was decontaminated with a mixture of a mild detergent and potable water, rinsed with potable water, and rinsed with deionized water prior to being used and between each monitor well. The total depth of the well was sounded. The depth to the static water surface was subtracted from the total casing depth to determine the height of standing water in the casing.

A single groundwater purge volume was determined by using the following formula:

$$V=\Pi r^2 Hx7.48 gal/ft^3$$

A dedicated PVC bailer was used to remove three times the calculated volume of water in the well. Bailing was performed through the entire length of the water column in order to remove stagnant water and to provide recharge through the entire length of the well screen. The groundwater sample was collected using the previously referenced bailer. The bailer was carefully lowered 1 to 2 feet into the water column of the well and the sample withdrawn to the surface. Hydrocarbons were not noted in the well during purging.

The sample was analyzed for all Appendix IX constituents, which are as follows: extractable organics (BNA), total metals (unfiltered), dissolved metals (filtered), cyanide, sulfide, pesticides/PCB, chlorinated herbicides, organo-phosphorus pesticides, dioxins, and furans. Groundwater sample PD-2, which was analyzed for dissolved metals, could not be filtered and preserved in the field due to the large quantity of silt present in the sample which would plug the field filtering device. The samples were submitted to the laboratory unfiltered and unpreserved. The samples were filtered and preserved by Huntington Engineering & Environmental, Inc. Laboratory (Huntington) prior to being analyzed.

Table 3 summarizes the results of the groundwater sample labeled as PD-2, as well as the PD-2 duplicate, matrix spike, and matrix spike duplicate collected along with this sample. The data indicates that all volatile and semi-volatile organics, sulfide, cyanide, pesticides/PCB, chlorinated herbicides, and organo-phosphorus pesticides were not detected above the method detection limits for each parameter. Aluminum, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Magnesium, Manganese, Nickel, Potassium, Sodium, Tin, Vanadium, and

Zinc were detected at concentrations which are thought to reflect background levels considering the silty groundwater matrix. This conclusion is substantiated by a comparison with the dissolved metals sample which only detected Barium, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium, and Zinc at low concentrations. Total Tetrachlorodibenzofuran and Total Pentachlorinated dibenzofuran were detected at a concentration of .11 and .04 ng/l, respectively. These concentrations are in the part per trillion range. It should be noted that methylene chloride was detected in the trip blank which accompanied the groundwater samples to the laboratory. However, methylene chloride is a common laboratory contaminant.

3.3 Decontamination Procedures

The sampling tools were decontaminated between collection of individual samples and between sampling locations. All downhole equipment was decontaminated prior to the drilling of a boring. The sampling tools and downhole equipment was decontaminated using a high-pressure, hot water steam cleaner, and potable water. Items which were steam cleaned included drill pipe, hollow-stem auger flights, and split spoons. This equipment was decontaminated within a temporary decontamination pit located adjacent to the plant's API separator and constructed for the containment of generated liquids. The bottom and sides of the pit were lined with visqueen to enable the collection of decontamination generated liquids. The liquids generated during decontamination procedures was pumped to the CORCO API separator unit.

At the soil boring site, the sampling equipment was decontaminated between samples using first a washing and scrubbing in a mild laboratory detergent and potable water, followed by a potable water rinse, washed with nitric acid solution, rinsed with HPLC-grade water, rinsed with pesticide-grade acetone, and rinsed thoroughly with HPLC-grade water. The equipment was then allowed to air dry. The on-site decontamination procedures were used on sampling devices such as sample trays, knives, shovel, post hole digger, and trowels.

3.4 Waste Management

The drill cuttings and monitor well development water generated during the investigation were accumulated on-site in an environmentally safe manner. The generated waste was accumulated on-site in 55-gallon steel drums. Each drum was labeled with a permanent marker which described the drum contents and date the waste was generated. CORCO is responsible for the proper management and disposal of the waste generated during this investigation.

4.0 MONITOR WELL PLUG AND ABANDONMENT

Monitor wells EL-1 and EL-2 were plugged and abandoned. Monitor EL-1 was installed adjacent to an abandoned borehole. Due to possible contamination caused by this abandoned borehole, this well was plugged and abandoned and replaced as previously described in Section 3.0 of this addendum. Monitor well EL-2 was installed with a 10-foot screen due to the presence of heaving sands. This well was plugged and abandoned and replaced with the installation of a monitor well with a 20-foot screen as previously discussed in Section 3.0 of this addendum.

The well materials reportedly used to install the original wells consist of two-inch diameter, flush-joint threaded stainless steel with 10-20 feet continuously wound screen (0.01 inch slot) and a one foot sump. The screened interval was extended to two feet above the water table. Filter sand (6/20) was placed in the annulus to approximately one foot above the top of the screen. Approximately one foot of bentonite pellets were added above the sand pack. The annular space above the bentonite seal was grouted to the ground surface using a Portland cement/bentonite mixture.

DSM measured the total depth of the wells. The well riser was over-reamed with a 3 3/8 inch I.D. hollow stem auger. The rig proceeded to the depth of the bottom of the screen. The stainless steel riser and screen were pulled from the borehole within the augers. The augers were then removed. All of the two inch diameter stainless materials used to initially construct these wells were recovered intact from each of the respective boreholes. A one foot long sump, ten (10) long screen, and two ten foot long riser blanks were recovered from EL-1. A one foot sump, twenty foot long screen, and a five foot and two foot long blank risers were recovered from EL-2. The borehole was then grouted with a mixture of 95% Portland cement and 5% bentonite by weight with approximately 3-4 gallons of water per 47 pound sack of cement.

All equipment used to perform plug and abandonment operations was decontaminated with a steam cleaner in accordance with the procedures outlined in Section 3.3 of this addendum. Waste materials generated during plug and abandonment activities were managed as outlined in Section 3.4 of this addendum.

5.0 EASTERN OIL LAGOON IMPOUNDMENT INVESTIGATION

Four soil samples were collected within the Eastern Oil Lagoon Impoundment at locations as depicted in **Figure 8**. The four samples were collected six inches to one foot beneath the sludge blanket present in the basin. The samples were analyzed for total petroleum hydrocarbons. The thickness of the sludge layer was noted and recorded in the field book at these locations. The sludge layer was removed with the use of a shovel. The discrete soil samples were collected with the use of a post hole digger. The soil samples provide DSM with a rough estimate of vertical migration of total petroleum hydrocarbons within the basin. The analytical results and depth of collection of the samples below ground surface elevation are presented in **Table 4**.

In order to determine a rough order of magnitude of the volume of sludge present within the solid waste management unit, a grid was constructed within the Eastern Oil Lagoon Impoundment as depicted in **Figure 9**. Grid point AA' represents a location approximately 30 feet south and 50 feet east of the northwest corner of the unit. This point indicates the presence of nine inches of sludge. Grid point DC' represents a location approximately 180 feet south and 150 feet east of the northwest corner of the unit. This point indicates the presence of one inch of sludge. A shovel was used to dig through the sludge blanket into native soils. The thickness and description of the sludge was noted in the field book. The results of this investigation are presented in **Table 5**. The estimated volume of in-situ sludge within the Eastern Oil Lagoon Impoundment is approximately 1,402 cubic yards. The minimum volume of in-situ affected soil within the Eastern Oil Lagoon Impoundment is approximately 3,428 cubic yards. This information is presented in **Table 6**.

6.0 GROUNDWATER LEVEL MEASUREMENTS

Groundwater level measurements were collected for eight (8) monitor wells to establish the hydraulic gradient for the site. Groundwater levels were recorded for monitor wells EL-1, EL-2, EL-3, EL-4, WL-2, WL-3, WL-4, and PD-2. **Tables 7 and 8** present the water level data obtained on September 27, 1994 and October 5, 1994, respectively. The levels were recorded within a two and one-half hour time period. The levels were measured from the top of well riser casing. The E-line was decontaminated with a mixture of a mild detergent and potable water, rinsed with potable water, and rinsed with deionized water before beginning and in between each well measuring event.

Monitor wells WL-2, WL-3, WL-4, and PD-2 monitor the Eastern Cooling Water Lagoon Impoundment, Western Cooling Water Lagoon Impoundment, Aeration Lagoon Impoundment, and Oxidation Lagoon Impoundment. **Figures 10 and 11** display the hydraulic gradient and potentiometric surface at this location for September 27, 1994 and October 5, 1994, respectively.

Monitor wells EL-1, EL-2, EL-3, and EL-4 monitor the Eastern Oil Lagoon Impoundment. **Figures 12 and 13** display the hydraulic gradient and potentiometric surface at this location for September 27, 1994 and October 5, 1994, respectively.

6.1 Groundwater Flow Direction

The groundwater flow is assumed to be steady-state and laminar. Darcy's Law is assumed to be valid. These assumptions were made to generate the September 27, 1994 and October 5, 1994 potentiometric surfaces at the Facility.

The Western Lagoon Impoundment's area potentiometric surface ranges from a level of 1.01 to 2.34 ft. msl. The standard level was between one and two ft. above msl. The October 5, 1994 potentiometric surface, at the Western Oil Lagoon Impoundment's area, indicates a groundwater flow direction west southwest towards Guayanilla Bay.

The Eastern Oil Lagoon Impoundment potentiometric surface ranges from a level of -0.82 to 5.22 ft. msl. The standard level was between sea level and one ft. above msl. The September 27, 1994 potentiometric surface, at the Eastern Oil Lagoon Impoundment, indicates a groundwater flow direction south towards Tallaboa Bay

6.2 Groundwater Gradient

The hydraulic gradient at the Western Lagoon area has been calculated for the groundwater flow direction west southwest towards Guayanilla Bay. The hydraulic gradient at the Eastern Oil Lagoon Impoundment has been calculated for the groundwater flow direction south towards Tallaboa Bay.

The hydraulic gradient is defined as the change in static head per unit distance in a given direction. The hydraulic gradient defines the direction of flow. The hydraulic gradient is calculated from wells with intermediate water levels (Heath, U.S.G.S. Paper 2220, 1989).

The up-gradient wells, for the southeast groundwater flow direction, are PD-2 and WL-4. The down-gradient well is WL-2. The level measurements are 2.34, 2.04, and 1.01 ft. msl, respectively. The distance between PD-2 and WL-2 is 1,512.85 ft., and the distance between WL-4 and WL-2 is 1,077.38 ft. The change in head between PD-2 and WL-2 is 1.33 ft., and between WL-4 and WL-2 is 1.03 ft. The calculated hydraulic gradient from PD-2 to WL-2 is 8.779×10^{-4} ft/ft, and from WL-4 to WL-2 is 9.37×10^{-4} ft/ft. The average calculated hydraulic gradient, for the west southwest groundwater flow direction, is 9.07×10^{-4} ft/ft.

The up-gradient well for the southern groundwater flow direction is EL-1. The down-gradient wells are EL-2 and EL-4. The level measurements for EL-1, EL-2, and EL-4 are 5.22, 1.02, and -0.82 ft. msl, respectively. The distance between EL-1 and EL-2 is approximately 785 ft., and the distance between EL-1 and EL-2 is approximately 794 ft. The change in head between EL-1 and EL-2 is 4.20 ft. The change in head between EL-1 and EL-4 is 6.04 ft. The calculated hydraulic gradient from EL-1 to EL-2 is 5.35×10^{-3} ft/ft, and from EL-1 to EL-4 is 7.60×10^{-3} ft/ft. The average calculated hydraulic gradient for the southern groundwater flow direction is 6.47×10^{-3} ft/ft.

The average calculated hydraulic gradients of 6.47×10^{-3} ft/ft and 9.07×10^{-4} ft/ft represents a relative flat gradient in the areas of the Eastern Oil Lagoon Impoundment and the Western Lagoon Area.

6.3 Hydraulic Conductivity

The hydraulic conductivity is a measure of a materials ability to transmit water. The conductivity for the Quaternary Alluvial Deposits aquifer is an estimate based on hydrometer/sieve analysis using geotechnical methodology ASTM 63 D422 (rev. 1990). The particle distribution was evaluated on soil samples collected from borings EL-1, EL-2 and PD-4. The samples were selected, from the samples analyzed at the Eastern Oil Lagoon Impoundment and in the vicinity of the Western Lagoon Impoundment area, from the saturated zone of three soil borings. There was hydrometer/sieve data on five of the six selected soil samples from the aquifer of the Quaternary Alluvial Deposits.

The hydraulic conductivity (K) is estimated from the particle size distribution using the Hazen formula:

$$K = A(d_{10})^2$$

where:

d_{10} is equal to the effective grain size, which is that grain size diameter at which 10 percent by weight of the particles are finer and 90 percent are coarser (Freeze and Cherry, 1979)

A is equal to 1.0 when K is in units of cm/sec and d_{10} is in mm.

The following is a list of the sample point, depth below ground surface and analytical d_{10} results used to estimate the hydraulic conductivity of the Alluvial Deposits at the CORCO Facility:

Sample Point	Depth (ft. bls)	d_{10} (mm)
EL-1	8-10	0.01
EL-2	13-15	0.01
PD-4	16-18	0.001
PD-4	20-22	0.01

The conversion constant of 2,835 ft/day was used to convert hydraulic conductivity units reported in cm/sec to ft/day. The estimated hydraulic conductivity across the CORCO Facility ranges from 2.835 ft./day to 28.35 ft./day. This estimate is acceptable as the resulting conductivity values only vary a magnitude between all results calculated.

6.4 Groundwater Velocity

The groundwater velocity is directly related to hydraulic gradient. The average linear velocity (v) of the groundwater at the CORCO Facility was calculated using Darcy's Law. Darcy's Law is as follows:

$$v = -\frac{Ki}{n_e}$$

where:

K is the hydraulic conductivity (length/time)
i is the hydraulic gradient (length/length)
n_e is the effective porosity

The values derived from the hydraulic estimates calculated for the Alluvial aquifer are the values utilized to estimate the groundwater velocity. These values are:

$K = 2.835$ ft./day to 28.35 ft./day
$i = 9.07 \times 10^{-4}$ ft/ft. to 6.47×10^{-3} ft/ft
$n_e = 1.0$

The effective porosity for water is 1.0 using the assumption that all pores in a sediment are inter connected (Fetter, 1989). The estimated groundwater velocity ranges from 2.571×10^{-3} ft/day to 0.1836 ft./day in the Alluvial Deposits aquifer at the CORCO Facility.

7.0 SAMPLE PRESERVATION

Sample containers, volumes, preservation, and holding times were as specified by the methods outlined in SW-846. Samples were placed in labeled sample containers at the time of collection. Pertinent information, such as field sample identification number, date and time of collection, size and material of sample container, sample type, preservative, requested analysis, and sampler were recorded on the sample container and chain-of-custody form. Groundwater sample PD-2, which was analyzed for dissolved metals, could not be filtered and preserved in the field due to the presence of silt in the sample. The sample was filtered and preserved at Huntington Engineering & Environmental, Inc. Laboratory (Huntington).

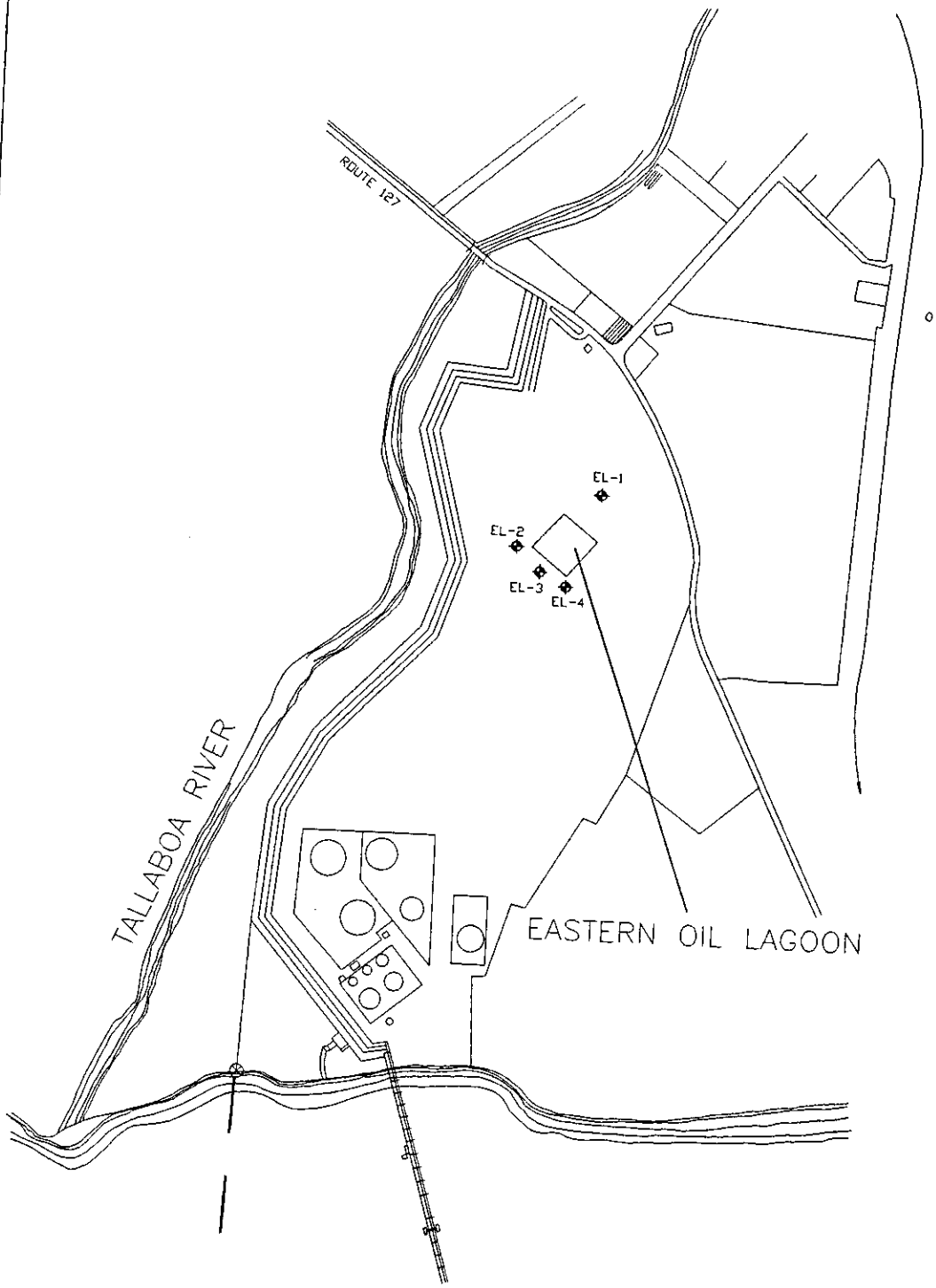
8.0 FIELD AND LABORATORY QUALITY CONTROL SAMPLES

Three duplicate samples were collected during the implementation of the project. One groundwater sample duplicate was collected to ensure that the laboratory procedures are precise. The sample was analyzed for Appendix IX constituents. Two soil sample duplicates were collected. These sample were analyzed for the Target Compound List metals. Matrix spike and matrix spike duplicate samples of groundwater were also collected for the laboratory. One trip blank sample accompanied the samples and was analyzed for Appendix IX volatile organic constituents. The results of these samples are in **Table 2**.

9.0 DATA VALIDATION

The analytical results from Huntington were validated by personnel not directly involved with the analytical testing. The data validation reports are presented as **Appendix B**. A copy of the original laboratory data package is presented as **Appendix C**. All data was validated with regard to usability according to the quality assurance set forth in the U.S. EPA's National Functional Guidelines for Organic and Inorganic Data Review. The reported data is considered acceptable and representative with the applied qualifiers.

FIGURES



DSM Environmental Services, Inc.

EASTERN OIL LAGOON IMPOUNDMENT LOCATION MAP

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-02	DWM		1-16-95	
SCALE N.T.S.	PHASE NO.	FIG. NO. 1	SHEET 1 OF 1	

DSM Environmental Services, Inc.

FIGURE 2

Company Name: Commonwealth Oil Refining Co. Well/Boring Designation: EL-1 Page: 1 of 1

Location: Approx. 475' North of Eastern Lagoon Impoundment Date drilled: 9-30-94

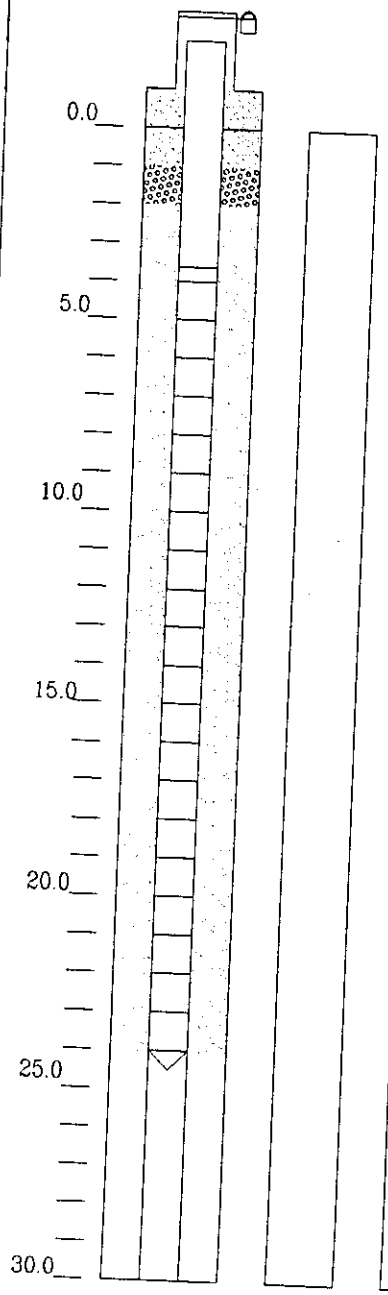
T.O.C. 15.19' G.L. 12.07' Cement: Interval 0-1' Type Portland Cement

Seal: Interval 1'-2' Type: Bentonite Pellets Filter pack: Interval: 2'-11.5' Type: Pea Gravel

Casing: Interval 3'8" - +3' Length 6'8" Dia. 2" Type PVC

Screen: Interval 3'8" - 23'8" Length 20' Slot 0.01" Type PVC Sump: 6"

Driller: William Perez Contractor Victor Rivera & Associates Logged by: Gerardo H. Garcia



Moisture Content	Group Symbol	Toughness	Plasticy	Sample Number	Organic Vapor	Sample Recovery	Group Name/Lithology/Remarks
					0	45	Humus 4" thick
M	CL	Low	Med	0-2			Silty clay (CL) brown, firm, medium plasticity, moist
				2-4	0	60	Stiff below 2'
M	ML	Med	Med	4-6	0	70	Clayey silt (ML)
M W	CL	Low	Med	6-8	0	90	Silty clay (CL) saturated below 7.5'
W	SM	N/A	Non	8-10	0	30	Clayey very fine sand (SM), some silt, trace of gravel
W	SP	N/A	Non	14-16	0	50	Silty gravel(SM), some clay, some sand

T.D. = 24.2'

DSM Project # 1019-02

DSM Environmental Services, Inc.

FIGURE 3

Company Name: Commonwealth Oil Refining Co. Well/Boring Designation: EL-2 Page: 1 of 1

Location: Approximately 150' SW of Eastern Lagoon Impoundment Date drilled: 9-30-94

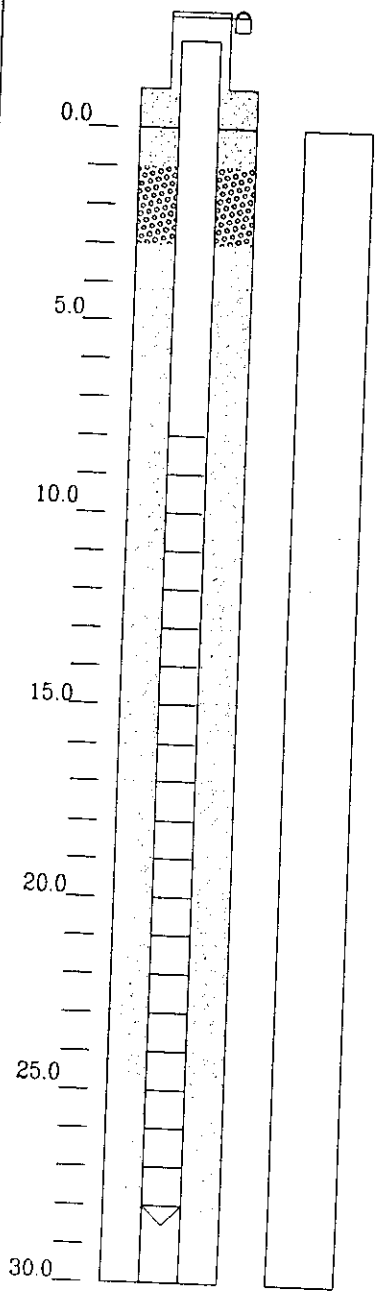
T.O.C. 17.23' G.L. 14.24' Cement: Interval 0-1' Type Portland Cement

Seal: Interval 1'-3' Type: Bentonite Pellets Filter pack: Interval: 3'-24'8" Type: Pea Gravel

Casing: Interval 8' - +3' Length 11' Dia. 2" Type PVC

Screen: Interval 8' - 28' Length 20' Slot 0.01" Type PVC Sump: 6"

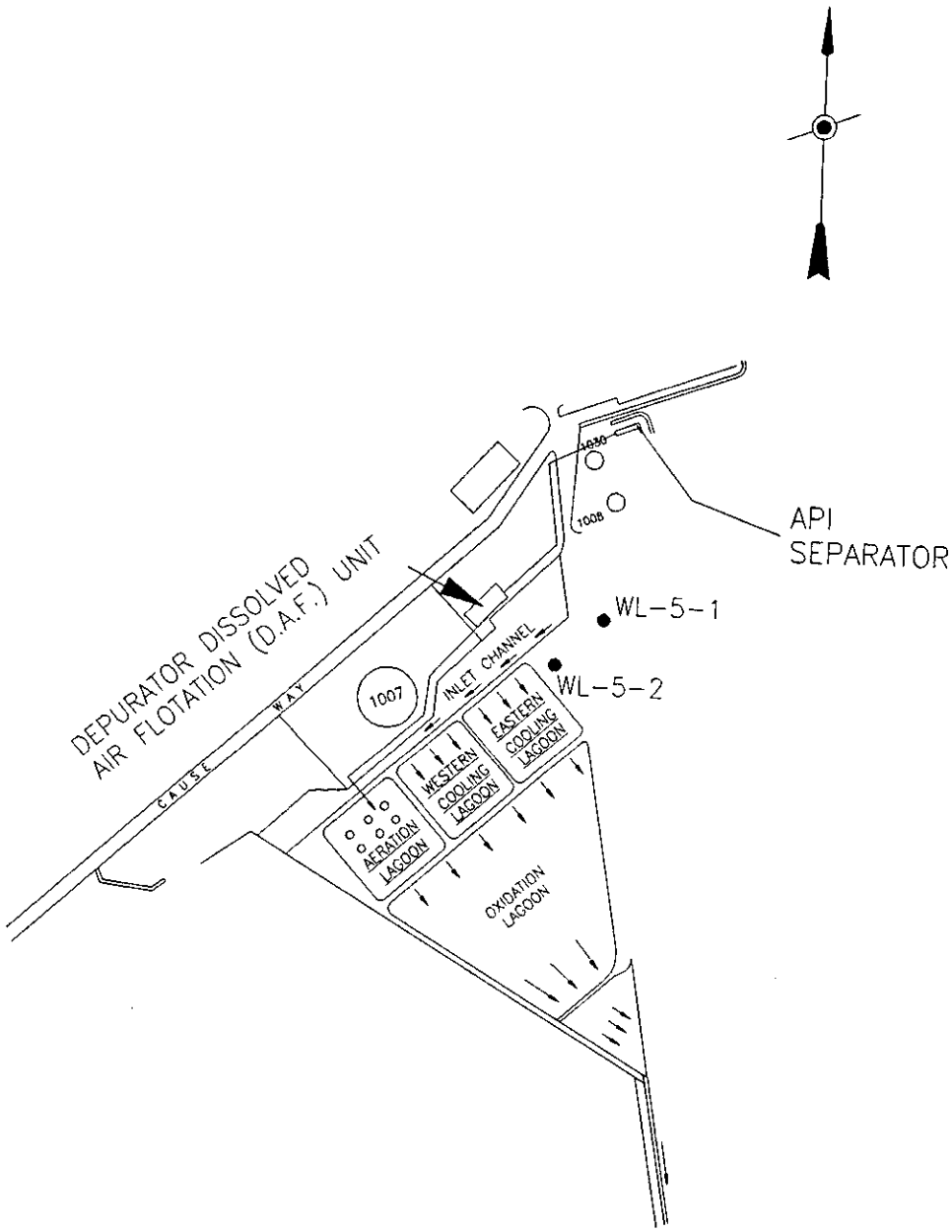
Driller: William Perez Contractor Victor Rivera & Associates Logged by: Gerardo H. Garcia

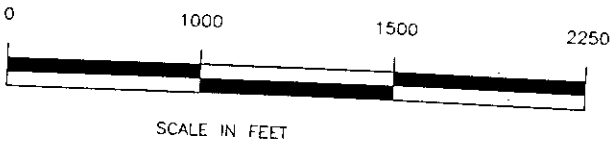


Moisture Content	Group Symbol	Toughness	Plasticy	Sample Number	Organic Vapor	Sample Recovery	Group Name/Lithology/Remarks
					0		Fill to 12' Tan calcareous clay w/ calcareous nodules and limestone
					0		
					0		
					0		
					0		
					0		
					0		
M	CL	Low	M		0		Silty clay (CL) to clay (CH) dark gray, firm, medium to highly plastic
	CH		H	13-15	0		
M	CL	Low	M	18-19	0		Silty clay (CL) medium plasticity
M	CL	Low	M	19-20	0		Very fine sandy clay (CL) saturated below 20'
W							
	SP						Sand (SP) unconsolidated, olive gray w/ trace of gravel

T.D. = 28.5'

DSM Project # 1019-02





DSM Environmental Services, Inc.

WESTERN LAGOON AREA

CORCO FACILITY

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-02	DWM		9-27-94	
SCALE NOTED	PHASE NO.	FIG. NO. 4	SHEET 1 OF 1	

FIGURE 5

Lithographic Log

Client	Commonwealth Oil Refining Company, Inc.	Boring #	WL-5-1
Project Name	Site Assessment Addendum	Method/Dia.	Hollow Stem Auger 6 3/4 " OD
Project Number	1019-02	Date Started	9/29/94
Project Manager	Gerardo H. Garcia	Date Finished	9/29/94
Drilling Co.	Victor E. Rivera Associates	Total Depth	8' bls

Depth in Feet (bls)	Description	Sample #	Type	PID Value	Sample Zone	Odor
0	Fill Limestone gravel with trace of tan calcareous clay (CL)			o		
1				o		
2				o		
3				o		
4				o		
5				o		
6	Clay (CL): tan, firm, medium plasticity, moist, calcareous			57		
7		6-8	SS	60	6-8	Hydrocarbs.
8						
9						
10						
11						
12						
13						
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FIGURE 6

Lithographic Log

Client	Commonwealth Oil Refining Company, Inc.	Boring #	WL-5-2
Project Name	Site Assessment Addendum	Method/Dia.	Hollow Stem Auger 6 3/4 " OD
Project Number	1019-02	Date Started	9/29/94
Project Manager	Gerardo H. Garcia	Date Finished	9/29/94
Drilling Co.	Victor E. Rivera Associates	Total Depth	8' bls

Depth in Feet (bls)	Description		Sample #	Type	PID Value	Sample Zone	Odor
0	Fill	Limestone gravel with trace of tan calcareous clay (CL), gray below 1 foot			o		
1					o		
2					o		
3					o		
4	Clay (CL):	firm, medium plasticity, moist, calcareous					
5			4-6	SS	57	4-6	Hydrocarbs.
6		soft, medium plasticity, moist, saturated with hydrocarbons					
7			6-8	SS	60	6-8	Hydrocarbs.
8							
9							
10							
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FIGURE 7

Lithographic Log

Client	Commonwealth Oil Refining Company, Inc.	Boring #	PD-2
Project Name	Site Assessment Addendum	Method/Dia.	Hollow Stem Auger 6 3/4 " OD
Project Number	1019-02	Date Started	9/29/94
Project Manager	Gerardo H. Garcia	Date Finished	9/29/94
Drilling Co.	Victor E. Rivera Associates	Total Depth	11.5' bls

Depth in Feet (bls)	Description	Sample #	Type	PID Value	Sample Zone	Odor
0	Fill Limestone gravel with tan calcareous clay (CL)					
1				0		
2				0		
3				0		
4				0		
5				0		
6				0		
7	Silty Clay (CL) tan, firm, medium plasicity, moist, with calcareous nodules			0		
8	wet beneath 9 feet	PD-2A	SS	0	7.5-9.5	
9		PD-2B		0		
10						
11						
12						
13						
14						
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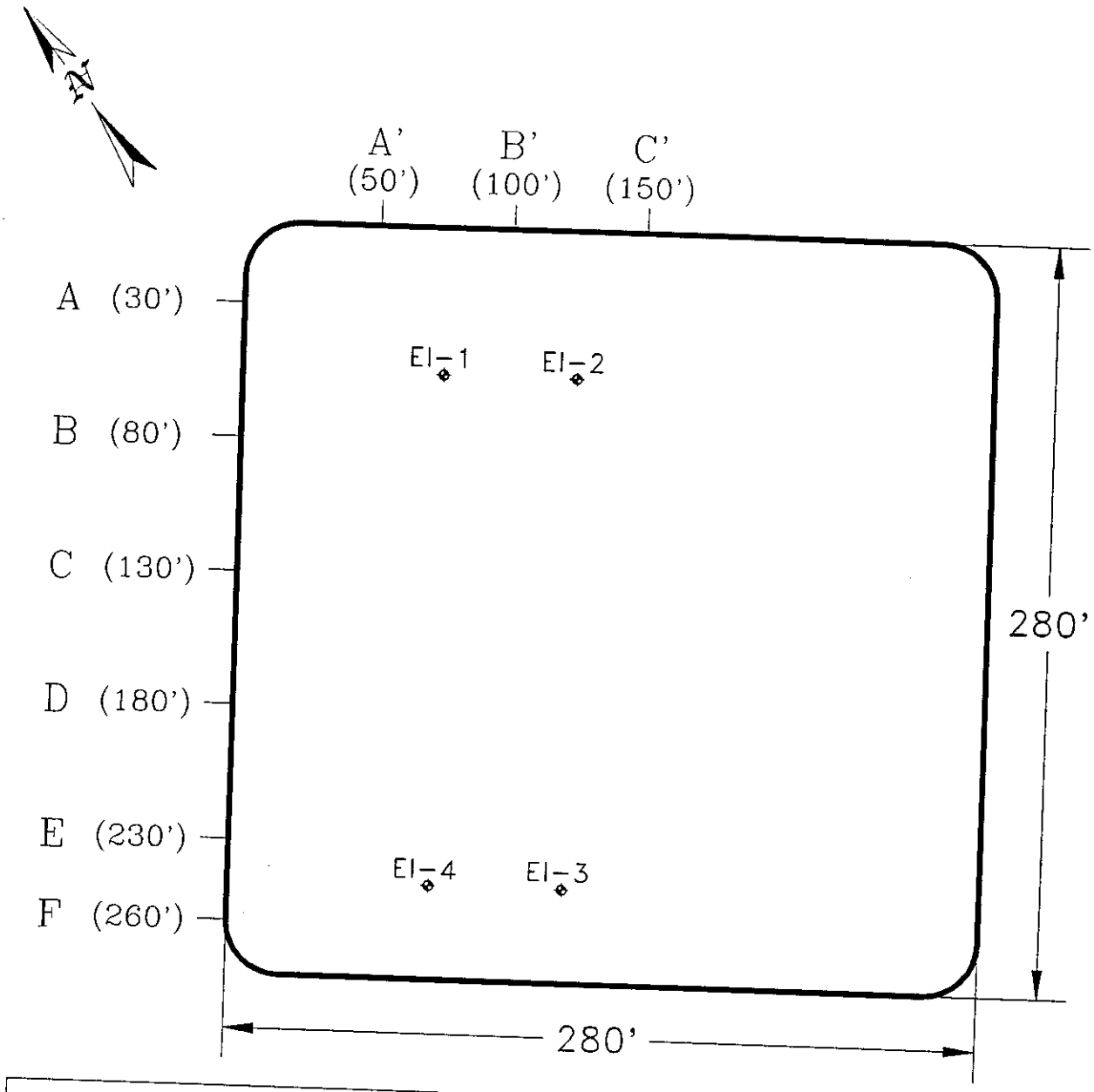
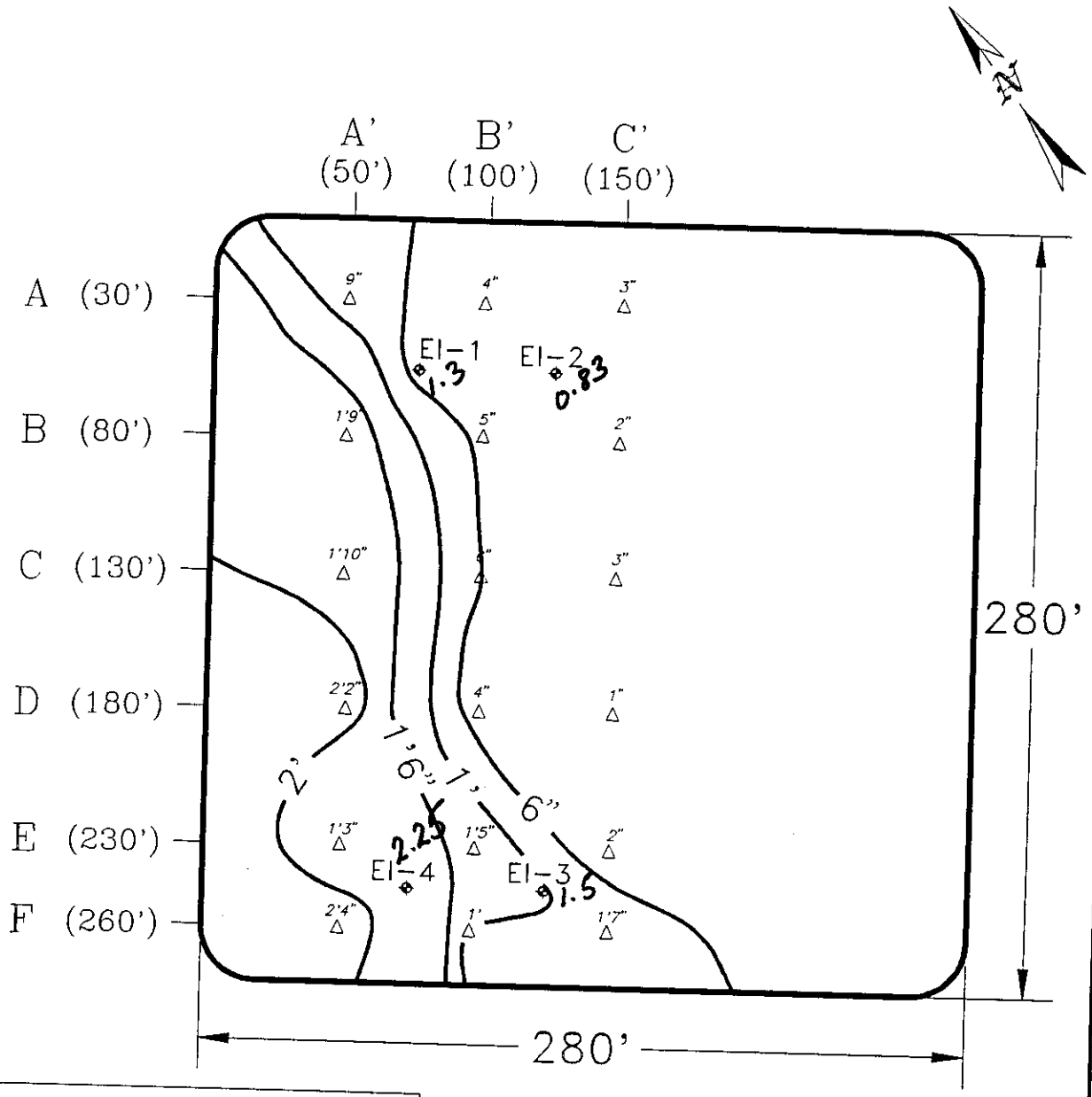


LEGEND
◆ EI-3 SOIL SAMPLE LOCATION

DSM Environmental Services, Inc.

Eastern Oil Lagoon Impoundment Soil Sample Location Map

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-02	MB	GHG	11/9/94	
SCALE NONE	PHASE NO.	FIG. NO. 8	SHEET 1 OF 1	

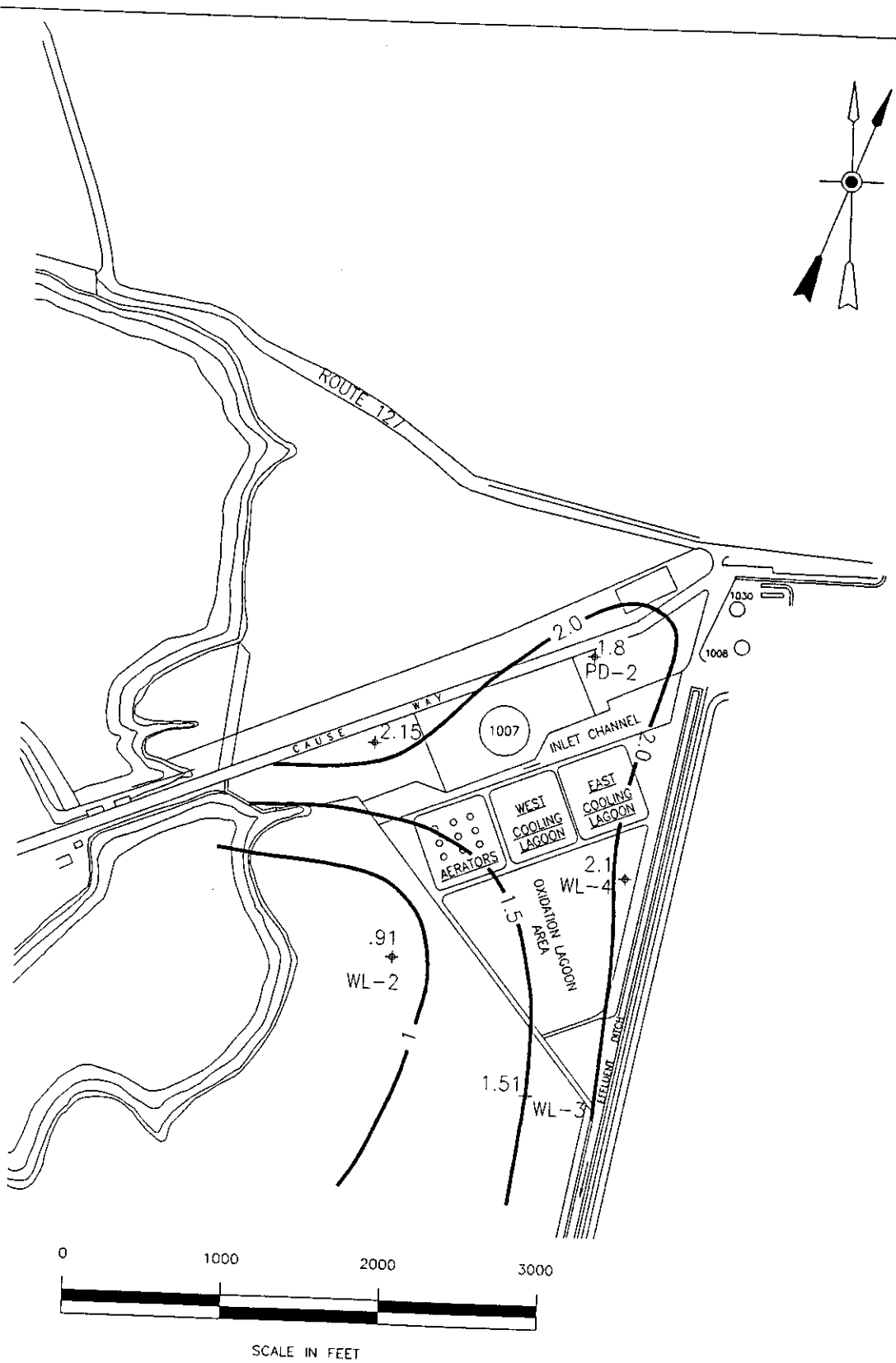


LEGEND	
△	SLUDGE GRID THICKNESS MEASUREMENT POINT
◆ EI-3	SOIL SAMPLE LOCATION
—2'—	ISOPACH

DSM Environmental Services, Inc.

Eastern Oil Lagoon Impoundment Sludge Thickness Map

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-02	MB	GHG	11/9/94	
SCALE NONE	PHASE NO.	FIG. NO. 9	SHEET 1 OF 1	



0 1000 2000 3000

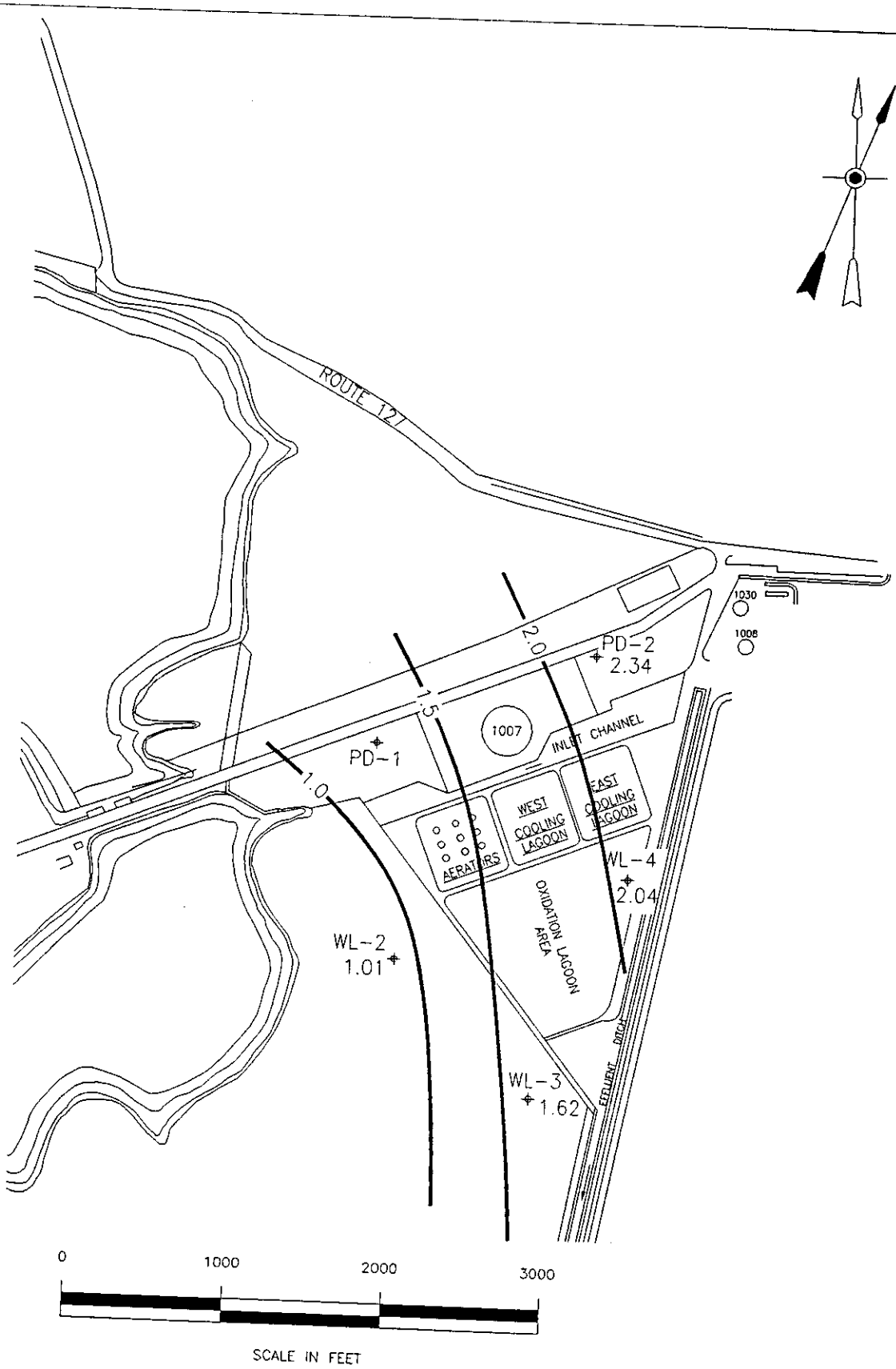
SCALE IN FEET

LEGEND	
✦ WL-1	RCRA MONITORING WELL
~	CONTOURS

DSM Environmental Services, Inc.

WESTERN LAGOON AREA POTENTIOMETRIC SURFACE MAP CORCO FACILITY 9/27/94

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-02	DWM		9-27-94	
SCALE NOTED	PHASE NO.	FIG. NO. 10	SHEET 1 OF 1	



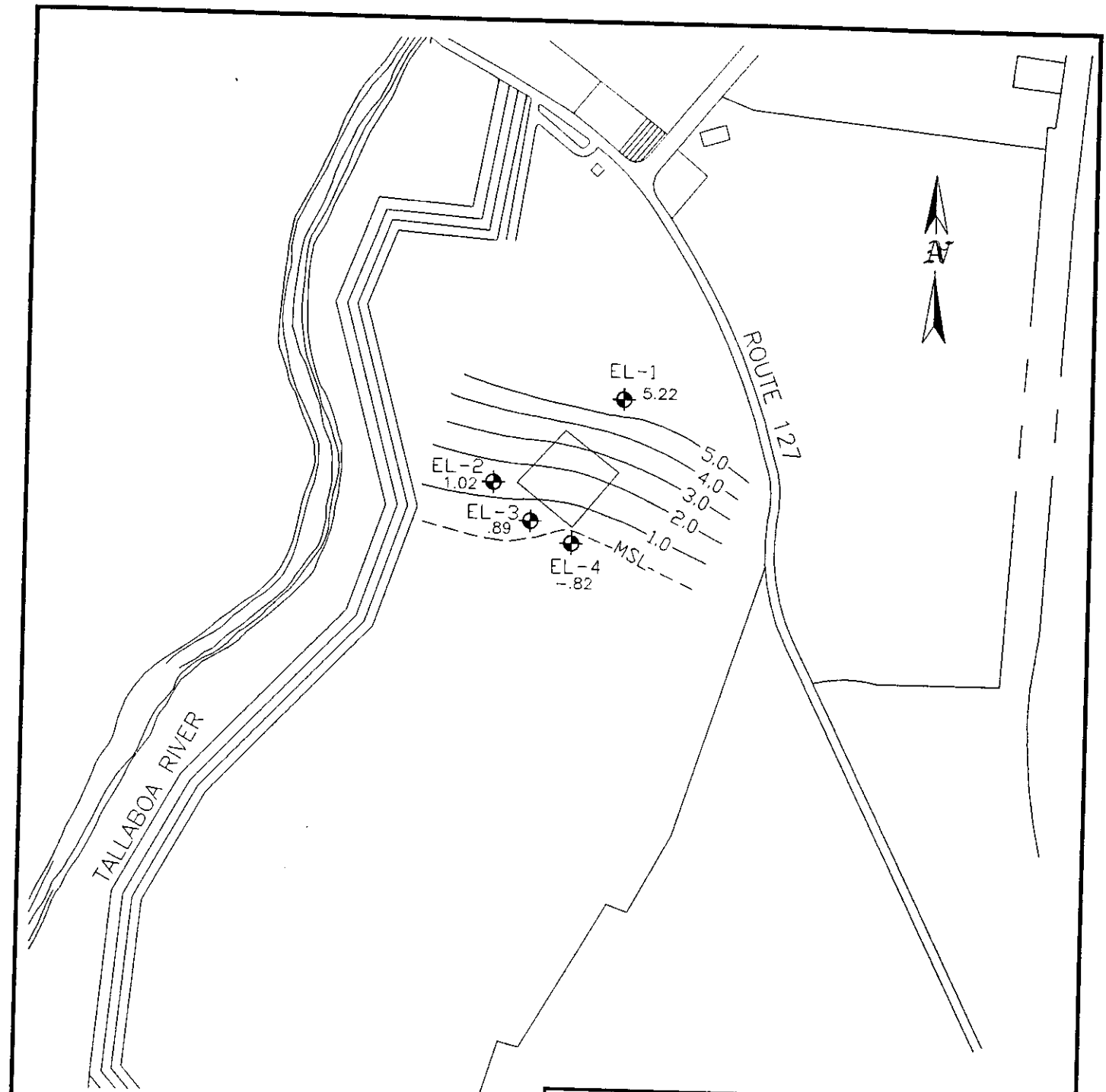
LEGEND

WL-1	RCRA MONITORING WELL
	CONTOURS

DSM Environmental Services, Inc.

WESTERN LAGOON AREA POTENTIOMETRIC SURFACE MAP CORCO FACILITY 10/05/94

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-02	DWM		9-27-94	
SCALE NOTED	PHASE NO.	FIG. NO. 11	SHEET 1 OF 1	



LEGEND

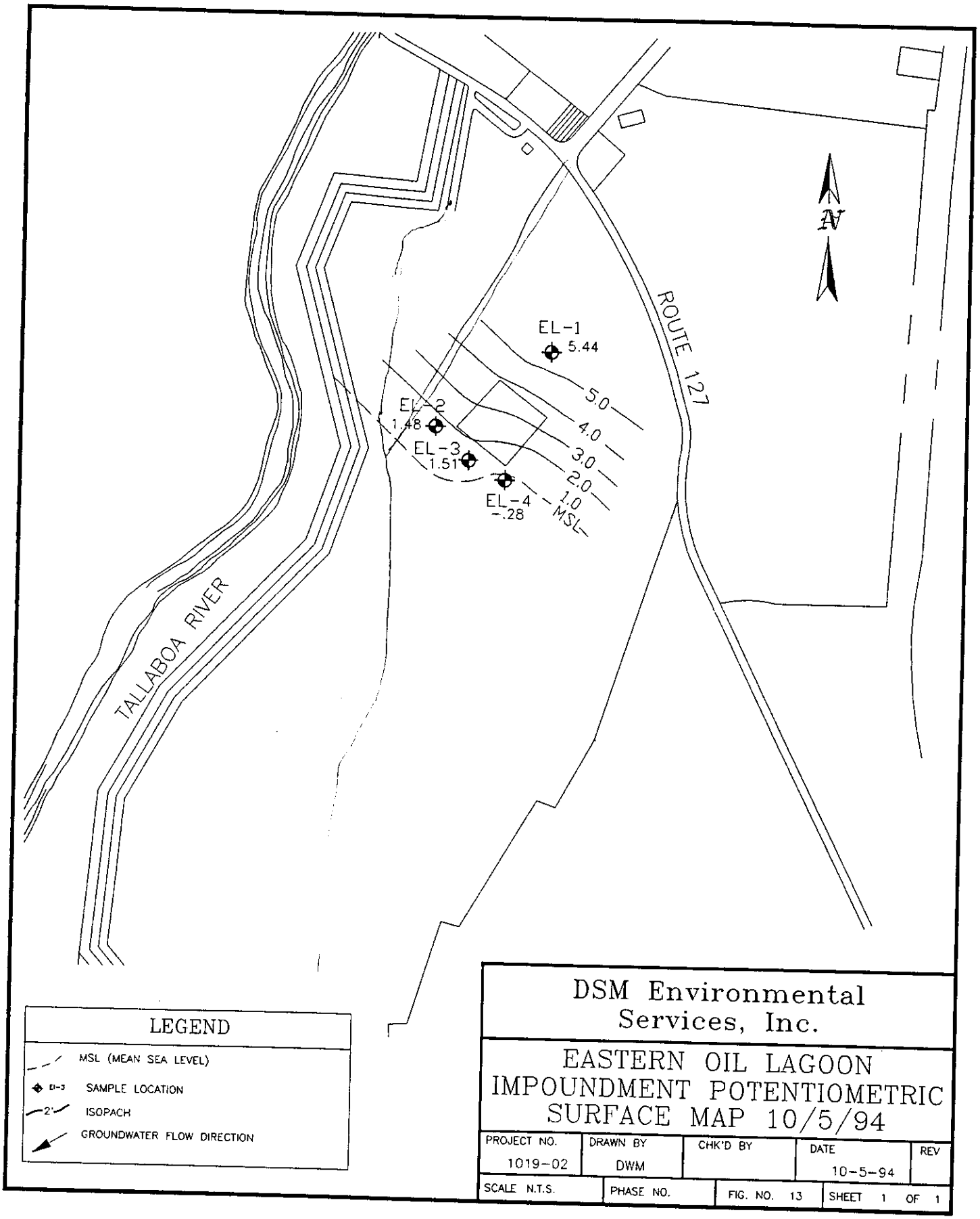
- MSL (MEAN SEA LEVEL)
- EL-3 SAMPLE LOCATION
- 2' ISOPACH
- GROUNDWATER FLOW DIRECTION

DSM Environmental Services, Inc.

EASTERN OIL LAGOON IMPOUNDMENT POTENTIOMETRIC SURFACE MAP 9/27/94

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-02	DWM		9-27-94	

SCALE N.T.S.	PHASE NO.	FIG. NO. 12	SHEET 1 OF 1



DSM Environmental Services, Inc.

EASTERN OIL LAGOON IMPOUNDMENT POTENTIOMETRIC SURFACE MAP 10/5/94

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-02	DWM		10-5-94	
SCALE N.T.S.	PHASE NO.	FIG. NO. 13	SHEET 1 OF 1	

TABLES

TABLE 1

MONITOR WELL DEVELOPMENT INFORMATION

PROJECT: CORCO SITE ADDENDUM PROJECT LOCATION: PEÑUELAS, PUERTO RICO

CLIENT: DSM ENVIRONMENTAL SERVICES, INC. DATE: OCTOBER 03, 1994

MONITOR WELL NO.: EL-1

WELL DEPTH (ft.): 24.2' {1}

DEPTH TO WATER (ft.): 6.6' {2}

HEIGHT OF WATER COLUMN (ft.): 17.6' {3} = [{1}-{2}]

VOLUME OF WATER (gallons): {3} X 0.165 = 2.9 gallons

FIELD TEST	TEMPERATURE	pH	CONDUCTIVITY
FIRST VOLUME	30.7°C	7.71	0.73 mS/cm
SECOND VOLUME	31.0°C	7.76	0.81 mS/cm
THIRD VOLUME	30.7°C	7.70	0.85 mS/cm
FOURTH VOLUME	30.7°C	7.57	0.82 mS/cm
FIFTH VOLUME	30.9°C	7.55	0.86 mS/cm

REMARKS: WATER OF HIGH TURBIDITY. WELL DEVELOPMENT BEGAN AT 11:20 AM AND WAS COMPLETED AT 13:20. THE WELL RECHARGE RATE ALLOWED FOR CONTINUOUS BAILING TO BE PERFORMED.

DEVELOPED BY: PEDRO J. PEREZ AND RAFAEL RUIZ

SUPERVISED BY: PEDRO J. PEREZ

CHECKED AND APPROVED BY: JOSE R. RIVERA NAZARIO, P.E.

TABLE 1 (CONTINUED)

MONITOR WELL DEVELOPMENT INFORMATION

PROJECT: CORCO SITE ADDENDUM PROJECT LOCATION: PEÑUELAS, PUERTO RICO

CLIENT: DSM ENVIRONMENTAL SERVICES, INC. DATE: OCTOBER 03, 1994

MONITOR WELL NO.: EL-2

WELL DEPTH (ft.): 28.5' {1}

DEPTH TO WATER (ft.): 12.7' {2}

HEIGHT OF WATER COLUMN (ft.): 15.8' {3} = [{1}-{2}]

VOLUME OF WATER (gallons): {3} X 0.165 = 2.6 gallons

FIELD TEST	TEMPERATURE	pH	CONDUCTIVITY
FIRST VOLUME	30.6°C	7.23	2.23 mS/cm
SECOND VOLUME	30.3°C	7.20	2.27 mS/cm
THIRD VOLUME	30.2°C	7.27	2.30 mS/cm
FOURTH VOLUME	29.9°C	7.33	2.22 mS/cm
FIFTH VOLUME	30.2°C	7.32	2.23 mS/cm

REMARKS: WATER OF HIGH TURBIDITY. WELL DEVELOPMENT BEGAN AT 13:40 AND WAS COMPLETED AT 14:15. THE WELL RECHARGE RATE ALLOWED FOR CONTINUOUS BAILING TO BE PERFORMED.

DEVELOPED BY: PEDRO J. PEREZ AND RAFAEL RUIZ

SUPERVISED BY: PEDRO J. PEREZ

CHECKED AND APPROVED BY: JOSE R. RIVERA NAZARIO, P.E.

TABLE 2
BACKGROUND SOIL SAMPLE ANALYTICAL RESULTS
TARGET COMPOUND LIST (TCL)
TOTAL METALS

FIELD SAMPLE I.D.	PD-2A	PD-2B	EL-1A	EL-1B	Dup #1	Dup #2
LABORATORY I.D TOTAL METALS (MG/KG)	01A	02A	03A	04A	05A	06A
Aluminum	6,280	8,280	36,500	33,100	31,700	33,000
Antimony	<14.6	<15.9	<15.2	<15.0	<15.0	<15.1
Arsenic	5.91	2.73	<2.53	<2.50	<2.50	<2.51
Barium	33.5	69.1	163	160	130	157
Beryllium	<1.00	<1.00	1.25	1.2	1.17	1.25
Cadmium	<1.00	4.24	<1.0	<1.0	<1.00	<1.00
Calcium	233,000	268,000	16,400	48,800	56,000	50,200
Chromium	33	27.3	77.6	70.9	68.4	72.4
Cobalt	<2.4	23.7	32.2	26.7	27	28.1
Copper	8.43	11.3	76.1	65	63.3	64.7
Iron	9,210	13,600	50,900	48,100	43,800	46,400
Lead	<0.40	13.2	3.29	2.64	2.33	2.36
Magnesium	3,690	5,240	13,900	16,200	14,900	16,300
Manganese	167	226	1,745	181.3	180.2	304.6
Mercury	<0.122	<0.132	<0.127	<0.125	<0.125	<0.125
Nickel	29.2	35,300	38.4	33.7	31.8	33.9
Potassium	<97.6	1,620	1,800	<100	<99.6	<100
Selenium	<1.22	<1.32	<1.27	<1.25	<1.25	<1.26
Silver	<1.00	6.54	<2.00	<2.00	<1.00	<2.00
Sodium	2,020	2,450	478	1,020	999	1,010
Thallium	<2.44	<2.64	<2.53	<2.5	<2.5	<2.51
Tin	<24.4	<26.4	<25.3	<25.04	<25	<25.1
Vanadium	53	53.3	178	177	168	183
Zinc	52.4	26	86.4	84.8	71.1	74.3

TABLE 3
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
TARGET COMPOUND LIST (TCL)
TOTAL METALS

FIELD SAMPLE I.D.	PD-2 TOTAL	PD-2 DUPLICATE TOTAL	PD-2 MATRIX SPIKE TOTAL	PD-2 MATRIX SPIKE DUPLICATE TOTAL
LABORATORY I.D.	13A	13B	13C	13D
PARAMETER (UG/L)				
Aluminum	740,000	733,000	64,200	48,100
Antimony	<60	<60	<60	<60
Arsenic	<10.0	<10.0	<10.0	<10.0
Barium	2,240	2,510	190	4,470
Beryllium	26.9	23.6	14.1	32.3
Cadmium	178	174	31.2	68.3
Calcium	6,140,000	6,010,000	2,580,000	2,550,000
Chromium	2,140	2,000	170	350
Cobalt	982	975	288	622
Copper	2,620	2,720	256	558
Iron	1,180,000	1,200,000	147,000	143,000
Lead	<100	164	<100	<100
Magnesium	835,000	862,000	177,000	409,000
Manganese	21,170	27,060	9,562	9,485
Mercury	<0.2	<0.2	5	95
Nickel	1,200	1,190	288	630
Potassium	133,000	137,000	23,500	59,300
Selenium	<5	<5	<5	<5
Silver	<6.0	<6.0	<6.0	<6.0
Sodium	734,000	768,000	215,000	544,000
Thallium	<10	<10	<10	<10
Tin	210	<100	<100	<100
Vanadium	2,980	2,360	671	1,440
Zinc	3,250	3,290	641	1,400

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
TARGET COMPOUND LIST (TCL)
DISSOLVED METALS

FIELD SAMPLE I.D.	PD-2 DISSOLVED	PD-2 DUPLICATE DISSOLVED	PD-2 MATRIX SPIKE DISSOLVED	PD-2 MATRIX SPIKE DUPLICATE DISSOLVED
LABORATORY I.D.	18A	18B	18C	18D
PARAMETER (UG/L)				
Aluminum	<70	<70	1,990	2,010
Antimony	<60	<60	84	87
Arsenic	<10	<10	35	35
Barium	1,140	1,120	3,050	3,120
Beryllium	<5.0	<5	50.5	51.1
Cadmium	<5.0	<5.0	47.6	52
Calcium	337,000	342,000	342,000	345,000
Chromium	<10	<10	202	199
Cobalt	<10	<10	497	498
Copper	<6.0	<6.0	249	248
Iron	73.2	93.6	1,260	1,040
Lead	<2.0	<2.0	18.9	17.99
Magnesium	120,000	122,000	120,000	121,000
Manganese	416	416	908	913
Mercury	<0.2	<0.2	0.3	9.6
Nickel	<20	<20	510	505
Potassium	38,700	37,600	38,400	38,800
Selenium	<5	<5	<5	<5
Silver	<6.0	<6.0	54	49.4
Sodium	868,000	869,000	865,000	876,000
Thallium	<10	<10	35	38
Tin	<100	<100	1,540	1,540
Vanadium	<10	<10	520	525
Zinc	96.4	94.9	566	565

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
APPENDIX IX VOLATILES

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE	TRIP BLANK
LABORATORY I.D.	11A	11B	11C	11D	19A
PARAMETER (UG/L)					
ACETONE	50.0U	50.0U	50.0U	50.0U	50.0U
ACETONITRILE	100.0U	100.0U	100.0U	100.0U	100.0U
ACROLEIN	100.0U	50.0U	50.0U	50.0U	50.0U
ACRYLONITRILE	10.0U	10.0U	10.0U	10.0U	10.0U
ALLYL CHLORIDE	10.0U	5.0U	5.0U	5.0U	5.0U
BENZENE	5.0U	5.0U	54.5	56	5.0U
BROMODICHLOROMETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
BROMOFORM	5.0U	5.0U	5.0U	5.0U	5.0U
CARBON DISULFIDE	5.0U	5.0U	5.0U	5.0U	5.0U
CARBON TETRACHLORIDE	5.0U	5.0U	5.0U	5.0U	5.0U
CHLOROBENZENE	5.0U	5.0U	52.8	54.6	5.0U
CHLOROETHANE	10.0U	10.0U	10.0U	10.0U	10.0U
CHLOROFORM	5.0U	5.0U	5.0U	5.0U	5.0U
CHLOROPRENE	5.0U	5.0U	5.0U	5.0U	5.0U
DIBROMOCHLOROMETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
1,2-DIBROMO-3-CHLOROPROPANE	5.0U	5.0U	5.0U	5.0U	5.0U
TRANS-1,4-DICHLORO-2-BUTENE	5.0U	5.0U	5.0U	5.0U	5.0U
DICHLORODIFLUOROMETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
1,1-DICHLOROETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
1,2-DICHLOROETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
1,1-DICHLOROETHENE	5.0U	5.0U	46.2	47	5.0U
TRANS-1,2-DICHLOROETHENE	5.0U	5.0U	5.0U	5.0U	5.0U
1,2-DICHLOROPROPANE	5.0U	5.0U	5.0U	5.0U	5.0U
CIS-1,3-DICHLOROPROPENE	5.0U	5.0U	5.0U	5.0U	5.0U
TRANS-1,3-DICHLOROPROPENE	5.0U	5.0U	5.0U	5.0U	5.0U
1,4-DIOXANE	200U	200U	200U	200U	200U
ETHYLBENZENE	5.0U	5.0U	5.0U	5.0U	5.0U
ETHYL METHACRYLATE	5.0U	5.0U	5.0U	5.0U	5.0U
2-HEXANONE	10.0U	10.0U	10.0U	10.0U	10.0U
ISOBUTYL ALCOHOL	100U	100U	100U	100U	100U
METHACRYLONITRILE	20.0U	20.0U	20.0U	20.0U	20.0U
BROMOMETHANE	10.0U	10.0U	10.0U	10.0U	10.0U
CHLOROMETHANE	10.0U	10.0U	10.0U	10.0U	10.0U
DIBROMOMETHANE	5.0U	5.0U	5.0U	5.0U	5.0U

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
APPENDIX IX VOLATILES (CONTINUED)

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE	TRIP BLANK
LABORATORY I.D. PARAMETER (UG/L)	11A	11B	11C	11D	19A
METHYLENE CHLORIDE	5.0U	5.0U	5.0U	5.0U	23.2
METHYL ETHYL KETONE	50.0U	50.0U	50.0U	50.0U	50.0U
IODOMETHANE	10.0U	5.0U	5.0U	5.0U	5.0U
METHYL METHACRYLATE	5.0U	5.0U	5.0U	5.0U	5.0U
4-METHYL-2-PENTANONE	10.0U	10.0U	10.0U	10.0U	10.0U
PROPIONITRILE	20.0U	20.0U	20.0U	20.0U	20.0U
STYRENE	5.0U	5.0U	5.0U	5.0U	5.0U
1,1,1,2-TETRACHLOROETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
1,1,2,2-TETRACHLOROETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
TETRACHLOROETHENE	5.0U	5.0U	5.0U	5.0U	5.0U
TOLUENE	5.0U	5.0U	61.1	61.3	5.0U
1,1,1-TRICHLOROETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
1,1,2-TRICHLOROETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
TRICHLOROETHENE	5.0U	5.0U	49	49.1	5.0U
TRICHLOROFLUOROMETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
1,2,3-TRICHLOROPROPANE	5.0U	5.0U	5.0U	5.0U	5.0U
VINYL ACETATE	10.0U	10.0U	10.0U	10.0U	10.0U
VINYL CHLORIDE	10.0U	10.0U	10.0U	10.0U	10.0U
ETHYLENE DIBROMIDE	5.0U	5.0U	5.0U	5.0U	5.0U
PENTACHLOROETHANE	5.0U	5.0U	5.0U	5.0U	5.0U
TOTAL XYLENE	5.0U	5.0U	5.0U	5.0U	5.0U

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
APPENDIX IX SEMI-VOLATILES

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE
LABORATORY I.D.	12A	12B	12C	12D
PARAMETER (UG/L)				
4-CHLORO-3-METHYLPHENOL	10.0U	10.0U	135	130
2-CHLOROPHENOL	10.0U	10.0U	123	114
4-METHYLPHENOL	10.0U	10.0U	10.0U	10.0U
2-METHYLPHENOL	10.0U	10.0U	10.0U	10.0U
2,4-DICHLOROPHENOL	10.0U	10.0U	10.0U	10.0U
2,6-DICHLOROPHENOL	10.0U	10.0U	10.0U	10.0U
2,4-DIMETHYLPHENOL	10.0U	10.0U	10.0U	10.0U
4,6-DINITRO-2-METHYLPHENOL	20.0U	20.0U	20.0U	20.0U
2,4-DINITROPHENOL	50.0U	50.0U	50.0U	50.0U
DINOSEB	10.0U	10.0U	10.0U	10.0U
HEXACHLOROPHENE	20.0U	20.0U	20.0U	20.0U
2-NITROPHENOL	10.0U	10.0U	10.0U	10.0U
4-NITROPHENOL	50.0U	50.0U	63.8	52.4
PENTACHLOROPHENOL	25.0U	25.0U	77.4	88.6
PHENOL	10.0U	10.0U	60.6	57.2
2,3,4,6-TETRACHLOROPHENOL	10.0U	10.0U	10.0U	10.0U
2,4,5-TRICHLOROPHENOL	10.0U	10.0U	10.0U	10.0U
2,4,6-TRICHLOROPHENOL	10.0U	10.0U	10.0U	10.0U
ACENAPHTHENE	10.0U	10.0U	45.2	47.4
ACENAPHTHYLENE	10.0U	10.0U	10.0U	10.0U
ACETOPHENONE	10.0U	10.0U	10.0U	10.0U
2-ACETYLAMINOFLUORENE	10.0U	10.0U	10.0U	10.0U
4-AMINOBIPHENYL	10.0U	10.0U	10.0U	10.0U
ANILINE	10.0U	10.0U	10.0U	10.0U
ANTHRACENE	10.0U	10.0U	10.0U	10.0U
ARAMITE (1)	10.0U	10.0U	10.0U	10.0U
ARAMITE (2)	10.0U	10.0U	10.0U	10.0U
BENZO(A)ANTHRACENE	10.0U	10.0U	10.0U	10.0U
BENZO(B)FLUORANTHENE	10.0U	10.0U	10.0U	10.0U
BENZO(K)FLUORANTHENE	10.0U	10.0U	10.0U	10.0U
BENZO(GHI)PERYLENE	10.0U	10.0U	10.0U	10.0U
BENZO(A)PYRENE	10.0U	10.0U	10.0U	10.0U
BENZYL ALCOHOL	10.0U	10.0U	10.0U	10.0U
BIS(2-CHLOROETHOXY)METHANE	10.0U	10.0U	10.0U	10.0U
BIS(2-CHLOROETHYL)ETHER	10.0U	10.0U	10.0U	10.0U

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
APPENDIX IX SEMI-VOLATILES (CONTINUED)

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE
LABORATORY I.D.	12A	12B	12C	12D
PARAMETER (UG/L)				
BIS(2-CHLOROISOPROPYL)ETHER	10.0U	10.0U	10.0U	10.0U
BIS(2-ETHYLHEXYL)PHTHALATE	10.0U	10.0U	10.0U	10.0U
4-BROMOPHENYL PHENYL ETHER	10.0U	10.0U	10.0U	10.0U
BUTYLBENZYLPHTHALATE	10.0U	10.0U	10.0U	10.0U
4-CHLOROANILINE	10.0U	10.0U	10.0U	10.0U
CHLOROBENZILATE	10.0U	10.0U	10.0U	10.0U
2-CHLORONAPHTHALENE	10.0U	10.0U	10.0U	10.0U
4-CHLOROPHENYL PHENYL ETHER	10.0U	10.0U	10.0U	10.0U
CHRYSENE	10.0U	10.0U	10.0U	10.0U
DIALLIATE (CIS OR TRANS)	10.0U	10.0U	10.0U	10.0U
DIALLIATE (TRANS OR CIS)	10.0U	10.0U	10.0U	10.0U
DIBENZO(A,H)ANTHRACENE	10.0U	10.0U	10.0U	10.0U
DIBENZOFURANS	10.0U	10.0U	10.0U	10.0U
DI-N-BUTYLPHTHALATE	10.0U	10.0U	10.0U	10.0U
1,3-DICHLOROBENZENE	10.0U	10.0U	10.0U	10.0U
1,2-DICHLOROBENZENE	10.0U	10.0U	10.0U	10.0U
1,4-DICHLOROBENZENE	10.0U	10.0U	10.0U	10.0U
3,3-DICHLOROBENZIDINE	20.0U	20.0U	39.2	52
DIMETHYLPHTHALATE	10.0U	10.0U	20.0U	20.0U
DIMETHOATE	10.0U	10.0U	10.0U	10.0U
P-DIMETHYLAMINOAZOBENZENE	10.0U	10.0U	10.0U	10.0U
7,12-DIMETHYLBENZ(A)ANTHRACENE	10.0U	10.0U	10.0U	10.0U
3,3-DIMETHYLBENZIDINE	10.0U	10.0U	10.0U	10.0U
A,A-DIMETHYLPHENETHYLAMINE	10.0U	10.0U	10.0U	10.0U
DIETHYL PHTHALATE	10.0U	10.0U	10.0U	10.0U
M-DINITROBENZENE	10.0U	10.0U	10.0U	10.0U
2,4-DINITROTOLUENE	10.0U	10.0U	44.6	54.6
2,6-DINITROTOLUENE	10.0U	10.0U	10.0U	10.0U
DI-N-OCTYL PHTHALATE	10.0U	10.0U	10.0U	10.0U
DISULFOTON	10.0U	10.0U	10.0U	10.0U
ETHYLMETHANESULFONATE	10.0U	10.0U	10.0U	10.0U
FAMPHUR	20.0U	20.0U	20.0U	20.0U
FLUORANTHENE	10.0U	10.0U	10.0U	10.0U
FLUORENE	10.0U	10.0U	10.0U	10.0U

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
APPENDIX IX SEMI-VOLATILES (CONTINUED)

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE
LABORATORY I.D.	12A	12B	12C	12D
PARAMETER (UG/L)				
HEXACHLOROBENZENE	10.0U	10.0U	10.0U	10.0U
HEXACHLOROBUTADIENE	10.0U	10.0U	135	10.0U
HEXACHLOROCYCLOPENTADIENE	10.0U	10.0U	10.0U	10.0U
HEXACHLOROETHANE	10.0U	10.0U	10.0U	10.0U
HEXACHLOROPHENE	20.0U	20.0U	20.0U	20.0U
INDENO(1,2,3-CD)PYRENE	10.0U	10.0U	10.0U	10.0U
ISODRIN	10.0U	10.0U	10.0U	10.0U
ISOPHORONE	10.0U	10.0U	10.0U	10.0U
ISOSAFROLE	10.0U	10.0U	10.0U	10.0U
KEPONE	50.0U	50.0U	50.0U	50.0U
METHAPYRILENE	100.0U	100.0U	100.0U	100.0U
3-METHYLCHOLANTHRENE	10.0U	10.0U	10.0U	10.0U
METHYLMETHANESULFONATE	10.0U	10.0U	10.0U	10.0U
2-METHYLNAPHTHALENE	10.0U	10.0U	10.0U	10.0U
METHYL PARATHION	10.0U	10.0U	10.0U	10.0U
NAPHTHALENE	10.0U	10.0U	10.0U	10.0U
1,4-NAPHTHOQUINONE	10.0U	10.0U	10.0U	10.0U
1-NAPHTHYLAMINE	10.0U	10.0U	10.0U	10.0U
2-NAPHTHYLAMINE	10.0U	10.0U	10.0U	10.0U
3-NITROANILINE	50.0U	50.0U	50.0U	50.0U
2-NITROANILINE	50.0U	50.0U	50.0U	50.0U
4-NITROANILINE	50.0U	50.0U	50.0U	50.0U
NITROBENZENE	10.0U	10.0U	10.0U	10.0U
4-NITROQUINOLINE-1-OXIDE	100.0U	100.0U	100.0U	100.0U
N-NITROSO-DI-N-BUTYLAMINE	10.0U	10.0U	10.0U	10.0U
N-NITROSODIETHYLAMINE	10.0U	10.0U	10.0U	10.0U
N-NITROSODIMETHYLAMINE	10.0U	10.0U	10.0U	10.0U
N-NITROSODIPHENYLAMINE	10.0U	10.0U	10.0U	10.0U
N-NITROSO-DI-N-PROPYLAMINE	10.0U	10.0U	59	72
N-NITROSOMETHYLETHYLAMINE	10.0U	10.0U	10.0U	10.0U
N-NITROSOMORPHOLINE	10.0U	10.0U	10.0U	10.0U
N-NITROSOPIPERDINE	10.0U	10.0U	10.0U	10.0U
N-NITROSOPYRROLIDINE	10.0U	10.0U	10.0U	10.0U
5-NITRO-O-TOLUIDINE	10.0U	10.0U	10.0U	10.0U

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
APPENDIX IX SEMI-VOLATILES (CONTINUED)

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE
LABORATORY I.D. PARAMETER (UG/L)	12A	12B	12C	12D
PARATHION	10.0U	10.0U	10.0U	10.0U
PENTACHLOROBENZENE	10.0U	10.0U	10.0U	10.0U
PENTACHLORONITROBENZENE	50.0U	50.0U	50.0U	50.0U
PHENACETIN	10.0U	10.0U	10.0U	10.0U
PHENANTHRENE	10.0U	10.0U	10.0U	10.0U
P-PHENYLENEDIAMINE	50.0U	50.0U	50.0U	50.0U
PHORATE	10.0U	10.0U	10.0U	10.0U
2-PICOLINE	10.0U	10.0U	10.0U	10.0U
PRONAMIDE	10.0U	10.0U	10.0U	10.0U
PYRENE	10.0U	10.0U	24.6	14.2
PYRIDINE	10.0U	10.0U	10.0U	10.0U
SAFROLE	10.0U	10.0U	10.0U	10.0U
1,2,4,5-TETRACHLOROBENZENE	10.0U	10.0U	10.0U	10.0U
TETRAETHYLDITHIOPYROPHOSPHATE	10.0U	10.0U	10.0U	10.0U
THIONAZIN	10.0U	10.0U	10.0U	10.0U
O-TOLUIDINE	10.0U	10.0U	10.0U	10.0U
1,2,4-TRICHLOROBENZENE	10.0U	10.0U	42.8	51
O,O,O-TRIETHYLPHOSPHOROTHIOATE	10.0U	10.0U	10.0U	10.0U
DIBENZ(A,H)ANTHRACENE	10.0U	10.0U	10.0U	10.0U
1,3,5-TRINITROBENZENE	50.0U	50.0U	50.0U	50.0U

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RES
APPENDIX IX PESTICIDES AND HERBICIDES

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICA	PD-2 MATRIX SPI	PD-2 MATRIX SPI DUPLICATE
LABORTORY I.D. PARAMETER	16A	16B	16C	16D
ALDRIN (UG/L)	<0.40	<0.40	<0.40	<0.40
AROCLOR-1016 (UG/L)	<20.0	<20.0	<20.0	<20.0
AROCLOR-1221 (UG/L)	<20.0	<20.0	<20.0	<20.0
AROCLOR-1232 (UG/L)	<20.0	<20.0	<20.0	<20.0
AROCLOR-1242 (UG/L)	<20.0	<20.0	<20.0	<20.0
AROCLOR-1248 (UG/L)	<20.0	<20.0	<20.0	<20.0
AROCLOR-1254 (UG/L)	<20.0	<20.0	<20.0	<20.0
AROCLOR-1260 (UG/L)	<20.0	<20.0	<20.0	<20.0
ALPHA-BHC (UG/L)	<0.40	<0.40	<0.40	<0.40
BETA-BHC (UG/L)	<0.40	<0.40	<0.40	<0.40
DELTA-BHC (UG/L)	<0.40	<0.40	<0.40	<0.40
GAMMA-BHC(LINDANE) (UG/L)	<0.40	<0.40	<0.40	<0.40
CHLORDANE (UG/L)	<2.0	<2.0	<2.0	<2.0
4,4'-DDD (UG/L)	<0.80	<0.80	<0.80	<0.80
4,4'-DDE (UG/L)	<0.80	<0.80	<0.80	<0.80
4,4'-DDT (UG/L)	<0.80	<0.80	<0.80	<0.80
DIELDRIN (UG/L)	<0.80	<0.80	<0.80	<0.80
ENDOSULFAN SULFATE (UG/L)	<0.80	<0.80	<0.80	<0.80
ENDOSULFAN I (UG/L)	<0.80	<0.80	<0.80	<0.80
ENDOSULFAN II (UG/L)	<0.80	<0.80	<0.80	<0.80
ENDRIN (UG/L)	<0.80	<0.80	<0.80	<0.80
ENDRIN ALDEHYDE (UG/L)	<0.80	<0.80	<0.80	<0.80
HEPTACHLOR (UG/L)	<0.40	<0.40	<0.40	<0.40
HEPTACHLOR EPOXIDE (UG/L)	<0.40	<0.40	<0.40	<0.40
METHOXYCHLOR (UG/L)	<4.0	<4.0	<4.0	<4.0
TOXAPHENE (UG/L)	<10.0	<10.0	<10.0	<10.0
2,4,5-TP SILVEX (MG/L)	<.005	<.005	<.005	<.005
2,4,5-T (MG/L)	<.005	<.005	<.005	<.005
2,4-D (MG/L)	<.025	<.025	<.025	<.025

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULT
APPENDIX IX DIOXINS AND FURANS

FIELD SAMPLE I.D	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE
LABORATORY I.D. PARAMETER (ng/l)	20A	20B	20D-MS	20D-MSD
2,3,7,8-TCDD	.0065U	.0031U	0.18	0.23
1,2,3,7,8-PECDD	.0250U	.0056U	0.98	1.13
1,2,3,4,7,8-HXCDD	.0150U	.0067U	0.92	1.03
1,2,3,6,7,8-HXCDD	.0150U	.0069U	1.01	1.11
1,2,3,7,8,9-HXCDD	.0180U	.013U	1.06	1.11
2,3,7,8-TCDF	0.02	.0045U	0.19	0.23
TOTAL TCDF	0.11	N/A	N/A	N/A
1,2,3,7,8-PECDF	0.016	.0041U	1.11	1.06
2,3,4,7,8-PECDF	.0096U	.0082U	0.98	1.17
TOTAL PECDF	0.04	N/A	N/A	N/A
1,2,3,4,7,8-HXCDF	.01U	.0031U	0.94	1.13
1,2,3,6,7,8-HXCDF	.0180U	.012U	1	1.07
2,3,4,6,7,8-HXCDF	.0230U	.011U	0.99	1.18
1,2,3,7,8,9-HXCDF	.0150U	.011U	1.02	1.16

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
TARGET COMPOUND LIST (TCL)
AMENABLE CYANIDE

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE
LABORATORY I.D.	14A	14B	14C	14D
PARAMETER (MG/L)				
AMENABLE CYANIDE	<0.01	<0.01	0.24	0.26

TABLE 3 (CONTINUED)
BACKGROUND GROUNDWATER SAMPLE ANALYTICAL RESULTS
TARGET COMPOUND LIST (TCL)
SULFIDE

FIELD SAMPLE I.D.	PD-2	PD-2 DUPLICATE	PD-2 MATRIX SPIKE	PD-2 MATRIX SPIKE DUPLICATE
LABORATORY I.D.	15A	15B	15C	15D
SULFIDE (MG/L)	<.4	<.4	<.4	<.4

TABLE 4
EASTERN OIL LAGOON IMPOUNDMENT
SOIL SAMPLE ANALYTICAL RESULTS
TOTAL PETROLEUM HYDROCARBONS (TPH)

FIELD SAMPLE I.D.	EI-1	EI-2	EI-3	EI-4
LABORATORY I.D.	7A	8A	9A	10A
TOTAL PETROLEUM HYDROCARBONS (MG/KG)	3500	1550	1700	4640
SAMPLE COLLECTION DEPTH BELOW GROUND SURFACE ELEVATION (FEET)	1.3 - 2.3	0.83 - 1.1	1.5 - 2	2.25 - 2.5

TABLE 5

TABLULATED FIELD DATA FOR SLUDGE VOLUME ESTIMATE
EASTERN OIL LAGOON IMPOUNDMENT

FIELD LOCATION I.D.	OBSERVED INTERVAL (FROM GROUND SURFACE ELEVATION)	SLUDGE DESCRIPTION
FA'	0-2'4"	Black, oily, soft, viscous
FB'	0-1'	Dark brown, dry with 2" thick top layer of oily material
FC'	0-1'7"	Black, soft, viscous
EA'	0-1'3"	Dark brown soil-like material with 2" thick top layer of oily sludge
EB'	0-1'5"	1'3" thick affected material with 2" thick top layer of oily sludge
EC'	0-10"	Soil-like sludge with 8" of affected soil
DC'	0-9"	Soil-like sludge with 8" of affected soil
DB'	0-1'2"	Soil-like sludge with 10" of affected soil
DA'	0-2'2"	Black, oily, soft viscous
CA'	0-1'10"	Black, oily, soft viscous
CB'	0-10"	Soil-like sludge with 4" of affected soil
CC'	0-7"	Soil-like sludge with 4" of affected soil
BA'	0-1'9"	Black, oily, soft viscous
BB'	0-7"	Dark brown soil-like material with 2" thick top layer of black oily sludge
BC'	0-2"	Dark brown soil-like material
AA'	0-9"	Dark brown soil-like material with 2" inch thick top layer of black oily sludge
AB'	0-4"	Dark brown soil-like material with 1" inch thick top layer of black oily sludge
AC'	0-3"	Dark brown soil-like material

TABLE 6
EASTERN OIL LAGOON IMPOUNDMENT
SLUDGE AND AFFECTED SOIL VOLUME ESTIMATE

ESTIMATED SLUDGE VOLUME (IN-SITU) EASTERN OIL LAGOON IMPOUNDMENT

CELL	DIMENSION (ft.xft.)	AREA (sq. ft.)	SLUDGE THICKNESS (ft.)	SLUDGE VOLUME (cu. ft.)	SLUDGE VOLUME (cu. yds.)
A-A'	30x50	1,500	0.8	1,125	41.7
B-A'	50x50	2,500	1.8	4,375	162
C-A'	50x50	2,500	1.8	4583.3	169.8
D-A'	50x50	2,500	2.2	5416.7	200.6
E-A'	50x50	2,500	1.3	3,125	115.7
F-A'	30x50	1,500	2.3	3,500	129.6
			TOTAL		819.4

CELL	DIMENSION (ft.xft.)	AREA (sq. ft.)	SLUDGE THICKNESS (ft.)	SLUDGE VOLUME (cu. ft.)	SLUDGE VOLUME (cu. yds.)
A-B'	30x50	1,500	0.3	500	18.5
B-B'	50x50	2,500	0.4	1041.7	38.6
C-B'	50x50	2,500	0.5	1,250	46.3
D-B'	50x50	2,500	0.3	833.3	30.9
E-B'	50x50	2,500	1.4	3541.7	131.2
F-B'	30x50	1,500	1	1,500	55.6
			TOTAL		321

CELL	DIMENSION (ft.xft.)	AREA (sq. ft.)	SLUDGE THICKNESS (ft.)	SLUDGE VOLUME (cu. ft.)	SLUDGE VOLUME (cu. yds.)
A-C'	30x80	2,400	0.3	600	22.2
B-C'	50x80	4,000	0.2	666.7	24.7
C-C'	50x80	4,000	0.3	1,000	37
D-C'	50x80	4,000	0.1	333.3	12.3
E-C'	50x80	4,000	0.2	666.7	24.7
F-C'	30x80	2,400	1.6	3,800	140.7
			TOTAL		261.7

IN-SITU SLUDGE VOLUME EASTERN OIL LAGOON IMPOUNDMENT (cu. yds.) 1,402

TABLE 6 (CONTINUED)
EASTERN OIL LAGOON IMPOUNDMENT
SLUDGE AND AFFECTED SOIL VOLUME ESTIMATE

ESTIMATED AFFECTED SOIL VOLUME (IN-SITU) EASTERN OIL LAGOON IMPOUNDMENT

CELL	DIMENSION (ft.xft.)	AREA (sq. ft.)	AFFECTED SOIL THICKNESS (ft.)	*AFFECTED SOIL VOLUME (cu. ft.)	*AFFECTED SOIL VOLUME (cu. yds.)
A-A'	30x50	1500	1	1,500	55.6
B-A'	50x50	2500	1	2,500	92.6
C-A'	50x50	2500	1	2,500	92.6
D-A'	50x50	2500	1	2,500	92.6
E-A'	50x50	2500	1	2,500	92.6
F-A'	30x50	1500	1	1,500	55.6
			TOTAL		481.5

CELL	DIMENSION (ft.xft.)	AREA (sq. ft.)	AFFECTED SOIL THICKNESS (ft.)	*AFFECTED SOIL VOLUME (cu. ft.)	*AFFECTED SOIL VOLUME (cu. yds.)
A-B'	30x50	1500	1	1,500	55.6
B-B'	50x50	2500	1	2,500	92.6
C-B'	50x50	2500	1	2,500	92.6
D-B'	50x50	2500	1	2,500	92.6
E-B'	50x50	2500	1	2,500	92.6
F-B'	30x50	1500	1	1,500	55.6
			TOTAL		481.5

CELL	DIMENSION (ft.xft.)	AREA (sq. ft.)	AFFECTED SOIL THICKNESS (ft.)	*AFFECTED SOIL VOLUME (cu. ft.)	*AFFECTED SOIL VOLUME (cu. yds.)
A-C'	30x80	2400	1	2,400	88.9
B-C'	50x80	4000	1	4,000	148.1
C-C'	50x80	4000	1	4,000	148.1
D-C'	50x80	4000	1	4,000	148.1
E-C'	50x80	4000	1	4,000	148.1
F-C'	30x80	2400	1	2,400	88.9
EAST SIDE		31600	0.25	7,900	292.6
			TOTAL		1,063

*IN-SITU AFFECTED SOIL VOLUME EASTERN OIL LAGOON IMPOUNDMENT (cu. yds.) 2,026

*Affected soil volume estimate is based on a total petroleum hydrocarbons analysis and is considered to reflect a minimum quantity of affected soil present within the impoundment.

IN-SITU MATERIAL (SLUDGE and AFFECTED SOIL) VOLUME ESTIMATE
EASTERN OIL LAGOON IMPOUNDMENT (cu. yds.) 3,428

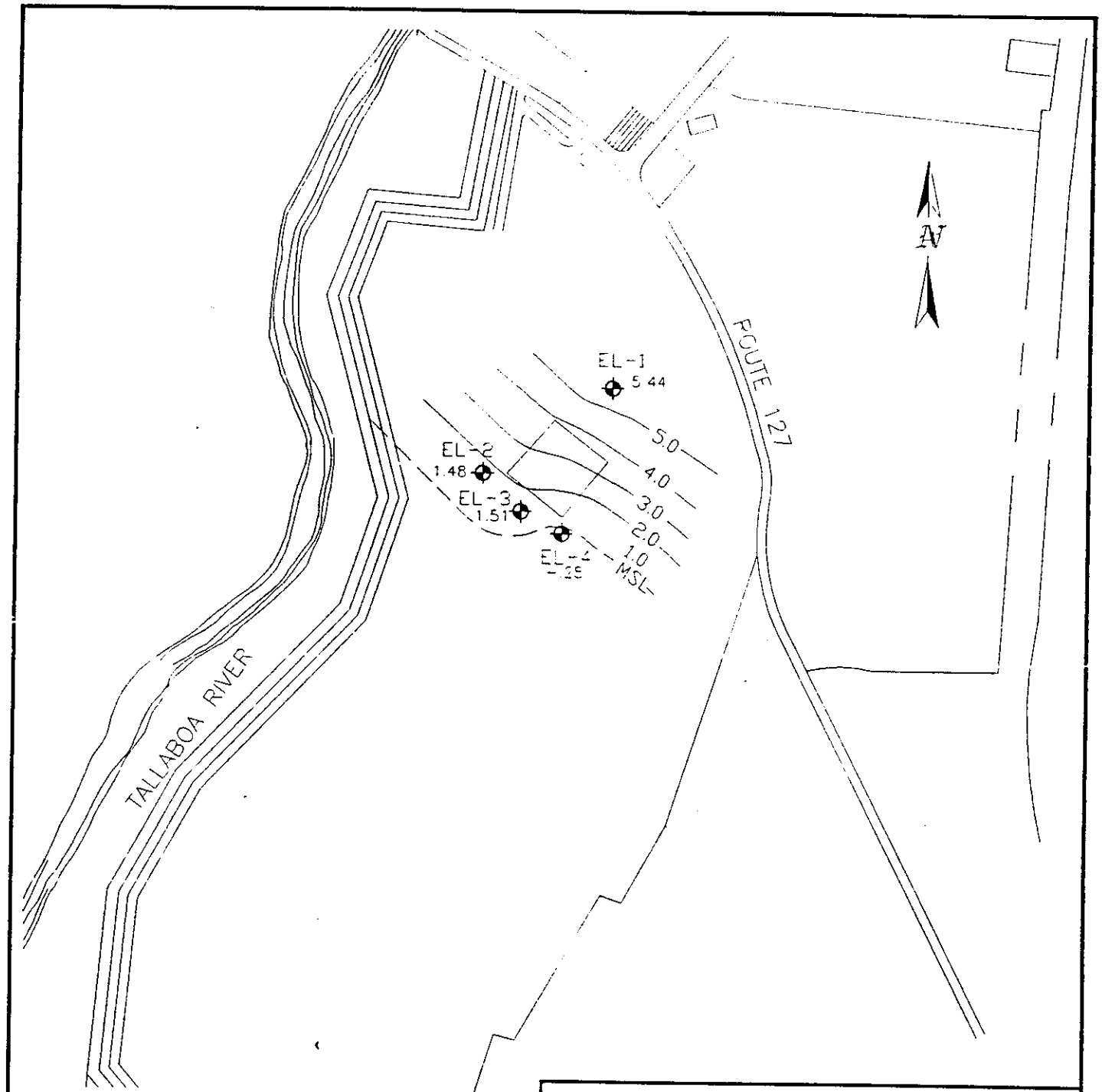
TABLE 7

GROUNDWATER LEVEL MEASUREMENT RESULTS OBTAINED SEPTEMBER 27, 1994

MONITOR WELL	TIME MEASURE	TOP OF CASING ELEVATION (FEET ABOVE SEA L	DEPTH TO GROUND FROM TOP OF CASIN (FEET)	ELEVATION OF GROUNDWATER (FEET ABOVE SEA L
PD-1	11:38 AM	7.51	5.36	2.15
PD-2	10:48 AM	11.71	9.91	1.8
WL-2	11:45 AM	10.28	9.37	0.91
WL-3	11:49 AM	8.22	6.71	1.51
WL-4	12:15 PM	7.29	5.19	2.1
EL-1	12:25 PM	15.29	10.07	5.22
EL-2	12:15 PM	17.28	16.26	1.02
EL-3	12:20 PM	10.1	9.21	0.89
EL-4	12:35 PM	10.79	11.61	-0.82

TABLE 8
GROUNDWATER LEVEL MEASUREMENT RESULTS
OBTAINED OCTOBER 5, 1994

MONITOR WEL	TIME MEASUR	TOP OF CASING ELEVATION (FEET ABOVE SEA	DEPTH TO GROUND FROM TOP OF CASI (FEET)	ELEVATION OF GROUNDWATER (FEET ABOVE SEA
PD-2	9:00 AM	11.71	9.37	2.34
WL-2	9:20 AM	10.28	9.27	1.01
WL-3	9:35 AM	8.22	6.6	1.62
WL-4	9:50 AM	7.29	5.25	2.04
EL-1	10:30 AM	15.19	9.75	5.44
EL-2	11:00 AM	17.23	15.75	1.48
EL-3	11:15 AM	9.81	8.3	1.51
EL-4	11:25 AM	10.47	10.75	-.28



LEGEND

- MSL (MEAN SEA LEVEL)
- SAMPLE LOCATION
- ISOPACH
- GROUNDWATER FLOW DIRECTION

DSM Environmental Services, Inc.

EASTERN OIL LAGOON IMPOUNDMENT POTENTIOMETRIC SURFACE MAP 10/5/94

PROJECT NO.	DRAWN BY	CHK'D BY	DATE	REV
1019-02	DWM		10-5-94	
SCALE N.T.S.	PHASE NO.	FIG. NO. 13	SHEET 1 OF 1	

APPENDIX B

Huntingdon

INORGANIC DATA VALIDATION

DSM ENVIRONMENTAL

PROJECT: CORCO WORKPLAN ADDENDUM

HUNTINGDON/SWL LAB# 9410061

CASE# 410061

Appendix B
Inorganic
Metals

SOUTHWESTERN LABORATORIES

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Sample ID	Lab Sample Number
DUP #1	9410061-05A
DUP #2	9410061-06A
EL-1-A	9410061-03A
EL-1-B	9410061-04A
PD-2	9410061-13A
PD-2 (DISSOLVED)	9410061-18A
PD-2A	9410061-01A
PD-2B	9410061-02A

Were ICP interelement corrections applied? No

Were ICP background corrections applied? Yes

If yes-were raw data generated before application of background corrections? No

Comments:

Signature: Gary L. Martin

Date: 12/22/94

Name: GARY L. MARTIN

Title: QA OFFICER

SOUTHWESTERN LABORATORIES

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

DUP #1

Lab Name: Southwestern Laboratories - Houston

Matrix (soil/water): SOIL

Level (low/med): LOW

% Solids: 80.17

Batch ID:

Lab Sample ID: 9410061-05A

Date Received: 10/07/94

Concentration Units: mg/kg

CAS Number	Analyte	Concentration	C	Q	M
7429-90-5	ALUMINUM	31700		*	P
7440-36-0	ANTIMONY	< 7.5	U	N	F
7440-38-2	ARSENIC	7.72	U	N	F
7440-39-3	BARIUM	130	B		P
7440-41-7	BERYLLIUM	1.17	B		P
7440-43-9	CADMIUM	< 1	U		P
7440-70-2	CALCIUM	56000			P
7440-47-3	CHROMIUM	68.4			P
7440-48-4	COBALT	27.0	B		P
7440-50-8	COPPER	63.3			P
7439-89-6	IRON	43800			P
7439-92-1	LEAD	2.90	B		F
7439-95-4	MAGNESIUM	14900			P
7439-96-5	MANGANESE	180			P
7439-97-6	MERCURY	4.29		N	AV
7440-02-0	NICKEL	31.8	B		P
7440-09-7	POTASSIUM	< 99.6	U		P
7782-49-2	SELENIUM	< 1	U	N	F
7440-22-4	SILVER	< 1	U	N	P
7440-23-5	SODIUM	999	B		P
7440-28-0	THALLIUM	< 10.0	U	N	F
7440-62-2	VANADIUM	168			P
7440-66-6	ZINC	71.1		*N	P

Comments:

SOUTHWESTERN LABORATORIES

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

DUP #2

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-06A

% Solids: 79.71

Date Received: 10/07/94

Concentration Units: mg/kg

CAS Number	Analyte	Concentration	C	Q	M
7429-90-5	ALUMINUM	33000		*	P
7440-36-0	ANTIMONY	< 7.5	U	N	F
7440-38-2	ARSENIC	6.80	U	N	F
7440-39-3	BARIUM	157	B		P
7440-41-7	BERYLLIUM	1.25	B		P
7440-43-9	CADMIUM	< 1	U		P
7440-70-2	CALCIUM	50200			P
7440-47-3	CHROMIUM	72.4			P
7440-48-4	COBALT	28.1	B		P
7440-50-8	COPPER	64.7			P
7439-89-6	IRON	46400			P
7439-92-1	LEAD	2.95	B		F
7439-95-4	MAGNESIUM	16300			P
7439-96-5	MANGANESE	305			P
7439-97-6	MERCURY	< 0.1	U	N	AV
7440-02-0	NICKEL	33.9	B		P
7440-09-7	POTASSIUM	< 100	U		P
7782-49-2	SELENIUM	< 1	U	N	F
7440-22-4	SILVER	< 2	U	N	P
7440-23-5	SODIUM	1010	B		P
7440-28-0	THALLIUM	< 10.0	U	N	F
7440-62-2	VANADIUM	183			P
7440-66-6	ZINC	74.3		*N	P

Comments:

SOUTHWESTERN LABORATORIES

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

EL-1-A

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-03A

% Solids: 79.03

Date Received: 10/07/94

Concentration Units: mg/kg

CAS Number	Analyte	Concentration	C	Q	M
7429-90-5	ALUMINUM	36500		*	P
7440-36-0	ANTIMONY	< 7.6	U	N	F
7440-38-2	ARSENIC	1.65	U	N	F
7440-39-3	BARIUM	163	B		P
7440-41-7	BERYLLIUM	1.25	B		P
7440-43-9	CADMIUM	< 1	U		P
7440-70-2	CALCIUM	16400			P
7440-47-3	CHROMIUM	77.6			P
7440-48-4	COBALT	32.2	B		P
7440-50-8	COPPER	76.1			P
7439-89-6	IRON	50900			P
7439-92-1	LEAD	4.16			F
7439-95-4	MAGNESIUM	13900			P
7439-96-5	MANGANESE	1740			P
7439-97-6	MERCURY	< 0.1	U	N	AV
7440-02-0	NICKEL	38.4	B		P
7440-09-7	POTASSIUM	1800	B		P
7782-49-2	SELENIUM	< 1	U	N	F
7440-22-4	SILVER	< 2	U	N	P
7440-23-5	SODIUM	478	B		P
7440-28-0	THALLIUM	< 10.0	U	N	F
7440-62-2	VANADIUM	178			P
7440-66-6	ZINC	86.4		*N	P

Comments:

SOUTHWESTERN LABORATORIES

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

EL-1-B

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-04A

% Solids: 79.88

Date Received: 10/07/94

Concentration Units: mg/kg

CAS Number	Analyte	Concentration	C	Q	M
7429-90-5	ALUMINUM	33100		*	P
7440-36-0	ANTIMONY	< 7.5	U	N	F
7440-38-2	ARSENIC	1.96	U	N	F
7440-39-3	BARIUM	160	B		P
7440-41-7	BERYLLIUM	1.20	B		P
7440-43-9	CADMIUM	< 1	U		P
7440-70-2	CALCIUM	48800			P
7440-47-3	CHROMIUM	70.9			P
7440-48-4	COBALT	26.7	B		P
7440-50-8	COPPER	65.0			P
	Fe2599	48100			P
7439-92-1	LEAD	3.30			F
7439-95-4	MAGNESIUM	16200			P
7439-96-5	MANGANESE	181			P
7439-97-6	MERCURY	< 0.1	U	N	AV
7440-02-0	NICKEL	33.7	B		P
7440-09-7	POTASSIUM	< 100	U		P
7782-49-2	SELENIUM	< 1	U	N	F
7440-22-4	SILVER	< 2	U	N	P
7440-23-5	SODIUM	1020	B		P
7440-28-0	THALLIUM	< 10.0	U	N	F
7440-62-2	VANADIUM	177			P
7440-66-6	ZINC	84.8		*N	P

Comments:

SOUTHWESTERN LABORATORIES

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2

Matrix (soil/water): WATER

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-13A

% Solids: 0.00

Date Received: 10/07/94

Concentration Units: ug/L

CAS Number	Analyte	Concentration	C	Q	M
7429-90-5	ALUMINUM	740000		N	P
7440-36-0	ANTIMONY	< 30	U	N	F
7440-38-2	ARSENIC	0.90	U	N	F
7440-39-3	BARIUM	2240		N	P
7440-41-7	BERYLLIUM	26.9		N	P
7440-43-9	CADMIUM	178		N	P
7440-70-2	CALCIUM	6140000			P
7440-47-3	CHROMIUM	2140		N	P
7440-48-4	COBALT	982		N	P
7440-50-8	COPPER	2620		N	P
7439-89-6	IRON	1180000		N	P
7439-92-1	LEAD	134		*N	A
7439-95-4	MAGNESIUM	835000			P
7439-96-5	MANGANESE	272		N	P
7439-97-6	MERCURY	< 0.2	U		AV
7440-02-0	NICKEL	1200		N	P
7440-09-7	POTASSIUM	133000			P
7782-49-2	SELENIUM	< 5	U	N	F
7440-22-4	SILVER	< 6	U	N	P
7440-23-5	SODIUM	734000			P
7440-28-0	THALLIUM	< 10.0	U	N	F
7440-62-2	VANADIUM	2980		*N	P
7440-66-6	ZINC	3250		N	P

Comments:

SOUTHWESTERN LABORATORIES

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

PD-2 (DISSOLVED)

Lab Name: Southwestern Laboratories - Houston

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids: 0.00

Batch ID:

Lab Sample ID: 9410061-18A

Date Received: 10/07/94

Concentration Units: ug/L

CAS Number	Analyte	Concentration	C	Q	M
7429-90-5	ALUMINUM	< 70	U		P
7440-36-0	ANTIMONY	< 30	U		F
7440-38-2	ARSENIC	3.21	U	N	F
7440-39-3	BARIUM	1140		N	P
7440-41-7	BERYLLIUM	< 5	U	N	P
7440-43-9	CADMIUM	< 5	U	N	P
7440-70-2	CALCIUM	337000			P
7440-47-3	CHROMIUM	< 10	U	N	P
7440-48-4	COBALT	< 10	U	N	P
7440-50-8	COPPER	< 6	U	N	P
7439-89-6	IRON	73.2	B		P
7439-92-1	LEAD	< 2	U		F
7439-95-4	MAGNESIUM	120000			P
7439-96-5	MANGANESE	416			P
7439-97-6	MERCURY	< 0.2	U		AV
7440-02-0	NICKEL	< 20	U	N	P
7440-09-7	POTASSIUM	38700			P
7782-49-2	SELENIUM	< 5	U	N	F
7440-22-4	SILVER	< 6	U	N	P
7440-23-5	SODIUM	868000			P
7440-28-0	THALLIUM	< 10.0	U	N	F
7440-62-2	VANADIUM	< 10	U	*N	P
7440-66-6	ZINC	96.4		N	P

Comments:

SOUTHWESTERN LABORATORIES

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2A

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-01A

% Solids: 82.11

Date Received: 10/07/94

Concentration Units: mg/kg

CAS Number	Analyte	Concentration	C	Q	M
7429-90-5	ALUMINUM	6280		*	P
7440-36-0	ANTIMONY	< 7.3	U	N	F
7440-38-2	ARSENIC	5.92	B	N	F
7440-39-3	BARIUM	33.5	B		P
7440-41-7	BERYLLIUM	< 1	U		P
7440-43-9	CADMIUM	< 1	U		P
7440-70-2	CALCIUM	233000			P
7440-47-3	CHROMIUM	33.0			P
7440-48-4	COBALT	< 2.4	U		P
7440-50-8	COPPER	8.43	B		P
7439-89-6	IRON	9210			P
7439-92-1	LEAD	< 0.5	U		F
7439-95-4	MAGNESIUM	3690	B		P
7439-96-5	MANGANESE	167			P
7439-97-6	MERCURY	< 0.1	U	N	AV
7440-02-0	NICKEL	29.2	B		P
7440-09-7	POTASSIUM	< 97.6	U		P
7782-49-2	SELENIUM	< 1	U	N	F
7440-22-4	SILVER	< 1	U	N	P
7440-23-5	SODIUM	2020	B		P
7440-28-0	THALLIUM	< 10.0	U	N	F
7440-62-2	VANADIUM	53.0			P
7440-66-6	ZINC	52.4		*N	P

Comments:

SOUTHWESTERN LABORATORIES

INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2B

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-02A

% Solids: 75.67

Date Received: 10/07/94

Concentration Units: mg/kg

CAS Number	Analyte	Concentration	C	Q	M
7429-90-5	ALUMINUM	8280		*	P
7440-36-0	ANTIMONY	< 7.9	U	N	F
7440-38-2	ARSENIC	2.72	B	N	F
7440-39-3	BARIUM	69.1	B		P
7440-41-7	BERYLLIUM	< 1	U		P
7440-43-9	CADMIUM	4.24	B		P
7440-70-2	CALCIUM	268000			P
7440-47-3	CHROMIUM	27.3			P
7440-48-4	COBALT	23.7	B		P
7440-50-8	COPPER	11.3	B		P
7439-89-6	IRON	13600			P
7439-92-1	LEAD	< 26.4	U		A
7439-95-4	MAGNESIUM	5240			P
7439-96-5	MANGANESE	226			P
7439-97-6	MERCURY	< 0.1	U	N	AV
7440-02-0	NICKEL	35300			P
7440-09-7	POTASSIUM	1620	B		P
7782-49-2	SELENIUM	< 1	U	N	F
7440-22-4	SILVER	6.54	B	N	P
7440-23-5	SODIUM	2450	B		P
7440-28-0	THALLIUM	< 10.0	U	N	F
7440-62-2	VANADIUM	53.3			P
7440-66-6	ZINC	26.0		*N	P

Comments:

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: HG-CK

Run ID: 57800\941013000000

Continuing Calibration Source:

Analysis Date: 10/13/94

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
MERCURY	10.0	10.3	103	AV

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Initial Calibration Source:

Batch ID:

Continuing Calibration Source: HG-CK

Run ID: 57800\941013000000

Analysis Date: 10/13/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
MERCURY	10.0	9.80	98.0	AV

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Initial Calibration Source: HG-CK

Batch ID:

Continuing Calibration Source:

Run ID: 57800\941021000000

Analysis Date: 10/21/94

Sample ID: ·ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
MERCURY	10.0	9.90	99.0	AV

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Initial Calibration Source:

Batch ID:

Continuing Calibration Source: HG-CK

Run ID: 57800\941021000000

Analysis Date: 10/21/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
MERCURY	10.0	9.50	95.0	AV

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 66950\941119000000

Continuing Calibration Source:

Analysis Date: 11/19/94

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ARSENIC	40.0	39.3	98.2	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 66950\941119000000

Continuing Calibration Source: PREPARED

Analysis Date: 11/19/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ARSENIC	40.0	38.77	96.9	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 66950\941119163900

Continuing Calibration Source:

Analysis Date: 11/19/94 16:39:00

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
SELENIUM	40.0	39.38	98.4	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Initial Calibration Source:

Batch ID:

Continuing Calibration Source: PREPARED

Run ID: 66950\941119163900

Analysis Date: 11/19/94 16:39:00

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
SELENIUM	40.0	40.07	100	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 58310\941121000000

Continuing Calibration Source:

Analysis Date: 11/21/94

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ALUMINUM	10000	10400	104.00	P
BARIUM	10000	10300	103.00	P
BERYLLIUM	250	255	102	P
CADMIUM	250	254	102	P
CALCIUM	250000	251000	100.40	P
CHROMIUM	500	511	102	P
COBALT	2500	2550	102.0	P
COPPER	1250	1280	102.4	P
IRON	5000	5170	103.4	P
MAGNESIUM	250000	253000	101.20	P
MANGANESE	750	760	101	P
NICKEL	2000	2040	102.0	P
POTASSIUM	250000	252000	100.80	P
SILVER	500	509	102	P
SODIUM	250000	253000	101.20	P
VANADIUM	2500	2560	102.4	P
ZINC	1000	996	99.6	P

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 58310\941121000000

Continuing Calibration Source: PREPARED

Analysis Date: 11/21/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ALUMINUM	10000	10300	103.00	P
BARIUM	10000	10200	102.00	P
BERYLLIUM	250	258	103	P
CADMIUM	250	256	102	P
CALCIUM	250000	255000	102.00	P
CHROMIUM	500	511	102	P
COBALT	2500	2570	102.8	P
COPPER	1250	1280	102.4	P
IRON	5000	5190	103.8	P
MAGNESIUM	250000	256000	102.40	P
MANGANESE	750	769	103	P
NICKEL	2000	2020	101.0	P
POTASSIUM	250000	250000	100.00	P
SILVER	500	513	103	P
SODIUM	250000	244000	97.600	P
VANADIUM	2500	2560	102.4	P
ZINC	1000	999	99.9	P

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 66950\941121101500

Continuing Calibration Source:

Analysis Date: 11/21/94 10:15:00

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
THALLIUM	40.0	39.18	98.0	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 66950\941121101500

Continuing Calibration Source: PREPARED

Analysis Date: 11/21/94 10:15:00

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
THALLIUM	40.0	38.57	96.4	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 66950\941121144900

Continuing Calibration Source:

Analysis Date: 11/21/94 14:49:00

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ANTIMONY	100	99.7	99.7	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 66950\941121144900

Continuing Calibration Source: PREPARED

Analysis Date: 11/21/94 14:49:00

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ANTIMONY	100	97.9	97.9	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 66950\941122000000

Continuing Calibration Source:

Analysis Date: 11/22/94

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ANTIMONY	100	99.0	99.0	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 66950\941122000000

Continuing Calibration Source: PREPARED

Analysis Date: 11/22/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ANTIMONY	100	101.5	102	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 58310\941123000000

Continuing Calibration Source:

Analysis Date: 11/23/94

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ALUMINUM	10000	10100	101.00	P
BARIUM	10000	< 17	0	P
CALCIUM	250000	238000	95.200	P
IRON	5000	4900	98.00	P
MAGNESIUM	250000	246000	98.400	P
SODIUM	250000	252000	100.80	P

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 58310\941123000000

Continuing Calibration Source: PREPARED

Analysis Date: 11/23/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ALUMINUM	10000	9570	95.70	P
CALCIUM	250000	225000	90.000	P
IRON	5000	4550	91.00	P
MAGNESIUM	250000	228000	91.200	P
SODIUM	250000	249000	99.600	P

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 57800\941128000000

Continuing Calibration Source:

Analysis Date: 11/28/94

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
LEAD	2000	1964	98.20	A

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 57800\941128000000

Continuing Calibration Source: PREPARED

Analysis Date: 11/28/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
LEAD	2000	1986	99.30	A

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 58310\941129000000

Continuing Calibration Source:

Analysis Date: 11/29/94

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ALUMINUM	10000	9890	98.90	P
CALCIUM	250000	243000	97.200	P
IRON	5000	4940	98.80	P
MAGNESIUM	250000	240000	96.000	P
MANGANESE	750	744	99.2	P

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 58310\941129000000

Continuing Calibration Source: PREPARED

Analysis Date: 11/29/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ALUMINUM	10000	10100	101.00	P
CALCIUM	250000	253000	101.20	P
IRON	5000	5180	103.6	P
MAGNESIUM	250000	254000	101.60	P
MANGANESE	750	770	103	P

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source: PREPARED

Run ID: 66950\941205000000

Continuing Calibration Source:

Analysis Date: 12/05/94

Sample ID: ICV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
LEAD	5.00	4.51	90.2	F

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

SOUTHWESTERN LABORATORIES

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Initial Calibration Source:

Run ID: 66950\941205000000

Continuing Calibration Source: PREPARED

Analysis Date: 12/05/94

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
LEAD	5.00	4.62	92.4	F

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

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: HG-ST

Run ID: 57800\941013000000

Analysis Date: 10/13/94

Concentration Units: ug/L

Analyte	True	Found	%R
MERCURY	0.800	0.3	40

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: HG-ST

Run ID: 57800\941021000000

Analysis Date: 10/21/94

Concentration Units: ug/L

Analyte	True	Found	%R
MERCURY	0.800	-0.1	-10

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: PREPARED

Run ID: 66950\941119000000

Analysis Date: 11/19/94

Concentration Units: ug/L

Analyte	True	Found	%R
ARSENIC	5.00	2.72	54.4

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: PREPARED

Run ID: 66950\941119163900

Analysis Date: 11/19/94 16:39:00

Concentration Units: ug/L

Analyte	True	Found	%R
SELENIUM	5.00	3.93	78.6

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: PREPARED

Run ID: 66950\941121101500

Analysis Date: 11/21/94 10:15:00

Concentration Units: ug/L

Analyte	True	Found	%R
THALLIUM	10.0	7.72	77.2

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: PREPARED

Run ID: 66950\941121144900

Analysis Date: 11/21/94 14:49:00

Concentration Units: ug/L

Analyte	True	Found	%R
ANTIMONY	30.0	25.2	84.0

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: PREPARED

Run ID: 66950\941122000000

Analysis Date: 11/22/94

Concentration Units: ug/L

Analyte	True	Found	%R
ANTIMONY	30.0	26.9	89.7

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: PREPARED

Run ID: 57800\941128000000

Analysis Date: 11/28/94

Concentration Units: ug/L

Analyte	True	Found	%R
LEAD	100	99.0	99.0

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR AA

Lab Name: Southwestern Laboratories - Houston

Batch ID:

AA CRDL Standard Source: PREPARED

Run ID: 66950\941205000000

Analysis Date: 12/05/94

Concentration Units: ug/L

Analyte	True	Found	%R
LEAD	2.00	1.01	50.5

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR ICP

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICP CRDL Standard Source: PREPARED

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: CRII

Concentration Units: ug/L

Analyte	Initial		
	True	Found	%R
ALUMINUM		102.7	
BARIUM		0	
BERYLLIUM	10.0	10.70	107
CADMIUM	10.0	12.21	122
CALCIUM		9.567	
CHROMIUM	20.0	22.49	112
COBALT	100	124.5	124
COPPER	50.0	55.82	112
IRON		1.178	
MAGNESIUM		22.35	
MANGANESE	30.0	35.31	118
NICKEL	80.0	97.36	122
POTASSIUM		0	
SILVER	20.0	21.83	109
SODIUM		30.54	
VANADIUM	100	110.9	111
ZINC	40.0	44.92	112

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR ICP

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICP CRDL Standard Source: PREPARED

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: CRIF

Concentration Units: ug/L

Analyte	Final		
	True	Found	%R
ALUMINUM		15.23	
BARIUM		2.158	
BERYLLIUM	10.0	10.51	105
CADMIUM	10.0	9.643	96.4
CALCIUM		32.32	
CHROMIUM	20.0	23.07	115
COBALT	100	126.5	126
COPPER	50.0	54.43	109
IRON		71.18	
MAGNESIUM		-31.76	
MANGANESE	30.0	35.19	117
NICKEL	80.0	106.0	132
POTASSIUM		-22.98	
SILVER	20.0	17.22	86.1
SODIUM		120.3	
VANADIUM	100	111.2	111
ZINC	40.0	45.51	114

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR ICP

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICP CRDL Standard Source: PREPARED

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: CRII

Concentration Units: ug/L

Analyte	Initial		
	True	Found	%R
MANGANESE	30.0	33.37	111

SOUTHWESTERN LABORATORIES

CRDL STANDARD FOR ICP

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICP CRDL Standard Source: PREPARED

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: CRIF

Concentration Units: ug/L

Analyte	Final		
	True	Found	%R
MANGANESE	30.0	35.72	119

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 57800\941013000000

Analysis Date: 10/13/94

Sample ID: ICB

Analyte	Found	C	M
MERCURY	< 0.2	U	AV

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 57800\941013000000

Analysis Date: 10/13/94

Sample ID: CCB

Analyte	Found	C	M
MERCURY	< 0.2	U	AV

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 57800\941021000000

Analysis Date: 10/21/94

Sample ID: ICB

Analyte	Found	C	M
MERCURY	< 0.2	U	AV

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 57800\941021000000

Analysis Date: 10/21/94

Sample ID: CCB

Analyte	Found	C	M
MERCURY	< 0.2	U	AV

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Preparation Blank Matrix WATER

Run ID: 66950\941119000000

Preparation Blank Concentration Units: ug/L

Analysis Date: 11/19/94

Sample ID: PB

Analyte	Found	C	M
ARSENIC	< 10	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941119000000

Analysis Date: 11/19/94

Sample ID: ICB

Analyte	Found	C	M
ARSENIC	< 10	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941119000000

Analysis Date: 11/19/94

Sample ID: CCB

Analyte	Found	C	M
ARSENIC	< 10	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Preparation Blank Matrix WATER

Run ID: 66950\941119163900

Preparation Blank Concentration Units: ug/L

Analysis Date: 11/19/94 16:39:00

Sample ID: PB

Analyte	Found	C	M
SELENIUM	< 5	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941119163900

Analysis Date: 11/19/94 16:39:00

Sample ID: ICB

Analyte	Found	C	M
SELENIUM	< 5	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941119163900

Analysis Date: 11/19/94 16:39:00

Sample ID: CCB

Analyte	Found	C	M
SELENIUM	< 5	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: PBW

Analyte	Found	C	M
ALUMINUM	< 70	U	P
BARIUM	< 17	U	P
BERYLLIUM	< 5	U	P
CADMIUM	< 5	U	P
CALCIUM	2090	U	P
CHROMIUM	< 10	U	P
COBALT	< 10	U	P
COPPER	< 6	U	P
IRON	45.9	U	P
MAGNESIUM	< 100	U	P
MANGANESE	< 5	U	P
NICKEL	< 20	U	P
POTASSIUM	< 400	U	P
SILVER	< 6	U	P
SODIUM	201	U	P
VANADIUM	< 10	U	P
ZINC	35.1		P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: PBS

Analyte	Found	C	M
ALUMINUM	< 70	U	P
BARIUM	< 17	U	P
BERYLLIUM	< 5	U	P
CADMIUM	< 5	U	P
CALCIUM	< 60	U	P
CHROMIUM	< 10	U	P
COBALT	< 10	U	P
COPPER	< 6	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
MANGANESE	< 5	U	P
NICKEL	< 20	U	P
POTASSIUM	< 400	U	P
SILVER	< 6	U	P
SODIUM	257	U	P
VANADIUM	< 10	U	P
ZINC	< 10	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: ICB

Analyte	Found	C	M
ALUMINUM	< 70	U	P
BARIUM	< 17	U	P
BERYLLIUM	< 5	U	P
CADMIUM	< 5	U	P
CALCIUM	< 60	U	P
CHROMIUM	< 10	U	P
COBALT	< 10	U	P
COPPER	< 6	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
MANGANESE	< 5	U	P
NICKEL	< 20	U	P
POTASSIUM	< 400	U	P
SILVER	< 6	U	P
SODIUM	< 100	U	P
VANADIUM	< 10	U	P
ZINC	< 10	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: CCB

Analyte	Found	C	M
ALUMINUM	< 70	U	P
BARIUM	< 17	U	P
BERYLLIUM	< 5	U	P
CADMIUM	< 5	U	P
CALCIUM	< 60	U	P
CHROMIUM	< 10	U	P
COBALT	< 10	U	P
COPPER	< 6	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
MANGANESE	< 5	U	P
NICKEL	< 20	U	P
POTASSIUM	< 400	U	P
SILVER	< 6	U	P
SODIUM	< 100	U	P
VANADIUM	< 10	U	P
ZINC	< 10	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Preparation Blank Matrix WATER

Run ID: 66950\941121101500

Preparation Blank Concentration Units: ug/L

Analysis Date: 11/21/94 10:15:00

Sample ID: PB

Analyte	Found	C	M
THALLIUM	< 10.0	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941121101500

Analysis Date: 11/21/94 10:15:00

Sample ID: ICB

Analyte	Found	C	M
THALLIUM	< 10.0	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941121101500

Analysis Date: 11/21/94 10:15:00

Sample ID: CCB

Analyte	Found	C	M
THALLIUM	< 10.0	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Preparation Blank Matrix WATER

Run ID: 66950\941121144900

Preparation Blank Concentration Units: ug/L

Analysis Date: 11/21/94 14:49:00

Sample ID: PB

Analyte	Found	C	M
ANTIMONY	< 30	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941121144900

Analysis Date: 11/21/94 14:49:00

Sample ID: ICB

Analyte	Found	C	M
ANTIMONY	< 30	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941121144900

Analysis Date: 11/21/94 14:49:00

Sample ID: CCB

Analyte	Found	C	M
ANTIMONY	< 30	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Preparation Blank Matrix WATER

Run ID: 66950\941122000000

Preparation Blank Concentration Units: ug/L

Analysis Date: 11/22/94

Sample ID: PB

Analyte	Found	C	M
ANTIMONY	< 30	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941122000000

Analysis Date: 11/22/94

Sample ID: ICB

Analyte	Found	C	M
ANTIMONY	< 30	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941122000000

Analysis Date: 11/22/94

Sample ID: CCB

Analyte	Found	C	M
ANTIMONY	< 30	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941123000000

Analysis Date: 11/23/94

Sample ID: PBW

Analyte	Found	C	M
ALUMINUM	< 70	U	P
CALCIUM	< 60	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
SODIUM	< 100	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941123000000

Analysis Date: 11/23/94

Sample ID: PBS

Analyte	Found	C	M
ALUMINUM	< 70	U	P
CALCIUM	< 60	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
SODIUM	< 100	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941123000000

Analysis Date: 11/23/94

Sample ID: ICB

Analyte	Found	C	M
ALUMINUM	< 70	U	P
CALCIUM	< 60	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
SODIUM	< 100	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941123000000

Analysis Date: 11/23/94

Sample ID: CCB

Analyte	Found	C	M
ALUMINUM	< 70	U	P
BARIUM	< 17	U	P
CALCIUM	< 60	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
SODIUM	< 100	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Preparation Blank Matrix WATER

Run ID: 57800\941128000000

Preparation Blank Concentration Units: ug/L

Analysis Date: 11/28/94

Sample ID: PB

Analyte	Found	C	M
LEAD	< 100	U	A

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 57800\941128000000

Analysis Date: 11/28/94

Sample ID: ICB

Analyte	Found	C	M
LEAD	< 100	U	A

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 57800\941128000000

Analysis Date: 11/28/94

Sample ID: CCB

Analyte	Found	C	M
LEAD	< 100	U	A

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: PBW

Analyte	Found	C	M
ALUMINUM	< 70	U	P
CALCIUM	< 60	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
MANGANESE	< 5	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: PBS

Analyte	Found	C	M
MANGANESE	< 5	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: ICB

Analyte	Found	C	M
ALUMINUM	< 70	U	P
CALCIUM	< 60	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
MANGANESE	< 5	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: CCB

Analyte	Found	C	M
ALUMINUM	< 70	U	P
CALCIUM	< 60	U	P
IRON	< 7	U	P
MAGNESIUM	< 100	U	P
MANGANESE	< 5	U	P

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Preparation Blank Matrix WATER

Run ID: 66950\941205000000

Preparation Blank Concentration Units: ug/L

Analysis Date: 12/05/94

Sample ID: PB

Analyte	Found	C	M
LEAD	< 2	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941205000000

Analysis Date: 12/05/94

Sample ID: ICB

Analyte	Found	C	M
LEAD	< 2	U	F

SOUTHWESTERN LABORATORIES

BLANKS

Lab Name: Southwestern Laboratories - Houston

Batch ID:

Run ID: 66950\941205000000

Analysis Date: 12/05/94

Sample ID: CCB

Analyte	Found	C	M
LEAD	< 2	U	F

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE A

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source: PREPARED

ICP ID Number: 2514

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: ICSAI

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	194000	39
CALCIUM	500000	484000	97
IRON	200000	36600	18
MAGNESIUM	500000	504000	101

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE A

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source: PREPARED

ICP ID Number: 2514

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: ICSAF

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	194000	39
CALCIUM	500000	515000	103
IRON	200000	36800	18
MAGNESIUM	500000	527000	105

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE AB

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source:

ICP ID Number: 2514

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: ICSABI

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	SATURATED	0
BARIUM	500	525	105
BERYLLIUM	500	492	98
CADMIUM	1000	948	95
CALCIUM	500000	490000	98
CHROMIUM	500	573	115
COBALT	500	480	96
COPPER	500	468	94
IRON	200000	SATURATED	0
MAGNESIUM	500000	507000	101
MANGANESE	500	497	99
NICKEL	1000	946	95
SILVER	1000	1040	104
VANADIUM	500	495	99
ZINC	1000	987	99

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE AB

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source:

ICP ID Number: 2514

Run ID: 58310\941121000000

Analysis Date: 11/21/94

Sample ID: ICSABF

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	194000	39
BARIUM	500	522	104
BERYLLIUM	500	501	100
CADMIUM	1000	981	98
CALCIUM	500000	510000	102
CHROMIUM	500	588	118
COBALT	500	492	98
COPPER	500	464	93
IRON	200000	36700	18
MAGNESIUM	500000	521000	104
MANGANESE	500	509	102
NICKEL	1000	988	99
SILVER	1000	1000	100
VANADIUM	500	502	100
ZINC	1000	1000	100

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE A

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source: PREPARED

ICP ID Number: 2514

Run ID: 58310\941123000000

Analysis Date: 11/23/94

Sample ID: ICSAF

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	SATURATED	0
CALCIUM	500000	446000	89
IRON	200000	SATURATED	0
MAGNESIUM	500000	472000	94

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE AB

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source:

ICP ID Number: 2514

Run ID: 58310\941123000000

Analysis Date: 11/23/94

Sample ID: ICSABI

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	SATURATED	0
CALCIUM	500000	460000	92
IRON	200000	SATURATED	0
MAGNESIUM	500000	494000	99

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE AB

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source:

ICP ID Number: 2514

Run ID: 58310\941123000000

Analysis Date: 11/23/94

Sample ID: ICSABF

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	SATURATED	0
CALCIUM	500000	441000	88
IRON	200000	SATURATED	0
MAGNESIUM	500000	469000	94

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE A

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source: PREPARED

ICP ID Number: 2514

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: ICSAI

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	SATURATED	0
CALCIUM	500000	474000	95
IRON	200000	SATURATED	0
MAGNESIUM	500000	497000	99

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE A

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source: PREPARED

ICP ID Number: 2514

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: ICSAF

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	SATURATED	0
CALCIUM	500000	476000	95
IRON	200000	SATURATED	0
MAGNESIUM	500000	494000	99

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE AB

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source:

ICP ID Number: 2514

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: ICSABI

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	SATURATED	0
CALCIUM	500000	472000	94
IRON	200000	SATURATED	0
MAGNESIUM	500000	488000	98
MANGANESE	500	495	99

SOUTHWESTERN LABORATORIES

ICP INTERFERENCE CHECK SAMPLE AB

Lab Name: Southwestern Laboratories - Houston

Batch ID:

ICSA Source:

ICP ID Number: 2514

Run ID: 58310\941129000000

Analysis Date: 11/29/94

Sample ID: ICSABF

Concentration Units: ug/L

Analyte	True	Found	%R
ALUMINUM	500000	SATURATED	0
CALCIUM	500000	477000	95
IRON	200000	SATURATED	0
MAGNESIUM	500000	498000	100
MANGANESE	500	494	99

SOUTHWESTERN LABORATORIES

SPIKE SAMPLE RECOVERY

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2A

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-01

% Solids: 82.11

Date Received: 10/07/94

Concentration Units: mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
ANTIMONY	75.0 - 125	< 7.3	U	< 7.3	U	100	0	N	F
ARSENIC	75.0 - 125	5.72	B	5.92	B	40.0	-0.500	N	F
BARIUM	75.0 - 125	521		33.5	B	488	99.9		P
BERYLLIUM	75.0 - 125	12.3		< 1	U	12.2	101		P
CADMIUM	75.0 - 125	12.5		< 1	U	12.2	102		P
CHROMIUM	75.0 - 125	80.2		33.0		48.8	96.7		P
COBALT	75.0 - 125	124		< 2.4	U	122	102		P
COPPER	75.0 - 125	70.3		8.43	B	61.0	101		P
L[illegible]	75.0 - 125	4.69		< 0.5	U	4.875	96.2		F
M[illegible]NESE	75.0 - 125	277		167		122	90.2		P
NICKEL	75.0 - 125	128		29.2	B	122	81.0		P
SELENIUM	75.0 - 125	< 1	U	< 1	U	2.44	0	N	F
SILVER		44.7		< 1	U	12.2	366		P
THALLIUM	75.0 - 125	< 10.0	U	< 10.0	U	50.0	0	N	F
VANADIUM	75.0 - 125	176		53.0		122	101		P
ZINC	75.0 - 125	138		52.4		122	70.2	N	P

Comments:

SOUTHWESTERN LABORATORIES

SPIKE SAMPLE RECOVERY

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

EL-1-B

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-04

% Solids: 79.88

Date Received: 10/07/94

Concentration Units: mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
MERCURY	75.0 - 125	< 0.1	U	< 0.1	U	5.01	0	N	AV

Comments:

SOUTHWESTERN LABORATORIES

SPIKE SAMPLE RECOVERY

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2 -MS

Matrix (soil/water): WATER

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-13

% Solids: 0.00

Date Received: 10/07/94

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
ALUMINUM	75.0 - 125	44200		740000		200000	-347.9	N	P
ANTIMONY	75.0 - 125	< 30	U	< 30	U	100	0	N	F
ARSENIC	75.0 - 125	0.67	U	0.90	U	40.0	-0.58	N	F
BARIUM	75.0 - 125	190	B	2240		2000	-102	N	P
BERYLLIUM	75.0 - 125	14.1		26.9		50.0	-25.6	N	P
CADMIUM	75.0 - 125	31.2		178		50.0	-294	N	P
CHROMIUM	75.0 - 125	170		2140		200	-985		P
COBALT	75.0 - 125	288		982		500	-139	N	P
C[illegible]R	75.0 - 125	256		2620		250	-946		P
[illegible]	75.0 - 125	120000		1180000		100000	-1060.		P
LEAD	75.0 - 125	214		134		500	16.0	N	A
MANGANESE	75.0 - 125	95.6		272		500	-35.3	N	P
MERCURY	75.0 - 125	9.50		< 0.2	U	10.0	95.0		AV
NICKEL	75.0 - 125	288		1200		500	-182	N	P
SELENIUM	75.0 - 125	< 5	U	< 5	U	10.0	0	N	F
SILVER		< 6	U	< 6	U	50.0	0		P
THALLIUM	75.0 - 125	< 10.0	U	< 10.0	U	50.0	0	N	F
VANADIUM	75.0 - 125	671		2980		500	-462		P
ZINC	75.0 - 125	641		3250		500	-522		P

Comments:

SOUTHWESTERN LABORATORIES

SPIKE SAMPLE RECOVERY

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2-MSD

Matrix (soil/water): WATER

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-13

% Solids: 0.00

Date Received: 10/07/94

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
ALUMINUM	75.0 - 125	SATURATED	U	SATURATED	U	2000	0	N	P
ANTIMONY	75.0 - 125	< 30	U	< 30	U	100	0	N	F
ARSENIC	75.0 - 125	0.86	U	0.90	U	40.0	-0.10	N	F
BARIUM	75.0 - 125	4470		2240		2000	111.5		P
BERYLLIUM	75.0 - 125	32.3		26.9		50.0	11.0	N	P
CADMIUM	75.0 - 125	68.3		178		50.0	-219	N	P
CHROMIUM	75.0 - 125	350		2140		200	-895		P
COBALT	75.0 - 125	622		982		500	-72.0	N	P
C[illegible]R	75.0 - 125	558		2620		250	-825		P
I[illegible]	75.0 - 125	SATURATED	U	21000		1000	0		P
LEAD	75.0 - 125	442		134		500	61.6	N	A
MANGANESE	75.0 - 125	SATURATED	U	SATURATED	U	500	0	N	P
MERCURY	75.0 - 125	9.50		< 0.2	U	10.0	95.0		AV
NICKEL	75.0 - 125	630		1200		500	-114	N	P
SELENIUM	75.0 - 125	< 5	U	< 5	U	10.0	0	N	F
SILVER		< 6	U	< 6	U	50.0	0		P
THALLIUM	75.0 - 125	< 10.0	U	< 10.0	U	50.0	0	N	F
VANADIUM	75.0 - 125	1440		2980		500	-308		P
ZINC	75.0 - 125	1400		3250		500	-370		P

Comments:

SOUTHWESTERN LABORATORIES

SPIKE SAMPLE RECOVERY

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2 (DISSOLVED) -MS

Matrix (soil/water): WATER

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-18

% Solids: -0.00

Date Received: 10/07/94

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
ALUMINUM	75.0 - 125	1990		< 70	U	2000	99.50		P
ANTIMONY	75.0 - 125	83.6		< 30	U	100	83.6		F
ARSENIC	75.0 - 125	34.89		3.21	U	40.0	79.2		F
BARIUM	75.0 - 125	3050		1140		2000	95.50		P
BERYLLIUM	75.0 - 125	50.5		< 5	U	50.0	101		P
CADMIUM	75.0 - 125	47.6		< 5	U	50.0	95.2		P
CHROMIUM	75.0 - 125	202		< 10	U	200	101		P
COBALT	75.0 - 125	497		< 10	U	500	99.4		P
COPPER	75.0 - 125	249		< 6	U	250	99.6		P
IRON	75.0 - 125	1260		73.2	B	1000	119		P
LEAD	75.0 - 125	18.9		< 2	U	20.0	94.5		F
MANGANESE	75.0 - 125	908		416		500	98.4		P
MERCURY	75.0 - 125	9.60		< 0.2	U	10.0	96.0		AV
NICKEL	75.0 - 125	510		< 20	U	500	102		P
SELENIUM	75.0 - 125	< 5	U	< 5	U	10.0	0	N	F
SILVER		54.0		< 6	U	50.0	110		P
THALLIUM	75.0 - 125	34.97		< 10.0	U	50.0	69.9	N	F
VANADIUM	75.0 - 125	520		< 10	U	500	104		P
ZINC	75.0 - 125	566		96.4		500	93.9		P

Comments:

SOUTHWESTERN LABORATORIES

SPIKE SAMPLE RECOVERY

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2 (DISSOLVED) -MSD

Matrix (soil/water): WATER

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-18

% Solids: -0.00

Date Received: 10/07/94

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
ALUMINUM	75.0 - 125	2010		< 70	U	2000	100.5		P
ANTIMONY	75.0 - 125	87.2		< 30	U	100	87.2		F
ARSENIC	75.0 - 125	35.04		3.21	U	40.0	79.6		F
BARIUM	75.0 - 125	3120		1140		2000	99.00		P
BERYLLIUM	75.0 - 125	51.1		< 5	U	50.0	102		P
CADMIUM	75.0 - 125	52.0		< 5	U	50.0	100		P
CHROMIUM	75.0 - 125	199		< 10	U	200	99.5		P
COBALT	75.0 - 125	498		< 10	U	500	99.6		P
COPPER	75.0 - 125	248		< 6	U	250	99.2		P
[illegible]	75.0 - 125	1040		73.2	B	1000	96.7		P
LEAD	75.0 - 125	421		< 100	U	500	84.2		P
MANGANESE	75.0 - 125	913		416		500	99.4		P
MERCURY	75.0 - 125	9.60		< 0.2	U	10.0	96.0		AV
NICKEL	75.0 - 125	505		< 20	U	500	101		P
SELENIUM	75.0 - 125	< 5	U	< 5	U	10.0	0	N	F
SILVER		49.4		< 6	U	50.0	98.8		P
THALLIUM	75.0 - 125	37.95		< 10.0	U	50.0	75.9		F
VANADIUM	75.0 - 125	525		< 10	U	500	105		P
ZINC	75.0 - 125	565		96.4		500	93.7		P

Comments:

SOUTHWESTERN LABORATORIES

DUPLICATES

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2A

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-01

% Solids: 82.11

Date Received: 10/07/94

Concentration Units: mg/kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
ALUMINUM		6280		7810		21.72		P
ANTIMONY	60.0	< 7.3	U	< 7.3	U	0		F
ARSENIC	10.0	5.92	B	5.19	B	13.1		F
BARIUM	200.0	33.5	B	36.3	B	8.02		P
BERYLLIUM	5.0	< 1	U	< 1	U	0		P
CADMIUM	5.0	< 1	U	< 1	U	0		P
CALCIUM		233000		230000		1.2959		P
CHROMIUM	10.0	33.0		31.5		4.65		P
COBALT	50.0	< 2.4	U	< 2.4	U	0		P
COPPER	25.0	8.43	B	< 1	U	0		P
IRON		9210		9130		0.8724		P
LEAD	3.0	< 0.5	U	< 0.5	U	0		F
MAGNESIUM	5000.0	3690	B	3870	B	4.762		P
MANGANESE		167		159		4.91		P
NICKEL	40.0	29.2	B	< 4.9	U	0		P
POTASSIUM	5000.0	< 97.6	U	< 97.6	U	0		P
SELENIUM	5.0	< 1	U	< 1	U	0		F
SILVER	10.0	< 1	U	< 1	U	0		P
SODIUM	5000.0	2020	B	1890	B	6.650		P
THALLIUM	10.0	< 10.0	U	< 10.0	U	0		F
VANADIUM	50.0	53.0		52.3		1.33		P
ZINC	20.0	52.4		38.6		30.3		P

Comments:

SOUTHWESTERN LABORATORIES

DUPLICATES

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

EL-1-B

Matrix (soil/water): SOIL

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-04

% Solids: 79.88

Date Received: 10/07/94

Concentration Units: mg/kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
MERCURY	0.2	< 0.1	U	< 0.1	U	0		AV

Comments:

SOUTHWESTERN LABORATORIES

DUPLICATES

SAMPLE ID

Lab Name: Southwestern Laboratories - Houston

PD-2 (DISSOLVED)

Matrix (soil/water): WATER

Batch ID:

Level (low/med): LOW

Lab Sample ID: 9410061-18

% Solids: 0.00

Date Received: 10/07/94

Concentration Units: ug/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
ALUMINUM	200.0	< 70	U	< 70	U	0		P
ANTIMONY	60.0	< 30	U	< 30	U	0		F
ARSENIC	10.0	3.21	U	2.74	U	15.8		F
BARIUM		1140		1120		1.770		P
BERYLLIUM	5.0	< 5	U	< 5	U	0		P
CADMIUM	5.0	< 5	U	< 5	U	0		P
CALCIUM		337000		342000		1.4727		P
CHROMIUM	10.0	< 10	U	< 10	U	0		P
COBALT	50.0	< 10	U	< 10	U	0		P
COPPER	25.0	< 6	U	< 6	U	0		P
IRON	100.0	73.2	B	93.6	B	24.5		P
LEAD	3.0	< 2	U	< 2	U	0		F
MAGNESIUM		120000		122000		1.6528		P
MANGANESE		416		416		0		P
MERCURY	0.2	< 0.2	U	< 0.2	U	0		AV
NICKEL	40.0	< 20	U	< 20	U	0		P
POTASSIUM		38700		37600		2.8834		P
SELENIUM	5.0	< 5	U	< 5	U	0		F
SILVER	10.0	< 6	U	< 6	U	0		P
SODIUM		868000		869000		0.1151		P
THALLIUM	10.0	< 10.0	U	< 10.0	U	0		F
VANADIUM	50.0	< 10	U	< 10	U	0		P
ZINC	20.0	96.4		94.9		1.57		P

Comments:

SOUTHWESTERN LABORATORIES

LABORATORY CONTROL SAMPLE

Lab Name: Southwestern Laboratories - Houston Batch ID:

LCS Source: PREPARED

Sample ID: LCSW Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ALUMINUM	2000	1850	92.50	P
ANTIMONY	100	104.6	105	F
ARSENIC	40.0	38.57	96.4	F
BARIUM	2000	1910	95.50	P
BERYLLIUM	50.0	48.2	96.4	P
CADMIUM	50.0	47.2	94.4	P
CHROMIUM	200	190	95.0	P
COBALT	500	472	94.4	P
COPPER	250	245	98.0	P
IRON	1000	971	97.1	P
LEAD	500	601	120	A
MANGANESE	500	460	92.0	P
MERCURY	10.0	9.30	93.0	AV
NICKEL	500	479	95.8	P
SELENIUM	10.00	9.62	96.2	F
SILVER	50.0	45.0	90.0	P
THALLIUM	50.0	44.85	89.7	F
VANADIUM	500	458	91.6	P
ZINC	500	440	88.0	P

(1) - Control Limits: Antimony and Silver 70-130% All other metals 80-120%

SOUTHWESTERN LABORATORIES

LABORATORY CONTROL SAMPLE

Lab Name: Southwestern Laboratories - Houston Batch ID:

LCS Source: PREPARED

Sample ID: LCSS Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
ALUMINUM	2000	2500	125.0	P
ANTIMONY	100	97.2	97.2	F
ARSENIC	40.0	37.45	93.6	F
BARIUM	2000	2100	105.0	P
BERYLLIUM	50.0	51.5	103	P
CADMIUM	50.0	52.1	104	P
CHROMIUM	200	209	104	P
COBALT	500	519	104	P
COPPER	250	265	106	P
IRON	1000	1560	156.0	P
LEAD	500	528	106	A
MANGANESE	500	521	104	P
NICKEL	500	522	104	P
SELENIUM	10.0	8.78	87.8	F
SILVER	50.0	43.1	86.2	P
THALLIUM	50.0	53.00	106	F
VANADIUM	500	510	102	P
ZINC	500	503	101	P

(1) - Control Limits: Antimony and Silver 70-130% All other metals 80-120%

SOUTHWESTERN LABORATORIES

LABORATORY CONTROL SAMPLE

Lab Name: Southwestern Laboratories - Houston

Batch ID:

LCS Source: PREPARED

Sample ID: CCV

Concentration Units: ug/L

Analyte	True	Found	%R(1)	M
THALLIUM	40.0	38.58	96.4	F

(1) - Control Limits: Antimony and Silver 70-130% All other metals 80-120%

DataAppendix B
Inorganic
Metals/Raw Data

EBS RUN NUMBER: 57800\941013000000
INSTRUMENT ID: 57800

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 1

TEST: MERCURY | DATE ANALYZED: 10/13/94 | ANALYZED BY: JBA | HOLDING TIME: 28 Days

Total Number of Samples: 6
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 3
Number of LCS's: 0

Number of ICB's: 1
Number of CCB's: 3
Number of PB's: 0

Number of DUP's: 2
Number of SPK's: 2
Number of MSD'S: 0

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	HGW	ug/L	10.3	10.0		103		85.0	115	NA	NA	NA
ICB	HGW	ug/L	< 0.2							NA	NA	NA
CRA	HGW	ug/L	0.3	0.800		40				NA	NA	NA
9410061-01A	HGS	mg/kg	< 0.1							10/07/94	09/29/94	YES
9410061-02A	HGS	mg/kg	< 0.1							10/07/94	09/29/94	YES
9410061-03A	HGS	mg/kg	< 0.1							10/07/94	09/29/94	YES
CCV	HGW	ug/L	9.80	10.0		98.0		85.0	115	NA	NA	NA
CCB	HGW	ug/L	< 0.2							NA	NA	NA
9410061-04A	HGS	mg/kg	< 0.1							10/07/94	09/29/94	YES
DUP	HGS	mg/kg	< 0.1	< 0.1			0			10/07/94	09/29/94	YES
SPK	HGS	mg/kg	< 0.1	< 0.1	5.01	0		75.0	125	10/07/94	NA	NA
9410061-05A	HGS	mg/kg	4.29							10/07/94	09/29/94	YES
9410061-06A	HGS	mg/kg	< 0.1							10/07/94	09/29/94	YES
CCV	HGW	ug/L	9.60	10.0		96.0		85.0	115	NA	NA	NA
CCB	HGW	ug/L	< 0.2							NA	NA	NA
9410061-06A DUP	HGS	mg/kg	< 0.2	< 0.1			0			10/07/94	09/29/94	YES
SPK	HGS	mg/kg	< 0.2	< 0.1	10.0	0		75.0	125	10/07/94	NA	NA
CCV	HGW	ug/L	9.20	10.0		92.0		85.0	115	NA	NA	NA
CCB	HGW	ug/L	< 0.2							NA	NA	NA

EBS RUN NUMBER: 57800\941013000000
INSTRUMENT ID: 57800

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: MERCURY **DATE ANALYZED: 10/13/94** **ANALYZED BY: JBA** **HOLDING TIME: 28 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?

COMMENTS:

[illegible] JOHN [illegible]
[illegible]
[illegible]

[illegible]

INSTRUMENT MODE	[illegible]
CALIBRATION MODE	[illegible]
MEASUREMENT MODE	[illegible]
LAMP POSITION	[illegible]
LAMP CURRENT (mA)	[illegible]
SLIT WIDTH (nm)	[illegible]
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	253.7
FLAME	AIR-ACETYLENE
SAMPLE INTRODUCTION	[illegible] NORMAL
DELAY TIME	60
TIME CONSTANT	[illegible]
MEASUREMENT TIME (sec)	[illegible]
REPLICATES	[illegible]
BACKGROUND CORRECTION	ON
AIR FLOW (L/min)	[illegible]
[illegible]	[illegible]
[illegible]	
[illegible]	
[illegible]	
[illegible]	

Hg
10.0 µg/L

NAME: HK METH BLK H_2O X LCSS X
DATE: 10-11 METH BLK SOIL X LCSW X

Hg

Blk		x	(3)
Chk std	.0025	x	(1)
Chk std	.005	x	(1)
Chk std	.01	x	(1)
Chk std	.02	x	(1)
Chk std	.03	x	(1)
IW	.01	x	(3)

10-009-6A	wt	.25 g
-6 Dup		.24
-6 spk		.25
10-061-1A	wt	.24 g
-1B		.21
-1C		.21
-2A		.22
-2B		.22
-2C		.21
-3A		.21
-3B		.21
-3C		.26
-4A		.21
-4 Dup		.22
-4 spk		.22
-5A		.21
-5B		.21
-5C		.23
-6A		.21
-6B		.23
-6C		.29

EBS RUN NUMBER: 57800\941021000000
INSTRUMENT ID: 57800

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 1

TEST: MERCURY

DATE ANALYZED: 10/21/94

ANALYZED BY: JP

HOLDING TIME: 28 Days

Total Number of Samples: 2
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 1
Number of LCS's: 1

Number of ICB's: 1
Number of CCB's: 1
Number of PB's: 0

Number of DUP's: 2
Number of SPK's: 4
Number of MSD'S: 0

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	HGW	ug/L	9.90	10.0		99.0		85.0	115	NA	NA	NA
ICB	HGW	ug/L	< 0.2							NA	NA	NA
CRA	HGW	ug/L	-0.1	0.800		-10				NA	NA	NA
LCSW	HGW	ug/L	9.30	10.0		93.0		85.0	115	NA	NA	NA
9410061-13A	HGW	ug/L	< 0.2							10/07/94	09/29/94	YES
DUP	HGW	ug/L	< 0.2	< 0.2			0			10/07/94	09/29/94	YES
9410061-13 SPK	HGW	ug/L	5.00	< 0.2	10.0	50.0		75.0	125	10/07/94	NA	NA
SPK	HGW	ug/L	9.50	< 0.2	10.0	95.0	62.1	75.0	125	10/07/94	NA	NA
9410061-18A	HGW	ug/L	< 0.2							10/07/94	09/29/94	YES
DUP	HGW	ug/L	< 0.2	< 0.2			0			10/07/94	09/29/94	YES
9410061-18 SPK	HGW	ug/L	< 0.2	< 0.2	10.0	0		75.0	125	10/07/94	NA	NA
SPK	HGW	ug/L	9.60	< 0.2	10.0	96.0	0	75.0	125	10/07/94	NA	NA
CCV	HGW	ug/L	9.50	10.0		95.0		85.0	115	NA	NA	NA
CCB	HGW	ug/L	< 0.2							NA	NA	NA

COMMENTS:

SWL SOUTHWESTERN LABORATORIES

P.O. Box 224227 • 2575 Lone Star Drive • Dallas, Texas 75222 • 214/631-2700

INORGANIC ANALYTICAL NONCONFORMANCE

TEST: Hg - COLD VAPOR DATE: 10/21/94

SAMPLES: 9410061 (13A, 13B, 13C, 18D)
9410061 (18A, 18B, 18C, 18D

DUPLICATE RPD > 20%

BLANKS OUT OF SPECIFICATION:

SPIKE RECOVERY OUT OF CONTROL: LOST "MS"

INSUFFICIENT SAMPLE FOR DUPLICATE:

INSUFFICIENT SAMPLE FOR SPIKE:

ACTION: "MS" SPIKE WAS LOST IN PREP AND HAD INSUFFICIENT RECOVERY. HOWEVER, THE "MSS" SPIKE RECOVERY IS ACCEPTABLE. 95% THE DUPLICATE SX. WAS ALSO A VALID NUMBER, BOTH SX. WERE <0.0002 THIS IS ALSO THE SAME CONDITION FOR SX. 9410061-18A,B,C,D.

COMMENTS: I CONSULTED WITH MARK TIPTON ON THIS MATTER 10/28/94.

ANALYST:

QA/QC OFFICER:

SOUTHWESTERN LABORATORIES QUALITY CONTROL LOG

METHOD OF ANALYSIS: EPA: 245.1
DATE OF TEST: 10/21/94 PARAMETER: HG MATRIX: HNO3 ANALYST: JP MDL: .0002

CALIBRATION STANDARDS/BLANKS	ABSORBANCE	STANDARDS	THEORETICAL CONCENTRATION	MEASURED CONCENTRATION	% RECOVERY
0.00/.0025	0.00/.028	ICV	0.0100	0.0099	99.0
.0050/.0100	.073/.170	ICB	0.0000	0.0000	ERR
.0200	.328	CCV	0.0100	0.0094	94.0
.0300	.498	CCB	0.0000	0.0000	ERR
L.R.(R) =	.999	LCS	0.0100	0.0093	93.0

SAMPLE ID NUMBERS IN THIS RUN: 94-10-136

UNITS = mg/L

SAMPLE ID	BACKGROUND CONC.	DUPLICATE CONC	% DIFF.	SPIKE CONC	RECOVERED CONC	P* % RECOVERY
94-10-061-18	<.0002	<.0002	ERR	0.0100	0.0096	96.0
			ERR			ERR
			ERR			ERR
			ERR			ERR

Varian SpectrAA 300/400 System Report

OPERATOR J.PALACIOS
DATE 21 OCT 94
BATCH VARIOUS

PROGRAM 16 Hg COLD VAPOR

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	INTEGRATION
LAMP POSITION	6
LAMP CURRENT (mA)	4
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	253.7
FLAME	AIR-ACETYLENE
SAMPLE INTRODUCTION	AUTO NORMAL
DELAY TIME	60
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	2.0
REPLICATES	3
BACKGROUND CORRECTION	ON
AIR FLOW (L/min)	13.5
ACETYLENE FLOW (L/min)	2.00
RINSE RATE	1
RINSE TIME (sec)	15.0
RECALIBRATION RATE	0
RESLOPE RATE	0

SAMPLE	CONC MG/L	%RSD	MEAN ABS	
BLANK	0.0000		0.015	
BLANK	0.0000		-0.004	
STANDARD 1	0.0025	3.2	0.028	LR=0.999
STANDARD 2	0.0050	0.5	0.073	
STANDARD 3	0.0100	0.5	0.170	
STANDARD 4	0.0200	0.2	0.328	
STANDARD 5	0.0300	0.2	0.498	
ICV	0.0099	0.3	0.168	0.0099/0.010x100=99%
ICB	-.0007	1.5	-0.008	
LCSS	0.0093	1.0	0.155	
LCSW	0.0093	0.5	0.154	0.0093/0.010x100=93%
CRDL	-.0010	4.1	-0.011	
PB H20	-.0011	1.6	-0.012	
EB #1	-.0012	1.4	-0.013	
EB #2	-.0008	6.0	-0.009	
9410061-13A	0.0004	48.3	0.004	
9 061-13BD	-.0002	22.5	-0.003	
9 061-13S	0.0050	1.1	0.072	
BLANK	0.0000		0.000	
9410061-13S2	0.0095	0.3	0.159	0.0095/0.010x100=95%

MADE A MISTAKE
IT WAS WHEN PLACING SD. JP 10/24/94

SAMPLE	CONC MG/L	%RSD	MEAN ABS	
9410061-18A	-.0016	0.7	-0.018	
9410061-18D	-.0017	2.1	-0.019	
9410061-18S1	0.0003	22.3	0.004	
9410061-18S2	0.0096	0.4	0.161	0.0096/0.010 x100 = 96%
CCV	0.0095	0.6	0.160	0.0095/0.010 x100 = 95%
CCB	-.0008	12.7	-0.009	
9410136-01A	0.0003	6.7	0.003	
9410136-01D	0.0002	9.4	0.003	
9410136-01S	0.0096	0.9	0.161	0.0096/0.010 x100 = 96%
9410061-02	-.0009	3.0	-0.010	
9410137-01	-.0004	11.9	-0.004	
9410149-01	-.0010	5.0	-0.011	
9410077-01B	-.0013	1.3	-0.015	
9410077-01D	-.0014	0.6	-0.015	
9410077-01S	0.0087	0.8	0.141	0.0087/0.010 x100 = 87%
CCV	0.0093	0.1	0.154	0.0093/0.010 x100 = 93%
CCB	-.0009	6.3	-0.010	
9410116-01	-.0014	2.4	-0.016	
9410125-01	-.0015	2.5	-0.017	
CCV	0.0094	0.2	0.153	0.0094/0.010 x100 = 94%
CCB	-.0010	11.7	-0.011	

EBS RUN NUMBER: 66950\941119000000
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 1

TEST: ARSENIC **DATE ANALYZED: 11/19/94** **ANALYZED BY: JBA** **HOLDING TIME: 90 Days**

Total Number of Samples: 8
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 4
Number of LCS's: 2

Number of ICB's: 2
Number of CCB's: 3
Number of PB's: 3

Number of DUP's: 3
Number of SPK's: 3
Number of MSD'S: 2

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	ARSENIC	ug/L	39.3	40.0		98.2		90.0	110	NA	NA	NA
ICB	ARSENIC	ug/L	< 10							NA	NA	NA
CRA	ARSENIC	ug/L	2.72	5.00		54.4				NA	NA	NA
CCV	ARSENIC	ug/L	38.77	40.0		96.9		90.0	110	NA	NA	NA
CCB	ARSENIC	ug/L	< 10							NA	NA	NA
LCSW	ARSENIC	ug/L	38.57	40.0		96.4		80.0	120	NA	NA	NA
PB	ARSENIC	ug/L	< 10							NA	NA	NA
9410061-13A	ARSENIC	ug/L	0.90							10/07/94	09/29/94	YES
9410061-13 DUP	ARSENIC	ug/L	0.79	0.90			13			10/07/94	09/29/94	YES
SPK	ARSENIC	ug/L	0.67	0.90	40.0	-0.58		75.0	125	10/07/94	NA	NA
MSD	ARSENIC	ug/L	0.86	0.90	40.0	-0.10	140	75.0	125	10/07/94	NA	NA
ISPK	ARSENIC	ug/L	26.04	0.450	25.0	102		85.0	115	10/07/94	NA	NA
CCV	ARSENIC	ug/L	37.9	40.0		94.8		90.0	110	NA	NA	NA
CCB	ARSENIC	ug/L	< 10							NA	NA	NA
PB	ARSENIC	ug/L	< 10							NA	NA	NA
9410061-18A	ARSENIC	ug/L	3.21							10/07/94	09/29/94	YES
9410061-18 DUP	ARSENIC	ug/L	2.74	3.21			15.8			10/07/94	09/29/94	YES
SPK	ARSENIC	ug/L	34.89	3.21	40.0	79.2		75.0	125	10/07/94	NA	NA
MSD	ARSENIC	ug/L	35.04	3.21	40.0	79.6	0.504	75.0	125	10/07/94	NA	NA
ISPK	ARSENIC	ug/L	23.81	1.60	25.0	88.8		85.0	115	10/07/94	NA	NA
LCSS	ASSF	mg/kg	37.45	40.0		93.6				NA	NA	NA
PB	ARSENIC	ug/L	< 10							NA	NA	NA
CCV	ARSENIC	ug/L	38.01	40.0		95.0		90.0	110	NA	NA	NA

EBS RUN NUMBER: 66950\941119000000
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 2

TEST: ARSENIC DATE ANALYZED: 11/19/94 ANALYZED BY: JBA HOLDING TIME: 90 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
CCB	ARSENIC	ug/L	< 10							NA	NA	NA
9410061-02A	ASSF	mg/kg	2.72							10/07/94	09/29/94	YES
9410061-03A	ASSF	mg/kg	1.65							10/07/94	09/29/94	YES
9410061-04A	ASSF	mg/kg	1.96							10/07/94	09/29/94	YES
9410061-01A	ASSF	mg/kg	5.92							10/07/94	09/29/94	YES
9410061-01 DUP	ASSF	mg/kg	5.19	5.92			13.1			10/07/94	09/29/94	YES
SPK	ASSF	mg/kg	5.72	5.92	40.0	-0.500		75.0	125	10/07/94	NA	NA
ISPK	ASSF	mg/kg	8.68	2.96	25.0	22.9		85.0	115	10/07/94	NA	NA
9410061-05A	ASSF	mg/kg	7.72							10/07/94	09/29/94	YES
9410061-06A	ASSF	mg/kg	6.80							10/07/94	09/29/94	YES
CCV	ARSENIC	ug/L	34.43	40.0		86.1		90.0	110	NA	NA	NA
CCB	ARSENIC	ug/L	< 10							NA	NA	NA

COMMENTS:

11/19/94 As

Sample ID	DF	Result (µg/L)	Theoretical
ICV		39.31	40.00
ICB		-0.22	
CROL		2.72	[illegible]
CCV		38.77	40.00
CCB		-0.19	
LCSW		38.57	40.0
PB		-0.18	
9410061-13A		0.90 ~~38.1~~	
-13Adup		0.79	
-13Aspk		0.67	40.00
-13A MSD		0.86	40.00
-13A ISpk		26.04	25.00
CCV		37.90	
CCB		0.11	
PB		-0.09	
9410061-18A		3.21	
-18Adup		2.74	
-18Aspk		34.89	40.00
-18A MSD		35.04	40.00
-18A ISpk		23.81	25.00
LCSS		37.45	40.0
PB		-0.24	
CCV		38.01	40.0
CCB		-0.41	
9410061-02A		10.32	
9410061-03A		6.51	
9410061-04A		7.83	
9410061-01A		24.28	
-01Adup		21.29	
-01Aspk		23.45	40.00
-01A ISpk		35.59	25.00

11/19/94 As

Sample ID	DF	Result (ug/L)	Theoretical
9410061-05A		7.72	
9410061-06A		6.80	
CCV		34.43	40.00
CCB		-0.36	

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
[illegible]	85	5.0	3.0	NORMAL	NO
[illegible]	95	40.0	3.0	NORMAL	NO
[illegible]	120	10.0	3.0	NORMAL	NO
4	1200	5.0	3.0	NORMAL	NO
5	1200	1.0	3.0	NORMAL	NO
6	1200	2.0	0.0	NORMAL	NO
7	2600	1.0	0.0	NORMAL	YES
8	2600	2.0	0.0	NORMAL	YES
9	2600	2.0	3.0	NORMAL	NO

SAMPLER PARAMETERS

VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	4	16	5
STANDARD 2	10	10	5
STANDARD 3	20	0	5
SAMPLE	20		5

RECALIBRATION RATE 0
RESLOPE RATE 0

TIPLE INJECT NO HOT INJECT NO PRE INJECT NO

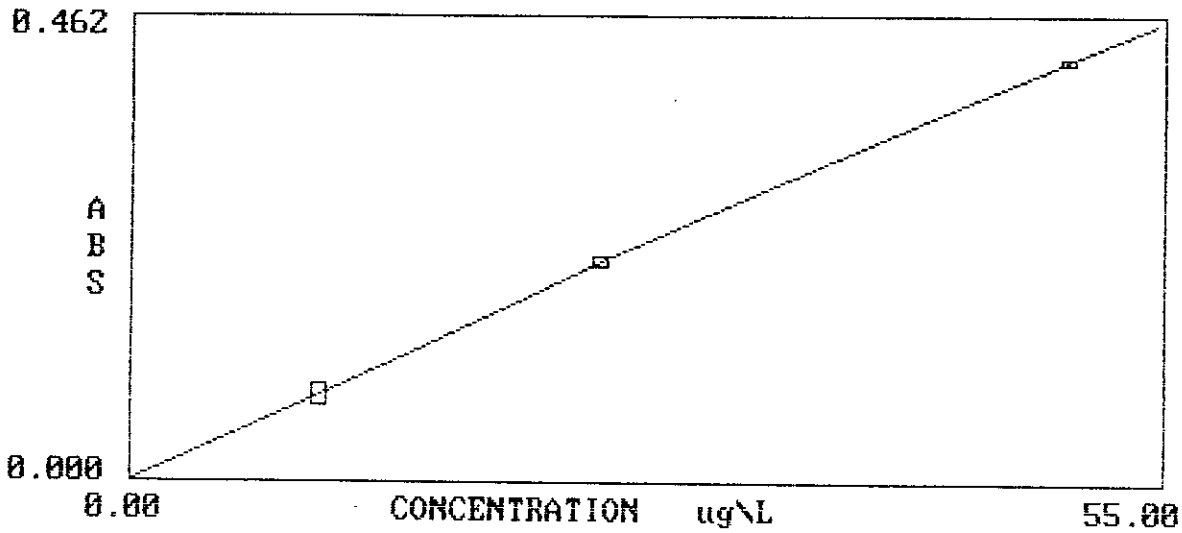
QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	46
QC INITIAL BLANK POSITION	47
QC CONTINUING STANDARD POSITION	48
QC CONTINUING BLANK POSITION	49
QC STANDARD VOLUME (µL)	20
QC STANDARD CONCENTRATION	40.00 ug\L
QC STANDARD LIMITS (%)	90 TO 110
QC SPIKE RATE	0
QC SPIKE VOLUME (µL)	5
QC SPIKE CONCENTRATION	1.00 ug\L
MATRIX SPIKE CONCENTRATION	1.00 ug\L
INSTRUMENT DETECTION LIMIT	10.00 ug\L
REQUIRED DETECTION LIMIT	10.00 ug\L

SAMPLE	CONC ug\L	%RSD	MEAN ABS
BLANK	0.00		0.007

19Nov94 19:24
CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug\L	%RSD	MEAN ABS	
STANDARD 1 QC	10.00	9.3	0.085	19Nov94 19:28
ıDARD 2	25.00	1.8	0.219	19Nov94 19:32
STANDARD 3 QC	50.00	0.0	0.420	19Nov94 19:36



ICV QC	39.31	1.5	0.336	19Nov94 19:40 %R = 98.3
ICB QC	-0.22	35.0	-0.002	19Nov94 19:44 ABS = 0.005 CONCENTRATION LESS THAN IDL
CRDL QC	2.72	6.8	0.023	19Nov94 19:48 CONCENTRATION LESS THAN IDL
C 1	38.77	1.1	0.332	19Nov94 19:51 %R = 96.9

SAMPLE	CONC ug\L	%RSD	MEAN ABS	
CCB 1 QC	-0.19	90.3	-0.002	19Nov94 19:55 ABS = 0.005 CONCENTRATION LESS THAN IDL
LCSW 10061 T QC	38.57	1.2	0.330	19Nov94 19:59
PB 10061 T QC	-0.18	39.8	-0.001	19Nov94 20:03 RPD = 201.8 CONCENTRATION LESS THAN IDL
9410061-13a QC	0.90	38.1	0.008	19Nov94 20:06 %R = 90.2 CONCENTRATION LESS THAN IDL
9410061-13aD QC	0.79	5.3	0.007	19Nov94 20:10 CONCENTRATION LESS THAN IDL
9410061-13aS QC	0.67	46.8	0.006	19Nov94 20:14 CONCENTRATION LESS THAN IDL
9410061-13aS C	0.86	40.9	0.007	19Nov94 20:17 CONCENTRATION LESS THAN IDL
061-13aINS S QC	26.04	0.2	0.227	19Nov94 20:21
LCSW 10061 D QC	OVER	1.7	1.256*	19Nov94 20:25
LCSW 10061 D QC	OVER	2.8	1.277*	19Nov94 20:28 DF = 2.00
LCSW 10061 D QC	OVER	0.7	1.260*	19Nov94 20:31 DF = 4.00
CCV 2 QC	37.90	0.4	0.325	19Nov94 20:35 %R = 94.8
CCB 2 QC	0.11	99.9	0.001	19Nov94 20:39 ABS = 0.007 CONCENTRATION LESS THAN IDL
LCSW 10061 D C	OVER	1.2	1.034*	19Nov94 20:43 DF = 10.00

SAMPLE	CONC ug\L	%RSD	MEAN ABS	
LCSW 10061 D QC	OVER	4.7 D	0.727	19Nov94 20:46 DF = 20.00 REDUCED SAMPLE VOLUME LESS THAN 1µL
PB 10061 D QC	-0.09	0.0	-0.001	19Nov94 20:50 CONCENTRATION LESS THAN IDL
9410061-18a QC	3.21	6.9	0.027	19Nov94 20:53 CONCENTRATION LESS THAN IDL
9410061-18aD QC	2.74	6.8	0.023	19Nov94 20:57 CONCENTRATION LESS THAN IDL
9410061-18aS QC	34.89	3.3	0.300	19Nov94 21:00
9410061-18aS QC	35.04	1.1	0.302	19Nov94 21:04
061-18aINS S QC	23.81	0.6	0.208	19Nov94 21:08
LCSS 10061 [illegible]	37.45	1.5	0.321	19Nov94 21:11
[illegible] 10061 QC	-0.24	44.9	-0.002	19Nov94 21:15 CONCENTRATION LESS THAN IDL
CCV 3 QC	38.01	0.9	0.326	19Nov94 21:19 %R = 95.0
CCB 3 QC	-0.41	13.8	-0.004	19Nov94 21:23 ABS = 0.003 CONCENTRATION LESS THAN IDL
9410061-02a QC	10.32	1.3	0.088	19Nov94 21:26
9410061-03a QC	6.51	8.4	0.055	19Nov94 21:30 CONCENTRATION LESS THAN IDL
9410061-04a QC	7.83	4.9	0.067	19Nov94 21:34 CONCENTRATION LESS THAN IDL
[illegible] 0061-01a	24.28	0.2	0.212	19Nov94 21:38
9410061-01aD QC	21.29	1.2	0.185	19Nov94 21:42

SAMPLE	CONC ug\L	%RSD	MEAN ABS	
9410061-01aS QC	23.45	1.7	0.205	19Nov94 21:45
-01aINS S	35.59	0.2	0.306	19Nov94 21:49
9410061-05a QC	7.72	13.7	0.066	19Nov94 21:53 CONCENTRATION LESS THAN IDL
9410061-06a QC	6.80	24.8	0.058	19Nov94 21:57 CONCENTRATION LESS THAN IDL
DI H20 QC	-0.33	10.8	-0.003	19Nov94 22:00 CONCENTRATION LESS THAN IDL
CCV 4 QC	34.43	0.1 Q	0.297	19Nov94 22:04 %R = 86.1
CCB 4 QC	-0.36	0.0	-0.003	19Nov94 22:08 ABS = 0.003 CONCENTRATION LESS THAN IDL

EBS RUN NUMBER: 66950\941122000000
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 1

TEST: ANTIMONY

DATE ANALYZED: 11/22/94

ANALYZED BY: JBA

HOLDING TIME: 90 Days

Total Number of Samples: 7
QA Acceptable? ____
Initials: ____

Number of ICV's: 2
Number of CCV's: 2
Number of LCS's: 2

Number of ICB's: 2
Number of CCB's: 2
Number of PB's: 2

Number of DUP's: 2
Number of SPK's: 2
Number of MSD'S: 1

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	ANTIMONY	ug/L	99.0	100		99.0		90.0	110	NA	NA	NA
ICB	ANTIMONY	ug/L	< 30							NA	NA	NA
CRA	ANTIMONY	ug/L	26.9	30.0		89.7				NA	NA	NA
CCV	ANTIMONY	ug/L	101.5	100		102		90.0	110	NA	NA	NA
CCB	ANTIMONY	ug/L	< 30							NA	NA	NA
LCSW	ANTIMONY	ug/L	109.2	100		109		80.0	120	NA	NA	NA
PB	ANTIMONY	ug/L	< 30							NA	NA	NA
9410061-18A	ANTIMONY	ug/L	< 30							10/07/94	09/29/94	YES
9410061-18 DUP	ANTIMONY	ug/L	< 30	< 30			0			10/07/94	09/29/94	YES
SPK	ANTIMONY	ug/L	83.6	< 30	100	83.6		75.0	125	10/07/94	NA	NA
MSD	ANTIMONY	ug/L	87.2	< 30	100	87.2	4.22	75.0	125	10/07/94	NA	NA
ISPK	ANTIMONY	ug/L	58.9	< 30	50.0	118		85.0	115	10/07/94	NA	NA
LCSS	SBSF	mg/kg	94.8	100		94.8		80.0	120	NA	NA	NA
PB	ANTIMONY	ug/L	< 30							NA	NA	NA
9410061-02A	SBSF	mg/kg	< 7.9							10/07/94	09/29/94	YES
CCV	SBSF	ug/L	94.6	100		94.6		90.0	110	NA	NA	NA
CCB	ANTIMONY	ug/L	< 30							NA	NA	NA
9410061-03A	SBSF	mg/kg	< 7.6							10/07/94	09/29/94	YES
9410061-04A	SBSF	mg/kg	< 7.5							10/07/94	09/29/94	YES
9410061-01A	SBSF	mg/kg	< 7.3							10/07/94	09/29/94	YES
9410061-01 DUP	SBSF	mg/kg	< 7.3	< 7.3			0			10/07/94	09/29/94	YES
SPK	SBSF	mg/kg	< 7.3	< 7.3	100	0		75.0	125	10/07/94	NA	NA
ISPK	SBSF	mg/kg	13.8	< 7.3	50.0	27.6		85.0	115	10/07/94	NA	NA

EBS RUN NUMBER: 66950\941122000000
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 2

TEST: ANTIMONY **DATE ANALYZED:** 11/22/94 **ANALYZED BY:** JBA **HOLDING TIME:** 90 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-05A	SBSF	mg/kg	< 7.5							10/07/94	09/29/94	YES
9410061-06A	SBSF	mg/kg	< 7.5							10/07/94	09/29/94	YES
CCV	ANTIMONY	ug/L	89.9	100		89.9		90.0	110	NA	NA	NA
CCB	ANTIMONY	ug/L	< 30							NA	NA	NA

COMMENTS:

11/22/94 Sb

Sample ID	DF	Result (mg/L)	Theoretical (mg/L)
ICV		99.0	100
ICB		-0.5	
CRDL		26.9	30.0
CCV		101.5	100
CCB		-0.1	
LCSW		109.2	100
PB		-0.6	
9410061-18A		-0.2	
-18Adup		-0.1	
-18Aspk		83.6	100
-18A MSD		87.2	100
-18A Ispk		58.9	50.0
LCSS		94.8	100
PB		-0.4	
9410061-02A		-0.3	
CCV		94.6	100
CCB		-0.3	
9410061-03A		-0.2	
9410061-04A		-0.5	
9410061-01A		-0.4	
-01Adup		-0.4	
-01Aspk		2.3	100
-01A Ispk		56.4	50.0
9410061-05A		-0.3	
9410061-06A		-0.3	
CCV		89.9	100
CCB		-0.1	

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

OPERATOR	JOHN ALLEN
DATE	22 NOV 94
BATCH	DSM CLP

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	44
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	2
REPLICATE RSD LIMIT (%)	20.0

PROGRAM 14 Sb CLP

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK HEIGHT
LAMP POSITION	7
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	231.2
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.10
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.40

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	85	5.0	3.0	NORMAL	NO
2	95	20.0	3.0	NORMAL	NO
3	120	30.0	3.0	NORMAL	NO
4	1400	5.0	3.0	NORMAL	NO
5	1400	1.0	3.0	NORMAL	NO
6	1400	2.0	0.0	NORMAL	NO
7	2400	0.5	0.0	NORMAL	YES
8	2400	2.0	0.0	NORMAL	YES
9	2400	2.0	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	5	15	5
STANDARD 2	10	10	5
STANDARD 3	20	0	5
SAMPLE	20	0	5

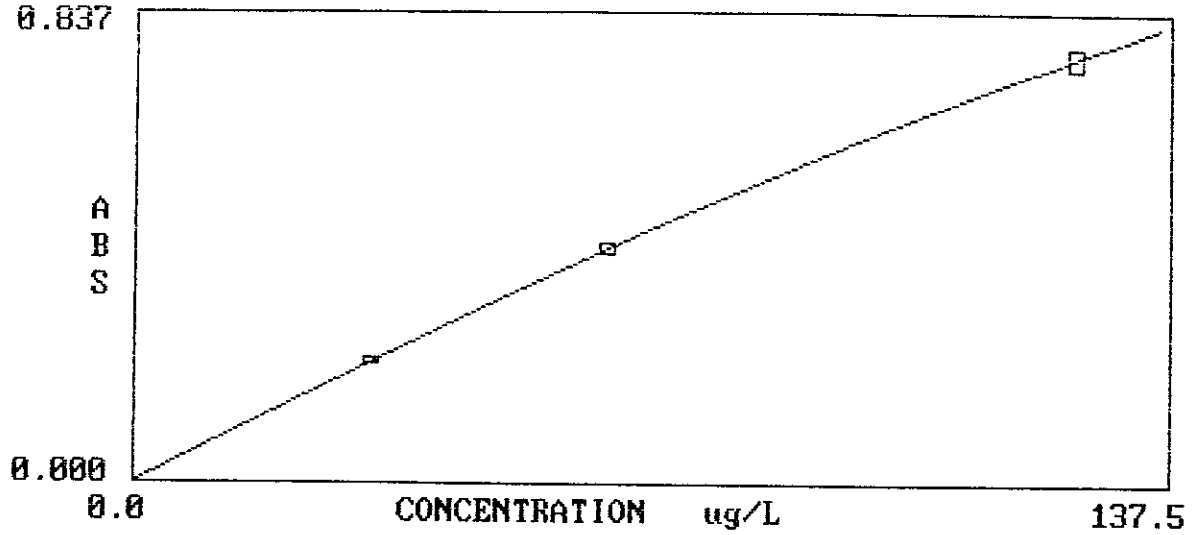
RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT NO PRE INJECT NO

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	46
QC INITIAL BLANK POSITION	47
QC CONTINUING STANDARD POSITION	48
QC CONTINUING BLANK POSITION	49
QC STANDARD VOLUME (µL)	20
QC STANDARD CONCENTRATION	100.0 ug/L
QC STANDARD LIMITS (%)	90 TO 110
QC SPIKE RATE	0
QC SPIKE VOLUME (µL)	2
QC SPIKE CONCENTRATION	1200.0ug/L
MATRIX SPIKE CONCENTRATION	0.0 ug/L
INSTRUMENT DETECTION LIMIT	30.0 ug/L
REQUIRED DETECTION LIMIT	60.0 ug/L

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
BLANK	0.0		0.009	
QC				22Nov94 10:50
				CONCENTRATION LESS THAN IDL
STANDARD 1	31.2	0.7	0.216	
QC				22Nov94 10:54
STANDARD 2	62.5	1.2	0.420	
QC				22Nov94 10:58
STANDARD 3	125.0	1.8	0.761	
QC				22Nov94 11:02



S LE	CONC ug/L	%RSD	MEAN ABS	
ICV QC	99.0	0.5	0.630	22Nov94 11:06 %R = 99.0
ICB QC	-0.5	1.9	-0.003	22Nov94 11:10 ABS = 0.006 CONCENTRATION LESS THAN IDL
CRDL QC	26.9	0.9	0.186	22Nov94 11:14 CONCENTRATION LESS THAN IDL
CCV 1 QC	101.3	27.8	0.643	22Nov94 11:18 %RSD GREATER THAN LIMIT
CCV 1 QC	101.5	1.0	0.644	22Nov94 11:21 %R = 101.5
CCB 1 Q'	-0.1	99.9	-0.001	22Nov94 11:25 ABS = 0.009 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
LCSW 10061 D QC	109.2	1.5	0.684	22Nov94 11:29
.0061 D QC	-0.6	0.0	-0.004	22Nov94 11:32 CONCENTRATION LESS THAN IDL
9410061-18a QC	-0.2	99.9	-0.001	22Nov94 11:36 CONCENTRATION LESS THAN IDL
9410061-18aD QC	-0.1	99.9	-0.001	22Nov94 11:39 CONCENTRATION LESS THAN IDL
9410061-18aS QC	83.6	1.2	0.546	22Nov94 11:43
9410061-18aS QC	87.2	1.8	0.566	22Nov94 11:47
061-18aINS S QC	58.9	0.1	0.397	22Nov94 11:50
LCSS 10061 QC	94.8	1.2	0.608	22Nov94 11:54
P 10061 C	-0.4	60.0	-0.002	22Nov94 11:58 CONCENTRATION LESS THAN IDL
9410061-02a QC	-0.3	5.3	-0.002	22Nov94 12:01 CONCENTRATION LESS THAN IDL
CCV 2 QC	94.6	3.2	0.607	22Nov94 12:05 %R = 94.6
CCB 2 QC	-0.3	34.2	-0.002	22Nov94 12:09 ABS = 0.007 CONCENTRATION LESS THAN IDL
9410061-03a QC	-0.2	33.6	-0.001	22Nov94 12:13 CONCENTRATION LESS THAN IDL
9410061-04a QC	-0.5	4.0	-0.003	22Nov94 12:16 CONCENTRATION LESS THAN IDL
9410061-01a QC	-0.4	33.7	-0.003	22Nov94 12:20 CONCENTRATION LESS THAN IDL
9410061-01aD QC	-0.4	16.9	-0.003	22Nov94 12:24 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
9410061-01aS QC	2.3	6.4	0.016	22Nov94 12:28 CONCENTRATION LESS THAN IDL
061-01aINS S QC	56.4	4.2	0.381	22Nov94 12:32
9410061-05a QC	-0.3	23.6	-0.002	22Nov94 12:35 CONCENTRATION LESS THAN IDL
9410061-06a QC	-0.3	27.9	-0.002	22Nov94 12:39 CONCENTRATION LESS THAN IDL
DI H20 QC	-0.3	10.3	-0.002	22Nov94 12:43 CONCENTRATION LESS THAN IDL
CCV 3 QC	89.9	5.0 Q	0.581	22Nov94 12:47 %R = 89.9
CCB 3 QC	-0.1	92.8	-0.001	22Nov94 12:50 ABS = 0.008 CONCENTRATION LESS THAN IDL

EBS RUN NUMBER: 66950\941121144900
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 1

TEST: ANTIMONY

DATE ANALYZED: 11/21/94

ANALYZED BY: JBA

HOLDING TIME: 90 Days

Total Number of Samples: 1
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 2
Number of LCS's: 2

Number of ICB's: 2
Number of CCB's: 1
Number of PB's: 2

Number of DUP's: 1
Number of SPK's: 1
Number of MSD'S: 1

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	ANTIMONY	ug/L	99.7	100		99.7		90.0	110	NA	NA	NA
ICB	ANTIMONY	ug/L	< 30							NA	NA	NA
CRA	ANTIMONY	ug/L	25.2	30.0		84.0				NA	NA	NA
CCV	ANTIMONY	ug/L	97.9	100		97.9		90.0	110	NA	NA	NA
CCB	ANTIMONY	ug/L	< 30							NA	NA	NA
LCSW	ANTIMONY	ug/L	104.6	100		105		80.0	120	NA	NA	NA
PB	ANTIMONY	ug/L	< 30							NA	NA	NA
9410061-13A	ANTIMONY	ug/L	< 30							10/07/94	09/29/94	YES
9410061-13 DUP	ANTIMONY	ug/L	< 30	< 30			0			10/07/94	09/29/94	YES
SPK	ANTIMONY	ug/L	< 30	< 30	100	0		75.0	125	10/07/94	NA	NA
MSD	ANTIMONY	ug/L	< 30	< 30	100	0	0	75.0	125	10/07/94	NA	NA
ISPK	ANTIMONY	ug/L	43.2	< 30	50.0	86.4		85.0	115	10/07/94	NA	NA
LCSS	SBSF	mg/kg	97.2	100		97.2		80.0	120	NA	NA	NA
PB	ANTIMONY	ug/L	< 30							NA	NA	NA
CCV	ANTIMONY	ug/L	94.1	100		94.1		90.0	110	NA	NA	NA
CCB	ANTIMONY	ug/L	< 30							NA	NA	NA

COMMENTS:

11/21/94 Sb

Sample ID	DF	Result (µg/L)	Theoretical (µg/L)
ICV		99.7	100
ICB		0.9	
CRDL		25.2	30.00
CCV		97.9	100
CCB		0.9	
LCSW		104.6	100
PB		0.5	
9410061-13A		0.6	
-13A dup		0.4	
-13A spk		1.2	100
-13A MSD		1.4	100
-13A Ispk		43.2	50.00
LCSW		97.2	100
PB		-0.0	
CCV		94.1	100
CCB		0.1	

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

OPERATOR	JOHN ALLEN
DATE	21 NOV 94
BATCH	DSM CLP

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	44
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	2
REPLICATE RSD LIMIT (%)	20.0

PROGRAM 14 Sb CLP

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK HEIGHT
LAMP POSITION	7
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	231.2
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.10
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.40

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	85	5.0	3.0	NORMAL	NO
2	95	20.0	3.0	NORMAL	NO
3	120	30.0	3.0	NORMAL	NO
4	1400	5.0	3.0	NORMAL	NO
5	1400	1.0	3.0	NORMAL	NO
6	1400	2.0	0.0	NORMAL	NO
7	2400	0.5	0.0	NORMAL	YES
8	2400	2.0	0.0	NORMAL	YES
9	2400	2.0	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	5	15	5
STANDARD 2	10	10	5
STANDARD 3	20	0	5
SAMPLE	20	0	5

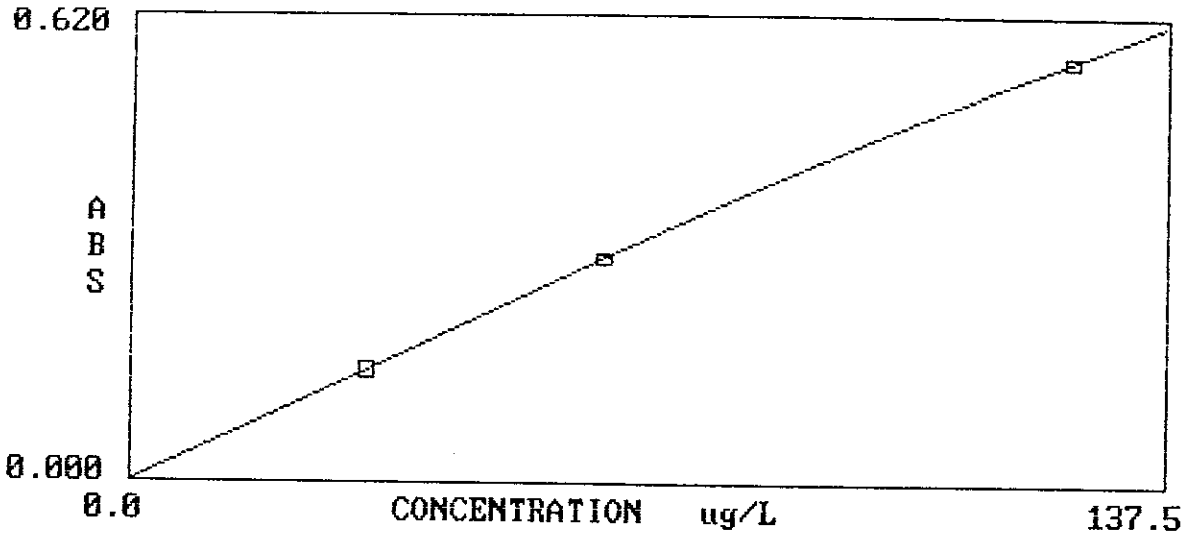
RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT NO PRE INJECT NO

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	46
QC INITIAL BLANK POSITION	47
QC CONTINUING STANDARD POSITION	48
QC CONTINUING BLANK POSITION	49
QC STANDARD VOLUME (µL)	20
QC STANDARD CONCENTRATION	100.0 ug/L
QC STANDARD LIMITS (%)	90 TO 110
QC SPIKE RATE	0
QC SPIKE VOLUME (µL)	2
QC SPIKE CONCENTRATION	1200.0ug/L
MATRIX SPIKE CONCENTRATION	0.0 ug/L
INSTRUMENT DETECTION LIMIT	30.0 ug/L
REQUIRED DETECTION LIMIT	60.0 ug/L

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
BLANK	0.0		0.004	
QC				21Nov94 14:33
				CONCENTRATION LESS THAN IDL
STANDARD 1	31.2	5.0	0.147	
QC				21Nov94 14:37
STANDARD 2	62.5	1.3	0.299	
QC				21Nov94 14:41
STANDARD 3	125.0	0.4	0.564	
QC				21Nov94 14:45



? 'LE	CONC ug/L	%RSD	MEAN ABS	
ICV QC	99.7	1.2	0.466	21Nov94 14:49 %R = 99.7
ICB QC	0.9	99.9	0.004	21Nov94 14:53 ABS = 0.008 CONCENTRATION LESS THAN IDL
CRDL QC	25.2	0.9	0.119	21Nov94 14:57 CONCENTRATION LESS THAN IDL
CCV 1 QC	97.9	2.2	0.458	21Nov94 15:00 %R = 97.9
CCB 1 QC	0.9	0.0	0.004	21Nov94 15:04 ABS = 0.008 CONCENTRATION LESS THAN IDL
L' 10061 T Q	104.6	1.3	0.486	21Nov94 15:08
PB 10061 T QC	0.5	18.6	0.002	21Nov94 15:12 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
9410061-13a QC	0.6	16.7	0.003	21Nov94 15:15 CONCENTRATION LESS THAN IDL
9410061-13aD QC	0.4	99.9	0.002	21Nov94 15:19 CONCENTRATION LESS THAN IDL
9410061-13aS QC	1.2	25.0	0.005	21Nov94 15:23 CONCENTRATION LESS THAN IDL
9410061-13aS QC	1.4	34.1	0.007	21Nov94 15:26 CONCENTRATION LESS THAN IDL
061-13aINS S QC	43.2	0.5	0.205	21Nov94 15:30
LCSW 10061 D QC	97.2	0.5	0.456	21Nov94 15:33
PB 10061 D QC	-0.0	99.9	-0.000	21Nov94 15:37 CONCENTRATION LESS THAN IDL
9410061-18a QC	0.7	48.1	0.003	21Nov94 15:40 CONCENTRATION LESS THAN IDL
CCV 2 QC	94.1	1.1	0.442	21Nov94 15:44 %R = 94.1
CCB 2 QC	0.1	99.9	0.000	21Nov94 15:48 ABS = 0.004 CONCENTRATION LESS THAN IDL
9410061-18aD QC	0.6	99.9	0.003	21Nov94 15:52 CONCENTRATION LESS THAN IDL
9410061-18aS QC	80.0	2.2	0.381	21Nov94 15:55
9410061-18aS QC	88.0	1.1	0.416	21Nov94 15:59
061-18aINS S QC	61.6	1.7	0.295	21Nov94 16:02
LCSS 10061 Q	84.6	3.2	0.401	21Nov94 16:06
PB 10061 QC	0.6	17.6	0.003	21Nov94 16:10 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
9410061-02a QC	0.1	99.9	0.001	21Nov94 16:14 CONCENTRATION LESS THAN IDL
9410061-03a QC	0.1	99.9	0.001	21Nov94 16:17 CONCENTRATION LESS THAN IDL
9410061-04a QC	0.1	37.7	0.000	21Nov94 16:21 CONCENTRATION LESS THAN IDL
9410061-01a QC	0.1	99.9	0.001	21Nov94 16:25 CONCENTRATION LESS THAN IDL
CCV 3 QC	88.5	3.0 Q	0.418	21Nov94 16:29 %R = 88.5

EBS RUN NUMBER: 66950\941121101500
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 1

TEST: THALLIUM

DATE ANALYZED: 11/21/94

ANALYZED BY: JBA

HOLDING TIME: 90 Days

Total Number of Samples: 8
QA Acceptable? ____
Initials: ____

Number of ICV's: 2
Number of CCV's: 2
Number of LCS's: 4

Number of ICB's: 2
Number of CCB's: 3
Number of PB's: 2

Number of DUP's: 3
Number of SPK's: 3
Number of MSD'S: 2

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	THALLIUM	ug/L	39.18	40.0		98.0		90.0	110	NA	NA	NA
ICB	THALLIUM	ug/L	< 10.0							NA	NA	NA
CRA	THALLIUM	ug/L	7.72	10.0		77.2				NA	NA	NA
CCV	THALLIUM	ug/L	38.57	40.0		96.4		90.0	110	NA	NA	NA
CCB	THALLIUM	ug/L	< 10.0							NA	NA	NA
LCSW	THALLIUM	ug/L	44.85	50.0		89.7		80.0	120	NA	NA	NA
PB	THALLIUM	ug/L	< 10.0							NA	NA	NA
9410061-13A	THALLIUM	ug/L	< 10.0							10/07/94	09/29/94	YES
9410061-13 DUP	THALLIUM	ug/L	< 10.0	< 10.0			0			10/07/94	09/29/94	YES
SPK	THALLIUM	ug/L	< 10.0	< 10.0	50.0	0		75.0	125	10/07/94	NA	NA
MSD	THALLIUM	ug/L	< 10.0	< 10.0	50.0	0	0	75.0	125	10/07/94	NA	NA
ISPK	THALLIUM	ug/L	19.47	< 10.0	25.0	77.9		85.0	115	10/07/94	NA	NA
LCSW	THALLIUM	ug/L	49.28	50.0		98.6		80.0	120	NA	NA	NA
PB	THALLIUM	ug/L	< 10.0							NA	NA	NA
9410061-18A	THALLIUM	ug/L	< 10.0							10/07/94	09/29/94	YES
CCV	THALLIUM	ug/L	39.24	40.0		98.1		90.0	110	NA	NA	NA
CCB	THALLIUM	ug/L	< 10.0							NA	NA	NA
9410061-18 DUP	THALLIUM	ug/L	< 10.0	< 10.0			0			10/07/94	09/29/94	YES
SPK	THALLIUM	ug/L	34.97	< 10.0	50.0	69.9		75.0	125	10/07/94	NA	NA
MSD	THALLIUM	ug/L	37.95	< 10.0	50.0	75.9	8.23	75.0	125	10/07/94	NA	NA
ISPK	THALLIUM	ug/L	20.33	< 10.0	25.0	81.3		85.0	115	10/07/94	NA	NA
LCSS	TLSF	mg/kg	53.00	50.0		106		80.0	120	NA	NA	NA
9410061-02A	TLSF	mg/kg	< 10.0							10/07/94	09/29/94	YES

EBS RUN NUMBER: 66950\941121101500
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 2

TEST: THALLIUM **DATE ANALYZED: 11/21/94** **ANALYZED BY: JBA** **HOLDING TIME: 90 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-03A	TLSF	mg/kg	< 10.0							10/07/94	09/29/94	YES
CCV	THALLIUM	ug/L	38.58	40.0		96.4		80.0	120	NA	NA	NA
CCB	THALLIUM	ug/L	< 10.0							NA	NA	NA
9410061-04A	THALLIUM	ug/L	< 10.0							10/07/94	09/29/94	YES
9410061-01A	TLSF	mg/kg	< 10.0							10/07/94	09/29/94	YES
9410061-01 DUP	TLSF	mg/kg	< 10.0	< 10.0			0			10/07/94	09/29/94	YES
SPK	TLSF	mg/kg	< 10.0	< 10.0	50.0	0		75.0	125	10/07/94	NA	NA
ISPK	TLSF	mg/kg	15.59	< 10.0	25.0	62.4		85.0	115	10/07/94	NA	NA
9410061-05A	TLSF	mg/kg	< 10.0							10/07/94	09/29/94	YES
9410061-06A	TLSF	mg/kg	< 10.0							10/07/94	09/29/94	YES
CCV	THALLIUM	ug/L	38.32	40.0		95.8		90.0	110	NA	NA	NA
CCB	THALLIUM	ug/L	< 10.0							NA	NA	NA

COMMENTS:

11/21/94 Tl

Sample ID	DF	Result (µg/L)	Theoretical
ICV		39.18	40.00
ICB		0.07	
CRQL		7.72	10.00
CCV		38.57	40.00
CCB		0.05	
LCSW		44.85	
PB		0.18	
9410061-13A		1.83	
-13A dup		0.70	
-13A spk		0.01	50.00
-13A MSD		6.07	50.00
-13A Dspk		19.47	25.00
LCSW		49.28	50.00
PB		0.22	
9410061-18A		0.32	
CCV		39.24	40.00
CCB		0.12	
9410061-18A dup		0.30	
-18A spk		34.97	50.00
-18A MSD		37.95	50.00
-18A Dspk		20.33	25.00
LCSS		6.08	50.00
PB		20.82	
PB		53.00	
PB		55.57	
9410061-02A		1.27	
9410061-03A		1.34	
CCV		38.58	40.00
CCB		0.33	

11/21/94 TL

Sample ID	DF	Result	Theoretical
9410061-04A		1.00	
9410061-01A		0.76	
-01Adup		0.56	
-01Aspk		6.15	50.00
-01Aisdk		15.59	
9410061-05A		1.18	
-06A		1.22	
CCV		38.32	
CCB		0.12	

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

OPERATOR JOHN ALLEN
DATE 21 NOV 94
BATCH DSM CLP

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	44
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	2
REPLICATE RSD LIMIT (%)	20.0

PROGRAM 6 T1

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK HEIGHT
LAMP POSITION	6
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	276.8
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.10
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	0.55

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	95	15.0	3.0	NORMAL	NO
2	120	30.0	3.0	NORMAL	NO
3	1000	10.0	3.0	NORMAL	NO
4	1000	5.0	3.0	NORMAL	NO
5	1000	3.0	0.0	NORMAL	NO
6	2600	0.8	0.0	NORMAL	YES
7	2600	2.0	0.0	NORMAL	YES
8	2600	0.1	3.0	NORMAL	NO
9	50	12.8	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
NDARD 1	4	16	5
DARD 2	10	10	5
STANDARD 3	20	0	5
SAMPLE	20	0	5

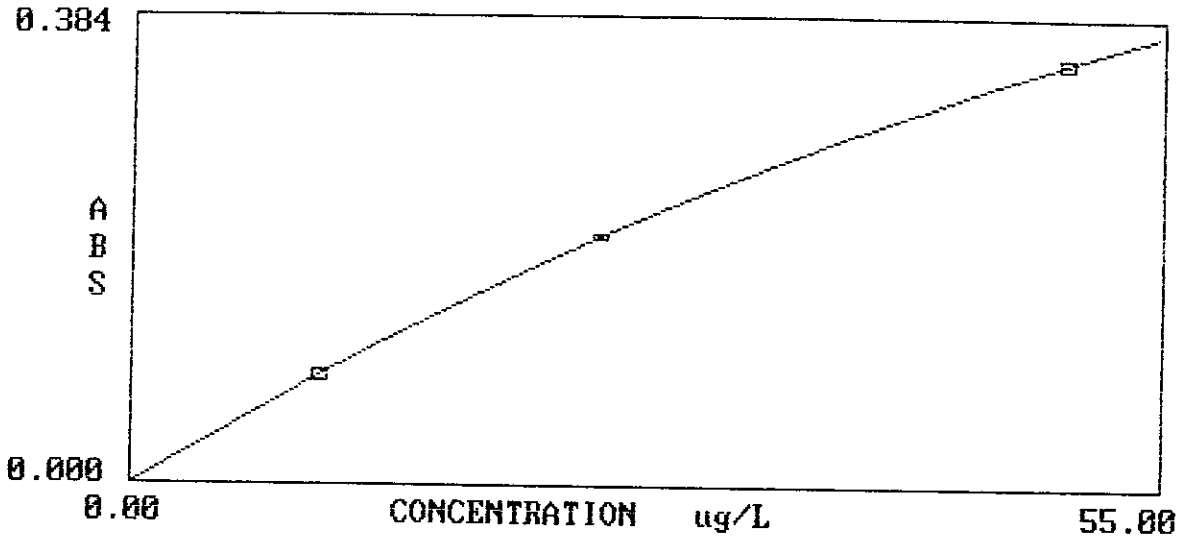
RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT NO PRE INJECT NO

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	46
QC INITIAL BLANK POSITION	47
QC CONTINUING STANDARD POSITION	48
QC CONTINUING BLANK POSITION	49
QC STANDARD VOLUME (µL)	20
QC STANDARD CONCENTRATION	40.00 ug/L
QC STANDARD LIMITS (%)	90 TO 110
QC SPIKE RATE	0
QC SPIKE VOLUME (µL)	5
QC SPIKE CONCENTRATION	100.00ug/L
MATRIX SPIKE CONCENTRATION	0.00 ug/L
INSTRUMENT DETECTION LIMIT	40.00 ug/L
REQUIRED DETECTION LIMIT	10.00 ug/L

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
BLANK	0.00		0.003	
QC				21Nov94 10:15
				CONCENTRATION LESS THAN IDL
STANDARD 1	10.00	2.3	0.089	
QC				21Nov94 10:20
				CONCENTRATION LESS THAN IDL
STANDARD 2	25.00	0.0	0.204	
QC				21Nov94 10:24
				CONCENTRATION LESS THAN IDL
STANDARD 3	50.00	0.6	0.349	
QC				21Nov94 10:28



' 'LE	CONC ug/L	%RSD	MEAN ABS	
ICV QC	39.18	0.2	0.292	21Nov94 10:33 %R = 97.9 CONCENTRATION LESS THAN IDL
ICB QC	0.07	88.3	0.001	21Nov94 10:37 ABS = 0.004 CONCENTRATION LESS THAN IDL
CRDL QC	7.72	1.6	0.069	21Nov94 10:41 CONCENTRATION LESS THAN IDL
CCV 1 QC	38.57	0.3	0.289	21Nov94 10:46 %R = 96.4 CONCENTRATION LESS THAN IDL
CCB 1 QC	0.05	99.9	0.000	21Nov94 10:50 ABS = 0.004 CONCENTRATION LESS THAN IDL
LCSW 10061 T QC	44.85	1.3	0.323	21Nov94 10:54

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
PB 10061 T QC	0.18	71.6	0.002	21Nov94 10:58 CONCENTRATION LESS THAN IDL
9410061-13a QC	1.83	15.0	0.016	21Nov94 11:02 CONCENTRATION LESS THAN IDL
9410061-13aD QC	0.70	64.1	0.006	21Nov94 11:06 CONCENTRATION LESS THAN IDL
9410061-13aS QC	0.01	0.0	0.000	21Nov94 11:10 CONCENTRATION LESS THAN IDL
9410061-13aS QC	6.07	99.9	0.054	21Nov94 11:14 CONCENTRATION LESS THAN IDL
061-13aINS S QC	19.47	5.3	0.164	21Nov94 11:18 CONCENTRATION LESS THAN IDL
LCSW 10061 D QC	49.28	2.0	0.345	21Nov94 11:22
F 0061 D L	0.22	39.8	0.002	21Nov94 11:26 CONCENTRATION LESS THAN IDL
9410061-18a QC	0.32	35.0	0.003	21Nov94 11:30 CONCENTRATION LESS THAN IDL
CCV 2 QC	39.24	0.2	0.292	21Nov94 11:34 %R = 98.1 CONCENTRATION LESS THAN IDL
CCB 2 QC	0.12	41.5	0.001	21Nov94 11:38 ABS = 0.004 CONCENTRATION LESS THAN IDL
9410061-18aD QC	0.30	27.7	0.003	21Nov94 11:42 CONCENTRATION LESS THAN IDL
9410061-18aS QC	34.97	1.0	0.268	21Nov94 11:46 CONCENTRATION LESS THAN IDL
5)61-18aS QC	37.95	1.0	0.285	21Nov94 11:50 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
061-18aINS S QC	20.33	1.7	0.170	21Nov94 11:54 CONCENTRATION LESS THAN IDL
LLSS 10061 QC	0.08	28.8	0.001	21Nov94 11:58 CONCENTRATION LESS THAN IDL
PB 10061 QC	20.82	99.9	0.174	21Nov94 12:02 %RSD GREATER THAN LIMIT CONCENTRATION LESS THAN IDL
PB 10061 QC	53.00	0.4	0.363	21Nov94 12:06
PB 10061 QC	55.57	2.5	0.223	21Nov94 12:10 DF = 2.00
9410061-02a QC	1.27	25.0	0.011	21Nov94 12:14 CONCENTRATION LESS THAN IDL
9410061-03a QC	1.34	5.4	0.012	21Nov94 12:18 CONCENTRATION LESS THAN IDL
' 3 L	38.58	1.2	0.289	21Nov94 12:22 %R = 96.4 CONCENTRATION LESS THAN IDL
CCB 3 QC	0.33	0.0	0.003	21Nov94 12:27 ABS = 0.006 CONCENTRATION LESS THAN IDL
9410061-04a QC	1.00	18.2	0.009	21Nov94 12:31 CONCENTRATION LESS THAN IDL
9410061-01a QC	0.76	34.1	0.007	21Nov94 12:35 CONCENTRATION LESS THAN IDL
9410061-01aD QC	0.56	9.4	0.005	21Nov94 12:39 CONCENTRATION LESS THAN IDL
9410061-01aS QC	6.15	9.3	0.055	21Nov94 12:43 CONCENTRATION LESS THAN IDL
C 01aINS S QC	15.59	5.0	0.134	21Nov94 12:47 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
9410061-05a QC	1.18	9.5	0.011	21Nov94 12:52 CONCENTRATION LESS THAN IDL
9410061-06a QC	1.22	5.3	0.011	21Nov94 12:56 CONCENTRATION LESS THAN IDL
DI H2O QC	0.08	25.8	0.001	21Nov94 13:00 CONCENTRATION LESS THAN IDL
CCV 4 QC	38.32	0.2	0.287	21Nov94 13:04 %R = 95.8 CONCENTRATION LESS THAN IDL
CCB 4 QC	0.12	9.7	0.001	21Nov94 13:08 ABS = 0.004 CONCENTRATION LESS THAN IDL

EBS RUN NUMBER: 66950\941205000000
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 1

TEST: LEAD

DATE ANALYZED: 12/05/94

ANALYZED BY: JBA

HOLDING TIME: 90 Days

Total Number of Samples: 6
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 5
Number of LCS's: 2

Number of ICB's: 1
Number of CCB's: 5
Number of PB's: 2

Number of DUP's: 2
Number of SPK's: 2
Number of MSD'S: 1

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	LEAD	mg/L	4.51	5.00		90.2		90.0	110	NA	NA	NA
ICB	LEAD	mg/L	< 2							NA	NA	NA
CRA	LEAD	mg/L	< 2	2.00		50.5				NA	NA	NA
CCV	LEAD	ug/L	4.62	5.00		92.4		90.0	110	NA	NA	NA
CCB	LEAD	ug/L	< 2							NA	NA	NA
LCSS	PBSF	mg/kg	18.5	20.0		92.5		80.0	120	NA	NA	NA
PB	LEAD	ug/L	< 2							NA	NA	NA
9410061-01A	PBSF	mg/kg	< 0.5							10/07/94	09/29/94	YES
DUP	PBSF	mg/kg	< 0.5	< 0.5			0			10/07/94	09/29/94	YES
9410061-01 SPK	LEAD	mg/kg	4.69	< 0.5	4.875	96.2		75.0	125	10/07/94	NA	NA
CCV	LEAD	mg/L	4.97	5.00		99.4		90.0	110	NA	NA	NA
CCB	LEAD	mg/L	< 2							NA	NA	NA
9410061-03A	PBSF	mg/kg	4.16							10/07/94	09/29/94	YES
9410061-04A	PBSF	mg/kg	3.30							10/07/94	09/29/94	YES
9410061-05A	PBSF	mg/kg	2.90							10/07/94	09/29/94	YES
CCV	LEAD	ug/L	4.84	5.00		96.8		90.0	110	NA	NA	NA
CCB	LEAD	ug/L	< 2							NA	NA	NA
9410061-06A	PBSF	mg/kg	2.95							10/07/94	09/29/94	YES
LCSW	LEAD	ug/L	22.3	20.0		112		80.0	120	NA	NA	NA
PB	LEAD	ug/L	< 2							NA	NA	NA
9410061-18A	LEAD	ug/L	< 2							10/07/94	09/29/94	YES
DUP	LEAD	ug/L	< 2	< 2			0			10/07/94	09/29/94	YES
CCV	LEAD	ug/L	4.49	5.00		89.8		90.0	110	NA	NA	NA

EBS RUN NUMBER: 66950\941205000000
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 2

TEST: LEAD **DATE ANALYZED: 12/05/94** **ANALYZED BY: JBA** **HOLDING TIME: 90 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
CCB	LEAD	ug/L	< 2							NA	NA	NA
9410061-18 SPK	LEAD	ug/L	18.9	< 2	20.0	94.5		75.0	125	10/07/94	NA	NA
MSD	LEAD	ug/L	17.9	< 2	20.0	89.5	5.43	75.0	125	10/07/94	NA	NA
CCV	LEAD	ug/L	4.50	5.00		90.0		90.0	110	NA	NA	NA
CCB	LEAD	ug/L	< 2							NA	NA	NA

COMMENTS:

12/5/94 Pb

Sample ID	DF	Result (µg/L)	Theoretical
ICV		4.51	5.00
ICB		0.79	
CRDL		1.01	2.00
CCV		4.62	5.00
CCB		0.75	
LCSS	4	18.52	20.00
PB		0.82	
9410061-01A		-0.79	
9410061-01A dup		-0.44	
9410061-01A spk	4	19.29	20.0
CCV		4.97	5.00
CCB		0.72	
9410061-03A	8	16.47	
9410061-04A	4	13.19	
9410061-05A	4	11.65	
CCV		4.84	5.00
CCB		0.80	
9410061-06A	4	11.79	
LCSW	8	22.29	20.0
PB		0.72	
9410061-18A		-0.26	
9410061-18B dup		-0.42	
CCV		4.49	5.00
CCB		0.71	
9410061-18C spk	4	18.90	20.0
9410061-18B MSD		17.99	20.0
CCV		4.50	
CCB		0.66	

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

OPERATOR	JOHN ALLEN
DATE	05 DEC 94
BATCH	DSM CLP

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	44
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	2
REPLICATE RSD LIMIT (%)	20.0

PROGRAM 1 Pb

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK HEIGHT
LAMP POSITION	1
LAMP CURRENT (mA)	5
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	283.3
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.10
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.40

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	85	5.0	3.0	NORMAL	NO
2	95	40.0	3.0	NORMAL	NO
3	120	10.0	3.0	NORMAL	NO
4	400	5.0	3.0	NORMAL	NO
5	400	1.0	3.0	NORMAL	NO
6	400	2.0	0.0	NORMAL	NO
7	2100	1.0	0.0	NORMAL	YES
8	2100	2.0	0.0	NORMAL	YES
9	2100	2.0	3.0	NORMAL	NO

SAMPLER PARAMETERS

VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	24	
`NDARD 1	6	18	
NDARD 2	12	12	
S:ANDARD 3	24	0	
SAMPLE	24	0	

RECALIBRATION RATE 0

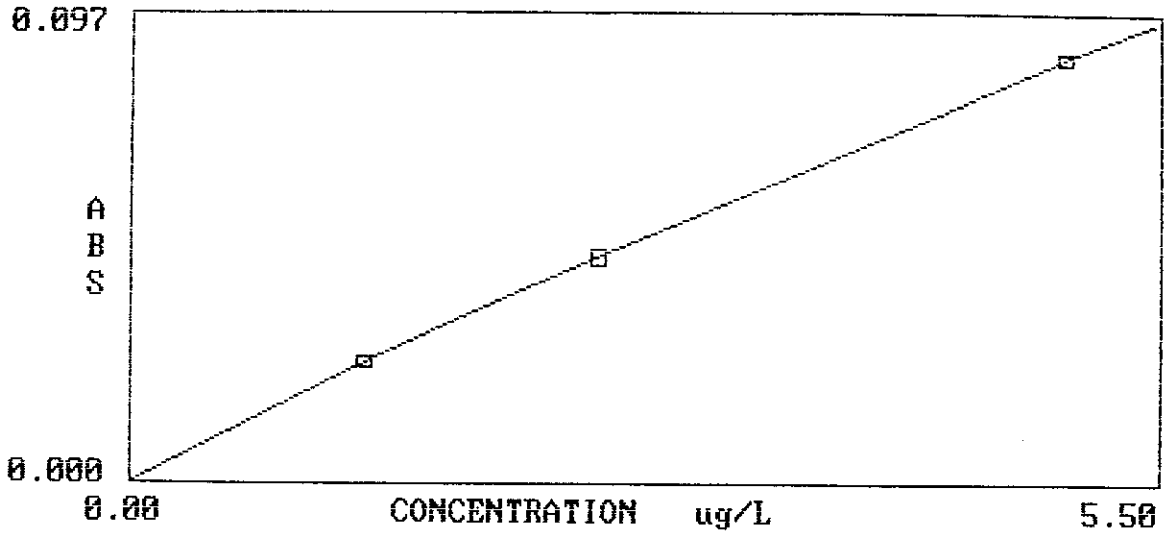
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT NO PRE INJECT NO

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	46
QC INITIAL BLANK POSITION	47
QC CONTINUING STANDARD POSITION	48
QC CONTINUING BLANK POSITION	49
QC STANDARD VOLUME (µL)	24
QC STANDARD CONCENTRATION	5.00 ug/L
QC STANDARD LIMITS (%)	90 TO 110
QC SPIKE RATE	0
QC SPIKE VOLUME (µL)	2
QC SPIKE CONCENTRATION	100.00ug/L
MATRIX SPIKE CONCENTRATION	5.00 ug/L
INSTRUMENT DETECTION LIMIT	2.00 ug/L
REQUIRED DETECTION LIMIT	3.00 ug/L

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
BLANK	0.00		0.012	
QC				05Dec94 12:34
				CONCENTRATION LESS THAN IDL
BLANK	0.00		-0.000	
QC				05Dec94 12:44
				CONCENTRATION LESS THAN IDL
STANDARD 1	1.25	2.2	0.025	
QC				05Dec94 12:47
				CONCENTRATION LESS THAN IDL
STANDARD 2	2.50	2.3	0.047	
QC				05Dec94 12:51
STANDARD 3	5.00	0.9	0.088	
QC				05Dec94 12:54



PLE	CONC ug/L	%RSD	MEAN ABS	
ICV QC	5.34	3.7	0.094	05Dec94 12:58
ICV QC	4.51	1.1	0.043	05Dec94 13:01 DF = 2.00 %R = 90.2
ICB QC	0.79	0.4	0.016	05Dec94 13:04 ABS = 0.027 CONCENTRATION LESS THAN IDL
CRDL QC	1.01	2.2	0.020	05Dec94 13:08 CONCENTRATION LESS THAN IDL
CCV 1 QC	5.10	1.9	0.090	05Dec94 13:11
CCV 1 QC	4.62	0.8	0.044	05Dec94 13:14 DF = 2.00 %R = 92.4
CCB 1 QC	0.75	4.1	0.015	05Dec94 13:17 ABS = 0.027 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
LCSS 10061 QC	OVER	1.4	0.312	05Dec94 13:21
S 10061 QL	OVER	1.4	0.161	05Dec94 13:24 DF = 2.00
LCSS 10061 QC	18.52	0.8	0.082	05Dec94 13:27 DF = 4.00
PB 1061 QC	0.82	0.8	0.016	05Dec94 13:30 RPD = 183.0 CONCENTRATION LESS THAN IDL
9410061-01a QC	OVER	8.4	0.105	05Dec94 13:34
9410061-01a QC	-0.79	25.3 N	-0.008	05Dec94 13:37 DF = 2.00 %R = -15.7 CONCENTRATION LESS THAN IDL
9410061-01aD QC	-0.44	0.0	-0.009	05Dec94 13:40 CONCENTRATION LESS THAN IDL
L NK QC	0.00		0.004	05Dec94 13:47 CONCENTRATION LESS THAN IDL
CCV 2 QC	4.82	1.5	0.085	05Dec94 13:51 %R = 96.4
CCB 2 QC	0.52	3.7	0.010	05Dec94 13:54 ABS = 0.026 CONCENTRATION LESS THAN IDL
9410061-01aS QC	OVER	3.0	0.284	05Dec94 13:57
9410061-01aS QC	OVER	6.6	0.158	05Dec94 14:00 DF = 2.00
9410061-01aS QC	19.29	0.2	0.085	05Dec94 14:04 DF = 4.00
3 L	5.33	7.3	0.093	05Dec94 14:07
CCV 3 QC	4.97	2.2	0.046	05Dec94 14:10 DF = 2.00 %R = 99.5

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
CCB 3 QC	0.72	6.3	0.014	05Dec94 14:14 ABS = 0.030 CONCENTRATION LESS THAN IDL
9410061-03a QC	OVER	0.0	0.363	05Dec94 14:17
9410061-03a QC	OVER	2.5	0.197	05Dec94 14:20 DF = 2.00
9410061-03a QC	OVER	0.7	0.098	05Dec94 14:23 DF = 4.00
9410061-03a QC	16.47	9.8	0.039	05Dec94 14:27 DF = 8.00
9410061-04a QC	OVER	0.8	0.237	05Dec94 14:30
9410061-04a QC	OVER	0.4	0.123	05Dec94 14:33 DF = 2.00
9410061-04a	13.19	3.6	0.060	05Dec94 14:36 DF = 4.00 RPD = 22.1
9410061-05a QC	OVER	0.0	0.221	05Dec94 14:40
9410061-05a QC	OVER	2.5	0.114	05Dec94 14:43 DF = 2.00
9410061-05a QC	11.65	1.1 N	0.054	05Dec94 14:46 DF = 4.00 %R = -30.9
CCV 4 QC	OVER	2.2	0.103	05Dec94 14:49
CCV 4 QC	4.84	1.4	0.045	05Dec94 14:53 DF = 2.00 %R = 96.8
CCB 4 C	0.80	5.8	0.016	05Dec94 14:56 ABS = 0.031 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
9410061-06a QC	OVER	1.7	0.221	05Dec94 14:59
0061-06a QC	OVER	1.8	0.112	05Dec94 15:02 DF = 2.00
9410061-06a QC	11.79	0.6	0.054	05Dec94 15:06 DF = 4.00
LCSW 10061 QC	OVER	0.2	0.392	05Dec94 15:09
LCSW 10061 QC	OVER	0.2	0.216	05Dec94 15:12 DF = 2.00
LCSW 10061 QC	OVER	1.4	0.112	05Dec94 15:15 DF = 4.00
LCSW 10061 QC	22.29	0.4	0.051	05Dec94 15:19 DF = 8.00
PB 10061 C	0.72	5.2	0.014	05Dec94 15:22 CONCENTRATION LESS THAN IDL
9410061-18a QC	-0.26	4.7	-0.005	05Dec94 15:25 CONCENTRATION LESS THAN IDL
9410061-18b QC	-0.42	11.2	-0.008	05Dec94 15:29 CONCENTRATION LESS THAN IDL
CCV 5 QC	5.38	6.9	0.094	05Dec94 15:32
CCV 5 QC	4.49	0.2 Q	0.042	05Dec94 15:35 DF = 2.00 %R = 89.9
CCB 5 QC	0.71	9.0	0.014	05Dec94 15:38 ABS = 0.029 CONCENTRATION LESS THAN IDL
9410061-18c QC	OVER	0.3	0.312	05Dec94 15:42
061-18c QC	OVER	1.7	0.168	05Dec94 15:45 DF = 2.00

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
9410061-18c QC	18.90	3.1	0.084	05Dec94 15:48 DF = 4.00
9410061-18d QC	OVER	0.3	0.310	05Dec94 15:51
9410061-18d QC	OVER	1.3	0.170	05Dec94 15:55 DF = 2.00
9410061-18d QC	17.99	1.0	0.080	05Dec94 15:58 DF = 4.00
CCV 6 QC	OVER	0.4	0.100	05Dec94 16:01
CCV 6 QC	4.50	0.5	0.043	05Dec94 16:04 DF = 2.00 %R = 90.0
CCB 6 QC	0.66	1.1	0.013	05Dec94 16:08 ABS = 0.028 CONCENTRATION LESS THAN IDL

EBS RUN NUMBER: 66950\941119163900
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 1

TEST: SELENIUM **DATE ANALYZED: 11/19/94** **ANALYZED BY: JBA** **HOLDING TIME: 90 Days**

Total Number of Samples: 8
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 4
Number of LCS's: 2

Number of ICB's: 2
Number of CCB's: 3
Number of PB's: 3

Number of DUP's: 3
Number of SPK's: 3
Number of MSD'S: 2

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	SEWF	ug/L	39.38	40.0		98.4		90.0	110	NA	NA	NA
ICB	SEWF	ug/L	< 5							NA	NA	NA
CRA	SEWF	ug/L	< 5	5.00		78.6				NA	NA	NA
CCV	SEWF	ug/L	40.07	40.0		100		90.0	110	NA	NA	NA
CCB	SEWF	ug/L	< 5							NA	NA	NA
LCSW	SEWF	ug/L	9.62	10.00		96.2		80.0	120	NA	NA	NA
PB	SEWF	ug/L	< 5							NA	NA	NA
9410061-13A	SEWF	ug/L	< 5							10/07/94	09/29/94	YES
DUP	SEWF	ug/L	< 5	< 5			0			10/07/94	09/29/94	YES
SPK	SEWF	ug/L	< 5	< 5	10.0	0		75.0	125	10/07/94	NA	NA
MSD	SEWF	ug/L	< 5	< 5	10.0	0	0	75.0	125	10/07/94	NA	NA
ISPK	SEWF	ug/L	20.93	< 5	25.0	63.7		85.0	115	10/07/94	NA	NA
CCV	SEWF	ug/L	36.66	40.0		91.6		90.0	110	NA	NA	NA
CCB	SEWF	ug/L	< 5							NA	NA	NA
PB	SEWF	ug/L	< 5							NA	NA	NA
9410061-18A	SEWF	ug/L	< 5							10/07/94	09/29/94	YES
DUP	SEWF	ug/L	< 5	< 5			0			10/07/94	09/29/94	YES
SPK	SEWF	ug/L	< 5	< 5	10.0	0		75.0	125	10/07/94	NA	NA
MSD	SEWF	ug/L	< 5	< 5	10.0	0	0	75.0	125	10/07/94	NA	NA
ISPK	SEWF	ug/L	8.71	< 5	25.0	34.8		85.0	115	10/07/94	NA	NA
LCSS	SESF	mg/kg	8.78	10.0		87.8		80.0	120	NA	NA	NA
PB	SEWF	ug/L	< 5							NA	NA	NA
CCV	SEWF	ug/L	35.49	40.0		88.7		90.0	110	NA	NA	NA

EBS RUN NUMBER: 66950\941119163900
INSTRUMENT ID: 66950

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/08/94
PAGE: 2

TEST: SELENIUM **DATE ANALYZED: 11/19/94** **ANALYZED BY: JBA** **HOLDING TIME: 90 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
CCB	SEWF	ug/L	< 5							NA	NA	NA
9410061-02A	SESF	mg/kg	< 1							10/07/94	09/29/94	YES
9410061-03A	SESF	mg/kg	< 1							10/07/94	09/29/94	YES
9410061-04A	SESF	mg/kg	< 1							10/07/94	09/29/94	YES
9410061-01A	SESF	mg/kg	< 1							10/07/94	09/29/94	YES
DUP	SESF	mg/kg	< 1	< 1			0			10/07/94	09/29/94	YES
SPK	SESF	mg/kg	< 1	< 1	2.44	0		75.0	125	10/07/94	NA	NA
ISPK	SESF	mg/kg	1.34	< 1	6.10	22.0		85.0	115	10/07/94	NA	NA
9410061-05A	SESF	mg/kg	< 1							10/07/94	09/29/94	YES
9410061-06A	SESF	mg/kg	< 1							10/07/94	09/29/94	YES
CCV	SEWF	ug/L	33.39	40.0		83.5		90.0	110	NA	NA	NA
CCB	SEWF	ug/L	< 5							NA	NA	NA

COMMENTS:

11/19/94 Se.

Sample ID	DF	Result (µg/L)	Theoretical
ICV		39.38	40.00
ICB		0.21	
CROL		3.93	5.00
CCV		40.07	40.00
CCB		0.15	
LCSW		9.62	10.00
PB		0.11	
9410061-13A		1.65	
9410061-13Adup		1.74	
9410061-13Aspk		2.63	10.0
9410061-13A MSD		3.33	10.0
9410061-13A Dspk		20.93	25.00
CCV		36.66	40.00
CCB		0.74	
PB		0.99	
9410061-18A		0.39	
9410061-18A dup		0.24	
9410061-18A spk		2.25	10.0
9410061-18A MSD		1.86	10.0
9410061-18A Dspk		8.71	25.00
LCSS		8.78	10.00
PB		0.31	
CCV		35.49	40.00
CCB		0.15	
9410061-02A		0.17	
9410061-03A		0.59	
9410061-04A		0.53	
9410061-01A		0.13	
9410061-01Adup		0.24	
9410061-01Aspk		0.08	10.0
9410061-01A Dspk		5.48	25.00

11/19/94 Se

Sample ID	DF	Result	Theoretical
9410061-05A		0.40	
9410061-06A		0.57	
CCV		33.39	40.00
CCB		0.10	

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

OPERATOR	JOHN ALLEN
DATE	19 NOV 94
BATCH	DSM CLP

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	44
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	2
REPLICATE RSD LIMIT (%)	20.0

PROGRAM 5 Se

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK HEIGHT
LAMP POSITION	8
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	1.0
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	196.0
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.20

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	85	2.0	3.0	NORMAL	NO
2	95	25.0	3.0	NORMAL	NO
3	120	20.0	3.0	NORMAL	NO
4	1100	10.0	3.0	NORMAL	NO
5	1100	5.0	3.0	NORMAL	NO
6	1100	1.0	0.0	NORMAL	NO
7	2600	0.8	0.0	NORMAL	YES
8	2600	2.0	0.0	NORMAL	YES
9	2600	2.0	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	2	18	5
STANDARD 2	4	16	5
STANDARD 3	10	10	5
STANDARD 4	20		5
SAMPLE	20		5

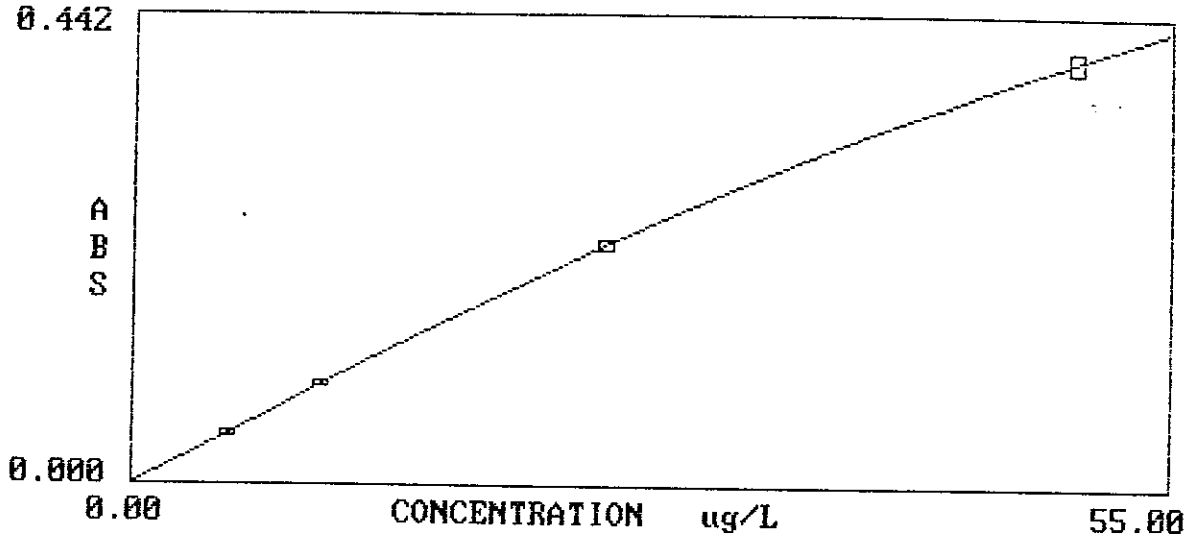
RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT NO PRE INJECT NO

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	46
QC INITIAL BLANK POSITION	47
QC CONTINUING STANDARD POSITION	48
QC CONTINUING BLANK POSITION	49
QC STANDARD VOLUME (µL)	20
QC STANDARD CONCENTRATION	40.00 ug/L
QC STANDARD LIMITS (%)	90 TO 110
QC SPIKE RATE	0
QC SPIKE VOLUME (µL)	1
QC SPIKE CONCENTRATION	500.00ug/L
MATRIX SPIKE CONCENTRATION	0.00 ug/L
INSTRUMENT DETECTION LIMIT	10.00 ug/L
REQUIRED DETECTION LIMIT	5.00 ug/L

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
BLANK QC	0.00		0.006	19Nov94 16:19 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	5.00	0.7	0.046	19Nov94 16:23 CONCENTRATION LESS THAN IDL
STANDARD 2 QC	10.00	0.2	0.095	19Nov94 16:27
STANDARD 3 QC	25.00	0.9	0.228	19Nov94 16:31
STANDARD 4 QC	50.00	1.7	0.402	19Nov94 16:35



S LE	CONC ug/L	%RSD	MEAN ABS	
ICV QC	39.38	1.5	0.336	19Nov94 16:39 %R = 98.5
ICB QC	0.21	28.9	0.002	19Nov94 16:43 ABS = 0.008 CONCENTRATION LESS THAN IDL
CRDL QC	3.93	3.3	0.036	19Nov94 16:47 CONCENTRATION LESS THAN IDL
CCV 1 QC	40.07	0.2	0.341	19Nov94 16:51 %R = 100.2
CCB 1 QC	0.15	68.4	0.001	19Nov94 16:55 ABS = 0.007 CONCENTRATION LESS THAN IDL
LC 10061 T Q	9.62	3.3	0.091	19Nov94 16:58 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
PB 10061 T QC	0.11	28.2	0.001	19Nov94 17:02 CONCENTRATION LESS THAN IDL
9410061-13a QC	1.65	2.0	0.015	19Nov94 17:06 CONCENTRATION LESS THAN IDL
9410061-13aD QC	1.74	45.3	0.016	19Nov94 17:10 CONCENTRATION LESS THAN IDL
9410061-13aS QC	2.63	14.1	0.024	19Nov94 17:13 CONCENTRATION LESS THAN IDL
9410061-13aS QC	3.33	3.2	0.031	19Nov94 17:17 CONCENTRATION LESS THAN IDL
061-13aINS S QC	20.93	3.2	0.193	19Nov94 17:20
LCSW 10061 D QC	OVER	2.0	0.850	19Nov94 17:24
LCSW 10061 D Q	OVER	0.5	0.889	19Nov94 17:27 DF = 2.00
LCSW 10061 D QC	OVER	1.4	0.853	19Nov94 17:31 DF = 4.00
CCV 2 QC	36.66	1.1	0.317	19Nov94 17:35 %R = 91.7
CCB 2 QC	0.74	7.6	0.007	19Nov94 17:38 ABS = 0.013 CONCENTRATION LESS THAN IDL
LCSW 10061 D QC	OVER	0.9	0.657	19Nov94 17:42 DF = 10.00
LCSW 10061 D QC	OVER D	4.7	0.469	19Nov94 17:45 DF = 20.00 REDUCED SAMPLE VOLUME LESS THAN 1µL
PB 10061 D Q	0.99	48.6	0.009	19Nov94 17:49 CONCENTRATION LESS THAN IDL
9410061-18a QC	0.39	92.0	0.004	19Nov94 17:53 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
9410061-18aD QC	0.24	58.0	0.002	19Nov94 17:56 CONCENTRATION LESS THAN IDL
9410061-18aS QC	2.25	6.7	0.021	19Nov94 18:00 CONCENTRATION LESS THAN IDL
9410061-18aS QC	1.86	3.9	0.017	19Nov94 18:03 CONCENTRATION LESS THAN IDL
061-18aINS S QC	8.71	0.4	0.082	19Nov94 18:07 CONCENTRATION LESS THAN IDL
LCSS 10061 QC	8.78	1.5	0.082	19Nov94 18:11 CONCENTRATION LESS THAN IDL
PB 10061 QC	0.31	36.2	0.003	19Nov94 18:14 CONCENTRATION LESS THAN IDL
CCV 3 QC	35.49	1.4 Q	0.309	19Nov94 18:18 %R = 88.7
3	0.15	27.5	0.001	19Nov94 18:22 ABS = 0.007 CONCENTRATION LESS THAN IDL
9410061-02a QC	0.17	42.0	0.002	19Nov94 18:26 CONCENTRATION LESS THAN IDL
9410061-03a QC	0.59	33.7	0.005	19Nov94 18:30 CONCENTRATION LESS THAN IDL
9410061-04a QC	0.53	99.9	0.005	19Nov94 18:33 CONCENTRATION LESS THAN IDL
9410061-01a QC	0.13	82.7	0.001	19Nov94 18:37 CONCENTRATION LESS THAN IDL
9410061-01aD QC	0.24	0.0	0.002	19Nov94 18:41 CONCENTRATION LESS THAN IDL
061-01aS	0.08	18.1	0.001	19Nov94 18:45 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	
061-01aINS S QC	5.48	31.3	0.050	19Nov94 18:49 %RSD GREATER THAN LIMIT CONCENTRATION LESS THAN IDL
061-01aINS S QC	3.44	55.7	0.031	19Nov94 18:52 CONCENTRATION LESS THAN IDL
9410061-05a QC	0.40	9.3	0.004	19Nov94 18:56 CONCENTRATION LESS THAN IDL
9410061-06a QC	0.57	92.2	0.005	19Nov94 19:00 CONCENTRATION LESS THAN IDL
CCV 4 QC	33.39	0.6 Q	0.294	19Nov94 19:04 %R = 83.5
CCB 4 QC	0.10	12.7	0.001	19Nov94 19:08 ABS = 0.007 CONCENTRATION LESS THAN IDL
DI H2O Q	0.22	26.8	0.002	19Nov94 19:11 CONCENTRATION LESS THAN IDL
CCV 5 QC	33.34	0.4 Q	0.293	19Nov94 19:15 %R = 83.3
CCB 5 QC	0.17	85.1	0.002	19Nov94 19:19 ABS = 0.007 CONCENTRATION LESS THAN IDL

PROGRAM 19 As REG

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK HEIGHT
LAMP POSITION	4
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	1.0
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	197.2
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.10
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	0.95

EBS RUN NUMBER: 58310\941123000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/07/94
PAGE: 1

TEST: CLP METALS

DATE ANALYZED: 11/23/94

ANALYZED BY: JP

HOLDING TIME: 99 Days

Total Number of Samples: 7
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 3
Number of LCS's: 2

Number of ICB's: 1
Number of CCB's: 3
Number of PB's: 2

Number of DUP's: 2
Number of SPK's: 2
Number of MSD'S: 1

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICC	Al3082	ug/L	20100	20000		100.50		95.0	105	NA	NA	NA
	Ca3179	ug/L	477000	500000		95.400		95.0	105	NA	NA	NA
	Fe2599	ug/L	9490	10000		94.90		95.0	105	NA	NA	NA
	Mg2790	ug/L	502000	500000		100.40		95.0	105	NA	NA	NA
	Na5889	ug/L	497000	500000		99.400		95.0	105	NA	NA	NA
ICV	Al3082	ug/L	10100	10000		101.00		90.0	110	NA	NA	NA
	Ba4554	ug/L	0	10000		0		90.0	110	NA	NA	NA
	Ca3179	ug/L	238000	250000		95.200		90.0	110	NA	NA	NA
	Fe2599	ug/L	4900	5000		98.00		90.0	110	NA	NA	NA
	Mg2790	ug/L	246000	250000		98.400		90.0	110	NA	NA	NA
	Na5889	ug/L	252000	250000		100.80		90.0	110	NA	NA	NA
ICB	Al3082	ug/L	96.6							NA	NA	NA
	Ca3179	ug/L	44.0							NA	NA	NA
	Fe2599	ug/L	3.94							NA	NA	NA
	Mg2790	ug/L	1.49							NA	NA	NA
	Na5889	ug/L	41.0							NA	NA	NA
ICSABI	Al3082	ug/L	SATURATED	500000		0				NA	NA	NA
	Ca3179	ug/L	460000	500000		92.000				NA	NA	NA
	Fe2599	ug/L	SATURATED	200000		0				NA	NA	NA
	Mg2790	ug/L	494000	500000		98.800				NA	NA	NA
LCSW	Al3082	ug/L	1790	2000		89.50		80.0	120	NA	NA	NA
	Fe2599	ug/L	904	1000		90.4		80.0	120	NA	NA	NA
LCSS	Al3082	ug/L	2330	2000		116.5		80.0	120	NA	NA	NA
	Fe2599	ug/L	1410	1000		141.0		80.0	120	NA	NA	NA
PBW	Al3082	ug/L	< 70							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Na5889	ug/L	< 100							NA	NA	NA
PBS	Al3082	ug/L	< 70							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA

EBS RUN NUMBER: 58310\941123000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/07/94

TEST: CLP METALS DATE ANALYZED: 11/23/94 ANALYZED BY: JP HOLDING TIME: 99 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
PBS	Mg2790	ug/L	< 100							NA	NA	NA
	Na5889	ug/L	< 100							NA	NA	NA
9410061-01A	Ca3179	mg/kg	233000							10/07/94	09/29/94	YES
	Fe2599	mg/kg	9210							10/07/94	09/29/94	YES
9410061-01 DUP	Ca3179	mg/kg	230000	233000			1.2959			10/07/94	09/29/94	YES
DUP	Fe2599	mg/kg	9130	9210			0.8724			10/07/94	09/29/94	YES
SPK	Ca3179	mg/kg	264000	233000						10/07/94	NA	NA
SPK	Fe2599	mg/kg	11400	9210						10/07/94	NA	NA
ISPK	Ca3179	mg/kg	5860000	116000	6100000	94.163				10/07/94	NA	NA
ISPK	Fe2599	mg/kg	120000	4600	122000	94.59				10/07/94	NA	NA
9410061-02A	Ca3179	mg/kg	268000							10/07/94	09/29/94	YES
	Fe2599	mg/kg	13600							10/07/94	09/29/94	YES
CCV	Al3082	ug/L	9570	10000		95.70		90.0	110	NA	NA	NA
	Ca3179	ug/L	225000	250000		90.000		90.0	110	NA	NA	NA
	Fe2599	ug/L	4550	5000		91.00		90.0	110	NA	NA	NA
	Mg2790	ug/L	228000	250000		91.200		90.0	110	NA	NA	NA
	Na5889	ug/L	249000	250000		99.600		90.0	110	NA	NA	NA
CCB	Al3082	ug/L	< 70							NA	NA	NA
	Ba4554	ug/L	< 17							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Na5889	ug/L	< 100							NA	NA	NA
9410061-03A	Fe2599	mg/kg	50900							10/07/94	09/29/94	YES
9410061-04A	Fe2599	mg/kg	48100							10/07/94	09/29/94	YES
9410061-05A	Fe2599	mg/kg	43800							10/07/94	09/29/94	YES
9410061-06A	Fe2599	mg/kg	46400							10/07/94	09/29/94	YES
CCV	Al3082	ug/L	10000	10000		100.00		90.0	110	NA	NA	NA
	Ca3179	ug/L	229000	250000		91.600		90.0	110	NA	NA	NA
	Fe2599	ug/L	4740	5000		94.80		90.0	110	NA	NA	NA
	Mg2790	ug/L	236000	250000		94.400		90.0	110	NA	NA	NA
	Na5889	ug/L	260000	250000		104.00		90.0	110	NA	NA	NA
CCB	Al3082	ug/L	< 70							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA

EBS RUN NUMBER: 58310\941123000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/07/94

TEST: CLP METALS **DATE ANALYZED: 11/23/94** **ANALYZED BY: JP** **HOLDING TIME: 99 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
CCB	Mg2790	ug/L	< 100							NA	NA	NA
	Na5889	ug/L	< 100							NA	NA	NA
9410061-13A	Al3082	ug/L	740000							10/07/94	09/29/94	YES
	Ca3179	ug/L	6140000							10/07/94	09/29/94	YES
	Fe2599	ug/L	1180000							10/07/94	09/29/94	YES
	Mg2790	ug/L	732000							10/07/94	09/29/94	YES
9410061-13 DUP	Al3082	ug/L	733000	740000			0.9504			10/07/94	09/29/94	YES
DUP	Ca3179	ug/L	6010000	6140000			2.1399			10/07/94	09/29/94	YES
DUP	Fe2599	ug/L	1200000	1180000			1.6806			10/07/94	09/29/94	YES
SPK	Al3082	ug/L	44200	740000	200000	-347.9		75.0	125	10/07/94	NA	NA
SPK	Fe2599	ug/L	120000	1180000	100000	-1060.		75.0	125	10/07/94	NA	NA
MSD	Al3082	ug/L	109000	740000	200000	-315.5	9.768	75.0	125	10/07/94	NA	NA
MSD	Fe2599	ug/L	326000	1180000	100000	-854.0	21.53	75.0	125	10/07/94	NA	NA
ISPK	Al3082	ug/L	1330000	370000	1000000	96.000				10/07/94	NA	NA
ISPK	Ca3179	ug/L	25600000	3070000	25000000	90.120				10/07/94	NA	NA
ISPK	Fe2599	ug/L	1070000	590000	500000	96.000				10/07/94	NA	NA
ICSAF	Al3082	ug/L	SATURATED	500000		0				NA	NA	NA
	Ca3179	ug/L	446000	500000		89.200				NA	NA	NA
	Fe2599	ug/L	SATURATED	200000		0				NA	NA	NA
	Mg2790	ug/L	472000	500000		94.400				NA	NA	NA
ICSABF	Al3082	ug/L	SATURATED	500000		0				NA	NA	NA
	Ca3179	ug/L	441000	500000		88.200				NA	NA	NA
	Fe2599	ug/L	SATURATED	200000		0				NA	NA	NA
	Mg2790	ug/L	469000	500000		93.800				NA	NA	NA
CCV	Al3082	ug/L	9860	10000		98.60		90.0	110	NA	NA	NA
	Ca3179	ug/L	225000	250000		90.000		90.0	110	NA	NA	NA
	Fe2599	ug/L	4520	5000		90.40		90.0	110	NA	NA	NA
	Mg2790	ug/L	231000	250000		92.400		90.0	110	NA	NA	NA
	Na5889	ug/L	256000	250000		102.40		90.0	110	NA	NA	NA
CCB	Al3082	ug/L	< 70							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Na5889	ug/L	< 100							NA	NA	NA

EBS RUN NUMBER: 58310\941123000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/07/94
PAGE: 4

TEST: CLP METALS **DATE ANALYZED: 11/23/94** **ANALYZED BY: JP** **HOLDING TIME: 99 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?

COMMENTS:

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
_	ICC	941123	CLP	11/23/94	10:10	JP	S	CONC
2	ICV	941123	CLP	11/23/94	10:17	JP	S	CONC
3	ICB	941123	CLP	11/23/94	10:25	JP	S	CONC
4	ICSAI	941123	CLP	11/23/94	10:32	JP	S	CONC
5	ICSABI	941123	CLP	11/23/94	10:39	JP	S	CONC
6	CRII	941123	CLP	11/23/94	10:47	JP	S	CONC
7	LCSW	941123	CLP	11/23/94	10:54	JP	S	CONC
8	LCSS	941123	CLP	11/23/94	11:01	JP	S	CONC
9	PBW	941123	CLP	11/23/94	11:09	JP	S	CONC
10	PBS	941123	CLP	11/23/94	11:16	JP	S	CONC
11	9410061-01A	941123	CLP	11/23/94	11:23	JP	S	CONC
12	9410061-01 DUP	941123	CLP	11/23/94	11:30	JP	S	CONC
13	9410061-01 SPK #1	941123	CLP	11/23/94	11:38	JP	S	CONC
14	9410061-01 SPK INS	941123	CLP	11/23/94	11:45	JP	S	CONC
15	9410061-02A	941123	CLP	11/23/94	11:52	JP	S	CONC
16	CCV1	941123	CLP	11/23/94	12:00	JP	S	CONC
17	CCB1	941123	CLP	11/23/94	12:07	JP	S	CONC
18	9410061-03A	941123	CLP	11/23/94	12:14	JP	S	CONC
19	9410061-04A	941123	CLP	11/23/94	12:21	JP	S	CONC
20	9410061-05A	941123	CLP	11/23/94	12:29	JP	S	CONC
21	9410061-06A	941123	CLP	11/23/94	12:36	JP	S	CONC
22	CCV2	941123	CLP	11/23/94	12:43	JP	S	CONC
23	CCB2	941123	CLP	11/23/94	12:51	JP	S	CONC
24	9410061-13A	941123	CLP	11/23/94	12:58	JP	S	CONC
	9410061-13 DUP	941123	CLP	11/23/94	13:05	JP	S	CONC
[illegible]	9410061-13 SPK #1	941123	CLP	11/23/94	13:12	JP	S	CONC
27	9410061-13 SPK #2	941123	CLP	11/23/94	13:20	JP	S	CONC
28	9410061-13 SPK INST	941123	CLP	11/23/94	13:27	JP	S	CONC
29	CRIF	941123	CLP	11/23/94	13:34	JP	S	CONC
30	9410061-13A	941123	CLP	11/23/94	13:46	JP	S	CONC
31	9410061-13 DUP	941123	CLP	11/23/94	13:54	JP	S	CONC
32	9410061-13 SPK #1	941123	CLP	11/23/94	14:01	JP	S	CONC
33	9410061-13 SPK #2	941123	CLP	11/23/94	14:08	JP	S	CONC
34	9410061-13 SPK INST	941123	CLP	11/23/94	14:15	JP	S	CONC
35	CRIF	941123	CLP	11/23/94	14:23	JP	S	CONC
36	ICSAF	941123	CLP	11/23/94	14:30	JP	S	CONC
37	ICSABF	941123	CLP	11/23/94	14:37	JP	S	CONC
38	CCV3	941123	CLP	11/23/94	14:45	JP	S	CONC
39	CCB3	941123	CLP	11/23/94	14:52	JP	S	CONC

#	Element	061-13A4p 941' DUP CF=10 DF=100	061-13A6pk 941'K #1 CF=10 DF=100	061-13A7pk 941'K #2 CF=10 DF=100	061-13A1pk 941'INST CF=10 DF=100	CRIF	ICSAF
1	Al3082	73300.	4420.	10940.	132600.	D98.03	S222800.
2	Ca3179	600900.	206700.	610500.	2563e3	D94.57	446200.
3	Fe2599	119900.	12010.	32630.	106900.	D38.25	S34870.
4	Mg2790	70760.	D11830.	34730.	2380e3	D-11.02	472200.
5	Mn2576	2489.	639.6	1835.	8119.	25.98	16.49
6	Na5889	70310.	17540.	51810.	2673e3	d85.00	412.1

#	Element	ICSABF	CCV3	CCB3
1	Al3082	S223400.	9860.	D110.1
2	Ca3179	441300.	224700.	D23.51
3	Fe2599	S34830.	4516.	D2.638
4	Mg2790	469100.	230600.	D-50.65
5	Mn2576	372.3	567.1	D.0583
6	Na5889	372.3	256000.	D30.48

#	Element	ICC	ICV	ICB	ICSAI	ICSABI	CRII
1	Al3082	20120.	10100.	D96.59	S222400.	S223900.	D101.8
2	Ca3179	477400.	238500.	D44.04	469300.	459800.	D74.04
3	Fe2599	9492.	4895.	D3.942	S34800.	S34850.	D12.13
4	Mg2790	501900.	245500.	D1.494	498100.	493900.	D-20.41
5	Mn2576	1444.	606.2	D.0407	16.89	391.6	25.79
6	Na5889	497400.	252500.	D40.96	437.3	359.7	D93.39

#	Element	LCSW	LCSS	PBW	PBS	061-01A 941'-01A CF=200 DF=100	061-01A dup 941' DUP CF=200 DF=100
1	Al3082	1787.	2333.	D92.47	D70.75	d51200.	D46280.
2	Ca3179	258.8	6092.	D34.56	D59.83	1911e3	1889e3
3	Fe2599	903.5	1406.	D2.471	D4.525	75510.	74830.
4	Mg2790	D11.92	D168.4	D-11.02	D-22.49	D20320.	D9267.
5	Mn2576	351.8	389.6	D.0186	D.0010	D747.3	D840.7
6	Na5889	774.9	307.3	D15.80	D19.99	D18260.	D16160.

#	Element	061-01A spk 941'K #1 CF=200 DF=100	061-01A spk 941' INS CF=200 DF=100	061-02A 941'-02A CF=200 DF=100	CCV1	CCB1	061-03A 941'-03A CF=200 DF=100
1	Al3082	105400.	2000e3	d73920.	9567.	D79.90	281100.
2	Ca3179	2160e3	48e6	2031e3	225300.	D12.45	120000.
3	Fe2599	93540.	980200.	103000.	4548.	D2.027	402200.
4	Mg2790	D22620.	49e6	D37840.	228200.	D11.92	D87690.
5	Mn2576	D1662.	142100.	D1369.	572.5	D-.0122	11000.
6	Na5889	d18260.	51e6	28320.	249000.	D15.80	D7353.

#	Element	061-04A 941'-04A CF=200 DF=100	061-05A 941'-05A CF=200 DF=100	061-06A 941'-06A CF=200 DF=100	CCV2	CCB2	061-13A 941'-13A
1	Al3082	260300.	245200.	250900.	10010.	D72.90	834100.
2	Ca3179	360600.	402000.	371700.	229400.	D59.83	6639e3
3	Fe2599	385100.	352000.	369300.	4740.	D4.859	S351500.
4	Mg2790	D112300.	D108300.	D110800.	235800.	D-17.28	812900.
5	Mn2576	9244.	8076.	7936.	586.4	D.2081	27130.
6	Na5889	D11550.	D11970.	D10290.	260500.	D22.09	809600.

#	Element	061-13A dup 941' DUP	061-13A spk 941'K #1	061-13A MSD 941'K #2	061-13A spk 941'INST	CRIF	061-13A 941'-13A CF=10 DF=100
1	Al3082	862000.	59250.	134800.	507200.	D102.7	74000.
2	Ca3179	6756e3	2776e3	6858e3	5530e3	D51.93	614000.
3	Fe2599	S352200.	156100.	S351900.	S353000.	D19.35	118100.
4	Mg2790	827500.	160700.	387200.	2684e3	D22.35	73240.
5	Mn2576	27150.	8253.	20190.	20180.	24.55	2509.
6	Na5889	816900.	235800.	581400.	3007e3	d76.61	73280.
						Good	GOOD

Al	d 256.0	0 631.4	527.0	10000	369.6
Ca	9555	9445	10800	240000	10150
Fe	377.6	374.2	467.7	4901	515.0
Mg	0101.6	046.34	0113.1	245000	0189.2
Mn	03.737	04.203	08.310	710.5	06.845
Na	091.30	080.80	d 91.30	255000	141.6

	061-03A	061-04A	061-05A	061-06A	061-13A
Al	1405	1301	1226	1255	7400
Ca	600.0	1803	2010	1859	61400
Fe	2011	1925	1760	1847	11810
Mg	0438.5	0561.5	0541.5	0554	7324
Mn	55.00	46.22	40.38	39.68	250.9
Na	036.77	057.75	059.85	051.45	7328

	061-13A dp	061-13A spk	061-13A MSD	061-13A ispk	061-18A
Al	7330	442.0	1094	13260	
Ca	60090	20670	61050	256300	
Fe	11990	1201	3263	10690	
Mg	7076	01183	3473	238000	
Mn	248.9	63.96	183.5	811.9	
Na	7031	1754	5181	267300	

	061-18A dp	061-18A spk	061-18A MSD	061-18A ispk
Al				
Ca				
Fe				
Mg				
Mn				
Na				

Numbers were back calculated to remove corr. factors

Al, Ca, Fe, Na, Mn, Mg

Method: CLP Standard: BLANK

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	D151.0	D50.67	D-.6667	D286.3	D-.6667	D-1.667	D19.33
SDev	45.0	33.50	1.1547	11.9	1.5275	8.737	20.26
%RSD	29.79	66.12	173.2	4.167	229.1	524.2	104.8
#1	D168.0	D17.00	D.0000	D290.0	D1.000	D-9.000	D13.00
#2	D185.0	D84.00	D.0000	D296.0	D-2.000	D8.000	D3.000
#3	D100.0	D51.00	D-2.000	D273.0	D-1.000	D-4.000	D42.00

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	D22.00	D166.7	D-19.00	D3.000	D18.33	D14.00	D13.00
SDev	10.39	45.1	45.51	19.98	7.77	54.84	.00
%RSD	47.24	27.05	239.5	665.8	42.37	391.7	.0000
#1	D10.00	D118.0	D-58.00	D16.00	D27.00	D77.00	D13.00
#2	D28.00	D175.0	D31.00	D-20.00	D16.00	D-23.00	D13.00
#3	D28.00	D207.0	D-30.00	D13.00	D12.00	D-12.00	D13.00

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	D-15.00	D20.67	D-4.333	D25.00
SDev	24.25	36.02	20.232	10.54
%RSD	161.7	174.3	466.9	42.14
#1	D11.00	D-16.00	D-17.00	D26.00
#2	D-19.00	D22.00	D19.00	D14.00
#3	D-37.00	D56.00	D-15.00	D35.00

Ca, Fe, K, Al, Mg, Mn

Method: CLP Standard: STD A

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	1848.	3649.	9506.	10910.	10220.	3760.	4243.
SDev	14.	58.	57.	77.	32.	66.	59.
%RSD	.7658	1.597	.6003	.7049	.3132	1.759	1.397
#1	1832.	3688.	9444.	10930.	10220.	3741.	4175.
#2	1857.	3677.	9519.	10980.	10190.	3834.	4274.
#3	1856.	3582.	9556.	10830.	10250.	3706.	4281.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	1042.	5777.	11720.	2521.	14800.	11130.	7617.
SDev	27.	66.	73.	26.	38.	59.	39.
%RSD	2.593	1.150	.6239	1.026	.2557	.5258	.5120
#1	1041.	5832.	11670.	2526.	14820.	11070.	7590.
#2	1070.	5703.	11700.	2493.	14830.	11130.	7600.
#3	1016.	5795.	11810.	2544.	14760.	11190.	7662.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	2245.	D73.67	8665.	4701.
SDev	49.	28.57	16.	14.
%RSD	2.189	38.78	.1804	.2988
#1	2225.	D94.00	8663.	4714.
#2	2301.	D86.00	8651.	4702.
#3	2209.	D41.00	8682.	4686.

Method: CLP Standard: STD A

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	1890.	3717.	9877.	11180.	10650.	3875.	4296.
SDev	22.	11.	88.	26.	75.	64.	85.
%RSD	1.153	.2826	.8914	.2289	.7031	1.657	1.984
#1	1905.	3717.	9874.	11200.	10620.	3842.	4334.
#2	1865.	3727.	9791.	11180.	10590.	3949.	4355.
#3	1900.	3706.	9967.	11150.	10730.	3834.	4198.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	1043.	5994.	12230.	2557.	15130.	11490.	7893.
SDev	34.	44.	101.	16.	94.	38.	32.
%RSD	3.245	.7348	.8234	.6236	.6188	.3293	.4100
#1	1019.	6044.	12250.	2544.	15130.	11510.	7856.
#2	1082.	5960.	12130.	2553.	15040.	11440.	7907.
#3	1029.	5979.	12330.	2575.	15230.	11510.	7916.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	2305.	D37.33	8876.	4815.
SDev	23.	25.15	24.	12.
%RSD	.9895	67.36	.2726	.2538
#1	2319.	D46.00	8903.	4828.
#2	2279.	D57.00	8857.	4812.
#3	2318.	D9.000	8867.	4804.

Method: CLP Standard: STD B

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	9580.	18890.	51760.	54860.	53750.	19520.	21300.
SDev	65.	22.	569.	155.	348.	228.	260.
%RSD	.6765	.1150	1.100	.2832	.6473	1.169	1.220
#1	9610.	18890.	51990.	54840.	54110.	19770.	21010.
#2	9506.	18880.	52180.	55020.	53700.	19350.	21510.
#3	9625.	18920.	51110.	54710.	53420.	19430.	21390.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	5248.	30990.	60770.	14440.	82990.	57680.	40210.
SDev	34.	80.	224.	104.	345.	106.	434.
%RSD	.6535	.2588	.3687	.7192	.4162	.1831	1.078
#1	5209.	31060.	61010.	14560.	83390.	57670.	40090.
#2	5264.	31020.	60570.	14380.	82770.	57790.	39850.
#3	5272.	30900.	60730.	14370.	82810.	57580.	40690.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	11030.	1096.	45350.	24500.
SDev	95.	49.	214.	204.
%RSD	.8624	4.432	.4717	.8329

#1	11140.	1146.	45600.	24410.
#2	11000.	1093.	45250.	24360.
#3	10960.	1049.	45200.	24740.

Method: CLP Standard: STD C

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	19320.	37120.	100900.	103600.	102700.	35580.	40110.
SDev	181.	471.	616.	300.	566.	133.	284.
%RSD	.9354	1.270	.6106	.2891	.5515	.3737	.7078
#1	19220.	37650.	101600.	104000.	102500.	35450.	39830.
#2	19210.	36960.	100800.	103500.	102200.	35720.	40090.
#3	19530.	36750.	100300.	103400.	103300.	35570.	40400.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	9786.	60630.	116100.	28420.	162300.	110500.	79240.
SDev	77.	338.	499.	325.	1055.	910.	661.
%RSD	.7819	.5580	.4300	1.142	.6497	.8230	.8345
#1	9854.	61010.	116400.	28540.	162800.	111500.	79520.
#2	9703.	60500.	115600.	28670.	163000.	109900.	78480.
#3	9800.	60370.	116400.	28050.	161100.	110100.	79710.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	20730.	2045.	86290.	47170.
SDev	73.	48.	279.	265.
%RSD	.3514	2.368	.3231	.5620
#1	20770.	2066.	86540.	47220.
#2	20650.	2080.	86350.	46890.
#3	20780.	1990.	85990.	47410.

Method: CLP Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardi
Ag3280	328.068	Multiple	Standards	.054122	-8.12205	11/23/94 10:00
Al3082	308.215	Multiple	Standards	.538504	-27.0828	11/23/94 10:00
Ba4554	455.403	Multiple	Standards	.197879	.488346	11/23/94 10:00
Be3131	313.107	Multiple	Standards	.004668	-1.34489	11/23/94 10:00
Ca3179	317.933	Multiple	Standards	4.73727	-1.75782	11/23/94 10:00
Cd2265	226.502	Multiple	Standards	.066154	.044502	11/23/94 10:00
Co2286	228.616	Multiple	Standards	.119611	-2.42409	11/23/94 10:00
Cr2677	267.716	Multiple	Standards	.098592	-2.17825	11/23/94 10:00
Cu3247	324.754	Multiple	Standards	.041572	-6.86592	11/23/94 10:00
Fe2599	259.940	Multiple	Standards	.083279	1.38857	11/23/94 10:00
K_7664	766.490	Multiple	Standards	18.1038	-23.0546	11/23/94 10:00
Mg2790	279.079	Multiple	Standards	3.12862	-35.0067	11/23/94 10:00
Mn2576	257.610	Multiple	Standards	.013215	-.201602	11/23/94 10:00
Na5889	588.995	Multiple	Standards	6.29132	-78.5745	11/23/94 10:00
Ni2316	231.604	Multiple	Standards	.181744	2.53112	11/23/94 10:00
Pb2203	220.353	Multiple	Standards	1.72176	-33.7287	11/23/94 10:00
V_3110	311.071	Multiple	Standards	.056433	.222740	11/23/94 10:00

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardi
Zn2138	213.856	Multiple	Standards	.041667	-1.04181	11/23/94 10:00

Method: CLP

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ag3280	328.068	BLANK	.000000	.050402	-.05040
		STD A	100.000	94.1689	5.83107
		STD B	500.000	510.387	-10.386
		STD C	1000.00	1037.54	-37.537

CorCoef: 0.99994

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Al3082	308.215	BLANK	.000000	.201389	-.20138
		STD A	2000.00	1974.36	25.6442
		STD B	10000.0	10147.0	-147.04
		STD C	20000.0	19962.4	37.6484

CorCoef: 0.99996

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ba4554	455.403	BLANK	.000000	.356427	-.35642
		STD A	2000.00	1955.01	44.9937
		STD B	10000.0	10242.6	-242.57
		STD C	20000.0	19964.8	35.2227

CorCoef: 0.99989

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Be3131	313.107	BLANK	.000000	-.008335	.008335
		STD A	50.0000	50.8211	-.82112
		STD B	250.000	254.722	-4.7224
		STD C	500.000	482.344	17.6560

CorCoef: 0.99957

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ca3179	317.933	BLANK	.000000	-4.91600	4.91600
		STD A	50000.0	50443.8	-443.83
		STD B	250000.	254607.	-4607.4
		STD C	500000.	486347.	13653.3

CorCoef: 0.99970

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Cd2265	226.502	BLANK	.000000	-.065755	.065755
		STD A	250.000	256.393	-6.3929
		STD B	1250.00	1291.09	-41.092
		STD C	2500.00	2353.89	146.115

CorCoef: 0.99872

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Co2286	228.616	BLANK	.000000	-.111607	.111607
		STD A	500.000	511.386	-11.386
		STD B	2500.00	2545.66	-45.655
		STD C	5000.00	4794.83	205.173

CorCoef: 0.99948

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Cr2677	267.716	BLANK	.000000	-.009227	.009227

	STD A	100.000	100.686	-.68601
	STD B	500.000	515.265	-15.265
	STD C	1000.00	962.610	37.3904

CorCoef: 0.99931

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat.
Cu3247	324.754	BLANK	.000000	.062720	-.06272
		STD A	250.000	242.330	7.67049
		STD B	1250.00	1281.57	-31.569
		STD C	2500.00	2513.56	-13.564

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat.
Fe2599	259.940	BLANK	.000000	-.193730	.193730
		STD A	1000.00	1020.14	-20.140
		STD B	5000.00	5062.31	-62.310
		STD C	10000.0	9673.97	326.030

CorCoef: 0.99971

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat.
K_7664	766.490	BLANK	.000000	31.2568	-31.256
		STD A	50000.0	46274.4	3725.55
		STD B	250000.	261366.	-11365.
		STD C	500000.	514524.	-14523.

CorCoef: 0.99989

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat.
Mg2790	279.079	BLANK	.000000	22.3514	-22.351
		STD A	50000.0	47303.1	2696.93
		STD B	250000.	259605.	-9604.8
		STD C	500000.	507760.	-7759.5

CorCoef: 0.99988

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Mn2576	257.610	BLANK	.000000	-.016598	.016598
		STD A	150.000	151.577	-1.5767
		STD B	750.000	762.034	-12.033
		STD C	1500.00	1460.16	39.8352

CorCoef: 0.99974

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Na5889	588.995	BLANK	.000000	3.21266	-3.2126
		STD A	50000.0	49578.8	421.164
		STD B	250000.	252889.	-2889.2
		STD C	500000.	498433.	1566.75

CorCoef: 0.99997

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat.
Ni2316	231.604	BLANK	.000000	-.195031	.195031
		STD A	400.000	421.511	-21.510
		STD B	2000.00	2007.16	-7.1640
		STD C	4000.00	3770.56	229.438

CorCoef: 0.99944

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat.
Pb2203	220.353	BLANK	.000000	1.85438	-1.8543

	STD A	250.000	30.5504	219.450
	STD B	1250.00	1853.32	-603.32
	STD C	2500.00	3487.85	-987.85

CorCoef: 0.99495

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
V_3110	311.071	BLANK	.000000	-.021801	.021801
		STD A	500.000	501.099	-1.0994
		STD B	2500.00	2559.53	-59.533
		STD C	5000.00	4869.94	130.061

CorCoef: 0.99963

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Zn2138	213.856	BLANK	.000000	-.000127	.000127
		STD A	200.000	199.572	.427872
		STD B	1000.00	1019.89	-19.889
		STD C	2000.00	1964.50	35.5001

CorCoef: 0.99979

Method: CLP Sample Name: ICC Operator: JP
Run Time: 11/23/94 10:10:42
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 99%	ug/L 101	ug/L 100	ug/L 96	ug/L 95	ug/L 94%	ug/L 95
Avge	986.6	20120.	19980.	479.4	477400.	2350.	4723.
SDev	9.6	137.	124.	1.3	4098.	6.	3.
%RSD	.9687	.6790	.6223	.2812	.8585	.2415	.0707
#1	975.6	20060.	19900.	480.9	479300.	2345.	4720.
#2	991.2	20030.	19920.	479.1	480200.	2356.	4726.
#3	993.0	20280.	20120.	478.2	472700.	2349.	4724.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L 96	ug/L 101	ug/L 95	ug/L 101	ug/L 100	ug/L 96	ug/L 99
Avge	958.4	2524.	9492.	506800.	501900.	1444.	497400.
SDev	10.4	15.	33.	2010.	4295.	9.	3831.
%RSD	1.081	.5894	.3482	.3966	.8557	.5923	.7702
#1	952.4	2536.	9454.	508800.	497100.	1452.	500800.
#2	970.3	2507.	9512.	504800.	505200.	1445.	493200.
#3	952.4	2529.	9510.	506700.	503500.	1435.	498200.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L 93	ug/L	ug/L 98	ug/L 98
Avge	3726.	3436.	4904.	1950.
SDev	34.	69.	11.	18.
%RSD	.9247	2.003	.2150	.9281
#1	3708.	3374.	4909.	1933.
#2	3766.	3510.	4911.	1948.
#3	3704.	3424.	4892.	1969.

Method: CLP
Run Time: 11/23/94 10:17:59
Comment:
Mode: CONC Corr. Factor: 1

Sample Name: ICV

Operator: JP

Elem	Ag3280	*Al3082	Ba4554	Be3131	*Ca3179	Cd2265	Co2286
Units	ug/L 83%	ug/L 101	ug/L 100	ug/L 81	ug/L 95	ug/L 93	ug/L 80
Avge	414.6	10100.	10040.	202.6	238500.	232.4	2012.
SDev	3.4	100.	8.	.8	1991.	2.3	19.
%RSD	.8301	.9898	.0791	.4146	.8346	.9688	.9420
#1	411.5	10120.	10030.	201.6	240600.	229.9	2002.
#2	414.1	9985.	10050.	203.0	238400.	234.2	2000.
#3	418.3	10180.	10050.	203.1	236600.	233.2	2034.

Elem	Cr2677	Cu3247	*Fe2599	*K_7664	*Mg2790	*Mn2576	Na5889
Units	ug/L 82	ug/L 84	ug/L 98	ug/L 104	ug/L 98	ug/L 81%	ug/L
Avge	410.3	1047.	4895.	259600.	245500.	606.2	252500.
SDev	7.4	8.	25.	2833.	825.	2.5	1765.
%RSD	1.814	.7963	.5199	1.091	.3362	.4179	.6988
#1	415.1	1052.	4872.	262900.	246400.	605.6	254500.
#2	414.2	1037.	4891.	258300.	244900.	609.0	251700.
#3	401.8	1051.	4923.	257800.	245200.	604.0	251300.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	1569.	D362.9	2064.	808.0
SDev	16.	73.6	13.	1.7
%RSD	.9945	20.28	.6131	.2118
#1	1581.	D277.9	2072.	808.6
#2	1551.	D407.0	2072.	809.4
#3	1574.	D403.6	2050.	806.1

Method: CLP
Run Time: 11/23/94 10:25:16
Comment:
Mode: CONC Corr. Factor: 1

Sample Name: ICB

Operator: JP

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D96.59	D.4883	D.0000	D44.04	D.0000	D.0000
SDev	.8631	26.42	.1979	.0530	2.74	2.441	3.524
%RSD	23.66	27.35	40.52	70.46	6.211	369.2	161.3
#1	D.0000	D123.7	D.4883	D.0000	D40.88	D.0000	D.0000
#2	D.0000	D70.92	D.6862	D.0000	D45.61	D.0000	D.0000
#3	D.0000	D95.16	D.2905	D.0000	D45.61	D2.029	D1.643

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.4369	D3.942	D73.50	D1.494	D.0407	D40.96
SDev	1.355	1.509	1.500	171.1	9.558	.3625	.00
%RSD	85.42	345.4	38.04	232.8	639.8	891.3	.0000
#1	D.0000	D.6586	D5.469	D13.15	D.0000	D.4591	D40.96

#2	D.0000	D.0000	D3.887	D.0000	D.0000	D.0000	D40.96
#3	D.0000	D1.823	D2.471	D266.6	D11.92	D.0000	D40.96

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D1.077	D.0000	D.0000	D.0000
SDev	4.587	20.54	2.251	1.325
%RSD	425.8	100.1	67.54	227.1
#1	D.0000	D.0000	D.0000	D.0000
#2	D.0000	D.0000	D.0000	D.6249
#3	D6.348	D.0000	D.0000	D.0000

Method: CLP
Sample Name: ICSAI
Run Time: 11/23/94 10:32:33
Operator: JP
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	S222400.	24.56	D.0000	469300.	D8.887	D.0000
SDev	6.665	10.	.11	.0468	4891.	.795	3.406
%RSD	52.76	.0044	.4651	63.45	1.042	8.943	133.9
#1	D.0000	S222400.	24.63	D.0000	473800.	D9.703	D.0000
#2	D.0000	S222400.	24.63	D.0000	464100.	D8.115	D.4466
#3	D.0000	S222400.	24.43	D.0000	469900.	D8.843	D.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	139.3	D.0000	S34800.	D67.46	498100.	16.89	437.3
SDev	4.9	2.843	35.	243.6	4099.	.08	12.6
%RSD	3.517	9.311	.0995	361.0	.8229	.4448	2.877
#1	139.8	D.0000	S34840.	D266.6	500700.	16.83	437.3
#2	143.9	D.0000	S34780.	D139.9	493400.	16.87	424.7
#3	134.2	D.0000	S34780.	D.0000	500300.	16.98	449.9

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.2290	D343.9	D3.421	62.46
SDev	14.47	24.6	3.258	3.87
%RSD	6317.	7.156	95.24	6.203
#1	D.0000	D338.2	D2.649	62.00
#2	D.0000	D322.7	D6.995	66.54
#3	D15.62	D370.9	D.6178	58.83

Method: CLP
Sample Name: ICSABI
Run Time: 11/23/94 10:39:50
Operator: JP
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

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Avge	796.1	S223900.	523.1	386.0	459800.	872.8	373.8
SDev	.6	89.	3.6	3.0	2172.	9.0	1.7
%RSD	.0797	.0396	.6809	.7644	.4724	1.030	.4630
#1	796.4	S223900.	519.5	383.1	458200.	877.0	372.7
#2	796.6	S223900.	526.6	389.0	462300.	862.4	372.9
#3	795.4	S223800.	523.1	385.9	459000.	878.8	375.8

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	464.8	383.0	S34850.	D.0000	493900.	391.6	359.7
SDev	2.6	4.7	138.	154.0	2897.	4.8	13.1
%RSD	.5696	1.226	.3952	904.6	.5866	1.216	3.641
#1	461.7	380.5	S34770.	D139.9	490600.	397.1	349.2
#2	466.3	388.4	S34770.	D.0000	496200.	388.4	374.4
#3	466.2	380.1	S35010.	D.0000	494800.	389.4	355.5

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	714.4	1647.	396.2	788.3
SDev	6.9	54.	3.9	6.3
%RSD	.9664	3.287	.9944	.8037
#1	713.1	1585.	400.3	781.7
#2	708.2	1685.	392.5	788.9
#3	721.9	1671.	395.8	794.3

Method: CLP
Sample Name: CRII
Run Time: 11/23/94 10:47:08
Operator: JP
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D12.32	D101.8	D1.742	8.590	D74.04	D8.887	90.63
SDev	1.52	31.6	.695	.056	4.74	.306	4.77
%RSD	12.35	31.05	39.90	.6483	6.398	3.438	5.264
#1	D11.58	D67.16	D1.082	8.635	D69.30	D8.711	88.12
#2	D14.07	D109.2	D2.467	8.607	D74.04	D8.711	87.64
#3	D11.31	D129.1	D1.676	8.528	D78.78	D9.240	96.14

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D17.47	46.14	D12.13	D.0000	D.0000	25.79	D93.39
SDev	3.02	1.80	2.46	130.6	50.87	.51	7.26
%RSD	17.30	3.902	20.26	99.14	249.3	1.969	7.779
#1	D19.91	45.10	D14.55	D.0000	D.0000	26.15	D97.58
#2	D18.43	45.10	D12.21	D.0000	D24.44	26.02	D85.00
#3	D14.09	48.22	D9.633	D.0000	D.0000	25.21	D97.58

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	71.11	D16.20	87.34	38.90

SDev	4.09	22.38	2.76	1.29
%RSD	5.751	138.1	3.160	3.321
#1	75.77	D4.150	85.94	40.38
#2	69.41	D2.428	85.55	37.96
#3	68.14	D42.03	90.51	38.38

Method: CLP
Sample Name: LCSW
Run Time: 11/23/94 10:54:25
Operator: JP
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D30.52	1787.	1836.	37.58	258.8	D40.91	359.1
SDev	1.68	23.	18.	.21	8.2	3.42	2.8
%RSD	5.497	1.287	.9900	.5580	3.171	8.366	.7871
#1	D31.82	1763.	1821.	37.82	254.1	D44.83	356.9
#2	D31.12	1809.	1830.	37.41	254.1	D39.34	362.3
#3	D28.63	1790.	1856.	37.52	268.3	D38.55	358.1

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	146.2	192.8	903.5	D339.0	D11.92	351.8	774.9
SDev	2.4	.9	13.1	255.4	21.68	4.0	9.6
%RSD	1.644	.4899	1.452	75.33	181.8	1.137	1.240
#1	145.3	192.1	916.5	D103.7	D.0000	351.9	783.3
#2	149.0	193.8	903.7	D610.6	D.0000	347.7	777.0
#3	144.4	192.3	890.2	D302.8	D36.95	355.7	764.5

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	359.1	D561.4	361.6	343.1
SDev	10.3	34.0	4.0	3.7
%RSD	2.880	6.059	1.107	1.079
#1	351.1	D555.1	357.3	345.0
#2	355.3	D531.0	365.2	338.9
#3	370.7	D598.2	362.4	345.5

Method: CLP
Sample Name: LCSS
Run Time: 11/23/94 11:01:43
Operator: JP
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D28.52	2333.	1974.	39.01	6092.	D44.13	384.1
SDev	4.15	24.	5.	.60	110.	3.98	3.1
%RSD	14.54	1.040	.2356	1.526	1.798	9.013	.7990
#1	D24.03	2305.	1969.	39.07	6105.	D46.62	380.7
#2	D29.33	2346.	1978.	38.39	6195.	D39.54	386.7

#3	D32.20	2347.	1974.	39.57	5977.	D46.22	384.9

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	156.7	202.9	1406.	D.0000	D168.4	389.6	307.3
SDev	3.1	.3	16.	369.4	30.2	2.8	7.3
%RSD	2.000	.1344	1.147	2170.	17.92	.7069	2.364
#1	153.1	202.6	1418.	D67.46	D180.9	387.6	311.5
#2	158.9	202.9	1411.	D302.8	D190.3	388.5	311.5
#3	158.0	203.2	1387.	D.0000	D133.9	392.8	298.9

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	376.3	D537.3	391.4	452.4
SDev	1.6	34.0	5.5	5.5
%RSD	.4382	6.331	1.407	1.219
#1	374.6	D531.0	385.0	446.3
#2	376.6	D574.1	394.4	453.8
#3	377.8	D506.9	394.7	457.0

Method: CLP
Sample Name: PBW
Run Time: 11/23/94 11:09:01
Operator: JP
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D92.47	D.4224	D.0000	D34.56	D.0000	D.0000
SDev	.6584	14.57	.4570	.0415	7.24	1.069	2.797
%RSD	12.53	15.76	108.2	36.85	20.94	67.37	190.7
#1	D.0000	D78.46	D.6862	D.0000	D40.88	D.0000	D.2074
#2	D.0000	D107.5	D.6862	D.0000	D36.14	D.0000	D.0000
#3	D.0000	D91.39	D.0000	D.0000	D26.67	D.0000	D.0877

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D2.471	D.0000	D.0000	D.0186	D15.80
SDev	4.690	.1200	2.154	222.5	14.45	.4427	6.29
%RSD	182.3	3.458	87.16	233.0	131.1	2375.	39.83
#1	D.0000	D.0000	D4.803	D.0000	D.0000	D.4591	D22.09
#2	D.0000	D.0000	D.5558	D67.46	D5.665	D.0000	D15.80
#3	D1.272	D.0000	D2.055	D.0000	D.0000	D.0230	D9.504

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D.0000	D1.208
SDev	1.154	16.96	5.166	.433
%RSD	858.5	72.47	23700.	35.84
#1	D.0000	D.0000	D.0000	D1.458
#2	D.5319	D.0000	D3.101	D.7082
#3	D.5319	D.0000	D2.819	D1.458

Method: CLP
Run Time: 11/23/94 11:16:17
Comment:
Mode: CONC Corr. Factor: 1

Sample Name: PBS
Operator: JP

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D70.75	D.6862	D.0000	D59.83	D.0000	D.0000
SDev	3.954	12.12	.1979	.0418	4.74	1.542	5.156
%RSD	73.24	17.13	28.84	31.50	7.918	249.8	4620.
#1	D.0000	D58.54	D.4883	D.0000	D64.56	D.0000	D.0000
#2	D.0000	D82.77	D.6862	D.0000	D55.09	D.0000	D.0000
#3	D.0000	D70.92	D.8841	D.0000	D59.83	D.6399	D5.470

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D4.525	D.0000	D.0000	D.0010	D19.99
SDev	1.430	2.460	1.462	320.3	47.24	.3134	3.63
%RSD	94.01	41.53	32.31	64.87	210.0	30670.	18.17
#1	D.0000	D.0000	D3.137	D.0000	D.0000	D.0000	D22.09
#2	D.0000	D.0000	D4.387	D.0000	D.0000	D.2609	D15.80
#3	D.0000	D.0000	D6.052	D.0000	D27.57	D.0891	D22.09

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D.0000	D.0832
SDev	1.649	23.92	3.378	.8868
%RSD	107.9	387.0	98.04	1066.
#1	D.0000	D21.37	D.0000	D.0000
#2	D.0000	D.0000	D.0000	D1.042
#3	D.0000	D.0000	D.0000	D.0000

Method: CLP
Run Time: 11/23/94 11:23:34
Comment: (1:100)
Mode: CONC Corr. Factor: 200

Sample Name: 9410061-01A
Operator: JP

233000.

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	d51200.	D308.7	D.0000	1911000.	D.0000	D.0000
SDev	503.5	4043.	82.4	7.007	18981.	528.6	519.9
%RSD	54.68	7.897	26.68	19.02	.9931	545.2	243.3
#1	D.0000	d55870.	D216.4	D.0000	1913000.	D.0000	D.0000
#2	D.0000	d48760.	D335.1	D.0000	1930000.	D.0000	D.0000
#3	D.0000	d48970.	D374.7	D.0000	1892000.	D511.7	D376.4

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	75510.	D.0000	D20320.	D747.3	D18260.
SDev	112.1	637.7	757.	83e3	956.	61.0	

9200.

%RSD	23.93	183.4	1.002	167.6	4.703	8.158	.0000
#1	D.0000	D.0000	74980.	D.0000	D20530.	D768.4	D18260.
#2	D.0000	D65.20	76380.	D.0000	D19280.	D678.6	D18260.
#3	D.0000	D.0000	75180.	D24360.	D21160.	D794.8	D18260.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D130.6	D.0000	D.0000	D277.8
SDev	1081.	2942.	39.10	361.8
%RSD	827.5	537.5	329.0	130.2
#1	D.0000	D.0000	D10.69	D383.3
#2	D.0000	D2552.	D10.69	D575.0
#3	D1379.	D.0000	D.0000	D.0000

Method: CLP
Sample Name: 9410061-01 DUP
Operator: JP
Run Time: 11/23/94 11:30:51
Comment: 1:100
Mode: CONC Corr. Factor: 200

230000.

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D46280.	D308.7	D.0000	1889000.	D163.3	D.0000
SDev	547.6	655.	159.9	13.54	7599.	821.2	856.3
%RSD	47.69	1.416	51.81	34.71	.4023	503.0	308.6
#1	D.0000	D47030.	D453.9	D.0000	1881000.	D.0000	D.0000
#2	D.0000	D45960.	D137.2	D.0000	1896000.	D961.5	D.0000
#3	D.0000	D45850.	D335.1	D.0000	1890000.	D207.4	D711.3

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L 9110.	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	74830.	D.0000	D9267.	D840.7	D16160.
SDev	239.1	489.3	1446.	48e3	8693.	23.1	1922.
%RSD	63.50	83.88	1.932	121.7	93.80	2.747	11.89
#1	D.0000	D.0000	76460.	D.0000	D19280.	D866.2	D15740.
#2	D.0000	D.0000	74350.	D.0000	D4887.	D834.5	D14480.
#3	D.0000	D.0000	73700.	D.0000	D3636.	D821.3	D18260.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D.0000	D202.8
SDev	1506.	9650.	128.2	145.6
%RSD	238.0	196.6	70.75	71.82
#1	D1088.	D4962.	D.0000	D325.0
#2	D.0000	D.0000	D.0000	D41.64
#3	D.0000	D.0000	D.0000	D241.6

Method: CLP
Sample Name: 9410061-01 SPK #1
Operator: JP
Run Time: 11/23/94 11:38:09
Comment: 1:100

Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	105400.	3950.	D36.61	2160000.	D154.4	D65.39
SDev	190.7	2139.	160.	26.18	5013.	192.2	810.2
%RSD	15.63	2.030	4.050	71.51	.2321	124.4	1239.
#1	D.0000	105800.	3976.	D13.89	2166000.	D141.2	D591.7
#2	D.0000	103000.	3778.	D30.70	2156000.	D.0000	D.0000
#3	D.0000	107200.	4095.	D65.24	2158000.	D352.9	D472.1

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	93540.	D7458.	D22620.	D1662.	d18260.
SDev	347.4	91.21	2259.	94e3	6268.	39.	1258.
%RSD	305.8	25.62	2.415	1257.	27.71	2.354	6.891
#1	D.0000	D.0000	91470.	D.0000	D16150.	D1707.	d18260.
#2	D77.03	D.0000	93200.	D42460.	D23030.	D1635.	d17000.
#3	D96.75	D.0000	95950.	D78670.	D28660.	D1643.	d19520.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D1342.	D.0000	D1136.	D1333.
SDev	441.	7875.	561.	210.
%RSD	32.83	266.2	49.36	15.72
#1	D1270.	D2896.	D1613.	D1225.
#2	D1815.	D.0000	D1275.	D1575.
#3	D942.4	D141.3	D518.6	D1200.

Method: CLP Sample Name: 9410061-01 SPK INS Operator: JP
Run Time: 11/23/94 11:45:26
Comment: 1:100
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	65210.	2000000.	2034000.	47380.	48e6	234600.	472100.
SDev	4909.	18082.	16303.	249.	212753.	2788.	778.
%RSD	7.528	.9039	.8016	.5263	.4448	1.189	.1647
#1	68820.	1980000.	2052000.	47130.	48e6	233000.	472100.
#2	67190.	2006000.	2027000.	47630.	48e6	232900.	472900.
#3	59620.	2015000.	2022000.	47370.	48e6	237800.	471400.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	96870.	248700.	980200.	53e6	49e6	142100.	51e6
SDev	386.	3095.	4920.	195701.	111698.	606.	21821
%RSD	.3980	1.245	.5019	.3676	.2282	.4263	.4315
#1	96970.	247200.	985900.	53e6	49e6	142700.	51e6
#2	97190.	252200.	977300.	53e6	49e6	141900.	51e6
#3	96440.	246500.	977500.	53e6	49e6	141600.	50e6

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	371300.	340200.	486000.	190100.
SDev	8631.	12171.	2416.	480.
%RSD	2.324	3.577	.4971	.2527
#1	381300.	326200.	486300.	189700.
#2	365800.	348300.	483500.	189800.
#3	366900.	346200.	488300.	190600.

Method: CLP
Sample Name: 9410061-02A
Operator: JP
Run Time: 11/23/94 11:52:44
Comment: (1:100)
Mode: CONC Corr. Factor: 200

268000.

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D2976.	d73920.	D744.1	D.0000	2031000.	D.0000	D.0000
SDev	403.	8812.	187.0	7.291	10940.	194.9	540.8
%RSD	13.55	11.92	25.14	29.90	.5386	442.7	130.9
#1	D2835.	d69330.	D533.0	D.0000	2038000.	D.0000	D.0000
#2	D3431.	d68360.	D889.2	D.0000	2019000.	D180.9	D.0000
#3	D2662.	84080.	D810.0	D.0000	2038000.	D.0000	D.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L 13600.	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	103000.	D.0000	D37840.	D1369.	28320.
SDev	670.8	124.5	1569.	47e3	5248.	43.	1258.
%RSD	316.2	23.59	1.524	91.62	13.87	3.138	4.442
#1	D550.3	D.0000	101200.	D.0000	D40550.	D1416.	27070.
#2	D.0000	D.0000	104100.	D.0000	D31790.	D1360.	29580.
#3	D.0000	D.0000	103600.	D.0000	D41180.	D1331.	28320.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D239.7	D.0000	D447.1	D177.8
SDev	1705.	11e3	289.6	312.0
%RSD	711.6	249.6	64.77	175.5
#1	D.0000	D.0000	D202.6	D533.3
#2	D1597.	D7373.	D371.9	D.0000
#3	D797.0	D.0000	D766.9	D49.98

Method: CLP
Sample Name: CCV1
Operator: JP
Run Time: 11/23/94 12:00:03
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 96%	ug/L	ug/L	ug/L 90%	ug/L	ug/L
Avge	409.9	9567.	9814.	189.3	225300.	216.9	1866.
SDev	2.0	22.	37.	.5	2366.	6.9	29.
%RSD	.4827	.2308	.3786	.2855	1.050	3.194	1.546

#1	408.1	9567.	9775.	189.0	228000.	223.6	1863.
#2	409.5	9590.	9817.	189.9	223500.	217.5	1896.
#3	412.0	9545.	9849.	189.0	224400.	209.8	1839.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	375.8	1009.	4548.	254200.	228200.	572.5	249000.
SDev	.9	1.	14.	3439.	2159.	4.8	1277.
%RSD	.2381	.0751	.3139	1.353	.9460	.8397	.5130
#1	376.1	1008.	4539.	253400.	230700.	567.1	247500.
#2	374.7	1008.	4540.	258000.	226800.	576.4	249500.
#3	376.4	1009.	4564.	251300.	227200.	574.0	249900.

G/G G/G

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	1462.	D206.2	1957.	753.1
SDev	9.	83.8	11.	4.3
%RSD	.6489	40.62	.5658	.5735
#1	1465.	D293.4	1946.	755.9
#2	1470.	D126.4	1956.	748.1
#3	1452.	D198.7	1968.	755.2

Method: CLP Sample Name: CCB1 Operator: JP
Run Time: 11/23/94 12:07:20
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D79.90	D.0266	D.0000	D12.45	D.0000	D.0000
SDev	5.351	30.23	.4119	.0563	4.74	1.291	1.725
%RSD	123.5	37.84	1547.	52.91	38.04	106.5	42.09
#1	D1.458	D45.08	D.0000	D.0000	D12.45	D.0000	D.0000
#2	D.0000	D95.16	D.0000	D.0000	D7.717	D.1107	D.0000
#3	D.0000	D99.47	D.4883	D.0000	D17.19	D.0000	D.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D2.027	D.0000	D11.92	D.0000	D15.80
SDev	1.765	2.203	1.643	205.9	25.61	.2149	.00
%RSD	156.6	121.9	81.06	149.5	214.8	1762.	.0000
#1	D.0000	D.0000	D3.137	D31.26	D.0000	D.0000	D15.80
#2	D.3851	D.0000	D2.804	D.0000	D40.08	D.1552	D15.80
#3	D.0000	D.0000	D.1394	D.0000	D5.665	D.0627	D15.80

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.4714	D.0000	D.2604	D.0000
SDev	5.142	42.21	1.612	.8583
%RSD	1091.	372.0	619.3	220.6

#1	D5.984	D.0000	D1.803	D.0000
#2	D.0000	D29.98	D.3920	D.0000
#3	D.0000	D.0000	D.0000	D.5832

Method: CLP
Sample Name: 9410061-03A
Operator: JP
Run Time: 11/23/94 12:14:36
Comment: (1:100)
Mode: CONC Corr. Factor: 200

35600. 15200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	281100.	1298.	D.0000	120000.	D247.1	D.0000
SDev	335.6	1718.	60.	2.349	1895.	368.8	910.0
%RSD	21.67	.6109	4.657	5.497	1.579	149.3	1165.
#1	D.0000	283100.	1285.	D.0000	121900.	D75.05	D.0000
#2	D.0000	280000.	1364.	D.0000	118100.	D670.4	D854.8
#3	D.0000	280300.	1245.	D.0000	120000.	D.0000	D.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L 50900.	ug/L	ug/L 11100.	ug/L	ug/L
Avge	D.0000	D.0000	402200.	D20730.	D87690.	11000.	D7353.
SDev	306.1	347.2	2263.	27336.	6921.	78.	1453.
%RSD	1420.	104.0	.5628	131.8	7.892	.7086	19.76
#1	D.0000	D.0000	404600.	D.0000	D81230.	11060.	D5676.
#2	D.0000	D65.20	400100.	D24360.	D86860.	11040.	D8192.
#3	D274.2	D.0000	401900.	D46080.	D94990.	10910.	D8192.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D857.2	D336.1
SDev	777.0	3200.	176.3	228.3
%RSD	421.4	236.9	20.57	67.92
#1	D70.04	D.0000	D970.0	D291.6
#2	D433.5	D2207.	D654.0	D583.3
#3	D.0000	D.0000	D947.5	D133.3

Method: CLP
Sample Name: 9410061-04A
Operator: JP
Run Time: 11/23/94 12:21:52
Comment: (1:100)
Mode: CONC Corr. Factor: 200

32600. 45100.

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	260300.	1417.	D.0000	360600.	D4.490	D.0000
SDev	206.5	3887.	23.	6.881	3790.	684.5	194.8
%RSD	11.42	1.493	1.613	22.48	1.051	15240.	24.98
#1	D.0000	264800.	1404.	D.0000	364400.	D.0000	D.0000
#2	D.0000	258000.	1443.	D.0000	360600.	D723.4	D.0000
#3	D.0000	258100.	1404.	D.0000	356800.	D.0000	D.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889

			48200.		14100.		
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D123.0	D.0000	385100.	D.0000	D112300.	9244.	D11550.
SDev	210.8	118.8	5298.	16e3	6077.	144.	726.
%RSD	171.4	21.50	1.376	69.48	5.412	1.560	6.291
#1	D77.03	D.0000	390900.	D.0000	D113800.	9329.	D11970.
#2	D.0000	D.0000	380500.	D.0000	D117500.	9078.	D11970.
#3	D353.1	D.0000	384100.	D.0000	D105600.	9326.	D10710.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D724.3	D.0000	D1260.	D277.8
SDev	1408.	1896.	636.	77.4
%RSD	194.4	21.25	50.49	27.88
#1	D542.6	D.0000	D1986.	D241.6
#2	D2215.	D.0000	D800.7	D366.6
#3	D.0000	D.0000	D992.6	D225.0

Method: CLP
Sample Name: 9410061-05A
Operator: JP
Run Time: 11/23/94 12:29:09
Comment: 1:100
Mode: CONC Corr. Factor: 200

					50100.		
Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	245200.	d1074.	D.0000	402000.	D.0000	D.0000
SDev	482.2	862.	160.	15.66	2895.	186.6	903.1
%RSD	46.53	.3514	14.89	73.61	.7200	31.82	174.8
#1	D.0000	246100.	1245.	D.0000	399500.	D.0000	D.0000
#2	D.0000	245200.	d1047.	D.0000	401400.	D.0000	D472.1
#3	D.0000	244300.	d928.8	D.0000	405200.	D.0000	D.0000

			43900.		13500.		
Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D116.5	D.0000	352000.	D.0000	D108300.	8076.	D11970.
SDev	118.3	124.7	2162.	90e3	8333.	136.	.
%RSD	101.6	105.9	.6143	1546.	7.691	1.684	.0000
#1	D234.8	D.0000	354000.	D49700.	D113800.	8200.	D11970.
#2	D116.5	D.0000	349700.	D.0000	D112500.	8097.	D11970.
#3	D.0000	D7.001	352200.	D42460.	D98750.	7931.	D11970.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D1015.	D311.1
SDev	413.4	5260.	220.	227.5
%RSD	239.9	54.06	21.64	73.13
#1	D.0000	D.0000	D1263.	D49.98
#2	D.0000	D.0000	D936.2	D416.6
#3	D288.1	D.0000	D845.9	D466.6

Method: CLP
Sample Name: 9410061-06A
Operator: JP
Run Time: 11/23/94 12:36:27
Comment: 1:100
Mode: CONC Corr. Factor: 200

46600.

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	250900.	1351.	D.0000	371700.	D.0000	D89.32
SDev	440.8	2817.	60.	14.47	2384.	301.8	1150.
%RSD	110.9	1.123	4.475	54.49	.6415	214.0	1288.
#1	D107.5	247900.	1404.	D.0000	373900.	D.0000	D.0000
#2	D.0000	253500.	1364.	D.0000	369200.	D207.4	D591.7
#3	D.0000	251200.	1285.	D.0000	372000.	D.0000	D902.7

13900.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L 46300.	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	369300.	D.0000	D110800.	7936.	D10290.
SDev	454.1	590.8	3892.	29e3	4166.	31.	1453.
%RSD	96.92	155.1	1.054	44.71	3.759	.3926	14.12
#1	D.0000	D.0000	365500.	D.0000	D108800.	7910.	D9450.
#2	D.0000	D289.7	369100.	D.0000	D108100.	7928.	D11970.
#3	D.0000	D.0000	373200.	D.0000	D115600.	7970.	D9450.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D1039.	D2781.	D804.5	D363.9
SDev	434.	3086.	260.4	192.3
%RSD	41.72	111.0	32.37	52.84
#1	D906.1	D1174.	D992.6	D225.0
#2	D688.0	D830.0	D507.3	D583.3
#3	D1524.	D6340.	D913.6	D283.3

Method: CLP
Sample Name: CCV2
Operator: JP
Run Time: 11/23/94 12:43:44
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 100%	ug/L	ug/L	ug/L 92%	ug/L	ug/L
Avge	406.0	10010.	10190.	196.1	229400.	214.5	1949.
SDev	.6	55.	48.	1.3	2187.	4.2	6.
%RSD	.1537	.5474	.4749	.6627	.9536	1.951	.2827
#1	406.7	9980.	10140.	194.6	227700.	217.1	1954.
#2	405.5	10070.	10230.	196.4	228500.	209.7	1944.
#3	405.8	9975.	10200.	197.1	231800.	216.8	1950.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L 95%	ug/L	ug/L 94%	ug/L	ug/L
Avge	394.5	1055.	4740.	266700.	235800.	586.4	260500.
SDev	2.5	6.	40.	8808.	1152.	5.1	1841.
%RSD	.6255	.5239	.8530	3.303	.4887	.8685	.7069
#1	392.1	1051.	4737.	263500.	236500.	580.6	262500.

#2	394.4	1061.	4782.	259900.	236400.	590.2	259900.
#3	397.0	1052.	4701.	276600.	234400.	588.3	259000.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	1503.	D331.3	2009.	771.2
SDev	31.	49.2	1.	4.1
%RSD	2.066	14.86	.0721	.5364
#1	1468.	D360.6	2009.	775.1
#2	1528.	D274.5	2008.	766.8
#3	1513.	D358.8	2011.	771.8

Method: CLP Sample Name: CCB2 Operator: JP
Run Time: 11/23/94 12:51:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D72.90	D.6862	D.0000	D59.83	D1.676	D.0000
SDev	2.788	13.84	.0000	.0143	8.21	.969	.4834
%RSD	51.14	18.98	.0000	5.110	13.71	57.78	50.94
#1	D.0000	D60.15	D.6862	D.0000	D50.35	D2.558	D.0000
#2	D.0000	D70.92	D.6862	D.0000	D64.56	D.6399	D.0000
#3	D.0000	D87.62	D.6862	D.0000	D64.56	D1.831	D.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D4.859	D.0000	D.0000	D.2081	D22.09
SDev	.9710	2.189	1.481	214.5	31.34	.3548	.00
%RSD	35.06	72.30	30.49	67.28	181.4	170.6	.0000
#1	D.0000	D.0000	D6.552	D.0000	D15.05	D.0000	D22.09
#2	D.0000	D.0000	D4.220	D.0000	D.0000	D.5913	D22.09
#3	D.0000	D.0000	D3.804	D.0000	D.0000	D.1420	D22.09

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0473	D.0000	D.0000	D1.264
SDev	5.272	45.24	1.638	.709
%RSD	11150.	617.3	41.63	56.08
#1	D.1685	D.0000	D.0000	D1.542
#2	D5.257	D.0000	D.0000	D.4582
#3	D.0000	D43.75	D.0000	D1.792

Method: CLP Sample Name: 9410061-13A Operator: JP
Run Time: 11/23/94 12:58:20
Comment: 1:10
Mode: CONC Corr. Factor: 10

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

DID NOT USE DATA

Avge	D.0000	834100.	2213.	29.18	6639000.	D140.9	887.6
SDev	13.93	5433.	3.	.54	34700.	16.1	21.5
%RSD	23.74	.6513	.1549	1.854	.5227	11.43	2.427
#1	D.0000	832600.	2211.	28.56	6600000.	D144.0	877.6
#2	D.0000	829600.	2217.	29.45	6652000.	D123.5	872.8
#3	D.0000	840100.	2211.	29.54	6665000.	D155.2	912.3

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	1900.	2047.	S351500.	139000.	812900.	27130.	809600.
SDev	13.	30.	1559.	3512.	1112.	189.	8011.
%RSD	.6747	1.457	.4437	2.526	.1367	.6985	.9895
#1	1913.	2078.	S352000.	140800.	812900.	27060.	816600.
#2	1900.	2019.	S352700.	141300.	814100.	27340.	800900.
#3	1887.	2044.	S349700.	135000.	811800.	26980.	811400.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	1059.	D87.41	2602.	2657.
SDev	83.	544.8	29.	18.
%RSD	7.818	623.3	1.130	.6747
#1	1094.	D213.7	2617.	2640.
#2	1119.	D.0000	2621.	2676.
#3	964.9	D558.0	2568.	2653.

Method: CLP
Sample Name: 9410061-13 DUP
Operator: JP
Run Time: 11/23/94 13:05:38
Comment: 1:10
Mode: CONC Corr. Factor: 10

DID NOT USE ANY DATA

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	862000.	2494.	30.34	6756000.	D114.5	911.1
SDev	16.78	3283.	7.	.33	38439.	13.9	37.1
%RSD	25.06	.3809	.2748	1.077	.5689	12.18	4.070
#1	D.0000	863900.	2490.	30.01	6799000.	D122.8	898.0
#2	D.0000	863900.	2490.	30.66	6725000.	D122.2	882.4
#3	D.0000	858200.	2502.	30.34	6745000.	D98.35	953.0

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	1950.	2071.	S352200.	144200.	827500.	27150.	816900.
SDev	18.	16.	3550.	1205.	3818.	213.	10436.
%RSD	.9397	.7623	1.008	.8361	.4614	.7851	1.278
#1	1937.	2089.	S356300.	145500.	826800.	27230.	807600.
#2	1971.	2069.	S350100.	143900.	831600.	27310.	814800.
#3	1941.	2057.	S350100.	143200.	824100.	26910.	828200.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	1078.	D586.7	2628.	2709.

SDev	31.	560.1	23.	45.
%RSD	2.902	95.47	.8929	1.647
#1	1056.	D558.0	2615.	2736.
#2	1065.	D41.50	2614.	2658.
#3	1114.	D1161.	2655.	2735.

Method: CLP
Run Time: 11/23/94 13:12:55
Comment: 1:10
Mode: CONC Corr. Factor: 10

Sample Name: 9410061-13 SPK #1 Operator: JP

* DID NOT USE ANY DATA

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	59250.	2065.	D9.423	2776000.	D7.501	D208.2
SDev	9.787	361.	14.	.460	22404.	32.56	21.7
%RSD	13.49	.6090	.6640	4.879	.8070	434.0	10.43
#1	D.0000	59050.	2073.	D9.563	2767000.	D42.78	D199.4
#2	D.0000	59660.	2073.	D8.910	2760000.	D1.107	D192.3
#3	D.0000	59030.	2049.	D9.797	2802000.	D.0000	D232.9

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D66.29	D152.9	156100.	D19800.	160700.	8253.	235800.
SDev	10.63	28.5	1207.	3240.	1443.	54.	3225.
%RSD	16.04	18.64	.7730	16.36	.8980	.6580	1.368
#1	D70.89	D120.1	157200.	D22580.	161600.	8289.	238800.
#2	D54.13	D171.2	156300.	D16240.	161400.	8190.	232400.
#3	D73.85	D167.5	154800.	D20590.	159000.	8279.	236100.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D243.4	D.0000	d426.0	511.8
SDev	77.4	224.7	27.0	6.4
%RSD	31.79	59.53	6.335	1.246
#1	D205.2	D.0000	d446.9	508.3
#2	D192.5	D.0000	d395.6	519.2
#3	D332.5	D.0000	d435.6	507.9

Method: CLP
Run Time: 11/23/94 13:20:11
Comment: 1:10
Mode: CONC Corr. Factor: 10

Sample Name: 9410061-13 SPK #2 Operator: JP

* DID NOT USE ANY DATA

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	134800.	8435.	31.18	6858000.	D48.74	d490.5
SDev	32.13	487.	34.	.41	91431.	8.60	24.4
%RSD	80.88	.3612	.4070	1.331	1.333	17.65	4.982
#1	D.0000	134300.	8464.	31.04	6757000.	D40.14	d500.9
#2	D.0000	134900.	8397.	31.64	6936000.	D57.34	d508.0

#3	D.0000	135300.	8442.	30.85	6880000.	D48.74	d462.6

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D179.7	446.0	S351900.	63190.	387200.	20190.	581400.
SDev	28.5	18.0	376.	3893.	7240.	130.	11536.
%RSD	15.87	4.037	.1068	6.160	1.870	.6421	1.984
#1	D169.5	456.0	S351900.	63130.	386200.	20140.	580600.
#2	D157.7	456.8	S352200.	67120.	395000.	20330.	570300.
#3	D211.9	425.2	S351500.	59330.	380600.	20080.	593400.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	528.7	D305.5	1159.	1163.
SDev	22.8	403.5	42.	19.
%RSD	4.307	132.1	3.612	1.667
#1	550.6	D764.6	1162.	1151.
#2	530.6	D7.065	1199.	1186.
#3	505.1	D144.8	1116.	1153.

Method: CLP Sample Name: 9410061-13 SPK INST Operator: JP
Run Time: 11/23/94 13:27:29
Comment: 1:10
Mode: CONC Corr. Factor: 10

* DID NOT USE ANY DATA

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	3542.	507200.	99430.	2335.	5530000.	10680.	22220.
SDev	14.	3161.	300.	17.	53193.	33.	248.
%RSD	.3964	.6232	.3018	.7115	.9618	.3052	1.117
#1	3547.	505500.	99220.	2345.	5538000.	10690.	22150.
#2	3554.	510900.	99770.	2344.	5579000.	10650.	22500.
#3	3527.	505300.	99290.	2316.	5474000.	10710.	22020.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	5263.	13550.	S353000.	2878000.	2684000.	20180.	3007000
SDev	79.	101.	1341.	18966.	8490.	87.	28944
%RSD	1.506	.7481	.3798	.6590	.3163	.4289	.9626
#1	5350.	13500.	S354300.	2894000.	2691000.	20240.	3009000
#2	5246.	13490.	S351600.	2883000.	2675000.	20210.	2977000
#3	5194.	13670.	S353000.	2857000.	2688000.	20080.	3034000

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	17690.	15650.	25150.	10380.
SDev	151.	831.	138.	77.
%RSD	.8564	5.312	.5490	.7436
#1	17800.	16600.	25300.	10360.
#2	17750.	15120.	25020.	10320.
#3	17510.	15210.	25120.	10470.

Method: CLP Sample Name: CRIF Operator: JP
Run Time: 11/23/94 13:34:46
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D21.50	D102.7	D2.929	8.027	D51.93	D10.08	82.50
SDev	2.46	19.3	.114	.051	7.24	2.60	1.77
%RSD	11.43	18.77	3.901	.6406	13.93	25.76	2.146
#1	D18.67	D96.77	D2.863	8.051	D50.35	D12.22	80.47
#2	D22.78	D87.08	D3.061	7.967	D59.83	D7.189	83.34
#3	D23.05	D124.2	D2.863	8.061	D45.61	D10.83	83.70

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D14.75	43.59	D19.35	D127.8	D22.35	24.55	d76.61
SDev	2.99	1.49	2.28	135.9	26.61	.41	3.63
%RSD	20.30	3.426	11.81	106.3	119.0	1.681	4.741
#1	D15.57	41.94	D21.96	D121.8	D21.31	24.68	d78.71
#2	D11.43	43.98	D17.71	D266.6	D.0000	24.09	d72.42
#3	D17.24	44.85	D18.38	D.0000	D49.47	24.88	d78.71

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	72.02	D.0000	83.16	36.81
SDev	.69	26.91	3.98	.55
%RSD	.9554	98.17	4.792	1.495
#1	71.23	D.0000	86.56	37.29
#2	72.50	D.0000	78.78	36.21
#3	72.32	D.0000	84.14	36.92

Method: CLP Sample Name: 9410061-13A Operator: JP
Run Time: 11/23/94 13:46:51
Comment: 1:10 1:100
Mode: CONC Corr. Factor: 10

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	74000.	266.7	D1.379	614000.	D16.32	D80.22
SDev	17.82	541.	2.3	.097	1039.	25.90	9.06
%RSD	23.17	.7313	.8566	7.045	.1693	158.7	11.29
#1	D.0000	74330.	268.1	D1.488	613600.	D.0000	D73.84
#2	D.0000	74300.	264.1	D1.348	613200.	D13.68	D76.23
#3	D.0000	73380.	268.1	D1.301	615200.	D43.45	D90.59

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D106.1	D172.2	118100.	D8761.	73240.	2509.	73280.
SDev	14.8	22.5	1179.	1507.	584.	25.	726.

%RSD	13.95	13.09	.9980	17.21	.7981	1.008	.9913
#1	D97.51	D195.7	119400.	D8278.	73140.	2481.	72450.
#2	D123.1	D170.0	118000.	D7554.	72700.	2531.	73700.
#3	D97.51	D150.8	117000.	D10450.	73860.	2515.	73700.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D116.2	D81.68	D196.7	D240.8
SDev	30.0	306.2	5.3	10.4
%RSD	25.85	374.9	2.711	4.325
#1	D150.7	D351.4	D200.9	D230.4
#2	D96.19	D144.8	D190.7	D251.3
#3	D101.6	D.0000	D198.6	D240.8

Method: CLP Sample Name: 9410061-13 DUP Operator: JP
Run Time: 11/23/94 13:54:04
Comment: 1:10
Mode: CONC Corr. Factor: 10 1:100

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	73300.	231.1	D1.084	600900.	D5.958	D40.75
SDev	16.20	454.	1.1	1.082	1663.	19.54	17.43
%RSD	37.71	.6193	.4943	99.85	.2767	327.9	42.77
#1	D.0000	72780.	230.5	D.0878	600100.	D7.060	D22.41
#2	D.0000	73560.	232.4	D.9280	599800.	D24.92	D57.09
#3	D.0000	73570.	230.5	D2.235	602800.	D.0000	D42.74

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D154.0	D155.8	119900.	D11360.	70760.	2489.	70310.
SDev	27.6	12.7	893.	1746.	821.	9.	786.
%RSD	17.94	8.123	.7452	15.37	1.160	.3725	1.118
#1	D182.3	D169.5	119300.	D10630.	70890.	2478.	69680.
#2	D127.1	D144.6	120900.	D13350.	69890.	2492.	71190.
#3	D152.7	D153.3	119400.	D10090.	71510.	2495.	70050.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D155.6	D.0000	D249.2	D239.6
SDev	48.4	241.2	14.7	18.4
%RSD	31.14	40.90	5.889	7.692
#1	D210.7	D.0000	D248.8	D246.3
#2	D119.8	D.0000	D234.7	D218.8
#3	D136.2	D.0000	D264.1	D253.8

Method: CLP Sample Name: 9410061-13 SPK #1 Operator: JP
Run Time: 11/23/94 14:01:21
Comment: 1:10

Mode: CONC Corr. Factor: 10

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	4420.	163.2	D.0000	206700.	D3.753	D.0000
SDev	10.24	16.	3.4	1.132	621.	42.40	35.57
%RSD	12.03	.3655	2.100	120.5	.3006	1130.	131.6
#1	D.0000	4420.	165.2	D.0000	206800.	D52.71	D.0000
#2	D.0000	4436.	165.2	D.0000	207200.	D.0000	D.0000
#3	D.0000	4403.	159.2	D.0000	206000.	D.0000	D5.662

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D15.35	D.0000	12010.	D1882.	D11830.	639.6	17540.
SDev	47.33	13.69	99.	6076.	36.	7.6	310.
%RSD	308.2	52.69	.8252	322.9	.3054	1.181	1.769
#1	D.0000	D.0000	11920.	D2304.	D11850.	631.4	17900.
#2	D.0000	D.0000	12000.	D7735.	D11850.	641.4	17330.
#3	D68.92	D.0000	12120.	D.0000	D11790.	646.2	17400.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D49.54	D.0000	D.0000	D36.80
SDev	63.75	206.6	23.41	15.82
%RSD	128.7	32.80	561.5	43.00
#1	D.0000	D.0000	D15.77	D29.17
#2	D110.7	D.0000	D1.663	D26.25
#3	D54.39	D.0000	D.0000	D55.00

Method: CLP Sample Name: 9410061-13 SPK #2 Operator: JP
Run Time: 11/23/94 14:08:38
Comment: 1:10
Mode: CONC Corr. Factor: 10 1:100

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	10940.	779.3	D.5390	610500.	D.0000	D26.39
SDev	36.84	366.	8.0	.6002	6799.	18.73	5.90
%RSD	275.2	3.348	1.026	111.3	1.114	119.6	22.35
#1	D28.65	11110.	786.5	D.7880	602600.	D.0000	D23.60
#2	D.0000	10520.	780.6	D.0000	614200.	D.0000	D22.41
#3	D.0000	11190.	770.7	D.9747	614500.	D.0000	D33.17

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.2115	32630.	D2545.	34730.	1835.	51810.
SDev	1.506	8.482	152.	1507.	1175.	12.	63.
%RSD	5.311	4011.	.4654	59.22	3.382	.6347	.1214
#1	D.0000	D.0000	32700.	D3752.	35440.	1824.	51810.
#2	D.0000	D9.496	32450.	D3028.	33380.	1835.	51870.
#3	D.0000	D.0000	32730.	D855.7	35380.	1847.	51750.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D50.15	D.0000	D86.12	D110.8
SDev	34.40	397.2	29.23	5.5
%RSD	68.60	96.44	33.94	4.930
#1	D10.77	D.0000	D113.4	D105.8
#2	D74.38	D41.50	D55.27	D116.7
#3	D65.29	D.0000	D89.70	D110.0

Method: CLP Sample Name: 9410061-13 SPK INST Operator: JP
Run Time: 11/23/94 14:15:55
Comment: 1:10
Mode: CONC Corr. Factor: 10

1:10

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	4592.	132600.	101900.	2336.	2563000.	11220.	22740.
SDev	83.	757.	435.	6.	12529.	82.	104.
%RSD	1.801	.5711	.4271	.2356	.4889	.7338	.4556
#1	4527.	133400.	101600.	2330.	2572000.	11160.	22830.
#2	4685.	132600.	101800.	2340.	2549000.	11180.	22770.
#3	4565.	131900.	102400.	2338.	2568000.	11310.	22630.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	6660.	12580.	106900.	2725000.	2380000.	8119.	2673000
SDev	115.	40.	89.	17486.	27814.	23.	34536
%RSD	1.724	.3165	.0830	.6417	1.168	.2892	1.292
#1	6529.	12550.	106900.	2745000.	2401000.	8146.	2634000
#2	6741.	12630.	107000.	2717000.	2391000.	8111.	2687000
#3	6711.	12570.	106900.	2713000.	2349000.	8101.	2699000

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	18490.	16150.	24030.	9302.
SDev	342.	776.	117.	41.
%RSD	1.848	4.806	.4874	.4403
#1	18100.	16500.	24160.	9316.
#2	18660.	16690.	23980.	9333.
#3	18720.	15260.	23940.	9256.

Method: CLP Sample Name: CRIF Operator: JP
Run Time: 11/23/94 14:23:12
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D10.78	D98.03	D3.918	8.086	D94.57	D9.460	82.66
SDev	1.19	30.91	.302	.074	7.24	.726	4.59
%RSD	11.04	31.53	7.714	.9207	7.652	7.671	5.552

#1	D10.82	D125.3	D3.852	8.121	D102.5	D8.645	79.27
#2	D11.96	D64.46	D3.654	8.000	D92.99	D9.703	87.88
#3	D9.576	D104.3	D4.248	8.135	D88.25	D10.03	80.83

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D13.96	43.35	D38.25	D67.46	D.0000	25.98	d85.00
SDev	1.18	3.70	3.07	222.5	37.59	.21	.00
%RSD	8.486	8.536	8.024	329.7	341.1	.8269	.0000
#1	D12.81	47.59	D39.36	D320.9	D.0000	25.74	d85.00
#2	D13.89	41.69	D34.78	D.0000	D.0000	26.06	d85.00
#3	D15.17	40.78	D40.61	D.0000	D27.57	26.15	d85.00

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	66.08	D.0000	85.27	34.64
SDev	7.05	49.13	1.33	.65
%RSD	10.67	165.4	1.565	1.865
#1	73.59	D.0000	84.70	35.29
#2	65.05	D7.594	84.31	34.63
#3	59.60	D.0000	86.79	34.00

Method: CLP Sample Name: ICSAF Operator: JP
Run Time: 11/23/94 14:30:30
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	S222800.	24.50	D.0000	446200.	D7.718	D.0000
SDev	3.893	88.	.41	.0759	3015.	1.498	5.923
%RSD	41.56	.0393	1.681	130.6	.6758	19.41	8257.
#1	D.0000	S222900.	24.04	D.0000	442700.	D6.329	D6.666
#2	D.0000	S222800.	24.83	D.0000	448000.	D7.520	D.0000
#3	D.0000	S222800.	24.63	D.0088	447800.	D9.306	D.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	135.0	D.0000	S34870.	D.0000	472200.	16.49	412.1
SDev	2.8	2.599	160.	372.1	1419.	1.12	6.3
%RSD	2.080	10.65	.4599	2186.	.3005	6.788	1.526
#1	134.4	D.0000	S34780.	D339.0	470700.	15.30	418.4
#2	138.0	D.0000	S35050.	D.0000	473500.	16.66	412.1
#3	132.5	D.0000	S34770.	D13.15	472500.	17.52	405.9

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	d4.833	D183.8	D3.477	59.86
SDev	1.480	64.2	3.027	1.30
%RSD	30.63	34.93	87.04	2.170

#1	d6.529	D174.6	D3.722	59.38
#2	d3.803	D124.7	D.3356	58.88
#3	d4.167	D252.1	D6.374	61.33

Method: CLP Sample Name: ICSABF Operator: JP
Run Time: 11/23/94 14:37:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L 104	ug/L	ug/L	ug/L 82%	ug/L
Avge	786.7	S223400.	522.4	367.1	441300.	815.5	353.7
SDev	.9	200.	2.7	1.0	2594.	4.7	2.8
%RSD	.1194	.0895	.5143	.2658	.5879	.5741	.7779
#1	786.2	S223200.	523.9	368.2	438400.	820.6	350.9
#2	787.8	S223300.	519.3	366.3	441800.	811.3	353.7
#3	786.1	S223600.	524.1	366.8	443500.	814.7	356.4

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L 74%	ug/L
Avge	436.6	386.6	S34830.	D.0000	469100.	372.3	372.3
SDev	9.2	2.3	48.	165.9	3266.	4.2	3.6
%RSD	2.111	.5885	.1372	47.55	.6963	1.122	.9756
#1	436.7	384.0	S34780.	D.0000	465600.	372.6	374.4
#2	427.4	387.6	S34860.	D.0000	472100.	376.3	374.4
#3	445.8	388.1	S34860.	D.0000	469400.	368.0	368.1

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L 75%
Avge	704.7	1486.	380.7	746.0
SDev	9.0	78.	4.6	6.9
%RSD	1.278	5.257	1.199	.9306
#1	697.5	1475.	385.8	750.2
#2	701.7	1569.	379.3	738.0
#3	714.8	1414.	377.0	749.8

Method: CLP Sample Name: CCV3 Operator: JP
Run Time: 11/23/94 14:45:06
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 78	ug/L 99%	ug/L 101%	ug/L 76%	ug/L 90	ug/L 86	ug/L
Avge	392.7	9860.	10100.	191.3	224700.	215.0	1880.
SDev	4.2	65.	47.	.4	1246.	3.3	12.
%RSD	1.074	.6599	.4640	.2020	.5544	1.531	.6414
#1	397.3	9786.	10120.	191.2	226000.	211.2	1886.
#2	391.9	9892.	10040.	191.7	224700.	217.1	1887.
#3	388.9	9903.	10120.	190.9	223500.	216.7	1866.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889

Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	372.6	1039.	4516.	266700.	230600.	567.1	256000.
SDev	2.7	4.	14.	2656.	1744.	2.3	1452.
%RSD	.7300	.3955	.3163	.9960	.7559	.4045	.5674
#1	371.6	1037.	4510.	268100.	228600.	567.7	254500.
#2	375.7	1036.	4506.	263600.	231800.	569.1	256100.
#3	370.6	1044.	4533.	268300.	231500.	564.6	257400.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	1459.	D369.7	1981.	743.7
SDev	10.	55.9	7.	5.7
%RSD	.7163	15.12	.3331	.7656
#1	1466.	D407.0	1984.	737.3
#2	1447.	D396.7	1973.	748.1
#3	1463.	D305.5	1985.	745.8

Method: CLP Sample Name: CCB3 Operator: JP
Run Time: 11/23/94 14:52:23
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D110.1	D2.929	D.0000	D23.51	D.4414	D.0000
SDev	2.315	22.2	.412	.0397	2.74	1.998	1.868
%RSD	48.20	20.13	14.06	29.89	11.63	452.6	96.03
#1	D.0000	D114.5	D3.259	D.0000	D21.93	D2.294	D.0000
#2	D.0000	D129.6	D2.467	D.0000	D21.93	D.0000	D.2074
#3	D.0000	D86.00	D3.061	D.0000	D26.67	D.7060	D.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D1.305	D.0000	D2.638	D.0000	D.0000	D.0583	D30.48
SDev	3.018	2.702	2.082	294.9	16.55	.2267	3.63
%RSD	231.2	56.94	78.93	205.1	32.69	389.0	11.92
#1	D2.949	D.0000	D.5558	D194.2	D.0000	D.0000	D34.67
#2	D3.146	D.0000	D2.638	D.0000	D.0000	D.0230	D28.38
#3	D.0000	D.0000	D4.720	D.0000	D.0000	D.3006	D28.38

Elem	Ni2316	Pb2203	V_3110	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avge	D2.349	D.0000	D.0000	D.0000
SDev	2.714	26.51	2.411	.5422
%RSD	115.5	145.4	605.7	60.05
#1	D3.440	D.0000	D.0000	D.0000
#2	D4.349	D.0000	D.0000	D.0000
#3	D.0000	D4.150	D1.859	D.0000

EBS RUN NUMBER: 58310\941121000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/07/94
PAGE: 1

TEST: CLP METALS

DATE ANALYZED: 11/21/94

ANALYZED BY: CMT

HOLDING TIME: 99 Days

Total Number of Samples: 8
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 3
Number of LCS's: 2

Number of ICB's: 1
Number of CCB's: 3
Number of PB's: 2

Number of DUP's: 3
Number of SPK's: 3
Number of MSD'S: 2

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICC	Ag3280	ug/L	991	1000		99.1		95.0	105	NA	NA	NA
	Al3082	ug/L	1990	2000		99.50		95.0	105	NA	NA	NA
	Ba4554	ug/L	1980	2000		99.00		95.0	105	NA	NA	NA
	Be3131	ug/L	471	500		94.2		95.0	105	NA	NA	NA
	Ca3179	ug/L	482000	500000		96.400		95.0	105	NA	NA	NA
	Cd2265	ug/L	2360	2500		94.40		95.0	105	NA	NA	NA
	Co2286	ug/L	4670	5000		93.40		95.0	105	NA	NA	NA
	Cr2677	ug/L	953	1000		95.3		95.0	105	NA	NA	NA
	Cu3247	ug/L	2470	2500		98.80		95.0	105	NA	NA	NA
	Fe2599	ug/L	9540	10000		95.40		95.0	105	NA	NA	NA
	K_7664	ug/L	502000	500000		100.40		95.0	105	NA	NA	NA
	Mg2790	ug/L	506000	500000		101.20		95.0	105	NA	NA	NA
	Mn2576	ug/L	1420	1500		94.67		95.0	105	NA	NA	NA
	Na5889	ug/L	488000	500000		97.600		95.0	105	NA	NA	NA
	Ni2316	ug/L	3750	4000		93.75		95.0	105	NA	NA	NA
	V_3110	ug/L	4810	5000		96.20		95.0	105	NA	NA	NA
	Zn2138	ug/L	1930	2000		96.50		95.0	105	NA	NA	NA
ICV	Ag3280	ug/L	509	500		102		80.0	120	NA	NA	NA
	Al3082	ug/L	10400	10000		104.00		90.0	110	NA	NA	NA
	Ba4554	ug/L	10300	10000		103.00		90.0	110	NA	NA	NA
	Be3131	ug/L	255	250		102		90.0	110	NA	NA	NA
	Ca3179	ug/L	251000	250000		100.40		90.0	110	NA	NA	NA
	Cd2265	ug/L	254	250		102		90.0	110	NA	NA	NA
	Co2286	ug/L	2550	2500		102.0		90.0	110	NA	NA	NA
	Cr2677	ug/L	511	500		102		90.0	110	NA	NA	NA
	Cu3247	ug/L	1280	1250		102.4		90.0	110	NA	NA	NA
	Fe2599	ug/L	5170	5000		103.4		90.0	110	NA	NA	NA
	K_7664	ug/L	252000	250000		100.80		90.0	110	NA	NA	NA
	Mg2790	ug/L	253000	250000		101.20		90.0	110	NA	NA	NA
	Mn2576	ug/L	760	750		101		90.0	110	NA	NA	NA
	Na5889	ug/L	253000	250000		101.20		90.0	110	NA	NA	NA
	Ni2316	ug/L	2040	2000		102.0		90.0	110	NA	NA	NA
	V_3110	ug/L	2560	2500		102.4		90.0	110	NA	NA	NA
	Zn2138	ug/L	996	1000		99.6		90.0	110	NA	NA	NA
ICB	Ag3280	ug/L	< 6							NA	NA	NA

EBS RUN NUMBER: 58310\941121000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: CLP METALS DATE ANALYZED: 11/21/94 ANALYZED BY: CMT HOLDING TIME: 99 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICB	Al3082	ug/L	< 70							NA	NA	NA
	Ba4554	ug/L	< 17							NA	NA	NA
	Be3131	ug/L	< 5							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Cd2265	ug/L	< 5							NA	NA	NA
	Co2286	ug/L	< 10							NA	NA	NA
	Cr2677	ug/L	< 10							NA	NA	NA
	Cu3247	ug/L	< 6							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA
	Na5889	ug/L	< 100							NA	NA	NA
	Ni2316	ug/L	< 20							NA	NA	NA
	V_3110	ug/L	< 10							NA	NA	NA
	Zn2138	ug/L	< 10							NA	NA	NA
ICSAI	Ag3280	ug/L	< 6							NA	NA	NA
	Al3082	ug/L	194000	500000		38.800				NA	NA	NA
	Ba4554	ug/L	< 17							NA	NA	NA
	Be3131	ug/L	< 5							NA	NA	NA
	Ca3179	ug/L	484000	500000		96.800				NA	NA	NA
	Cd2265	ug/L	< 5							NA	NA	NA
	Co2286	ug/L	< 10							NA	NA	NA
	Cr2677	ug/L	158							NA	NA	NA
	Cu3247	ug/L	< 6							NA	NA	NA
	Fe2599	ug/L	36600	200000		18.300				NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	504000	500000		100.80				NA	NA	NA
	Mn2576	ug/L	21.0							NA	NA	NA
	Na5889	ug/L	330							NA	NA	NA
	Ni2316	ug/L	< 20							NA	NA	NA
	V_3110	ug/L	< 10							NA	NA	NA
	Zn2138	ug/L	58.9							NA	NA	NA
ICSABI	Ag3280	ug/L	1040	1000		104.0		80.0	120	NA	NA	NA
	Al3082	ug/L	SATURATED	500000		0				NA	NA	NA
	Ba4554	ug/L	525	500		105		80.0	120	NA	NA	NA
	Be3131	ug/L	492	500		98.4		80.0	120	NA	NA	NA
	Ca3179	ug/L	490000	500000		98.000				NA	NA	NA
	Cd2265	ug/L	948	1000		94.8		80.0	120	NA	NA	NA
	Co2286	ug/L	480	500		96.0		80.0	120	NA	NA	NA
	Cr2677	ug/L	573	500		115		80.0	120	NA	NA	NA

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SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/07/94

TEST: CLP METALS DATE ANALYZED: 11/21/94 ANALYZED BY: CMT HOLDING TIME: 99 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICSABI	Cu3247	ug/L	468	500		93.6		80.0	120	NA	NA	NA
	Fe2599	ug/L	SATURATED	200000		0				NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	507000	500000		101.40				NA	NA	NA
	Mn2576	ug/L	497	500		99.4		80.0	120	NA	NA	NA
	Na5889	ug/L	320							NA	NA	NA
	Ni2316	ug/L	946	1000		94.6		80.0	120	NA	NA	NA
	V_3110	ug/L	495	500		99.0		80.0	120	NA	NA	NA
	Zn2138	ug/L	987	1000		98.7		80.0	120	NA	NA	NA
CRII	Ag3280	ug/L	21.83	20.0		109				NA	NA	NA
	Al3082	ug/L	102.7							NA	NA	NA
	Ba4554	ug/L	0							NA	NA	NA
	Be3131	ug/L	10.70	10.0		107				NA	NA	NA
	Ca3179	ug/L	9.567							NA	NA	NA
	Cd2265	ug/L	12.21	10.0		122				NA	NA	NA
	Co2286	ug/L	124.5	100		124				NA	NA	NA
	Cr2677	ug/L	22.49	20.0		112				NA	NA	NA
	Cu3247	ug/L	55.82	50.0		112				NA	NA	NA
	Fe2599	ug/L	1.178							NA	NA	NA
	K_7664	ug/L	0							NA	NA	NA
	Mg2790	ug/L	22.35							NA	NA	NA
	Mn2576	ug/L	35.31	30.0		118				NA	NA	NA
	Na5889	ug/L	30.54							NA	NA	NA
	Ni2316	ug/L	97.36	80.0		122				NA	NA	NA
	V_3110	ug/L	110.9	100		111				NA	NA	NA
	Zn2138	ug/L	44.92	40.0		112				NA	NA	NA
LCSW	Ag3280	ug/L	45.0	50.0		90.0		80.0	120	NA	NA	NA
	Al3082	ug/L	1850	2000		92.50		80.0	120	NA	NA	NA
	Ba4554	ug/L	1910	2000		95.50		80.0	120	NA	NA	NA
	Be3131	ug/L	48.2	50.0		96.4		80.0	120	NA	NA	NA
	Ca3179	ug/L	270							NA	NA	NA
	Cd2265	ug/L	47.2	50.0		94.4		80.0	120	NA	NA	NA
	Co2286	ug/L	472	500		94.4		80.0	120	NA	NA	NA
	Cr2677	ug/L	190	200		95.0		80.0	120	NA	NA	NA
	Cu3247	ug/L	245	250		98.0		80.0	120	NA	NA	NA
	Fe2599	ug/L	971	1000		97.1		80.0	120	NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	460	500		92.0		80.0	120	NA	NA	NA
	Na5889	ug/L	781							NA	NA	NA
	Ni2316	ug/L	479	500		95.8		80.0	120	NA	NA	NA

EBS RUN NUMBER: 58310\941121000000
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SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/07/94

TEST: CLP METALS DATE ANALYZED: 11/21/94 ANALYZED BY: CMT HOLDING TIME: 99 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
LCSW	V_3110	ug/L	458	500		91.6		80.0	120	NA	NA	NA
	Zn2138	ug/L	440	500		88.0		80.0	120	NA	NA	NA
LCSS	Ag3280	ug/L	43.1	50.0		86.2		80.0	120	NA	NA	NA
	Al3082	ug/L	2500	2000		125.0		80.0	120	NA	NA	NA
	Ba4554	ug/L	2100	2000		105.0		80.0	120	NA	NA	NA
	Be3131	ug/L	51.5	50.0		103		80.0	120	NA	NA	NA
	Ca3179	ug/L	1660							NA	NA	NA
	Cd2265	ug/L	52.1	50.0		104		80.0	120	NA	NA	NA
	Co2286	ug/L	519	500		104		80.0	120	NA	NA	NA
	Cr2677	ug/L	209	200		104		80.0	120	NA	NA	NA
	Cu3247	ug/L	265	250		106		80.0	120	NA	NA	NA
	Fe2599	ug/L	1560	1000		156.0		80.0	120	NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	521	500		104		80.0	120	NA	NA	NA
	Na5889	ug/L	293							NA	NA	NA
	Ni2316	ug/L	522	500		104		80.0	120	NA	NA	NA
	V_3110	ug/L	510	500		102		80.0	120	NA	NA	NA
	Zn2138	ug/L	503	500		101		80.0	120	NA	NA	NA
PBW	Ag3280	ug/L	< 6							NA	NA	NA
	Al3082	ug/L	< 70							NA	NA	NA
	Ba4554	ug/L	< 17							NA	NA	NA
	Be3131	ug/L	< 5							NA	NA	NA
	Ca3179	ug/L	2090							NA	NA	NA
	Cd2265	ug/L	< 5							NA	NA	NA
	Co2286	ug/L	< 10							NA	NA	NA
	Cr2677	ug/L	< 10							NA	NA	NA
	Cu3247	ug/L	< 6							NA	NA	NA
	Fe2599	ug/L	45.9							NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA
	Na5889	ug/L	201							NA	NA	NA
	Ni2316	ug/L	< 20							NA	NA	NA
	V_3110	ug/L	< 10							NA	NA	NA
	Zn2138	ug/L	35.1							NA	NA	NA
PBS	Ag3280	ug/L	< 6							NA	NA	NA
	Al3082	ug/L	< 70							NA	NA	NA
	Ba4554	ug/L	< 17							NA	NA	NA
	Be3131	ug/L	< 5							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA

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SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: CLP METALS **DATE ANALYZED: 11/21/94** **ANALYZED BY: CMT** **HOLDING TIME: 99 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
PBS	Cd2265	ug/L	< 5							NA	NA	NA
	Co2286	ug/L	< 10							NA	NA	NA
	Cr2677	ug/L	< 10							NA	NA	NA
	Cu3247	ug/L	< 6							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA
	Na5889	ug/L	257							NA	NA	NA
	Ni2316	ug/L	< 20							NA	NA	NA
	V_3110	ug/L	< 10							NA	NA	NA
	Zn2138	ug/L	< 10							NA	NA	NA
9410061-01A	Ag3280	mg/kg	< 1			N				10/07/94	09/29/94	YES
	Al3082	mg/kg	6280			*				10/07/94	09/29/94	YES
	Ba4554	mg/kg	33.5							10/07/94	09/29/94	YES
	Be3131	mg/kg	< 1							10/07/94	09/29/94	YES
	Cd2265	mg/kg	< 1							10/07/94	09/29/94	YES
	Co2286	mg/kg	< 2.4							10/07/94	09/29/94	YES
	Cr2677	mg/kg	33.0							10/07/94	09/29/94	YES
	Cu3247	mg/kg	8.43							10/07/94	09/29/94	YES
	K_7664	mg/kg	< 97.6							10/07/94	09/29/94	YES
	Mg2790	mg/kg	3690							10/07/94	09/29/94	YES
	Mn2576	mg/kg	167							10/07/94	09/29/94	YES
	Na5889	mg/kg	2020							10/07/94	09/29/94	YES
	Ni2316	mg/kg	29.2							10/07/94	09/29/94	YES
	V_3110	mg/kg	53.0							10/07/94	09/29/94	YES
	Zn2138	mg/kg	52.4			*N				10/07/94	09/29/94	YES
9410061-01 DUP	Ag3280	mg/kg	< 1	< 1			0			10/07/94	09/29/94	YES
DUP	Al3082	mg/kg	7810	6280			21.72			10/07/94	09/29/94	YES
DUP	Ba4554	mg/kg	36.3	33.5			8.02			10/07/94	09/29/94	YES
DUP	Be3131	mg/kg	< 1	< 1			0			10/07/94	09/29/94	YES
DUP	Cd2265	mg/kg	< 1	< 1			0			10/07/94	09/29/94	YES
DUP	Co2286	mg/kg	< 2.4	< 2.4			0			10/07/94	09/29/94	YES
DUP	Cr2677	mg/kg	31.5	33.0			4.65			10/07/94	09/29/94	YES
DUP	Cu3247	mg/kg	< 1	8.43			0			10/07/94	09/29/94	YES
DUP	K_7664	mg/kg	< 97.6	< 97.6			0			10/07/94	09/29/94	YES
DUP	Mg2790	mg/kg	3870	3690			4.762			10/07/94	09/29/94	YES
DUP	Mn2576	mg/kg	159	167			4.91			10/07/94	09/29/94	YES
DUP	Na5889	mg/kg	1890	2020			6.650			10/07/94	09/29/94	YES
DUP	Ni2316	mg/kg	< 4.9	29.2			0			10/07/94	09/29/94	YES
DUP	V_3110	mg/kg	52.3	53.0			1.33			10/07/94	09/29/94	YES

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SOUTHWESTERN LABORATORIES
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ANALYTICAL RUN SUMMARY

TEST: CLP METALS **DATE ANALYZED: 11/21/94** **ANALYZED BY: CMT** **HOLDING TIME: 99 Days**

LAB NUMBER		ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-01	DUP	Zn2138	mg/kg	38.6	52.4			30.3			10/07/94	09/29/94	YES
	SPK	Ag3280	mg/kg	44.7	< 1	12.2	366				10/07/94	NA	NA
	SPK	Al3082	mg/kg	12300	6280						10/07/94	NA	NA
	SPK	Ba4554	mg/kg	521	33.5	488	99.9		75.0	125	10/07/94	NA	NA
	SPK	Be3131	mg/kg	12.3	< 1	12.2	101		75.0	125	10/07/94	NA	NA
	SPK	Cd2265	mg/kg	12.5	< 1	12.2	102		75.0	125	10/07/94	NA	NA
	SPK	Co2286	mg/kg	124	< 2.4	122	102		75.0	125	10/07/94	NA	NA
	SPK	Cr2677	mg/kg	80.2	33.0	48.8	96.7		75.0	125	10/07/94	NA	NA
	SPK	Cu3247	mg/kg	70.3	8.43	61.0	101		75.0	125	10/07/94	NA	NA
	SPK	K_7664	mg/kg	< 97.6	< 97.6						10/07/94	NA	NA
	SPK	Mg2790	mg/kg	4270	3690						10/07/94	NA	NA
	SPK	Mn2576	mg/kg	277	167	122	90.2		75.0	125	10/07/94	NA	NA
	SPK	Na5889	mg/kg	1960	2020						10/07/94	NA	NA
	SPK	Ni2316	mg/kg	128	29.2	122	81.0		75.0	125	10/07/94	NA	NA
	SPK	V_3110	mg/kg	176	53.0	122	101		75.0	125	10/07/94	NA	NA
	SPK	Zn2138	mg/kg	138	52.4	122	70.2		75.0	125	10/07/94	NA	NA
	ISPK	Ag3280	mg/kg	95.4	< 1	122	78.2				10/07/94	NA	NA
	ISPK	Al3082	mg/kg	5520	3140	2440	97.54				10/07/94	NA	NA
	ISPK	Ba4554	mg/kg	2430	16.8	2440	98.9				10/07/94	NA	NA
	ISPK	Be3131	mg/kg	60.2	< 1	61.0	98.7				10/07/94	NA	NA
	ISPK	Cd2265	mg/kg	293	< 1	305	96.1				10/07/94	NA	NA
	ISPK	Co2286	mg/kg	592	< 2.4	610	97.0				10/07/94	NA	NA
	ISPK	Cr2677	mg/kg	135	16.5	122	97.1				10/07/94	NA	NA
	ISPK	Cu3247	mg/kg	310	4.22	305	100				10/07/94	NA	NA
	ISPK	K_7664	mg/kg	62200	< 97.6	61000	101.97				10/07/94	NA	NA
	ISPK	Mg2790	mg/kg	62200	1840	61000	98.95				10/07/94	NA	NA
	ISPK	Mn2576	mg/kg	258	83.5	183	95.4				10/07/94	NA	NA
	ISPK	Na5889	mg/kg	59800	1010	61000	96.38				10/07/94	NA	NA
	ISPK	Ni2316	mg/kg	476	14.6	488	94.5				10/07/94	NA	NA
	ISPK	V_3110	mg/kg	624	26.5	610	98.0				10/07/94	NA	NA
	ISPK	Zn2138	mg/kg	260	26.2	244	95.8				10/07/94	NA	NA
9410061-02A		Ag3280	mg/kg	6.54			N				10/07/94	09/29/94	YES
		Al3082	mg/kg	8280			*				10/07/94	09/29/94	YES
		Ba4554	mg/kg	69.1							10/07/94	09/29/94	YES
		Be3131	mg/kg	< 1							10/07/94	09/29/94	YES
		Cd2265	mg/kg	4.24							10/07/94	09/29/94	YES
		Co2286	mg/kg	23.7							10/07/94	09/29/94	YES
		Cr2677	mg/kg	27.3							10/07/94	09/29/94	YES
		Cu3247	mg/kg	11.3							10/07/94	09/29/94	YES
		K_7664	mg/kg	1620							10/07/94	09/29/94	YES
		Mg2790	mg/kg	5240							10/07/94	09/29/94	YES

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TEST: CLP METALS DATE ANALYZED: 11/21/94 ANALYZED BY: CMT HOLDING TIME: 99 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-02A	Mn2576	mg/kg	226							10/07/94	09/29/94	YES
	Na5889	mg/kg	2450							10/07/94	09/29/94	YES
	Ni2316	mg/kg	35300							10/07/94	09/29/94	YES
	V_3110	mg/kg	53.3							10/07/94	09/29/94	YES
	Zn2138	mg/kg	26.0			*N				10/07/94	09/29/94	YES
CCV	Ag3280	ug/L	513	500		103		90.0	110	NA	NA	NA
	Al3082	ug/L	10300	10000		103.00		90.0	110	NA	NA	NA
	Ba4554	ug/L	10200	10000		102.00		90.0	110	NA	NA	NA
	Be3131	ug/L	258	250		103		90.0	110	NA	NA	NA
	Ca3179	ug/L	255000	250000		102.00		90.0	110	NA	NA	NA
	Cd2265	ug/L	256	250		102		90.0	110	NA	NA	NA
	Co2286	ug/L	2570	2500		102.8		90.0	110	NA	NA	NA
	Cr2677	ug/L	511	500		102		90.0	110	NA	NA	NA
	Cu3247	ug/L	1280	1250		102.4		90.0	110	NA	NA	NA
	Fe2599	ug/L	5190	5000		103.8		90.0	110	NA	NA	NA
	K_7664	ug/L	250000	250000		100.00		90.0	110	NA	NA	NA
	Mg2790	ug/L	256000	250000		102.40		90.0	110	NA	NA	NA
	Mn2576	ug/L	769	750		103		90.0	110	NA	NA	NA
	Na5889	ug/L	244000	250000		97.600		90.0	110	NA	NA	NA
	Ni2316	ug/L	2020	2000		101.0		90.0	110	NA	NA	NA
	V_3110	ug/L	2560	2500		102.4		90.0	110	NA	NA	NA
	Zn2138	ug/L	999	1000		99.9		90.0	110	NA	NA	NA
CCB	Ag3280	ug/L	< 6							NA	NA	NA
	Al3082	ug/L	< 70							NA	NA	NA
	Ba4554	ug/L	< 17							NA	NA	NA
	Be3131	ug/L	< 5							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Cd2265	ug/L	< 5							NA	NA	NA
	Co2286	ug/L	< 10							NA	NA	NA
	Cr2677	ug/L	< 10							NA	NA	NA
	Cu3247	ug/L	< 6							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA
	Na5889	ug/L	< 100							NA	NA	NA
	Ni2316	ug/L	< 20							NA	NA	NA
	V_3110	ug/L	< 10							NA	NA	NA
	Zn2138	ug/L	< 10							NA	NA	NA
9410061-03A	Ag3280	mg/kg	< 2			N				10/07/94	09/29/94	YES
	Al3082	mg/kg	36500			*				10/07/94	09/29/94	YES

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REPORTED: 12/07/94

TEST: CLP METALS DATE ANALYZED: 11/21/94 ANALYZED BY: CMT HOLDING TIME: 99 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-03A	Ba4554	mg/kg	163							10/07/94	09/29/94	YES
	Be3131	mg/kg	1.25							10/07/94	09/29/94	YES
	Ca3179	mg/kg	16400							10/07/94	09/29/94	YES
	Cd2265	mg/kg	< 1							10/07/94	09/29/94	YES
	Co2286	mg/kg	32.2							10/07/94	09/29/94	YES
	Cr2677	mg/kg	77.6							10/07/94	09/29/94	YES
	Cu3247	mg/kg	76.1							10/07/94	09/29/94	YES
	K_7664	mg/kg	1800							10/07/94	09/29/94	YES
	Mg2790	mg/kg	13900							10/07/94	09/29/94	YES
	Na5889	mg/kg	478							10/07/94	09/29/94	YES
	Ni2316	mg/kg	38.4							10/07/94	09/29/94	YES
	V_3110	mg/kg	178							10/07/94	09/29/94	YES
	Zn2138	mg/kg	86.4			*N				10/07/94	09/29/94	YES
9410061-04A	Ag3280	mg/kg	< 2			N				10/07/94	09/29/94	YES
	Al3082	mg/kg	33100			*				10/07/94	09/29/94	YES
	Ba4554	mg/kg	160							10/07/94	09/29/94	YES
	Be3131	mg/kg	1.20							10/07/94	09/29/94	YES
	Ca3179	mg/kg	48800							10/07/94	09/29/94	YES
	Cd2265	mg/kg	< 1							10/07/94	09/29/94	YES
	Co2286	mg/kg	26.7							10/07/94	09/29/94	YES
	Cr2677	mg/kg	70.9							10/07/94	09/29/94	YES
	Cu3247	mg/kg	65.0							10/07/94	09/29/94	YES
	K_7664	mg/kg	< 100							10/07/94	09/29/94	YES
	Mg2790	mg/kg	16200							10/07/94	09/29/94	YES
	Na5889	mg/kg	1020							10/07/94	09/29/94	YES
	Ni2316	mg/kg	33.7							10/07/94	09/29/94	YES
	V_3110	mg/kg	177							10/07/94	09/29/94	YES
	Zn2138	mg/kg	84.8			*N				10/07/94	09/29/94	YES
9410061-05A	Ag3280	mg/kg	< 1			N				10/07/94	09/29/94	YES
	Al3082	mg/kg	31700			*				10/07/94	09/29/94	YES
	Ba4554	mg/kg	130							10/07/94	09/29/94	YES
	Be3131	mg/kg	1.17							10/07/94	09/29/94	YES
	Ca3179	mg/kg	56000							10/07/94	09/29/94	YES
	Cd2265	mg/kg	< 1							10/07/94	09/29/94	YES
	Co2286	mg/kg	27.0							10/07/94	09/29/94	YES
	Cr2677	mg/kg	68.4							10/07/94	09/29/94	YES
	Cu3247	mg/kg	63.3							10/07/94	09/29/94	YES
	K_7664	mg/kg	< 99.6							10/07/94	09/29/94	YES
	Mg2790	mg/kg	14900							10/07/94	09/29/94	YES
	Na5889	mg/kg	999							10/07/94	09/29/94	YES
	Ni2316	mg/kg	31.8							10/07/94	09/29/94	YES

EBS RUN NUMBER: 58310\941121000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: CLP METALS DATE ANALYZED: 11/21/94 ANALYZED BY: CMT HOLDING TIME: 99 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-05A	V_3110	mg/kg	168							10/07/94	09/29/94	YES
	Zn2138	mg/kg	71.1			*N				10/07/94	09/29/94	YES
9410061-06A	Ag3280	mg/kg	< 2			N				10/07/94	09/29/94	YES
	Al3082	mg/kg	33000			*				10/07/94	09/29/94	YES
	Ba4554	mg/kg	157							10/07/94	09/29/94	YES
	Be3131	mg/kg	1.25							10/07/94	09/29/94	YES
	Ca3179	mg/kg	50200							10/07/94	09/29/94	YES
	Cd2265	mg/kg	< 1							10/07/94	09/29/94	YES
	Co2286	mg/kg	28.1							10/07/94	09/29/94	YES
	Cr2677	mg/kg	72.4							10/07/94	09/29/94	YES
	Cu3247	mg/kg	64.7							10/07/94	09/29/94	YES
	K_7664	mg/kg	< 100							10/07/94	09/29/94	YES
	Mg2790	mg/kg	16300							10/07/94	09/29/94	YES
	Na5889	mg/kg	1010							10/07/94	09/29/94	YES
	Ni2316	mg/kg	33.9							10/07/94	09/29/94	YES
	V_3110	mg/kg	183							10/07/94	09/29/94	YES
	Zn2138	mg/kg	74.3			*N				10/07/94	09/29/94	YES
CCV	Ag3280	ug/L	507	500		101		90.0	110	NA	NA	NA
	Al3082	ug/L	10400	10000		104.00		90.0	110	NA	NA	NA
	Ba4554	ug/L	10300	10000		103.00		90.0	110	NA	NA	NA
	Be3131	ug/L	258	250		103		90.0	110	NA	NA	NA
	Ca3179	ug/L	256000	250000		102.40		90.0	110	NA	NA	NA
	Cd2265	ug/L	253	250		101		90.0	110	NA	NA	NA
	Co2286	ug/L	2590	2500		103.6		90.0	110	NA	NA	NA
	Cr2677	ug/L	526	500		105		90.0	110	NA	NA	NA
	Cu3247	ug/L	1300	1250		104.0		90.0	110	NA	NA	NA
	Fe2599	ug/L	5160	5000		103.2		90.0	110	NA	NA	NA
	K_7664	ug/L	250000	250000		100.00		90.0	110	NA	NA	NA
	Mg2790	ug/L	255000	250000		102.00		90.0	110	NA	NA	NA
	Mn2576	ug/L	768	750		102		90.0	110	NA	NA	NA
	Na5889	ug/L	246000	250000		98.400		90.0	110	NA	NA	NA
	Ni2316	ug/L	2050	2000		102.5		90.0	110	NA	NA	NA
	V_3110	ug/L	2580	2500		103.2		90.0	110	NA	NA	NA
	Zn2138	ug/L	999	1000		99.9		90.0	110	NA	NA	NA
CCB	Ag3280	ug/L	< 6							NA	NA	NA
	Al3082	ug/L	< 70							NA	NA	NA
	Ba4554	ug/L	< 17							NA	NA	NA
	Be3131	ug/L	< 5							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Cd2265	ug/L	< 5							NA	NA	NA
	Co2286	ug/L	< 10							NA	NA	NA

EBS RUN NUMBER: 58310\941121000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/07/94

TEST: CLP METALS DATE ANALYZED: 11/21/94 ANALYZED BY: CMT HOLDING TIME: 99 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
CCB	Cr2677	ug/L	< 10							NA	NA	NA
	Cu3247	ug/L	< 6							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA
	Na5889	ug/L	< 100							NA	NA	NA
	Ni2316	ug/L	< 20							NA	NA	NA
	V_3110	ug/L	< 10							NA	NA	NA
	Zn2138	ug/L	< 10							NA	NA	NA
9410061-13A	Ag3280	ug/L	< 6			N				10/07/94	09/29/94	YES
	Ba4554	ug/L	2240			N				10/07/94	09/29/94	YES
	Be3131	ug/L	26.9			N				10/07/94	09/29/94	YES
	Cd2265	ug/L	178			N				10/07/94	09/29/94	YES
	Co2286	ug/L	982			N				10/07/94	09/29/94	YES
	Cr2677	ug/L	2140			N				10/07/94	09/29/94	YES
	Cu3247	ug/L	2620			N				10/07/94	09/29/94	YES
	K_7664	ug/L	133000							10/07/94	09/29/94	YES
	Mg2790	ug/L	835000							10/07/94	09/29/94	YES
	Na5889	ug/L	734000							10/07/94	09/29/94	YES
	Ni2316	ug/L	1200			N				10/07/94	09/29/94	YES
	V_3110	ug/L	2980			*N				10/07/94	09/29/94	YES
	Zn2138	ug/L	3250			N				10/07/94	09/29/94	YES
9410061-13 DUP	Ag3280	ug/L	< 6	< 6			0			10/07/94	09/29/94	YES
DUP	Ba4554	ug/L	2510	2240			11.37			10/07/94	09/29/94	YES
DUP	Be3131	ug/L	23.6	26.9			13.1			10/07/94	09/29/94	YES
DUP	Cd2265	ug/L	174	178			2.27			10/07/94	09/29/94	YES
DUP	Co2286	ug/L	975	982			0.715			10/07/94	09/29/94	YES
DUP	Cr2677	ug/L	2000	2140			6.763			10/07/94	09/29/94	YES
DUP	Cu3247	ug/L	2720	2620			3.745			10/07/94	09/29/94	YES
DUP	K_7664	ug/L	137000	133000			2.9629			10/07/94	09/29/94	YES
DUP	Mg2790	ug/L	862000	835000			3.1820			10/07/94	09/29/94	YES
DUP	Na5889	ug/L	768000	734000			4.5273			10/07/94	09/29/94	YES
DUP	Ni2316	ug/L	1190	1200			0.8368			10/07/94	09/29/94	YES
DUP	V_3110	ug/L	2360	2980			23.22			10/07/94	09/29/94	YES
DUP	Zn2138	ug/L	3290	3250			1.223			10/07/94	09/29/94	YES
SPK	Ag3280	ug/L	< 6	< 6	50.0	0				10/07/94	NA	NA
SPK	Ba4554	ug/L	190	2240	2000	-102		75.0	125	10/07/94	NA	NA
SPK	Be3131	ug/L	14.1	26.9	50.0	-25.6		75.0	125	10/07/94	NA	NA
SPK	Cd2265	ug/L	31.2	178	50.0	-294		75.0	125	10/07/94	NA	NA
SPK	Co2286	ug/L	288	982	500	-139		75.0	125	10/07/94	NA	NA

EBS RUN NUMBER: 58310\941121000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: CLP METALS DATE ANALYZED: 11/21/94 ANALYZED BY: CMT HOLDING TIME: 99 Days

LAB NUMBER		ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-13	SPK	Cr2677	ug/L	170	2140	200	-985		75.0	125	10/07/94	NA	NA
	SPK	Cu3247	ug/L	256	2620	250	-946		75.0	125	10/07/94	NA	NA
	SPK	K_7664	ug/L	23500	133000						10/07/94	NA	NA
	SPK	Mg2790	ug/L	177000	835000						10/07/94	NA	NA
	SPK	Na5889	ug/L	215000	734000						10/07/94	NA	NA
	SPK	Ni2316	ug/L	288	1200	500	-182		75.0	125	10/07/94	NA	NA
	SPK	V_3110	ug/L	671	2980	500	-462		75.0	125	10/07/94	NA	NA
	SPK	Zn2138	ug/L	641	3250	500	-522		75.0	125	10/07/94	NA	NA
	MSD	Ag3280	ug/L	< 6	< 6	50.0	0	0			10/07/94	NA	NA
	MSD	Ba4554	ug/L	4470	2240	2000	111.5	4490	75.0	125	10/07/94	NA	NA
	MSD	Be3131	ug/L	32.3	26.9	50.0	11.0	501	75.0	125	10/07/94	NA	NA
	MSD	Cd2265	ug/L	68.3	178	50.0	-219	29.2	75.0	125	10/07/94	NA	NA
	MSD	Co2286	ug/L	622	982	500	-72.0	63.5	75.0	125	10/07/94	NA	NA
	MSD	Cr2677	ug/L	350	2140	200	-895	9.57	75.0	125	10/07/94	NA	NA
	MSD	Cu3247	ug/L	558	2620	250	-825	13.7	75.0	125	10/07/94	NA	NA
	MSD	K_7664	ug/L	59300	133000						10/07/94	NA	NA
	MSD	Mg2790	ug/L	409000	835000						10/07/94	NA	NA
	MSD	Na5889	ug/L	544000	734000						10/07/94	NA	NA
	MSD	Ni2316	ug/L	630	1200	500	-114	45.9	75.0	125	10/07/94	NA	NA
	MSD	V_3110	ug/L	1440	2980	500	-308	40.0	75.0	125	10/07/94	NA	NA
	MSD	Zn2138	ug/L	1400	3250	500	-370	34.1	75.0	125	10/07/94	NA	NA
	ISPK	Ag3280	ug/L	478	< 6	500	95.6				10/07/94	NA	NA
	ISPK	Ba4554	ug/L	10300	1120	10000	91.80				10/07/94	NA	NA
	ISPK	Be3131	ug/L	232	13.4	250	87.4				10/07/94	NA	NA
	ISPK	Cd2265	ug/L	1100	89.0	1250	80.9				10/07/94	NA	NA
	ISPK	Co2286	ug/L	2620	491	2500	85.2				10/07/94	NA	NA
	ISPK	Cr2677	ug/L	1520	1070	500	90.0				10/07/94	NA	NA
	ISPK	Cu3247	ug/L	2480	1310	1250	93.60				10/07/94	NA	NA
	ISPK	K_7664	ug/L	314000	66500	250000	99.000				10/07/94	NA	NA
	ISPK	Mg2790	ug/L	668000	418000	250000	100.00				10/07/94	NA	NA
	ISPK	Na5889	ug/L	604000	367000	250000	94.800				10/07/94	NA	NA
	ISPK	Ni2316	ug/L	2300	600	2000	85.0				10/07/94	NA	NA
	ISPK	V_3110	ug/L	3780	1490	2500	91.60				10/07/94	NA	NA
	ISPK	Zn2138	ug/L	2530	1620	1000	91.00				10/07/94	NA	NA
9410061-18A		Ag3280	ug/L	< 6			N				10/07/94	09/29/94	YES
		Al3082	ug/L	< 70							10/07/94	09/29/94	YES
		Ba4554	ug/L	1140			N				10/07/94	09/29/94	YES
		Be3131	ug/L	< 5			N				10/07/94	09/29/94	YES
		Ca3179	ug/L	337000							10/07/94	09/29/94	YES
		Cd2265	ug/L	< 5			N				10/07/94	09/29/94	YES
		Co2286	ug/L	< 10			N				10/07/94	09/29/94	YES

EBS RUN NUMBER: 58310\941121000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: CLP METALS DATE ANALYZED: 11/21/94 ANALYZED BY: CMT HOLDING TIME: 99 Days

LAB NUMBER		ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-18A		Cr2677	ug/L	< 10			N				10/07/94	09/29/94	YES
		Cu3247	ug/L	< 6			N				10/07/94	09/29/94	YES
		Fe2599	ug/L	73.2			*				10/07/94	09/29/94	YES
		K_7664	ug/L	38700							10/07/94	09/29/94	YES
		Mg2790	ug/L	120000							10/07/94	09/29/94	YES
		Mn2576	ug/L	416							10/07/94	09/29/94	YES
		Na5889	ug/L	868000							10/07/94	09/29/94	YES
		Ni2316	ug/L	< 20			N				10/07/94	09/29/94	YES
		V_3110	ug/L	< 10			*N				10/07/94	09/29/94	YES
		Zn2138	ug/L	96.4			N				10/07/94	09/29/94	YES
9410061-18	DUP	Ag3280	ug/L	< 6	< 6			0			10/07/94	09/29/94	YES
	DUP	Al3082	ug/L	< 70	< 70			0			10/07/94	09/29/94	YES
	DUP	Ba4554	ug/L	1120	1140			1.770			10/07/94	09/29/94	YES
	DUP	Be3131	ug/L	< 5	< 5			0			10/07/94	09/29/94	YES
	DUP	Ca3179	ug/L	342000	337000			1.4727			10/07/94	09/29/94	YES
	DUP	Cd2265	ug/L	< 5	< 5			0			10/07/94	09/29/94	YES
	DUP	Co2286	ug/L	< 10	< 10			0			10/07/94	09/29/94	YES
	DUP	Cr2677	ug/L	< 10	< 10			0			10/07/94	09/29/94	YES
	DUP	Cu3247	ug/L	< 6	< 6			0			10/07/94	09/29/94	YES
	DUP	Fe2599	ug/L	93.6	73.2			24.5			10/07/94	09/29/94	YES
	DUP	K_7664	ug/L	37600	38700			2.8834			10/07/94	09/29/94	YES
	DUP	Mg2790	ug/L	122000	120000			1.6528			10/07/94	09/29/94	YES
	DUP	Mn2576	ug/L	416	416			0			10/07/94	09/29/94	YES
	DUP	Na5889	ug/L	869000	868000			0.1151			10/07/94	09/29/94	YES
	DUP	Ni2316	ug/L	< 20	< 20			0			10/07/94	09/29/94	YES
	DUP	V_3110	ug/L	< 10	< 10			0			10/07/94	09/29/94	YES
	DUP	Zn2138	ug/L	94.9	96.4			1.57			10/07/94	09/29/94	YES
	SPK	Ag3280	ug/L	54.0	< 6	50.0	110				10/07/94	NA	NA
	SPK	Al3082	ug/L	1990	< 70	2000	99.50		75.0	125	10/07/94	NA	NA
	SPK	Ba4554	ug/L	3050	1140	2000	95.50		75.0	125	10/07/94	NA	NA
	SPK	Be3131	ug/L	50.5	< 5	50.0	101		75.0	125	10/07/94	NA	NA
	SPK	Ca3179	ug/L	342000	337000						10/07/94	NA	NA
	SPK	Cd2265	ug/L	47.6	< 5	50.0	95.2		75.0	125	10/07/94	NA	NA
	SPK	Co2286	ug/L	497	< 10	500	99.4		75.0	125	10/07/94	NA	NA
	SPK	Cr2677	ug/L	202	< 10	200	101		75.0	125	10/07/94	NA	NA
	SPK	Cu3247	ug/L	249	< 6	250	99.6		75.0	125	10/07/94	NA	NA
	SPK	Fe2599	ug/L	1260	73.2	1000	119		75.0	125	10/07/94	NA	NA
	SPK	K_7664	ug/L	38400	38700						10/07/94	NA	NA
	SPK	Mg2790	ug/L	120000	120000						10/07/94	NA	NA
	SPK	Mn2576	ug/L	908	416	500	98.4		75.0	125	10/07/94	NA	NA
	SPK	Na5889	ug/L	865000	868000						10/07/94	NA	NA

EBS RUN NUMBER: 58310\941121000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: CLP METALS DATE ANALYZED: 11/21/94 ANALYZED BY: CMT HOLDING TIME: 99 Days

LAB NUMBER		ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9410061-18	SPK	Ni2316	ug/L	510	< 20	500	102		75.0	125	10/07/94	NA	NA
	SPK	V_3110	ug/L	520	< 10	500	104		75.0	125	10/07/94	NA	NA
	SPK	Zn2138	ug/L	566	96.4	500	93.9		75.0	125	10/07/94	NA	NA
	MSD	Ag3280	ug/L	49.4	< 6	50.0	98.8	10.7			10/07/94	NA	NA
	MSD	Al3082	ug/L	2010	< 70	2000	100.5	1.000	75.0	125	10/07/94	NA	NA
	MSD	Ba4554	ug/L	3120	1140	2000	99.00	3.599	75.0	125	10/07/94	NA	NA
	MSD	Be3131	ug/L	51.1	< 5	50.0	102	0.985	75.0	125	10/07/94	NA	NA
	MSD	Ca3179	ug/L	345000	337000						10/07/94	NA	NA
	MSD	Cd2265	ug/L	52.0	< 5	50.0	100	4.92	75.0	125	10/07/94	NA	NA
	MSD	Co2286	ug/L	498	< 10	500	99.6	0.201	75.0	125	10/07/94	NA	NA
	MSD	Cr2677	ug/L	199	< 10	200	99.5	1.50	75.0	125	10/07/94	NA	NA
	MSD	Cu3247	ug/L	248	< 6	250	99.2	0.402	75.0	125	10/07/94	NA	NA
	MSD	Fe2599	ug/L	1040	73.2	1000	96.7	20.7	75.0	125	10/07/94	NA	NA
	MSD	K_7664	ug/L	38800	38700						10/07/94	NA	NA
	MSD	Mg2790	ug/L	121000	120000						10/07/94	NA	NA
	MSD	Mn2576	ug/L	913	416	500	99.4	1.01	75.0	125	10/07/94	NA	NA
	MSD	Na5889	ug/L	876000	868000						10/07/94	NA	NA
	MSD	Ni2316	ug/L	505	< 20	500	101	0.985	75.0	125	10/07/94	NA	NA
	MSD	V_3110	ug/L	525	< 10	500	105	0.957	75.0	125	10/07/94	NA	NA
	MSD	Zn2138	ug/L	565	96.4	500	93.7	0.213	75.0	125	10/07/94	NA	NA
	ISPK	Ag3280	ug/L	504	< 6	500	101				10/07/94	NA	NA
	ISPK	Al3082	ug/L	9950	< 70	10000	99.50				10/07/94	NA	NA
	ISPK	Ba4554	ug/L	10800	570	10000	102				10/07/94	NA	NA
	ISPK	Be3131	ug/L	254	< 5	250	102				10/07/94	NA	NA
	ISPK	Ca3179	ug/L	428000	168000	250000	104.00				10/07/94	NA	NA
	ISPK	Cd2265	ug/L	1240	< 5	1250	99.20				10/07/94	NA	NA
	ISPK	Co2286	ug/L	2480	< 10	2500	99.20				10/07/94	NA	NA
	ISPK	Cr2677	ug/L	498	< 10	500	99.6				10/07/94	NA	NA
	ISPK	Cu3247	ug/L	1250	< 6	1250	100.0				10/07/94	NA	NA
	ISPK	Fe2599	ug/L	5010	36.6	5000	99.5				10/07/94	NA	NA
	ISPK	K_7664	ug/L	275000	19400	250000	102.24				10/07/94	NA	NA
	ISPK	Mg2790	ug/L	316000	60000	250000	102.40				10/07/94	NA	NA
	ISPK	Mn2576	ug/L	958	208	750	100				10/07/94	NA	NA
	ISPK	Na5889	ug/L	676000	434000	250000	96.800				10/07/94	NA	NA
	ISPK	Ni2316	ug/L	1950	< 20	2000	97.50				10/07/94	NA	NA
	ISPK	V_3110	ug/L	2500	< 10	2500	100.0				10/07/94	NA	NA
	ISPK	Zn2138	ug/L	1040	48.2	1000	99.2				10/07/94	NA	NA
CRIF		Ag3280	ug/L	17.22	20.0		86.1				NA	NA	NA
		Al3082	ug/L	15.23							NA	NA	NA
		Ba4554	ug/L	2.158							NA	NA	NA
		Be3131	ug/L	10.51	10.0		105				NA	NA	NA

EBS RUN NUMBER: 58310\941121000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: CLP METALS DATE ANALYZED: 11/21/94 ANALYZED BY: CMT HOLDING TIME: 99 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
CRIF	Ca3179	ug/L	32.32							NA	NA	NA
	Cd2265	ug/L	9.643	10.0		96.4				NA	NA	NA
	Co2286	ug/L	126.5	100		126				NA	NA	NA
	Cr2677	ug/L	23.07	20.0		115				NA	NA	NA
	Cu3247	ug/L	54.43	50.0		109				NA	NA	NA
	Fe2599	ug/L	71.18							NA	NA	NA
	K_7664	ug/L	-22.98							NA	NA	NA
	Mg2790	ug/L	-31.76							NA	NA	NA
	Mn2576	ug/L	35.19	30.0		117				NA	NA	NA
	Na5889	ug/L	120.3							NA	NA	NA
	Ni2316	ug/L	106.0	80.0		132				NA	NA	NA
	V_3110	ug/L	111.2	100		111				NA	NA	NA
	Zn2138	ug/L	45.51	40.0		114				NA	NA	NA
ICSAF	Ag3280	ug/L	< 6							NA	NA	NA
	Al3082	ug/L	194000	500000		38.800				NA	NA	NA
	Ba4554	ug/L	24.4							NA	NA	NA
	Be3131	ug/L	< 5							NA	NA	NA
	Ca3179	ug/L	515000	500000		103.00				NA	NA	NA
	Cd2265	ug/L	< 5							NA	NA	NA
	Co2286	ug/L	< 10							NA	NA	NA
	Cr2677	ug/L	183							NA	NA	NA
	Cu3247	ug/L	< 6							NA	NA	NA
	Fe2599	ug/L	36800	200000		18.400				NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	527000	500000		105.40				NA	NA	NA
	Mn2576	ug/L	22.6							NA	NA	NA
	Na5889	ug/L	375							NA	NA	NA
	Ni2316	ug/L	< 20							NA	NA	NA
	V_3110	ug/L	< 10							NA	NA	NA
	Zn2138	ug/L	63.8							NA	NA	NA
ICSABF	Ag3280	ug/L	1000	1000		100.0		80.0	120	NA	NA	NA
	Al3082	ug/L	194000	500000		38.800				NA	NA	NA
	Ba4554	ug/L	522	500		104		80.0	120	NA	NA	NA
	Be3131	ug/L	501	500		100		80.0	120	NA	NA	NA
	Ca3179	ug/L	510000	500000		102.00				NA	NA	NA
	Cd2265	ug/L	981	1000		98.1		80.0	120	NA	NA	NA
	Co2286	ug/L	492	500		98.4		80.0	120	NA	NA	NA
	Cr2677	ug/L	588	500		118		80.0	120	NA	NA	NA
	Cu3247	ug/L	464	500		92.8		80.0	120	NA	NA	NA
	Fe2599	ug/L	36700	200000		18.350				NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA

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SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: CLP METALS DATE ANALYZED: 11/21/94 ANALYZED BY: CMT HOLDING TIME: 99 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICSABF	Mg2790	ug/L	521000	500000		104.20				NA	NA	NA
	Mn2576	ug/L	509	500		102		80.0	120	NA	NA	NA
	Na5889	ug/L	357							NA	NA	NA
	Ni2316	ug/L	988	1000		98.8		80.0	120	NA	NA	NA
	V_3110	ug/L	502	500		100		80.0	120	NA	NA	NA
	Zn2138	ug/L	1000	1000		100.0		80.0	120	NA	NA	NA
CCV	Ag3280	ug/L	506	500		101		90.0	110	NA	NA	NA
	Al3082	ug/L	10200	10000		102.00		90.0	110	NA	NA	NA
	Ba4554	ug/L	10200	10000		102.00		90.0	110	NA	NA	NA
	Be3131	ug/L	261	250		104		90.0	110	NA	NA	NA
	Ca3179	ug/L	262000	250000		104.80		90.0	110	NA	NA	NA
	Cd2265	ug/L	257	250		103		90.0	110	NA	NA	NA
	Co2286	ug/L	2580	2500		103.2		90.0	110	NA	NA	NA
	Cr2677	ug/L	527	500		105		90.0	110	NA	NA	NA
	Cu3247	ug/L	1270	1250		101.6		90.0	110	NA	NA	NA
	Fe2599	ug/L	5220	5000		104.4		90.0	110	NA	NA	NA
	K_7664	ug/L	246000	250000		98.400		90.0	110	NA	NA	NA
	Mg2790	ug/L	256000	250000		102.40		90.0	110	NA	NA	NA
	Mn2576	ug/L	774	750		103		90.0	110	NA	NA	NA
	Na5889	ug/L	241000	250000		96.400		90.0	110	NA	NA	NA
	Ni2316	ug/L	2060	2000		103.0		90.0	110	NA	NA	NA
	V_3110	ug/L	2610	2500		104.4		90.0	110	NA	NA	NA
	Zn2138	ug/L	1010	1000		101.0		90.0	110	NA	NA	NA
CCB	Ag3280	ug/L	< 6							NA	NA	NA
	Al3082	ug/L	< 70							NA	NA	NA
	Ba4554	ug/L	< 17							NA	NA	NA
	Be3131	ug/L	< 5							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Cd2265	ug/L	< 5							NA	NA	NA
	Co2286	ug/L	< 10							NA	NA	NA
	Cr2677	ug/L	< 10							NA	NA	NA
	Cu3247	ug/L	< 6							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	K_7664	ug/L	< 400							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA
	Na5889	ug/L	< 100							NA	NA	NA
	Ni2316	ug/L	< 20							NA	NA	NA
	V_3110	ug/L	< 10							NA	NA	NA
	Zn2138	ug/L	< 10							NA	NA	NA

EBS RUN NUMBER: 58310\941121000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

TEST: CLP METALS **DATE ANALYZED: 11/21/94** **ANALYZED BY: CMT** **HOLDING TIME: 99 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?

COMMENTS:

Analysis Report Summary Thu 12-01-94 10:55:02 AM

#	Sample Name		File	Method	Date	Time	OpID	Type	Mode
1	ICC		941120	CLP	11/21/94	17:10	JP	S	CONC
2	ICV		941120	CLP	11/21/94	17:18	JP	S	CONC
3	ICB		941120	CLP	11/21/94	17:25	JP	S	CONC
4	ICSAI		941120	CLP	11/21/94	17:32	JP	S	CONC
5	ICSABI		941120	CLP	11/21/94	17:39	JP	S	CONC
6	CRII		941120	CLP	11/21/94	17:47	JP	S	CONC
7	LCSW		941120	CLP	11/21/94	17:54	JP	S	CONC
8	LCSS		941120	CLP	11/21/94	18:01	JP	S	CONC
9	PBW		941120	CLP	11/21/94	18:09	JP	S	CONC
10	PBS		941120	CLP	11/21/94	18:16	JP	S	CONC
11	9410061-01A		941120	CLP	11/21/94	18:23	JP	S	CONC
12	9410061-01	DUP	941120	CLP	11/21/94	18:30	JP	S	CONC
13	9410061-01	SPK #1	941120	CLP	11/21/94	18:38	JP	S	CONC
14	9410061-01	SPK INS	941120	CLP	11/21/94	18:45	JP	S	CONC
15	9410061-02A		941120	CLP	11/21/94	18:52	JP	S	CONC
16	CCV1		941120	CLP	11/21/94	19:00	JP	S	CONC
17	CCB1		941120	CLP	11/21/94	19:07	JP	S	CONC
18	9410061-03A		941120	CLP	11/21/94	19:14	JP	S	CONC
19	9410061-04A		941120	CLP	11/21/94	19:21	JP	S	CONC
20	9410061-05A		941120	CLP	11/21/94	19:29	JP	S	CONC
21	9410061-06A		941120	CLP	11/21/94	19:36	JP	S	CONC
22	CCV2		941120	CLP	11/21/94	19:43	JP	S	CONC
23	CCB2		941120	CLP	11/21/94	19:51	JP	S	CONC
24	9410061-13A		941120	CLP	11/21/94	19:58	JP	S	CONC
25	9410061-13	DUP	941120	CLP	11/21/94	20:05	JP	S	CONC
26	9410061-13	SPK #1	941120	CLP	11/21/94	20:13	JP	S	CONC
27	9410061-13	SPK #2	941120	CLP	11/21/94	20:20	JP	S	CONC
28	9410061-13	SPK INST	941120	CLP	11/21/94	20:27	JP	S	CONC
29	9410061-18A		941120	CLP	11/21/94	20:34	JP	S	CONC
30	9410061-18	DUP	941120	CLP	11/21/94	20:42	JP	S	CONC
31	9410061-18	SPK #1	941120	CLP	11/21/94	20:49	JP	S	CONC
32	9410061-18	SPK #2	941120	CLP	11/21/94	20:56	JP	S	CONC
33	9410061-18	SPK INS	941120	CLP	11/21/94	21:04	JP	S	CONC
34	CRIF		941120	CLP	11/21/94	21:11	JP	S	CONC
35	ICSAF		941120	CLP	11/21/94	21:18	JP	S	CONC
36	ICSABF		941120	CLP	11/21/94	21:25	JP	S	CONC
37	CCV3		941120	CLP	11/21/94	21:33	JP	S	CONC
38	CCB3		941120	CLP	11/21/94	21:40	JP	S	CONC

#	Element	ICC	ICV	ICB	ICSAI	ICSABI	CRII
	Ag3280	990.8	509.0	D-3.828	D-4.781	1045.	D21.83
2	Al3082	1986.	1036.	D4.960	S19420.	S19480.	D10.27
3	Ba4554	1980.	1032.	.1705	2.316	52.53	d-.0220
4	Be3131	471.3	254.7	d-.0059	d.1258	492.5	10.70
5	Ca3179	482400.	251300.	D14.44	483900.	489700.	D9.567
6	Cd2265	2361.	253.7	D-3.095	d22.54	948.0	D12.21
7	Co2286	4673.	2546.	D3.018	D3.570	479.9	124.5
8	Cr2677	952.7	510.8	D2.047	158.3	573.3	D22.49
9	Cu3247	2474.	1283.	D-3.254	D-38.81	467.6	55.82
10	Fe2599	9545.	5168.	D3.341	S36610.	S36910.	D1.178
11	Mg2790	505700.	253300.	D11.95	503800.	507000.	D22.35
12	Mn2576	1425.	759.9	D.0391	21.04	496.6	35.31
13	Na5889	488100.	253300.	D12.59	330.3	319.5	D30.54
14	Ni2316	3751.	2035.	D-4.790	D3.618	945.7	97.36
15	V_3110	4807.	2559.	D-3.665	D2.663	495.0	110.9
16	Zn2138	1928.	996.4	D-.6795	59.96	987.0	44.92
17	Pb2203	2421.	D276.0	D-32.04	D165.4	1227.	D-60.13
18	K_7664	502300.	251900.	D120.6	D170.5	D-366.3	D-154.1

#	Element	LCSW	LCSS	PBW	PBS	941'-01A	941' DUP
1	Ag3280	D45.05	D43.12	D-3.752	D-1.426	D-647.4	D-803.7
2	Al3082	184.8	249.6	D5.133	D4.376	514900	639800.
	Ba4554	190.7	209.5	.1422	d.0573	2748	2977.
	Be3131	48.16	51.51	d-.0499	d-.0027	348.8	348.1
5	Ca3179	269.6	1661.	2087.	D138.0	248BG ~~340.8~~	~~340.1~~ 243E6
6	Cd2265	47.21	52.14	D-.7583	D.4101	D718.9	D554.0
7	Co2286	472.4	519.2	D2.415	D4.926	D4008	D2853.
8	Cr2677	189.5	209.1	D3.299	D1.797	27070	25800
9	Cu3247	245.2	265.2	D.3977	D.9853	6910.	d6591.
10	Fe2599	971.4	1560.	45.86	D14.31	S7443e3	S7440e3
11	Mg2790	D12.99	D77.50	D35.88	D11.95	3028e3	3175e3
12	Mn2576	460.3	520.6	D1.638	D.9130	136500	130700
13	Na5889	780.8	292.6	201.0	256.7	1653e3	1546e3
14	Ni2316	478.8	522.4	D1.749	D-6.192	23970	D8665.
15	V_3110	457.7	510.2	D-4.398	D-2.722	43420	42890.
16	Zn2138	439.7	503.0	35.14	D4.353	42910	31670.
17	Pb2203	D395.9	D473.9	D-21.34	D-19.12	D3755.	D-5249
18	K_7664	D145.6	D545.1	D-166.6	D176.8	D762000	D725800

#	Element	941'K #1	941' INS	941'-02A	CCV1	CCB1	941'-03A
1	Ag3280	D8941	78160.	D1308.	512.6	D-3.123	D-1795
2	Al3082	1006e3	452500.	627100	1032.	D3.572	S2883e3
3	Ba4554	42740.	199200	5238.	1023.	d.0346	12910.
4	Be3131	10080	49350.	327.6	257.8	d.0575	989.5
5	Ca3179	~~10080~~ 248E6	~~49350~~ 73E6	~~327.6~~ 211E6	254700.	D-32.69	13e6
	Cd2265	10250	240500.	D847.2	256.0	D-2.706	d4297.
	Co2286	101300	484900	D4741.	2573.	D-.0455	25420.
8	Cr2677	65760	110800.	20690.	510.8	D1.297	61360
9	Cu3247	57630	253800.	8527.	1282.	D-1.337	60180.

#	Element	941'K #1	941' INS	941'-02A	CCV1	CCB1	941'-03A
	Fe2599	S7439e3✓	S5808e3✓	S7431e3✓	5186.	D-.7814	S7348e3✓
	Mg2790	3504e3✓	51e6✓	3968e3✓	255900.	D-4.703	11e6✓
12	Mn2576	226800.✓	211700✓	171300.✓	769.3	D-.9178	S1403e3✓
13	Na5889	1606e3✓	49e6✓	1854e3✓	244200.	D3.620	378000.✓
14	Ni2316	104800.✓	390000✓	D7061.✓	2020.	D-.9754	30390.✓
15	V_3110	144500.✓	511600.✓	40380.✓	2560.	D-5.237	140500.✓
16	Zn2138	112800.✓	213100✓	19720.✓	999.3	D-.6287	68320.✓
17	Pb2203	D88360.✓	257800.✓	D6608.✓	D257.3	D-44.52	D5806.✓
18	K_7664	D906800.✓	51e6✓	1225e3✓	249500.	D264.2	1422e3✓

#	Element	941'-04A	941'-05A	941'-06A	CCV2	CCB2	941'-13A
1	Ag3280	D-1170.✓	D-1032.✓	D-1772.✓	506.6	D-2.913	D-26.28
2	Al3082	2651e3✓	2544e3✓	2626e3✓	1039.	D5.023	S18710.
3	Ba4554	12810.✓	10410.✓	12510.✓	1026.	.1761	223.5
4	Be3131	961.9✓	940.7✓	994.7✓	257.7	D-.9378	26.93
5	Ca3179	39e6✓	45e6✓	40e6✓	255900.	D22.57	S2067e3
6	Cd2265	D2268.✓	d4976.✓	D2552.✓	253.3	D1.372	177.8
7	Co2286	21350✓	21700✓	22380.✓	2587.	D-.7486	982.1
8	Cr2677	56690.✓	54900✓	57650.✓	526.0	D-1.665	2138.
9	Cu3247	52000.✓	50880.✓	51570.✓	1296.	D-2.471	2620.
10	Fe2599	S7341e3✓	S7337e3✓	S7346e3✓	5164.	D.9730	D21040.
11	Mg2790	13e6✓	12e6✓	13e6✓	254900.	D4.662	835300.
12	Mn2576	S1165e3✓	S1079e3✓	S1054e3✓	767.7	D-.0383	S6863.
	Na5889	815900.✓	802300✓	803300✓	246400.	D-3.559	733900.
	Ni2316	26950.✓	25540.✓	27040.✓	2048.	D3.462	1201.
15	V_3110	141700✓	135000✓	145900✓	2581.	D-2.974	2985.
16	Zn2138	67810.✓	57110✓	59210.✓	999.2	D.4218	3246.
17	Pb2203	D13740✓	D11780✓	D17660.✓	D229.2	D-25.80	D521.2
18	K_7664	D658300✓	D578400✓	D618400✓	249800.	D214.2	133100.

#	Element	941' DUP	941'K #1	941'K #2	941'INST	941'-18A	941' DUP
1	Ag3280	D-28.34	D-6.192	D-3.752	478.1	D-4.743	D-2.837
2	Al3082	S18720.	6416.	S14510.	S19390.	D4.644	D4.124
3	Ba4554	251.1	190.1	446.8	1026.	114.0	112.0
4	Be3131	23.59	14.08	32.34	232.2	.1632	d.1160
5	Ca3179	S2066e3	S2072e3	S2060e3	S2070e3	337100.	341500.
6	Cd2265	174.5	31.20	68.31	1105.	D-2.247	D.4330
7	Co2286	975.1	288.1	622.5	2621.	D5.478	D-2.355
8	Cr2677	2002.	169.7	350.3	1522.	D5.051	D-1.915
9	Cu3247	2717.	255.9	558.3	2475.	D2.217	D2.161
10	Fe2599	D21180.	S36740.	S36110.	S35190.	73.22	93.57
11	Mg2790	861900.	177300.	408800.	667600.	119700.	121700.
12	Mn2576	S6889.	S7059.	S6955.	S6963.	416.0	416.1
13	Na5889	768100.	214700.	544100.	603700.	867500.	869300.
14	Ni2316	1187.	288.3	629.6	2300.	D-3.778	D8.679
15	V_3110	2358.	671.1	1438.	3783.	D18.92	D16.51
	Zn2138	3293.	641.1	1404.	2533.	96.42	94.92
	Pb2203	D488.2	D137.4	D363.8	1470.	D4.065	D-15.10
18	K_7664	137000.	23490.	59320.	314000.	38670.	37570.

#	Element	941'K #1	941'K #2	941' INS	CRIF	ICSAF	ICSABF
	Ag3280	d53.99	D49.40	503.9	D17.22	D-11.21	1003.
2	Al3082	199.0	201.2	994.9	D1.523	S19430.	S19380.
3	Ba4554	305.4	311.5	1077.	.2158	2.435	52.24
4	Be3131	50.46	51.11	253.8	10.51	d-.0076	501.1
5	Ca3179	341500.	344800.	428400.	D32.32	514600.	510400.
6	Cd2265	47.58	52.05	1235.	D9.643	D7.375	980.9
7	Co2286	496.7	497.8	2478.	126.5	D13.06	492.3
8	Cr2677	201.6	198.9	497.6	D23.07	182.7	587.9
9	Cu3247	249.1	248.3	1252.	54.43	D-39.32	464.4
10	Fe2599	1264.	1039.	5013.	71.18	S36800.	S36660.
11	Mg2790	120200.	121400.	316000.	D-31.76	527100.	521200.
12	Mn2576	908.0	913.2	957.8	35.19	22.61	508.8
13	Na5889	865400.	876400.	676100.	120.3	375.1	357.2
14	Ni2316	510.5	505.4	1947.	106.0	D-8.917	987.6
15	V_3110	520.5	524.7	2498.	111.2	D5.931	502.3
16	Zn2138	565.9	564.8	1043.	45.51	63.81	1004.
17	Pb2203	D383.0	D420.9	1265.	D-38.28	D162.8	1226.
18	K_7664	38350.	38790.	275100.	D-22.98	D-60.44	D345.3

#	Element	CCV3	CCB3
1	Ag3280	506.5	D-2.646
2	Al3082	1023.	D4.881
	Ba4554	1016.	d.0346
	Be3131	261.1	d-.1409
5	Ca3179	262300.	D-1.809
6	Cd2265	257.4	D-.4834
7	Co2286	2583.	D4.574
8	Cr2677	527.0	D1.589
9	Cu3247	1269.	D-1.939
10	Fe2599	5219.	D.5929
11	Mg2790	256300.	D33.80
12	Mn2576	773.6	D.1553
13	Na5889	240900.	d52.08
14	Ni2316	2055.	D.4259
15	V_3110	2608.	D-2.345
16	Zn2138	1006.	D-.0696
17	Pb2203	D217.1	D-14.21
18	K_7664	245700.	D257.9

Analysis Report Summary Thu 12-01-94 10:56:24 AM

#	Sample Name		File	Method	Date	Time	OpID	Type	Mode
1	ICC		941120	CLP	11/21/94	17:10	JP	S	CONC
2	ICV		941120	CLP	11/21/94	17:18	JP	S	CONC
3	ICB		941120	CLP	11/21/94	17:25	JP	S	CONC
4	ICSAI		941120	CLP	11/21/94	17:32	JP	S	CONC
5	ICSABI		941120	CLP	11/21/94	17:39	JP	S	CONC
6	CRII		941120	CLP	11/21/94	17:47	JP	S	CONC
7	LCSW		941120	CLP	11/21/94	17:54	JP	S	CONC
8	LCSS		941120	CLP	11/21/94	18:01	JP	S	CONC
9	PBW		941120	CLP	11/21/94	18:09	JP	S	CONC
10	PBS		941120	CLP	11/21/94	18:16	JP	S	CONC
11	9410061-01A		941120	CLP	11/21/94	18:23	JP	S	CONC
12	9410061-01	DUP	941120	CLP	11/21/94	18:30	JP	S	CONC
13	9410061-01	SPK #1	941120	CLP	11/21/94	18:38	JP	S	CONC
14	9410061-01	SPK INS	941120	CLP	11/21/94	18:45	JP	S	CONC
15	9410061-02A		941120	CLP	11/21/94	18:52	JP	S	CONC
16	CCV1		941120	CLP	11/21/94	19:00	JP	S	CONC
17	CCB1		941120	CLP	11/21/94	19:07	JP	S	CONC
18	9410061-03A		941120	CLP	11/21/94	19:14	JP	S	CONC
19	9410061-04A		941120	CLP	11/21/94	19:21	JP	S	CONC
20	9410061-05A		941120	CLP	11/21/94	19:29	JP	S	CONC
21	9410061-06A		941120	CLP	11/21/94	19:36	JP	S	CONC
22	CCV2		941120	CLP	11/21/94	19:43	JP	S	CONC
23	CCB2		941120	CLP	11/21/94	19:51	JP	S	CONC
[illegible]	9410061-13A		941120	CLP	11/21/94	19:58	JP	S	CONC
[illegible]	9410061-13	DUP	941120	CLP	11/21/94	20:05	JP	S	CONC
26	9410061-13	SPK #1	941120	CLP	11/21/94	20:13	JP	S	CONC
27	9410061-13	SPK #2	941120	CLP	11/21/94	20:20	JP	S	CONC
28	9410061-13	SPK INST	941120	CLP	11/21/94	20:27	JP	S	CONC
29	9410061-18A		941120	CLP	11/21/94	20:34	JP	S	CONC
30	9410061-18	DUP	941120	CLP	11/21/94	20:42	JP	S	CONC
31	9410061-18	SPK #1	941120	CLP	11/21/94	20:49	JP	S	CONC
32	9410061-18	SPK #2	941120	CLP	11/21/94	20:56	JP	S	CONC
33	9410061-18	SPK INS	941120	CLP	11/21/94	21:04	JP	S	CONC
34	CRIF		941120	CLP	11/21/94	21:11	JP	S	CONC
35	ICSAF		941120	CLP	11/21/94	21:18	JP	S	CONC
36	ICSABF		941120	CLP	11/21/94	21:25	JP	S	CONC
37	CCV3		941120	CLP	11/21/94	21:33	JP	S	CONC
38	CCB3		941120	CLP	11/21/94	21:40	JP	S	CONC

#	Sample Name	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265
1	ICC	990.8	1986.	1980.	471.3	482400.	2361.
2	ICV	509.0	1036.	1032.	254.7	251300.	253.7
3	ICB	D-3.828	D4.960	.1705	d-.0059	D14.44	D-3.095
4	ICSAI	D-4.781	S19420.	2.316	d.1258	483900.	d22.54
5	ICSABI	1045.	S19480.	52.53	492.5	489700.	948.0
6	CRII	D21.83	D10.27	d-.0220	10.70	D9.567	D12.21
7	LCSW	D45.05	184.8	190.7	48.16	269.6	47.21
8	LCSS	D43.12	249.6	209.5	51.51	1661.	52.14
9	PBW	D-3.752	D5.133	.1422	d-.0499	2087.	D-.7583
10	PBS	D-1.426	D4.376	d.0573	d-.0027	D138.0	D.4101
11	9410061-01A	D-647.4	514900.	2748.	348.8	348.8	D718.9
12	9410061-01 DUP	D-803.7	639800.	2977.	348.1	348.1	D554.0
13	9410061-01 SPK #1	D8941.	1006e3	42740.	10080.	10080.	10250.
14	9410061-01 SPK INS	78160.	452500.	199200.	49350.	49350.	240500.
15	9410061-02A	D1308.	627100.	5238.	327.6	327.6	D847.2
16	CCV1	512.6	1032.	1023.	257.8	254700.	256.0
17	CCB1	D-3.123	D3.572	d.0346	d.0575	D-32.69	D-2.706
18	9410061-03A	D-1795.	S2883e3	12910.	989.5	13e6	d4297.
19	9410061-04A	D-1170.	2651e3	12810.	961.9	39e6	D2268.
20	9410061-05A	D-1032.	2544e3	10410.	940.7	45e6	d4976.
21	9410061-06A	D-1772.	2626e3	12510.	994.7	40e6	D2552.
22	CCV2	506.6	1039.	1026.	257.7	255900.	253.3
23	CCB2	D-2.913	D5.023	.1761	D-.9378	D22.57	D1.372
	9410061-13A	D-26.28	S18710.	223.5	26.93	S2067e3	177.8
	9410061-13 DUP	D-28.34	S18720.	251.1	23.59	S2066e3	174.5
26	9410061-13 SPK #1	D-6.192	6416.	190.1	14.08	S2072e3	31.20
27	9410061-13 SPK #2	D-3.752	S14510.	446.8	32.34	S2060e3	68.31
28	9410061-13 SPK INST	478.1	S19390.	1026.	232.2	S2070e3	1105.
29	9410061-18A	D-4.743	D4.644	114.0	.1632	337100.	D-2.247
30	9410061-18 DUP	D-2.837	D4.124	112.0	d.1160	341500.	D.4330
31	9410061-18 SPK #1	d53.99	199.0	305.4	50.46	341500.	47.58
32	9410061-18 SPK #2	D49.40	201.2	311.5	51.11	344800.	52.05
33	9410061-18 SPK INS	503.9	994.9	1077.	253.8	428400.	1235.
34	CRIF	D17.22	D1.523	.2158	10.51	D32.32	D9.643
35	ICSAF	D-11.21	S19430.	2.435	d-.0076	514600.	D7.375
36	ICSABF	1003.	S19380.	52.24	501.1	510400.	980.9
37	CCV3	506.5	1023.	1016.	261.1	262300.	257.4
38	CCB3	D-2.646	D4.881	d.0346	d-.1409	D-1.809	D-.4834

#	Sample Name	Co2286	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576
1	ICC	4673.	952.7	2474.	9545.	505700.	1425.
2	ICV	2546.	510.8	1283.	5168.	253300.	759.9
3	ICB	D3.018	D2.047	D-3.254	D3.341	D11.95	D.0391
4	ICSAI	D3.570	158.3	D-38.81	S36610.	503800.	21.04
5	ICSABI	479.9	573.3	467.6	S36910.	507000.	496.6
6	CRII	124.5	D22.49	55.82	D1.178	D22.35	35.31
7	LCSW	472.4	189.5	245.2	971.4	D12.99	460.3
	LCSS	519.2	209.1	265.2	1560.	D77.50	520.6
	PBW	D2.415	D3.299	D.3977	45.86	D35.88	D1.638
10	PBS	D4.926	D1.797	D.9853	D14.31	D11.95	D.9130
11	9410061-01A	D4008.	27070.	6910.	S7443e3	3028e3	136500.

#	Sample Name	Co2286	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576
	9410061-01 DUP	D2853.	25800.	d6591.	S7440e3	3175e3	130700.
-	9410061-01 SPK #1	101300.	65760.	57630.	S7439e3	3504e3	226800.
14	9410061-01 SPK INS	484900.	110800.	253800.	S5808e3	51e6	211700.
15	9410061-02A	D4741.	20690.	8527.	S7431e3	3968e3	171300.
16	CCV1	2573.	510.8	1282.	5186.	255900.	769.3
17	CCB1	D-.0455	D1.297	D-1.337	D-.7814	D-4.703	D-.9178
18	9410061-03A	25420.	61360.	60180.	S7348e3	11e6	S1403e3
19	9410061-04A	21350.	56690.	52000.	S7341e3	13e6	S1165e3
20	9410061-05A	21700.	54900.	50880.	S7337e3	12e6	S1079e3
21	9410061-06A	22380.	57650.	51570.	S7346e3	13e6	S1054e3
22	CCV2	2587.	526.0	1296.	5164.	254900.	767.7
23	CCB2	D-.7486	D-1.665	D-2.471	D.9730	D4.662	D-.0383
24	9410061-13A	982.1	2138.	2620.	D21040.	835300.	S6863.
25	9410061-13 DUP	975.1	2002.	2717.	D21180.	861900.	S6889.
26	9410061-13 SPK #1	288.1	169.7	255.9	S36740.	177300.	S7059.
27	9410061-13 SPK #2	622.5	350.3	558.3	S36110.	408800.	S6955.
28	9410061-13 SPK INST	2621.	1522.	2475.	S35190.	667600.	S6963.
29	9410061-18A	D5.478	D5.051	D2.217	73.22	119700.	416.0
30	9410061-18 DUP	D-2.355	D-1.915	D2.161	93.57	121700.	416.1
31	9410061-18 SPK #1	496.7	201.6	249.1	1264.	120200.	908.0
32	9410061-18 SPK #2	497.8	198.9	248.3	1039.	121400.	913.2
33	9410061-18 SPK INS	2478.	497.6	1252.	5013.	316000.	957.8
34	CRIF	126.5	D23.07	54.43	71.18	D-31.76	35.19
35	ICSAF	D13.06	182.7	D-39.32	S36800.	527100.	22.61
36	ICSABF	492.3	587.9	464.4	S36660.	521200.	508.8
	CCV3	2583.	527.0	1269.	5219.	256300.	773.6
	CCB3	D4.574	D1.589	D-1.939	D.5929	D33.80	D.1553

#	Sample Name	Na5889	Ni2316	V_3110	Zn2138	Pb2203	K_7664
1	ICC	488100.	3751.	4807.	1928.	2421.	502300.
2	ICV	253300.	2035.	2559.	996.4	D276.0	251900.
3	ICB	D12.59	D-4.790	D-3.665	D-.6795	D-32.04	D120.6
4	ICSAI	330.3	D3.618	D2.663	59.96	D165.4	D170.5
5	ICSABI	319.5	945.7	495.0	987.0	1227.	D-366.3
6	CRII	D30.54	97.36	110.9	44.92	D-60.13	D-154.1
7	LCSW	780.8	478.8	457.7	439.7	D395.9	D145.6
8	LCSS	292.6	522.4	510.2	503.0	D473.9	D545.1
9	PBW	201.0	D1.749	D-4.398	35.14	D-21.34	D-166.6
10	PBS	256.7	D-6.192	D-2.722	D4.353	D-19.12	D176.8
11	9410061-01A	1653e3	23970.	43420.	42910.	D3755.	D762000.
12	9410061-01 DUP	1546e3	D8665.	42890.	31670.	D-5249.	D725800.
13	9410061-01 SPK #1	1606e3	104800.	144500.	112800.	D88360.	D906800.
14	9410061-01 SPK INS	49e6	390000.	511600.	213100.	257800.	51e6
15	9410061-02A	1854e3	D7061.	40380.	19720.	D6608.	1225e3
16	CCV1	244200.	2020.	2560.	999.3	D257.3	249500.
17	CCB1	D3.620	D-.9754	D-5.237	D-.6287	D-44.52	D264.2
18	9410061-03A	378000.	30390.	140500.	68320.	D5806.	1422e3
19	9410061-04A	815900.	26950.	141700.	67810.	D13740.	D658300.
	9410061-05A	802300.	25540.	135000.	57110.	D11780.	D578400.
	9410061-06A	803300.	27040.	145900.	59210.	D17660.	D618400.
22	CCV2	246400.	2048.	2581.	999.2	D229.2	249800.
23	CCB2	D-3.559	D3.462	D-2.974	D.4218	D-25.80	D214.2

Analysis Report Averages Thu 12-01-94 10:56:24 AM

#	Sample Name		Na5889	Ni2316	V_3110	Zn2138	Pb2203	K_7664
	9410061-13A		733900.	1201.	2985.	3246.	D521.2	133100.
	9410061-13	DUP	768100.	1187.	2358.	3293.	D488.2	137000.
26	9410061-13	SPK #1	214700.	288.3	671.1	641.1	D137.4	23490.
27	9410061-13	SPK #2	544100.	629.6	1438.	1404.	D363.8	59320.
28	9410061-13	SPK INST	603700.	2300.	3783.	2533.	1470.	314000.
29	9410061-18A		867500.	D-3.778	D18.92	96.42	D4.065	38670.
30	9410061-18	DUP	869300.	D8.679	D16.51	94.92	D-15.10	37570.
31	9410061-18	SPK #1	865400.	510.5	520.5	565.9	D383.0	38350.
32	9410061-18	SPK #2	876400.	505.4	524.7	564.8	D420.9	38790.
33	9410061-18	SPK INS	676100.	1947.	2498.	1043.	1265.	275100.
34	CRIF		120.3	106.0	111.2	45.51	D-38.28	D-22.98
35	ICSAF		375.1	D-8.917	D5.931	63.81	D162.8	D-60.44
36	ICSABF		357.2	987.6	502.3	1004.	1226.	D345.3
37	CCV3		240900.	2055.	2608.	1006.	D217.1	245700.
38	CCB3		d52.08	D.4259	D-2.345	D-.0696	D-14.21	D257.9

	9410061-01A	9410061-01A Dup	9410061-01A spk	9410061-01A Isp/K
Ag	D-3.237	D-4.0185	D44.705	390.8
Al	25745	31990	50300	22625
Ba	137.4	148.85	2137	9960
Be	1.744	1.7405	50.4	246.75
Ca	~~$1,[illegible]~~ $1,240,000	$1,215,000	$1240000	$8650000
Cd	D3.5945	D2.770	51.25	1202.5
Co	D20.04	D14.265	506.5	2424.5
Cr	135.35	129	328.8	554
Cu	34.55	d32.955	288.15	1269
Fe	$37215	$37200	$37195	$29040
Mg	15140	15875	17520	255000
Mn	682.5	653.5	1134	1058.5
Na	8265	7730	8030	245000
Ni	119.85	D43.325	524	1950
V	217.1	214.45	722.5	2558
Zn	214.55	158.35	564	1065.5
Pb	D18.775	D-26.245	D441.8	1289
K	D3810	D3629	D4534	255000

Numbers had to be back calculated on soils to remove Corr. Factor of 200.

	9410061-02A	9410061-03A	9410061-04A	9410061-05A	9410061-06A
Ag	D 6.54	D -8.975	D -5.85	D -5.16	D -8.86
Al	31355	~~S~~ 144150	~~S~~ 132550	127200	131300
Ba	261.9	645.5	640.5	520.5	625.5
Be	1.638	4.9475	4.8095	4.7035	4.9735
Ca	S 1055000	65000	195000	225000	200000
Cd	D 4.236	d 21.485	D 11.34	D 24.88	D 12.76
Co	D 23.705	127.1	106.75	108.5	111.9
Cr	103.45	306.8	283.45	274.5	288.25
Cu	42.635	300.9	260.0	254.4	257.85
Fe	S 37155	S 36740	S 36705	S 36685	S 36730
Mg	19840	55000	65000	60000	65000
Mn	856.5	S 7015	S 5825	S 5395	S 5270
Na	9270	1890	4079.5	4011.5	4016.5
Ni	D 35.305	151.95	134.75	127.7	135.2
V	201.9	702.5	708.5	675.0	729.5
Zn	98.6	341.6	339.05	285.55	296.05
Pb	D 33.04	D 29.03	D 68.7	D 58.9	D 88.3
K	6125	7110	D 3291.5	D 2892	D 3092

All Al + Ba numbers should be multiplied by 10. Theoretical concentrations of standards were entered incorrectly.

For soils

$$\frac{\frac{\mu g}{L} \times \frac{0.200\ L}{wt}}{\text{solids in decimal form}}$$

Method: CLP Standard: BLANK

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	D94.00	D218.7	d-1.333	580.3	D6.667	D6.333	D-11.00
SDev	54.06	35.4	1.155	21.5	.577	55.19	20.22
%RSD	57.52	16.18	86.60	3.697	8.660	871.3	183.9
#1	D45.00	D179.0	d-2.000	566.0	D6.000	D-15.00	D-26.00
#2	D152.0	D230.0	d.0000	605.0	D7.000	D-35.00	D-19.00
#3	D85.00	D247.0	d-2.000	570.0	D7.000	D69.00	D12.00

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Avge	D7.667	D134.0	D101.0	D5.333	D7.333	D12.00	D-19.67
SDev	7.638	23.3	20.9	18.01	43.50	.00	12.66
%RSD	99.62	17.36	20.67	337.7	593.2	.0000	64.38
#1	D16.00	D138.0	D91.00	D6.000	D57.00	D12.00	D-34.00
#2	D6.000	D155.0	D87.00	D-13.00	D-24.00	D12.00	D-10.00
#3	D1.000	D109.0	D125.0	D23.00	D-11.00	D12.00	D-15.00

Elem	V_3110	Zn2138	Pb2203	K_7664
Avge	D28.00	D32.67	D22.00	D-7.667
SDev	42.76	19.76	16.70	16.010
%RSD	152.7	60.48	75.92	208.8
#1	D62.00	D29.00	D25.00	D-7.000
#2	D42.00	D15.00	D4.000	D-24.00
#3	D-20.00	D54.00	D37.00	D8.000

Method: CLP Standard: STD A

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	1872.	4497.	11870.	11380.	10710.	3870.	3530.
SDev	39.	13.	30.	27.	49.	51.	23.
%RSD	2.092	.2908	.2547	.2382	.4528	1.309	.6374
#1	1835.	4488.	11860.	11350.	10660.	3907.	3548.
#2	1868.	4491.	11850.	11370.	10760.	3890.	3505.
#3	1913.	4512.	11910.	11400.	10710.	3812.	3538.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Avge	840.3	6141.	11970.	15860.	9570.	9466.	1827.
SDev	32.9	40.	58.	130.	107.	93.	43.
%RSD	3.911	.6575	.4822	.8168	1.115	.9822	2.362
#1	804.0	6097.	11990.	15720.	9460.	9361.	1808.
#2	868.0	6151.	11910.	15920.	9578.	9501.	1796.
#3	849.0	6176.	12020.	15960.	9673.	9537.	1876.

Elem	V_3110	Zn2138	Pb2203	K_7664
Avge	8318.	4121.	D203.7	2605.
SDev	71.	32.	19.1	9.
%RSD	.8591	.7660	9.372	.3354
#1	8242.	4132.	D211.0	2612.
#2	8327.	4145.	D182.0	2607.
#3	8384.	4085.	D218.0	2595.

Method: CLP Standard: STD B

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	8862.	21480.	59510.	51810.	51400.	18290.	16510.
SDev	55.	14.	347.	148.	167.	32.	146.
%RSD	.6232	.0660	.5828	.2859	.3259	.1726	.8866
#1	8922.	21460.	59820.	51910.	51340.	18250.	16480.
#2	8852.	21490.	59590.	51890.	51270.	18310.	16670.
#3	8813.	21480.	59140.	51640.	51590.	18310.	16380.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Avge	4034.	30260.	57280.	81400.	45090.	47260.	8461.
SDev	26.	125.	39.	343.	110.	585.	63.
%RSD	.6516	.4128	.0682	.4208	.2439	1.238	.7404
#1	4015.	30390.	57280.	81050.	45180.	46740.	8533.
#2	4023.	30140.	57320.	81400.	45130.	47140.	8425.
#3	4064.	30250.	57240.	81740.	44970.	47890.	8424.

Elem	V_3110	Zn2138	Pb2203	K_7664
Avge	39730.	19710.	992.7	13720.
SDev	96.	23.	69.0	191.
%RSD	.2409	.1190	6.953	1.389
#1	39810.	19740.	1047.	13880.
#2	39620.	19690.	915.0	13510.
#3	39760.	19700.	1016.	13760.

Method: CLP Standard: STD C

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	17240.	41790.	115600.	97670.	97880.	33960.	31130.
SDev	107.	307.	347.	610.	263.	66.	303.
%RSD	.6228	.7347	.2998	.6243	.2683	.1932	.9734
#1	17320.	41490.	116000.	97810.	97740.	33950.	31370.
#2	17280.	42110.	115300.	98200.	98190.	34020.	30790.
#3	17120.	41790.	115500.	97000.	97720.	33890.	31230.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Avge	7606.	58500.	109100.	159200.	85460.	89580.	15950.
SDev	13.	192.	160.	531.	218.	1002.	50.
%RSD	.1665	.3284	.1466	.3338	.2547	1.119	.3133
#1	7611.	58280.	109300.	159300.	85440.	89130.	15910.
#2	7592.	58590.	109000.	158600.	85260.	88890.	15940.
#3	7616.	58620.	109000.	159600.	85690.	90730.	16000.

Elem	V_3110	Zn2138	Pb2203	K_7664
Avge	76400.	37860.	1872.	26510.
SDev	415.	90.	45.	165.
%RSD	.5426	.2374	2.383	.6222

#1	75980.	37780.	1821.	26400.
#2	76810.	37960.	1905.	26440.
#3	76410.	37830.	1889.	26700.

Method: CLP Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardi
Ag3280	328.068	Multiple	Standards	.057189	-5.39111	11/21/94 05:00
Al3082	308.215	Multiple	Standards	.047293	-10.3632	11/21/94 05:00
Ba4554	455.403	Multiple	Standards	.016981	.006332	11/21/94 05:00
Be3131	313.107	Multiple	Standards	.004879	-2.85517	11/21/94 05:00
Ca3179	317.933	Multiple	Standards	4.87546	-52.1889	11/21/94 05:00
Cd2265	226.502	Multiple	Standards	.068729	-.575043	11/21/94 05:00
Co2286	228.616	Multiple	Standards	.150650	1.36055	11/21/94 05:00
Cr2677	267.716	Multiple	Standards	.125135	-.997552	11/21/94 05:00
Cu3247	324.754	Multiple	Standards	.041974	-5.64651	11/21/94 05:00
Fe2599	259.940	Multiple	Standards	.087719	-9.23161	11/21/94 05:00
Mg2790	279.079	Multiple	Standards	3.12154	-13.0268	11/21/94 05:00
Mn2576	257.610	Multiple	Standards	.016593	-.198724	11/21/94 05:00
Na5889	588.995	Multiple	Standards	5.38434	-73.5555	11/21/94 05:00
Ni2316	231.604	Multiple	Standards	.233564	4.31868	11/21/94 05:00
V_3110	311.071	Multiple	Standards	.062858	-1.94700	11/21/94 05:00
Zn2138	213.856	Multiple	Standards	.050831	-1.73003	11/21/94 05:00
Pb2203	220.353	Multiple	Standards	1.33733	-29.3679	11/21/94 05:00
K_7664	766.490	Multiple	Standards	18.7270	151.802	11/21/94 05:00

Method: CLP

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ag3280	328.068	BLANK	.000000	-.015297	.015297
		STD A	100.000	101.668	-1.6676
		STD B	500.000	501.441	-1.4411
		STD C	1000.00	980.441	19.5587

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Al3082	308.215	BLANK	.000000	-.021869	.021869
		STD A	200.000	202.311	-2.3112
		STD B	1000.00	1005.34	-5.3380
		STD C	2000.00	1966.21	33.7885

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ba4554	455.403	BLANK	.000000	-.016308	.016308
		STD A	200.000	201.577	-1.5765
		STD B	1000.00	1010.60	-10.597
		STD C	2000.00	1963.04	36.9595

CorCoef: 0.99988

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Be3131	313.107	BLANK	.000000	-.023831	.023831
		STD A	50.0000	52.6495	-2.6494
		STD B	250.000	249.929	.070847
		STD C	500.000	473.647	26.3529

CorCoef: 0.99959

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ca3179	317.933	BLANK	.000000	-19.6858	19.6858
		STD A	50000.0	52175.4	-2175.3
		STD B	250000.	250537.	-536.78
		STD C	500000.	477173.	22827.4

CorCoef: 0.99966

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Cd2265	226.502	BLANK	.000000	-.139758	.139758
		STD A	250.000	265.384	-15.384
		STD B	1250.00	1256.51	-6.5052
		STD C	2500.00	2333.15	166.852

CorCoef: 0.99920

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Co2286	228.616	BLANK	.000000	-.296603	.296603
		STD A	500.000	533.206	-33.206
		STD B	2500.00	2488.75	11.2539
		STD C	5000.00	4690.45	309.552

CorCoef: 0.99949

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Cr2677	267.716	BLANK	.000000	-.038181	.038181
		STD A	100.000	104.158	-4.1578
		STD B	500.000	503.799	-3.7986
		STD C	1000.00	950.824	49.1760

CorCoef: 0.99952

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Cu3247	324.754	BLANK	.000000	-.022054	.022054
		STD A	250.000	252.127	-2.1272
		STD B	1250.00	1264.54	-14.543
		STD C	2500.00	2449.64	50.3601

CorCoef: 0.99986

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Fe2599	259.940	BLANK	.000000	-.372020	.372020
		STD A	1000.00	1041.00	-40.995
		STD B	5000.00	5015.30	-15.297
		STD C	10000.0	9559.45	440.551

CorCoef: 0.99967

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Mg2790	279.079	BLANK	.000000	3.62141	-3.6214
		STD A	50000.0	49507.1	492.852
		STD B	250000.	254071.	-4071.3
		STD C	500000.	496786.	3214.06

CorCoef: 0.99992

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Mn2576	257.610	BLANK	.000000	-.077041	.077041
		STD A	150.000	158.604	-8.6037
		STD B	750.000	748.033	1.96674
		STD C	1500.00	1417.90	82.1045

CorCoef: 0.99959

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat:
Na5889	588.995	BLANK	.000000	-8.94341	8.94341
		STD A	50000.0	50896.4	-896.39:
		STD B	250000.	254380.	-4379.5:
		STD C	500000.	482277.	17722.9

CorCoef: 0.99959

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat:
Ni2316	231.604	BLANK	.000000	-.274751	.274751
		STD A	400.000	430.963	-30.962:
		STD B	2000.00	1980.43	19.5713
		STD C	4000.00	3729.51	270.486

CorCoef: 0.99947

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat:
V_3110	311.071	BLANK	.000000	-.186987	.186987
		STD A	500.000	520.881	-20.880'
		STD B	2500.00	2495.30	4.70215
		STD C	5000.00	4800.60	199.404

CorCoef: 0.99979

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat:
Zn2138	213.856	BLANK	.000000	-.069558	.069558
		STD A	200.000	207.727	-7.7269'
		STD B	1000.00	1000.08	-.07830:
		STD C	2000.00	1922.57	77.4263

CorCoef: 0.99978

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat.
Pb2203	220.353	BLANK	.000000	.053351	-.05335'
		STD A	250.000	243.002	6.99818
		STD B	1250.00	1298.16	-48.155'
		STD C	2500.00	2473.67	26.3303

CorCoef: 0.99962

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
K_7664	766.490	BLANK	.000000	8.22815	-8.2281
		STD A	50000.0	48929.5	1070.48
		STD B	250000.	257031.	-7030.7
		STD C	500000.	496643.	3356.69

CorCoef: 0.99981

Method: CLP Sample Name: ICC Operator: JP
Run Time: 11/21/94 17:10:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 99	ug/L 99	ug/L 99	ug/L 94	ug/L 96	ug/L 94	ug/L 93
Avge	990.8	1986.	1980.	471.3	482400.	2361.	4673
SDev	4.3	7.	3.	1.3	2329.	27.	2.
%RSD	.4354	.3537	.1406	.2821	.4828	1.155	.0518
#1	994.2	1985.	1978.	469.9	483800.	2384.	4676.

#2	992.3	1980.	1983.	472.5	483800.	2331.	4672.
#3	986.0	1994.	1978.	471.5	479800.	2368.	4672.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 95	ug/L 99	ug/L 95	ug/L 101	ug/L 95	ug/L 98	ug/L 94
Avge	952.7	2474.	9545.	505700.	1425.	488100.	3751.
SDev	10.5	20.	40.	1103.	5.	2714.	30.
%RSD	1.106	.8207	.4154	.2181	.3332	.5561	.8103
#1	956.0	2475.	9500.	504500.	1430.	491000.	3783.
#2	940.9	2453.	9563.	506700.	1422.	485700.	3748.
#3	961.2	2494.	9573.	505800.	1422.	487500.	3723.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 96	ug/L 96	ug/L 97	ug/L 100%
Avge	4807.	1928.	2421.	502300.
SDev	14.	13.	6.	6619.
%RSD	.2994	.6846	.2491	1.318
#1	4819.	1943.	2421.	494800.
#2	4791.	1923.	2415.	506900.
#3	4811.	1918.	2427.	505300.

Method: CLP Sample Name: ICV Operator: JP
Run Time: 11/21/94 17:18:06
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 101	ug/L 104	ug/L 103	ug/L 102	ug/L 101	ug/L 101	ug/L 106
Avge	509.0	1036.	1032.	254.7	251300.	253.7	2546.
SDev	3.4	5.	3.	.5	1444.	1.6	24.
%RSD	.6726	.5168	.2568	.2003	.5748	.6349	.9295
#1	505.0	1041.	1035.	254.5	251700.	252.6	2532.
#2	510.7	1036.	1031.	254.3	249700.	252.8	2573.
#3	511.1	1030.	1029.	255.3	252500.	255.5	2532.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 102	ug/L 103	ug/L 103	ug/L 101	ug/L 101	ug/L 101	ug/L 102
Avge	510.8	1283.	5168.	253300.	759.9	253300.	2035.
SDev	9.0	7.	9.	491.	5.7	2558.	12.
%RSD	1.768	.5232	.1695	.1939	.7524	1.010	.5775
#1	514.8	1276.	5169.	253000.	762.4	250400.	2041.
#2	517.1	1284.	5159.	253900.	764.0	254100.	2021.
#3	500.4	1290.	5177.	253000.	753.3	255300.	2042.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 102	ug/L 100	ug/L	ug/L 101%
Avge	2559.	996.4	D276.0	251900.
SDev	12.	5.7	49.6	4291.
%RSD	.4564	.5740	17.96	1.703
#1	2570.	996.5	D224.7	256800.
#2	2547.	1002.	D279.6	248900.

#3	2561.	990.6	D323.7	250100.

Method: CLP Sample Name: ICB Operator: JP
Run Time: 11/21/94 17:25:23
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D4.960	.1705	d.0000	D14.44	D.0000	D3.018
SDev	2.325	.667	.0098	.1116	5.63	1.531	3.024
%RSD	60.73	13.45	5.751	1878.	38.98	49.47	100.2
#1	D.0000	D5.669	.1761	d.1209	D11.19	D.0000	D6.483
#2	D.0000	D4.865	.1592	d.0000	D11.19	D.0000	D1.662
#3	D.0000	D4.345	.1761	d.0000	D20.94	D.0000	D.9086

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D2.047	D.0000	D3.341	D11.95	D.0391	D12.59	D.0000
SDev	2.893	.8612	2.093	22.51	.4303	5.38	.4671
%RSD	141.3	26.47	62.64	188.4	1100.	42.75	9.751
#1	D4.759	D.0000	D5.681	D30.67	D.0000	D7.210	D.0000
#2	D.0000	D.0000	D1.646	D.0000	D.5314	D17.98	D.0000
#3	D2.381	D.0000	D2.698	D18.19	D.0000	D12.59	D.0000

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D.0000	D120.6
SDev	1.984	1.376	3.538	598.8
%RSD	54.13	202.4	11.04	496.5
#1	D.0000	D.8623	D.0000	D1.986
#2	D.0000	D.0000	D.0000	D.0000
#3	D.0000	D.0000	D.0000	D769.8

Method: CLP Sample Name: ICSAI Operator: JP
Run Time: 11/21/94 17:32:40
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	S19420.	2.316	d.1258	483900.	d22.54	D3.570
SDev	4.141	16.	.029	.0509	478.	2.86	1.759
%RSD	86.62	.0825	1.270	40.49	.0988	12.71	49.27
#1	D.0000	S19400.	2.299	d.0672	484300.	25.06	D5.127
#2	D.0000	S19420.	2.299	d.1599	483900.	d23.14	D1.662
#3	D.0000	S19430.	2.350	d.1502	483400.	d19.43	D3.922

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	158.3	D.0000	S36610.	503800.	21.04	330.3	D3.618

SDev	5.1	3.178	16.	3155.	1.81	9.3	18.62
%RSD	3.234	8.190	.0428	.6263	8.590	2.824	514.7
#1	164.1	D.0000	S36630.	506200.	19.15	335.7	D13.66
#2	156.8	D.0000	S36600.	505000.	21.22	319.5	D.0000
#3	154.2	D.0000	S36610.	500300.	22.75	335.7	D15.06

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D2.663	59.96	D165.4	D170.5
SDev	3.540	1.52	94.9	590.1
%RSD	133.0	2.538	57.39	346.1
#1	D1.007	58.91	D266.2	D189.3
#2	D.2530	59.27	D152.5	D.0000
#3	D6.727	61.71	D77.62	D751.1

Method: CLP Sample Name: ICSABI Operator: JP
Run Time: 11/21/94 17:39:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L 105	ug/L 99	ug/L	ug/L 95	ug/L 96
Avge	1045.	S19480.	52.53	492.5	489700.	948.0	479.9
SDev	3.	11.	.12	1.4	3764.	8.4	4.5
%RSD	.3297	.0590	.2200	.2821	.7687	.8881	.9430
#1	1045.	S19470.	52.44	492.1	486500.	948.0	477.4
#2	1041.	S19480.	52.49	494.1	488700.	956.4	485.1
#3	1048.	S19490.	52.66	491.4	493800.	939.6	477.1

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 115	ug/L 94	ug/L	ug/L	ug/L 99	ug/L	ug/L 95
Avge	573.3	467.6	S36910.	507000.	496.6	319.5	945.7
SDev	6.1	4.8	267.	2607.	1.3	.0	8.2
%RSD	1.057	1.035	.7245	.5142	.2664	.0000	.8628
#1	580.1	473.1	S37030.	507700.	496.0	319.5	944.2
#2	568.5	465.9	S37090.	504100.	498.1	319.5	954.5
#3	571.4	463.8	S36600.	509100.	495.7	319.5	938.3

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 99	ug/L 99	ug/L	ug/L
Avge	495.0	987.0	1227.	D.0000
SDev	1.6	1.7	34.	88.50
%RSD	.3236	.1771	2.737	24.16
#1	496.8	989.0	1258.	D.0000
#2	494.2	985.7	1192.	D.0000
#3	493.9	986.3	1230.	D.0000

Method: CLP Sample Name: CRII Operator: JP
Run Time: 11/21/94 17:47:15

Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D21.83	D10.27	d.0000	10.70	D9.567	D12.21	124.5
SDev	3.48	1.87	.0546	.05	5.630	1.20	4.5
%RSD	15.94	18.21	248.5	.5086	58.85	9.816	3.593
#1	D23.15	D11.77	d.0403	10.72	D6.317	D11.38	121.0
#2	D24.46	D10.87	d.0000	10.74	D16.07	D13.58	129.6
#3	D17.89	D8.175	d.0000	10.63	D6.317	D11.66	123.1

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D22.49	55.82	D1.178	D22.35	35.31	D30.54	97.36
SDev	1.20	1.88	3.151	43.74	.30	3.11	10.42
%RSD	5.347	3.375	267.6	195.7	.8575	10.18	10.70
#1	D22.28	57.99	D1.733	D71.25	35.16	D28.75	105.5
#2	D21.40	54.88	D.0000	D.0000	35.11	D34.13	101.0
#3	D23.78	54.59	D4.014	D8.824	35.66	D28.75	85.60

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	110.9	44.92	D.0000	D.0000
SDev	1.2	.58	38.85	302.7
%RSD	1.101	1.287	64.62	196.5
#1	112.2	45.09	D.0000	D.0000
#2	110.6	45.39	D.0000	D.0000
#3	109.8	44.27	D.0000	D170.5

Method: CLP Sample Name: LCSW Operator: JP
Run Time: 11/21/94 17:54:33
Comment:
Mode: CQNC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D45.05/50.0	184.8/200.	190.7/200.	48.16/50.0	269.6	47.21/50.0	472.4/50
SDev	3.15	.3	.7	.21	4.9	1.45	3.2
%RSD	6.984 90	.1704 92	.3428 95	.4400 96	1.808	3.075 94	.6737 9
#1	D47.51	185.1	191.4	47.93	269.6	47.40	476.1
#2	D46.14	184.5	190.1	48.34	274.5	45.68	470.3
#3	D41.50	184.7	190.7	48.21	264.7	48.57	470.8

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	189.5/200.	245.2/250.	971.4/1000.	D12.99	460.3/500.	780.8	478.8/50
SDev	5.5	2.6	3.0	44.62	1.0	6.2	2.2
%RSD	2.895 95	1.074 98	.3045 97	343.6	.2200 92	.7963	.4688 96
#1	184.5	242.2	968.0	D.0000	461.4	777.2	480.8
#2	188.7	246.9	972.8	D61.89	459.5	777.2	476.4
#3	195.3	246.6	973.5	D2.581	460.0	787.9	479.2

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	457.7/500	439.7/500	D395.9	D145.6
SDev	2.1	1.7	34.1	244.4
%RSD	.4607 91	.3805 88	8.619	167.9
#1	458.8	440.7	D430.7	D.0000
#2	455.3	440.7	D394.6	D170.5
#3	459.0	437.8	D362.5	D376.5

Method: CLP Sample Name: LCSS Operator: JP
Run Time: 11/21/94 18:01:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L 104
Avge	D43.12/50	249.6/200	209.5/105	51.51/50	1661.	52.14/50	519.2
SDev	2.69	4.2	1.1	.21	15.	.91	8.4
%RSD	6.243 86	1.689/25%	.5271	.4117 103	.8969	1.744 104	1.619
#1	D42.02	245.0	208.4	51.29	1644.	52.83	509.7
#2	D41.16	250.5	210.6	51.70	1664.	52.48	525
#3	D46.19	253.2	209.6	51.55	1674.	51.11	52[illegible]

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 105	ug/L 106	ug/L 96/156	ug/L	ug/L 104	ug/L	ug/L 104
Avge	209.1	265.2	1560.	D77.50	520.6	292.6	522.4
SDev	3.5	.8	8.	36.80	1.4	.0	18.7
%RSD	1.651	.3102	.5048	47.49	.2720	.0000	3.575
#1	211.7	266.0	1558.	D36.92	519.3	292.6	501.1
#2	205.2	265.3	1552.	D108.7	522.1	292.6	536.1
#3	210.5	264.4	1568.	D86.86	520.3	292.6	529.8

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 102	ug/L 101 16	ug/L	ug/L
Avge	510.2	503.0	D473.9	D545.1
SDev	2.3	7.6	39.0	211.0
%RSD	.4471	1.510	8.224	38.72
#1	509.3	498.2	D442.7	D657.4
#2	508.4	511.7	D517.6	D676.2
#3	512.7	498.9	D461.4	D301.6

Method: CLP Sample Name: PBW Operator: JP
Run Time: 11/21/94 18:09:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D5.133	.1422	d.0000	2087.	D.0000	D2.415
SDev	2.346	2.162	.0340	.0213	16.	1.704	3.562

%RSD	62.52	42.12	23.89	42.66	.7511	224.6	14
#1	D.0000	D7.040	.1761	d.0000	2069.	D.0000	D.0000
#2	D.0000	D2.784	.1082	d.0000	2098.	D.0000	D1.963
#3	D.0000	D5.574	.1422	d.0000	2093.	D.4559	D6.181

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D3.299	D.3977	45.86	D35.88	D1.638	201.0	D1.749
SDev	5.709	.3278	1.37	31.58	.314	9.3	2.526
%RSD	173.1	82.43	2.988	88.02	19.15	4.639	144.4
#1	D.0000	D.2298	46.56	D.0000	D1.394	195.7	D.0000
#2	D.1287	D.7754	44.28	D52.53	D1.992	195.7	D1.049
#3	D9.889	D.1878	46.73	D55.65	D1.527	211.8	D4.552

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	35.14	D.0000	D.0000
SDev	3.201	1.63	53.29	112.4
%RSD	72.77	4.630	249.7	67.46
#1	D.0000	34.00	D.0000	D.0000
#2	D.0000	37.00	D40.17	D.0000
#3	D.0000	34.41	D.0000	D.0000

Method: CLP Sample Name: PBS Operator: JP
Run Time: 11/21/94 18:16:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D4.376	d.0573	d.0000	D138.0	D.4101	D4.926
SDev	1.536	3.304	.0449	.0461	4.9	2.413	6.295
%RSD	107.7	75.49	78.44	1715.	3.534	588.4	127.8
#1	D.3278	D6.284	.0912	d.0136	D133.1	D.0000	D7.537
#2	D.0000	D6.284	d.0743	d.0000	D142.8	D1.556	D9.496
#3	D.0000	D.5614	d.0063	d.0331	D138.0	D2.037	D.0000

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D1.797	D.9853	D14.31	D11.95	D.9130	256.7	D.0000
SDev	2.349	1.757	2.71	14.30	.5176	6.2	4.092
%RSD	130.7	178.4	18.94	119.7	56.69	2.422	66.09
#1	D4.508	D.0000	D12.70	D15.07	D.3654	249.5	D.0000
#2	D.3789	D3.000	D17.43	D24.43	D1.394	260.3	D.000
#3	D.5041	D.1878	D12.79	D.0000	D.9794	260.3	D.0

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D4.353	D.0000	D176.8
SDev	1.671	.338	13.19	54.1
%RSD	61.37	7.776	69.02	30.58

#1	D.0000	D4.725	D.0000	D208.0
#2	D.0000	D4.268	D.0000	D114.3
#3	D.0000	D4.065	D.0000	D208.0

Method: CLP Sample Name: 9410061-01A Operator: JP
Run Time: 11/21/94 18:23:41
Comment:
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	mg/kg ~~ug/L~~ 627.1	ug/ ~~L 3.35~~ 33.5	ug/L 0.425	ug/L ?	ug/L 0.876	ug/L 4.88
Avge	D.0000	514900.	2748.	348.8	248e6	D718.9	D4008.
SDev	314.6	2432. 6271	19.	17.2	1126910.	70.5	574.
%RSD	48.59	.4724	.6808	4.928	.4543	9.812	14.32
#1	D.0000	515900.	2728.	364.7	247e6	D778.5	D3677.
#2	D.0000	512100.	2766.	351.1	249e6	D737.2	D3677.
#3	D.0000	516600.	2749.	330.6	248e6	D641.0	D4671.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 32.97	ug/L 8.42	ug/L	ug/L 3688.	ug/L 166.	ug/L 2013.	ug/L 29.1
Avge	27070.	6910.	S7443000.	3028000.	136500.	1653000.	23970.
SDev	1306.	281.	2800.	6254.	733.	15191.	1565.
%RSD	4.823	4.070	.0376	.2065	.5368	.9188	6.528
#1	25950.	6627.	S7443000.	3028000.	135900.	1667000.	24830.
#2	26750.	7190.	S7441000.	3022000.	137300.	1637000.	24920.
#3	28510.	6913.	S7446000.	3034000.	136400.	1656000.	22160.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 52.88	ug/L 52.26	ug/L	ug/L 928.0
Avge	43420.	42910.	D3755.	D762000.
SDev	603.	290.	8352.	40397.
%RSD	1.389	.6760	222.4	5.302
#1	43320.	43200.	D6430.	D779400.
#2	44060.	42620.	D.0000	D790700.
#3	42870.	42930.	D10440.	D715800.

Method: CLP Sample Name: 9410061-01 DUP Operator: JP
Run Time: 11/21/94 18:30:59
Comment:
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 779.2	ug/L ~~5.65~~ 36.3	ug/L 0.424	ug/L	ug/L 0.675	ug/L 3.41
Avge	D.0000	639800.	2977.	348.1	243e6	D554.0	D2853.
SDev	297.4	4456 7792	17.	13.6	1293227.	579.3	743.
%RSD	37.00	.6966	.5741	3.894	.5327	104.6	26.05
#1	D.0000	634700.	2959.	356.9	243e6	D888.4	D2502.
#2	D.0000	641400.	2980.	355.0	241e6	D.0000	D2351.
#3	D.0000	643100.	2993.	332.5	244e6	D888.4	D3707.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 31.4	ug/L 8.03	ug/L	ug/L 3866.	ug/L 159.	ug/L 1883.	ug/L 10.6
Avge	25800.	d6591.	S7440000.	3175000.	130700.	1546000.	D8665.
SDev	364.	439.	4487.	31023.	407.	8130.	2412.
%RSD	1.409	6.664	.0603	.9770	.3114	.5260	27.84
#1	26180.	d6182.	S7435000.	3192000.	131200.	1538000.	D5909.
#2	25450.	d6535.	S7441000.	3194000.	130400.	1545000.	D10390.
#3	25780.	7056.	S7443000.	3140000.	130600.	1554000.	D9692.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 52.23	ug/L 38.57	ug/L	ug/L 884.
Avge	42890.	31670.	D.0000	D725800.
SDev	495.	316.	2528.	30274.
%RSD	1.153	.9977	48.16	4.171
#1	43350.	31310.	D.0000	D693300.
#2	42370.	31890.	D.0000	D753200.
#3	42970.	31820.	D.0000	D730800.

Method: CLP Sample Name: 9410061-01 SPK #1 Operator: JP
Run Time: 11/21/94 18:38:16
Comment:
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 10.8/50.0	ug/L	ug/L ~~52.1~~	ug/L 12.3-.425	ug/L	ug/L 12.5-.876	ug/L
Avge	D8941.	1006000.	42740.	10080. 50.0	248e6	10250. 50.	101300.
SDev	259.	5768.	202.	50 x100	1133031.	252.	1462.
%RSD	2.892 x100 =22%	.5731	.4718	.4987 =25%	.4563	2.462 23%	1.442
		12251-6271/2000	521-33.5/2000				123.-4.88
#1	D8644.	1001000. 30%	42570. 24%	10120.	249e6	10540.	101400.
#2	D9067.	1006000.	42690.	10090.	247e6	10070.	99850.
#3	D9113.	1012000.	42970.	10020.	248e6	10140.	102800.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	65760.	57630.	S7439000.	3504000.	226800.	1606000.	104800.
SDev	537.	282.	5821.	34025.	710.	9031.	1270.
%RSD	.8165	.4895	.0782	.9711	.3131	.5625	1.212
	80.1-33.0/200 x100=24%	70.2-8.42/250			276-166/500		128-29.2/500
#1	66120.	57920.	S7443000.	3504000.	227400. 22%	1611000. 20%	103400.
#2	65150.	57360. x100	S7432000.	3470000.	227100.	1610000.	105100.
#3	66020.	57600. =25%	S7442000.	3538000.	226000.	1595000.	105900.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	144500.	112800.	D88360.	D906800.
SDev	710.	1032.	5523.	49547.
%RSD	.4913	.9149	6.250	5.464
	176-52.9/500.	137.-52.3/500=17%		
#1	144600. 25%	112500.	D94690.	D944200.
#2	145100.	114000.	D84530.	D850600.
#3	143700.	111900.	D85870.	D925500.

Method: CLP Sample Name: 9410061-01 SPK INS Operator: JP
Run Time: 11/21/94 18:45:34
Comment:
Mode: CONC Corr. Factor: 200

591-2.44/60

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L x100 = %
Avge	78160.	452500.	199200.	49350.	173e6	240500.	484900.
SDev	6122.	1730.	887.	128.	671521.	2070.	2504.
%RSD	7.833	.3823	.4452	.2599	.3878	.8607	.5164
	95.2-122.7 78%	5510-3140/48.7x100		60.1-.213/60.9		293-.438/304 x100	
#1	71620.	451900.	198200.	49440. x100	174e6	239000. = 96	482900.
#2	79100.	454400.	199800.	49200. = 98%	173e6	242900.	487700.
#3	83760.	451100.	199700.	49410.	172e6	239700.	484200.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	110800.	253800.	S5808000.	51e6	211700.	49e6	390000.
SDev	365.	1841.	33236.	261151.	303.	228948.	2460.
%RSD	.3293	.7252	.5722	.5098	.1433	.4646	.6307
	135.-16.5/122	309-4.21/304x100			258-83/183x100		475.-14.6/487
#1 x100	110300.	253600. =	S5770000.	51e6	211400. = 93%	49e6 x100	388300.
#2 = 97%	110900.	255700. 100%	S5831000.	51e6	211600.	49e6 = 95%	388900.
#3	111000.	252100.	S5824000.	51e6	212000.	49e6	392800.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	511600.	213100.	257800.	51e6
SDev	2416.	464.	5268.	87116.
%RSD	.4722	.2176	2.043	.1717
	623-26.5/609x100=98%	260-26.2/234x100=96%		
#1	514400.	213400.	259500.	51e6
#2	510400.	213400.	252000.	51e6
#3	509900.	212600.	262100.	51e6

Method: CLP Sample Name: 9410061-02A Operator: JP
Run Time: 11/21/94 18:52:50
Comment:
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 4.00	ug/L 8287.	ug/L 69.22	ug/L 0.433	ug/L	ug/L 1.12	ug/L 6.2
Avge	D1308.	627100.	5238.	327.6	211e6	D847.2	D4741.
SDev	379.	4237.	21.	10.3	779318.	478.7	1147.
%RSD	29.00	.6757	.4049	3.152	.3686	56.51	24.19
#1	D1221.	626600.	5221.	315.9	211e6	D998.4	D3556.
#2	D1724.	623100.	5262.	335.4	212e6	D311.1	D5846.
#3	D980.6	631500.	5231.	331.5	212e6	D1232.	D4822.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 27.34	ug/L 11.3	ug/L	ug/L 5243.	ug/L 226.	ug/L 2450.	ug/L 9.3
Avge	20690.	8527.	S7431000.	3968000.	171300.	1854000.	D7061.
SDev	844.	392.	750.	22822.	573.	3109.	1041.
%RSD	4.078	4.597	.0101	.5752	.3344	.1677	14.74
#1	21470	8970	S7431000	3962000.	171400	1850000	D7721

#2	20800.	8390.	S7431000.	3992000.	171900.	1856000.	D7590.
#3	19800.	8222.	S7430000.	3947000.	170700.	1856000.	D5862.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 53.4	ug/L 26.06	ug/L	ug/L 1619.
Avge	40380.	19720.	D6608.	1225000.
SDev	641.	325.	13e3	56554.
%RSD	1.588	1.650	191.1	4.616
#1	40370.	19710.	D.0000	1173000.
#2	41030.	20050.	D18470.	1218000.
#3	39750.	19400.	D8035.	1285000.

Method: CLP Sample Name: CCV1 Operator: JP
Run Time: 11/21/94 19:00:09
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 103%	ug/L 103%	ug/L 102%	ug/L 103%	ug/L 102%	ug/L 102%	ug/L 103
Avge	512.6	1032.	1023.	257.8	254700.	256.0	2573.
SDev	3.6	10.	7.	.7	656.	3.4	11.
%RSD	.7116	.9265	.7079	.2817	.2576	1.339	.4128
#1	508.8	1024.	1024.	258.2	255200.	252.1	2561.
#2	516.1	1042.	1015.	257.0	254900.	258.6	2577.
#3	513.0	1029.	1029.	258.3	253900.	257.4	2581.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 102%	ug/L 103	ug/L 104	ug/L 103	ug/L 103	ug/L 98	ug/L 101
Avge	510.8	1282.	5186.	255900.	769.3	244200.	2020.
SDev	.4	2.	11.	1588.	3.0	625.	22.
%RSD	.0748	.1658	.2037	.6206	.3856	.2558	1.070
#1	510.4	1284.	5198.	254200.	772.4	244000.	2044.
#2	511.2	1281.	5178.	256000.	769.1	244900.	2003.
#3	510.7	1280.	5181.	257400.	766.5	243800.	2013.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 102	ug/L 100	ug/L	ug/L 100%
Avge	2560.	999.3	D257.3	249500.
SDev	20.	8.5	8.9	3235.
%RSD	.7953	.8538	3.461	1.297
#1	2575.	989.9	D264.8	252300.
#2	2537.	1007.	D247.5	250200.
#3	2569.	1001.	D259.5	245900.

Method: CLP Sample Name: CCB1 Operator: JP
Run Time: 11/21/94 19:07:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

Avge	D.0000	D3.572	d.0346	d.0575	D.0000	D.0000	D.0000
SDev	.9778	.322	.0098	.0894	4.875	1.373	5.983
%RSD	31.31	9.011	28.31	155.6	14.92	50.74	13140.
#1	D.0000	D3.683	d.0403	d.0000	D.0000	D.0000	D6.784
#2	D.0000	D3.210	d.0233	d.1551	D.0000	D.0000	D.0000
#3	D.0000	D3.825	d.0403	d.0380	D.0000	D.0000	D.0000

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D1.297	D.0000	D.0000	D.0000	D.0000	D3.620	D.0000
SDev	3.398	1.329	3.749	15.40	.3498	6.217	10.05
%RSD	262.1	99.38	479.8	327.4	38.11	171.7	1030.
#1	D.0000	D.0619	D1.470	D5.702	D.0000	D7.210	D.0000
#2	D.8795	D.0000	D.0000	D2.581	D.0000	D.0000	D9.224
#3	D4.884	D.0000	D1.295	D.0000	D.0000	D7.210	D.0000

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D.0000	D264.2
SDev	3.143	.7978	35.29	99.1
%RSD	60.02	126.9	79.26	37.51
#1	D.0000	D.0000	D.0000	D376.5
#2	D.0000	D.0000	D.0000	D189.3
#3	D.0000	D.0000	D.0000	D226.7

Method: CLP Sample Name: 9410061-03A Operator: JP
Run Time: 11/21/94 19:14:42
Comment:
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 14.07	ug/L	ug/L 163.4	ug/L 125.	ug/L	ug/L 544	ug/L 32.1
Avge	D.0000	S2883000.	12910.	989.5	13e6	d4297.	25420.
SDev	207.6	10948.	7.	4.4	32463.	1003.	1246.
%RSD	11.56	.3798	.0548	.4446	.2444	23.34	4.902
#1	D.0000	S2895000.	12900.	985.3	13e6	d3555.	26790.
#2	D.0000	S2877000.	12910.	989.2	13e6	d5438.	24350.
#3	D.0000	S2876000.	12920.	994.1	13e6	d3899.	25130.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 776.	ug/L 76.15	ug/L	ug/L	ug/L	ug/L 478.3	ug/L 38.
Avge	61360.	60180.	S7348000.	11e6	S1403000.	378000.	30390.
SDev	1815.	763.	15742.	27292.	4577.	1645.	531.
%RSD	2.958	1.267	.2142	.2519	.3262	.4352	1.746
#1	61320.	61060.	S7356000.	11e6	S1403000.	379400.	30620.
#2	59570.	59790.	S7330000.	11e6	S1398000.	376200.	30760.
#3	63190.	59690.	S7358000.	11e6	S1407000.	378300.	29780.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 178.	ug/L 86.45	ug/L	ug/L 1799.
Avge	140500.	68320.	D5806.	1422000.

SDev	7.	773.	4757.	41426.
%RSD	.0052	1.131	81.94	2.912
#1	140500.	68320.	D10980.	1427000.
#2	140500.	69100.	D1615.	1379000.
#3	140500.	67550.	D4825.	1461000.

Method: CLP Sample Name: 9410061-04A Operator: JP
Run Time: 11/21/94 19:21:59
Comment:
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 33187.	ug/L 160.4	ug/L 1.20	ug/L	ug/L 2.84	ug/L 26.
Avge	D.0000	2651000.	12810.	961.9	39e6	D2268.	21350.
SDev	357.3	4211.	44.	12.9	62049.	688.	1356.
%RSD	30.55	.1588	.3447	1.342	.1597	30.35	6.349
#1	D.0000	2655000.	12830.	947.3	39e6	D1919.	22810.
#2	D.0000	2647000.	12760.	966.8	39e6	D3060.	20130.
#3	D.0000	2653000.	12840.	971.6	39e6	D1823.	21120.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 70.97	ug/L 65.09	ug/L	ug/L	ug/L	ug/L 1021.	ug/L 33.;
Avge	56690.	52000.	S7341000.	13e6	S1165000.	815900.	26950.
SDev	902.	538.	2890.	104083.	2373.	9031.	1472.
%RSD	1.592	1.034	.0394	.8301	.2038	1.107	5.461
#1	57440.	52520.	S7338000.	13e6	S1162000.	811200.	28420.
#2	55690.	51450.	S7342000.	12e6	S1165000.	826300.	26930.
#3	56940.	52020.	S7343000.	12e6	S1167000.	810200.	25480.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 177.4	ug/L 84.89	ug/L	ug/L 824. /
Avge	141700.	67810.	D13740.	D658300.
SDev	366.	305.	20342.	78057.
%RSD	.2585	.4498	148.0	11.86
#1	141300.	67500.	D.0000	D727000.
#2	141900.	68110.	D34510.	D573400.
#3	142000.	67810.	D12850.	D674600.

Method: CLP Sample Name: 9410061-05A Operator: JP
Run Time: 11/21/94 19:29:16
Comment:
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 31730.	ug/L 129.8	ug/L 1.17	ug/L	ug/L 6.21	ug/L 27.0
Avge	D.0000	2544000.	10410.	940.7	45e6	d4976.	21700.
SDev	384.8	11108.	35.	17.2	343512.	626.	723.
%RSD	37.27	.4366	.3390	1.833	.7644	12.59	3.333
#1	D.0000	2542000.	10430.	952.1	45e6	5191.	21330.
#2	D.0000	2556000.	10370.	920.9	45e6	d4270.	22540.

#3	D.0000	2534000.	10430.	949.2	45e6	5466.	21240.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L ~~68.48~~ 68.87	ug/L 63.47	ug/L	ug/L	ug/L	ug/L 100%	ug/L 31.8
Avge	54900.	50880.	S7337000.	12e6	S1079000.	802300.	25540.
SDev	1000.	530.	3700.	40053.	2794.	9159.	495.
%RSD	1.821	1.042	.0504	.3205	.2589	1.142	1.938
#1	55210.	50930.	S7336000.	12e6	S1081000.	809100.	25620.
#2	55710.	51390.	S7342000.	12e6	S1081000.	791900.	25010.
#3	53780.	50330.	S7335000.	13e6	S1076000.	805900.	26000.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 68.4	ug/L 71.24	ug/L	ug/L 721.5
Avge	135000.	57110.	D11780.	D578400.
SDev	670.	493.	9762.	28360.
%RSD	.4962	.8637	82.87	4.903
#1	135400.	57610.	D16590.	D610900.
#2	134200.	57090.	D18200.	D558500.
#3	135300.	56630.	D545.6	D566000.

Method: CLP Sample Name: 9410061-06A Operator: JP
Run Time: 11/21/94 19:36:33
Comment:
Mode: CONC Corr. Factor: 200

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 32944.	ug/L 56.9	ug/L 1.25.	ug/L	ug/L 3.20	ug/L 28.6
Avge	D.0000	2626000.	12510.	994.7	40e6	D2552.	22380.
SDev	241.6	12397.	140.	6.3	90553.	798.	302.
%RSD	13.64	.4722	1.116	.6306	.2237	31.26	1.349
#1	D.0000	2629000.	12640.	990.2	41e6	D3143.	22360.
#2	D.0000	2612000.	12540.	1002.	40e6	D2868.	22090.
#3	D.0000	2636000.	12360.	992.1	40e6	D1644.	22690.

Elem	Cr2677 72.32	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L ~~72.7~~	ug/L 64.70	ug/L	ug/L	ug/L	ug/L 100%	ug/L 33.9
Avge	57650.	51570.	S7346000.	13e6	S1054000.	803300.	27040.
SDev	420.	672.	7228.	7705.	4408.	3290.	454.
%RSD	.7281	1.304	.0984	.0597	.4183	.4095	1.678
#1	57390.	50800.	S7347000.	13e6	S1053000.	806900.	26930.
#2	57440.	52040.	S7353000.	13e6	S1059000.	802600.	27540.
#3	58140.	51870.	S7338000.	13e6	S1050000.	800500.	26650.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 83.0	ug/L 74.28	ug/L	ug/L 775.8
Avge	145900.	59210.	D17660.	D618400.
SDev	604.	981.	7715.	133318.
%RSD	.4139	1.658	43.68	21.56
#1	145500.	59180.	D26220.	D532200.
#2	146500.	58240.	D11240.	D772000.
#3	145500.	60200.	D15520.	D551000.

Method: CLP Sample Name: CCV2 Operator: JP
Run Time: 11/21/94 19:43:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 101	ug/L 104	ug/L 103	ug/L 103	ug/L 102	ug/L 101	ug/L 103
Avge	506.6	1039.	1026.	257.7	255900.	253.3	2587.
SDev	2.4	2.	7.	1.0	690.	2.1	17.
%RSD	.4717	.1819	.6347	.3954	.2696	.8372	.6735
#1	509.1	1041.	1027.	257.1	255200.	254.3	2594.
#2	506.3	1038.	1032.	257.0	255900.	250.9	2567.
#3	504.4	1037.	1019.	258.8	256600.	254.8	2599.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 105	ug/L ~~108~~	ug/L 103	ug/L 102	ug/L 103%	ug/L 99%	ug/L 102
Avge	526.0	1296. 104	5164.	254900.	767.7	246400.	2048.
SDev	10.9	3.	17.	796.	.6	1177.	15.
%RSD	2.072	.2560	.3389	.3125	.0831	.4777	.7434
#1	526.6	1294.	5165.	255800.	767.9	246400.	2038.
#2	536.6	1294.	5180.	254200.	768.1	247600.	2066.
#3	514.8	1300.	5145.	254600.	766.9	245300.	2041.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 103	ug/L 100	ug/L	ug/L 100
Avge	2581.	999.2	D229.2	249800.
SDev	8.	2.0	67.9	2457.
%RSD	.3259	.2049	29.61	.9839
#1	2585.	1002.	D292.9	249100.
#2	2586.	998.2	D236.8	252500.
#3	2571.	997.8	D157.9	247700.

Method: CLP Sample Name: CCB2 Operator: JP
Run Time: 11/21/94 19:51:09
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D5.023	.1761	D.0000	D22.57	D1.372	D.0000
SDev	5.656	1.653	.0340	.0550	2.81	1.481	1.529
%RSD	194.2	32.92	19.28	5.863	12.47	107.9	204.3
#1	D3.130	D5.905	.2101	D.0000	D20.94	D1.487	D.0000
#2	D.0000	D3.115	.1761	D.0000	D25.82	D2.793	D.0000
#3	D.0000	D6.047	.1422	D.0000	D20.94	D.0000	D.6073

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D.9730	D4.662	D.0000	D.0000	D3.462
SDev	4.840	.8121	.9702	83.14	.2259	5.384	1.888

%RSD	290.7	32.87	99.71	1783.	589.4	151.3	54.53
#1	D.0000	D.0000	D.0666	D.0000	D.2161	D.0000	D1.749
#2	D2.882	D.0000	D.8560	D46.28	D.0000	D1.825	D3.151
#3	D.0000	D.0000	D1.996	D58.77	D.0000	D.0000	D5.487

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.4218	D.0000	D214.2
SDev	1.196	1.132	18.25	161.5
%RSD	40.24	268.5	70.75	75.37
#1	D.0000	D.0000	D.0000	D245.4
#2	D.0000	D1.726	D.0000	D357.8
#3	D.0000	D.0000	D.0000	D39.44

Method: CLP Sample Name: 9410061-13A Operator: JP
Run Time: 11/21/94 19:58:27
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L 2235	ug/L 26.9	ug/L	ug/L	ug/L
Avge	D.0000	S18710.	223.5	26.93	S2067000.	177.8	982.1
SDev	1.471	45.	1.8	.26	10756.	3.7	14.5
%RSD	5.595	.2429	.8275	.9777	.5204	2.087	1.479
#1	D.0000	S18690.	223.2	27.22	S2061000.	175.6	990.5
#2	D.0000	S18690.	225.5	26.72	S2079000.	175.6	965.4
#3	D.0000	S18770.	221.9	26.85	S2060000.	182.0	990.5

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	2138.	2620.	D21040.	835300.	S6863.	733900.	1201.
SDev	8.	30.	25.	3345.	1.	2466.	10.
%RSD	.3520	1.161	.1187	.4004	.0207	.3359	.8459
#1	2147.	2655.	D21060.	837100.	S6861.	732800.	1196.
#2	2135.	2598.	D21010.	831400.	S6862.	736800.	1212.
#3	2133.	2608.	D21030.	837300.	S6864.	732200.	1194.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	2985.	3246.	D521.2	133100.
SDev	16.	21.	45.5	514.
%RSD	.5375	.6577	8.730	.3864
#1	2975.	3259.	D474.8	133500.
#2	3003.	3257.	D565.7	132500.
#3	2975.	3221.	D522.9	133300.

Method: CLP Sample Name: 9410061-13 DUP Operator: JP
Run Time: 11/21/94 20:05:44
Comment:

Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L 2510.	ug/L 23.6	ug/L	ug/L	ug/L
Avge	D.0000	S18720.	251.1	23.59	S2066000.	174.5	975.1
SDev	2.777	10.	.3	.30	9593.	2.1	14.3
%RSD	9.799	.0529	.1164	1.262	.4644	1.221	1.465
#1	D.0000	S18730.	251.3	23.29	S2060000.	176.6	962.1
#2	D.0000	S18710.	250.8	23.89	S2060000.	172.3	990.4
#3	D.0000	S18720.	251.2	23.60	S2077000.	174.5	972.9

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	2002.	2717.	D21180.	861900.	S6889.	768100.	1187.
SDev	15.	9.	26.	2622.	17.	5665.	15.
%RSD	.7441	.3477	.1241	.3042	.2510	.7375	1.285
#1	2017.	2718.	D21210.	864500.	S6903.	774600.	1175.
#2	2001.	2707.	D21160.	859300.	S6869.	765700.	1183.
#3	1987.	2725.	D21160.	861800.	S6894.	764100.	1204.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	2358.	3293.	D488.2	137000.
SDev	4.	13.	80.7	395.
%RSD	.1613	.3834	16.52	.2881
#1	2353.	3279.	D397.2	137000.
#2	2360.	3294.	D516.3	137300.
#3	2360.	3305.	D551.0	136500.

Method: CLP Sample Name: 9410061-13 SPK #1 Operator: JP
Run Time: 11/21/94 20:13:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	6416.	190.1	14.08	S2072000.	31.20	288.1
SDev	2.378	46.	1.0	.06	3871.	.14	7.3
%RSD	38.41	.7196	.5239 1901-2235	.4524	.1868	.4585	2.540
#1	D.0000	6464.	190.2	14.15	S2070000.	31.32	282.8
#2	D.0000	6412.	189.0	14.05	S2077000.	31.25	296.5
#3	D.0000	6371.	191.0	14.03	S2070000.	31.04	285.2

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	169.7	255.9	S36740.	177300.	S7059.	214700.	288.3
SDev	4.4	2.0	10.	1179.	30.	401.	16.4
%RSD	2.615	.7858	.0265	.6648	.4190	.1869	5.675
#1	173.7	253.7	S36730.	176800.	S7025.	214200.	285.1
#2	164.9	257.6	S36740.	176500.	S7076.	214900.	273.9
#3	170.6	256.3	S36750.	178700.	S7076.	214900.	306.1

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	671.1	641.1	D137.4	23490.
SDev	5.0	3.9	63.3	396.
%RSD	.7509	.6070	46.11	1.688
#1	672.6	637.9	D204.7	23190.
#2	665.5	645.4	D78.96	23340.
#3	675.2	640.0	D128.4	23940.

Method: CLP Sample Name: 9410061-13 SPK #2 Operator: JP
Run Time: 11/21/94 20:20:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	S14510.	446.8	32.34	S2060000.	68.31	622.5
SDev	1.867	23.	3.4	.06	225.	5.27	8.5
%RSD	49.78	.1594	.7637	.1779	.0109	7.719	1.364
#1	D.0000	S14520.	443.1	32.40	S2060000.	72.83	629.3
#2	D.0000	S14520.	447.2	32.29	S2060000.	62.52	613.0
#3	D.0000	S14480.	449.9	32.32	S2060000.	69.60	625.4

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	350.3	558.3	S36110.	408800.	S6955.	544100.	629.6
SDev	9.7	6.8	31.	1360.	4.	3336.	9.7
%RSD	2.756	1.211	.0849	.3326	.0507	.6132	1.544
#1	360.8	557.3	S36070.	407300.	S6958.	540300.	618.4
#2	341.7	552.0	S36130.	409600.	S6957.	546200.	635.6
#3	348.4	565.4	S36120.	409600.	S6951.	545900.	634.7

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	1438.	1404.	D363.8	59320.
SDev	6.	9.	27.8	630.
%RSD	.4054	.6556	7.649	1.062
#1	1432.	1401.	D331.7	58600.
#2	1439.	1397.	D381.2	59570.
#3	1443.	1414.	D378.5	59780.

Method: CLP Sample Name: 9410061-13 SPK INST Operator: JP
Run Time: 11/21/94 20:27:33
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	478.1 /500	S19390.	1026. /1000	232.2 -11.8	S2070000.	1105. -87.3	2621 -48
SDev	.9 x100	10.	5. x100	1.9 250	682.	16. 1250	5. 250 x100
%RSD	.1810 = 96%	.0538	.4609 = 103%	.8232 x100 = 88%	.0330	1.484 x100 = 81%	.1869 = 85

#1	477.1	S19390.	1030.	230.1	S2069000.	1103.	2616.
#2	478.8	S19390.	1021.	233.9	S2070000.	1090.	2625.
#3	478.4	S19400.	1026.	232.6	S2071000.	1122.	2621.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	1522. -1069	2475. -1310	S35190.	667600.	S6963.	603700.	2300. -60
SDev	~~16.~~ 500	1 1250	16.	486.	1.	6298.	39. 200
%RSD	1.033 91%	.0379 x100 =95%	.0445	.0728	.0115	1.043	1.697 85
#1	1504.	2474.	S35210.	667100.	S6963.	597700.	2327.
#2	1531.	2476.	S35180.	668100.	S6962.	610300.	2256.
#3	1531.	2475.	S35180.	667500.	S6964.	603100.	2319.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	3783 -1493	2533. -1623	1470.	314000.
SDev	11. 2500	29. 1000	62.	4192.
%RSD	.2823 x100 =92%	1.133 x100 =91%	4.189	1.335
#1	3776.	2502.	1455.	318800.
#2	3779.	2538.	1418.	312200.
#3	3796.	2559.	1538.	311000.

Method: CLP Sample Name: 9410061-18A Operator: JP
Run Time: 11/21/94 20:34:50
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 46.44	ug/L 1140.	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D4.644	114.0	.1632	337100.	D.0000	D5.478
SDev	2.790	1.587	.5	.0123	1521.	2.265	6.183
%RSD	58.83	34.17	.4532	7.524	.4512	100.8	112.9
#1	D.0000	D5.101	114.4	.1746	336500.	D.0000	D9.345
#2	D.0000	D2.879	113.5	.1648	336000.	D.0000	D8.742
#3	D.0000	D5.953	114.3	.1502	338800.	D.0000	D.0000

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D5.051	D2.217	73.22	119700.	416.0	867500.	D.0000
SDev	8.900	.798	4.26	250.	4.1	5094.	8.426
%RSD	176.2	36.00	5.815	.2092	.9950	.5872	223.0
#1	D.8795	D1.405	77.96	120000.	413.1	871600.	D.0000
#2	D.0000	D2.245	69.72	119500.	414.2	861800.	D4.319
#3	D15.27	D3.000	72.00	119600.	420.7	869200.	D.0000

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D18.92	96.42	D4.065	38670.
SDev	1.20	2.34	33.41	276.
%RSD	6.338	2.425	821.7	.7133

#1	D19.55	94.09	D.0000	38970.
#2	D19.68	98.76	D30.81	38430.
#3	D17.54	96.42	D14.76	38620.

Method: CLP Sample Name: 9410061-18 DUP Operator: JP
Run Time: 11/21/94 20:42:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 41.24	ug/L 1120.	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D4.124	112.0	d.1160	341500.	D.4330	D.0000
SDev	.4368	2.748	.5	.0352	451.	1.389	5.424
%RSD	15.40	66.63	.4576	30.32	.1319	320.8	230.3
#1	D.0000	D1.082	111.4	d.0770	341400.	D.0000	D.0000
#2	D.0000	D4.865	112.2	d.1453	341900.	D2.037	D3.018
#3	D.0000	D6.426	112.3	d.1258	341000.	D.0000	D.0000

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D2.161	93.57	121700.	416.1	869300.	D8.679
SDev	3.784	.764	.55	685.	4.0	8362.	11.45
%RSD	197.6	35.34	.5854	.5632	.9546	.9620	131.9
#1	D.0000	D3.042	93.40	122400.	411.8	859700.	D20.20
#2	D.0000	D1.699	93.14	121400.	416.6	873300.	D8.523
#3	D2.256	D1.741	94.19	121100.	419.7	874900.	D.0000

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D16.51	94.92	D.0000	37570.
SDev	1.04	1.36	56.43	654.
%RSD	6.282	1.433	373.6	1.742
#1	D15.65	93.78	D.0000	37030.
#2	D17.66	96.42	D48.20	37400.
#3	D16.22	94.54	D.0000	38300.

Method: CLP Sample Name: 9410061-18 SPK #1 Operator: JP
Run Time: 11/21/94 20:49:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L 1990-46.40 / 2000	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	d53.99 / 50.0	199.0 97%	305.4	50.46 -.13 / 50.0	341500.	47.58 / 50.0	496.7 -5. / 50
SDev	3.86 x100	3.5	.4	.19	1595.	1.56 x100	8.8
%RSD	7.148 = 108	1.758	.1161	.3832 x100 = 101%	.4669	3.276 = 95	1.764 98
			3054.-1140/2000				
#1	d58.43	203.0	305.6 x100	50.64	339700.	45.82	490.7
#2	d52.08	197.1	305.0 = 96%	50.48	342700.	48.15	492.8
#3	d51.46	196.8	305.7	50.26	342200.	48.77	506.8

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316

Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	201.6 -5.05	249.1 -2.22	1264. -73.2	120200.	908.0 -46	865400.	510.5 /50
SDev	4.0 200	1.6 250 x100	6. 1000 x100	733.	5.6 500	4178.	8.1 x10
%RSD	1.995 x100 =98%	.6427 =99%	.4794 =114%	.6096	.6119 x100 =98%	.4828	1.586 =10%
#1	200.1	250.9	1257.	121000.	909.7	865200.	519.8
#2	198.5	247.7	1264.	119500.	901.8	861300.	505.5
#3	206.1	248.6	1270.	120100.	912.5	869600.	506.0

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	520.5 -18.9	565.9 -96.4	D383.0	38350.
SDev	1.0 500	2.9 500	68.2	414.
%RSD	.1993 x100 =100%	.5172 x10 =94%	17.80	1.080
#1	521.5	569.3	D349.1	38820.
#2	520.5	564.6	D338.4	38040.
#3	519.5	563.9	D461.4	38210.

Method: CLP Sample Name: 9410061-18 SPK #2 Operator: JP
Run Time: 11/21/94 20:56:44
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D49.40	201.2	311.5	51.11	344800.	52.05	497.8
SDev	1.59	3.1	2.8	.22	1270.	2.76	4.1
%RSD	3.223	1.558	.9128	.4250	.3684	5.309	.8239
#1	D51.11	197.6	311.2	51.35	344700.	55.23	493.1
#2	D49.11	203.4	314.4	51.05	346200.	50.28	499.4
#3	D47.97	202.6	308.8	50.93	343600.	50.63	500.8

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	198.9	248.3	1039.	121400.	913.2	876400.	505.4
SDev	2.6	2.5	4.	412.	3.8	5303.	1.9
%RSD	1.308	.9918	.3410	.3396	.4197	.6051	.3848
#1	200.0	250.8	1035.	121500.	911.7	880700.	506.9
#2	200.8	245.9	1041.	120900.	910.4	878000.	506.0
#3	196.0	248.0	1040.	121700.	917.6	870400.	503.2

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	524.7	564.8	D420.9	38790.
SDev	4.4	1.9	49.3	395.
%RSD	.8447	.3420	11.70	1.018
#1	519.6	562.9	D387.9	38350.
#2	526.2	566.8	D477.5	38900.
#3	528.1	564.8	D397.2	39120.

Method: CLP Sample Name: 9410061-18 SPK INS Operator: JP
Run Time: 11/21/94 21:04:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	503.9	994.9	1077.	253.8	428400.	1235.	2478.
SDev	1.4	2.7	5.	.8	2831.	10.	9.
%RSD	.2810	.2761	.4483	.3228	.6607	.8094	.3731
#1	505.5	996.6	1080.	254.8	425400.	1224.	2484.
#2	503.4	996.4	1071.	253.5	429100.	1244.	2482.
#3	502.9	991.7	1079.	253.3	430900.	1236.	2467.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	497.6	1252.	5013.	316000.	957.8	676100.	1947.
SDev	8.8	2.	17.	1084.	1.9	3074.	31.
%RSD	1.761	.1601	.3398	.3430	.1972	.4547	1.598
#1	489.0	1250.	5015.	317100.	956.7	674900.	1951.
#2	506.6	1253.	4994.	314900.	960.0	679600.	1976.
#3	497.3	1253.	5028.	316000.	956.8	673800.	1914.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	2498.	1043.	1265.	275100.
SDev	6.	5.	119.	1913.
%RSD	.2296	.4855	9.419	.6954
#1	2505.	1040.	1315.	275000.
#2	2494.	1040.	1351.	273300.
#3	2495.	1049.	1129.	277100.

Method: CLP Sample Name: CRIF Operator: JP
Run Time: 11/21/94 21:11:17
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D17.22	D1.523	.2158	10.51	D32.32	D9.643	126.5
SDev	3.13	1.373	.0098	.01	2.81	1.698	4.4
%RSD	18.18	90.12	4.544	.1072	8.710	17.61	3.478
#1	D20.17	D1.460	.2101	10.49	D30.69	D11.45	124.1
#2	D17.54	D2.926	.2271	10.51	D30.69	D9.391	123.7
#3	D13.94	D.1831	.2101	10.51	D35.57	D8.085	131.5

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D23.07	54.43	71.18	D.0000	35.19	120.3	106.0
SDev	2.54	1.37	.71	16.22	.60	9.3	4.1
%RSD	11.01	2.516	1.004	51.08	1.698	7.753	3.882
#1	D20.15	55.93	72.00	D.0000	35.08	125.7	102.6

#2	D24.78	54.12	70.86	D.0000	34.66	125.7	110.6
#3	D24.28	53.24	70.68	D.0000	35.84	109.5	104.8

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	111.2	45.51	D.0000	D.0000
SDev	2.7	2.43	28.60	348.0
%RSD	2.468	5.348	74.70	1514.
#1	114.1	44.73	D.0000	D76.89
#2	110.9	48.24	D.0000	D264.2
#3	108.6	43.56	D.0000	D.0000

Method: CLP Sample Name: ICSAF Operator: JP
Run Time: 11/21/94 21:18:34
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L 103	ug/L	ug/L
Avge	D.0000	S19430.	2.435	d.0000	514600.	D7.375	D13.06
SDev	1.754	5.	.017	.0614	712.	4.702	9.61
%RSD	15.65	.0264	.6975	811.2	.1384	63.76	73.54
#1	D.0000	S19440.	2.452	d.0000	514800.	D9.185	D14.77
#2	D.0000	S19430.	2.418	d.0000	515200.	D10.90	D2.716
#3	D.0000	S19430.	2.435	d.0575	513900.	D2.037	D21.70

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L 105	ug/L	ug/L	ug/L
Avge	182.7	D.0000	S36800.	527100.	22.61	375.1	D.0000
SDev	6.9	.8808	210.	2622.	1.15	3.1	2.562
%RSD	3.767	2.240	.5720	.4973	5.079	.8287	28.73
#1	177.7	D.0000	S36940.	526900.	23.88	373.3	D.0000
#2	179.9	D.0000	S36560.	524600.	21.64	378.7	D.0000
#3	190.6	D.0000	S36890.	529900.	22.32	373.3	D.0000

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D5.931	63.81	D162.8	D.0000
SDev	4.419	1.67	4.3	309.0
%RSD	74.50	2.614	2.641	511.3
#1	D4.276	63.03	D157.9	D.0000
#2	D10.94	62.67	D164.5	D.0000
#3	D2.579	65.72	D165.9	D282.9

Method: CLP Sample Name: ICSABF Operator: JP
Run Time: 11/21/94 21:25:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

	100		104	100		98	98
Avge	1003.	S19380.	52.24	501.1	510400.	980.9	492.3
SDev	2.	3.	.13	.8	1198.	1.3	13.5
%RSD	.1607	.0163	.2525	.1542	.2348	.1370	2.737
#1	1005.	S19380.	52.20	500.2	510100.	981.2	477.4
#2	1002.	S19380.	52.14	501.4	511700.	979.4	503.6
#3	1003.	S19380.	52.39	501.7	509400.	982.0	495.9

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 118	ug/L 93	ug/L	ug/L	ug/L 102	ug/L	ug/L 99%
Avge	587.9	464.4	S36660.	521200.	508.8	357.2	987.6
SDev	5.0	.8	24.	973.	1.9	.0	13.6
%RSD	.8472	.1659	.0655	.1867	.3790	.0000	1.372
#1	592.0	465.0	S36650.	520700.	506.5	357.2	987.2
#2	589.4	463.5	S36640.	520500.	509.6	357.2	974.3
#3	582.4	464.8	S36690.	522300.	510.1	357.2	1001.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 100	ug/L 100	ug/L	ug/L
Avge	502.3	1004.	1226.	D345.3
SDev	3.8	.	61.	328.8
%RSD	.7652	.0279	4.941	95.23
#1	497.9	1003.	1268.	D1.986
#2	504.0	1004.	1157.	D376.5
#3	505.0	1004.	1254.	D657.4

Method: CLP Sample Name: CCV3 Operator: JP
Run Time: 11/21/94 21:33:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L 101	ug/L 102	ug/L 102	ug/L 104	ug/L 105	ug/L 103	ug/L 103
Avge	506.5	1023.	1016.	261.1	262300.	257.4	2583.
SDev	2.1	.	2.	1.0	515.	2.8	15.
%RSD	.4117	.0315	.2202	.3903	.1963	1.091	.5928
#1	508.7	1024.	1014.	261.7	262300.	259.2	2574.
#2	504.6	1023.	1018.	259.9	262700.	258.7	2574.
#3	506.1	1023.	1017.	261.6	261700.	254.1	2601.

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L 105	ug/L 102	ug/L 104	ug/L 103	ug/L 103	ug/L 96	ug/L 82
Avge	527.0	1269.	5219.	256300.	773.6	240900.	2055.
SDev	1.9	4.	8.	944.	4.6	899.	24. 103
%RSD	.3689	.3218	.1589	.3681	.5882	.3733	1.145
#1	525.4	1274.	5228.	256700.	768.7	241800.	2029.
#2	526.4	1267.	5212.	255300.	777.7	240900.	2065.
#3	529.2	1267.	5218.	257100.	774.6	240000.	2073.

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L 104	ug/L 101	ug/L	ug/L 98%
Avge	2608.	1006.	D217.1	245700.

SDev	11.	5.	17.5	1226.
%RSD	.4205	.5204	8.038	.4993
#1	2619.	1001.	D236.8	244300.
#2	2609.	1006.	D211.4	246600.
#3	2597.	1011.	D203.3	246000.

Method: CLP Sample Name: CCB3 Operator: JP
Run Time: 11/21/94 21:40:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D4.881	d.0346	d.0000	D.0000	D.0000	D4.574
SDev	1.116	3.354	.0490	.0406	7.447	1.409	2.023
%RSD	42.19	68.72	141.5	28.83	411.7	291.5	44.23
#1	D.0000	D1.980	d.0912	d.0000	D6.317	D.9370	D6.031
#2	D.0000	D4.108	d.0063	d.0000	D.0000	D.0000	D5.428
#3	D.0000	D8.554	d.0063	d.0000	D.0000	D.0000	D2.264

Elem	Cr2677	Cu3247	Fe2599	Mg2790	Mn2576	Na5889	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D1.589	D.0000	D.5929	D33.80	D.1553	d52.08	D.4259
SDev	.072	1.298	2.887	36.00	.1351	3.11	7.797
%RSD	4.548	66.95	486.9	106.5	87.04	5.969	1830.
#1	D1.630	D.0000	D3.838	D.0000	D.0004	d50.28	D4.085
#2	D1.630	D.0000	D.0000	D46.28	D.2161	d55.67	D.0000
#3	D1.505	D.0000	D.0000	D61.89	D.2493	d50.28	D5.720

Elem	V_3110	Zn2138	Pb2203	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avge	D.0000	D.0000	D.0000	D257.9
SDev	3.144	1.230	7.604	502.6
%RSD	134.1	1768.	53.51	194.9
#1	D.5044	D.0000	D.0000	D76.89
#2	D.0000	D.0000	D.0000	D.0000
#3	D.0000	D1.320	D.0000	D826.0

EBS RUN NUMBER: 58310\941129000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/06/94
PAGE: 1

TEST: CLP METALS | DATE ANALYZED: 11/29/94 | ANALYZED BY: JP | HOLDING TIME: 99 Days

Total Number of Samples: 5
QA Acceptable? ____
Initials: ____

Number of ICV's: 1
Number of CCV's: 3
Number of LCS's: 2

Number of ICB's: 1
Number of CCB's: 2
Number of PB's: 2

Number of DUP's: 1
Number of SPK's: 1
Number of MSD'S: 1

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICV	Al3082	ug/L	9890	10000		98.90		90.0	110	NA	NA	NA
	Ca3179	ug/L	243000	250000		97.200		90.0	110	NA	NA	NA
	Fe2599	ug/L	4940	5000		98.80		90.0	110	NA	NA	NA
	Mg2790	ug/L	240000	250000		96.000		90.0	110	NA	NA	NA
	Mn2576	ug/L	744	750		99.2		90.0	110	NA	NA	NA
ICB	Al3082	ug/L	< 70							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA
ICSAI	Al3082	ug/L	SATURATED	500000		0				NA	NA	NA
	Ca3179	ug/L	474000	500000		94.800				NA	NA	NA
	Fe2599	ug/L	SATURATED	200000		0				NA	NA	NA
	Mg2790	ug/L	497000	500000		99.400				NA	NA	NA
ICSABI	Al3082	ug/L	SATURATED	500000		0				NA	NA	NA
	Ca3179	ug/L	472000	500000		94.400				NA	NA	NA
	Fe2599	ug/L	SATURATED	200000		0				NA	NA	NA
	Mg2790	ug/L	488000	500000		97.600				NA	NA	NA
	Mn2576	ug/L	495	500		99.0		80.0	120	NA	NA	NA
CRII	Mn2576	ug/L	33.37	30.0		111				NA	NA	NA
LCSW	Mn2576	ug/L	494	500		98.8		80.0	120	NA	NA	NA
LCSS	Mn2576	ug/L	510	500		102		80.0	120	NA	NA	NA
PBW	Al3082	ug/L	< 70							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA
PBS	Mn2576	ug/L	< 5							NA	NA	NA
CCV	Al3082	ug/L	10100	10000		101.00		90.0	110	NA	NA	NA
	Ca3179	ug/L	253000	250000		101.20		90.0	110	NA	NA	NA
	Fe2599	ug/L	5180	5000		103.6		90.0	110	NA	NA	NA

EBS RUN NUMBER: 58310\941129000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/06/94

TEST: CLP METALS DATE ANALYZED: 11/29/94 ANALYZED BY: JP HOLDING TIME: 99 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
CCV	Mg2790	ug/L	254000	250000		101.60		90.0	110	NA	NA	NA
	Mn2576	ug/L	770	750		103		90.0	110	NA	NA	NA
CCB	Al3082	ug/L	< 70							NA	NA	NA
	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA
9410061-03A	Mn2576	mg/kg	1740							10/07/94	09/29/94	YES
9410061-04A	Mn2576	mg/kg	181							10/07/94	09/29/94	YES
9410061-05A	Mn2576	mg/kg	180							10/07/94	09/29/94	YES
9410061-06A	Mn2576	mg/kg	305							10/07/94	09/29/94	YES
CCV	Mn2576	ug/L	722	750		96.3		90.0	110	NA	NA	NA
9410061-13A	Mn2576	ug/L	272							10/07/94	09/29/94	YES
9410061-13 DUP	Mn2576	ug/L	271	272			0.368			10/07/94	09/29/94	YES
SPK	Mn2576	ug/L	95.6	272	500	-35.3		75.0	125	10/07/94	NA	NA
MSD	Mn2576	ug/L	94.8	272	500	-35.4	0.283	75.0	125	10/07/94	NA	NA
ISPK	Mn2576	ug/L	1960	136	1500	122				10/07/94	NA	NA
CRIF	Mn2576	ug/L	35.72	30.0		119				NA	NA	NA
ICSAF	Al3082	ug/L	SATURATED	500000		0				NA	NA	NA
	Ca3179	ug/L	476000	500000		95.200				NA	NA	NA
	Fe2599	ug/L	SATURATED	200000		0				NA	NA	NA
	Mg2790	ug/L	494000	500000		98.800				NA	NA	NA
ICSABF	Al3082	ug/L	SATURATED	500000		0				NA	NA	NA
	Ca3179	ug/L	477000	500000		95.400				NA	NA	NA
	Fe2599	ug/L	SATURATED	200000		0				NA	NA	NA
	Mg2790	ug/L	498000	500000		99.600				NA	NA	NA
	Mn2576	ug/L	494	500		98.8		80.0	120	NA	NA	NA
CCV	Al3082	ug/L	10100	10000		101.00		90.0	110	NA	NA	NA
	Ca3179	ug/L	257000	250000		102.80		90.0	110	NA	NA	NA
	Fe2599	ug/L	5180	5000		103.6		90.0	110	NA	NA	NA
	Mg2790	ug/L	259000	250000		103.60		90.0	110	NA	NA	NA
	Mn2576	ug/L	774	750		103		90.0	110	NA	NA	NA
CCB	Al3082	ug/L	< 70							NA	NA	NA

EBS RUN NUMBER: 58310\941129000000
INSTRUMENT ID: 58310

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 12/06/94
PAGE: 3

TEST: CLP METALS **DATE ANALYZED: 11/29/94** **ANALYZED BY: JP** **HOLDING TIME: 99 Days**

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
CCB	Ca3179	ug/L	< 60							NA	NA	NA
	Fe2599	ug/L	< 7							NA	NA	NA
	Mg2790	ug/L	< 100							NA	NA	NA
	Mn2576	ug/L	< 5							NA	NA	NA

COMMENTS:

Analysis Report Summary Tue 12-06-94 08:22:49 AM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	941129	CLP	11/29/94	10:27	JP	S	CONC
2	ICB	941129	CLP	11/29/94	10:32	JP	S	CONC
3	ICSAI	941129	CLP	11/29/94	10:36	JP	S	CONC
4	ICSABI	941129	CLP	11/29/94	10:41	JP	S	CONC
5	CRII	941129	CLP	11/29/94	10:45	JP	S	CONC
6	LCSW	941129	CLP	11/29/94	10:50	JP	S	CONC
7	LCSS	941129	CLP	11/29/94	10:54	JP	S	CONC
8	PBW	941129	CLP	11/29/94	10:59	JP	S	CONC
9	PBS	941129	CLP	11/29/94	11:03	JP	S	CONC
10	9410061-01A	941129	CLP	11/29/94	11:08	JP	S	CONC
11	9410061-01 DUP	941129	CLP	11/29/94	11:12	JP	S	CONC
12	9410061-01 SPK #1	941129	CLP	11/29/94	11:17	JP	S	CONC
13	9410061-01 SPK INS	941129	CLP	11/29/94	11:21	JP	S	CONC
14	9410061-02A	941129	CLP	11/29/94	11:26	JP	S	CONC
15	CCV1	941129	CLP	11/29/94	11:30	JP	S	CONC
16	CCB1	941129	CLP	11/29/94	11:35	JP	S	CONC
17	9410061-03A	941129	CLP	11/29/94	11:39	JP	S	CONC
18	9410061-04A	941129	CLP	11/29/94	11:44	JP	S	CONC
19	9410061-05A	941129	CLP	11/29/94	11:48	JP	S	CONC
20	9410061-06A	941129	CLP	11/29/94	11:53	JP	S	CONC
21	CCV2	941129	CLP	11/29/94	11:57	JP	S	CONC
22	CCB2	941129	CLP	11/29/94	12:02	JP	S	CONC
23	9410061-13A	941129	CLP	11/29/94	12:06	JP	S	CONC
[illegible]	9410061-13 DUP	941129	CLP	11/29/94	12:11	JP	S	CONC
[illegible]	9410061-13 SPK #1	941129	CLP	11/29/94	12:15	JP	S	CONC
26	9410061-13 SPK #2	941129	CLP	11/29/94	12:20	JP	S	CONC
27	9410061-13 SPK INST	941129	CLP	11/29/94	12:24	JP	S	CONC
28	CRIF	941129	CLP	11/29/94	12:29	JP	S	CONC
29	ICSAF	941129	CLP	11/29/94	12:33	JP	S	CONC
30	ICSABF	941129	CLP	11/29/94	12:38	JP	S	CONC
31	CCV3	941129	CLP	11/29/94	12:42	JP	S	CONC
32	CCB3	941129	CLP	11/29/94	12:47	JP	S	CONC

Number were back calculated to remove corr. factors

#	Element	ICV	ICB	ICSAI	ICSABI	CRII	LCSW
1	Al3082	9890.	D47.62	S202600.	S201600.	D151.4	1953.
2	Ca3179	242600.	D42.17	474000.	471500.	d163.5	D84.64
3	Fe2599	4941.	D1.091	S39830.	S39800.	48.89	1220.
4	Mn2576	743.6	D.6792	21.43	495.1	33.37	494.5
5	Mg2790	240400.	D48.09	496800.	487500.	D155.8	D84.99

#	Element	LCSS	PBW	PBS	941'-01A	941' DUP	941'K #1
1	Al3082	2477.	D103.7	D79.86	491300.	492700.	965400.
2	Ca3179	8193.	D19.42	D30.04	25e6	25e6	25e6
3	Fe2599	1522.	D3.593	D1.439	980800.	1007e3	1092e3
4	Mn2576	509.7	D.9972	D-.0227	14200.	14580.	23890.
5	Mg2790	D315.3	D71.02	D43.10	D307800.	D288000.	D351500.

#	Element	941' INS	941'-02A	CCV1	CCB1	061-03A 941'-03A CF=200 DF=10	061-04A 941'-04A CF=200 DF=10
1	Al3082	2110e3	581400.	10120.	D139.4	2612e3	485600.
2	Ca3179	58e6	20e6	253200.	392.5	1250e3	25e6
3	Fe2599	1407e3	1014e3	5182.	D4.069	4240e3	989700.
4	Mn2576	148200.	17060.	770.5	D1.609	137900.	14480.
5	Mg2790	47e6	D392700.	254300.	D311.4	1029e3	D276700.

	Element	061-05A 941'-05A CF=200 DF=10	941'-06A CF=200 DF=10	CCV2	CCB2	061-13A 941'-13A CF=100 DF=100	061-13A dup 941' DUP CF=100 DF=100
1	Al3082	488600.	958800.	10410.	2879.	606400.	607900.
2	Ca3179	25e6	25e6	290400.	100900.	5473e3	5488e3
3	Fe2599	998000.	1110e3	6916.	5072.	1041e3	1052e3
4	Mn2576	14450.	24280.	722.1	86.79	27170.	27060.
5	Mg2790	D271900.	D331900.	234800.	D1801.	650700.	628200.

#	Element	061-13A spk 941'K #1 CF=100 DF=100	061-13A dup 941'K #2 CF=100 DF=100	061-13A spk 941'INST CF=100 DF=100	CRIF	ICSAF	ICSABF
1	Al3082	48570.	48100.	4001e3	D122.9	S202900.	S201500.
2	Ca3179	2580e3	2554e3	49e6	d198.4	475700.	477300.
3	Fe2599	147300.	142500.	S4029e3	64.04	D38970.	S39820.
4	Mn2576	9562.	9485.	196200.	35.72	20.92	493.7
5	Mg2790	D131900.	D137300.	26e6	D88.97	494400.	498300.

#	Element	CCV3	CCB3
1	Al3082	10140.	D59.73
2	Ca3179	257300.	d148.3
3	Fe2599	5179.	D6.856
4	Mn2576	774.1	D.3852
	Mg2790	259400.	D198.7

	Mn
61-03A	689.5
-04A	72.40
-05A	72.25
-06A	121.4
-13A	271.7
-13Adp	270.6
-13Aspk	95.62
-13Ansd	94.85
-13Aispk	1962

Method: CLP Standard: BLANK

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	D62.33	D49.00	D-.6667	492.0	D3.000	D37.00	D-1.000
SDev	32.01	39.05	1.1547	21.3	1.000	21.66	27.875
%RSD	51.35	79.70	173.2	4.326	33.33	58.53	2787.
#1	D63.00	D24.00	D.0000	488.0	D2.000	D12.00	D-14.00
#2	D94.00	D94.00	D.0000	473.0	D3.000	D50.00	D-20.00
#3	D30.00	D29.00	D-2.000	515.0	D4.000	D49.00	D31.00

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	D-21.00	D124.0	D14.00	D-10.67	D-11.33	D-5.000	D13.33
SDev	7.55	26.9	35.37	19.55	9.07	26.457	1.53
%RSD	35.95	21.70	252.6	183.3	80.06	529.2	11.46
#1	D-28.00	D146.0	D-16.00	D-9.000	D-10.00	D-25.00	D12.00
#2	D-22.00	D132.0	D5.000	D-31.00	D-21.00	D-15.00	D15.00
#3	D-13.00	D94.00	D53.00	D8.000	D-3.000	D25.00	D13.00

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	D19.33	D-20.00	D35.67	D35.33
SDev	28.73	12.53	95.04	13.58
%RSD	148.6	62.65	266.5	38.43
#1	D-2.000	D-32.00	D39.00	D37.00
#2	D8.000	D-7.000	D129.0	D21.00
#3	D52.00	D-21.00	D-61.00	D48.00

Method: CLP Standard: STD A

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	1717.	4109.	10470.	10320.	11010.	3130.	3019.
SDev	62.	38.	89.	76.	134.	77.	22.
%RSD	3.629	.9129	.8525	.7337	1.221	2.467	.7144
#1	1659.	4072.	10540.	10370.	11120.	3218.	3004.
#2	1783.	4108.	10510.	10360.	10860.	3096.	3010.
#3	1710.	4147.	10370.	10230.	11050.	3075.	3044.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	749.3	5485.	10520.	2827.	16080.	8374.	9392.
SDev	17.2	2.	20.	63.	47.	50.	144.
%RSD	2.290	.0278	.1913	2.240	.2904	.5929	1.538
#1	765.0	5485.	10520.	2894.	16060.	8403.	9558.
#2	731.0	5484.	10510.	2768.	16040.	8317.	9319.
#3	752.0	5487.	10550.	2820.	16130.	8403.	9298.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	1578.	D91.00	7790.	4153.
SDev	25.	44.24	78.	89.
%RSD	1.594	48.61	.9950	2.142
#1	1575.	D140.0	7822.	4050.
#2	1555.	D54.00	7702.	4207.
#3	1605.	D70.00	[illegible]	[illegible]

Method: CLP Standard: STD B

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	8596.	21070.	54310.	51170.	56110.	15460.	15160.
SDev	113.	132.	226.	203.	323.	21.	93.
%RSD	1.315	.6287	.4157	.3961	.5757	.1373	.6112
#1	8509.	21090.	54570.	51380.	55800.	15480.	15160.
#2	8556.	20930.	54190.	51160.	56450.	15450.	15060.
#3	8724.	21190.	54180.	50980.	56080.	15440.	15250.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	3807.	28450.	54100.	15670.	86060.	42620.	45510.
SDev	33.	327.	122.	95.	284.	262.	679.
%RSD	.8669	1.148	.2254	.6087	.3294	.6151	1.493
#1	3774.	28090.	53970.	15770.	85920.	42910.	46170.
#2	3808.	28710.	54200.	15590.	86390.	42400.	45530.
#3	3840.	28560.	54140.	15630.	85870.	42540.	44810.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	7915.	864.0	40900.	21130.
SDev	56.	32.5	116.	116.
%RSD	.7101	3.756	.2845	.5480
#1	7960.	900.0	40790.	21120.
#2	7933.	837.0	41020.	21010.
#3	7852.	855.0	40890.	21240.

Method: CLP Standard: STD C

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca3179	Cd2265	Co2286
Avge	16820.	39620.	104700.	95270.	107400.	29580.	28780.
SDev	53.	78.	743.	382.	117.	259.	269.
%RSD	.3128	.1963	.7101	.4012	.1090	.8768	.9340
#1	16830.	39540.	105400.	95070.	107500.	29480.	28930.
#2	16760.	39660.	103900.	95720.	107300.	29870.	28470.
#3	16860.	39680.	104800.	95040.	107400.	29380.	28930.

Elem	Cr2677	Cu3247	Fe2599	K_7664	Mg2790	Mn2576	Na5889
Avge	7461.	54000.	102400.	29390.	168300.	80970.	87530.
SDev	40.	341.	1039.	420.	951.	330.	645.
%RSD	.5301	.6309	1.015	1.429	.5649	.4080	.7367
#1	7429.	53980.	101300.	29200.	167200.	81010.	86820.
#2	7505.	53670.	102600.	29870.	168800.	81280.	87690.
#3	7448.	54350.	103300.	29100.	168900.	80620.	88070.

Elem	Ni2316	Pb2203	V_3110	Zn2138
Avge	14680.	1671.	75990.	40920.
SDev	142.	5.	85.	344.
%RSD	.9645	.3110	.1125	.8396

#1	14520.	1674.	75890.	40570.
#2	14790.	1674.	76010.	40910.
#3	14720.	1665.	76060.	41260.

Method: CLP Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardi:
Ag3280	328.068	Multiple	Standards	.059555	-3.70107	11/29/94 10:15
Al3082	308.215	Multiple	Standards	.490944	-24.0592	11/29/94 10:15
Ba4554	455.403	Multiple	Standards	.188643	.293024	11/29/94 10:15
Be3131	313.107	Multiple	Standards	.005095	-2.50888	11/29/94 10:15
Ca3179	317.933	Multiple	Standards	4.55018	-15.4611	11/29/94 10:15
Cd2265	226.502	Multiple	Standards	.082142	-3.07857	11/29/94 10:15
Co2286	228.616	Multiple	Standards	.167993	.092870	11/29/94 10:15
Cr2677	267.716	Multiple	Standards	.131345	2.74717	11/29/94 10:15
Cu3247	324.754	Multiple	Standards	.045687	-5.62888	11/29/94 10:15
Fe2599	259.940	Multiple	Standards	.095037	-1.34856	11/29/94 10:15
K_7664	766.490	Multiple	Standards	16.8258	196.801	11/29/94 10:15
Mg2790	279.079	Multiple	Standards	2.99162	49.0862	11/29/94 10:15
Mn2576	257.610	Multiple	Standards	.017999	.079249	11/29/94 10:15
Na5889	588.995	Multiple	Standards	5.50972	-88.5021	11/29/94 10:15
Ni2316	231.604	Multiple	Standards	.260675	-5.10827	11/29/94 10:15
Pb2203	220.353	Multiple	Standards	1.63988	33.3643	11/29/94 10:15
V_3110	311.071	Multiple	Standards	.063766	-2.24609	11/29/94 10:15
Zn2138	213.856	Multiple	Standards	.048296	-1.69987	11/29/94 10:15

Method: CLP

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ag3280	328.068	BLANK	.000000	.011180	-.01118
		STD A	100.000	98.5744	1.42562
		STD B	500.000	508.252	-8.2518
		STD C	1000.00	997.753	2.24744

CorCoef: 0.99994

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Al3082	308.215	BLANK	.000000	-.002920	.002920
		STD A	2000.00	1993.23	6.77124
		STD B	10000.0	10319.3	-319.30
		STD C	20000.0	19429.1	570.904

CorCoef: 0.99945

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ba4554	455.403	BLANK	.000000	.167262	-.16726
		STD A	2000.00	1975.95	24.0536
		STD B	10000.0	10246.1	-246.09
		STD C	20000.0	19748.3	251.662

CorCoef: 0.99979

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Be3131	313.107	BLANK	.000000	-.002262	.002262
		STD A	50.0000	50.0689	-.06891
		STD B	250.000	258.211	-8.2114
		STD C	500.000	482.888	17.1119

CorCoef: 0.99933

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat.
Ca3179	317.933	BLANK	.000000	-1.81054	1.81054
		STD A	50000.0	50083.5	-83.503
		STD B	250000.	255295.	-5294.9
		STD C	500000.	488575.	11425.0

CorCoef: 0.99972

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat.
Cd2265	226.502	BLANK	.000000	-.039335	.039335
		STD A	250.000	253.997	-3.9971
		STD B	1250.00	1266.80	-16.802
		STD C	2500.00	2426.42	73.5774

CorCoef: 0.99973

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat.
Co2286	228.616	BLANK	.000000	-.075123	.075123
		STD A	500.000	507.319	-7.3192
		STD B	2500.00	2546.25	-46.248
		STD C	5000.00	4834.31	165.689

CorCoef: 0.99961

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat.
Cr2677	267.716	BLANK	.000000	-.011081	.011081
		STD A	100.000	101.169	-1.1685
		STD B	500.000	502.822	-2.8222
		STD C	1000.00	982.670	17.3298

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Cu3247	324.754	BLANK	.000000	.036315	-.03631
		STD A	250.000	244.980	5.02022
		STD B	1250.00	1294.33	-44.335
		STD C	2500.00	2461.53	38.4678

CorCoef: 0.99961

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Fe2599	259.940	BLANK	.000000	-.018050	.018050
		STD A	1000.00	998.882	1.11792
		STD B	5000.00	5140.55	-140.55
		STD C	10000.0	9730.07	269.929

CorCoef: 0.99955

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
K_7664	766.490	BLANK	.000000	17.3262	-17.326
		STD A	50000.0	47768.8	2231.18
		STD B	250000.	263772.	-13772.
		STD C	500000.	494767.	5232.59

CorCoef: 0.99932

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat.
Mg2790	279.079	BLANK	.000000	15.1811	-15.181
		STD A	50000.0	48146.4	1853.61
		STD B	250000.	257507.	-7507.0
		STD C	500000.	503522.	-3522.0

CorCoef: 0.99990

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Mn2576	257.610	BLANK	.000000	-.010749	.010749
		STD A	150.000	150.813	-.81288
		STD B	750.000	767.163	-17.163
		STD C	1500.00	1457.55	42.4550

CorCoef: 0.99962

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Na5889	588.995	BLANK	.000000	-15.0391	15.0391
		STD A	50000.0	51656.9	-1656.9
		STD B	250000.	250633.	-633.10
		STD C	500000.	482164.	17835.6

CorCoef: 0.99979

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Ni2316	231.604	BLANK	.000000	-.068548	.068548
		STD A	400.000	406.325	-6.3245
		STD B	2000.00	2058.14	-58.138
		STD C	4000.00	3820.48	179.521

CorCoef: 0.99918

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Pb2203	220.353	BLANK	.000000	.566608	-.56660
		STD A	250.000	182.594	67.4062
		STD B	1250.00	1450.22	-200.22
		STD C	2500.00	2773.61	-273.61

CorCoef: 0.99891

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
V_3110	311.071	BLANK	.000000	.028226	-.02822
		STD A	500.000	494.511	5.48911
		STD B	2500.00	2605.88	-105.88
		STD C	5000.00	4843.13	156.873

CorCoef: 0.99918

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentrat
Zn2138	213.856	BLANK	.000000	.006582	-.00658
		STD A	200.000	198.856	1.14357
		STD B	1000.00	1018.55	-18.548
		STD C	2000.00	1974.34	25.6616

CorCoef: 0.99985

Method: CLP Sample Name: ICV Operator: JP
Run Time: 11/29/94 10:27:49
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L 98	ug/L 97	ug/L 99	ug/L 98	ug/L 96	ug/L 99
Avge	9890.	242600.	4941.	246200.	240400.	743.6
SDev	55.	1498.	26.	625.	320.	4.7
%RSD	.5513	.6174	.5268	.2540	.1331	.6328
#1	9892.	244100.	4912.	245500.	240100.	744.9

#2	9943.	242700.	4948.	246300.	240300.	738.3
#3	9834.	241100.	4962.	246800.	240700.	747.4

Method: CLP Sample Name: ICB Operator: JP
Run Time: 11/29/94 10:32:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D47.62	D42.17	D1.091	D.0000	D48.09	D.6792
SDev	9.37	5.25	.883	159.0	50.62	.3221
%RSD	19.67	12.46	80.96	167.7	105.3	47.43
#1	D46.64	D39.14	D2.073	D.0000	D.0000	D.6012
#2	D38.78	D48.24	D.8373	D28.54	D90.97	D.4032
#3	D57.44	D39.14	D.3621	D.0000	D61.05	D1.033

Method: CLP Sample Name: ICSAI Operator: JP
Run Time: 11/29/94 10:36:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	S202600.	474000.	S39830.	D342.6	496800.	21.43
SDev	1453.	536.	33.	83.0	4130.	.24
%RSD	.7172	.1132	.0827	24.22	.8313	1.140
#1	S201800.	474600.	S39840.	D398.7	494100.	21.30
#2	S204300.	473600.	S39790.	D247.3	501600.	21.28
#3	S201800.	473900.	S39860.	D381.9	494900.	21.71

Method: CLP Sample Name: ICSABI Operator: JP
Run Time: 11/29/94 10:41:18
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	S201600.	471500.	S39800.	D.0000	487500.	495.1 /500
SDev	37.	3728.	22.	340.3	4074.	3.8
%RSD	.0181	.7907	.0550	104.8	.8358	.7741 99%
#1	S201600.	472900.	S39780.	D62.19	484500.	490.7
#2	S201600.	467200.	S39800.	D.0000	492100.	496.8
#3	S201600.	474300.	S39820.	D.0000	485800.	497.8

Method: CLP Sample Name: CRII Operator: JP
Run Time: 11/29/94 10:45:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D151.4	d163.5	48.89	D.0000	D155.8	33.37
SDev	.7	9.5	2.88	448.0	18.0	.76
%RSD	.4954	5.793	5.900	2043.	11.58	2.272
#1	D152.2	d166.5	51.49	D398.7	D138.8	32.69
#2	D151.2	d171.1	45.79	D.0000	D174.7	33.22
#3	D150.7	d152.9	49.40	D28.54	D153.8	34.19

Method: CLP Sample Name: LCSW Operator: JP
Run Time: 11/29/94 10:50:18
Comment:
Mode: CONC Corr. Factor: 1 122%

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	1953.	D84.64	1220.	D202.4	D84.99	494.5/500
SDev	11.	.00	17.	102.8	19.62	5.2 x100
%RSD	.5516	.0000	1.406	50.79	23.08	1.059 = 99%
#1	1956.	D84.64	1223.	D112.7	D81.99	499.8
#2	1941.	D84.64	1201.	D314.6	D67.04	489.3
#3	1961.	D84.64	1235.	D180.0	D105.9	494.4

Method: CLP Sample Name: LCSS Operator: JP
Run Time: 11/29/94 10:54:49
Comment:
Mode: CONC Corr. Factor: 1 152%

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	2477.	8193.	1522.	D337.0	D315.3	509.7/500.0
SDev	35.	92.	5.	243.4	81.0	1.0 x100
%RSD	1.418	1.123	.3267	72.23	25.68	.2046 = 102%
#1	2476.	8125.	1518.	D213.6	D372.2	509.5
#2	2512.	8157.	1527.	D180.0	D351.2	508.8
#3	2442.	8298.	1519.	D617.4	D222.6	510.8

Method: CLP Sample Name: PBW Operator: JP
Run Time: 11/29/94 10:59:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D103.7	D19.42	D3.593	D22.93	D71.02	D.9972
SDev	31.4	2.63	1.780	404.3	15.35	1.061
%RSD	30.29	13.53	49.55	1763.	21.61	106.4
#1	D72.17	D16.39	D2.168	D415.5	D67.04	D.4212
#2	D104.1	D20.94	D5.589	D45.37	D58.06	D2.221
#3	D135.0	D20.94	D3.023	D.0000	D87.98	D.3492

Method: CLP Sample Name: PBS Operator: JP
Run Time: 11/29/94 11:03:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D79.86	D30.04	D1.439	D140.7	D43.10	D.0000
SDev	40.45	9.10	1.690	136.0	61.09	.5478
%RSD	50.66	30.29	117.4	96.65	141.7	2408.
#1	D125.7	D39.14	D2.928	D163.1	D64.04	D.1692
#2	D49.09	D20.94	D.0000	D.0000	D.0000	D.0000
#3	D64.80	D30.04	D1.788	D264.1	D90.97	D.4032

D:d not use

Method: CLP Sample Name: 9410061-01A Operator: JP
Run Time: 11/29/94 11:08:18
Comment: ~~1:100~~ 1:10
Mode: CONC Corr. Factor: 200

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L 5980.	ug/L	ug/L	ug/L 1140.	ug/L	ug/L ~~17.29~~ 173.
Avge	491300.	25e6	980800.	D93200.	D307800.	14200.
SDev	7285.	141747.	10228.	90859.	11952.	128.
%RSD	1.483	.5759	1.043	97.49	3.883	.8983
#1	493300.	25e6	986600.	D2344.	D300000.	14150.
#2	497300.	25e6	986800.	D184100.	D321500.	14120.
#3	483200.	25e6	969000.	D93200.	D301800.	14350.

11900. 1150

D:d not use

Method: CLP Sample Name: 9410061-01 DUP Operator: JP
Run Time: 11/29/94 11:12:51
Comment: ~~1:100~~ 1:10
Mode: CONC Corr. Factor: 200

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L 6000	ug/L	ug/L	ug/L	ug/L	ug/L ~~17.76~~ 177.6
Avge	492700.	25e6	1007000.	D47210.	D288000.	14580.
SDev	2603.	119017.	636.	45936.	17980.	40.
%RSD	.5284	.4716	.0632	97.30	6.242	.2716
#1	490200.	25e6	1008000.	D15800.	D294600.	14620.
#2	492600.	25e6	1006000.	D99930.	D267700.	14580.
#3	495400.	25e6	1007000.	D25900.	D301800.	14540.

574.

D:d not use

Method: CLP Sample Name: 9410061-01 SPK #1 Operator: JP
Run Time: 11/29/94 11:17:20
Comment: 1:100
Mode: CONC Corr. Factor: 200 1:10

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

291 - 173.
29.1 - 17.29

Avge	965400.	25e6	1092000.	D93200.	D351500.	23890 ~~600~~ 0.608
SDev	7740.	5684.	5510.	92526.	8312.	15.
%RSD	.8018	.0224	.5046	99.27	2.365	.0609
#1	970500.	25e6	1089000.	D194200.	D341900.	23900.
#2	969100.	25e6	1098000.	D12440.	D355600.	23880.
#3	956500.	25e6	1089000.	D73010.	D356800.	23900.

Did not use

Method: CLP Sample Name: 9410061-01 SPK INS Operator: JP
Run Time: 11/29/94 11:21:50
Comment: ~~1:100~~
Mode: CONC Corr. Factor: 200

88.5

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	2110000.	58e6	1407000.	51e6	47e6	148200.
SDev	2850.	386854.	6637.	722818.	172994.	621.
%RSD	.1350	.6689	.4717	1.417	.3696	.4190
#1	2112000.	58e6	1409000.	52e6	47e6	148800.
#2	2107000.	57e6	1412000.	51e6	47e6	147600.
#3	2112000.	58e6	1400000.	51e6	47e6	148100.

~~177.~~ 1800 - ~~17.76~~ 1826 x100 = 94%

25700 - 2990/122 x100 = 186%

Did not use

Method: CLP Sample Name: 9410061-02A Operator: JP
Run Time: 11/29/94 11:26:22
Comment: ~~1:100~~ 1:10
Mode: CONC Corr. Factor: 200

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	581400.	20e6	1014000.	D162700.	D392700.	17060.
SDev	4127.	98728.	4101.	66825.	6304.	83.
%RSD	.7097	.4855	.4045	41.06	1.605	.4892
#1	580700.	20e6	1010000.	D211000.	D386200.	16980.
#2	577700.	20e6	1018000.	D190800.	D393300.	17150.
#3	585900.	20e6	1014000.	D86470.	D398700.	17050.

7080. 13400. 2150. 4782. 208.

Method: CLP Sample Name: CCV1 Operator: JP
Run Time: 11/29/94 11:30:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	10120.	253200.	5182.	254300.	254300.	770.5
SDev	28.	221.	35.	3028.	1022.	3.4
%RSD	.2756	.0872	.6756	1.190	.4019	.4420
#1	10150.	253200.	5189.	257800.	254700.	772.6
#2	10120.	253500.	5144.	253100.	255000.	766.6
#3	10100.	253000.	5213.	252100.	253100.	772.4

101 101 104 102 102 103%

Method: CLP Sample Name: CCB1 Operator: JP
Run Time: 11/29/94 11:35:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D139.4	392.5	D4.069	D544.5	D311.4	D1.609
SDev	19.5	7.0	2.870	286.2	43.0	.174
%RSD	13.97	1.771	70.54	52.56	13.80	10.79
#1	D124.7	394.1	D3.688	D533.3	D279.4	D1.483
#2	D132.1	398.6	D1.408	D264.1	D294.4	D1.807
#3	D161.5	385.0	D7.110	D836.2	D360.2	D1.537

Method: CLP Sample Name: 9410061-03A Operator: JP
Run Time: 11/29/94 11:39:53
Comment: ~~1:100~~ 1:10
Mode: CONC Corr. Factor: 200

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
					13000.	
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L 1740.
Avge	2612000.	1250000.	4240000.	D123500.	1029000.	137900.
SDev	18262.	3967.	31165.	63938.	15266.	716.
%RSD	.6992	.3173	.7350	51.78	1.484	.5193
#1	2591000.	1245000.	4228000.	D69650.	1046000.	138600.
#2	2626000.	1253000.	4275000.	D106700.	1017000.	137800.
#3	2618000.	1252000.	4216000.	D194200.	1023000.	137200.

Method: CLP Sample Name: 9410061-04A Operator: JP
Run Time: 11/29/94 11:44:24
Comment: ~~1:100~~ 1:10
Mode: CQNC Corr. Factor: 200

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
				18 1900.		
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L 181.3
Avge	485600.	25e6	989700.	D151500.	D276700.	14480.
SDev	5767.	137816.	4558.	25481.	9034.	166.
%RSD	1.188	.5602	.4605	16.82	3.265	1.146
#1	479000.	24e6	990500.	D133600.	D267100.	14610.
#2	488200.	25e6	984700.	D180700.	D285000.	14290.
#3	489600.	25e6	993800.	D140300.	D277900.	14550.

Method: CLP Sample Name: 9410061-05A Operator: JP
Run Time: 11/29/94 11:48:53
Comment: ~~1:100~~ 1:10
Mode: CONC Corr. Factor: 200

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
				1080.		
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L 180.
Avge	488600.	25e6	998000.	D86470.	D271900.	14450.
SDev	4068.	107847.	4049.	72409.	3331.	136.

#1	491500.	25e6	996200.	D160500.	D268900.	14300.
#2	484000.	25e6	1003000.	D15800.	D271300.	14480.
#3	490400.	25e6	995200.	D83110.	D275500.	14570.

Method: CLP Sample Name: 9410061-06A Operator: JP
Run Time: 11/29/94 11:53:23
Comment: ~~1:100~~ 1:10
Mode: CONC Corr. Factor: 200

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	958800.	25e6	1110000.	D136900.	D331900.	24280.
SDev	9633.	94688.	8359.	56007.	13168.	261.
%RSD	1.005	.3731	.7531	40.90	3.967	1.073
#1	968100.	25e6	1120000.	D113400.	D318600.	23980.
#2	959300.	25e6	1105000.	D96570.	D332300.	24400.
#3	948900.	25e6	1105000.	D200900.	D344900.	24460.

Method: CLP Sample Name: CCV2 Operator: JP
Run Time: 11/29/94 11:57:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	10410.	290400.	6916.	248200.	234800.	722.1
SDev	37.	1176.	20.	1460.	759.	2.0
%RSD	.3526	.4048	.2880	.5884	.3232	.2790
#1	10450.	291400.	6932.	246500.	234400.	721.7
#2	10400.	290700.	6894.	249300.	234300.	724.3
#3	10370.	289100.	6922.	248800.	235700.	720.3

Method: CLP Sample Name: CCB2 Operator: JP
Run Time: 11/29/94 12:02:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	2879.	100900.	5072.	D522.1	D1801.	86.79
SDev	26.	149.	5.	225.9	64.	.57
%RSD	.8918	.1479	.0927	43.28	3.571	.6612
#1	2907.	100900.	5066.	D264.1	D1730.	87.30
#2	2857.	100700.	5074.	D617.4	D1856.	86.89
#3	2872.	101000.	5075.	D684.7	D1817.	86.17

Method: CLP Sample Name: 9410061-13A Operator: JP
Run Time: 11/29/94 12:06:55

Comment: ~~1:10~~
Mode: CONC Corr. Factor: 100 1040000

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576 27170
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	606400.	5473000.	1041000.	D78570.	650700.	27170. 27200.
SDev	2045.	18633.	2359.	22067.	15214.	92.
%RSD	.3371	.3404	.2267	28.09	2.338	.3392
#1	604100.	5470000.	1042000.	D81940.	638800.	27270.
#2	607300.	5456000.	1042000.	D98760.	667900.	27080.
#3	607900.	5493000.	1038000.	D55010.	645400.	27150.

Method: CLP Sample Name: 9410061-13 DUP Operator: JP
Run Time: 11/29/94 12:11:26
Comment: ~~1:10~~
Mode: CONC Corr. Factor: 100 1050000 27100

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	607900.	5488000.	1052000.	D79130.	628200.	27060.
SDev	3642.	30736.	5005.	21700.	5159.	128.
%RSD	.5992	.5601	.4756	27.42	.8212	.4729
#1	604500.	5506000.	1057000.	D85300.	623600.	27110.
#2	607300.	5452000.	1053000.	D55010.	633700.	26920.
#3	611800.	5506000.	1047000.	D97080.	627200.	27170.

Method: CLP Sample Name: 9410061-13 SPK #1 Operator: JP
Run Time: 11/29/94 12:15:56
Comment: ~~1:10~~
Mode: CONC Corr. Factor: 100 ? 0

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	48570.	2580000.	147300.	D40430.	D131900.	9562.
SDev	2003.	16003.	1224.	12629.	5804.	39.
%RSD	4.124	.6202	.8308	31.23	4.402	.4103
#1	50420.	2565000.	145900.	D39870.	D135600.	9535.
#2	48850.	2578000.	148200.	D28090.	D134700.	9544.
#3	46440.	2597000.	147800.	D53330.	D125200.	9607.

Method: CLP Sample Name: 9410061-13 SPK #2 Operator: JP
Run Time: 11/29/94 12:20:25
Comment: ~~1:10~~
Mode: CONC Corr. Factor: 100

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	48100.	2554000.	142500.	D26970.	D137300.	9485.
SDev	854.	10758.	494.	20354.	6745.	95.
%RSD	1.775	.4213	.3463	75.46	4.911	.9997
#1	47130.	2565000.	142100.	D19680.	D130900.	9575.

#2	48750.	2544000.	143100.	D49970.	D136800.	9386.
#3	48410.	2552000.	142400.	D11270.	D144300.	9494.

Method: CLP Sample Name: 9410061-13 SPK INST Operator: JP
Run Time: 11/29/94 12:24:55
Comment: ~~1:10~~
Mode: CONC Corr. Factor: 100

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	4001000.	49e6	S4029000.	24e6	26e6	196200. - 136000
SDev	19999.	142153.	4636.	225454.	86305.	1121. 50000
%RSD	.4998	.2879	.1150	.9208	.3274	.5715 x100
						=120%
#1	4024000.	49e6	S4024000.	24e6	26e6	195700.
#2	3990000.	49e6	S4034000.	25e6	26e6	195300.
#3	3990000.	49e6	S4030000.	25e6	26e6	197400.

Method: CLP Sample Name: CRIF Operator: JP
Run Time: 11/29/94 12:29:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D122.9	d198.4	64.04	D230.5	D88.97	35.72
SDev	12.8	13.7	1.46	178.1	21.22	.27
%RSD	10.42	6.880	2.285	77.27	23.85	.7580
#1	D113.4	d184.7	64.42	D365.1	D70.03	35.47
#2	D137.5	d198.4	62.42	D28.54	D111.9	36.01
#3	D117.8	212.0	65.27	D297.8	D84.99	35.70

Method: CLP Sample Name: ICSAF Operator: JP
Run Time: 11/29/94 12:33:55
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	S202900.	475700.	D38970.	D303.4	494400.	20.92
SDev	160.	1686.	11.	448.4	5234.	1.94
%RSD	.0786	.3544	.0288	147.8	1.059	9.285
#1	S203000.	476100.	D38960.	D482.8	500300.	23.06
#2	S203000.	477200.	D38960.	D.0000	490500.	19.28
#3	S202700.	473900.	D38980.	D634.3	492400.	20.40

Method: CLP Sample Name: ICSABF Operator: JP
Run Time: 11/29/94 12:38:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	S201500.	477300.	S39820.	D230.5	498300.	493.7 /500
SDev	78.	2655.	80.	105.1	3083.	1.7
%RSD	.0386	.5562	.2020	45.60	.6187	.3461 99%
#1	S201400.	479900.	S39870.	D146.3	494900.	494.1
#2	S201500.	474600.	S39870.	D196.8	500900.	491.8
#3	S201500.	477600.	S39730.	D348.2	499100.	495.2

Method: CLP Sample Name: CCV3 Operator: JP
Run Time: 11/29/94 12:42:56
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L 101%	ug/L 103%	ug/L 104%	ug/L 104%	ug/L 104%	ug/L 103%
Avge	10140.	257300.	5179.	260300.	259400.	774.1
SDev	38.	491.	24.	3826.	1581.	.7
%RSD	.3782	.1907	.4659	1.470	.6093	.0945
#1	10100.	257200.	5153.	256200.	258200.	773.5
#2	10180.	256800.	5201.	263800.	258900.	774.9
#3	10150.	257800.	5184.	260800.	261200.	773.8

Method: CLP Sample Name: CCB3 Operator: JP
Run Time: 11/29/94 12:47:28
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Mn2576
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	D59.73	d148.3	D6.856	D180.0	D198.7	D.3852
SDev	9.92	9.1	9.109	60.7	27.4	.5069
%RSD	16.61	6.135	132.9	33.71	13.80	131.6
#1	D68.73	d157.4	D.0000	D129.5	D174.7	D.0073
#2	D49.09	d148.3	D8.250	D247.3	D192.7	D.9612
#3	D61.37	d139.2	D15.19	D163.1	D228.6	D.1872

Appendix B
Inorganic
Wet Chemistry

CYANIDE

EPA METHOD 335.1

Due to the nature of the samples and the requested inclusion of specific QA by client, the holding times for Cyanide were not met. Several digestions and analytical runs were required in order to achieve acceptable data.

Report No. 9410061 Reviewer JM Test Code CN-A Date 11/02/94

VAIDATION CHECKLIST: WET CHEMISTRY

	Acceptable	Not Acceptable	NA
1. Holding times		✓	
2. Calibration co-efficient >0.995	✓		
3. ICV and ICB acceptable	✓		
4. Prep blank			
-one per digestion group	✓		
-< CRDL or all samples associated	✓		
> 10X blank value			
5. Samples			
-within calibration range	✓		
-soils corrected for percent solids			✓
6. Matrix spike			
- performed at 10% frequency	✓		
-within calibration range	✓		
-percent recovery in limits	✓		
7. Duplicate			
-performed at 10% frequency	✓		
-within calibration range	✓		
-% RPD within range	✓		
8. LCS			
-one per digestion group			✓
-% recovery in range			✓
9. Check for transcription errors	✓		

FILE: &L_WK68.NAM

HUNTINGDON-HOU WORK LIST

11/18/94 07:23:51

ALL FRACTIONS

WORK for TEST: TC-CN_A

DEPT	START	DUE	TEST	ORDER#	STAT	CLIENT	DASH#	RESULT	UNITS	STORED	DATE
TC	10/14	10/21	CN_A	94-10-061/T		DSM_ENV	|14A	<0.01	mg/L	REF	11/04
							|14B	<0.01	mg/L	REF	11/04
							|14C	0.24	mg/L	REF	11/04
							|14D	0.26	mg/L	REF	11/04

SOUTHWESTERN LABORATORIES QUALITY CONTROL LOG

METHOD OF ANALYSIS: EPA: 335.1
DATE OF TEST: 11/02/94 PARAMETER: CN MATRIX: NAOH ANALYST: JD MDL: .010

CALIBRATION STANDARDS/BLANKS	ABSORBANCE	STANDARDS	THEORETICAL CONCENTRATION	MEASURED CONCENTRATION	% RECOVERY
0.00/.010	0.00/4.00	ICV	0.2000	0.2043	102.2
.020	8.00	ICB	0.0000	0.0000	ERR
.100	42.50	CCV	0.2000	0.1980	99.0
.200	86.00	CCB	0.0000	0.0000	ERR
L.R.(R) =	.9996				ERR

SAMPLE ID NUMBERS IN THIS RUN: 94-10-061

UNITS = mg/L

SAMPLE ID	BACKGROUND CONC.	DUPLICATE CONC	% DIFF.	SPIKE CONC	RECOVERED CONC	P* % RECOVERY
94-061-014	<.100	<.100	ERR	0.1000	0.1036	103.6
			ERR			ERR
			ERR			ERR
			ERR			ERR

CYANIDE

Operator: Jose Davila

Date/Time: NOV. 1, 1994

Std. Cal.

Lin. Rigr. 0.9999

Calculated Manually 1023

Lab No.	Cup #	Dil.(s)	Pk. Ht.	Bs. Line	Diff.	Calculations	Conc'n.
STNC	1		55.50	10.50	45.00	0.1007/0.100	101
STD 0.00	2/3		10.50		0.00		
0.01	4/5		15.00		4.50		
0.02	6/7		19.50		9.00	0.9999	
0.10	8/9		56.00		45.50		
0.20	10/11		99.00		88.50		
BK	12						
ICV	13		99.00		88.50	0.199/0.200	100%
ICB	14						
174-1	15	13.50/500	11.00		0.50		<0.40
DUP	16	13.50/500	11.00		0.50		<0.40
SPK	17		55.00		44.50	(0.0995 - 0.40)/0.100	99%
BK	18						
174-2	19	14.50/500	11.00				<0.40
-3	20	12.00/500	11.00				<0.40
-4	21	12.50/500	11.00				<0.40
-5	22	10.00/500	11.00				<0.40
BK	23						
CCV	24		99.00		88.50	0.199/0.200	100%
CCB	25						
1710-2/10-1	26	13.17/500	10.50				<0.40
-2	27	12.94/500	10.50				<0.40
-3	28	14.50/500	10.50				<0.40
-4	29	12.04/500	10.50				<0.40
-5	30	13.50/500	10.50	10.50			<0.40

CYANIDE

Operator _____ Std. Cal. _____

Date/Time _____ Lin. Rigr. _____

2 of 3

Lab No.	Cup #	Dil.(s)	Pk. Ht.	Bs. Line	Diff.	Calculations	Conc'n.
9410-276-6	31	12.05/500	10.50	10.50	—		<0.40
-7	32	12.05/500	10.50		—		<0.40
BLK	33						
CCV	34		17.00		26.50	0.194/0.200	97%
CCB	35						
9410-167-1	36	12.40/500	10.50		—		<0.40
2	37	14.30/500	10.50		—		<0.40
2DUP	38	12.50/500	10.50		—		<0.40
DUP	39	14.39/500	10.50		—		<0.40
SPK	40		55.00		44.50	0.0448 - <0.40 / 0.100	99%
BLK	41						
CCV	42		48.00		38.50	0.194/0.200	100
CCB	43						
9410-283-1	44	13.34/500	10.50		—		<0.40
9410-271-1	45	15.20/500	10.50		—		<0.40
9410-224-1	46		67.00		56.50		0.1269
BLK	47						
9410-061-14A TP	48						
Dup -14A	49						
TP -14B	50						
Dup -14B	51						
TP 14C	52						
Dup 14C	53						
TP -14D	54						
Dup -14D	55			10.50			

CYANIDE

Operator _____ Std. Cal. _____

ate/Time _____ Lin. Rigr. _____

3 of 3

Lab No.	Cup #	Dil.(s)	Pk. Ht.	Bs. Line	Diff.	Calculations	Conc'n.
BLK	56			10.50			
CCV	57		97.00		86.50	0.144/0.200	97%
CCB	58						
9410-321-1	59	12.50/500	11.00		0.50		<0.40
275-1	60		10.50				
-2	61		10.50				
DUP	62		10.50				
SPK	63		56.00		45.50	0.104 - <0.01 / 0.100	97%
BLK	64						
CCV	65		99.00		88.50	0.197/0.200	100%
CCB	66			10.50			

CYANIDE

Operator Jose Davila

Date/Time 11/2/94

Std. Cal.

Lin. Rigr.

1 of 2

Lab No.	Cup #	Dil.(s)	Pk. Ht.	Bs. Line	Diff.	Calculations	Conc'n.
STDC	1		54.50	11.00	43.50	0.1054/0.100	[illegible]
STD 0.00	2/3		11.00		0.00		
0.01	4/5		15.00		4.00		
0.02	6/7		19.00		8.00		
0.10	8/9		53.50		42.50		
0.20	10/11		97.00		86.00		
BLK	12						
ICV	13		95.00		84.00	0.2040/[illegible]	[illegible]
ICB	14						
9410-001-14	15	25.00/250	13.00		2.00		[illegible]
-14B	16	25.00/250	12.50		1.50	0.0274	[illegible]
-14C	17	25.00/250	30.00		19.00		[illegible]
-14D	18	25.00/250	15.00		4.00		[illegible]
-14A SPK	19		55.50		44.50	(0.1075 − 0.0127)/0.1000 × 100	[illegible]
BLK	20						
CCV	21		95.50		81.50	0.1969/0.200	[illegible]
[illegible]	22	25.00/250	11.50		0.50		[illegible]
9410-001-14[illegible]	23	25.00/250	11.50		0.50		[illegible]
[illegible]	24	25.00/250	11.50		0.50		[illegible]
-14[illegible]	25	25.00/250	40.00		29.00		[illegible]
-14D	26	25.00/250	27.00		16.00		[illegible]
-14A SPK	27					(0.1036 − [illegible])/0.100 × 100	[illegible]
BLK	28						[illegible]
94[illegible] 24-1	[illegible]	2.00	45.00		34.00	0.0717 × [illegible]	[illegible]
[illegible]	[illegible]	2.00	45.00	11.00	34.00		[illegible]

CYANIDE

Operator _____ Std. Cal. _____

Date/Time _____ Lin. Rigr. _____

2.72

Lab No.	Cup #	Dil.(s)	Pk. Ht.	Bs. Line	Diff.	Calculations	Conc'n.
[illegible]	31						
Blk	32						
[illegible]	33		46.00	11.00	35.00	0.1750/0.200 x 100	99%
[illegible]3	34						

SULFIDE

EPA METHOD 376.1

Report No. 9410061 Reviewer SM Test Code S-WAT Date 10/14/94

VAIDATION CHECKLIST: WET CHEMISTRY

	Acceptable	Not Acceptable	NA
1. Holding times			
2. Calibration co-efficient >0.995			✓
3. ICV and ICB acceptable			✓
4. Prep blank			
-one per digestion group	✓		
-< CRDL or all samples associated			
> 10X blank value	✓		
5. Samples			
-within calibration range			✓
-soils corrected for percent solids			✓
6. Matrix spike			
- performed at 10% frequency			✓
-within calibration range			✓
-percent recovery in limits			✓
7. Duplicate			
-performed at 10% frequency	✓		
-within calibration range			✓
-% RPD within range	✓		
8. LCS			
-one per digestion group	✓		
-% recovery in range	✓		
9. Check for transcription errors	✓		

SULFIDE IN WATER/WASTEWATER - EPA 376.1 11/17/94 14:50:44

Date: 10/14/94
Run No: 1
Analyst: LN
OK to Log: YES
Logged: ___
Created: 10/14/94
Updated: 11/17/94
By: GMARTIN
Comments: NO

Standardization of Iodine

mLs 0.025 N Na2S2O3	mLs Iodine
19.80	20.00
19.80	20.00
19.80	20.00

Normality of Iodine 0.024750

Lab Number	Class\Sub\Dup\Matrix	Sample Vol, mL	mL's Iodine	mL's Na2S2O3	Result, mg/L
#PB	B P W	200.00	20.00	19.80	0
#LCS	T L W	50.00	20.00	14.20	44.8
#9410039-01A	S C W	940.00	20.00	20.00	-0.085
#9410061-15A	S C W	100.00	20.00	19.90	-0.400
#9410061-15B	S C W	110.00	20.00	20.00	-0.727
#9410061-15	S C D W	110.00	20.00	19.90	-0.364
#9410061-15C	S C W	110.00	20.00	19.90	-0.364
#9410061-15D	S C W	110.00	20.00	19.90	-0.364
#CCB	B C W	200.00	20.00	19.80	0
#CCV	T C W	50.00	20.00	14.20	44.8

DEPT	START	DUE	TEST	ORDER#	STAT	CLIENT	DASH#	RESULT	UNITS	STORED	DATE
WC	10/14	10/21	S	94-10-061/T		DSM_ENV	|15A	<0.4	mg/L	REF	11/04
							|15B	<0.4	mg/L	REF	11/04
							|15C	<0.4	mg/L	REF	11/04
							|15D	<0.4	mg/L	REF	11/04

EBS RUN NUMBER: S_WAT\941014000000
INSTRUMENT ID: S_WAT

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 11/18/94
PAGE: 1

TEST: SULFIDE IN WATER **DATE ANALYZED: 10/14/94** **ANALYZED BY: LN** **HOLDING TIME: 7 Days**

Total Number of Samples: 5
QA Acceptable? ____
Initials: ____

Number of ICV's: 0
Number of CCV's: 1
Number of LCS's: 1

Number of ICB's: 0
Number of CCB's: 1
Number of PB's: 1

Number of DUP's: 1
Number of SPK's: 0
Number of MSD'S: 0

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
PB	S_WAT	mg/l	<.40						0.050	NA	NA	NA
LCS	S_WAT	mg/l	44.8	57.0		78.6		50	150	NA	NA	NA
9410039-01A	S_WAT	mg/l	<.40							10/05/94	10/04/94	NO
9410061-15A	S_WAT	mg/l	<.40							10/07/94	09/29/94	NO **
9410061-15B	S_WAT	mg/l	<.40							10/07/94	09/29/94	NO **
9410061-15 DUP	S_WAT	mg/l	<.40	<.40			0		15	10/07/94	09/29/94	NO **
9410061-15C	S_WAT	mg/l	<.40							10/07/94	09/29/94	NO **
9410061-15D	S_WAT	mg/l	<.40							10/07/94	09/29/94	NO **
CCB	S_WAT	mg/l	<.40							NA	NA	NA
CCV	S_WAT	mg/l	44.8	57.0		78.6				NA	NA	NA

COMMENTS:

TOTAL PETROLEUM HYDROCARBONS

EPA METHOD 418.1

Report No. 9410061 Reviewer JM Test Code TPH-S Date 10/10/94

VAIDATION CHECKLIST: WET CHEMISTRY

	Acceptable	Not Acceptable	NA
1. Holding times	✓		
2. Calibration co-efficient >0.995	✓		
3. ICV and ICB acceptable	✓		
4. Prep blank			
-one per digestion group	✓		
-< CRDL or all samples associated			
> 10X blank value			
5. Samples			
-within calibration range	✓		
-soils corrected for percent solids	✓		
6. Matrix spike			
- performed at 10% frequency	✓		
-within calibration range	✓		
-percent recovery in limits	✓		
7. Duplicate			
-performed at 10% frequency	✓		
-within calibration range	✓		
-% RPD within range	✓		
8. LCS			
-one per digestion group			✓
-% recovery in range			
9. Check for transcription errors	✓		

BALANCE CALIB. LOG

Sept. 94

Date	Initials	Actual wt.	Measured wt.
9/19/94	HP 0600	1.0000g	1.0000g
9/20/94	HP 0610	1.0000g	1.0000g
9/21/94	HP 0620	1.0000g	1.0000g
9/22/94	HP 0600	1.0000g	1.0000g
9/22/94	HP 0620	1.0000g	1.0000g
9/23/94	HP 0620	50.0000g	50.0000g
9/26/94	HP 0610	1.0000g	1.0000g
9/27/94	HP 0630	1.0000g	1.0000g
9/28/94	HP 0600	1.0000g	1.0000g
9/29/94	HP 0600	1.0000g	1.0000
9/30/94	HP 0630	1.0000g	1.0000g
9/30/94	HP 0630	50.0000g	49.9999g

Oct. 94

Date	Initials	Actual wt.	Measured wt.
10/3/94	HP 0610	1.0000g	1.0000g
10/4/94	HP 0600	1.0000g	1.0000g
10/5/94	HP 0620	1.0000g	1.0000g
10/6/94	HP 0620	1.0000g	1.0000g
10/7/94	HP 0610	1.0000g	1.0000g
10/7/94	HP 0610	50.0000g	50.0000g
10/10/94	HP 0645	1.0000g	1.0000g
10/10/94	HP 0645	50.0000g	49.9999g
10/11/94	HP 0610	~~50.0000~~ 1.0000g	1.0000g
10/12/94	HP 0630	1.0000g	1.0000g
10/13/94	HP 0622	1.0000g	1.0000g
10/17/94	HP 0600	1.0000g	1.0000

OCT 94

Date	Initials	Actual wt.	Measured wt.
10/18/94	HP 0610	1.0000g	1.0000
10/19/94	HP 0620	1.0000g	1.0000
10/20/94	HP 0625	1.0000g	1.0000
10/20/94	HP 0625	50.0000g	49.9
10/21/94	HP 0600	1.0000g	1.0000
10/25/94	HP 0605	1.0000g	1.0000
10/26/94	HP 0610	1.0000g	1.00
10/27/94	HP 0600	1.0000g	1.00
10/27/94	0620 HP	1.0000g	1.00
10/27/94	0620 HP	50.0000g	50.0
10/31/94	0610 HP	1.0000g ~~50.0000g~~	1.0

NOV. 94

Date	Initials	Actual wt.	Measured wt.
11/1/94	HP 0640	1.0000g	1.00
11/2/94	HP 0615	1.0000g	1.00
11/3/94	HP 0630	1.0000g	1.00
11/4/94	HP 0634	1.0000g	1.00
11/4/94	HP 0634	50.0000g	49.9
11/7/94	HP 0600	1.0000g	1.00
11/8/94	HP 0625	1.0000g	1.0
11/9/94	HP 0620	1.0000g	1.00
11/10/94	HP 0610	1.0000g	1.00
11/11/94	HP 0625	1.0000g	1.00
11/14/94	HP 0615	50.0000g	49.9
11/14/94	HP 0710	1.0000g	1.00

FILE: &L_WK68.NAM 11/17/94 13:46:58 WORK for TEST: WC-TPH_S

DEPT	START	DUE	TEST	ORDER#	STAT	CLIENT	DASH#	RESULT	UNITS	STORED	DATE
WC	10/16	10/21	TPH_S	94-10-061/T		DSM_ENV	|07A	3500	mg/kg	REF	11/04
							|08A	1550	mg/kg	REF	11/04
							|09A	1700	mg/kg	REF	11/04
							|10A	4640	mg/kg	REF	11/04

EBS RUN NUMBER: TPH_S\941010000000
INSTRUMENT ID: TPH_S

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 10/11/94
PAGE: 1

TEST: TOT.PET. HYDROCARBONS SOIL DATE ANALYZED: 10/10/94 ANALYZED BY: DA HOLDING TIME: 28 Days

Total Number of Samples: 20
QA Acceptable?
Initials:

Number of ICV's: 2
Number of CCV's: 3
Number of LCS's: 0

Number of ICB's: 2
Number of CCB's: 3
Number of PB's: 0

Number of DUP's: 2
Number of SPK's: 2
Number of MSD'S: 0

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
ICB	TPH_S	mg/kg	< 10						5.00	NA	NA	NA
ICV	TPH_S	mg/kg	1040	1000.0		104.0		90.0	110	NA	NA	NA
9409348-02A	TPH_S	mg/kg	74500							09/26/94	?	?
9409348-02B	TPH_S	mg/kg	71200							09/26/94	?	?
9409348-02C	TPH_S	mg/kg	70400							09/26/94	?	?
CCB	TPH_S	mg/kg	< 10						1.25	NA	NA	NA
CCV	TPH_S	mg/kg	1040	1000.0		104.0		90.0	110	NA	NA	NA
ICB	TPH_S	mg/kg	< 4						5.00	NA	NA	NA
ICV	TPH_S	mg/kg	416	400.00		104		90.0	110	NA	NA	NA
9409315-13A	TPH_S	mg/kg	300							09/27/94	09/22/94	YES
9409315-14A	TPH_S	mg/kg	116							09/27/94	09/22/94	YES
9409315-15A	TPH_S	mg/kg	124							09/27/94	09/22/94	YES
9409315-16A	TPH_S	mg/kg	204							09/27/94	09/22/94	YES
9409315-17A	TPH_S	mg/kg	172							09/27/94	09/22/94	YES
9409315-18A	TPH_S	mg/kg	71.3							09/27/94	09/22/94	YES
9409315-18 DUP	TPH_S	mg/kg	74.5	71.3			4.39		22.1	09/27/94	09/22/94	YES
9409315-18 SPK	TPH_S	mg/kg	447	71.3	399.20	94.1		85.6	125	09/27/94	NA	NA
9409315-19A	TPH_S	mg/kg	1700							09/27/94	09/22/94	YES
9409315-20A	TPH_S	mg/kg	67.6							09/27/94	09/22/94	YES
9409315-21A	TPH_S	mg/kg	74.3							09/27/94	09/22/94	YES
9409315-22A	TPH_S	mg/kg	458							09/27/94	09/22/94	YES
CCB	TPH_S	mg/kg	< 4						1.25	NA	NA	NA
CCV	TPH_S	mg/kg	416	400.00		104		90.0	110	NA	NA	NA

TPH SOILS - EPA 418.1

Date: 10/10/94
Run No: 2
Analyst: DA
OK to Log? YES
Logged? YES
Created: 10/11/94
Updated: 10/11/94

Conc	Abs
0.00	0.000
10.00	0.022
50.00	0.134
100.00	0.260
200.00	0.490

STANDARD CURVE

Regress. Const. (A) 0.00393168
Regress. Coeff. (B) 0.00246206
Correl. Coeff. (r) 0.99924557

Note: Concentration of Standards = mg of TPH per liter Freon

Lab Number	Class\Sub\ Dup\Matrix	Soil Prep Weight,g	/ Vol.,ml	DF	Abs	Result, mg/kg
#ICB	B I S	25.0000	100.0000		0.000	-6.4
#ICV	T I S	25.0000	100.0000		0.260	416
#9409315-13A	S C S	25.1500	100.0000		0.190	300
#9409315-14A	S C S	25.1400	100.0000		0.076	116
#9409315-15A	S C S	25.0100	100.0000		0.080	124
#9409315-16A	S C S	25.0500	100.0000		0.130	204
#9409315-17A	S C S	25.0700	100.0000		0.110	172
#9409315-18A	S C S	25.1200	100.0000		0.048	71.3
#9409315-18	S C D S	25.1100	100.0000		0.050	74.5
#9409315-18	K M S	25.1000	100.0000		0.280	447
#9409315-19A	S C S	25.3100	100.0000	10	0.110	1700
#9409315-20A	S C S	25.2900	100.0000		0.046	67.6
#9409315-21A	S C S	25.2000	100.0000		0.050	74.3
#9409315-22A	S C S	25.3600	100.0000		0.290	458
#CCB	B C S	25.0000	100.0000		0.000	-6.4
#CCV	T C S	25.0000	100.0000		0.260	416
#9409315-23A	S C S	25.2800	100.0000		0.084	129
#9409315-23	S C D S	25.2500	100.0000		0.080	122
#9409315-23	K M S	25.3000	100.0000		0.320	507
#9410067-01A	S C S	25.0300	100.0000	100	0.260	41600
#9410011-01A	S C S	25.1200	100.0000	10	0.072	1100
#9410061-07A	S C S	25.0500	100.0000	10	0.220	3500
#9410061-08A	S C S	25.1300	100.0000	10	0.100	1550
#9410061-09A	S C S	25.3000	100.0000	10	0.110	1700
#9410061-10A	S C S	25.0600	100.0000	10	0.290	4640
#CCB	B C S	25.0000	100.0000		0.000	-6.4
#CCV	T C S	25.0000	100.0000		0.260	416

EBS RUN NUMBER: TPH_S\941010000000
INSTRUMENT ID: TPH_S

SOUTHWESTERN LABORATORIES
QUALITY CONTROL REPORT
ANALYTICAL RUN SUMMARY

REPORTED: 10/11/94
PAGE: 2

TEST: TOT.PET. HYDROCARBONS SOIL DATE ANALYZED: 10/10/94 ANALYZED BY: DA HOLDING TIME: 28 Days

LAB NUMBER	ANALYTE	UNITS	RESULT	REFERENCE RESULT	SPIKE ADDED	% REC	% RPD	CTRL LIMITS LOWER	CTRL LIMITS UPPER	DATE RECEIVED	DATE COLLECTED	HOLDING TIME MET?
9409315-23A	TPH_S	mg/kg	129							09/27/94	09/22/94	YES
9409315-23 DUP	TPH_S	mg/kg	122	129			5.58		22.1	09/27/94	09/22/94	YES.
9409315-23 SPK	TPH_S	mg/kg	507	129	396.05	95.4		85.6	125	09/27/94	NA	NA
9410067-01A	TPH_S	mg/kg	41600							10/07/94	10/07/94	YES
9410011-01A	TPH_S	mg/kg	1100							10/03/94	10/03/94	YES
9410061-07A	TPH_S	mg/kg	3500							10/07/94	09/29/94	YES
9410061-08A	TPH_S	mg/kg	1550							10/07/94	09/29/94	YES
9410061-09A	TPH_S	mg/kg	1700							10/07/94	09/29/94	YES
9410061-10A	TPH_S	mg/kg	4640							10/07/94	09/29/94	YES
CCB	TPH_S	mg/kg	< 4						1.25	NA	NA	NA
CCV	TPH_S	mg/kg	416	400.00		104		90.0	110	NA	NA	NA

COMMENTS: * SOME SAMPLES RUN IN TRIP. AS PER CLIENT.

Huntingdon

ORGANIC DATA VALIDATION

DSM ENVIRONMENTAL

PROJECT: CORCO WORKPLAN ADDENDUM

HUNTINGDON/SWL LAB# 9410061

CASE# 410061

Huntingdon/SWL

Huntingdon Engineering & Environmental, Inc.
222 Cavalcade Street
Houston, TX 77009
P.O. Box 8768
Houston, TX 77249-8768
(713) 692-9151
Fax (713) 696-6307

ORGANIC DATA VALIDATION

Client: DSM Environmental
Project: Corco Workplan Addendum
HEE/SWL Case#: 410061

Enclosed are the results of 4 water samples submitted to HEE/SWL on October 7, 1994. The samples were analyzed for Appendix IX constituents which include Volatile Organics, Semivolatiles, Pesticide/PCBs, Herbicides, and PCDDs & PCDFs. This data package includes the CLP deliverables where applicable, however the Appendix IX list contains additional compounds and Herbicides, Dioxin/Furans are not CLP analytes. We have enclosed QC reports that reflect the requirements of the EPA methods manual SW846 for those compounds not covered under the CLP Program.

The following samples were submitted:

PD-2
PD-2 Dup
PD-2 MS
PD-2 MSD
Trip Blank-Volatiles

This report is divided into 5 sections:

Volatile Organics
Semivolatile Organics
Pesticide/PCBs
Herbicides
Dioxins/Furans

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Code: SWL HOU Case No.: 410061 SAS No.: WORKPLA SDG No.: 941006

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	PD-2	103	106	78	0	0
02	PD-2_DUP	108	98	82	0	0
03	TRIP_BLANK	96	88	87	0	0
04	PD-2_MS	98	90	87	0	0
05	PD-2_MSD	109	97	89	0	0

	QC LIMITS
S1 (TOL) = Toluene-d8	(88-110)
S2 (BFB) = Bromofluorobenzene	(86-115)
S3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

FORM II VOA-1 1/87 Rev.

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: SWL - HOUSTON Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 941006

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	BLK_10-12-94	110	106	102	0	0

		QC LIMITS
S1 (TOL)	= Toluene-d8	(88-110)
S2 (BFB)	= Bromofluorobenzene	(86-115)
S3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

FORM II VOA-1 1/87 Rev.

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SWL - HOUSTON Contract: _____

L Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 941006

Matrix Spike - EPA Sample No.: PD-2

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0	46.2	92	61-145
Trichloroethene	50.0	0	49.0	98	71-120
Benzene	50.0	0	54.5	109	76-127
Toluene	50.0	0	61.1	122	76-125
Chlorobenzene	50.0	0	52.8	106	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.0	47.0	94	-2	14	61-145
Trichloroethene	50.0	49.1	98	0	14	71-120
Benzene	50.0	56.0	112	-3	11	76-127
Toluene	50.0	61.3	123	-1	13	76-125
Chlorobenzene	50.0	54.6	109	-3	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: 9410061-11A DMS ENV PD-2 5.0 ML
40(3) 40-180 @ 6/MIN WATER MATRIX

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: SWL - HOUSTON Contract: CORCO WORK

L. Code: SWL HOU Case No.: 410061 SAS No.: WORKPLA SDG No.: 941006

Lab File ID: IBL21012 Lab Sample ID: IBL21012

Date Analyzed: 10/12/94 Time Analyzed: 1609

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: FINN

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	PD-2	9410061-11	I101201	1742
02	PD-2_DUP	9410061-11B	I101202	1810
03	TRIP_BLANK	9410061-19A	I101205	2000
04	PD-2_MS	9410061-11C	I101203	1848
05	PD-2_MSD	9410061-11D	I101204	1924

COMMENTS: VOLATILE INSTRUMENT BLANK 10/12/94
40(3) 40-180 @ 6/MIN WATER MATRIX

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Lab Code: SWL HOU Case No.: 410061 SAS No.: WORKPLA SDG No.: 941006

Lab File ID: IF2101294 BFB Injection Date: 10/12/94

Instrument ID: FINN BFB Injection Time: 1416

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) _____

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.0
75	30.0 - 60.0% of mass 95	43.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	77.6
175	5.0 - 9.0% of mass 174	5.6 (7.2)1
176	Greater than 95.0%, but less than 101.0% of mass 174	76.4 (98.4)1
177	5.0 - 9.0% of mass 176	5.1 (6.7)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	PD-2	9410061-11	I101201	10/12/94	1742
02	PD-2_DUP	9410061-11B	I101202	10/12/94	1810
03	PD-2_MS	9410061-11C	I101203	10/12/94	1848
04	PD-2_MSD	9410061-11D	I101204	10/12/94	1924
05	TRIP_BLANK	9410061-19A	I101205	10/12/94	2000

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Lab Code: SWL HOU Case No.: 410061 SAS No.: WORKPLA SDG No.: 941006

Lab File ID (Standard): ISTD1012 Date Analyzed: 10/12/94

Instrument ID: FINN Time Analyzed: 1422

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD		0.00	241000	8.74	194000	14.39
	UPPER LIMIT	0		482000		388000	
	LOWER LIMIT	0		120500		97000	
	EPA SAMPLE NO.						
01	PD-2			334000	8.67	305000	14.32
02	PD-2_DUP			317000	8.70	302000	14.35
03	TRIP_BLANK			291000	8.69	257000	14.35
04	PD-2_MS			297000	8.70	272000	14.35
05	PD-2_MSD			305000	8.69	286000	14.34
06	BLK_10-12-94			257000	8.70	220000	14.35

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

Please refer to individual QC/QA data sheets for internal standard area and retention time data because pentafluorobenzene and 1,4-dichlorobenzene-d4 are the first and fourth internal standard. Bromochloromethane is a target analyte.

FORM VIII VOA 1/87 Rev.

QUALITY CONTROL/QUALITY ASSURANCE DATA

METHOD: METHOD 8260, VOLATILE WATER SAMPLE

Sample ID

DATAFILE: I101201 PD-2 ANALYSIS TIME: 10/12/94 17:42
STANDARD: ISTD1012 ANALYSIS TIME: 10/12/94 14:22
TUNEFILE: IF2101294 ANALYSIS TIME: 10/12/94 14:16

****** INTERNAL STANDARD AREA CHECK ******

INTERNAL STANDARD	DATA AREA	STD AREA	RATIO	CLP ACCEPT RATIO	STATUS
CI05 PENTAFLUOROBENZENE	299732.	202379.	148%	50% - 200%	
CI10 1,4-DIFLUOROBENZEN	334383.	240788.	139%	50% - 200%	
CI20 CHLOROBENZENE-D5 (	304853.	194026.	157%	50% - 200%	
CI30 1,4-DICHLOROBENZEN	266954.	161015.	166%	50% - 200%	

****** INTERNAL STANDARD RT CHECK ******

INTERNAL STANDARD	DATA SCAN	STD SCAN	DIFF [IN SEC]	CLP ACCEPT DIFF	STATUS
CI05 PENTAFLUOROBENZENE	695	700	3	+/- 30 SECS	
CI10 1,4-DIFLUOROBENZEN	811	817	4	+/- 30 SECS	
20 CHLOROBENZENE-D5 (	1340	1345	3	+/- 30 SECS	
30 1,4-DICHLOROBENZEN	1831	1836	3	+/- 30 SECS	

****** SURROGATE RECOVERIES ******

SURROGATE	AMT FOUND	AMT ADDED	PERCENT RECOVERY	RECOV LIMITS	STATUS
CS15 1,2-DICHLOROETHANE	39.1	50.0	78	76% - 114%	
CS05 TOLUENE-D8 (SURR)	51.4	50.0	103	88% - 110%	
CS10 BROMOFLUOROBENZENE	53.0	50.0	106	86% - 115%	

QUALITY CONTROL/QUALITY ASSURANCE DATA

METHOD: METHOD 8260, VOLATILE WATER SAMPLE

sample ID.

DATAFILE: I101202 PD-2 Dup. ANALYSIS TIME: 10/12/94 18:10
STANDARD: ISTD1012 ANALYSIS TIME: 10/12/94 14:22
TUNEFILE: IF2101294 ANALYSIS TIME: 10/12/94 14:16

****** INTERNAL STANDARD AREA CHECK ******

INTERNAL STANDARD	DATA AREA	STD AREA	RATIO	CLP ACCEPT RATIO	STATUS
CI05 PENTAFLUOROBENZENE	280322.	202379.	139%	50% - 200%	
CI10 1,4-DIFLUOROBENZEN	317245.	240788.	132%	50% - 200%	
CI20 CHLOROBENZENE-D5 (	301641.	194026.	155%	50% - 200%	
CI30 1,4-DICHLOROBENZEN	267134.	161015.	166%	50% - 200%	

****** INTERNAL STANDARD RT CHECK ******

INTERNAL STANDARD	DATA SCAN	STD SCAN	DIFF [IN SEC]	CLP ACCEPT DIFF	STATUS
CI05 PENTAFLUOROBENZENE	698	700	1	+/- 30 SECS	
CI10 1,4-DIFLUOROBENZEN	814	817	2	+/- 30 SECS	
CI20 CHLOROBENZENE-D5 (	1343	1345	1	+/- 30 SECS	
CI30 1,4-DICHLOROBENZEN	1834	1836	1	+/- 30 SECS	

****** SURROGATE RECOVERIES ******

SURROGATE	AMT FOUND	AMT ADDED	PERCENT RECOVERY	RECOV LIMITS	STATUS
CS15 1,2-DICHLOROETHANE	41.2	50.0	82	76% - 114%	
CS05 TOLUENE-D8 (SURR)	54.0	50.0	108	88% - 110%	
CS10 BROMOFLUOROBENZENE	49.1	50.0	98	86% - 115%	

QUALITY CONTROL/QUALITY ASSURANCE DATA

METHOD: METHOD 8260, VOLATILE WATER SAMPLE

sample ID

DATAFILE: I101203 PD-2 MS ANALYSIS TIME: 10/12/94 18:48
STANDARD: ISTD1012 ANALYSIS TIME: 10/12/94 14:22
TUNEFILE: IF2101294 ANALYSIS TIME: 10/12/94 14:16

****** INTERNAL STANDARD AREA CHECK ******

INTERNAL STANDARD	DATA AREA	STD AREA	RATIO	CLP ACCEPT RATIO	STATUS
CI05 PENTAFLUOROBENZENE	266711.	202379.	132%	50% - 200%	
CI10 1,4-DIFLUOROBENZEN	296734.	240788.	123%	50% - 200%	
CI20 CHLOROBENZENE-D5 (	272261.	194026.	140%	50% - 200%	
CI30 1,4-DICHLOROBENZEN	234861.	161015.	146%	50% - 200%	

****** INTERNAL STANDARD RT CHECK ******

INTERNAL STANDARD	DATA SCAN	STD SCAN	DIFF [IN SEC]	CLP ACCEPT DIFF	STATUS
CI05 PENTAFLUOROBENZENE	697	700	2	+/- 30 SECS	
CI10 1,4-DIFLUOROBENZEN	814	817	2	+/- 30 SECS	
CI20 CHLOROBENZENE-D5 (	1342	1345	2	+/- 30 SECS	
CI30 1,4-DICHLOROBENZEN	1833	1836	2	+/- 30 SECS	

****** SURROGATE RECOVERIES ******

SURROGATE	AMT FOUND	AMT ADDED	PERCENT RECOVERY	RECOV LIMITS	STATUS
CS15 1,2-DICHLOROETHANE	43.7	50.0	87	76% - 114%	
CS05 TOLUENE-D8 (SURR)	49.1	50.0	98	88% - 110%	
CS10 BROMOFLUOROBENZENE	45.0	50.0	90	86% - 115%	

QUALITY CONTROL/QUALITY ASSURANCE DATA

METHOD: METHOD 8260, VOLATILE WATER SAMPLE

sample ID

DATAFILE: I101204 PD-2 MSD ANALYSIS TIME: 10/12/94 19:24
STANDARD: ISTD1012 ANALYSIS TIME: 10/12/94 14:22
TUNEFILE: IF2101294 ANALYSIS TIME: 10/12/94 14:16

****** INTERNAL STANDARD AREA CHECK ******

INTERNAL STANDARD	DATA AREA	STD AREA	RATIO	CLP ACCEPT RATIO	STATUS
CI05 PENTAFLUOROBENZENE	273734.	202379.	135%	50% - 200%	
CI10 1,4-DIFLUOROBENZEN	304905.	240788.	127%	50% - 200%	
CI20 CHLOROBENZENE-D5 (	285929.	194026.	147%	50% - 200%	
CI30 1,4-DICHLOROBENZEN	246531.	161015.	153%	50% - 200%	

****** INTERNAL STANDARD RT CHECK ******

INTERNAL STANDARD	DATA SCAN	STD SCAN	DIFF [IN SEC]	CLP ACCEPT DIFF	STATUS
CI05 PENTAFLUOROBENZENE	696	700	3	+/- 30 SECS	
10 1,4-DIFLUOROBENZEN	812	817	3	+/- 30 SECS	
20 CHLOROBENZENE-D5 (	1341	1345	3	+/- 30 SECS	
CI30 1,4-DICHLOROBENZEN	1832	1836	3	+/- 30 SECS	

****** SURROGATE RECOVERIES ******

SURROGATE	AMT FOUND	AMT ADDED	PERCENT RECOVERY	RECOV LIMITS	STATUS
CS15 1,2-DICHLOROETHANE	44.3	50.0	89	76% - 114%	
CS05 TOLUENE-D8 (SURR)	54.3	50.0	109	88% - 110%	
CS10 BROMOFLUOROBENZENE	48.7	50.0	97	86% - 115%	

QUALITY CONTROL/QUALITY ASSURANCE DATA

METHOD: METHOD 8260, VOLATILE WATER SAMPLE

Sample ID.

DATAFILE: I101205 Trip Blank ANALYSIS TIME: 10/12/94 20:00
STANDARD: ISTD1012 ANALYSIS TIME: 10/12/94 14:22
TUNEFILE: IF2101294 ANALYSIS TIME: 10/12/94 14:16

****** INTERNAL STANDARD AREA CHECK ******

INTERNAL STANDARD	DATA AREA	STD AREA	RATIO	CLP ACCEPT RATIO	STATUS
CI05 PENTAFLUOROBENZENE	254331.	202379.	126%	50% - 200%	
CI10 1,4-DIFLUOROBENZEN	291208.	240788.	121%	50% - 200%	
CI20 CHLOROBENZENE-D5 (	257171.	194026.	133%	50% - 200%	
CI30 1,4-DICHLOROBENZEN	217007.	161015.	135%	50% - 200%	

****** INTERNAL STANDARD RT CHECK ******

INTERNAL STANDARD	DATA SCAN	STD SCAN	DIFF [IN SEC]	CLP ACCEPT DIFF	STATUS
CI05 PENTAFLUOROBENZENE	696	700	3	+/- 30 SECS	
10 1,4-DIFLUOROBENZEN	813	817	3	+/- 30 SECS	
20 CHLOROBENZENE-D5 (	1342	1345	2	+/- 30 SECS	
CI30 1,4-DICHLOROBENZEN	1832	1836	3	+/- 30 SECS	

****** SURROGATE RECOVERIES ******

SURROGATE	AMT FOUND	AMT ADDED	PERCENT RECOVERY	RECOV LIMITS	STATUS
CS15 1,2-DICHLOROETHANE	43.7	50.0	87	76% - 114%	
CS05 TOLUENE-D8 (SURR)	48.2	50.0	96	88% - 110%	
CS10 BROMOFLUOROBENZENE	44.1	50.0	88	86% - 115%	

QUALITY CONTROL/QUALITY ASSURANCE DATA

METHOD: METHOD 8260, VOLATILE WATER SAMPLE

sample ID.

DATAFILE: IBL21012 inst. blank ANALYSIS TIME: 10/12/94 16:09
STANDARD: ISTD1012 ANALYSIS TIME: 10/12/94 14:22
TUNEFILE: IF2101294 ANALYSIS TIME: 10/12/94 14:16

****** INTERNAL STANDARD AREA CHECK ******

INTERNAL STANDARD	DATA AREA	STD AREA	RATIO	CLP ACCEPT RATIO	STATUS
CI05 PENTAFLUOROBENZENE	216842.	202379.	107%	50% - 200%	
CI10 1,4-DIFLUOROBENZEN	257317.	240788.	107%	50% - 200%	
CI20 CHLOROBENZENE-D5 (	219827.	194026.	113%	50% - 200%	
CI30 1,4-DICHLOROBENZEN	181071.	161015.	112%	50% - 200%	

****** INTERNAL STANDARD RT CHECK ******

INTERNAL STANDARD	DATA SCAN	STD SCAN	DIFF [IN SEC]	CLP ACCEPT DIFF	STATUS
CI05 PENTAFLUOROBENZENE	699	700	1	+/- 30 SECS	
CI10 1,4-DIFLUOROBENZEN	814	817	2	+/- 30 SECS	
CI20 CHLOROBENZENE-D5 (	1343	1345	1	+/- 30 SECS	
CI30 1,4-DICHLOROBENZEN	1833	1836	2	+/- 30 SECS	

****** SURROGATE RECOVERIES ******

SURROGATE	AMT FOUND	AMT ADDED	PERCENT RECOVERY	RECOV LIMITS	STATUS
CS15 1,2-DICHLOROETHANE	51.1	50.0	102	76% - 114%	
CS05 TOLUENE-D8 (SURR)	55.2	50.0	110	88% - 110%	
CS10 BROMOFLUOROBENZENE	53.2	50.0	106	86% - 115%	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PD-2

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Lab Code: SWL HOU Case No.: 410061 SAS No.: WORKPLA SDG No.: 941006

Matrix: (soil/water) WATER Lab Sample ID: 9410061-11A

Sample wt/vol: _____ (g/mL) ML Lab File ID: I101201

Level: (low/med) LOW Date Received: 10/07/94

% Moisture: not dec. ____ Date Analyzed: 10/12/94

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	50	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	Methylethyl ketone (MEK)	50	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PD-2

Lab Name: SWL - HOUSTON Contract: CORCO WORK

L Code: SWL HOU Case No.: 410061 SAS No.: WORKPLA SDG No.: 941006

Matrix: (soil/water) WATER Lab Sample ID: 9410061-11

Sample wt/vol: _____ (g/mL) ML Lab File ID: I101201

Level: (low/med) LOW Date Received: 10/07/94

% Moisture: not dec. _____ Date Analyzed: 10/12/94

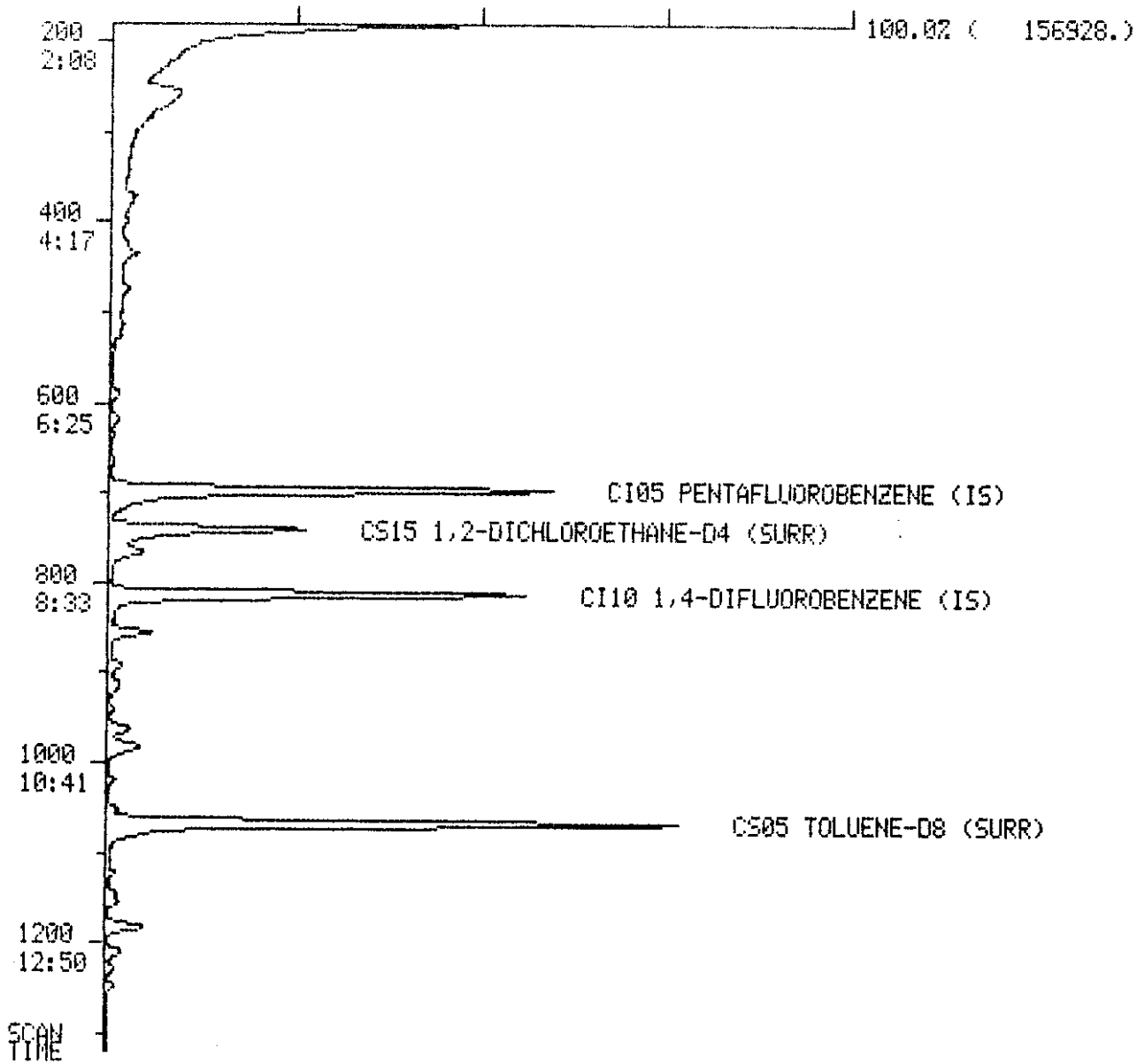
Column (pack/cap) CAP Dilution Factor: 1

Number TICs found: 0

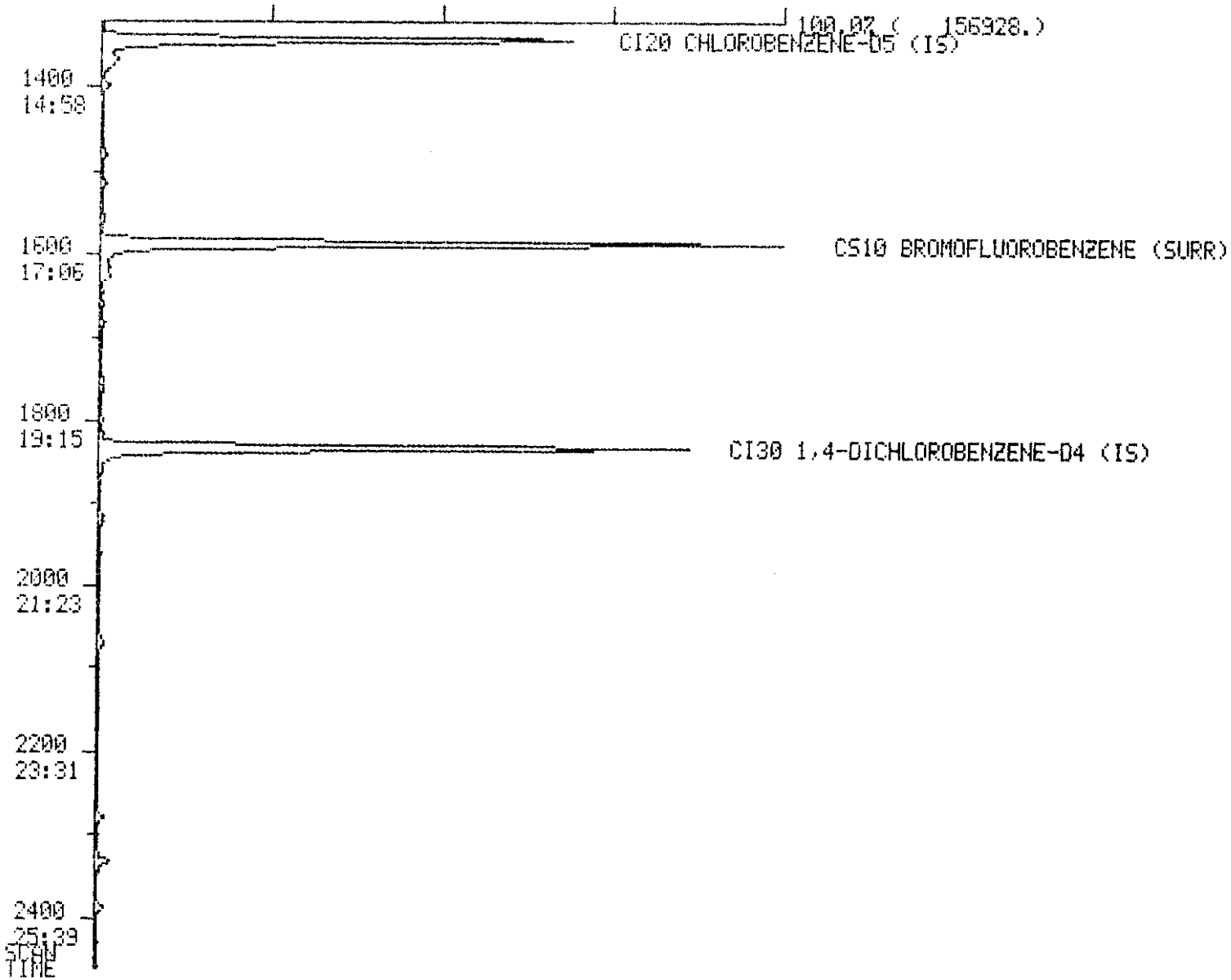
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

DATA FROM FILE: I101201 SCANS 180 TO 1320 ACQUIRED: 10/12/94 17:42:00
CALI: I101201 #3 OUT OF 180 TO 2460
SAMPLE: 9410061-11A DMS ENV PD-2 5.0 ML
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



DATA FROM FILE: I101201 SCANS 1320 TO 2460 ACQUIRED: 10/12/94 17:42:00
CALI: I101201 #3 OUT OF 180 TO 2460
SAMPLE: 9410061-11A DMS ENV PD-2 5.0 ML
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



Quantitation Report File: I101201

Data: I101201.TI
10/12/94 17:42:00
mple: 9410061-11A DMS ENV PD-2 5.0 ML
nds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
rmula: VOLATILES Instrument: FINN Weight: 50.000
Submitted by: CORCO Analyst: DBD Acct. No.: WORKPLAN

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI05 PENTAFLUOROBENZENE (IS)
2	CI10 1,4-DIFLUOROBENZENE (IS)
3	CI20 CHLOROBENZENE-D5 (IS)
4	CI30 1,4-DICHLOROBENZENE-D4 (IS)
5	CS15 1,2-DICHLOROETHANE-D4 (SURR)
6	CS05 TOLUENE-D8 (SURR)
7	CS10 BROMOFLUOROBENZENE (SURR)
8	C010 CHLOROMETHANE
9	C015 BROMOMETHANE
10	C020 VINYL CHLORIDE
11	C025 CHLOROETHANE
12	C031 TRICHLOROFLUOROMETHANE
13	C045 1,1-DICHLOROETHENE
14	C261 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE
15	C035 ACETONE
16	C040 CARBON DISULFIDE
7	C125 VINYL ACETATE
3	C030 METHYLENE CHLORIDE
19	C308 BROMOCHLOROMETHANE
20	C053 TRANS-1,2-DICHLOROETHENE
21	C050 1,1-DICHLOROETHANE
22	C110 2-BUTANONE (MEK)
23	C060 CHLOROFORM
24	C115 1,1,1-TRICHLOROETHANE
25	C120 CARBON TETRACHLORIDE
26	C165 BENZENE
27	C065 1,2-DICHLOROETHANE
28	C150 TRICHLOROETHENE
29	C140 1,2-DICHLOROPROPANE
30	C130 BROMODICHLOROMETHANE
31	C175 2-CHLOROETHYLVINYL ETHER
32	C143 CIS-1,3-DICHLOROPROPENE
33	C205 4-METHYL-2-PENTANONE (MIBK)
34	C230 TOLUENE
35	C172 TRANS-1,3-DICHLOROPROPENE
36	C160 1,1,2-TRICHLOROETHANE
37	C220 TETRACHLOROETHENE
38	C210 2-HEXANONE
39	C155 DIBROMOCHLOROMETHANE
40	C235 CHLOROBENZENE
41	C240 ETHYL BENZENE
42	C245 STYRENE
	C180 BROMOFORM
	C225 1,1,2,2-TETRACHLOROETHANE
45	C292 O-DICHLOROBENZENE
46	C250 M & P-XYLENE
47	C250 O-XYLENE

No	Name
48	C147 ETHYLENE DIBROMIDE
49	C254 IODOMETHANE
50	C148 DIBROMOMETHANE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	168	695	7:26	1	1.000	A BB	299732.	50.000 UG/L	4.30
2	114	811	8:40	2	1.000	A BB	334383.	50.000 UG/L	4.30
3	117	1340	14:19	3	1.000	A BB	304853.	50.000 UG/L	4.30
4	150	1831	19:34	4	1.000	A BB	266954.	50.000 UG/L	4.30
5	65	738	7:53	1	1.062	A BB	113023.	39.078 UG/L	3.36
6	98	1066	11:24	2	1.314	A BB	350160.	51.425 UG/L	4.42
7	95	1584	16:56	3	1.182	A BB	288109.	53.029 UG/L	4.56
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	101	303	3:14	1	0.436	A BB	351.	0.053 UG/L	0.00
13	96	369	3:57	1	0.531	A BB	801.	0.288 UG/L	0.02
14	101	370	3:57	1	0.532	A BB	6202.	1.369 UG/L	0.12
15	43	379	4:03	1	0.545	A BB	12269.	15.329 UG/L	1.32
16	76	397	4:15	1	0.571	A BB	5233.	0.897 UG/L	0.08
17	43	538	5:45	1	0.774	A BB	1439.	0.907 UG/L	0.08
18	84	433	4:38	1	0.623	A BB	4770.	1.529 UG/L	0.13
19	NOT FOUND								
20	NOT FOUND								
21	63	529	5:39	1	0.761	A BB	944.	0.204 UG/L	0.02
22	72	620	6:38	1	0.892	A BB	1010.	3.318 UG/L	0.29
23	83	664	7:06	1	0.955	A BB	2797.	0.494 UG/L	0.04
24	97	690	7:23	1	0.993	A BB	5386.	1.166 UG/L	0.10
25	NOT FOUND								
26	78	748	8:00	2	0.922	A BB	11400.	2.207 UG/L	0.19
27	62	752	8:02	2	0.927	A BB	2166.	0.736 UG/L	0.06
28	130	854	9:08	2	1.053	A BB	15033.	4.318 UG/L	0.37
29	63	890	9:31	2	1.097	A BB	4758.	1.962 UG/L	0.17
30	83	940	10:03	2	1.159	A BB	4708.	0.992 UG/L	0.09
31	NOT FOUND								
32	75	1019	10:54	2	1.256	A BB	4369.	1.449 UG/L	0.12
33	43	1050	11:13	2	1.295	A BV	7405.	3.711 UG/L	0.32
34	92	1078	11:31	2	1.329	A BB	9204.	2.505 UG/L	0.22
35	75	1121	11:59	2	1.382	A BB	3515.	1.114 UG/L	0.10
36	97	1155	12:21	2	1.424	A BB	4730.	1.821 UG/L	0.16
37	164	1181	12:37	3	0.881	A BB	8193.	1.844 UG/L	0.16
38	NOT FOUND								
39	129	1228	13:08	3	0.916	A BB	5693.	1.112 UG/L	0.10
40	112	1346	14:23	3	1.004	A BB	9027.	1.392 UG/L	0.12
41	106	1372	14:40	3	1.024	A BB	2638.	0.959 UG/L	0.08
42	104	1481	15:50	3	1.105	A BB	2127.	0.387 UG/L	0.03
43	173	1513	16:10	3	1.129	A BB	3234.	0.804 UG/L	0.07
44	83	1620	17:19	4	0.885	A BB	4282.	1.031 UG/L	0.09
45	146	1916	20:29	4	1.046	A BB	1783.	0.271 UG/L	0.02
46	106	1396	14:55	3	1.042	A BB	4091.	1.162 UG/L	0.10
47	NOT FOUND								
48	107	1247	13:20	3	0.931	A BB	6876.	1.530 UG/L	0.13
49	NOT FOUND								
50	93	910	9:44	2	1.122	A BB	1827.	0.624 UG/L	0.05

Quantitation Report File: I101201

Data: I101201.TI
10/12/94 17:42:00
Sample: 9410061-11A DMS ENV PD-2 5.0 ML
Cds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 50.000
Submitted by: CORCO Analyst: DBD Acct. No.: WORKPLAN

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	C280 CIS-1,2-DICHLOROETHENE
52	C279 1,1,1,2-TETRACHLOROETHANE
53	C267 TRANS-1,4-DICHLORO-2-BUTENE
54	C278 1,2,3-TRICHLOROPROPANE
55	C277 P-DICHLOROBENZENE
56	C276 1,2-DIBROMO-3-CHLOROPROPANE
57	C032 DICHLORODIFLUOROMETHANE
58	C282 ISOBUTYL ALCOHOL
59	C275 ACETONITRILE
60	C259 ALLYL CHLORIDE
61	C283 CHLOROPRENE
62	C285 PROPIONITRILE
63	C287 METHACRYLONITRILE
64	C288 METHYL METHACRYLATE
65	C289 ETHYL METHACRYLATE
66	C281 M-DICHLOROBENZENE
7	C033 DICHLOROFLUOROMETHANE
3	C298 EPICHLOROHYDRIN
69	C122 1,4-DIOXANE
70	C266 N-HEXANE
71	C296 CYCLOHEXANE
72	C268 2,2,4-TRIMETHYLPENTANE(ISO OCTANE)
73	C258 1,3-BUTADIENE
74	C271 METHYL-TERT-BUTYL ETHER
75	C445 1,2,4-TRICHLOROBENZENE
76	C256 DIMETHYL SULFIDE
77	C252 VINYL BROMIDE
78	C382 A-PINENE
79	C384 B-PINENE
80	C263 ACROLEIN
81	C264 ACRYLONITRILE
82	C309 BROMOBENZENE
83	C380 CUMENE
84	C300 N-PROPYLBENZENE
85	C301 2-CHLOROTOLUENE
86	C302 4-CHLOROTOLUENE
87	C385 1,3,5-TRIMETHYLBENZENE
88	C386 1,2,4-TRIMETHYLBENZENE
89	C303 TERT-BUTYLBENZENE
90	C304 SEC-BUTYLBENZENE
91	C311 N-BUTYLBENZENE
92	C390 P-CYMENE
93	C375 HEXACHLOROETHANE
[illegible]	C410 NITROBENZENE
95	C460 HEXACHLOROBUTADIENE
96	C450 NAPHTHALENE
97	C446 1,2,3-TRICHLOROBENZENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	96	614	6:34	1	0.883	A BB	1350.	0.433 UG/L	0.04
52	131	1365	14:36	3	1.019	A BV	5916.	1.750 UG/L	0.15
53	NOT	FOUND							
54	75	1625	17:22	4	0.887	A BB	5316.	1.618 UG/L	0.14
55	146	1836	19:38	4	1.003	A BB	2424.	0.428 UG/L	0.04
56	NOT	FOUND							
57	NOT	FOUND							
58	45	341	3:39	1	0.491	A BB	2161.	18.645 UG/L	1.60
59	41	417	4:27	1	0.600	A BB	856.	1.938 UG/L	0.17
60	NOT	FOUND							
61	NOT	FOUND							
62	NOT	FOUND							
63	NOT	FOUND							
64	41	918	9:49	2	1.132	A BB	4384.	2.776 UG/L	0.24
65	41	1145	12:14	3	0.854	A BB	5015.	2.267 UG/L	0.20
66	146	1818	19:26	4	0.993	A BB	2641.	0.440 UG/L	0.04
67	NOT	FOUND							
68	NOT	FOUND							
69	NOT	FOUND							
70	57	510	5:27	1	0.734	A BB	1338.	0.773 UG/L	0.07
71	NOT	FOUND							
72	57	764	8:10	2	0.942	A BB	32838.	721.578 UG/L	62.07
73	NOT	FOUND							
74	73	473	5:03	1	0.681	A BB	5925.	1.251 UG/L	0.11
75	180	2278	24:21	4	1.244	A BB	2952.	0.479 UG/L	0.04
76	NOT	FOUND							
77	NOT	FOUND							
78	NOT	FOUND							
	NOT	FOUND							
80	NOT	FOUND							
81	NOT	FOUND							
82	156	1613	17:15	4	0.881	A BB	2023.	0.504 UG/L	0.04
83	105	1556	16:38	4	0.850	A BB	4536.	0.460 UG/L	0.04
84	91	1643	17:34	4	0.897	A BV	3271.	0.348 UG/L	0.03
85	91	1656	17:42	4	0.904	A VB	3144.	0.493 UG/L	0.04
86	91	1681	17:58	4	0.918	A BB	3040.	0.343 UG/L	0.03
87	105	1682	17:59	4	0.919	A BB	1863.	0.220 UG/L	0.02
88	105	1761	18:50	4	0.962	A BB	2736.	0.326 UG/L	0.03
89	119	1751	18:43	4	0.956	A BB	3086.	0.289 UG/L	0.02
90	105	1799	19:14	4	0.983	A BB	3648.	0.296 UG/L	0.03
91	91	1923	20:33	4	1.050	A BB	2427.	0.277 UG/L	0.02
92	119	1832	19:35	4	1.001	A BB	4340.	0.469 UG/L	0.04
93	NOT	FOUND							
94	NOT	FOUND							
95	225	2321	24:49	4	1.268	A BB	813.	0.173 UG/L	0.01
96	128	2329	24:54	4	1.272	A BB	17606.	2.292 UG/L	0.20
97	180	2384	25:29	4	1.302	A BB	3789.	0.731 UG/L	0.06

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PD-2_DUP

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Lab Code: SWL HOU Case No.: 410061 SAS No.: WORKPLA SDG No.: 941006

Matrix: (soil/water) WATER Lab Sample ID: 9410061-11B

Sample wt/vol: _____ (g/mL) ML Lab File ID: I101202

Level: (low/med) LOW Date Received: 10/07/94

% Moisture: not dec. _____ Date Analyzed: 10/12/94

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	50	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	Methylethyl ketone (MEK)	50	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PD-2_DUP

Lab Name: SWL - HOUSTON Contract: CORCO WORK

L. Code: SWL HOU Case No.: 410061 SAS No.: WORKPLA SDG No.: 941006

Matrix: (soil/water) WATER Lab Sample ID: 9410061-11B

Sample wt/vol: _____ (g/mL) ML Lab File ID: I101202

Level: (low/med) LOW Date Received: 10/07/94

% Moisture: not dec. ____ Date Analyzed: 10/12/94

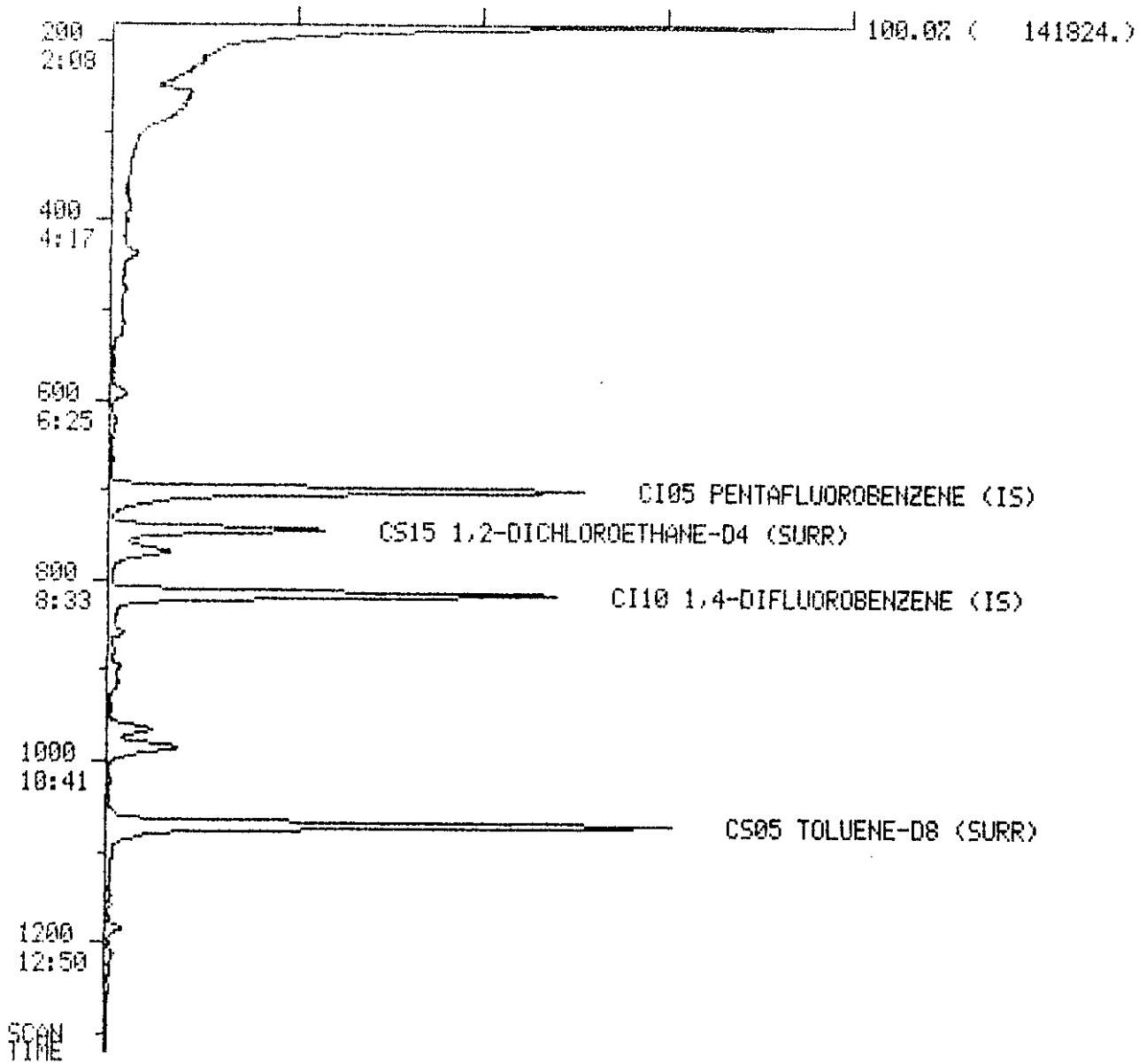
Column (pack/cap) CAP Dilution Factor: 1

Number TICs found: 1

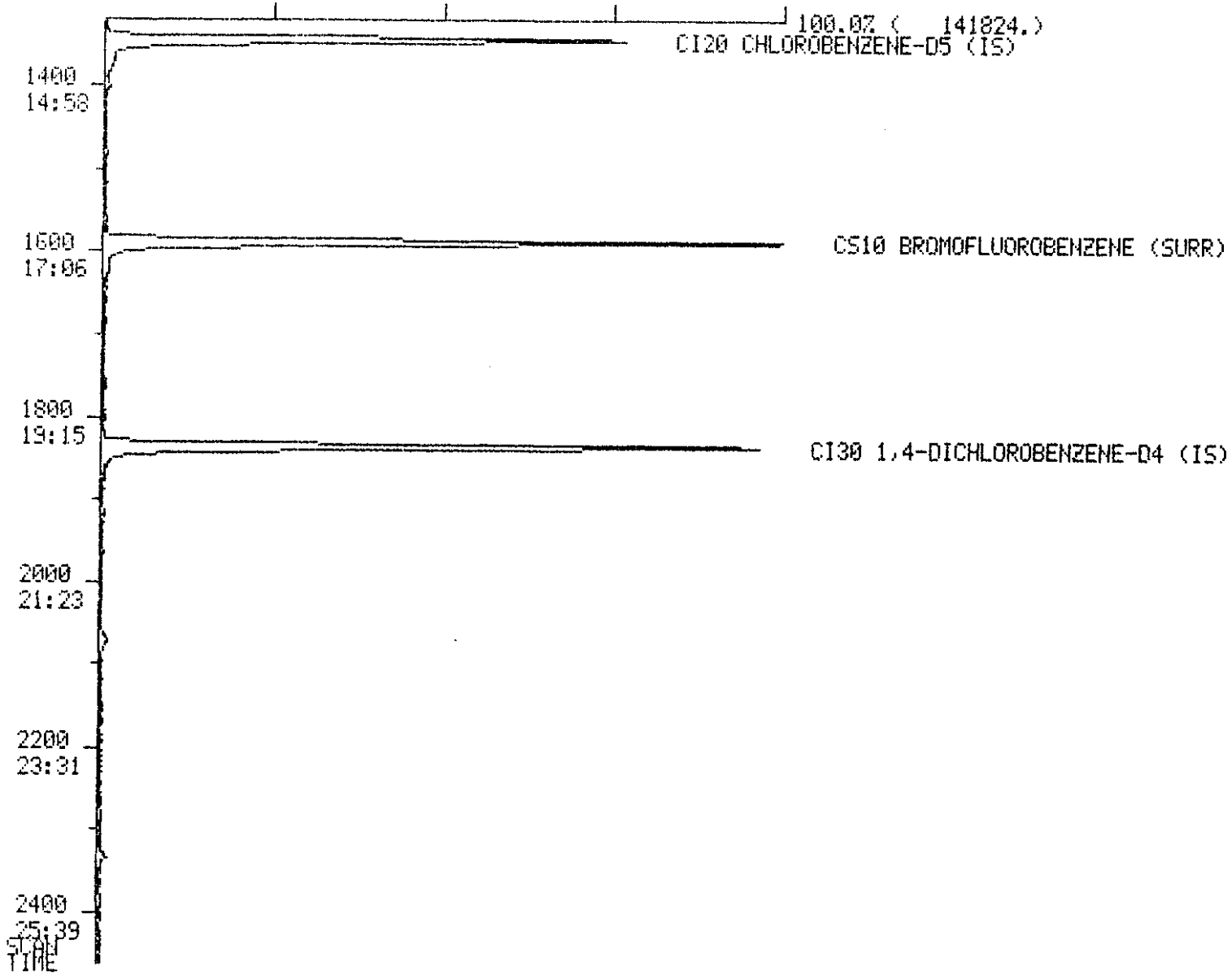
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 560-21-4	PENTANE, 2,3,3-TRIMETHYL-	10.50	8.5	J

DATA FROM FILE: I101202 SCANS 180 TO 1320 ACQUIRED: 10/12/94 18:10:00
CALI: I101202 #3 OUT OF 180 TO 2460
SAMPLE: 9410061-11B DSM ENV PO-2 / DUP. 5.0 ML
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



DATA FROM FILE: I101202 SCANS 1320 TO 2460 ACQUIRED: 10/12/94 18:10:00
CALI: I101202 #3 OUT OF 180 TO 2460
SAMPLE: 9410061-11B DSM ENV PD-2 / DUP. 5.0 ML
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



Quantitation Report File: I101202

Data: I101202.TI
10/12/94 18:10:00
mple: 9410061-11B DSM ENV PD-2 / DUP. 5.0 ML
ıds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 50.000
Submitted by: CORCO Analyst: DBD Acct. No.: WORKPLAN

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI05 PENTAFLUOROBENZENE (IS)
2	CI10 1,4-DIFLUOROBENZENE (IS)
3	CI20 CHLOROBENZENE-D5 (IS)
4	CI30 1,4-DICHLOROBENZENE-D4 (IS)
5	CS15 1,2-DICHLOROETHANE-D4 (SURR)
6	CS05 TOLUENE-D8 (SURR)
7	CS10 BROMOFLUOROBENZENE (SURR)
8	C010 CHLOROMETHANE
9	C015 BROMOMETHANE
10	C020 VINYL CHLORIDE
11	C025 CHLOROETHANE
12	C031 TRICHLOROFLUOROMETHANE
13	C045 1,1-DICHLOROETHENE
14	C261 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE
15	C035 ACETONE
16	C040 CARBON DISULFIDE
7	C125 VINYL ACETATE
3	C030 METHYLENE CHLORIDE
19	C308 BROMOCHLOROMETHANE
20	C053 TRANS-1,2-DICHLOROETHENE
21	C050 1,1-DICHLOROETHANE
22	C110 2-BUTANONE (MEK)
23	C060 CHLOROFORM
24	C115 1,1,1-TRICHLOROETHANE
25	C120 CARBON TETRACHLORIDE
26	C165 BENZENE
27	C065 1,2-DICHLOROETHANE
28	C150 TRICHLOROETHENE
29	C140 1,2-DICHLOROPROPANE
30	C130 BROMODICHLOROMETHANE
31	C175 2-CHLOROETHYLVINYL ETHER
32	C143 CIS-1,3-DICHLOROPROPENE
33	C205 4-METHYL-2-PENTANONE (MIBK)
34	C230 TOLUENE
35	C172 TRANS-1,3-DICHLOROPROPENE
36	C160 1,1,2-TRICHLOROETHANE
37	C220 TETRACHLOROETHENE
38	C210 2-HEXANONE
39	C155 DIBROMOCHLOROMETHANE
40	C235 CHLOROBENZENE
41	C240 ETHYL BENZENE
42	C245 STYRENE
7	C180 BROMOFORM
	C225 1,1,2,2-TETRACHLOROETHANE
45	C292 O-DICHLOROBENZENE
46	C250 M & P-XYLENE
47	C250 O-XYLENE

No	Name
48	C147 ETHYLENE DIBROMIDE
49	C254 IODOMETHANE
0	C148 DIBROMOMETHANE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	168	698	7:28	1	1.000	A BB	280322.	50.000 UG/L	12.95
2	114	814	8:42	2	1.000	A BB	317245.	50.000 UG/L	12.95
3	117	1343	14:21	3	1.000	A BB	301641.	50.000 UG/L	12.95
4	150	1834	19:36	4	1.000	A BB	267134.	50.000 UG/L	12.95
5	65	741	7:55	1	1.062	A BB	111498.	41.219 UG/L	10.68
6	98	1068	11:25	2	1.312	A BB	348646.	53.969 UG/L	13.98
7	95	1586	16:57	3	1.181	A BB	264219.	49.150 UG/L	12.73
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	101	374	4:00	1	0.536	A BB	1290.	0.304 UG/L	0.08
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	84	435	4:39	1	0.623	A BB	1306.	0.448 UG/L	0.12
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	72	623	6:40	1	0.893	A BB	1107.	3.889 UG/L	1.01
3	83	665	7:07	1	0.953	A BB	336.	0.063 UG/L	0.02
[illegible]	97	693	7:24	1	0.993	A BB	1432.	0.332 UG/L	0.09
25	NOT FOUND								
26	78	750	8:01	2	0.921	A BB	4134.	0.844 UG/L	0.22
27	NOT FOUND								
28	130	856	9:09	2	1.052	A BB	3371.	1.021 UG/L	0.26
29	63	893	9:33	2	1.097	A BB	1620.	0.704 UG/L	0.18
30	83	942	10:04	2	1.157	A BB	942.	0.209 UG/L	0.05
31	NOT FOUND								
32	75	1021	10:55	2	1.254	A BB	1001.	0.350 UG/L	0.09
33	43	1054	11:16	2	1.295	A BV	2954.	1.560 UG/L	0.40
34	92	1081	11:33	2	1.328	A BB	5276.	1.513 UG/L	0.39
35	75	1123	12:00	2	1.380	A BB	902.	0.301 UG/L	0.08
36	97	1157	12:22	2	1.421	A BB	1239.	0.503 UG/L	0.13
37	164	1182	12:38	3	0.880	A BB	2929.	0.666 UG/L	0.17
38	43	1212	12:57	3	0.902	A BV	4126.	2.883 UG/L	0.75
39	129	1230	13:09	3	0.916	A BB	1549.	0.306 UG/L	0.08
40	112	1349	14:25	3	1.004	A BB	3604.	0.562 UG/L	0.15
41	106	1373	14:41	3	1.022	A BB	1094.	0.402 UG/L	0.10
42	104	1482	15:51	3	1.103	A BB	717.	0.132 UG/L	0.03
43	173	1515	16:12	3	1.128	A BB	610.	0.153 UG/L	0.04
44	83	1623	17:21	4	0.885	A BB	1494.	0.360 UG/L	0.09
45	146	1919	20:31	4	1.046	A BB	324.	0.049 UG/L	0.01
46	NOT FOUND								
47	106	1478	15:48	3	1.101	A BB	783.	0.613 UG/L	0.16
48	107	1250	13:22	3	0.931	A BB	1990.	0.448 UG/L	0.12
	NOT FOUND								
	NOT FOUND								

Quantitation Report File: I101202

Data: I101202.TI
10/12/94 18:10:00
mple: 9410061-11B DSM ENV PD-2 / DUP. 5.0 ML
ds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 50.000
Submitted by: CORCO Analyst: DBD Acct. No.: WORKPLAN

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

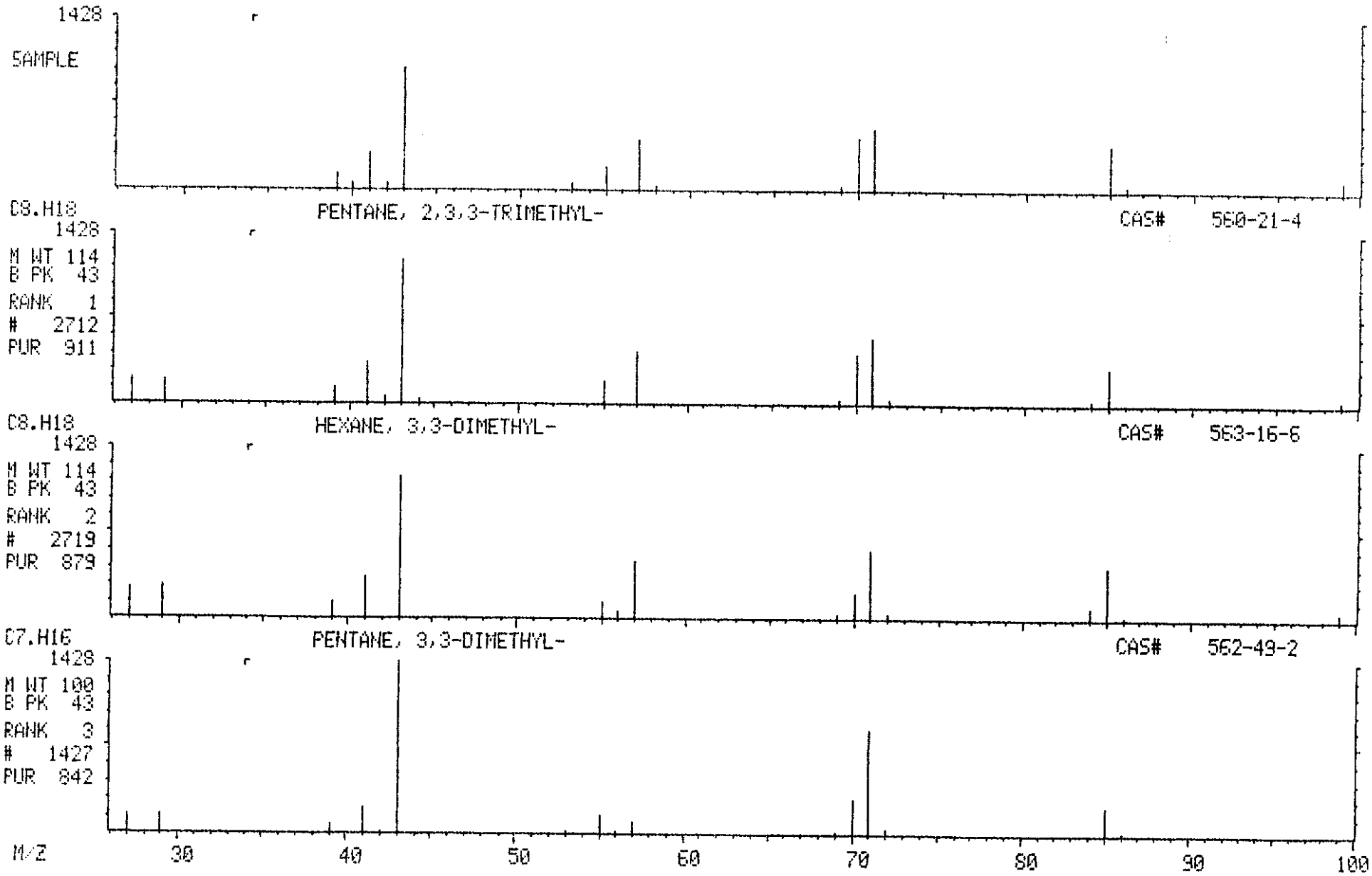
No	Name
51	C280 CIS-1,2-DICHLOROETHENE
52	C279 1,1,1,2-TETRACHLOROETHANE
53	C267 TRANS-1,4-DICHLORO-2-BUTENE
54	C278 1,2,3-TRICHLOROPROPANE
55	C277 P-DICHLOROBENZENE
56	C276 1,2-DIBROMO-3-CHLOROPROPANE
57	C032 DICHLORODIFLUOROMETHANE
58	C282 ISOBUTYL ALCOHOL
59	C275 ACETONITRILE
60	C259 ALLYL CHLORIDE
61	C283 CHLOROPRENE
62	C285 PROPIONITRILE
63	C287 METHACRYLONITRILE
64	C288 METHYL METHACRYLATE
65	C289 ETHYL METHACRYLATE
66	C281 M-DICHLOROBENZENE
7	C033 DICHLOROFLUOROMETHANE
3	C298 EPICHLOROHYDRIN
69	C122 1,4-DIOXANE
70	C266 N-HEXANE
71	C296 CYCLOHEXANE
72	C268 2,2,4-TRIMETHYLPENTANE(ISO OCTANE)
73	C258 1,3-BUTADIENE
74	C271 METHYL-TERT-BUTYL ETHER
75	C445 1,2,4-TRICHLOROBENZENE
76	C256 DIMETHYL SULFIDE
77	C252 VINYL BROMIDE
78	C382 A-PINENE
79	C384 B-PINENE
80	C263 ACROLEIN
81	C264 ACRYLONITRILE
82	C309 BROMOBENZENE
83	C380 CUMENE
84	C300 N-PROPYLBENZENE
85	C301 2-CHLOROTOLUENE
86	C302 4-CHLOROTOLUENE
87	C385 1,3,5-TRIMETHYLBENZENE
88	C386 1,2,4-TRIMETHYLBENZENE
89	C303 TERT-BUTYLBENZENE
90	C304 SEC-BUTYLBENZENE
91	C311 N-BUTYLBENZENE
92	C390 P-CYMENE
3	C375 HEXACHLOROETHANE
.	C410 NITROBENZENE
95	C460 HEXACHLOROBUTADIENE
96	C450 NAPHTHALENE
97	C446 1,2,3-TRICHLOROBENZENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT	FOUND							
52	131	1366	14:36	3	1.017	A BB	2363.	0.706 UG/L	0.18
53	NOT	FOUND							
54	75	1628	17:24	4	0.888	A BB	2374.	0.722 UG/L	0.19
55	146	1839	19:40	4	1.003	A BB	722.	0.127 UG/L	0.03
56	NOT	FOUND							
57	NOT	FOUND							
58	NOT	FOUND							
59	NOT	FOUND							
60	NOT	FOUND							
61	NOT	FOUND							
62	NOT	FOUND							
63	41	710	7:35	1	1.017	A BB	12928.	6.999 UG/L	1.81
64	41	918	9:49	2	1.128	A BB	2424.	1.618 UG/L	0.42
65	41	1149	12:17	3	0.856	A BB	1354.	0.619 UG/L	0.16
66	146	1819	19:27	4	0.992	A BB	1115.	0.186 UG/L	0.05
67	NOT	FOUND							
68	NOT	FOUND							
69	NOT	FOUND							
70	57	514	5:30	1	0.736	A BB	573.	0.354 UG/L	0.09
71	NOT	FOUND							
72	57	766	8:11	2	0.941	A BB	51152.	8.720 UG/L	2.26
73	NOT	FOUND							
74	73	475	5:05	1	0.681	A BB	1444.	0.326 UG/L	0.08
75	180	2280	24:22	4	1.243	A BB	1098.	0.178 UG/L	0.05
76	NOT	FOUND							
77	NOT	FOUND							
78	NOT	FOUND							
79	NOT	FOUND							
80	NOT	FOUND							
81	NOT	FOUND							
82	156	1615	17:16	4	0.881	A BB	329.	0.082 UG/L	0.02
83	105	1557	16:39	4	0.849	A BB	1640.	0.166 UG/L	0.04
84	91	1646	17:36	4	0.897	A BB	1300.	0.138 UG/L	0.04
85	91	1659	17:44	4	0.905	A BB	1053.	0.165 UG/L	0.04
86	91	1684	18:00	4	0.918	A BB	946.	0.107 UG/L	0.03
87	105	1557	16:39	4	0.849	A BB	1640.	0.166 UG/L	0.04
88	NOT	FOUND							
89	119	1754	18:45	4	0.956	A BB	1027.	0.096 UG/L	0.02
90	105	1801	19:15	4	0.982	A BB	1064.	0.086 UG/L	0.02
91	91	1925	20:35	4	1.050	A BB	563.	0.064 UG/L	0.02
92	119	1834	19:36	4	1.000	A BB	1454.	0.157 UG/L	0.04
93	NOT	FOUND							
94	NOT	FOUND							
95	NOT	FOUND							
96	128	2331	24:55	4	1.271	A BB	10543.	1.371 UG/L	0.36
97	180	2280	24:22	4	1.243	A BB	1098.	0.178 UG/L	0.05

MID LIBRARY SEARCH (LIBRARYNB)
10/12/94 18:10:00 + 10:30
SAMPLE: 9410061-11B DSM ENV PD-2 / DUP. 5.0 ML
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX
ENHANCED (S 15B 2N 0T)

DATA: I101202 # 983
CALI: I101202 # 3

BASE M/Z: 43
RIC: 7400.



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP_BLANK

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Lab Code: SWL HOU Case No.: 410061 SAS No.: WORKPLA SDG No.: 941006

Matrix: (soil/water) WATER Lab Sample ID: 9410061-19A

Sample wt/vol: _____ (g/mL) ML Lab File ID: I101205

Level: (low/med) LOW Date Received: 10/07/94

% Moisture: not dec. ____ Date Analyzed: 10/12/94

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	23	
67-64-1	Acetone	50	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	Methylethyl ketone (MEK)	50	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIP_BLANK

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Lab Code: SWL HOU Case No.: 410061 SAS No.: WORKPLA SDG No.: 941006

Matrix: (soil/water) WATER Lab Sample ID: 9410061-19A

Sample wt/vol: _____ (g/mL) ML Lab File ID: I101205

Level: (low/med) LOW Date Received: 10/07/94

% Moisture: not dec. ____ Date Analyzed: 10/12/94

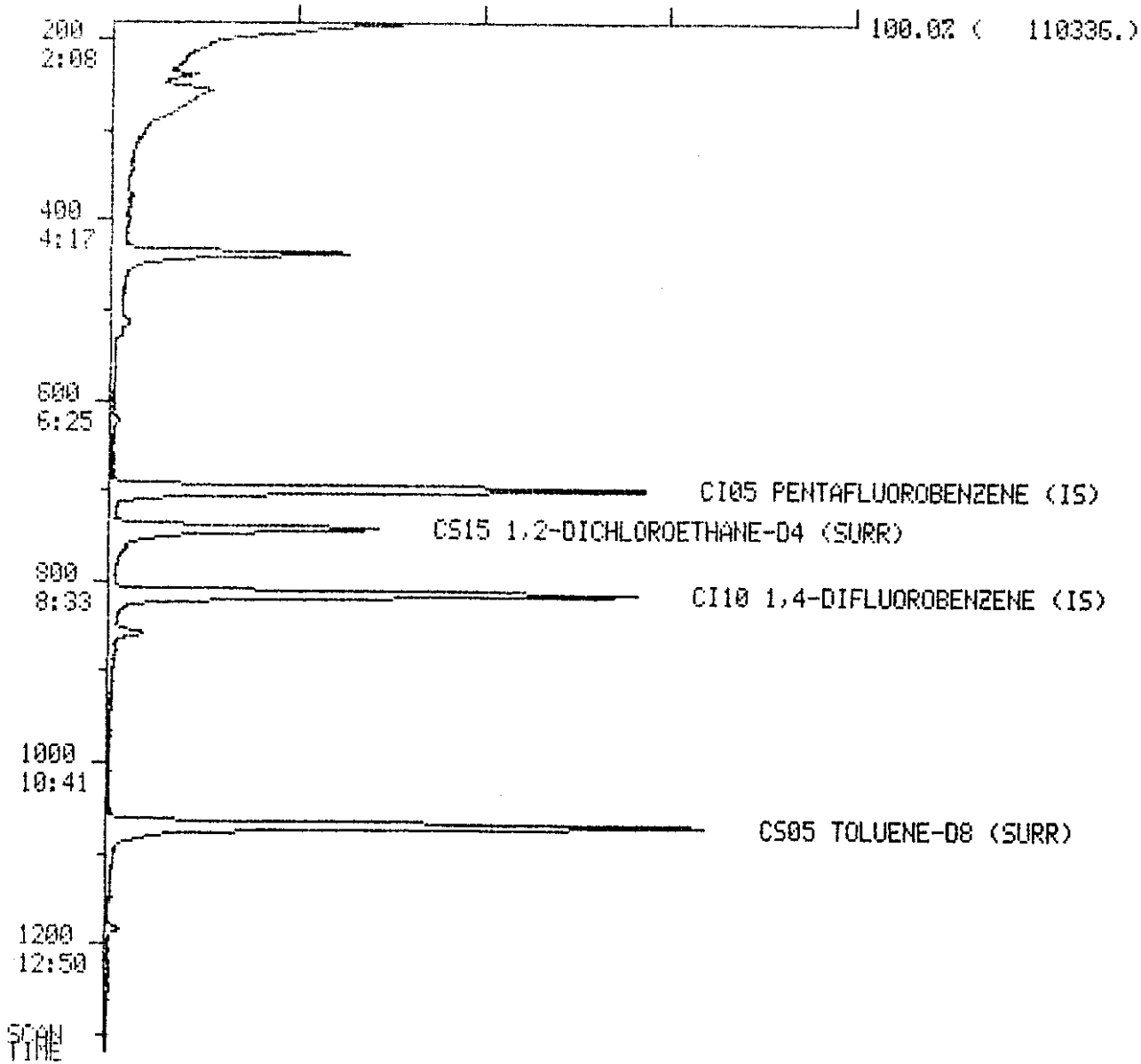
Column (pack/cap) CAP Dilution Factor: 1

Number TICs found: 0

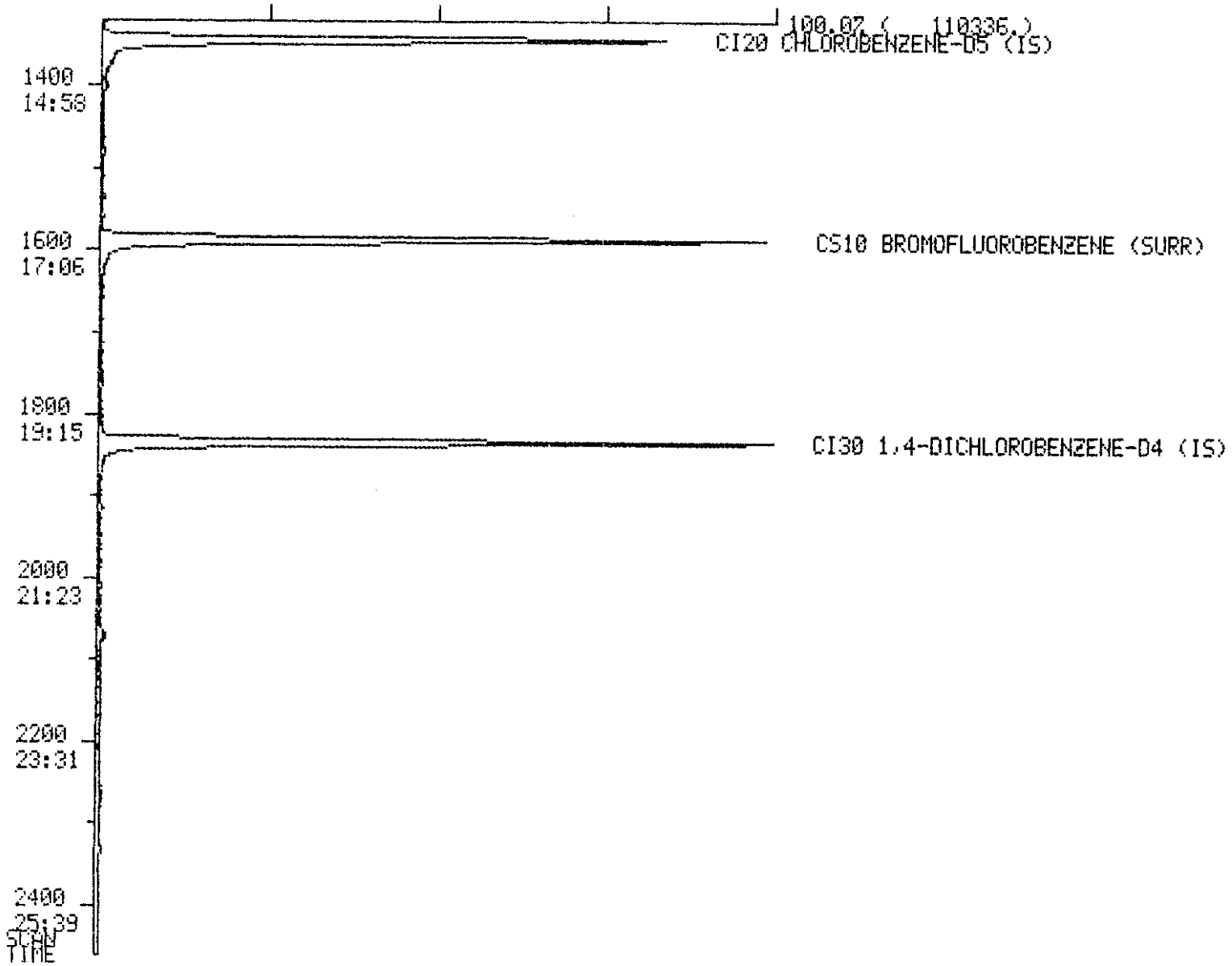
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

DATA FROM FILE: I101205 SCANS 180 TO 1320 ACQUIRED: 10/12/94 20:00:00
CALI: I101205 #3 OUT OF 180 TO 2460
SAMPLE: 9410061-19A DSM ENV TRIP BLANK - VOLATILES 5.0 ML
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



DATA FROM FILE: I101205 SCANS 1320 TO 2460 ACQUIRED: 10/12/94 20:00:00
CALI: I101205 #3 OUT OF 180 TO 2460
SAMPLE: 9410061-19A DSM ENV TRIP BLANK - VOLATILES 5.0 ML
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX

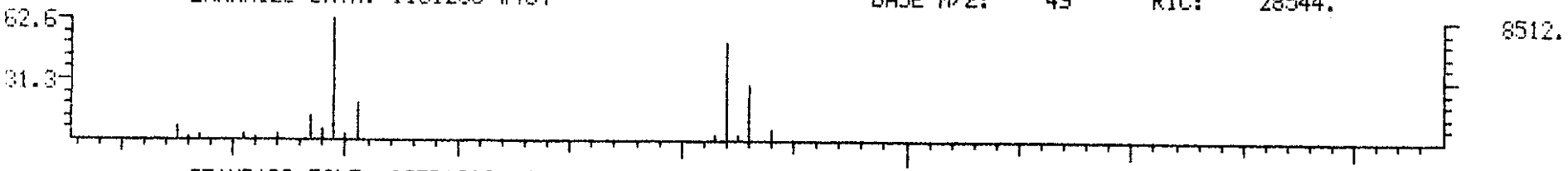


TARGET COMPOUND COMPARISON

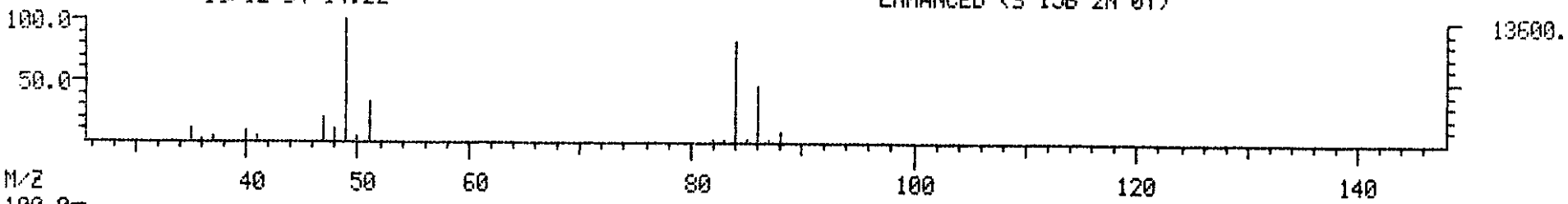
COMPOUND: C030 METHYLENE CHLORIDE

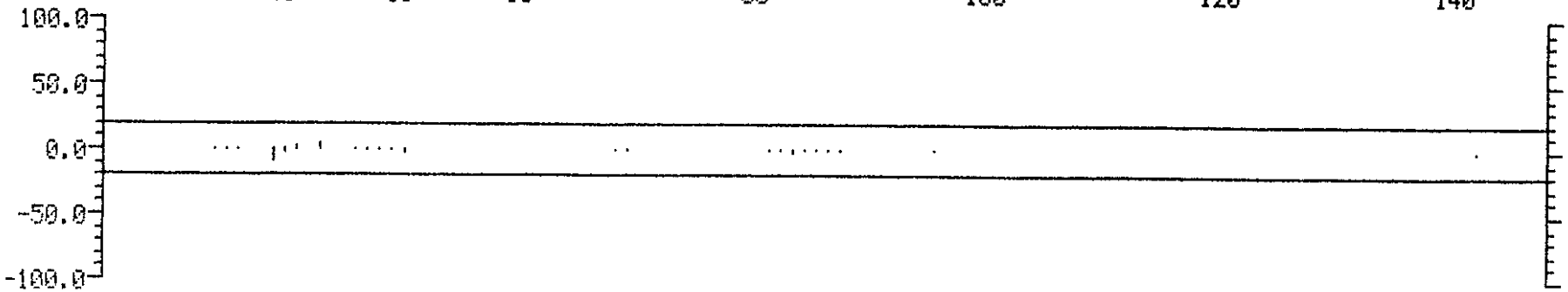
RAW DATA: I101205 #434 BASE M/Z: 49 RIC: 35328.
10/12/94 20:00
SAMPLE: 9410061-19A DSM ENV TRIP BLANK - VOLATILES 5.0 ML
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX

ENHANCED DATA: I101205 #434 BASE M/Z: 49 RIC: 28544.



STANDARD FILE: ISTD1012 #438 BASE M/Z: 49 RIC: 47040.
10/12/94 14:22 ENHANCED (S 15B 2N 0T)





Quantitation Report File: I101205

Data: I101205.TI
10/12/94 20:00:00
mple: 9410061-19A DSM ENV TRIP BLANK - VOLATILES 5.0 ML
ids.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 50.000
Submitted by: CORCO Analyst: DBD Acct. No.: WORKPLAN

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI05 PENTAFLUOROBENZENE (IS)
2	CI10 1,4-DIFLUOROBENZENE (IS)
3	CI20 CHLOROBENZENE-D5 (IS)
4	CI30 1,4-DICHLOROBENZENE-D4 (IS)
5	CS15 1,2-DICHLOROETHANE-D4 (SURR)
6	CS05 TOLUENE-D8 (SURR)
7	CS10 BROMOFLUOROBENZENE (SURR)
8	C010 CHLOROMETHANE
9	C015 BROMOMETHANE
10	C020 VINYL CHLORIDE
11	C025 CHLOROETHANE
12	C031 TRICHLOROFLUOROMETHANE
13	C045 1,1-DICHLOROETHENE
14	C261 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE
15	C035 ACETONE
16	C040 CARBON DISULFIDE
7	C125 VINYL ACETATE
	C030 METHYLENE CHLORIDE
19	C308 BROMOCHLOROMETHANE
20	C053 TRANS-1,2-DICHLOROETHENE
21	C050 1,1-DICHLOROETHANE
22	C110 2-BUTANONE (MEK)
23	C060 CHLOROFORM
24	C115 1,1,1-TRICHLOROETHANE
25	C120 CARBON TETRACHLORIDE
26	C165 BENZENE
27	C065 1,2-DICHLOROETHANE
28	C150 TRICHLOROETHENE
29	C140 1,2-DICHLOROPROPANE
30	C130 BROMODICHLOROMETHANE
31	C175 2-CHLOROETHYLVINYL ETHER
32	C143 CIS-1,3-DICHLOROPROPENE
33	C205 4-METHYL-2-PENTANONE (MIBK)
34	C230 TOLUENE
35	C172 TRANS-1,3-DICHLOROPROPENE
36	C160 1,1,2-TRICHLOROETHANE
37	C220 TETRACHLOROETHENE
38	C210 2-HEXANONE
39	C155 DIBROMOCHLOROMETHANE
40	C235 CHLOROBENZENE
41	C240 ETHYL BENZENE
42	C245 STYRENE
	C180 BROMOFORM
	C225 1,1,2,2-TETRACHLOROETHANE
45	C292 O-DICHLOROBENZENE
46	C250 M & P-XYLENE
47	C250 O-XYLENE

No	Name
48	C147 ETHYLENE DIBROMIDE
49	C254 IODOMETHANE
0	C148 DIBROMOMETHANE

..o	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	168	696	7:26	1	1.000	A BB	254331.	50.000 UG/L	12.84
2	114	813	8:41	2	1.000	A BB	291208.	50.000 UG/L	12.84
3	117	1342	14:21	3	1.000	A BB	257171.	50.000 UG/L	12.84
4	150	1832	19:35	4	1.000	A BB	217007.	50.000 UG/L	12.84
5	65	739	7:54	1	1.062	A BB	107365.	43.748 UG/L	11.23
6	98	1067	11:24	2	1.312	A BB	285990.	48.228 UG/L	12.38
7	95	1585	16:57	3	1.181	A BB	202111.	44.098 UG/L	11.32
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	96	370	3:57	1	0.532	A BB	970.	0.411 UG/L	0.11
14	101	371	3:58	1	0.533	A BB	850.	0.221 UG/L	0.06
15	NOT FOUND								
16	76	398	4:15	1	0.572	A BB	4430.	0.895 UG/L	0.23
17	43	424	4:32	1	0.609	A BV	2139.	9.414 UG/L	2.42
18	84	434	4:38	1	0.624	A BB	61399.	23.201 UG/L	5.96
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	72	620	6:38	1	0.891	A BB	1342.	5.196 UG/L	1.33
3	NOT FOUND								
.	97	693	7:24	1	0.996	A BB	835.	0.213 UG/L	0.05
25	NOT FOUND								
26	78	749	8:00	2	0.921	A BB	10623.	2.362 UG/L	0.61
27	NOT FOUND								
28	130	855	9:08	2	1.052	A BB	7732.	2.550 UG/L	0.65
29	63	889	9:30	2	1.093	A BB	946.	0.448 UG/L	0.11
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	92	1080	11:33	2	1.328	A BB	6230.	1.947 UG/L	0.50
35	NOT FOUND								
36	NOT FOUND								
37	164	1182	12:38	3	0.881	A BB	1928.	0.514 UG/L	0.13
38	NOT FOUND								
39	NOT FOUND								
40	112	1347	14:24	3	1.004	A BB	6603.	1.207 UG/L	0.31
41	106	1374	14:41	3	1.024	A BB	472.	0.203 UG/L	0.05
42	NOT FOUND								
43	NOT FOUND								
44	83	1622	17:20	4	0.885	A BB	577.	0.171 UG/L	0.04
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	107	1248	13:20	3	0.930	A BB	645.	0.170 UG/L	0.04
`	NOT FOUND								
	NOT FOUND								

Quantitation Report File: I101205

Data: I101205.TI
10/12/94 20:00:00
Sample: 9410061-19A DSM ENV TRIP BLANK - VOLATILES 5.0 ML
Mds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 50.000
Submitted by: CORCO Analyst: DBD Acct. No.: WORKPLAN

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	C280 CIS-1,2-DICHLOROETHENE
52	C279 1,1,1,2-TETRACHLOROETHANE
53	C267 TRANS-1,4-DICHLORO-2-BUTENE
54	C278 1,2,3-TRICHLOROPROPANE
55	C277 P-DICHLOROBENZENE
56	C276 1,2-DIBROMO-3-CHLOROPROPANE
57	C032 DICHLORODIFLUOROMETHANE
58	C282 ISOBUTYL ALCOHOL
59	C275 ACETONITRILE
60	C259 ALLYL CHLORIDE
61	C283 CHLOROPRENE
62	C285 PROPIONITRILE
63	C287 METHACRYLONITRILE
64	C288 METHYL METHACRYLATE
65	C289 ETHYL METHACRYLATE
66	C281 M-DICHLOROBENZENE
67	C033 DICHLOROFLUOROMETHANE
[illegible]	C298 EPICHLOROHYDRIN
69	C122 1,4-DIOXANE
70	C266 N-HEXANE
71	C296 CYCLOHEXANE
72	C268 2,2,4-TRIMETHYLPENTANE(ISO OCTANE)
73	C258 1,3-BUTADIENE
74	C271 METHYL-TERT-BUTYL ETHER
75	C445 1,2,4-TRICHLOROBENZENE
76	C256 DIMETHYL SULFIDE
77	C252 VINYL BROMIDE
78	C382 A-PINENE
79	C384 B-PINENE
80	C263 ACROLEIN
81	C264 ACRYLONITRILE
82	C309 BROMOBENZENE
83	C380 CUMENE
84	C300 N-PROPYLBENZENE
85	C301 2-CHLOROTOLUENE
86	C302 4-CHLOROTOLUENE
87	C385 1,3,5-TRIMETHYLBENZENE
88	C386 1,2,4-TRIMETHYLBENZENE
89	C303 TERT-BUTYLBENZENE
90	C304 SEC-BUTYLBENZENE
91	C311 N-BUTYLBENZENE
92	C390 P-CYMENE
93	C375 HEXACHLOROETHANE
	C410 NITROBENZENE
[illegible]	C460 HEXACHLOROBUTADIENE
96	C450 NAPHTHALENE
97	C446 1,2,3-TRICHLOROBENZENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								
52	131	1365	14:36	3	1.017	A BB	1833.	0.643 UG/L	0.16
53	NOT FOUND								
54	75	1627	17:24	4	0.888	A BB	1006.	0.377 UG/L	0.10
55	NOT FOUND								
56	NOT FOUND								
57	85	188	2:01	1	0.270	A BB	364.	0.085 UG/L	0.02
58	NOT FOUND								
59	NOT FOUND								
60	NOT FOUND								
61	NOT FOUND								
62	NOT FOUND								
63	NOT FOUND								
64	NOT FOUND								
65	NOT FOUND								
66	NOT FOUND								
67	NOT FOUND								
68	NOT FOUND								
69	NOT FOUND								
70	57	512	5:28	1	0.736	A BB	2542.	1.730 UG/L	0.44
71	NOT FOUND								
72	57	764	8:10	2	0.940	A BB	1302.	0.242 UG/L	0.06
73	NOT FOUND								
74	73	476	5:05	1	0.684	A BB	228.	0.057 UG/L	0.01
75	NOT FOUND								
76	NOT FOUND								
77	NOT FOUND								
78	NOT FOUND								
79	NOT FOUND								
80	NOT FOUND								
81	NOT FOUND								
82	NOT FOUND								
83	105	1556	16:38	4	0.849	A BB	913.	0.114 UG/L	0.03
84	91	1644	17:34	4	0.897	A BB	586.	0.077 UG/L	0.02
85	91	1657	17:43	4	0.904	A BB	540.	0.104 UG/L	0.03
86	NOT FOUND								
87	105	1556	16:38	4	0.849	A BB	913.	0.114 UG/L	0.03
88	105	1764	18:51	4	0.963	A BB	1046.	0.153 UG/L	0.04
89	NOT FOUND								
90	NOT FOUND								
91	NOT FOUND								
92	119	1834	19:36	4	1.001	A BB	914.	0.122 UG/L	0.03
93	NOT FOUND								
94	NOT FOUND								
95	NOT FOUND								
96	128	2330	24:54	4	1.272	A BB	4395.	0.704 UG/L	0.18
97	NOT FOUND								

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL - HOUSTON Contract: _____

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

Instrument ID: FINN Calibration Date(s): 10/11/94 10/11/94

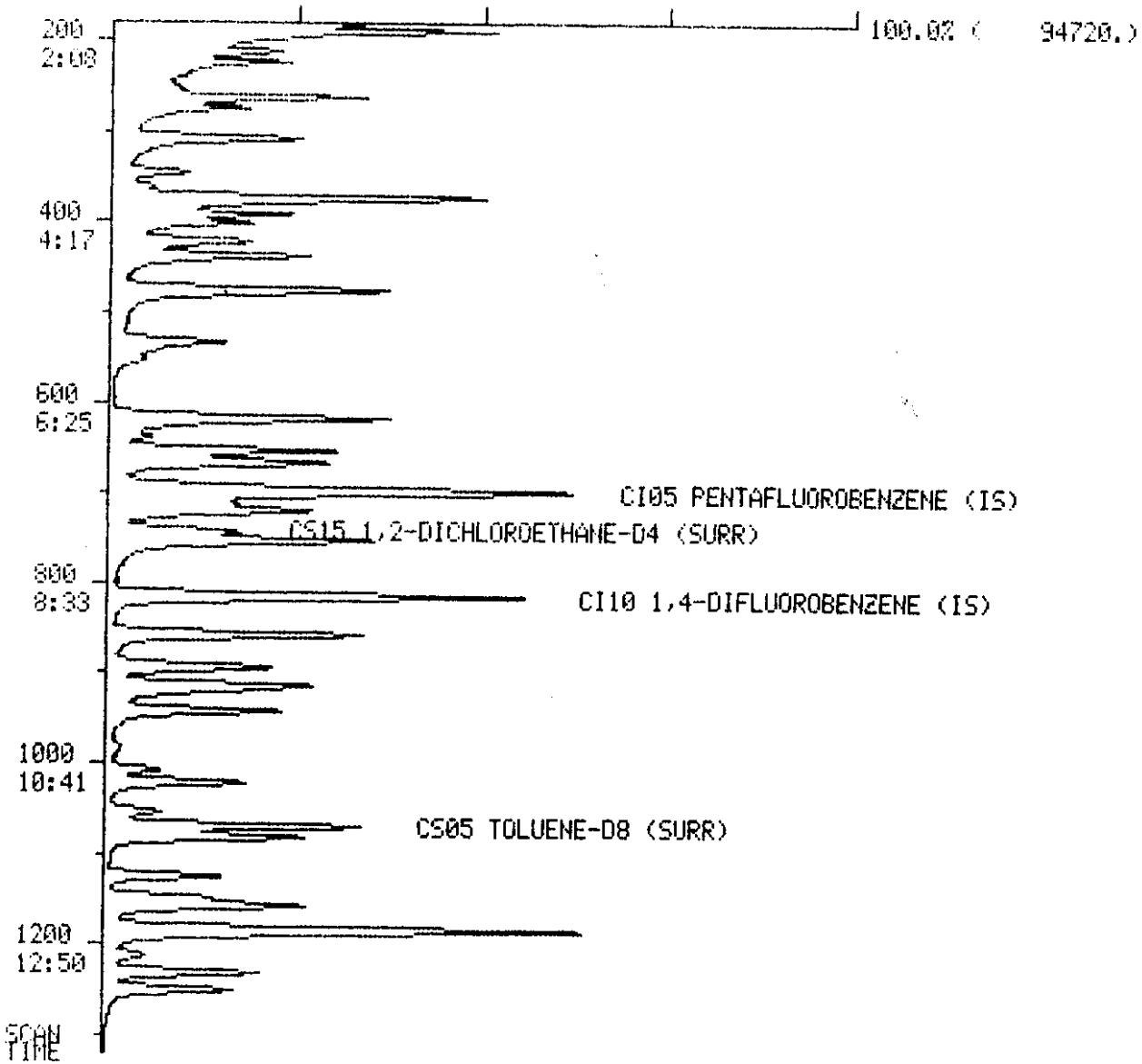
Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

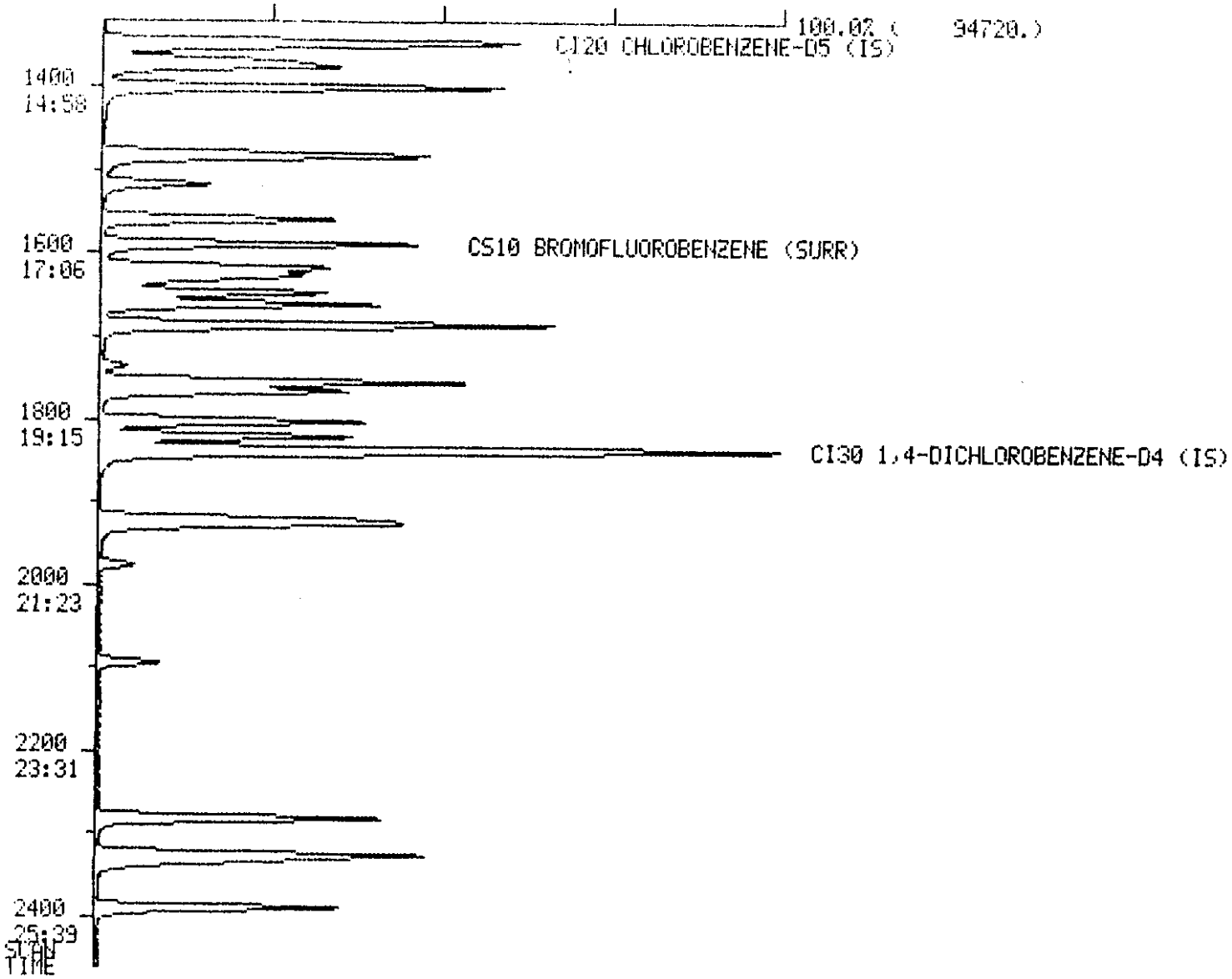
LAB FILE ID: RRF20 = I1011020 RRF50 = I1011050
RRF100= I1011100 RRF150= I1011150 RRF200= I1011200

COMPOUND	RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD
Chloromethane #	0.603	0.505	0.482	0.458	0.490	0.508	11.0#
Bromomethane	0.885	0.830	0.826	0.750	0.726	0.803	8.1
Vinyl Chloride *	0.593	0.523	0.518	0.468	0.480	0.516	9.5*
Chloroethane	0.463	0.448	0.441	0.428	0.417	0.439	4.1
Methylene Chloride	0.634	0.525	0.514	0.498	0.516	0.537	10.2
Acetone		0.158	0.081	0.076	0.131	0.089	68.1
Carbon Disulfide	1.074	0.977	1.091	1.041	1.135	1.064	5.6
1,1-Dichloroethene *	0.569	0.496	0.480	0.481	0.521	0.509	7.3*
1,1-Dichloroethane #	0.972	0.838	0.887	0.844	0.867	0.882	6.1#
trans-1,2-Dichloroethene	0.513	0.477	0.508	0.489	0.514	0.500	3.3
Chloroform *	1.171	1.061	1.068	0.990	1.030	1.064	6.3*
1,2-Dichloroethane	0.570	0.500	0.485	0.493	0.514	0.512	6.6
thylethyl ketone (MEK)		0.066	0.048	0.037	0.038	0.038	63.5
1,1-Trichloroethane	0.906	0.787	0.886	0.851	0.885	0.863	5.4
Carbon Tetrachloride	0.200	0.253	0.431	0.466	0.487	0.367	35.8
Bromodichloromethane	0.742	0.715	0.753	0.765	0.780	0.751	3.3
1,2-Dichloropropane *	0.425	0.380	0.400	0.398	0.419	0.404	4.5*
cis-1,3-Dichloropropene	0.499	0.461	0.568	0.510	0.532	0.514	7.7
Trichloroethene	0.614	0.558	0.541	0.526	0.540	0.556	6.2
Dibromochloromethane	0.874	0.812	0.885	0.895	0.930	0.879	4.9
1,1,2-Trichloroethane	0.447	0.414	0.398	0.396	0.416	0.414	4.9
Benzene	0.887	0.785	0.797	0.787	0.809	0.813	5.2
trans-1,3-Dichloropropene	0.464	0.464	0.450	0.532	0.568	0.496	10.4
Bromoform #	0.614	0.596	0.711	0.721	0.785	0.685	11.5#
4-Methyl-2-Pentanone	0.338	0.354	0.364	0.347	0.346	0.350	2.8
2-Hexanone	0.282	0.290	0.216	0.212	0.165	0.233	22.5
Tetrachloroethene	1.027	0.804	0.761	0.649	0.662	0.781	19.5
1,1,2,2-Tetrachloroethane #	1.221	0.935	0.806	0.717	0.731	0.882	23.6#
Toluene *	0.628	0.545	0.601	0.586	0.598	0.592	5.1*
Chlorobenzene #	1.347	1.098	1.206	1.198	1.293	1.228	7.8#
Ethylbenzene *	0.602	0.476	0.524	0.512	0.543	0.531	8.7*
Styrene	1.108	0.951	1.033	0.992	1.094	1.036	6.4
Xylene (total)	0.773	0.610	0.663	0.644	0.692	0.676	9.1
Toluene-d8	1.362	1.053	0.909	0.967	1.016	1.061	16.6
Bromofluorobenzene	1.453	1.031	0.837	0.929	1.047	1.059	22.3
1,2-Dichloroethane-d4	0.716	0.608	0.584	0.578	0.629	0.623	9.0

DATA FROM FILE: I1011020 SCANS 180 TO 1320 ACQUIRED: 10/11/94 13:50:00
CALI: I1011020 #3 OUT OF 180 TO 2460
SAMPLE: IC-020 8260 EXTENDED LIST
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



DATA FROM FILE: I1011020 SCANS 1320 TO 2460 ACQUIRED: 10/11/94 13:50:00
CALI: I1011020 #3 OUT OF 180 TO 2460
SAMPLE: IC-020 8260 EXTENDED LIST
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



Quantitation Report File: I1011020

Data: I1011020.TI
10/11/94 13:50:00
Sample: IC-020 8260 EXTENDED LIST
onds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 20.000
Submitted by: HIH/SWL Analyst: DBD Acct. No.: 5454/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI05 PENTAFLUOROBENZENE (IS)
2	CI10 1,4-DIFLUOROBENZENE (IS)
3	CI20 CHLOROBENZENE-D5 (IS)
4	CI30 1,4-DICHLOROBENZENE-D4 (IS)
5	CS15 1,2-DICHLOROETHANE-D4 (SURR)
6	CS05 TOLUENE-D8 (SURR)
7	CS10 BROMOFLUOROBENZENE (SURR)
8	C010 CHLOROMETHANE
9	C015 BROMOMETHANE
10	C020 VINYL CHLORIDE
11	C025 CHLOROETHANE
12	C031 TRICHLOROFLUOROMETHANE
13	C045 1,1-DICHLOROETHENE
14	C261 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE
15	C035 ACETONE
16	C040 CARBON DISULFIDE
17	C125 VINYL ACETATE
18	C030 METHYLENE CHLORIDE
19	C308 BROMOCHLOROMETHANE
20	C053 TRANS-1,2-DICHLOROETHENE
21	C050 1,1-DICHLOROETHANE
22	C110 2-BUTANONE (MEK)
23	C060 CHLOROFORM
24	C115 1,1,1-TRICHLOROETHANE
25	C120 CARBON TETRACHLORIDE
26	C165 BENZENE
27	C065 1,2-DICHLOROETHANE
28	C150 TRICHLOROETHENE
29	C140 1,2-DICHLOROPROPANE
30	C130 BROMODICHLOROMETHANE
31	C175 2-CHLOROETHYLVINYL ETHER
32	C143 CIS-1,3-DICHLOROPROPENE
33	C205 4-METHYL-2-PENTANONE (MIBK)
34	C230 TOLUENE
35	C172 TRANS-1,3-DICHLOROPROPENE
36	C160 1,1,2-TRICHLOROETHANE
37	C220 TETRACHLOROETHENE
38	C210 2-HEXANONE
39	C155 DIBROMOCHLOROMETHANE
40	C235 CHLOROBENZENE
41	C240 ETHYL BENZENE
42	C245 STYRENE
43	C180 BROMOFORM
44	C225 1,1,2,2-TETRACHLOROETHANE
45	C292 O-DICHLOROBENZENE
46	C250 M & P-XYLENE
47	C147 ETHYLENE DIBROMIDE

No	Name
48	C254 IODOMETHANE
49	C148 DIBROMOMETHANE
50	C280 CIS-1,2-DICHLOROETHENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	168	698	7:28	1	1.000	A BB	149531.	50.000 UG/L	1.80
2	114	814	8:42	2	1.000	A BB	183149.	50.000 UG/L	1.80
3	117	1343	14:21	3	1.000	A BB	131599.	50.000 UG/L	1.80
4	150	1835	19:37	4	1.000	A BB	89330.	50.000 UG/L	1.80
5	65	740	7:55	1	1.060	A BB	42800.	20.000 UG/L	0.72
6	98	1068	11:25	2	1.312	A BB	99762.	20.000 UG/L	0.72
7	95	1587	16:58	3	1.182	A BB	76497.	20.000 UG/L	0.72
8	50	210	2:15	1	0.301	A BB	36081.	20.000 UG/L	0.72
9	94	261	2:47	1	0.374	A BB	52952.	20.000 UG/L	0.72
10	62	222	2:22	1	0.318	A BB	35476.	20.000 UG/L	0.72
11	64	273	2:55	1	0.391	A BB	27697.	20.000 UG/L	0.72
12	101	305	3:16	1	0.437	A BB	74329.	20.000 UG/L	0.72
13	96	371	3:58	1	0.532	A BB	34031.	20.000 UG/L	0.72
14	101	372	3:59	1	0.533	A BB	51082.	20.000 UG/L	0.72
15	43	381	4:04	1	0.546	A BB	15394.	20.000 UG/L	0.72
16	76	399	4:16	1	0.572	A BB	64234.	20.000 UG/L	0.72
17	43	541	5:47	1	0.775	A BB	20324.	20.000 UG/L	0.72
18	84	435	4:39	1	0.623	A BB	37904.	20.000 UG/L	0.72
19	128	652	6:58	1	0.934	A BB	30093.	20.000 UG/L	0.72
20	96	473	5:03	1	0.678	A BB	30670.	20.000 UG/L	0.72
21	63	531	5:41	1	0.761	A BB	58167.	20.000 UG/L	0.72
22	72	622	6:39	1	0.891	A BB	4332.	20.000 UG/L	0.72
23	83	665	7:07	1	0.953	A BB	70013.	20.000 UG/L	0.72
24	97	692	7:24	1	0.991	A BB	54180.	20.000 UG/L	0.72
25	117	719	7:41	2	0.883	A BB	14656.	20.000 UG/L	0.72
26	78	750	8:01	2	0.921	A BB	64966.	20.000 UG/L	0.72
27	62	752	8:02	2	0.924	A BB	41774.	20.000 UG/L	0.72
28	130	856	9:09	2	1.052	A BB	44950.	20.000 UG/L	0.72
29	63	892	9:32	2	1.096	A BB	31109.	20.000 UG/L	0.72
30	83	941	10:04	2	1.156	A BB	54356.	20.000 UG/L	0.72
31	63	1006	10:45	2	1.236	A BB	1160.	20.000 UG/L	0.72
32	75	1021	10:55	2	1.254	A BB	38761.	21.200 UG/L	0.76
33	43	1053	11:15	2	1.294	A BB	24737.	20.000 UG/L	0.72
34	92	1080	11:33	2	1.327	A BB	45976.	20.000 UG/L	0.72
35	75	1123	12:00	2	1.380	A BB	31959.	18.800 UG/L	0.68
36	97	1156	12:21	2	1.420	A BB	32730.	20.000 UG/L	0.72
37	164	1182	12:38	3	0.880	A BB	54039.	20.000 UG/L	0.72
38	43	1211	12:57	3	0.902	A BB	14854.	20.000 UG/L	0.72
39	129	1230	13:09	3	0.916	A BB	46013.	20.000 UG/L	0.72
40	112	1349	14:25	3	1.004	A BB	70924.	20.000 UG/L	0.72
41	106	1374	14:41	3	1.023	A BB	31669.	20.000 UG/L	0.72
42	104	1483	15:51	3	1.104	A BB	58335.	20.000 UG/L	0.72
43	173	1515	16:12	3	1.128	A BB	32329.	20.000 UG/L	0.72
44	83	1623	17:21	4	0.884	A BB	43643.	20.000 UG/L	0.72
45	146	1919	20:31	4	1.046	A BB	68458.	20.000 UG/L	0.72
46	106	1399	14:57	3	1.042	A*BB	122096.	60.000 UG/L	2.16
47	107	1249	13:21	3	0.930	A BB	49234.	20.000 UG/L	0.72
48	142	390	4:10	1	0.559	A BB	83768.	20.000 UG/L	0.72
49	93	912	9:45	2	1.120	A BB	38060.	20.000 UG/L	0.72
50	96	616	6:35	1	0.883	A BB	37477.	20.000 UG/L	0.72

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	7:28	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	8:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	14:21	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	19:37	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
5	7:55	1.00	1.060	1.00	20.00	20.00	0.716	0.716	1.00
6	11:25	1.00	1.312	1.00	20.00	20.00	1.362	1.362	1.00
7	16:58	1.00	1.182	1.00	20.00	20.00	1.453	1.453	1.00
8	2:15	1.00	0.301	1.00	20.00	20.00	0.603	0.603	1.00
9	2:47	1.00	0.374	1.00	20.00	20.00	0.885	0.885	1.00
10	2:22	1.00	0.318	1.00	20.00	20.00	0.593	0.593	1.00
11	2:55	1.00	0.391	1.00	20.00	20.00	0.463	0.463	1.00
12	3:16	1.00	0.437	1.00	20.00	20.00	1.243	1.243	1.00
13	3:58	1.00	0.532	1.00	20.00	20.00	0.569	0.569	1.00
14	3:59	1.00	0.533	1.00	20.00	20.00	0.854	0.854	1.00
15	4:04	1.00	0.546	1.00	20.00	20.00	0.257	0.257	1.00
16	4:16	1.00	0.572	1.00	20.00	20.00	1.074	1.074	1.00
17	5:47	1.00	0.775	1.00	20.00	20.00	0.340	0.340	1.00
18	4:39	1.00	0.623	1.00	20.00	20.00	0.634	0.634	1.00
19	6:58	1.00	0.934	1.00	20.00	20.00	0.503	0.503	1.00
20	5:03	1.00	0.678	1.00	20.00	20.00	0.513	0.513	1.00
21	5:41	1.00	0.761	1.00	20.00	20.00	0.972	0.972	1.00
22	6:39	1.00	0.891	1.00	20.00	20.00	0.072	0.072	1.00
23	7:07	1.00	0.953	1.00	20.00	20.00	1.171	1.171	1.00
24	7:24	1.00	0.991	1.00	20.00	20.00	0.906	0.906	1.00
25	7:41	1.00	0.883	1.00	20.00	20.00	0.200	0.200	1.00
26	8:01	1.00	0.921	1.00	20.00	20.00	0.887	0.887	1.00
27	8:02	1.00	0.924	1.00	20.00	20.00	0.570	0.570	1.00
28	9:09	1.00	1.052	1.00	20.00	20.00	0.614	0.614	1.00
29	9:32	1.00	1.096	1.00	20.00	20.00	0.425	0.425	1.00
30	10:04	1.00	1.156	1.00	20.00	20.00	0.742	0.742	1.00
31	10:45	1.00	1.236	1.00	20.00	20.00	0.016	0.016	1.00
32	10:55	1.00	1.254	1.00	21.20	21.20	0.499	0.499	1.00
33	11:15	1.00	1.294	1.00	20.00	20.00	0.338	0.338	1.00
34	11:33	1.00	1.327	1.00	20.00	20.00	0.628	0.628	1.00
35	12:00	1.00	1.380	1.00	18.80	18.80	0.464	0.464	1.00
36	12:21	1.00	1.420	1.00	20.00	20.00	0.447	0.447	1.00
37	12:38	1.00	0.880	1.00	20.00	20.00	1.027	1.027	1.00
38	12:57	1.00	0.902	1.00	20.00	20.00	0.282	0.282	1.00
39	13:09	1.00	0.916	1.00	20.00	20.00	0.874	0.874	1.00
40	14:25	1.00	1.004	1.00	20.00	20.00	1.347	1.347	1.00
41	14:41	1.00	1.023	1.00	20.00	20.00	0.602	0.602	1.00
42	15:51	1.00	1.104	1.00	20.00	20.00	1.108	1.108	1.00
43	16:12	1.00	1.128	1.00	20.00	20.00	0.614	0.614	1.00
44	17:21	1.00	0.884	1.00	20.00	20.00	1.221	1.221	1.00
45	20:31	1.00	1.046	1.00	20.00	20.00	1.916	1.916	1.00
46	14:57	1.00	1.042	1.00	60.00	60.00	0.773	0.773	1.00
47	13:21	1.00	0.930	1.00	20.00	20.00	0.935	0.935	1.00
48	4:10	1.00	0.559	1.00	20.00	20.00	1.401	1.400	1.00
49	9:45	1.00	1.120	1.00	20.00	20.00	0.520	0.520	1.00
50	6:35	1.00	0.883	1.00	20.00	20.00	0.627	0.627	1.00

Quantitation Report File: I1011020

Data: I1011020.TI
10/11/94 13:50:00
ample: IC-020 8260 EXTENDED LIST
onds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 20.000
Submitted by: HIH/SWL Analyst: DBD Acct. No.: 5454/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	C279 1,1,1,2-TETRACHLOROETHANE
52	C267 TRANS-1,4-DICHLORO-2-BUTENE
53	C278 1,2,3-TRICHLOROPROPANE
54	C277 P-DICHLOROBENZENE
55	C276 1,2-DIBROMO-3-CHLOROPROPANE
56	C032 DICHLORODIFLUOROMETHANE
57	C282 ISOBUTYL ALCOHOL
58	C275 ACETONITRILE
59	C259 ALLYL CHLORIDE
60	C285 PROPIONITRILE
61	C287 METHACRYLONITRILE
62	C288 METHYL METHACRYLATE
63	C289 ETHYL METHACRYLATE
64	C281 M-DICHLOROBENZENE
65	C298 EPICHLOROHYDRIN
66	C122 1,4-DIOXANE
67	C271 METHYL-TERT-BUTYL ETHER
68	C445 1,2,4-TRICHLOROBENZENE
69	C263 ACROLEIN
70	C264 ACRYLONITRILE
71	C309 BROMOBENZENE
72	C380 CUMENE
73	C300 N-PROPYLBENZENE
74	C301 2-CHLOROTOLUENE
75	C302 4-CHLOROTOLUENE
76	C385 1,3,5-TRIMETHYLBENZENE
77	C386 1,2,4-TRIMETHYLBENZENE
78	C303 TERT-BUTYLBENZENE
79	C304 SEC-BUTYLBENZENE
80	C311 N-BUTYLBENZENE
81	C390 P-CYMENE
82	C375 HEXACHLOROETHANE
83	C410 NITROBENZENE
84	C460 HEXACHLOROBUTADIENE
85	C450 NAPHTHALENE
86	C446 1,2,3-TRICHLOROBENZENE

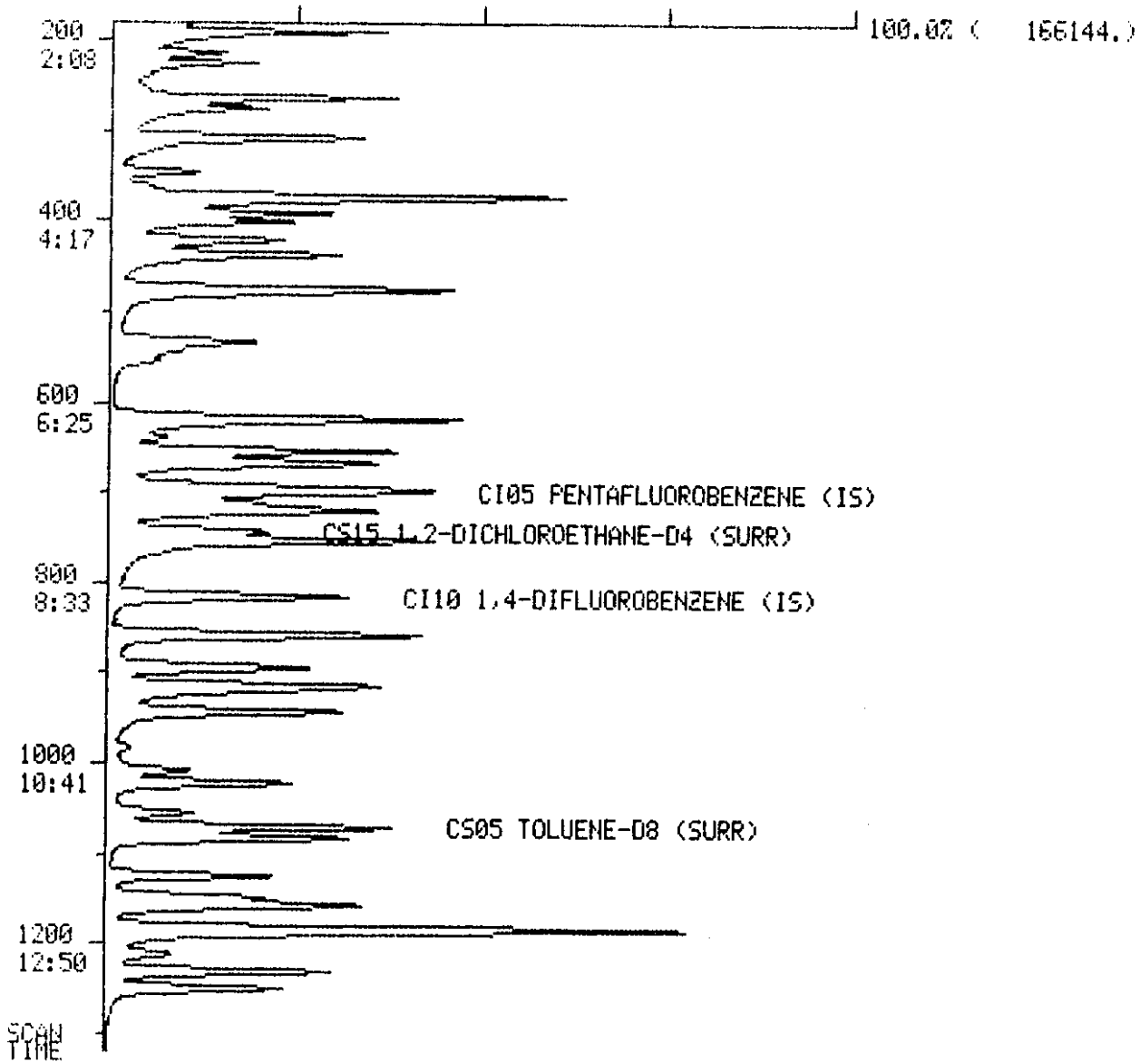
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	131	1367	14:37	3	1.018	A BB	29434.	20.000 UG/L	0.72
52	53	1635	17:29	3	1.217	A BB	5802.	20.000 UG/L	0.72
53	75	1628	17:24	4	0.887	A VB	32845.	20.000 UG/L	0.72
54	146	1840	19:40	4	1.003	A BB	60719.	20.000 UG/L	0.72
55	157	2092	22:22	4	1.140	A BB	12159.	20.000 UG/L	0.72
56	85	188	2:01	1	0.269	A BB	64467.	20.000 UG/L	0.72
57	45	343	3:40	1	0.491	A BB	14134.	200.000 UG/L	7.19

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
58	41	420	4:29	1	0.602	A BB	50994.	200.000 UG/L	7.19
59	76	419	4:29	1	0.600	A BB	6718.	20.000 UG/L	0.72
60	54	635	6:47	1	0.910	A BB	1477.	20.000 UG/L	0.72
61	41	709	7:35	1	1.016	A BB	24378.	20.000 UG/L	0.72
62	41	918	9:49	2	1.128	A BB	21549.	20.000 UG/L	0.72
63	41	1147	12:16	3	0.854	A BB	25256.	20.000 UG/L	0.72
64	146	1820	19:27	4	0.992	A BB	65510.	20.000 UG/L	0.72
65	57	1006	10:45	2	1.236	A BB	22897.	200.000 UG/L	7.19
66	88	924	9:53	2	1.135	A BB	3866.	200.000 UG/L	7.19
67	73	475	5:05	1	0.681	A BB	61284.	20.000 UG/L	0.72
68	180	2280	24:22	4	1.243	A BB	64765.	20.000 UG/L	0.72
69	56	359	3:50	1	0.514	A BB	14850.	200.000 UG/L	7.19
70	53	471	5:02	1	0.675	A BB	6369.	20.000 UG/L	0.72
71	156	1614	17:15	4	0.880	A BB	42488.	20.000 UG/L	0.72
72	105	1558	16:39	4	0.849	A BB	110563.	20.000 UG/L	0.72
73	91	1645	17:35	4	0.896	A BV	107192.	20.000 UG/L	0.72
74	91	1659	17:44	4	0.904	A VB	74581.	20.000 UG/L	0.72
75	91	1684	18:00	4	0.918	A BB	97325.	20.000 UG/L	0.72
76	105	1685	18:01	4	0.918	A BB	95292.	20.000 UG/L	0.72
77	105	1765	18:52	4	0.962	A BB	96448.	20.000 UG/L	0.72
78	119	1753	18:44	4	0.955	A BB	111088.	20.000 UG/L	0.72
79	105	1802	19:16	4	0.982	A BB	138622.	20.000 UG/L	0.72
80	91	1926	20:35	4	1.050	A BB	99126.	20.000 UG/L	0.72
81	119	1836	19:38	4	1.001	A BB	106115.	20.000 UG/L	0.72
82	117	1975	21:07	4	1.076	A BB	4644.	20.000 UG/L	0.72
83	77	2140	22:53	4	1.166	A BB	1041.	20.000 UG/L	0.72
84	225	2324	24:51	4	1.266	A BB	52618.	20.000 UG/L	0.72
85	128	2332	24:56	4	1.271	A BB	73575.	20.000 UG/L	0.72
86	180	2387	25:31	4	1.301	A BB	52820.	20.000 UG/L	0.72

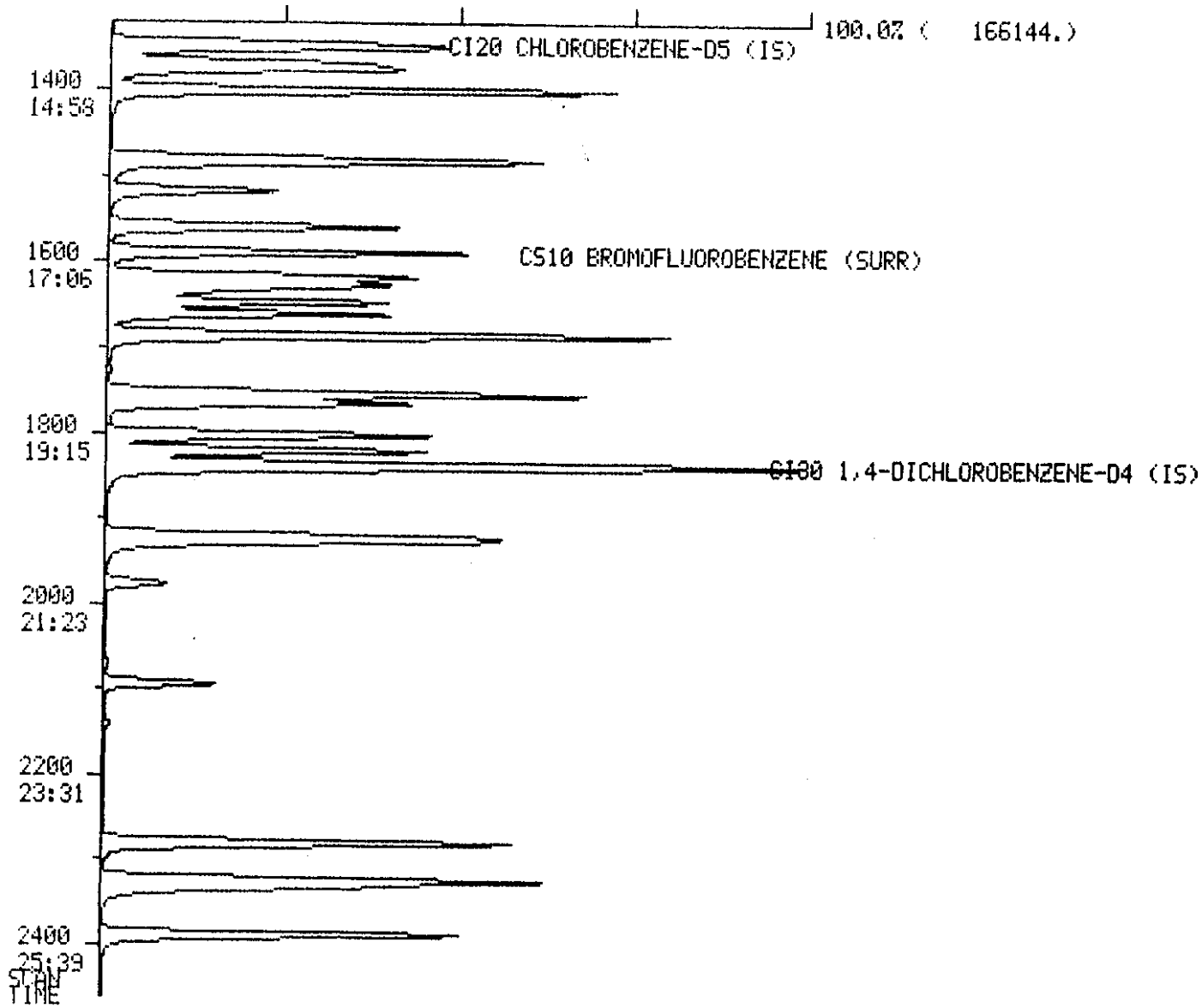
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	14:37	1.00	1.018	1.00	20.00	20.00	0.559	0.559	1.00
52	17:29	1.00	1.217	1.00	20.00	20.00	0.110	0.110	1.00
53	17:24	1.00	0.887	1.00	20.00	20.00	0.919	0.919	1.00
54	19:40	1.00	1.003	1.00	20.00	20.00	1.699	1.699	1.00
55	22:22	1.00	1.140	1.00	20.00	20.00	0.340	0.340	1.00
56	2:01	1.00	0.269	1.00	20.00	20.00	1.078	1.078	1.00
57	3:40	1.00	0.491	1.00	200.00	200.00	0.024	0.024	1.00
58	4:29	1.00	0.602	1.00	200.00	200.00	0.085	0.085	1.00
59	4:29	1.00	0.600	1.00	20.00	20.00	0.112	0.112	1.00
60	6:47	1.00	0.910	1.00	20.00	20.00	0.025	0.025	1.00
61	7:35	1.00	1.016	1.00	20.00	20.00	0.408	0.408	1.00
62	9:49	1.00	1.128	1.00	20.00	20.00	0.294	0.294	1.00
63	12:16	1.00	0.854	1.00	20.00	20.00	0.480	0.480	1.00
64	19:27	1.00	0.992	1.00	20.00	20.00	1.833	1.833	1.00
65	10:45	1.00	1.236	1.00	200.00	200.00	0.031	0.031	1.00
66	9:53	1.00	1.135	1.00	200.00	200.00	0.005	0.005	1.00
67	5:05	1.00	0.681	1.00	20.00	20.00	1.025	1.025	1.00
68	24:22	1.00	1.243	1.00	20.00	20.00	1.813	1.813	1.00
69	3:50	1.00	0.514	1.00	200.00	200.00	0.025	0.025	1.00
70	5:02	1.00	0.675	1.00	20.00	20.00	0.106	0.106	1.00
71	17:15	1.00	0.880	1.00	20.00	20.00	1.189	1.189	1.00
72	16:39	1.00	0.849	1.00	20.00	20.00	3.094	3.094	1.00
73	17:35	1.00	0.896	1.00	20.00	20.00	3.000	3.000	1.00
74	17:44	1.00	0.904	1.00	20.00	20.00	2.087	2.087	1.00
75	18:00	1.00	0.918	1.00	20.00	20.00	2.724	2.724	1.00

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
76	18:01	1.00	0.918	1.00	20.00	20.00	2.667	2.667	1.00
77	18:52	1.00	0.962	1.00	20.00	20.00	2.699	2.699	1.00
78	18:44	1.00	0.955	1.00	20.00	20.00	3.109	3.109	1.00
79	19:16	1.00	0.982	1.00	20.00	20.00	3.879	3.879	1.00
80	20:35	1.00	1.050	1.00	20.00	20.00	2.774	2.774	1.00
81	19:38	1.00	1.001	1.00	20.00	20.00	2.970	2.970	1.00
82	21:07	1.00	1.076	1.00	20.00	20.00	0.130	0.130	1.00
83	22:53	1.00	1.166	1.00	20.00	20.00	0.029	0.029	1.00
84	24:51	1.00	1.266	1.00	20.00	20.00	1.473	1.473	1.00
85	24:56	1.00	1.271	1.00	20.00	20.00	2.059	2.059	1.00
86	25:31	1.00	1.301	1.00	20.00	20.00	1.478	1.478	1.00

DATA FROM FILE: I1011050 SCANS 180 TO 1320 ACQUIRED: 10/11/94 14:21:00
CALI: I1011050 #3 OUT OF 180 TO 2460
SAMPLE: IC-050 8260 EXTENDED LIST
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



DATA FROM FILE: I1011050 SCANS 1320 TO 2460 ACQUIRED: 10/11/94 14:21:00
CALI: I1011050 #3 OUT OF 180 TO 2460
SAMPLE: IC-050 8260 EXTENDED LIST
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



Quantitation Report File: I1011050

Data: I1011050.TI
10/11/94 14:21:00
Sample: IC-050 8260 EXTENDED LIST
onds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 50.000
Submitted by: HIH/SWL Analyst: DBD Acct. No.: 5454/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI05 PENTAFLUOROBENZENE (IS)
2	CI10 1,4-DIFLUOROBENZENE (IS)
3	CI20 CHLOROBENZENE-D5 (IS)
4	CI30 1,4-DICHLOROBENZENE-D4 (IS)
5	CS15 1,2-DICHLOROETHANE-D4 (SURR)
6	CS05 TOLUENE-D8 (SURR)
7	CS10 BROMOFLUOROBENZENE (SURR)
8	C010 CHLOROMETHANE
9	C015 BROMOMETHANE
10	C020 VINYL CHLORIDE
11	C025 CHLOROETHANE
12	C031 TRICHLOROFLUOROMETHANE
13	C045 1,1-DICHLOROETHENE
14	C261 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE
15	C035 ACETONE
16	C040 CARBON DISULFIDE
17	C125 VINYL ACETATE
18	C030 METHYLENE CHLORIDE
19	C308 BROMOCHLOROMETHANE
20	C053 TRANS-1,2-DICHLOROETHENE
21	C050 1,1-DICHLOROETHANE
22	C110 2-BUTANONE (MEK)
23	C060 CHLOROFORM
24	C115 1,1,1-TRICHLOROETHANE
25	C120 CARBON TETRACHLORIDE
26	C165 BENZENE
27	C065 1,2-DICHLOROETHANE
28	C150 TRICHLOROETHENE
29	C140 1,2-DICHLOROPROPANE
30	C130 BROMODICHLOROMETHANE
31	C175 2-CHLOROETHYLVINYL ETHER
32	C143 CIS-1,3-DICHLOROPROPENE
33	C205 4-METHYL-2-PENTANONE (MIBK)
34	C230 TOLUENE
35	C172 TRANS-1,3-DICHLOROPROPENE
36	C160 1,1,2-TRICHLOROETHANE
37	C220 TETRACHLOROETHENE
38	C210 2-HEXANONE
39	C155 DIBROMOCHLOROMETHANE
40	C235 CHLOROBENZENE
41	C240 ETHYL BENZENE
42	C245 STYRENE
43	C180 BROMOFORM
44	C225 1,1,2,2-TETRACHLOROETHANE
45	C292 O-DICHLOROBENZENE
46	C250 M & P-XYLENE
47	C147 ETHYLENE DIBROMIDE

No	Name
48	C254 IODOMETHANE
49	C148 DIBROMOMETHANE
50	C280 CIS-1,2-DICHLOROETHENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	168	698	7:28	1	1.000	A BB	148540.	50.000 UG/L	0.75
2	114	814	8:42	2	1.000	A BB	182104.	50.000 UG/L	0.75
3	117	1343	14:21	3	1.000	A BB	143088.	50.000 UG/L	0.75
4	150	1834	19:36	4	1.000	A BB	116795.	50.000 UG/L	0.75
5	65	741	7:55	1	1.062	A BB	90343.	50.000 UG/L	0.75
6	98	1068	11:25	2	1.312	A BB	191803.	50.000 UG/L	0.75
7	95	1587	16:58	3	1.182	A BB	147517.	50.000 UG/L	0.75
8	50	211	2:15	1	0.302	A BB	74979.	50.000 UG/L	0.75
9	94	261	2:47	1	0.374	A BB	123327.	50.000 UG/L	0.75
10	62	223	2:23	1	0.319	A BB	77648.	50.000 UG/L	0.75
11	64	273	2:55	1	0.391	A BB	66547.	50.000 UG/L	0.75
12	101	305	3:16	1	0.437	A BB	177009.	50.000 UG/L	0.75
13	96	371	3:58	1	0.532	A BB	73612.	50.000 UG/L	0.75
14	101	372	3:59	1	0.533	A BB	105884.	50.000 UG/L	0.75
15	43	382	4:05	1	0.547	A BB	23491.	50.000 UG/L	0.75
16	76	399	4:16	1	0.572	A BB	145165.	50.000 UG/L	0.75
17	43	541	5:47	1	0.775	A BB	55943.	50.000 UG/L	0.75
18	84	435	4:39	1	0.623	A BB	77917.	50.000 UG/L	0.75
19	128	652	6:58	1	0.934	A BB	65465.	50.000 UG/L	0.75
20	96	473	5:03	1	0.678	A BB	70922.	50.000 UG/L	0.75
21	63	532	5:41	1	0.762	A BB	124411.	50.000 UG/L	0.75
22	72	622	6:39	1	0.891	A BB	9817.	50.000 UG/L	0.75
23	83	666	7:07	1	0.954	A BB	157619.	50.000 UG/L	0.75
24	97	693	7:24	1	0.993	A BB	116909.	50.000 UG/L	0.75
25	117	719	7:41	2	0.883	A BB	46088.	50.000 UG/L	0.75
26	78	751	8:02	2	0.923	A BB	143018.	50.000 UG/L	0.75
27	62	753	8:03	2	0.925	A BB	91028.	50.000 UG/L	0.75
28	130	857	9:10	2	1.053	A BB	101685.	50.000 UG/L	0.75
29	63	892	9:32	2	1.096	A BB	69174.	50.000 UG/L	0.75
30	83	941	10:04	2	1.156	A BB	130221.	50.000 UG/L	0.75
31	63	1006	10:45	2	1.236	A BB	6645.	50.000 UG/L	0.75
32	75	1021	10:55	2	1.254	A BB	89010.	53.000 UG/L	0.80
33	43	1053	11:15	2	1.294	A BB	64458.	50.000 UG/L	0.75
34	92	1081	11:33	2	1.328	A BB	99337.	50.000 UG/L	0.75
35	75	1123	12:00	2	1.380	A BB	79473.	47.000 UG/L	0.71
36	97	1156	12:21	2	1.420	A BB	75439.	50.000 UG/L	0.75
37	164	1183	12:39	3	0.881	A BB	115084.	50.000 UG/L	0.75
38	43	1211	12:57	3	0.902	A BB	41470.	50.000 UG/L	0.75
39	129	1230	13:09	3	0.916	A BB	116203.	50.000 UG/L	0.75
40	112	1349	14:25	3	1.004	A BB	157044.	50.000 UG/L	0.75
41	106	1374	14:41	3	1.023	A BB	68080.	50.000 UG/L	0.75
42	104	1482	15:51	3	1.103	A BB	136142.	50.000 UG/L	0.75
43	173	1516	16:12	3	1.129	A BB	85249.	50.000 UG/L	0.75
44	83	1623	17:21	4	0.885	A BB	109217.	50.000 UG/L	0.75
45	146	1918	20:30	4	1.046	A BB	155590.	50.000 UG/L	0.75
46	106	1398	14:57	3	1.041	A*BB	261643.	150.000 UG/L	2.26
47	107	1249	13:21	3	0.930	A BB	115826.	50.000 UG/L	0.75
48	142	390	4:10	1	0.559	A BB	186548.	50.000 UG/L	0.75
49	93	912	9:45	2	1.120	A BB	85682.	50.000 UG/L	0.75
50	96	617	6:36	1	0.884	A BB	84885.	50.000 UG/L	0.75

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	7:28	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	8:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	14:21	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	19:36	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
5	7:55	1.00	1.062	1.00	50.00	50.00	0.608	0.608	1.00
6	11:25	1.00	1.312	1.00	50.00	50.00	1.053	1.053	1.00
7	16:58	1.00	1.182	1.00	50.00	50.00	1.031	1.031	1.00
8	2:15	1.00	0.302	1.00	50.00	50.00	0.505	0.505	1.00
9	2:47	1.00	0.374	1.00	50.00	50.00	0.830	0.830	1.00
10	2:23	1.00	0.319	1.00	50.00	50.00	0.523	0.523	1.00
11	2:55	1.00	0.391	1.00	50.00	50.00	0.448	0.448	1.00
12	3:16	1.00	0.437	1.00	50.00	50.00	1.192	1.192	1.00
13	3:58	1.00	0.532	1.00	50.00	50.00	0.496	0.496	1.00
14	3:59	1.00	0.533	1.00	50.00	50.00	0.713	0.713	1.00
15	4:05	1.00	0.547	1.00	50.00	50.00	0.158	0.158	1.00
16	4:16	1.00	0.572	1.00	50.00	50.00	0.977	0.977	1.00
17	5:47	1.00	0.775	1.00	50.00	50.00	0.377	0.377	1.00
18	4:39	1.00	0.623	1.00	50.00	50.00	0.525	0.525	1.00
19	6:58	1.00	0.934	1.00	50.00	50.00	0.441	0.441	1.00
20	5:03	1.00	0.678	1.00	50.00	50.00	0.477	0.477	1.00
21	5:41	1.00	0.762	1.00	50.00	50.00	0.838	0.838	1.00
22	6:39	1.00	0.891	1.00	50.00	50.00	0.066	0.066	1.00
23	7:07	1.00	0.954	1.00	50.00	50.00	1.061	1.061	1.00
24	7:24	1.00	0.993	1.00	50.00	50.00	0.787	0.787	1.00
25	7:41	1.00	0.883	1.00	50.00	50.00	0.253	0.253	1.00
26	8:02	1.00	0.923	1.00	50.00	50.00	0.785	0.785	1.00
27	8:03	1.00	0.925	1.00	50.00	50.00	0.500	0.500	1.00
28	9:10	1.00	1.053	1.00	50.00	50.00	0.558	0.558	1.00
29	9:32	1.00	1.096	1.00	50.00	50.00	0.380	0.380	1.00
30	10:04	1.00	1.156	1.00	50.00	50.00	0.715	0.715	1.00
31	10:45	1.00	1.236	1.00	50.00	50.00	0.036	0.036	1.00
32	10:55	1.00	1.254	1.00	53.00	53.00	0.461	0.461	1.00
33	11:15	1.00	1.294	1.00	50.00	50.00	0.354	0.354	1.00
34	11:33	1.00	1.328	1.00	50.00	50.00	0.545	0.545	1.00
35	12:00	1.00	1.380	1.00	47.00	47.00	0.464	0.464	1.00
36	12:21	1.00	1.420	1.00	50.00	50.00	0.414	0.414	1.00
37	12:39	1.00	0.881	1.00	50.00	50.00	0.804	0.804	1.00
38	12:57	1.00	0.902	1.00	50.00	50.00	0.290	0.290	1.00
39	13:09	1.00	0.916	1.00	50.00	50.00	0.812	0.812	1.00
40	14:25	1.00	1.004	1.00	50.00	50.00	1.098	1.098	1.00
41	14:41	1.00	1.023	1.00	50.00	50.00	0.476	0.476	1.00
42	15:51	1.00	1.103	1.00	50.00	50.00	0.951	0.951	1.00
43	16:12	1.00	1.129	1.00	50.00	50.00	0.596	0.596	1.00
44	17:21	1.00	0.885	1.00	50.00	50.00	0.935	0.935	1.00
45	20:30	1.00	1.046	1.00	50.00	50.00	1.332	1.332	1.00
46	14:57	1.00	1.041	1.00	150.00	150.00	0.610	0.610	1.00
47	13:21	1.00	0.930	1.00	50.00	50.00	0.809	0.809	1.00
48	4:10	1.00	0.559	1.00	50.00	50.00	1.256	1.256	1.00
49	9:45	1.00	1.120	1.00	50.00	50.00	0.471	0.471	1.00
50	6:36	1.00	0.884	1.00	50.00	50.00	0.571	0.571	1.00

Quantitation Report File: I1011050

Data: I1011050.TI
10/11/94 14:21:00
Sample: IC-050 8260 EXTENDED LIST
onds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 50.000
Submitted by: HIH/SWL Analyst: DBD Acct. No.: 5454/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	C279 1,1,1,2-TETRACHLOROETHANE
52	C267 TRANS-1,4-DICHLORO-2-BUTENE
53	C278 1,2,3-TRICHLOROPROPANE
54	C277 P-DICHLOROBENZENE
55	C276 1,2-DIBROMO-3-CHLOROPROPANE
56	C032 DICHLORODIFLUOROMETHANE
57	C282 ISOBUTYL ALCOHOL
58	C275 ACETONITRILE
59	C259 ALLYL CHLORIDE
60	C285 PROPIONITRILE
61	C287 METHACRYLONITRILE
62	C288 METHYL METHACRYLATE
63	C289 ETHYL METHACRYLATE
64	C281 M-DICHLOROBENZENE
65	C298 EPICHLOROHYDRIN
66	C122 1,4-DIOXANE
67	C271 METHYL-TERT-BUTYL ETHER
68	C445 1,2,4-TRICHLOROBENZENE
69	C263 ACROLEIN
70	C264 ACRYLONITRILE
71	C309 BROMOBENZENE
72	C380 CUMENE
73	C300 N-PROPYLBENZENE
74	C301 2-CHLOROTOLUENE
75	C302 4-CHLOROTOLUENE
76	C385 1,3,5-TRIMETHYLBENZENE
77	C386 1,2,4-TRIMETHYLBENZENE
78	C303 TERT-BUTYLBENZENE
79	C304 SEC-BUTYLBENZENE
80	C311 N-BUTYLBENZENE
81	C390 P-CYMENE
82	C375 HEXACHLOROETHANE
83	C410 NITROBENZENE
84	C460 HEXACHLOROBUTADIENE
85	C450 NAPHTHALENE
86	C446 1,2,3-TRICHLOROBENZENE

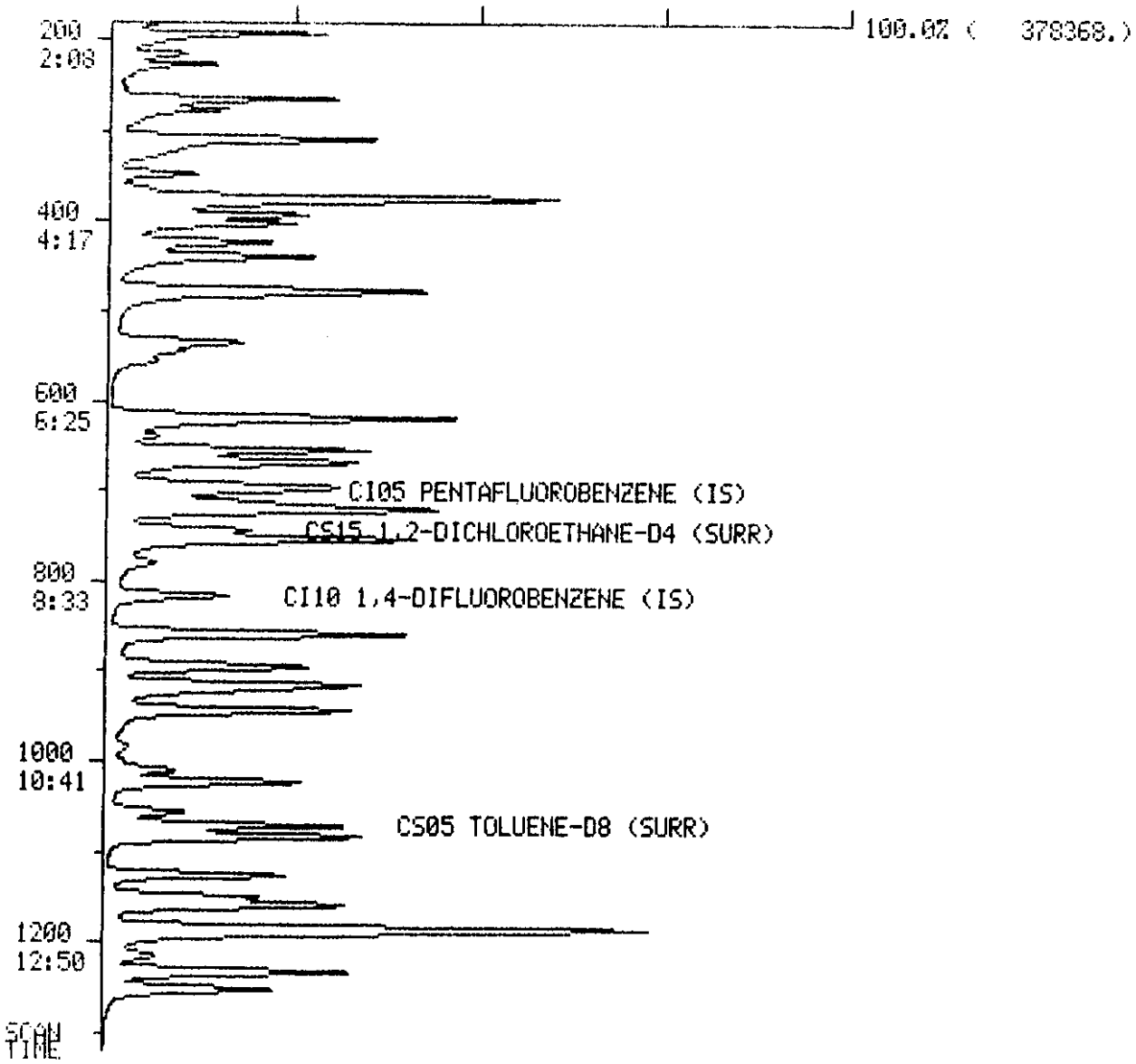
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	131	1366	14:36	3	1.017	A BB	73261.	50.000 UG/L	0.75
52	53	1635	17:29	3	1.217	A BB	15948.	50.000 UG/L	0.75
53	75	1628	17:24	4	0.888	A VB	85993.	50.000 UG/L	0.75
54	146	1839	19:40	4	1.003	A BB	136318.	50.000 UG/L	0.75
55	157	2091	22:21	4	1.140	A BB	37251.	50.000 UG/L	0.75
56	85	188	2:01	1	0.269	A BB	146297.	50.000 UG/L	0.75
57	45	344	3:41	1	0.493	A BB	32156.	500.000 UG/L	7.52

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
58	41	419	4:29	1	0.600	A BB	113995.	500.000 UG/L	7.52
59	76	419	4:29	1	0.600	A BB	15404.	50.000 UG/L	0.75
60	54	635	6:47	1	0.910	A BB	5758.	50.000 UG/L	0.75
61	41	710	7:35	1	1.017	A BB	55193.	50.000 UG/L	0.75
62	41	919	9:49	2	1.129	A BB	52930.	50.000 UG/L	0.75
63	41	1147	12:16	3	0.854	A BB	61147.	50.000 UG/L	0.75
64	146	1819	19:27	4	0.992	A BB	146035.	50.000 UG/L	0.75
65	57	1006	10:45	2	1.236	A BB	60612.	500.000 UG/L	7.52
66	88	930	9:57	2	1.143	A BB	9922.	500.000 UG/L	7.52
67	73	475	5:05	1	0.681	A BB	131583.	50.000 UG/L	0.75
68	180	2278	24:21	4	1.242	A BB	157027.	50.000 UG/L	0.75
69	56	359	3:50	1	0.514	A BB	25128.	500.000 UG/L	7.52
70	53	471	5:02	1	0.675	A BB	10324.	50.000 UG/L	0.75
71	156	1615	17:16	4	0.881	A BB	96329.	50.000 UG/L	0.75
72	105	1557	16:39	4	0.849	A BB	241988.	50.000 UG/L	0.75
73	91	1645	17:35	4	0.897	A BV	228678.	50.000 UG/L	0.75
74	91	1659	17:44	4	0.905	A VB	158601.	50.000 UG/L	0.75
75	91	1683	17:59	4	0.918	A BB	211626.	50.000 UG/L	0.75
76	105	1685	18:01	4	0.919	A BB	203381.	50.000 UG/L	0.75
77	105	1764	18:51	4	0.962	A BB	202717.	50.000 UG/L	0.75
78	119	1753	18:44	4	0.956	A BB	249284.	50.000 UG/L	0.75
79	105	1801	19:15	4	0.982	A BB	292846.	50.000 UG/L	0.75
80	91	1925	20:35	4	1.050	A BB	212556.	50.000 UG/L	0.75
81	119	1835	19:37	4	1.001	A BB	225896.	50.000 UG/L	0.75
82	117	1974	21:06	4	1.076	A BB	14327.	50.000 UG/L	0.75
83	77	2140	22:53	4	1.167	A BB	5349.	50.000 UG/L	0.75
84	225	2323	24:50	4	1.267	A BB	119267.	50.000 UG/L	0.75
85	128	2331	24:55	4	1.271	A BB	194678.	50.000 UG/L	0.75
86	180	2386	25:30	4	1.301	A BB	136988.	50.000 UG/L	0.75

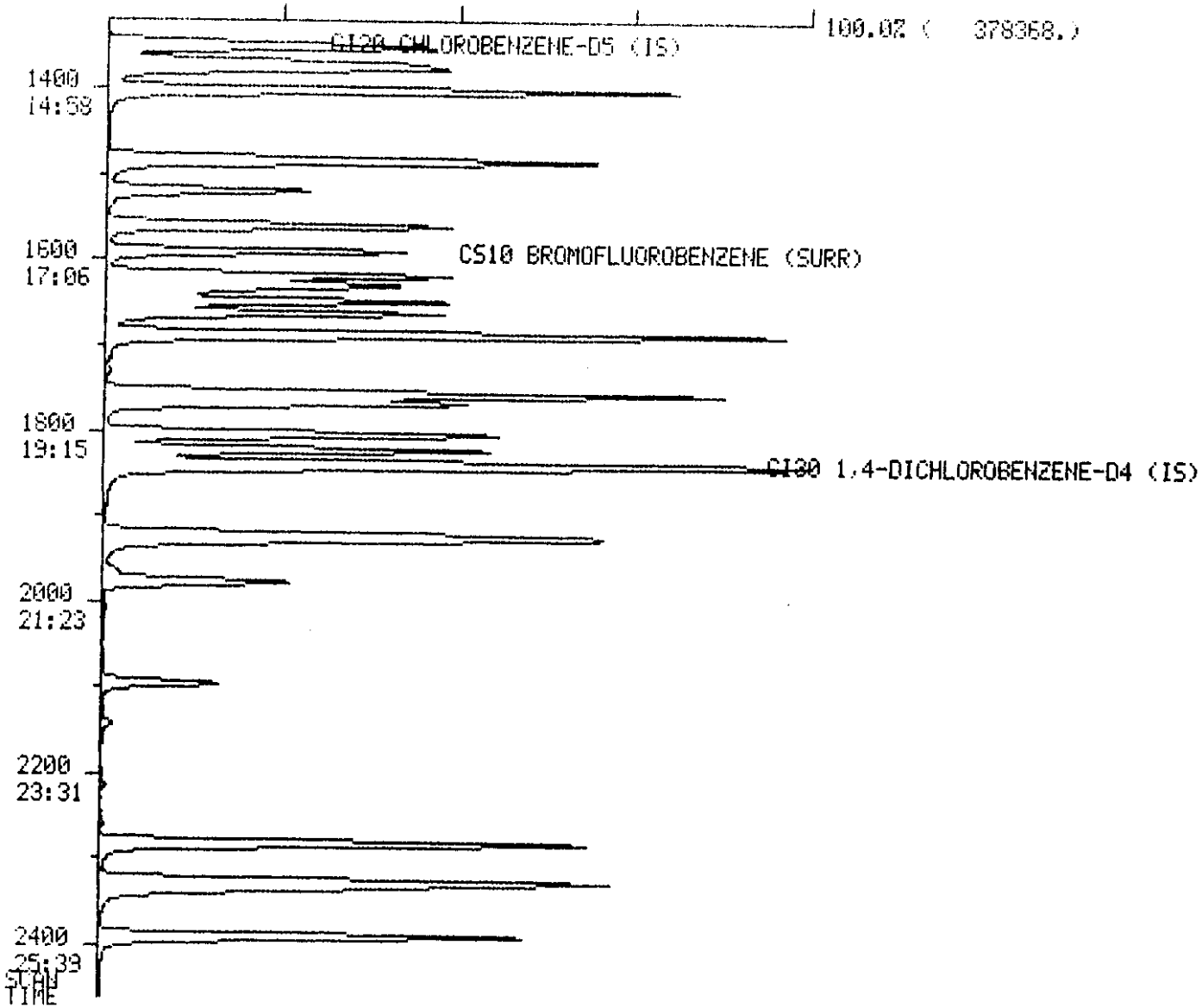
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	14:36	1.00	1.017	1.00	50.00	50.00	0.512	0.512	1.00
52	17:29	1.00	1.217	1.00	50.00	50.00	0.111	0.111	1.00
53	17:24	1.00	0.888	1.00	50.00	50.00	0.736	0.736	1.00
54	19:40	1.00	1.003	1.00	50.00	50.00	1.167	1.167	1.00
55	22:21	1.00	1.140	1.00	50.00	50.00	0.319	0.319	1.00
56	2:01	1.00	0.269	1.00	50.00	50.00	0.985	0.985	1.00
57	3:41	1.00	0.493	1.00	500.00	500.00	0.022	0.022	1.00
58	4:29	1.00	0.600	1.00	500.00	500.00	0.077	0.077	1.00
59	4:29	1.00	0.600	1.00	50.00	50.00	0.104	0.104	1.00
60	6:47	1.00	0.910	1.00	50.00	50.00	0.039	0.039	1.00
61	7:35	1.00	1.017	1.00	50.00	50.00	0.372	0.372	1.00
62	9:49	1.00	1.129	1.00	50.00	50.00	0.291	0.291	1.00
63	12:16	1.00	0.854	1.00	50.00	50.00	0.427	0.427	1.00
64	19:27	1.00	0.992	1.00	50.00	50.00	1.250	1.250	1.00
65	10:45	1.00	1.236	1.00	500.00	500.00	0.033	0.033	1.00
66	9:57	1.00	1.143	1.00	500.00	500.00	0.005	0.005	1.00
67	5:05	1.00	0.681	1.00	50.00	50.00	0.886	0.886	1.00
68	24:21	1.00	1.242	1.00	50.00	50.00	1.344	1.344	1.00
69	3:50	1.00	0.514	1.00	500.00	500.00	0.017	0.017	1.00
70	5:02	1.00	0.675	1.00	50.00	50.00	0.070	0.070	1.00
71	17:16	1.00	0.881	1.00	50.00	50.00	0.825	0.825	1.00
72	16:39	1.00	0.849	1.00	50.00	50.00	2.072	2.072	1.00
73	17:35	1.00	0.897	1.00	50.00	50.00	1.958	1.958	1.00
74	17:44	1.00	0.905	1.00	50.00	50.00	1.358	1.358	1.00
75	17:59	1.00	0.918	1.00	50.00	50.00	1.812	1.812	1.00

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
76	18:01	1.00	0.919	1.00	50.00	50.00	1.741	1.741	1.00
77	18:51	1.00	0.962	1.00	50.00	50.00	1.736	1.736	1.00
78	18:44	1.00	0.956	1.00	50.00	50.00	2.134	2.134	1.00
79	19:15	1.00	0.982	1.00	50.00	50.00	2.507	2.507	1.00
80	20:35	1.00	1.050	1.00	50.00	50.00	1.820	1.820	1.00
81	19:37	1.00	1.001	1.00	50.00	50.00	1.934	1.934	1.00
82	21:06	1.00	1.076	1.00	50.00	50.00	0.123	0.123	1.00
83	22:53	1.00	1.167	1.00	50.00	50.00	0.046	0.046	1.00
84	24:50	1.00	1.267	1.00	50.00	50.00	1.021	1.021	1.00
85	24:55	1.00	1.271	1.00	50.00	50.00	1.667	1.667	1.00
86	25:30	1.00	1.301	1.00	50.00	50.00	1.173	1.173	1.00

DATA FROM FILE: I1011100 SCANS 180 TO 1320 ACQUIRED: 10/11/94 14:57:00
CALI: I1011100 #3 OUT OF 180 TO 2460
SAMPLE: IC-100 8260 EXTENDED LIST
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



DATA FROM FILE: I1011100 SCANS 1320 TO 2460 ACQUIRED: 10/11/94 14:57:00
CALI: I1011100 #3 OUT OF 180 TO 2460
SAMPLE: IC-100 8260 EXTENDED LIST
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



Quantitation Report File: I1011100

Data: I1011100.TI
10/11/94 14:57:00
Sample: IC-100 8260 EXTENDED LIST
Conds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 100.000
Submitted by: HIH/SWL Analyst: DBD Acct. No.: 5454/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI05 PENTAFLUOROBENZENE (IS)
2	CI10 1,4-DIFLUOROBENZENE (IS)
3	CI20 CHLOROBENZENE-D5 (IS)
4	CI30 1,4-DICHLOROBENZENE-D4 (IS)
5	CS15 1,2-DICHLOROETHANE-D4 (SURR)
6	CS05 TOLUENE-D8 (SURR)
7	CS10 BROMOFLUOROBENZENE (SURR)
8	C010 CHLOROMETHANE
9	C015 BROMOMETHANE
10	C020 VINYL CHLORIDE
11	C025 CHLOROETHANE
12	C031 TRICHLOROFLUOROMETHANE
13	C045 1,1-DICHLOROETHENE
14	C261 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE
15	C035 ACETONE
16	C040 CARBON DISULFIDE
17	C125 VINYL ACETATE
18	C030 METHYLENE CHLORIDE
19	C308 BROMOCHLOROMETHANE
20	C053 TRANS-1,2-DICHLOROETHENE
21	C050 1,1-DICHLOROETHANE
22	C110 2-BUTANONE (MEK)
23	C060 CHLOROFORM
24	C115 1,1,1-TRICHLOROETHANE
25	C120 CARBON TETRACHLORIDE
26	C165 BENZENE
27	C065 1,2-DICHLOROETHANE
28	C150 TRICHLOROETHENE
29	C140 1,2-DICHLOROPROPANE
30	C130 BROMODICHLOROMETHANE
31	C175 2-CHLOROETHYLVINYL ETHER
32	C143 CIS-1,3-DICHLOROPROPENE
33	C205 4-METHYL-2-PENTANONE (MIBK)
34	C230 TOLUENE
35	C172 TRANS-1,3-DICHLOROPROPENE
36	C160 1,1,2-TRICHLOROETHANE
37	C220 TETRACHLOROETHENE
38	C210 2-HEXANONE
39	C155 DIBROMOCHLOROMETHANE
40	C235 CHLOROBENZENE
41	C240 ETHYL BENZENE
42	C245 STYRENE
43	C180 BROMOFORM
44	C225 1,1,2,2-TETRACHLOROETHANE
45	C292 O-DICHLOROBENZENE
46	C250 M & P-XYLENE
47	C147 ETHYLENE DIBROMIDE

No	Name
48	C254 IODOMETHANE
49	C148 DIBROMOMETHANE
50	C280 CIS-1,2-DICHLOROETHENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	168	699	7:28	1	1.000	A BB	158366.	50.000	UG/L	0.38
2	114	815	8:43	2	1.000	A BB	204308.	50.000	UG/L	0.38
3	117	1344	14:22	3	1.000	A BB	167173.	50.000	UG/L	0.38
4	150	1836	19:38	4	1.000	A BB	150492.	50.000	UG/L	0.38
5	65	742	7:56	1	1.062	A BB	184852.	100.000	UG/L	0.76
6	98	1069	11:26	2	1.312	A BB	371326.	100.000	UG/L	0.76
7	95	1588	16:59	3	1.182	A BB	279917.	100.000	UG/L	0.76
8	50	213	2:17	1	0.305	A BB	152707.	100.000	UG/L	0.76
9	94	263	2:49	1	0.376	A BB	261729.	100.000	UG/L	0.76
10	62	225	2:24	1	0.322	A BB	164065.	100.000	UG/L	0.76
11	64	275	2:56	1	0.393	A BB	139669.	100.000	UG/L	0.76
12	101	306	3:16	1	0.438	A BB	446888.	100.000	UG/L	0.76
13	96	372	3:59	1	0.532	A BB	152085.	100.000	UG/L	0.76
14	101	373	3:59	1	0.534	A BB	261357.	100.000	UG/L	0.76
15	43	385	4:07	1	0.551	A BB	25807.	100.000	UG/L	0.76
16	76	400	4:17	1	0.572	A BB	345488.	100.000	UG/L	0.76
17	43	543	5:48	1	0.777	A BB	137963.	100.000	UG/L	0.76
18	84	436	4:40	1	0.624	A BB	162659.	100.000	UG/L	0.76
19	128	653	6:59	1	0.934	A BB	133380.	100.000	UG/L	0.76
20	96	474	5:04	1	0.678	A BB	160748.	100.000	UG/L	0.76
21	63	532	5:41	1	0.761	A BB	280807.	100.000	UG/L	0.76
22	72	624	6:40	1	0.893	A BB	15162.	100.000	UG/L	0.76
23	83	667	7:08	1	0.954	A BB	338312.	100.000	UG/L	0.76
24	97	693	7:24	1	0.991	A BB	280585.	100.000	UG/L	0.76
25	117	719	7:41	2	0.882	A BB	176078.	100.000	UG/L	0.76
26	78	751	8:02	2	0.921	A BB	325869.	100.000	UG/L	0.76
27	62	754	8:04	2	0.925	A BB	198248.	100.000	UG/L	0.76
28	130	857	9:10	2	1.052	A BB	221025.	100.000	UG/L	0.76
29	63	893	9:33	2	1.096	A BB	163353.	100.000	UG/L	0.76
30	83	942	10:04	2	1.156	A BB	307526.	100.000	UG/L	0.76
31	63	998	10:40	2	1.225	A BB	11685.	100.000	UG/L	0.76
32	75	1021	10:55	2	1.253	A BB	218334.	94.000	UG/L	0.72
33	43	1054	11:16	2	1.293	A BB	148638.	100.000	UG/L	0.76
34	92	1081	11:33	2	1.326	A BB	245551.	100.000	UG/L	0.76
35	75	1125	12:02	2	1.380	A BB	194793.	106.000	UG/L	0.81
36	97	1158	12:23	2	1.421	A BB	162574.	100.000	UG/L	0.76
37	164	1184	12:39	3	0.881	A BB	254363.	100.000	UG/L	0.76
38	43	1214	12:59	3	0.903	A BB	72333.	100.000	UG/L	0.76
39	129	1231	13:10	3	0.916	A BB	296033.	100.000	UG/L	0.76
40	112	1350	14:26	3	1.004	A BB	403102.	100.000	UG/L	0.76
41	106	1375	14:42	3	1.023	A BB	175067.	100.000	UG/L	0.76
42	104	1483	15:51	3	1.103	A BB	345545.	100.000	UG/L	0.76
43	173	1517	16:13	3	1.129	A BB	237810.	100.000	UG/L	0.76
44	83	1626	17:23	4	0.886	A BB	242560.	100.000	UG/L	0.76
45	146	1920	20:31	4	1.046	A BB	420782.	100.000	UG/L	0.76
46	106	1400	14:58	3	1.042	A*BB	664686.	300.000	UG/L	2.29
47	107	1251	13:22	3	0.931	A BB	268069.	100.000	UG/L	0.76
48	142	391	4:11	1	0.559	A BB	401943.	100.000	UG/L	0.76
49	93	913	9:46	2	1.120	A BB	187027.	100.000	UG/L	0.76
50	96	618	6:36	1	0.884	A BB	188363.	100.000	UG/L	0.76

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	7:29	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	8:44	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	14:23	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	19:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
5	7:57	1.00	1.063	1.00	100.00	100.00	0.584	0.584	1.00
6	11:27	1.00	1.311	1.00	100.00	100.00	0.909	0.909	1.00
7	16:59	1.00	1.181	1.00	100.00	100.00	0.837	0.837	1.00
8	2:17	1.00	0.306	1.00	100.00	100.00	0.482	0.482	1.00
9	2:49	1.00	0.377	1.00	100.00	100.00	0.826	0.826	1.00
10	2:25	1.00	0.323	1.00	100.00	100.00	0.518	0.518	1.00
11	2:57	1.00	0.394	1.00	100.00	100.00	0.441	0.441	1.00
12	3:18	0.99	0.440	0.99	100.00	100.00	1.411	1.411	1.00
13	4:00	0.99	0.534	1.00	100.00	100.00	0.480	0.480	1.00
14	4:01	0.99	0.536	1.00	100.00	100.00	0.825	0.825	1.00
15	4:07	1.00	0.550	1.00	100.00	100.00	0.081	0.081	1.00
16	4:18	1.00	0.574	1.00	100.00	100.00	1.091	1.091	1.00
17	5:50	1.00	0.779	1.00	100.00	100.00	0.436	0.436	1.00
18	4:41	1.00	0.626	1.00	100.00	100.00	0.514	0.514	1.00
19	7:00	1.00	0.936	1.00	100.00	100.00	0.421	0.421	1.00
20	5:05	1.00	0.680	1.00	100.00	100.00	0.508	0.508	1.00
21	5:43	0.99	0.764	1.00	100.00	100.00	0.887	0.887	1.00
22	6:41	1.00	0.893	1.00	100.00	100.00	0.048	0.048	1.00
23	7:08	1.00	0.954	1.00	100.00	100.00	1.068	1.068	1.00
24	7:26	1.00	0.993	1.00	100.00	100.00	0.886	0.886	1.00
25	7:43	1.00	0.884	1.00	100.00	100.00	0.431	0.431	1.00
26	8:03	1.00	0.922	1.00	100.00	100.00	0.797	0.797	1.00
27	8:05	1.00	0.925	1.00	100.00	100.00	0.485	0.485	1.00
28	9:11	1.00	1.051	1.00	100.00	100.00	0.541	0.541	1.00
29	9:33	1.00	1.094	1.00	100.00	100.00	0.400	0.400	1.00
30	10:05	1.00	1.155	1.00	100.00	100.00	0.753	0.753	1.00
31	10:41	1.00	1.224	1.00	100.00	100.00	0.029	0.029	1.00
32	10:56	1.00	1.252	1.00	94.00	94.00	0.568	0.568	1.00
33	11:17	1.00	1.291	1.00	100.00	100.00	0.364	0.364	1.00
34	11:35	1.00	1.326	1.00	100.00	100.00	0.601	0.601	1.00
35	12:02	1.00	1.378	1.00	106.00	106.00	0.450	0.450	1.00
36	12:23	1.00	1.419	1.00	100.00	100.00	0.398	0.398	1.00
37	12:40	1.00	0.881	1.00	100.00	100.00	0.761	0.761	1.00
38	12:58	1.00	0.902	1.00	100.00	100.00	0.216	0.216	1.00
39	13:10	1.00	0.916	1.00	100.00	100.00	0.885	0.885	1.00
40	14:27	1.00	1.004	1.00	100.00	100.00	1.206	1.206	1.00
41	14:43	1.00	1.023	1.00	100.00	100.00	0.524	0.524	1.00
42	15:52	1.00	1.103	1.00	100.00	100.00	1.033	1.033	1.00
43	16:13	1.00	1.128	1.00	100.00	100.00	0.711	0.711	1.00
44	17:22	1.00	0.885	1.00	100.00	100.00	0.806	0.806	1.00
45	20:31	1.00	1.046	1.00	100.00	100.00	1.398	1.398	1.00
46	14:59	1.00	1.042	1.00	300.00	300.00	0.663	0.663	1.00
47	13:23	1.00	0.931	1.00	100.00	100.00	0.802	0.802	1.00
48	4:12	0.99	0.561	1.00	100.00	100.00	1.269	1.269	1.00
49	9:47	1.00	1.120	1.00	100.00	100.00	0.458	0.458	1.00
50	6:37	1.00	0.884	1.00	100.00	100.00	0.595	0.595	1.00

Quantitation Report File: I1011100

Data: I1011100.TI
10/11/94 14:57:00
Sample: IC-100 8260 EXTENDED LIST
Conds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight 100.000
Submitted by: HIH/SWL Analyst: DBD Acct. No.: 5454/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp fac. from Library Entry

No	Name
51	C279 1,1,1,2-TETRACHLOROETHANE
52	C267 TRANS-1,4-DICHLORO-2-BUTENE
53	C278 1,2,3-TRICHLOROPROPANE
54	C277 P-DICHLOROBENZENE
55	C276 1,2-DIBROMO-3-CHLOROPROPANE
56	C032 DICHLORODIFLUOROMETHANE
57	C282 ISOBUTYL ALCOHOL
58	C275 ACETONITRILE
59	C259 ALLYL CHLORIDE
60	C285 PROPIONITRILE
61	C287 METHACRYLONITRILE
62	C288 METHYL METHACRYLATE
63	C289 ETHYL METHACRYLATE
64	C281 M-DICHLOROBENZENE
65	C298 EPICHLOROHYDRIN
66	C122 1,4-DIOXANE
67	C271 METHYL-TERT-BUTYL ETHER
68	C445 1,2,4-TRICHLOROBENZENE
69	C263 ACROLEIN
70	C264 ACRYLONITRILE
71	C309 BROMOBENZENE
72	C380 CUMENE
73	C300 N-PROPYLBENZENE
74	C301 2-CHLOROTOLUENE
75	C302 4-CHLOROTOLUENE
76	C385 1,3,5-TRIMETHYLBENZENE
77	C386 1,2,4-TRIMETHYLBENZENE
78	C303 TERT-BUTYLBENZENE
79	C304 SEC-BUTYLBENZENE
80	C311 N-BUTYLBENZENE
81	C390 P-CYMENE
82	C375 HEXACHLOROETHANE
83	C410 NITROBENZENE
84	C460 HEXACHLOROBUTADIENE
85	C450 NAPHTHALENE
86	C446 1,2,3-TRICHLOROBENZENE

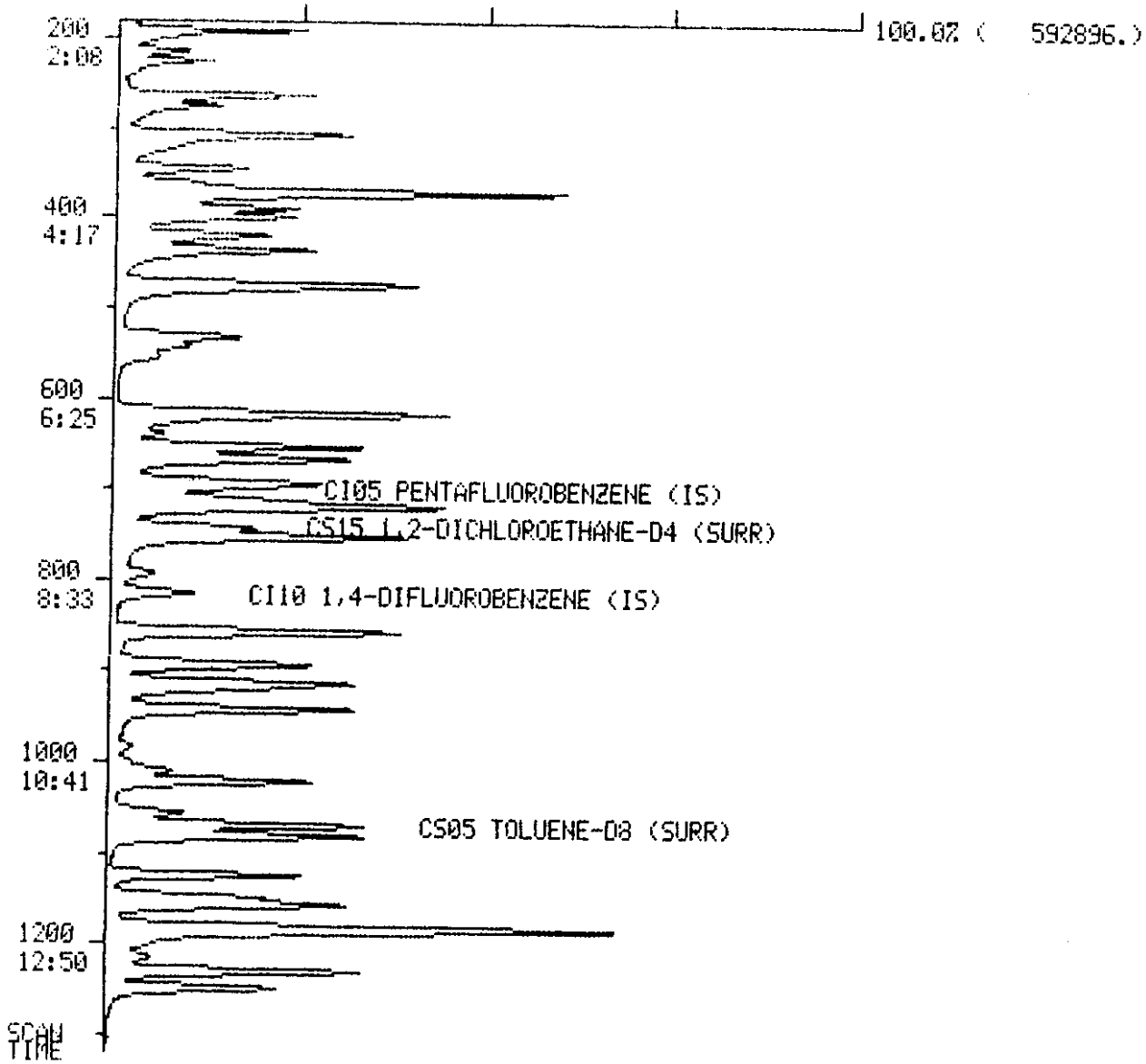
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	131	1368	14:37	3	1.018	A BB	199257.	100.000 UG/L	0.76
52	53	1638	17:31	3	1.219	A BB	36800.	100.000 UG/L	0.76
53	75	1630	17:25	4	0.888	A VB	193954.	100.000 UG/L	0.76
54	146	1841	19:41	4	1.003	A BB	368610.	100.000 UG/L	0.76
55	157	2093	22:22	4	1.140	A BB	83101.	100.000 UG/L	0.76
56	85	190	2:02	1	0.272	A BB	308473.	100.000 UG/L	0.76
57	45	345	3:41	1	0.494	A BB	73367.	1000.000 UG/L	7.63

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
58	41	421	4:30	1	0.602	A BB	245885.	1000.000	UG/L	7.63
59	76	420	4:29	1	0.601	A BB	31612.	100.000	UG/L	0.76
60	54	638	6:49	1	0.913	A BB	8265.	100.000	UG/L	0.76
61	41	711	7:36	1	1.017	A BB	140606.	100.000	UG/L	0.76
62	41	920	9:50	2	1.129	A BB	112754.	100.000	UG/L	0.76
63	41	1149	12:17	3	0.855	A BB	140523.	100.000	UG/L	0.76
64	146	1821	19:28	4	0.992	A BB	392073.	100.000	UG/L	0.76
65	57	1009	10:47	2	1.238	A BB	126659.	1000.000	UG/L	7.63
66	88	938	10:02	2	1.151	A BB	15098.	1000.000	UG/L	7.63
67	73	477	5:06	1	0.682	A BB	279755.	100.000	UG/L	0.76
68	180	2280	24:22	4	1.242	A BB	421156.	100.000	UG/L	0.76
69	56	361	3:52	1	0.516	A BB	58088.	1000.000	UG/L	7.63
70	53	473	5:03	1	0.677	A BB	20205.	100.000	UG/L	0.76
71	156	1616	17:17	4	0.880	A BB	252965.	100.000	UG/L	0.76
72	105	1559	16:40	4	0.849	A BB	635451.	100.000	UG/L	0.76
73	91	1647	17:36	4	0.897	A BV	642228.	100.000	UG/L	0.76
74	91	1660	17:45	4	0.904	A VB	419229.	100.000	UG/L	0.76
75	91	1685	18:01	4	0.918	A BB	579630.	100.000	UG/L	0.76
76	105	1686	18:01	4	0.918	A BB	538141.	100.000	UG/L	0.76
77	105	1766	18:53	4	0.962	A BB	535344.	100.000	UG/L	0.76
78	119	1754	18:45	4	0.955	A BB	680986.	100.000	UG/L	0.76
79	105	1802	19:16	4	0.981	A BB	808530.	100.000	UG/L	0.76
80	91	1926	20:35	4	1.049	A BB	587714.	100.000	UG/L	0.76
81	119	1837	19:38	4	1.001	A BB	624682.	100.000	UG/L	0.76
82	117	1976	21:07	4	1.076	A BB	104770.	100.000	UG/L	0.76
83	77	2141	22:53	4	1.166	A BB	14419.	100.000	UG/L	0.76
84	225	2325	24:51	4	1.266	A BB	298430.	100.000	UG/L	0.76
85	128	2332	24:56	4	1.270	A BB	469735.	100.000	UG/L	0.76
86	180	2388	25:32	4	1.301	A BB	359276.	100.000	UG/L	0.76

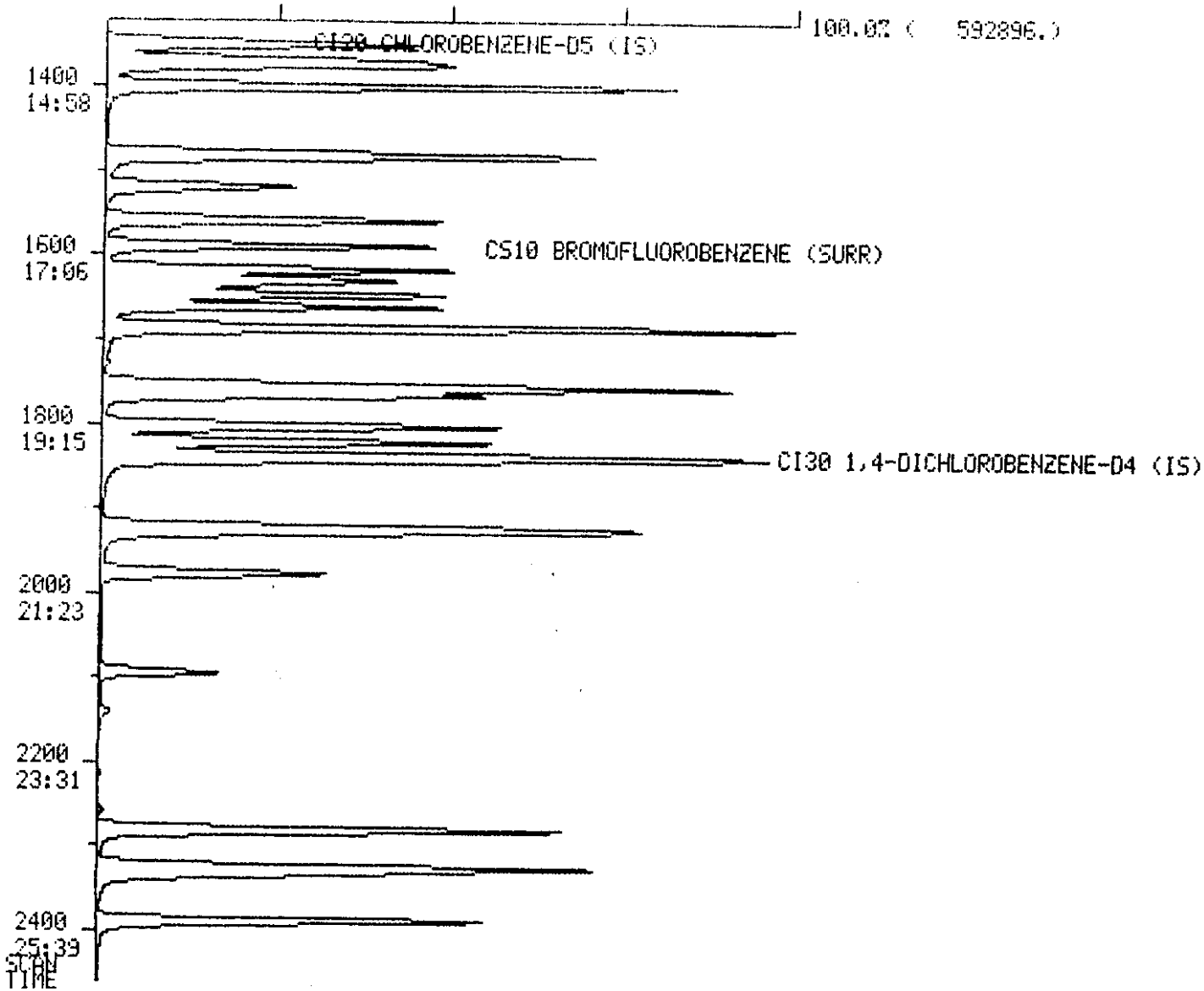
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	14:38	1.00	1.018	1.00	100.00	100.00	0.596	0.596	1.00
52	17:30	1.00	1.217	1.00	100.00	100.00	0.110	0.110	1.00
53	17:25	1.00	0.888	1.00	100.00	100.00	0.644	0.644	1.00
54	19:41	1.00	1.003	1.00	100.00	100.00	1.225	1.225	1.00
55	22:23	1.00	1.141	1.00	100.00	100.00	0.276	0.276	1.00
56	2:03	0.99	0.273	1.00	100.00	100.00	0.974	0.974	1.00
57	3:43	0.99	0.496	1.00	1000.00	1000.00	0.023	0.023	1.00
58	4:31	1.00	0.603	1.00	1000.00	1000.00	0.078	0.078	1.00
59	4:31	1.00	0.603	1.00	100.00	100.00	0.100	0.100	1.00
60	6:49	1.00	0.911	1.00	100.00	100.00	0.026	0.026	1.00
61	7:37	1.00	1.019	1.00	100.00	100.00	0.444	0.444	1.00
62	9:51	1.00	1.127	1.00	100.00	100.00	0.276	0.276	1.00
63	12:17	1.00	0.854	1.00	100.00	100.00	0.420	0.420	1.00
64	19:28	1.00	0.992	1.00	100.00	100.00	1.303	1.303	1.00
65	10:47	1.00	1.235	1.00	1000.00	1000.00	0.031	0.031	1.00
66	9:57	1.01	1.138	1.01	1000.00	1000.00	0.004	0.004	1.00
67	5:07	1.00	0.684	1.00	100.00	100.00	0.883	0.883	1.00
68	24:22	1.00	1.242	1.00	100.00	100.00	1.399	1.399	1.00
69	3:52	1.00	0.517	1.00	1000.00	1000.00	0.018	0.018	1.00
70	5:05	1.00	0.679	1.00	100.00	100.00	0.064	0.064	1.00
71	17:17	1.00	0.881	1.00	100.00	100.00	0.840	0.840	1.00
72	16:40	1.00	0.849	1.00	100.00	100.00	2.111	2.111	1.00
73	17:36	1.00	0.897	1.00	100.00	100.00	2.134	2.134	1.00
74	17:45	1.00	0.905	1.00	100.00	100.00	1.393	1.393	1.00
75	18:01	1.00	0.918	1.00	100.00	100.00	1.926	1.926	1.00

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
76	18:01	1.00	0.918	1.00	100.00	100.00	1.788	1.788	1.00
77	18:53	1.00	0.962	1.00	100.00	100.00	1.779	1.779	1.00
78	18:46	1.00	0.956	1.00	100.00	100.00	2.263	2.263	1.00
79	19:16	1.00	0.982	1.00	100.00	100.00	2.686	2.686	1.00
80	20:36	1.00	1.050	1.00	100.00	100.00	1.953	1.953	1.00
81	19:38	1.00	1.001	1.00	100.00	100.00	2.075	2.075	1.00
82	21:07	1.00	1.076	1.00	100.00	100.00	0.348	0.348	1.00
83	22:53	1.00	1.166	1.00	100.00	100.00	0.048	0.048	1.00
84	24:51	1.00	1.266	1.00	100.00	100.00	0.992	0.992	1.00
85	24:56	1.00	1.271	1.00	100.00	100.00	1.561	1.561	1.00
86	25:32	1.00	1.301	1.00	100.00	100.00	1.194	1.194	1.00

DATA FROM FILE: I1011150 SCANS 180 TO 1320 ACQUIRED: 10/11/94 15:34:00
CALI: I1011150 #3 OUT OF 180 TO 2460
SAMPLE: IC-150 8260 EXTENDED LIST
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



DATA FROM FILE: I1011150 SCANS 1320 TO 2460 ACQUIRED: 10/11/94 15:34:00
CALI: I1011150 #3 OUT OF 180 TO 2460
SAMPLE: IC-150 8260 EXTENDED LIST
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



Quantitation Report File: I1011150

Data: I1011150.TI
10/11/94 15:34:00
Sample: IC-150 8260 EXTENDED LIST
Conds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 150.000
Submitted by: HIH/SWL Analyst: DBD Acct. No.: 5454/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI05 PENTAFLUOROBENZENE (IS)
2	CI10 1,4-DIFLUOROBENZENE (IS)
3	CI20 CHLOROBENZENE-D5 (IS)
4	CI30 1,4-DICHLOROBENZENE-D4 (IS)
5	CS15 1,2-DICHLOROETHANE-D4 (SURR)
6	CS05 TOLUENE-D8 (SURR)
7	CS10 BROMOFLUOROBENZENE (SURR)
8	C010 CHLOROMETHANE
9	C015 BROMOMETHANE
10	C020 VINYL CHLORIDE
11	C025 CHLOROETHANE
12	C031 TRICHLOROFLUOROMETHANE
13	C045 1,1-DICHLOROETHENE
14	C261 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE
15	C035 ACETONE
16	C040 CARBON DISULFIDE
17	C125 VINYL ACETATE
18	C030 METHYLENE CHLORIDE
19	C308 BROMOCHLOROMETHANE
20	C053 TRANS-1,2-DICHLOROETHENE
21	C050 1,1-DICHLOROETHANE
22	C110 2-BUTANONE (MEK)
23	C060 CHLOROFORM
24	C115 1,1,1-TRICHLOROETHANE
25	C120 CARBON TETRACHLORIDE
26	C165 BENZENE
27	C065 1,2-DICHLOROETHANE
28	C150 TRICHLOROETHENE
29	C140 1,2-DICHLOROPROPANE
30	C130 BROMODICHLOROMETHANE
31	C175 2-CHLOROETHYLVINYL ETHER
32	C143 CIS-1,3-DICHLOROPROPENE
33	C205 4-METHYL-2-PENTANONE (MIBK)
34	C230 TOLUENE
35	C172 TRANS-1,3-DICHLOROPROPENE
36	C160 1,1,2-TRICHLOROETHANE
37	C220 TETRACHLOROETHENE
38	C210 2-HEXANONE
39	C155 DIBROMOCHLOROMETHANE
40	C235 CHLOROBENZENE
41	C240 ETHYL BENZENE
42	C245 STYRENE
43	C180 BROMOFORM
44	C225 1,1,2,2-TETRACHLOROETHANE
45	C292 O-DICHLOROBENZENE
46	C250 M & P-XYLENE
47	C147 ETHYLENE DIBROMIDE

No	Name
48	C254 IODOMETHANE
49	C148 DIBROMOMETHANE
50	C280 CIS-1,2-DICHLOROETHENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	168	697	7:27	1	1.000	A BB	168696.	50.000 UG/L	0.26
2	114	814	8:42	2	1.000	A BB	212779.	50.000 UG/L	0.26
3	117	1343	14:21	3	1.000	A BB	179302.	50.000 UG/L	0.26
4	150	1836	19:38	4	1.000	A BB	183040.	50.000 UG/L	0.26
5	65	740	7:55	1	1.062	A BB	292549.	150.000 UG/L	0.77
6	98	1068	11:25	2	1.312	A BB	617513.	150.000 UG/L	0.77
7	95	1587	16:58	3	1.182	A BB	499618.	150.000 UG/L	0.77
8	50	211	2:15	1	0.303	A BB	231867.	150.000 UG/L	0.77
9	94	261	2:47	1	0.374	A BB	379765.	150.000 UG/L	0.77
10	62	223	2:23	1	0.320	A BB	237061.	150.000 UG/L	0.77
11	64	273	2:55	1	0.392	A BB	216403.	150.000 UG/L	0.77
12	101	304	3:15	1	0.436	A BB	656676.	150.000 UG/L	0.77
13	96	369	3:57	1	0.529	A BB	243176.	150.000 UG/L	0.77
14	101	370	3:57	1	0.531	A BB	425364.	150.000 UG/L	0.77
15	43	384	4:06	1	0.551	A BB	38216.	150.000 UG/L	0.77
16	76	397	4:15	1	0.570	A BB	526752.	150.000 UG/L	0.77
17	43	541	5:47	1	0.776	A BB	223506.	150.000 UG/L	0.77
18	84	434	4:38	1	0.623	A BB	252184.	150.000 UG/L	0.77
19	128	651	6:58	1	0.934	A BB	202634.	150.000 UG/L	0.77
20	96	472	5:03	1	0.677	A BB	247289.	150.000 UG/L	0.77
21	63	531	5:41	1	0.762	A BB	427085.	150.000 UG/L	0.77
22	72	623	6:40	1	0.894	A BB	18828.	150.000 UG/L	0.77
23	83	665	7:07	1	0.954	A BB	501174.	150.000 UG/L	0.77
24	97	691	7:23	1	0.991	A BB	430851.	150.000 UG/L	0.77
25	117	718	7:41	2	0.882	A BB	297777.	150.000 UG/L	0.77
26	78	750	8:01	2	0.921	A BB	502583.	150.000 UG/L	0.77
27	62	753	8:03	2	0.925	A BB	314425.	150.000 UG/L	0.77
28	130	856	9:09	2	1.052	A BB	335980.	150.000 UG/L	0.77
29	63	891	9:31	2	1.095	A BB	254309.	150.000 UG/L	0.77
30	83	941	10:04	2	1.156	A BB	488499.	150.000 UG/L	0.77
31	63	997	10:39	2	1.225	A BB	24407.	150.000 UG/L	0.77
32	75	1020	10:54	2	1.253	A BB	345353.	159.000 UG/L	0.81
33	43	1054	11:16	2	1.295	A BB	221652.	150.000 UG/L	0.77
34	92	1080	11:33	2	1.327	A BB	374081.	150.000 UG/L	0.77
35	75	1123	12:00	2	1.380	A BB	319339.	141.000 UG/L	0.72
36	97	1157	12:22	2	1.421	A BB	252975.	150.000 UG/L	0.77
37	164	1182	12:38	3	0.880	A BB	349057.	150.000 UG/L	0.77
38	43	1214	12:59	3	0.904	A BB	113911.	150.000 UG/L	0.77
39	129	1230	13:09	3	0.916	A BB	481230.	150.000 UG/L	0.77
40	112	1348	14:25	3	1.004	A BB	644439.	150.000 UG/L	0.77
41	106	1374	14:41	3	1.023	A BB	275304.	150.000 UG/L	0.77
42	104	1482	15:51	3	1.103	A BB	533862.	150.000 UG/L	0.77
43	173	1517	16:13	3	1.130	A BB	387834.	150.000 UG/L	0.77
44	83	1626	17:23	4	0.886	A BB	393624.	150.000 UG/L	0.77
45	146	1920	20:31	4	1.046	A BB	682595.	150.000 UG/L	0.77
46	106	1398	14:57	3	1.041	A*BB	1039140.	450.000 UG/L	2.30
47	107	1249	13:21	3	0.930	A BB	423921.	150.000 UG/L	0.77
48	142	388	4:09	1	0.557	A BB	585882.	150.000 UG/L	0.77
49	93	912	9:45	2	1.120	A BB	282933.	150.000 UG/L	0.77
50	96	616	6:35	1	0.884	A BB	274282.	150.000 UG/L	0.77

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	7:28	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	8:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	14:21	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	19:37	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
5	7:55	1.00	1.060	1.00	150.00	150.00	0.578	0.578	1.00
6	11:25	1.00	1.312	1.00	150.00	150.00	0.967	0.967	1.00
7	16:58	1.00	1.182	1.00	150.00	150.00	0.929	0.929	1.00
8	2:15	1.00	0.301	1.01	150.00	150.00	0.458	0.458	1.00
9	2:47	1.00	0.374	1.00	150.00	150.00	0.750	0.750	1.00
10	2:22	1.00	0.318	1.01	150.00	150.00	0.468	0.468	1.00
11	2:55	1.00	0.391	1.00	150.00	150.00	0.428	0.428	1.00
12	3:16	1.00	0.437	1.00	150.00	150.00	1.298	1.298	1.00
13	3:58	0.99	0.532	1.00	150.00	150.00	0.481	0.481	1.00
14	3:59	0.99	0.533	1.00	150.00	150.00	0.840	0.840	1.00
15	4:04	1.01	0.546	1.01	150.00	150.00	0.076	0.076	1.00
16	4:16	0.99	0.572	1.00	150.00	150.00	1.041	1.041	1.00
17	5:47	1.00	0.775	1.00	150.00	150.00	0.442	0.442	1.00
18	4:39	1.00	0.623	1.00	150.00	150.00	0.498	0.498	1.00
19	6:58	1.00	0.934	1.00	150.00	150.00	0.400	0.400	1.00
20	5:03	1.00	0.678	1.00	150.00	150.00	0.489	0.489	1.00
21	5:41	1.00	0.761	1.00	150.00	150.00	0.844	0.844	1.00
22	6:39	1.00	0.891	1.00	150.00	150.00	0.037	0.037	1.00
23	7:07	1.00	0.953	1.00	150.00	150.00	0.990	0.990	1.00
24	7:24	1.00	0.991	1.00	150.00	150.00	0.851	0.851	1.00
25	7:41	1.00	0.883	1.00	150.00	150.00	0.466	0.466	1.00
26	8:01	1.00	0.921	1.00	150.00	150.00	0.787	0.787	1.00
27	8:02	1.00	0.924	1.00	150.00	150.00	0.493	0.493	1.00
28	9:09	1.00	1.052	1.00	150.00	150.00	0.526	0.526	1.00
29	9:32	1.00	1.096	1.00	150.00	150.00	0.398	0.398	1.00
30	10:04	1.00	1.156	1.00	150.00	150.00	0.765	0.765	1.00
31	10:45	0.99	1.236	0.99	150.00	150.00	0.038	0.038	1.00
32	10:55	1.00	1.254	1.00	159.00	159.00	0.510	0.510	1.00
33	11:15	1.00	1.294	1.00	150.00	150.00	0.347	0.347	1.00
34	11:33	1.00	1.327	1.00	150.00	150.00	0.586	0.586	1.00
35	12:00	1.00	1.380	1.00	141.00	141.00	0.532	0.532	1.00
36	12:21	1.00	1.420	1.00	150.00	150.00	0.396	0.396	1.00
37	12:38	1.00	0.880	1.00	150.00	150.00	0.649	0.649	1.00
38	12:57	1.00	0.902	1.00	150.00	150.00	0.212	0.212	1.00
39	13:09	1.00	0.916	1.00	150.00	150.00	0.895	0.895	1.00
40	14:25	1.00	1.004	1.00	150.00	150.00	1.198	1.198	1.00
41	14:41	1.00	1.023	1.00	150.00	150.00	0.512	0.512	1.00
42	15:51	1.00	1.104	1.00	150.00	150.00	0.992	0.992	1.00
43	16:12	1.00	1.128	1.00	150.00	150.00	0.721	0.721	1.00
44	17:21	1.00	0.884	1.00	150.00	150.00	0.717	0.717	1.00
45	20:31	1.00	1.046	1.00	150.00	150.00	1.243	1.243	1.00
46	14:57	1.00	1.042	1.00	450.00	450.00	0.644	0.644	1.00
47	13:21	1.00	0.930	1.00	150.00	150.00	0.788	0.788	1.00
48	4:10	0.99	0.559	1.00	150.00	150.00	1.158	1.158	1.00
49	9:45	1.00	1.120	1.00	150.00	150.00	0.443	0.443	1.00
50	6:35	1.00	0.883	1.00	150.00	150.00	0.542	0.542	1.00

Quantitation Report File: I1011150

Data: I1011150.TI
10/11/94 15:34:00
Sample: IC-150 8260 EXTENDED LIST
`onds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 150.000
Submitted by: HIH/SWL Analyst: DBD Acct. No.: 5454/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	C279 1,1,1,2-TETRACHLOROETHANE
52	C267 TRANS-1,4-DICHLORO-2-BUTENE
53	C278 1,2,3-TRICHLOROPROPANE
54	C277 P-DICHLOROBENZENE
55	C276 1,2-DIBROMO-3-CHLOROPROPANE
56	C032 DICHLORODIFLUOROMETHANE
57	C282 ISOBUTYL ALCOHOL
58	C275 ACETONITRILE
59	C259 ALLYL CHLORIDE
60	C285 PROPIONITRILE
61	C287 METHACRYLONITRILE
62	C288 METHYL METHACRYLATE
63	C289 ETHYL METHACRYLATE
64	C281 M-DICHLOROBENZENE
65	C298 EPICHLOROHYDRIN
66	C122 1,4-DIOXANE
67	C271 METHYL-TERT-BUTYL ETHER
68	C445 1,2,4-TRICHLOROBENZENE
69	C263 ACROLEIN
70	C264 ACRYLONITRILE
71	C309 BROMOBENZENE
72	C380 CUMENE
73	C300 N-PROPYLBENZENE
74	C301 2-CHLOROTOLUENE
75	C302 4-CHLOROTOLUENE
76	C385 1,3,5-TRIMETHYLBENZENE
77	C386 1,2,4-TRIMETHYLBENZENE
78	C303 TERT-BUTYLBENZENE
79	C304 SEC-BUTYLBENZENE
80	C311 N-BUTYLBENZENE
81	C390 P-CYMENE
82	C375 HEXACHLOROETHANE
83	C410 NITROBENZENE
84	C460 HEXACHLOROBUTADIENE
85	C450 NAPHTHALENE
86	C446 1,2,3-TRICHLOROBENZENE

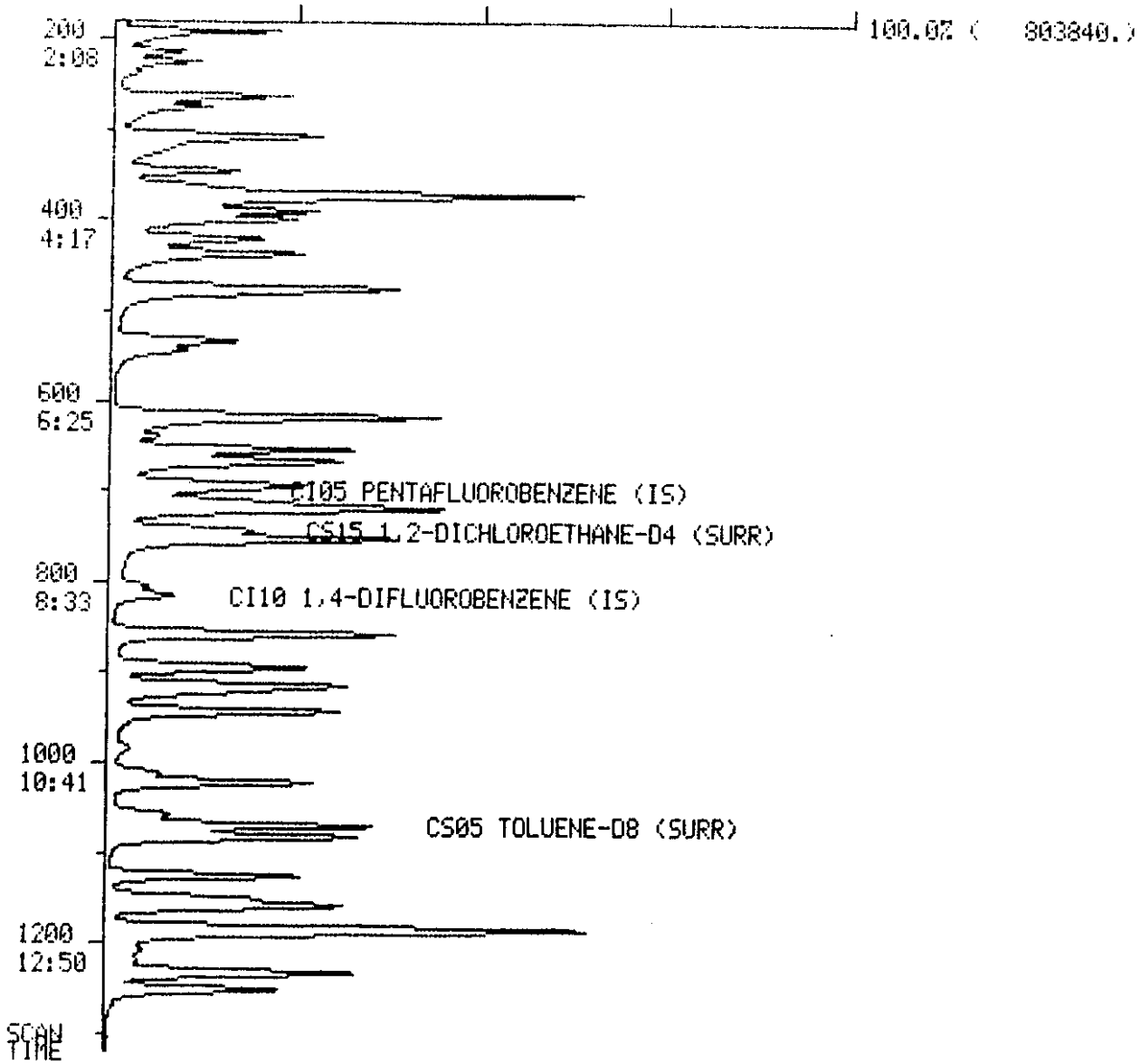
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
51	131	1366	14:36	3	1.017	A BB	330234.	150.000	UG/L	0.77
52	53	1638	17:31	3	1.220	A BB	61161.	150.000	UG/L	0.77
53	75	1631	17:26	4	0.888	A BB	305380.	150.000	UG/L	0.77
54	146	1841	19:41	4	1.003	A BB	604227.	150.000	UG/L	0.77
55	157	2092	22:22	4	1.139	A BB	140499.	150.000	UG/L	0.77
56	85	189	2:01	1	0.271	A BB	473334.	150.000	UG/L	0.77
57	45	343	3:40	1	0.492	A BB	204066.	1500.000	UG/L	7.67

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
58	41	418	4:28	1	0.600	A BB	379207.	1500.000	UG/L	7.67
59	76	418	4:28	1	0.600	A BB	51890.	150.000	UG/L	0.77
60	54	636	6:48	1	0.912	A BB	11755.	150.000	UG/L	0.77
61	41	709	7:35	1	1.017	A BB	221343.	150.000	UG/L	0.77
62	41	919	9:49	2	1.129	A BB	180550.	150.000	UG/L	0.77
63	41	1148	12:16	3	0.855	A BB	228121.	150.000	UG/L	0.77
64	146	1820	19:27	4	0.991	A BB	638007.	150.000	UG/L	0.77
65	57	1008	10:47	2	1.238	A BB	191168.	1500.000	UG/L	7.67
66	88	946	10:07	2	1.162	A BB	16990.	1500.000	UG/L	7.67
67	73	475	5:05	1	0.681	A BB	421700.	150.000	UG/L	0.77
68	180	2279	24:22	4	1.241	A BB	637180.	150.000	UG/L	0.77
69	56	359	3:50	1	0.515	A BB	175392.	1500.000	UG/L	7.67
70	53	472	5:03	1	0.677	A BB	33601.	150.000	UG/L	0.77
71	156	1615	17:16	4	0.880	A BB	411187.	150.000	UG/L	0.77
72	105	1557	16:39	4	0.848	A BB	988188.	150.000	UG/L	0.77
73	91	1645	17:35	4	0.896	A BV	992084.	150.000	UG/L	0.77
74	91	1659	17:44	4	0.904	A VB	660808.	150.000	UG/L	0.77
75	91	1683	17:59	4	0.917	A BB	946684.	150.000	UG/L	0.77
76	105	1685	18:01	4	0.918	A BB	862459.	150.000	UG/L	0.77
77	105	1764	18:51	4	0.961	A BB	842175.	150.000	UG/L	0.77
78	119	1753	18:44	4	0.955	A BB	1118100.	150.000	UG/L	0.77
79	105	1801	19:15	4	0.981	A BB	1280420.	150.000	UG/L	0.77
80	91	1926	20:35	4	1.049	A BB	947661.	150.000	UG/L	0.77
81	119	1836	19:38	4	1.000	A BB	1009300.	150.000	UG/L	0.77
82	117	1975	21:07	4	1.076	A BB	210864.	150.000	UG/L	0.77
83	77	2139	22:52	4	1.165	A BB	19914.	150.000	UG/L	0.77
84	225	2323	24:50	4	1.265	A BB	443637.	150.000	UG/L	0.77
85	128	2332	24:56	4	1.270	A BB	726184.	150.000	UG/L	0.77
86	180	2386	25:30	4	1.300	A BB	523177.	150.000	UG/L	0.77

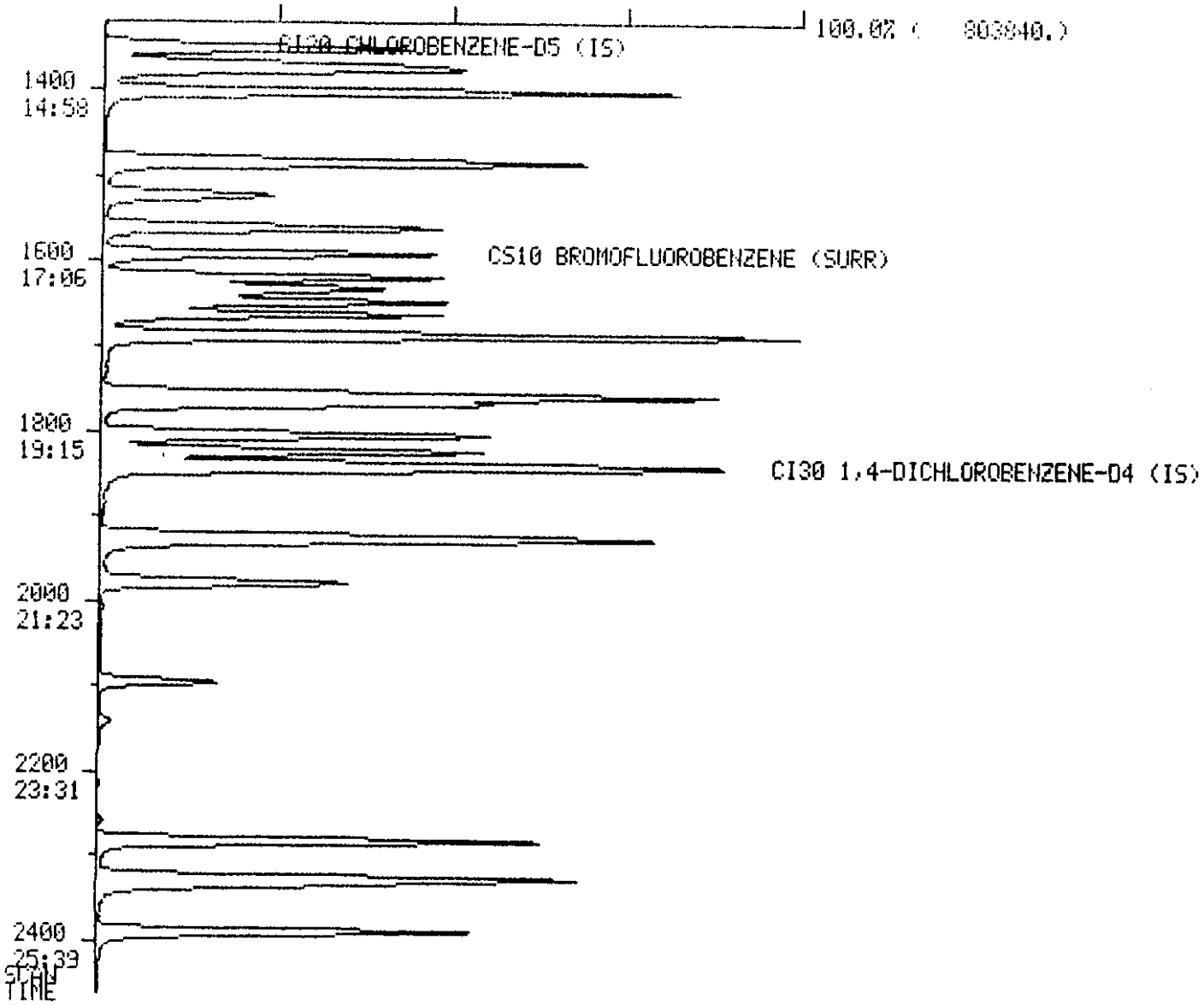
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	14:37	1.00	1.018	1.00	150.00	150.00	0.614	0.614	1.00
52	17:29	1.00	1.217	1.00	150.00	150.00	0.114	0.114	1.00
53	17:24	1.00	0.887	1.00	150.00	150.00	0.556	0.556	1.00
54	19:40	1.00	1.003	1.00	150.00	150.00	1.100	1.100	1.00
55	22:22	1.00	1.140	1.00	150.00	150.00	0.256	0.256	1.00
56	2:01	1.01	0.269	1.01	150.00	150.00	0.935	0.935	1.00
57	3:40	1.00	0.491	1.00	1500.00	1500.00	0.040	0.040	1.00
58	4:29	1.00	0.602	1.00	1500.00	1500.00	0.075	0.075	1.00
59	4:29	1.00	0.600	1.00	150.00	150.00	0.103	0.103	1.00
60	6:47	1.00	0.910	1.00	150.00	150.00	0.023	0.023	1.00
61	7:35	1.00	1.016	1.00	150.00	150.00	0.437	0.437	1.00
62	9:49	1.00	1.128	1.00	150.00	150.00	0.283	0.283	1.00
63	12:16	1.00	0.854	1.00	150.00	150.00	0.424	0.424	1.00
64	19:27	1.00	0.992	1.00	150.00	150.00	1.162	1.162	1.00
65	10:45	1.00	1.236	1.00	1500.00	1500.00	0.030	0.030	1.00
66	9:53	1.02	1.135	1.02	1500.00	1500.00	0.003	0.003	1.00
67	5:05	1.00	0.681	1.00	150.00	150.00	0.833	0.833	1.00
68	24:22	1.00	1.243	1.00	150.00	150.00	1.160	1.160	1.00
69	3:50	1.00	0.514	1.00	1500.00	1500.00	0.035	0.035	1.00
70	5:02	1.00	0.675	1.00	150.00	150.00	0.066	0.066	1.00
71	17:15	1.00	0.880	1.00	150.00	150.00	0.749	0.749	1.00
72	16:39	1.00	0.849	1.00	150.00	150.00	1.800	1.800	1.00
73	17:35	1.00	0.896	1.00	150.00	150.00	1.807	1.807	1.00
74	17:44	1.00	0.904	1.00	150.00	150.00	1.203	1.203	1.00
75	18:00	1.00	0.918	1.00	150.00	150.00	1.724	1.724	1.00

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
76	18:01	1.00	0.918	1.00	150.00	150.00	1.571	1.571	1.00
77	18:52	1.00	0.962	1.00	150.00	150.00	1.534	1.534	1.00
78	18:44	1.00	0.955	1.00	150.00	150.00	2.036	2.036	1.00
79	19:16	1.00	0.982	1.00	150.00	150.00	2.332	2.332	1.00
80	20:35	1.00	1.050	1.00	150.00	150.00	1.726	1.726	1.00
81	19:38	1.00	1.001	1.00	150.00	150.00	1.838	1.838	1.00
82	21:07	1.00	1.076	1.00	150.00	150.00	0.384	0.384	1.00
83	22:53	1.00	1.166	1.00	150.00	150.00	0.036	0.036	1.00
84	24:51	1.00	1.266	1.00	150.00	150.00	0.808	0.808	1.00
85	24:56	1.00	1.271	1.00	150.00	150.00	1.322	1.322	1.00
86	25:31	1.00	1.301	1.00	150.00	150.00	0.953	0.953	1.00

DATA FROM FILE: I1011200 SCANS 180 TO 1320 ACQUIRED: 10/11/94 16:10:00
CALI: I1011200 #3 OUT OF 180 TO 2460
SAMPLE: IC-200 8260 EXTENDED LIST
CONDS.: 40(3) 40-120 @ 6/MIN WATER MATRIX



DATA FROM FILE: I1011200 SCANS 1320 TO 2460 ACQUIRED: 10/11/94 16:10:00
CALI: I1011200 #3 OUT OF 180 TO 2460
SAMPLE: IC-200 8260 EXTENDED LIST
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



Quantitation Report File: I1011200

Data: I1011200.TI
10/11/94 16:10:00
Sample: IC-200 8260 EXTENDED LIST
onds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 200.000
Submitted by: HIH/SWL Analyst: DBD Acct. No.: 5454/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI05 PENTAFLUOROBENZENE (IS)
2	CI10 1,4-DIFLUOROBENZENE (IS)
3	CI20 CHLOROBENZENE-D5 (IS)
4	CI30 1,4-DICHLOROBENZENE-D4 (IS)
5	CS15 1,2-DICHLOROETHANE-D4 (SURR)
6	CS05 TOLUENE-D8 (SURR)
7	CS10 BROMOFLUOROBENZENE (SURR)
8	C010 CHLOROMETHANE
9	C015 BROMOMETHANE
10	C020 VINYL CHLORIDE
11	C025 CHLOROETHANE
12	C031 TRICHLOROFLUOROMETHANE
13	C045 1,1-DICHLOROETHENE
14	C261 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE
15	C035 ACETONE
16	C040 CARBON DISULFIDE
17	C125 VINYL ACETATE
18	C030 METHYLENE CHLORIDE
19	C308 BROMOCHLOROMETHANE
20	C053 TRANS-1,2-DICHLOROETHENE
21	C050 1,1-DICHLOROETHANE
22	C110 2-BUTANONE (MEK)
23	C060 CHLOROFORM
24	C115 1,1,1-TRICHLOROETHANE
25	C120 CARBON TETRACHLORIDE
26	C165 BENZENE
27	C065 1,2-DICHLOROETHANE
28	C150 TRICHLOROETHENE
29	C140 1,2-DICHLOROPROPANE
30	C130 BROMODICHLOROMETHANE
31	C175 2-CHLOROETHYLVINYL ETHER
32	C143 CIS-1,3-DICHLOROPROPENE
33	C205 4-METHYL-2-PENTANONE (MIBK)
34	C230 TOLUENE
35	C172 TRANS-1,3-DICHLOROPROPENE
36	C160 1,1,2-TRICHLOROETHANE
37	C220 TETRACHLOROETHENE
38	C210 2-HEXANONE
39	C155 DIBROMOCHLOROMETHANE
40	C235 CHLOROBENZENE
41	C240 ETHYL BENZENE
42	C245 STYRENE
43	C180 BROMOFORM
44	C225 1,1,2,2-TETRACHLOROETHANE
45	C292 O-DICHLOROBENZENE
46	C250 M & P-XYLENE
47	C147 ETHYLENE DIBROMIDE

No	Name
48	C254 IODOMETHANE
49	C148 DIBROMOMETHANE
50	C280 CIS-1,2-DICHLOROETHENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	168	698	7:28	1	1.000	A BB	161582.	50.000 UG/L	0.19
2	114	814	8:42	2	1.000	A BB	209855.	50.000 UG/L	0.19
3	117	1344	14:22	3	1.000	A BB	169311.	50.000 UG/L	0.19
4	150	1839	19:40	4	1.000	A BB	181491.	50.000 UG/L	0.19
5	65	741	7:55	1	1.062	A BB	406587.	200.000 UG/L	0.77
6	98	1069	11:26	2	1.313	A BB	853163.	200.000 UG/L	0.77
7	95	1589	16:59	3	1.182	A BB	709320.	200.000 UG/L	0.77
8	50	211	2:15	1	0.302	A BB	316880.	200.000 UG/L	0.77
9	94	261	2:47	1	0.374	A BB	469435.	200.000 UG/L	0.77
10	62	223	2:23	1	0.319	A BB	310525.	200.000 UG/L	0.77
11	64	273	2:55	1	0.391	A BB	269779.	200.000 UG/L	0.77
12	101	305	3:16	1	0.437	A BB	812572.	200.000 UG/L	0.77
13	96	370	3:57	1	0.530	A BB	336465.	200.000 UG/L	0.77
14	101	371	3:58	1	0.532	A BB	583969.	200.000 UG/L	0.77
15	43	384	4:06	1	0.550	A BB	84431.	200.000 UG/L	0.77
16	76	397	4:15	1	0.569	A BB	733532.	200.000 UG/L	0.77
17	43	542	5:48	1	0.777	A BB	310262.	200.000 UG/L	0.77
18	84	434	4:38	1	0.622	A BB	333198.	200.000 UG/L	0.77
19	128	652	6:58	1	0.934	A BB	270170.	200.000 UG/L	0.77
20	96	472	5:03	1	0.676	A BB	332113.	200.000 UG/L	0.77
21	63	531	5:41	1	0.761	A BB	560577.	200.000 UG/L	0.77
22	72	625	6:41	1	0.895	A BB	24523.	200.000 UG/L	0.77
23	83	666	7:07	1	0.954	A BB	665740.	200.000 UG/L	0.77
24	97	692	7:24	1	0.991	A BB	571799.	200.000 UG/L	0.77
25	117	718	7:41	2	0.882	A BB	409038.	200.000 UG/L	0.77
26	78	750	8:01	2	0.921	A BB	679067.	200.000 UG/L	0.77
27	62	753	8:03	2	0.925	A BB	431552.	200.000 UG/L	0.77
28	130	856	9:09	2	1.052	A BB	453316.	200.000 UG/L	0.77
29	63	892	9:32	2	1.096	A BB	351363.	200.000 UG/L	0.77
30	83	942	10:04	2	1.157	A BB	654932.	200.000 UG/L	0.77
31	63	1010	10:48	2	1.241	A BV	6172.	200.000 UG/L	0.77
32	75	1021	10:55	2	1.254	A BB	473694.	212.000 UG/L	0.82
33	43	1056	11:17	2	1.297	A BB	290544.	200.000 UG/L	0.77
34	92	1081	11:33	2	1.328	A BB	502261.	200.000 UG/L	0.77
35	75	1124	12:01	2	1.381	A BB	447943.	188.000 UG/L	0.72
36	97	1158	12:23	2	1.423	A BB	348814.	200.000 UG/L	0.77
37	164	1182	12:38	3	0.879	A BB	448119.	200.000 UG/L	0.77
38	43	1219	13:02	3	0.907	A BB	111954.	200.000 UG/L	0.77
39	129	1232	13:10	3	0.917	A BB	629720.	200.000 UG/L	0.77
40	112	1350	14:26	3	1.004	A BB	875956.	200.000 UG/L	0.77
41	106	1375	14:42	3	1.023	A BB	367609.	200.000 UG/L	0.77
42	104	1484	15:52	3	1.104	A BB	740906.	200.000 UG/L	0.77
43	173	1521	16:16	3	1.132	A BB	531630.	200.000 UG/L	0.77
44	83	1629	17:25	4	0.886	A BB	530608.	200.000 UG/L	0.77
45	146	1922	20:33	4	1.045	A BB	907826.	200.000 UG/L	0.77
46	106	1400	14:58	3	1.042	A*BB	1406850.	600.000 UG/L	2.31
47	107	1250	13:22	3	0.930	A BB	552089.	200.000 UG/L	0.77
48	142	389	4:10	1	0.557	A BB	802095.	200.000 UG/L	0.77
49	93	913	9:46	2	1.122	A BB	385352.	200.000 UG/L	0.77
50	96	616	6:35	1	0.883	A BB	373973.	200.000 UG/L	0.77

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	7:28	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	8:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	14:22	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	19:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
5	7:55	1.00	1.062	1.00	200.00	200.00	0.629	0.629	1.00
6	11:26	1.00	1.313	1.00	200.00	200.00	1.016	1.016	1.00
7	16:59	1.00	1.182	1.00	200.00	200.00	1.047	1.047	1.00
8	2:15	1.00	0.302	1.00	200.00	200.00	0.490	0.490	1.00
9	2:47	1.00	0.374	1.00	200.00	200.00	0.726	0.726	1.00
10	2:23	1.00	0.319	1.00	200.00	200.00	0.480	0.480	1.00
11	2:55	1.00	0.391	1.00	200.00	200.00	0.417	0.417	1.00
12	3:16	1.00	0.437	1.00	200.00	200.00	1.257	1.257	1.00
13	3:57	1.00	0.530	1.00	200.00	200.00	0.521	0.521	1.00
14	3:58	1.00	0.532	1.00	200.00	200.00	0.904	0.904	1.00
15	4:06	1.00	0.550	1.00	200.00	200.00	0.131	0.131	1.00
16	4:15	1.00	0.569	1.00	200.00	200.00	1.135	1.135	1.00
17	5:48	1.00	0.777	1.00	200.00	200.00	0.480	0.480	1.00
18	4:38	1.00	0.622	1.00	200.00	200.00	0.516	0.516	1.00
19	6:58	1.00	0.934	1.00	200.00	200.00	0.418	0.418	1.00
20	5:03	1.00	0.676	1.00	200.00	200.00	0.514	0.514	1.00
21	5:41	1.00	0.761	1.00	200.00	200.00	0.867	0.867	1.00
22	6:41	1.00	0.895	1.00	200.00	200.00	0.038	0.038	1.00
23	7:07	1.00	0.954	1.00	200.00	200.00	1.030	1.030	1.00
24	7:24	1.00	0.991	1.00	200.00	200.00	0.885	0.885	1.00
25	7:41	1.00	0.882	1.00	200.00	200.00	0.487	0.487	1.00
26	8:01	1.00	0.921	1.00	200.00	200.00	0.809	0.809	1.00
27	8:03	1.00	0.925	1.00	200.00	200.00	0.514	0.514	1.00
28	9:09	1.00	1.052	1.00	200.00	200.00	0.540	0.540	1.00
29	9:32	1.00	1.096	1.00	200.00	200.00	0.419	0.419	1.00
30	10:04	1.00	1.157	1.00	200.00	200.00	0.780	0.780	1.00
31	10:48	1.00	1.241	1.00	200.00	200.00	0.007	0.007	1.00
32	10:55	1.00	1.254	1.00	212.00	212.00	0.532	0.532	1.00
33	11:17	1.00	1.297	1.00	200.00	200.00	0.346	0.346	1.00
34	11:33	1.00	1.328	1.00	200.00	200.00	0.598	0.598	1.00
35	12:01	1.00	1.381	1.00	188.00	188.00	0.568	0.568	1.00
36	12:23	1.00	1.423	1.00	200.00	200.00	0.416	0.416	1.00
37	12:38	1.00	0.879	1.00	200.00	200.00	0.662	0.662	1.00
38	13:02	1.00	0.907	1.00	200.00	200.00	0.165	0.165	1.00
39	13:10	1.00	0.917	1.00	200.00	200.00	0.930	0.930	1.00
40	14:26	1.00	1.004	1.00	200.00	200.00	1.293	1.293	1.00
41	14:42	1.00	1.023	1.00	200.00	200.00	0.543	0.543	1.00
42	15:52	1.00	1.104	1.00	200.00	200.00	1.094	1.094	1.00
43	16:16	1.00	1.132	1.00	200.00	200.00	0.785	0.785	1.00
44	17:25	1.00	0.886	1.00	200.00	200.00	0.731	0.731	1.00
45	20:33	1.00	1.045	1.00	200.00	200.00	1.251	1.251	1.00
46	14:58	1.00	1.042	1.00	600.00	600.00	0.692	0.692	1.00
47	13:22	1.00	0.930	1.00	200.00	200.00	0.815	0.815	1.00
48	4:10	1.00	0.557	1.00	200.00	200.00	1.241	1.241	1.00
49	9:46	1.00	1.122	1.00	200.00	200.00	0.459	0.459	1.00
50	6:35	1.00	0.883	1.00	200.00	200.00	0.579	0.579	1.00

Quantitation Report File: I1011200

Data: I1011200.TI
10/11/94 16:10:00
Sample: IC-200 8260 EXTENDED LIST
onds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 200.000
Submitted by: HIH/SWL Analyst: DBD Acct. No.: 5454/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	C279 1,1,1,2-TETRACHLOROETHANE
52	C267 TRANS-1,4-DICHLORO-2-BUTENE
53	C278 1,2,3-TRICHLOROPROPANE
54	C277 P-DICHLOROBENZENE
55	C276 1,2-DIBROMO-3-CHLOROPROPANE
56	C032 DICHLORODIFLUOROMETHANE
57	C282 ISOBUTYL ALCOHOL
58	C275 ACETONITRILE
59	C259 ALLYL CHLORIDE
60	C285 PROPIONITRILE
61	C287 METHACRYLONITRILE
62	C288 METHYL METHACRYLATE
63	C289 ETHYL METHACRYLATE
64	C281 M-DICHLOROBENZENE
65	C298 EPICHLOROHYDRIN
66	C122 1,4-DIOXANE
67	C271 METHYL-TERT-BUTYL ETHER
68	C445 1,2,4-TRICHLOROBENZENE
69	C263 ACROLEIN
70	C264 ACRYLONITRILE
71	C309 BROMOBENZENE
72	C380 CUMENE
73	C300 N-PROPYLBENZENE
74	C301 2-CHLOROTOLUENE
75	C302 4-CHLOROTOLUENE
76	C385 1,3,5-TRIMETHYLBENZENE
77	C386 1,2,4-TRIMETHYLBENZENE
78	C303 TERT-BUTYLBENZENE
79	C304 SEC-BUTYLBENZENE
80	C311 N-BUTYLBENZENE
81	C390 P-CYMENE
82	C375 HEXACHLOROETHANE
83	C410 NITROBENZENE
84	C460 HEXACHLOROBUTADIENE
85	C450 NAPHTHALENE
86	C446 1,2,3-TRICHLOROBENZENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	131	1368	14:37	3	1.018	A BB	448003.	200.000 UG/L	0.77
52	53	1641	17:33	3	1.221	A BB	86173.	200.000 UG/L	0.77
53	75	1634	17:28	4	0.889	A BB	426885.	200.000 UG/L	0.77
54	146	1843	19:42	4	1.002	A BB	810955.	200.000 UG/L	0.77
55	157	2093	22:22	4	1.138	A BB	188409.	200.000 UG/L	0.77
56	85	189	2:01	1	0.271	A BB	603814.	200.000 UG/L	0.77
57	45	343	3:40	1	0.491	A BB	251255.	2000.000 UG/L	7.69

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
58	41	418	4:28	1	0.599	A BB	505863.	2000.000	UG/L	7.69
59	76	418	4:28	1	0.599	A BB	69910.	200.000	UG/L	0.77
60	54	638	6:49	1	0.914	A BB	15843.	200.000	UG/L	0.77
61	41	709	7:35	1	1.016	A BB	303267.	200.000	UG/L	0.77
62	41	920	9:50	2	1.130	A BB	242514.	200.000	UG/L	0.77
63	41	1149	12:17	3	0.855	A BB	291521.	200.000	UG/L	0.77
64	146	1822	19:29	4	0.991	A BB	859186.	200.000	UG/L	0.77
65	57	1010	10:48	2	1.241	A BB	243894.	2000.000	UG/L	7.69
66	88	954	10:12	2	1.172	A BB	22811.	2000.000	UG/L	7.69
67	73	477	5:06	1	0.683	A BB	564471.	200.000	UG/L	0.77
68	180	2279	24:22	4	1.239	A BB	803157.	200.000	UG/L	0.77
69	56	359	3:50	1	0.514	A BB	294673.	2000.000	UG/L	7.69
70	53	472	5:03	1	0.676	A BB	50440.	200.000	UG/L	0.77
71	156	1617	17:17	4	0.879	A BB	547485.	200.000	UG/L	0.77
72	105	1559	16:40	4	0.848	A BB	1322810.	200.000	UG/L	0.77
73	91	1647	17:36	4	0.896	A BV	1304960.	200.000	UG/L	0.77
74	91	1661	17:45	4	0.903	A VB	845472.	200.000	UG/L	0.77
75	91	1685	18:01	4	0.916	A BB	1280830.	200.000	UG/L	0.77
76	105	1687	18:02	4	0.917	A BB	1152920.	200.000	UG/L	0.77
77	105	1766	18:53	4	0.960	A BB	1120330.	200.000	UG/L	0.77
78	119	1755	18:46	4	0.954	A BB	1514770.	200.000	UG/L	0.77
79	105	1803	19:16	4	0.980	A BB	1699760.	200.000	UG/L	0.77
80	91	1927	20:36	4	1.048	A BB	1260570.	200.000	UG/L	0.77
81	119	1837	19:38	4	0.999	A BB	1340170.	200.000	UG/L	0.77
82	117	1977	21:08	4	1.075	A BB	328581.	200.000	UG/L	0.77
83	77	2140	22:53	4	1.164	A BB	28120.	200.000	UG/L	0.77
84	225	2323	24:50	4	1.263	A BB	567919.	200.000	UG/L	0.77
85	128	2332	24:56	4	1.268	A BB	930579.	200.000	UG/L	0.77
86	180	2387	25:31	4	1.298	A BB	680044.	200.000	UG/L	0.77

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	14:37	1.00	1.018	1.00	200.00	200.00	0.662	0.662	1.00
52	17:33	1.00	1.221	1.00	200.00	200.00	0.127	0.127	1.00
53	17:28	1.00	0.889	1.00	200.00	200.00	0.588	0.588	1.00
54	19:42	1.00	1.002	1.00	200.00	200.00	1.117	1.117	1.00
55	22:22	1.00	1.138	1.00	200.00	200.00	0.260	0.260	1.00
56	2:01	1.00	0.271	1.00	200.00	200.00	0.934	0.934	1.00
57	3:40	1.00	0.491	1.00	2000.00	2000.00	0.039	0.039	1.00
58	4:28	1.00	0.599	1.00	2000.00	2000.00	0.078	0.078	1.00
59	4:28	1.00	0.599	1.00	200.00	200.00	0.108	0.108	1.00
60	6:49	1.00	0.914	1.00	200.00	200.00	0.025	0.025	1.00
61	7:35	1.00	1.016	1.00	200.00	200.00	0.469	0.469	1.00
62	9:50	1.00	1.130	1.00	200.00	200.00	0.289	0.289	1.00
63	12:17	1.00	0.855	1.00	200.00	200.00	0.430	0.430	1.00
64	19:29	1.00	0.991	1.00	200.00	200.00	1.184	1.184	1.00
65	10:48	1.00	1.241	1.00	2000.00	2000.00	0.029	0.029	1.00
66	10:12	1.00	1.172	1.00	2000.00	2000.00	0.003	0.003	1.00
67	5:06	1.00	0.683	1.00	200.00	200.00	0.873	0.873	1.00
68	24:22	1.00	1.239	1.00	200.00	200.00	1.106	1.106	1.00
69	3:50	1.00	0.514	1.00	2000.00	2000.00	0.046	0.046	1.00
70	5:03	1.00	0.676	1.00	200.00	200.00	0.078	0.078	1.00
71	17:17	1.00	0.879	1.00	200.00	200.00	0.754	0.754	1.00
72	16:40	1.00	0.848	1.00	200.00	200.00	1.822	1.822	1.00
73	17:36	1.00	0.896	1.00	200.00	200.00	1.798	1.798	1.00
74	17:45	1.00	0.903	1.00	200.00	200.00	1.165	1.165	1.00
75	18:01	1.00	0.916	1.00	200.00	200.00	1.764	1.764	1.00

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
76	18:02	1.00	0.917	1.00	200.00	200.00	1.588	1.588	1.00
77	18:53	1.00	0.960	1.00	200.00	200.00	1.543	1.543	1.00
78	18:46	1.00	0.954	1.00	200.00	200.00	2.087	2.087	1.00
79	19:16	1.00	0.980	1.00	200.00	200.00	2.341	2.341	1.00
80	20:36	1.00	1.048	1.00	200.00	200.00	1.736	1.736	1.00
81	19:38	1.00	0.999	1.00	200.00	200.00	1.846	1.846	1.00
82	21:08	1.00	1.075	1.00	200.00	200.00	0.453	0.453	1.00
83	22:53	1.00	1.164	1.00	200.00	200.00	0.039	0.039	1.00
84	24:50	1.00	1.263	1.00	200.00	200.00	0.782	0.782	1.00
85	24:56	1.00	1.268	1.00	200.00	200.00	1.282	1.282	1.00
86	25:31	1.00	1.298	1.00	200.00	200.00	0.937	0.937	1.00

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL - HOUSTON Contract: 5454 605

Code: SWL HOU Case No.: STAND SAS No.: _____ SDG No.: CONTIN

Instrument ID: FINN Calibration date: 10/12/94 Time: 1422

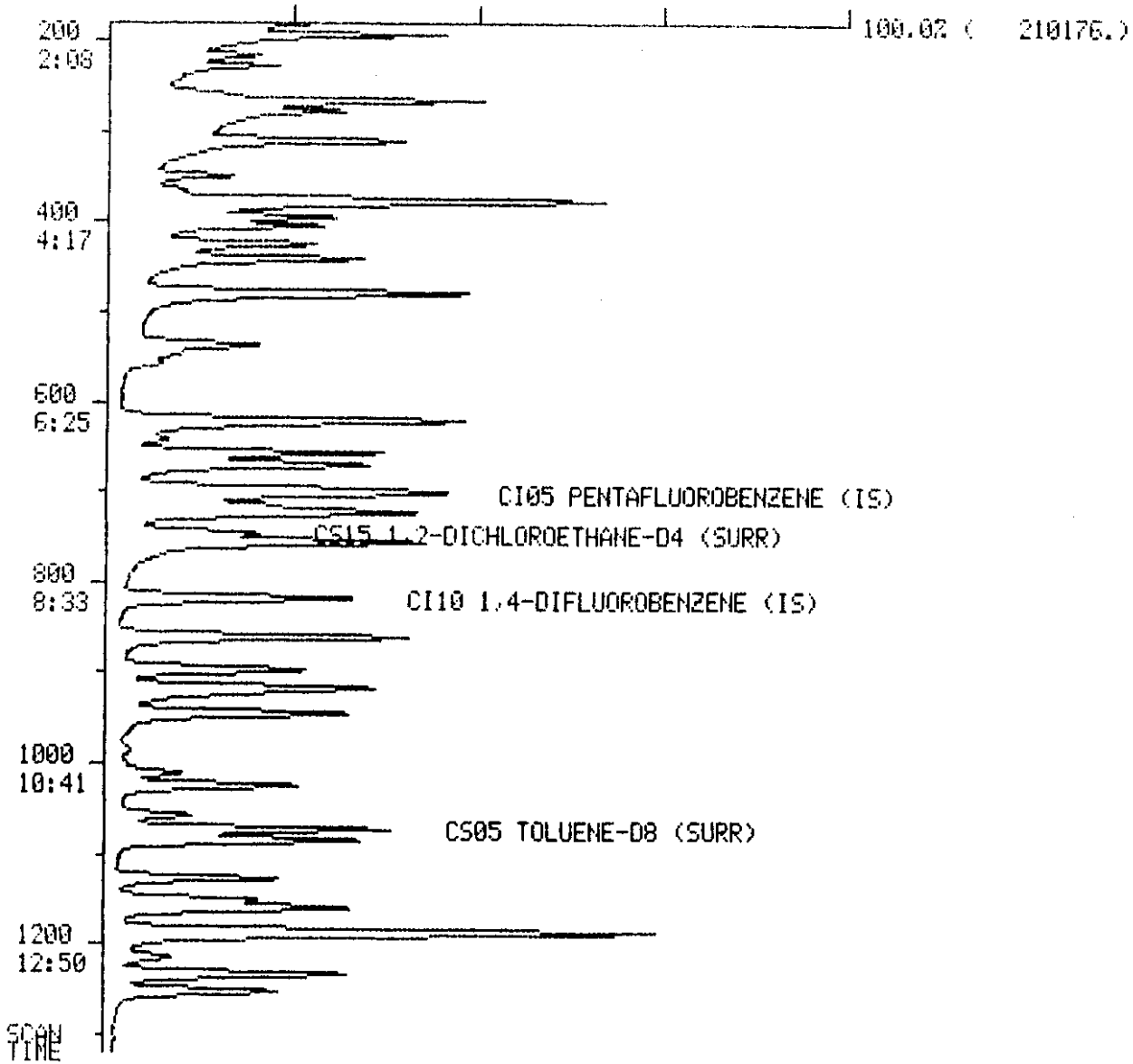
Lab File ID: ISTD1012 Init. Calib. Date(s): 10/11/94 10/11/94

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

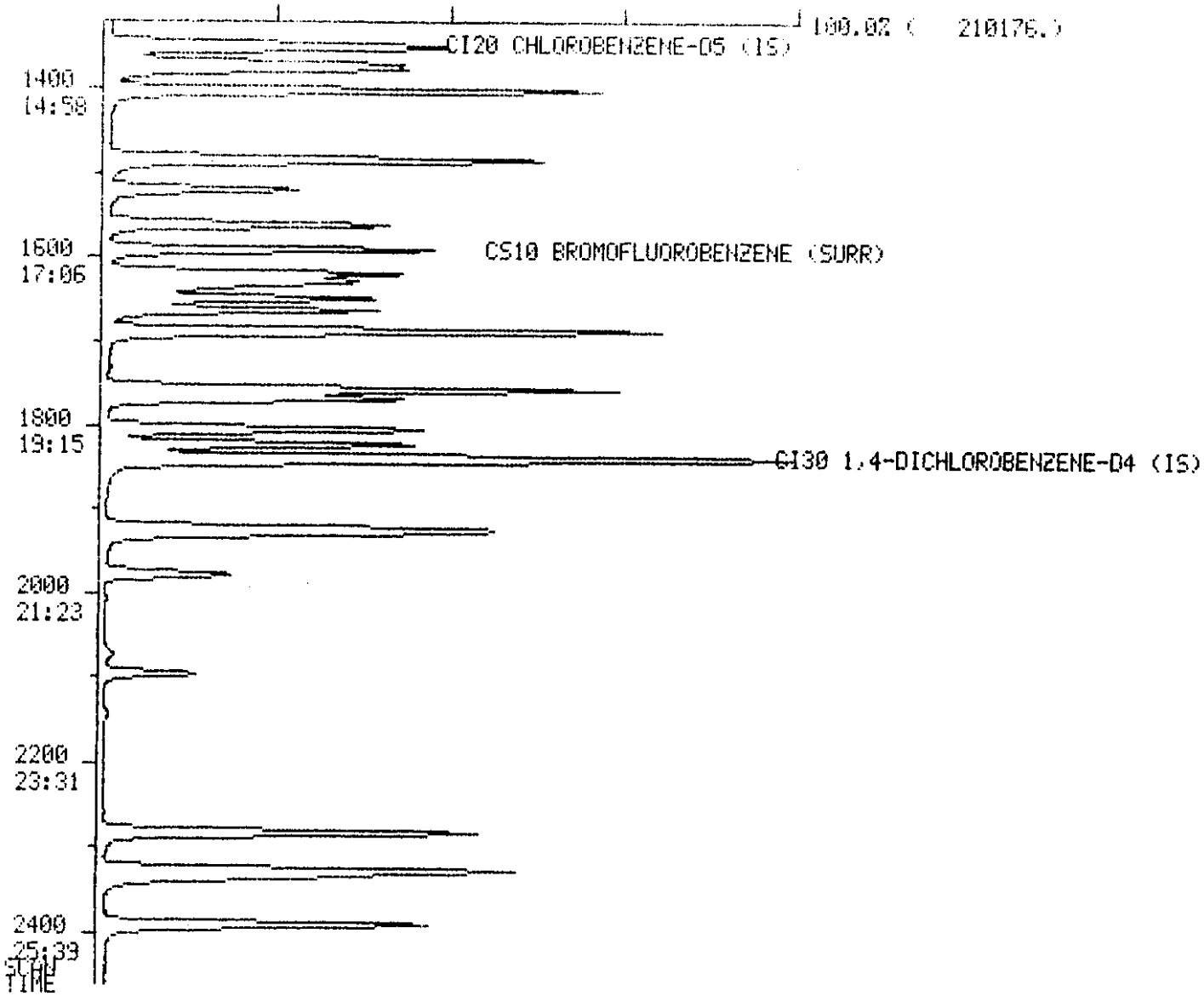
Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRF50	%D
Chloromethane #	0.508	0.460	9.4 #
Bromomethane	0.803	0.841	-4.7
Vinyl Chloride *	0.516	0.465	9.9 *
Chloroethane	0.439	0.473	-7.7
Methylene Chloride	0.537	0.520	3.2
Acetone	0.112	0.134	-19.6
Carbon Disulfide	1.064	0.973	8.6
1,1-Dichloroethene *	0.509	0.464	8.8 *
1,1-Dichloroethane #	0.882	0.773	12.4 #
trans-1,2-Dichloroethene	0.500	0.464	7.2
Chloroform *	1.064	0.945	11.2 *
1,2-Dichloroethane	0.512	0.440	14.1
Methylethyl ketone (MEK)	0.047	0.051	-8.5
1,1,1-Trichloroethane	0.863	0.770	10.8
Carbon Tetrachloride	0.367	0.354	3.5
Bromodichloromethane	0.751	0.709	5.6
1,2-Dichloropropane *	0.404	0.363	10.2 *
cis-1,3-Dichloropropene	0.514	0.451	12.3
Trichloroethene	0.556	0.521	6.3
Dibromochloromethane	0.879	0.840	4.4
1,1,2-Trichloroethane	0.414	0.388	6.3
Benzene	0.813	0.772	5.0
trans-1,3-Dichloropropene	0.496	0.472	4.8
Bromoform #	0.685	0.660	3.6 #
4-Methyl-2-Pentanone	0.350	0.298	14.9
2-Hexanone	0.233	0.237	-1.7
Tetrachloroethene	0.781	0.729	6.7
1,1,2,2-Tetrachloroethane #	0.882	0.778	11.8 #
Toluene *	0.592	0.549	7.3 *
Chlorobenzene #	1.228	1.064	13.4 #
Ethylbenzene *	0.531	0.451	15.1 *
Styrene	1.036	0.901	13.0
Xylene (total)	0.676	0.577	14.6
Toluene-d8	1.061	1.018	4.1
Bromofluorobenzene	1.059	0.891	15.9
1,2-Dichloroethane-d4	0.623	0.482	22.6

DATA FROM FILE: ISTD1012 SCANS 180 TO 1320 ACQUIRED: 10/12/94 14:22:00
CALI: ISTD1012 #3 OUT OF 180 TO 2460
SAMPLE: CC-050 8260 EXTENDED LIST
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



DATA FROM FILE: ISTD1012 SCANS 1220 TO 2460 ACQUIRED: 10/12/94 14:22:00
CALI: ISTD1012 #3 OUT OF 180 TO 2460
SAMPLE: CC-050 8260 EXTENDED LIST
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



Quantitation Report File: ISTD1012

Data: ISTD1012.TI
10/12/94 14:22:00
Sample: CC-050 8260 EXTENDED LIST
onds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 50.000
Submitted by: HIH/SWL Analyst: DBD Acct. No.: 5454/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI05 PENTAFLUOROBENZENE (IS)
2	CI10 1,4-DIFLUOROBENZENE (IS)
3	CI20 CHLOROBENZENE-D5 (IS)
4	CI30 1,4-DICHLOROBENZENE-D4 (IS)
5	CS15 1,2-DICHLOROETHANE-D4 (SURR)
6	CS05 TOLUENE-D8 (SURR)
7	CS10 BROMOFLUOROBENZENE (SURR)
8	C010 CHLOROMETHANE
9	C015 BROMOMETHANE
10	C020 VINYL CHLORIDE
11	C025 CHLOROETHANE
12	C031 TRICHLOROFLUOROMETHANE
13	C045 1,1-DICHLOROETHENE
14	C261 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE
15	C035 ACETONE
16	C040 CARBON DISULFIDE
17	C125 VINYL ACETATE
18	C030 METHYLENE CHLORIDE
19	C308 BROMOCHLOROMETHANE
20	C053 TRANS-1,2-DICHLOROETHENE
21	C050 1,1-DICHLOROETHANE
22	C110 2-BUTANONE (MEK)
23	C060 CHLOROFORM
24	C115 1,1,1-TRICHLOROETHANE
25	C120 CARBON TETRACHLORIDE
26	C165 BENZENE
27	C065 1,2-DICHLOROETHANE
28	C150 TRICHLOROETHENE
29	C140 1,2-DICHLOROPROPANE
30	C130 BROMODICHLOROMETHANE
31	C175 2-CHLOROETHYLVINYL ETHER
32	C143 CIS-1,3-DICHLOROPROPENE
33	C205 4-METHYL-2-PENTANONE (MIBK)
34	C230 TOLUENE
35	C172 TRANS-1,3-DICHLOROPROPENE
36	C160 1,1,2-TRICHLOROETHANE
37	C220 TETRACHLOROETHENE
38	C210 2-HEXANONE
39	C155 DIBROMOCHLOROMETHANE
40	C235 CHLOROBENZENE
41	C240 ETHYL BENZENE
42	C245 STYRENE
43	C180 BROMOFORM
44	C225 1,1,2,2-TETRACHLOROETHANE
45	C292 O-DICHLOROBENZENE
46	C250 M & P-XYLENE
47	C147 ETHYLENE DIBROMIDE

No	Name
48	C254 IODOMETHANE
49	C148 DIBROMOMETHANE
50	C280 CIS-1,2-DICHLOROETHENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	168	700	7:29	1	1.000	A BB	202379.	50.000 UG/L	0.75
2	114	817	8:44	2	1.000	A BB	240788.	50.000 UG/L	0.75
3	117	1345	14:23	3	1.000	A BB	194026.	50.000 UG/L	0.75
4	150	1836	19:38	4	1.000	A BB	161015.	50.000 UG/L	0.75
5	65	744	7:57	1	1.063	A BB	97643.	50.000 UG/L	0.75
6	98	1071	11:27	2	1.311	A BB	245163.	50.000 UG/L	0.75
7	95	1589	16:59	3	1.181	A BB	172896.	50.000 UG/L	0.75
8	50	214	2:17	1	0.306	A BB	93174.	50.000 UG/L	0.75
9	94	264	2:49	1	0.377	A BB	170142.	50.000 UG/L	0.75
10	62	226	2:25	1	0.323	A BB	94050.	50.000 UG/L	0.75
11	64	276	2:57	1	0.394	A BB	95803.	50.000 UG/L	0.75
12	101	308	3:18	1	0.440	A BB	221709.	50.000 UG/L	0.75
13	96	374	4:00	1	0.534	A BB	93836.	50.000 UG/L	0.75
14	101	375	4:01	1	0.536	A BB	152971.	50.000 UG/L	0.75
15	43	385	4:07	1	0.550	A BB	27020.	50.000 UG/L	0.75
16	76	402	4:18	1	0.574	A BB	196993.	50.000 UG/L	0.75
17	43	545	5:50	1	0.779	A BB	53571.	50.000 UG/L	0.75
18	84	438	4:41	1	0.626	A BB	105293.	50.000 UG/L	0.75
19	128	655	7:00	1	0.936	A BB	77834.	50.000 UG/L	0.75
20	96	476	5:05	1	0.680	A BB	93839.	50.000 UG/L	0.75
21	63	535	5:43	1	0.764	A BB	156416.	50.000 UG/L	0.75
22	72	625	6:41	1	0.893	A BB	10276.	50.000 UG/L	0.75
23	83	668	7:08	1	0.954	A BB	191240.	50.000 UG/L	0.75
24	97	695	7:26	1	0.993	A BB	155932.	50.000 UG/L	0.75
25	117	722	7:43	2	0.884	A BB	85199.	50.000 UG/L	0.75
26	78	753	8:03	2	0.922	A BB	185962.	50.000 UG/L	0.75
27	62	756	8:05	2	0.925	A BB	105900.	50.000 UG/L	0.75
28	130	859	9:11	2	1.051	A BB	125343.	50.000 UG/L	0.75
29	63	894	9:33	2	1.094	A BB	87335.	50.000 UG/L	0.75
30	83	944	10:05	2	1.155	A BB	170812.	50.000 UG/L	0.75
31	63	1000	10:41	2	1.224	A*BB	8275.	50.000 UG/L	0.75
32	75	1023	10:56	2	1.252	A BB	115098.	53.000 UG/L	0.80
33	43	1055	11:17	2	1.291	A BB	71852.	50.000 UG/L	0.75
34	92	1083	11:35	2	1.326	A BB	132303.	50.000 UG/L	0.75
35	75	1126	12:02	2	1.378	A BB	106756.	47.000 UG/L	0.71
36	97	1159	12:23	2	1.419	A BB	93538.	50.000 UG/L	0.75
37	164	1185	12:40	3	0.881	A BB	141406.	50.000 UG/L	0.75
38	43	1213	12:58	3	0.902	A BB	46025.	50.000 UG/L	0.75
39	129	1232	13:10	3	0.916	A BB	162953.	50.000 UG/L	0.75
40	112	1351	14:27	3	1.004	A BB	206397.	50.000 UG/L	0.75
41	106	1376	14:43	3	1.023	A BB	87511.	50.000 UG/L	0.75
42	104	1484	15:52	3	1.103	A BB	174818.	50.000 UG/L	0.75
43	173	1517	16:13	3	1.128	A BB	128039.	50.000 UG/L	0.75
44	83	1625	17:22	4	0.885	A BB	125221.	50.000 UG/L	0.75
45	146	1920	20:31	4	1.046	A BB	198343.	50.000 UG/L	0.75
46	106	1401	14:59	3	1.042	A*BB	336084.	150.000 UG/L	2.26
47	107	1252	13:23	3	0.931	A BB	142985.	50.000 UG/L	0.75
48	142	393	4:12	1	0.561	A BB	216412.	50.000 UG/L	0.75
49	93	915	9:47	2	1.120	A BB	105423.	50.000 UG/L	0.75
50	96	619	6:37	1	0.884	A BB	105374.	50.000 UG/L	0.75

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	7:29	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	8:44	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	14:23	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	19:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
5	7:57	1.00	1.063	1.00	50.00	50.00	0.482	0.482	1.00
6	11:27	1.00	1.311	1.00	50.00	50.00	1.018	1.018	1.00
7	16:59	1.00	1.181	1.00	50.00	50.00	0.891	0.891	1.00
8	2:17	1.00	0.306	1.00	50.00	50.00	0.460	0.460	1.00
9	2:49	1.00	0.377	1.00	50.00	50.00	0.841	0.841	1.00
10	2:25	1.00	0.323	1.00	50.00	50.00	0.465	0.465	1.00
11	2:57	1.00	0.394	1.00	50.00	50.00	0.473	0.473	1.00
12	3:18	1.00	0.440	1.00	50.00	50.00	1.096	1.096	1.00
13	4:00	1.00	0.534	1.00	50.00	50.00	0.464	0.464	1.00
14	4:01	1.00	0.536	1.00	50.00	50.00	0.756	0.756	1.00
15	4:07	1.00	0.550	1.00	50.00	50.00	0.134	0.134	1.00
16	4:18	1.00	0.574	1.00	50.00	50.00	0.973	0.973	1.00
17	5:50	1.00	0.779	1.00	50.00	50.00	0.265	0.265	1.00
18	4:41	1.00	0.626	1.00	50.00	50.00	0.520	0.520	1.00
19	7:00	1.00	0.936	1.00	50.00	50.00	0.385	0.385	1.00
20	5:05	1.00	0.680	1.00	50.00	50.00	0.464	0.464	1.00
21	5:43	1.00	0.764	1.00	50.00	50.00	0.773	0.773	1.00
22	6:41	1.00	0.893	1.00	50.00	50.00	0.051	0.051	1.00
23	7:08	1.00	0.954	1.00	50.00	50.00	0.945	0.945	1.00
24	7:26	1.00	0.993	1.00	50.00	50.00	0.770	0.770	1.00
25	7:43	1.00	0.884	1.00	50.00	50.00	0.354	0.354	1.00
26	8:03	1.00	0.922	1.00	50.00	50.00	0.772	0.772	1.00
27	8:05	1.00	0.925	1.00	50.00	50.00	0.440	0.440	1.00
28	9:11	1.00	1.051	1.00	50.00	50.00	0.521	0.521	1.00
29	9:33	1.00	1.094	1.00	50.00	50.00	0.363	0.363	1.00
30	10:05	1.00	1.155	1.00	50.00	50.00	0.709	0.709	1.00
31	10:41	1.00	1.224	1.00	50.00	50.00	0.034	0.034	1.00
32	10:56	1.00	1.252	1.00	53.00	53.00	0.451	0.451	1.00
33	11:17	1.00	1.291	1.00	50.00	50.00	0.298	0.298	1.00
34	11:35	1.00	1.326	1.00	50.00	50.00	0.549	0.549	1.00
35	12:02	1.00	1.378	1.00	47.00	47.00	0.472	0.472	1.00
36	12:23	1.00	1.419	1.00	50.00	50.00	0.388	0.388	1.00
37	12:40	1.00	0.881	1.00	50.00	50.00	0.729	0.729	1.00
38	12:58	1.00	0.902	1.00	50.00	50.00	0.237	0.237	1.00
39	13:10	1.00	0.916	1.00	50.00	50.00	0.840	0.840	1.00
40	14:27	1.00	1.004	1.00	50.00	50.00	1.064	1.064	1.00
41	14:43	1.00	1.023	1.00	50.00	50.00	0.451	0.451	1.00
42	15:52	1.00	1.103	1.00	50.00	50.00	0.901	0.901	1.00
43	16:13	1.00	1.128	1.00	50.00	50.00	0.660	0.660	1.00
44	17:22	1.00	0.885	1.00	50.00	50.00	0.778	0.778	1.00
45	20:31	1.00	1.046	1.00	50.00	50.00	1.232	1.232	1.00
46	14:59	1.00	1.042	1.00	150.00	150.00	0.577	0.577	1.00
47	13:23	1.00	0.931	1.00	50.00	50.00	0.737	0.737	1.00
48	4:12	1.00	0.561	1.00	50.00	50.00	1.069	1.069	1.00
49	9:47	1.00	1.120	1.00	50.00	50.00	0.438	0.438	1.00
50	6:37	1.00	0.884	1.00	50.00	50.00	0.521	0.521	1.00

Quantitation Report File: ISTD1012

Data: ISTD1012.TI
10/12/94 14:22:00
Sample: CC-050 8260 EXTENDED LIST
onds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 50.000
Submitted by: HIH/SWL Analyst: DBD Acct. No.: 5454/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	C279 1,1,1,2-TETRACHLOROETHANE
52	C267 TRANS-1,4-DICHLORO-2-BUTENE
53	C278 1,2,3-TRICHLOROPROPANE
54	C277 P-DICHLOROBENZENE
55	C276 1,2-DIBROMO-3-CHLOROPROPANE
56	C032 DICHLORODIFLUOROMETHANE
57	C282 ISOBUTYL ALCOHOL
58	C275 ACETONITRILE
59	C259 ALLYL CHLORIDE
60	C285 PROPIONITRILE
61	C287 METHACRYLONITRILE
62	C288 METHYL METHACRYLATE
63	C289 ETHYL METHACRYLATE
64	C281 M-DICHLOROBENZENE
65	C298 EPICHLOROHYDRIN
66	C122 1,4-DIOXANE
67	C271 METHYL-TERT-BUTYL ETHER
68	C445 1,2,4-TRICHLOROBENZENE
69	C263 ACROLEIN
70	C264 ACRYLONITRILE
71	C309 BROMOBENZENE
72	C380 CUMENE
73	C300 N-PROPYLBENZENE
74	C301 2-CHLOROTOLUENE
75	C302 4-CHLOROTOLUENE
76	C385 1,3,5-TRIMETHYLBENZENE
77	C386 1,2,4-TRIMETHYLBENZENE
78	C303 TERT-BUTYLBENZENE
79	C304 SEC-BUTYLBENZENE
80	C311 N-BUTYLBENZENE
81	C390 P-CYMENE
82	C375 HEXACHLOROETHANE
83	C410 NITROBENZENE
84	C460 HEXACHLOROBUTADIENE
85	C450 NAPHTHALENE
86	C446 1,2,3-TRICHLOROBENZENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	131	1369	14:38	3	1.018	A BB	107592.	50.000 UG/L	0.75
52	53	1637	17:30	3	1.217	A BB	19664.	50.000 UG/L	0.75
53	75	1630	17:25	4	0.888	A VB	99102.	50.000 UG/L	0.75
54	146	1841	19:41	4	1.003	A BB	170676.	50.000 UG/L	0.75
55	157	2094	22:23	4	1.141	A BB	41833.	50.000 UG/L	0.75
56	85	191	2:03	1	0.273	A BB	171331.	50.000 UG/L	0.75
57	45	347	3:43	1	0.496	A BB	39129.	500.000 UG/L	7.52

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
58	41	422	4:31	1	0.603	A BB	149124.	500.000 UG/L	7.52
59	76	422	4:31	1	0.603	A BB	22546.	50.000 UG/L	0.75
60	54	638	6:49	1	0.911	A BB	6151.	50.000 UG/L	0.75
61	41	713	7:37	1	1.019	A BB	66677.	50.000 UG/L	0.75
62	41	921	9:51	2	1.127	A BB	56871.	50.000 UG/L	0.75
63	41	1149	12:17	3	0.854	A BB	70393.	50.000 UG/L	0.75
64	146	1821	19:28	4	0.992	A BB	181080.	50.000 UG/L	0.75
65	57	1009	10:47	2	1.235	A BB	65945.	500.000 UG/L	7.52
66	88	930	9:57	2	1.138	A BB	11082.	500.000 UG/L	7.52
67	73	479	5:07	1	0.684	A BB	159858.	50.000 UG/L	0.75
68	180	2280	24:22	4	1.242	A BB	185826.	50.000 UG/L	0.75
69	56	362	3:52	1	0.517	A BB	33279.	500.000 UG/L	7.52
70	53	475	5:05	1	0.679	A BB	13344.	50.000 UG/L	0.75
71	156	1617	17:17	4	0.881	A BB	121075.	50.000 UG/L	0.75
72	105	1559	16:40	4	0.849	A BB	297354.	50.000 UG/L	0.75
73	91	1647	17:36	4	0.897	A BV	283665.	50.000 UG/L	0.75
74	91	1661	17:45	4	0.905	A VB	192265.	50.000 UG/L	0.75
75	91	1685	18:01	4	0.918	A BB	267660.	50.000 UG/L	0.75
76	105	1686	18:01	4	0.918	A BB	255797.	50.000 UG/L	0.75
77	105	1766	18:53	4	0.962	A BB	252839.	50.000 UG/L	0.75
78	119	1755	18:46	4	0.956	A BB	322211.	50.000 UG/L	0.75
79	105	1803	19:16	4	0.982	A BB	371433.	50.000 UG/L	0.75
80	91	1927	20:36	4	1.050	A BB	264087.	50.000 UG/L	0.75
81	119	1837	19:38	4	1.001	A BB	278835.	50.000 UG/L	0.75
82	117	1976	21:07	4	1.076	A BB	43621.	50.000 UG/L	0.75
83	77	2141	22:53	4	1.166	A BB	5672.	50.000 UG/L	0.75
84	225	2325	24:51	4	1.266	A BB	141746.	50.000 UG/L	0.75
85	128	2333	24:56	4	1.271	A BB	231696.	50.000 UG/L	0.75
86	180	2388	25:32	4	1.301	A BB	156386.	50.000 UG/L	0.75

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	14:38	1.00	1.018	1.00	50.00	50.00	0.555	0.555	1.00
52	17:30	1.00	1.217	1.00	50.00	50.00	0.101	0.101	1.00
53	17:25	1.00	0.888	1.00	50.00	50.00	0.615	0.615	1.00
54	19:41	1.00	1.003	1.00	50.00	50.00	1.060	1.060	1.00
55	22:23	1.00	1.141	1.00	50.00	50.00	0.260	0.260	1.00
56	2:03	1.00	0.273	1.00	50.00	50.00	0.847	0.847	1.00
57	3:43	1.00	0.496	1.00	500.00	500.00	0.019	0.019	1.00
58	4:31	1.00	0.603	1.00	500.00	500.00	0.074	0.074	1.00
59	4:31	1.00	0.603	1.00	50.00	50.00	0.111	0.111	1.00
60	6:49	1.00	0.911	1.00	50.00	50.00	0.030	0.030	1.00
61	7:37	1.00	1.019	1.00	50.00	50.00	0.329	0.329	1.00
62	9:51	1.00	1.127	1.00	50.00	50.00	0.236	0.236	1.00
63	12:17	1.00	0.854	1.00	50.00	50.00	0.363	0.363	1.00
64	19:28	1.00	0.992	1.00	50.00	50.00	1.125	1.125	1.00
65	10:47	1.00	1.235	1.00	500.00	500.00	0.027	0.027	1.00
66	9:57	1.00	1.138	1.00	500.00	500.00	0.005	0.005	1.00
67	5:07	1.00	0.684	1.00	50.00	50.00	0.790	0.790	1.00
68	24:22	1.00	1.242	1.00	50.00	50.00	1.154	1.154	1.00
69	3:52	1.00	0.517	1.00	500.00	500.00	0.016	0.016	1.00
70	5:05	1.00	0.679	1.00	50.00	50.00	0.066	0.066	1.00
71	17:17	1.00	0.881	1.00	50.00	50.00	0.752	0.752	1.00
72	16:40	1.00	0.849	1.00	50.00	50.00	1.847	1.847	1.00
73	17:36	1.00	0.897	1.00	50.00	50.00	1.762	1.762	1.00
74	17:45	1.00	0.905	1.00	50.00	50.00	1.194	1.194	1.00
75	18:01	1.00	0.918	1.00	50.00	50.00	1.662	1.662	1.00

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
76	18:01	1.00	0.918	1.00	50.00	50.00	1.589	1.589	1.00
77	18:53	1.00	0.962	1.00	50.00	50.00	1.570	1.570	1.00
78	18:46	1.00	0.956	1.00	50.00	50.00	2.001	2.001	1.00
79	19:16	1.00	0.982	1.00	50.00	50.00	2.307	2.307	1.00
80	20:36	1.00	1.050	1.00	50.00	50.00	1.640	1.640	1.00
81	19:38	1.00	1.001	1.00	50.00	50.00	1.732	1.732	1.00
82	21:07	1.00	1.076	1.00	50.00	50.00	0.271	0.271	1.00
83	22:53	1.00	1.166	1.00	50.00	50.00	0.035	0.035	1.00
84	24:51	1.00	1.266	1.00	50.00	50.00	0.880	0.880	1.00
85	24:56	1.00	1.271	1.00	50.00	50.00	1.439	1.439	1.00
86	25:32	1.00	1.301	1.00	50.00	50.00	0.971	0.971	1.00

BROMOFLUOROBENZENE

Tuning Report
10/11/94 13:41:00 + 2:25
nstrument: FINN
#225 to #227 summed - #210
Case Number:
Comments: METHOD 624 ION ABUNDANCE CRITERIA

Data: IFB101194 # 226
Cali: CALTAB # 3
Analyst: DBD
Laboratory:

Base m/z: 95
RIC: 160000.
Acct. No. 5454/605
Contract:

Ion Abundance Criteria

m/z	Intensity	% RA	Min %	Max %	Mass	Actual	Status
50	6448.	18.39	15.00	40.00	95	18.39	PASS
75	15904.	45.35	30.00	60.00	95	45.35	PASS
95	35072.	100.00	100.0	---	---	100.00	PASS
96	2676.	7.63	5.00	9.00	95	7.63	PASS
173	0.	0.00	---	2.00	174	0.00	PASS
174	28160.	80.29	50.00	---	95	80.29	PASS
175	2084.	5.94	5.00	9.00	174	7.40	PASS
176	27104.	77.28	95.00	101.00	174	96.25	PASS
177	1936.	5.52	5.00	9.00	176	7.14	PASS

Mass List
10/11/94 13:41:00 + 2:25
Sample: BFB, VOLATILE TUNE, 50 NG
Conds.: 180-ISO-DIR INJ
#225 to #227 summed - #210

Data: IFB101194 # 226
Cali: CALTAB # 3

Base m/z 95
RIC: 160000.

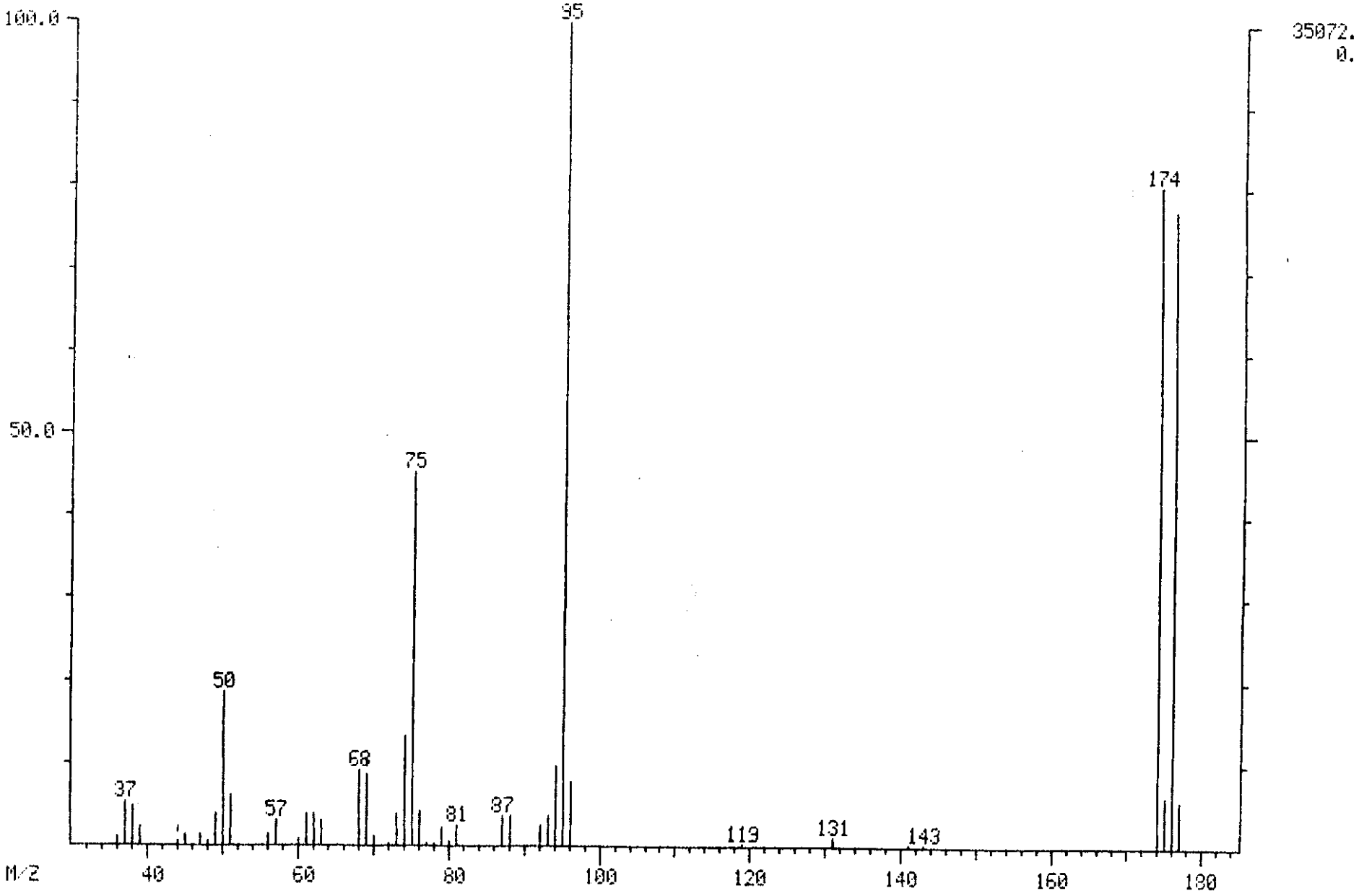
36 0.00 0. Minima Min Inten: 0.
177 Maxima # 0

Mass		% RA	Inten.
36?		1.16	407.
37?		5.25	1842.
38?		4.72	1656.
39?		2.21	776.
44?	S	0.47	166.
45?		1.28	449.
47?		1.33	466.
48?		0.63	221.
49?		3.91	1372.
50?		18.39	6448.
51?		6.00	2104.
56?		1.48	519.
57?		2.92	1024.
60?		0.80	279.
61?		3.96	1390.
62?		3.84	1346.
63?		3.11	1090.
68?		9.12	3200.
69	S	8.60	3016.
70		1.06	371.
72		0.30	104.
73		3.82	1340.
74		13.37	4688.
75		45.35	15904.
76		4.19	1470.
77		0.29	100.
78		0.31	107.
79		2.32	812.
80		0.63	221.
81		2.47	865.
87		3.63	1274.
88		3.60	1264.
92		2.47	866.
93		3.71	1302.
94		9.61	3372.
95		100.00	35072.
96		7.63	2676.
119		0.32	113.
131		0.98	343.
141		0.30	105.
143		0.35	123.
174		80.29	28160.
175		5.94	2084.
176		77.28	27104.
177		5.52	1936.

MASS SPECTRUM
10/11/94 13:41:00 + 2:25
SAMPLE: BFB, VOLATILE TUNE, 50 NG
CONDS.: 180-ISO-DIR INJ
TEMP: 180 DEG. C
#225 TO #227 SUMMED - #210

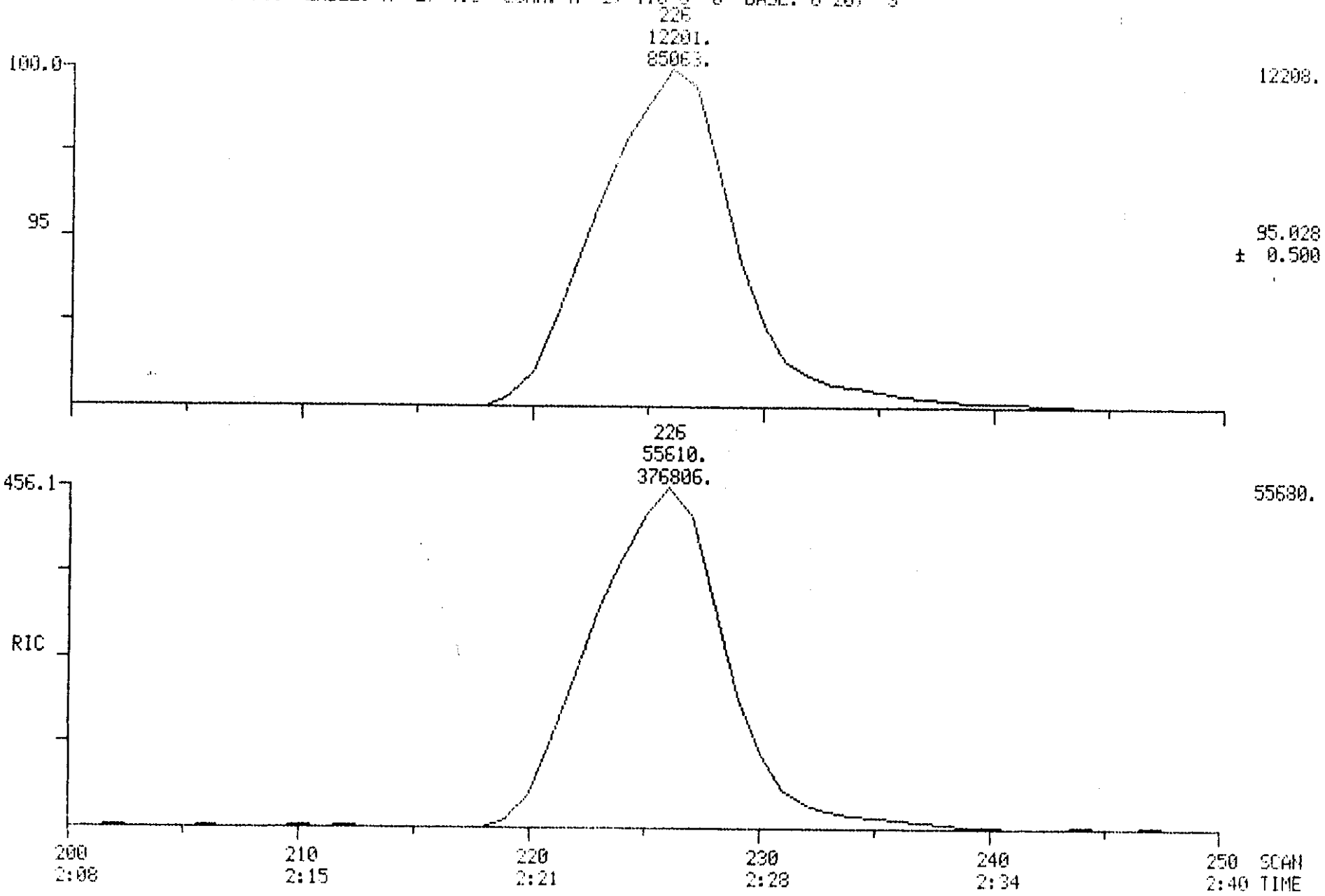
DATA: IFB101194 #226
CALI: CALTAB #3

BASE M/Z: 95
RIC: 160000.



RIC+MASS CHROMATOGRAM
10/11/94 13:41:00
SAMPLE: BFB, VOLATILE TUNE, 50 NG
CONDS.: 180-150-DIR INJ
RANGE: G 1, 250 LABEL: N 2, 4.0 QUAN: A 2, 1.0 J 0 BASE: U 20, 3

DATA: IFB101194 #225 SCANS 200 TO 250
CALI: CALTAB #3



BROMOFLUOROBENZENE

Tuning Report
10/12/94 14:16:00 + 2:31
Instrument: FINN
#235 to #237 summed - #210
Case Number:
Comments: METHOD 624 ION ABUNDANCE CRITERIA

Data: IF2101294 # 236
Cali: CALTAB # 3
Analyst: DBD
Laboratory:

Base m/z. 95
RIC: 161536.
Acct. No.: 5454/605
Contract:

m/z	Intensity	% RA	Ion Abundance Criteria Min %	Max %	Mass	Actual	Status
50	6696.	18.04	15.00	40.00	95	18.04	PASS
75	15952.	42.97	30.00	60.00	95	42.97	PASS
95	37120.	100.00	100.0	---	---	100.00	PASS
96	2616.	7.05	5.00	9.00	95	7.05	PASS
173	0.	0.00	---	2.00	174	0.00	PASS
174	28800.	77.59	50.00	---	95	77.59	PASS
175	2068.	5.57	5.00	9.00	174	7.18	PASS
176	28352.	76.38	95.00	101.00	174	98.44	PASS
177	1906.	5.13	5.00	9.00	176	6.72	PASS

Mass List
10/12/94 14:16:00 + 2:31
Sample: BFB, VOLATILE TUNE, 50 NG
Conds.: 180-ISO-DIR INJ
#235 to #237 summed - #210

Data: IF2101294 # 236
Cali: CALTAB # 3

Base m/z. 95
RIC: 161536.

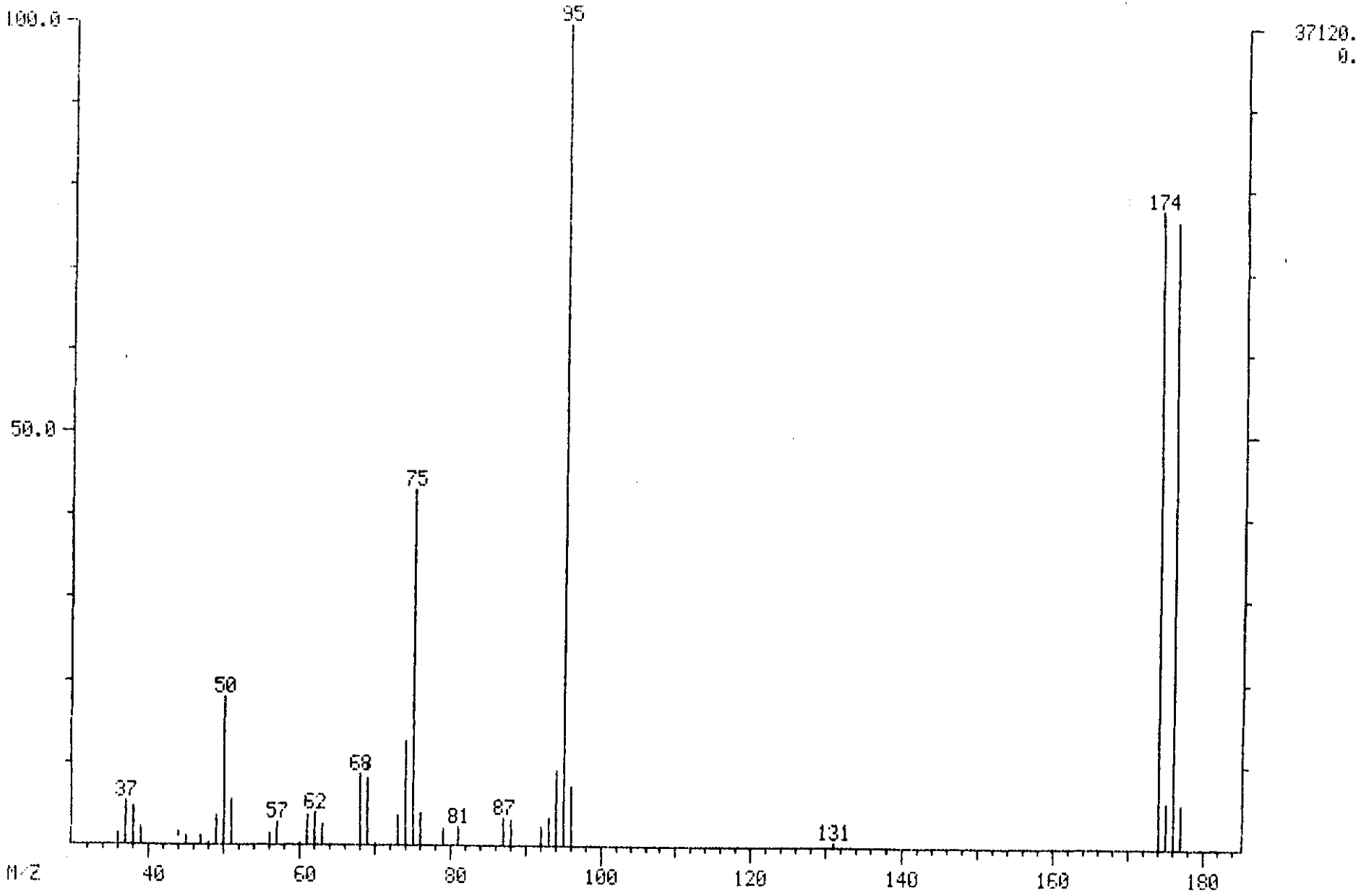
36 0.00 0. Minima Min Inten: 0.
177 Maxima # 0

Mass		% RA	Inten.
36?		1.40	520.
37?		5.33	1980.
38?		4.56	1694.
39?		2.31	857.
44?	S	0.10	36.
45?		1.06	393.
47?		1.14	425.
48?		0.30	110.
49?		3.66	1360.
50?		18.04	6696.
51?		5.55	2060.
56?		1.38	513.
57?		2.67	992.
60?		0.32	120.
61?		3.60	1336.
62?		3.75	1392.
63?		2.62	971.
68?		8.45	3136.
69	S	7.94	2948.
70		0.27	102.
73		3.54	1314.
74		12.65	4696.
75		42.97	15952.
76		3.75	1392.
79		1.99	739.
81		2.16	801.
87		3.21	1190.
88		3.09	1146.
92		2.19	814.
93		3.28	1218.
94		9.13	3388.
95		100.00	37120.
96		7.05	2616.
131		0.58	217.
174		77.59	28800.
175		5.57	2068.
176		76.38	28352.
177		5.13	1906.

MASS SPECTRUM
10/12/94 14:16:00 + 2:31
SAMPLE: BFB, VOLATILE TUNE, 50 NG
CONDS.: 180-ISO-DIR INJ
TEMP: 180 DEG. C
#235 TO #237 SUMMED - #210

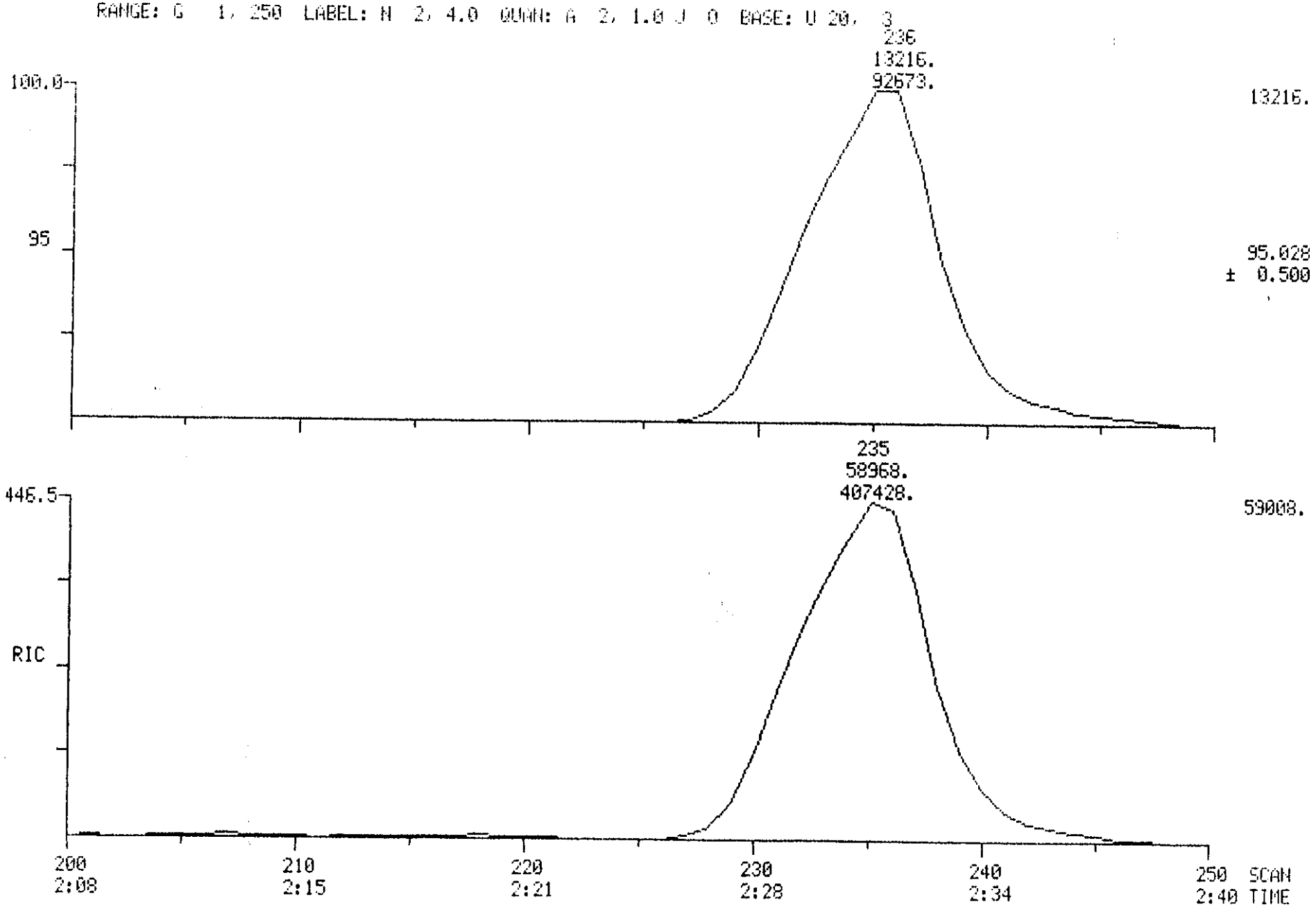
DATA: IF2101294 #236
CALI: CALTAB #3

BASE M/Z: 95
RIC: 161536.

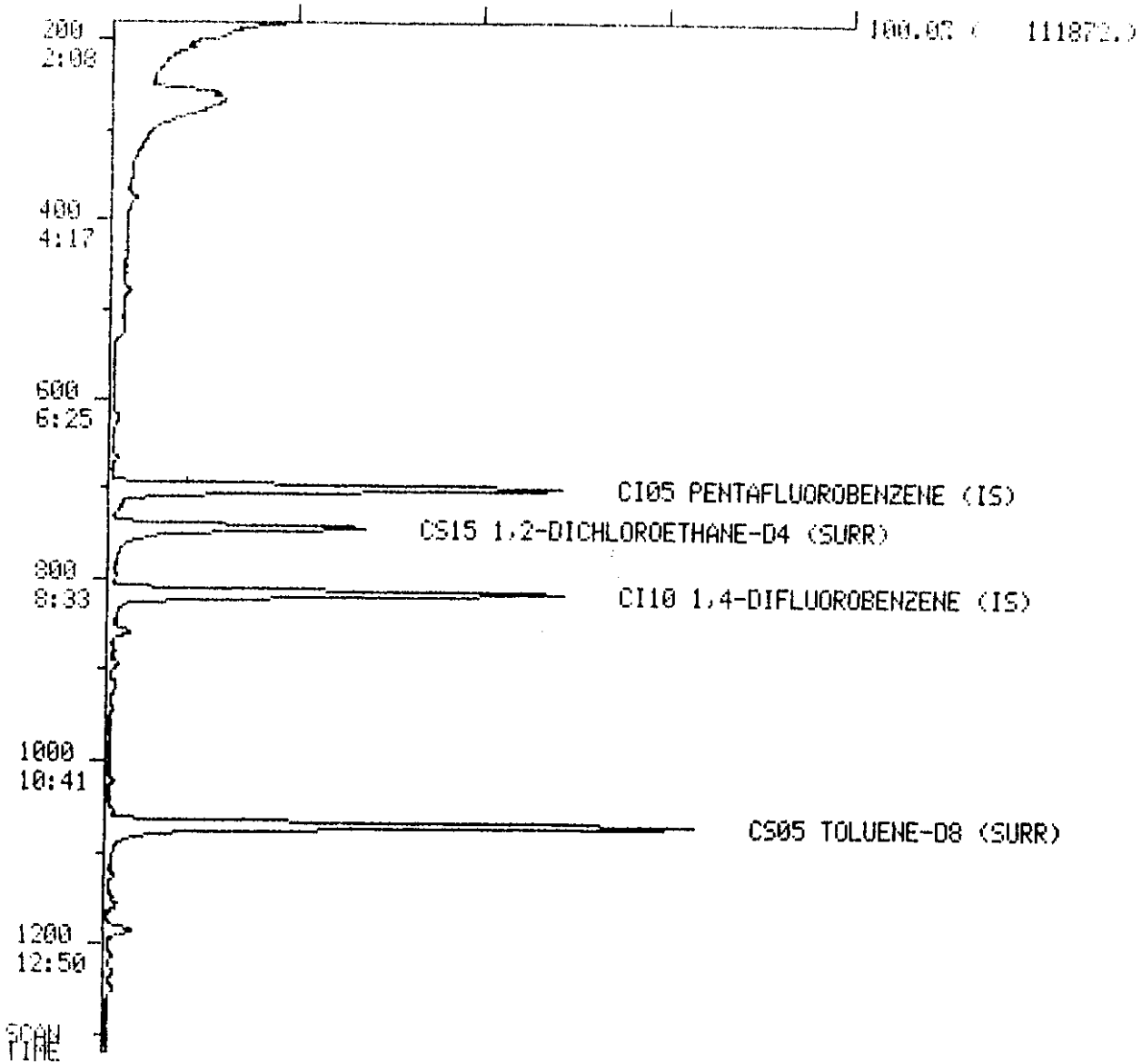


RIC+MASS CHROMATOGRAM
10/12/94 14:16:00
SAMPLE: BFB, VOLATILE TUNE, 50 NG
CONDS.: 180-150-DIR INJ
RANGE: G 1, 250 LABEL: N 2, 4.0 QUAN: A 2, 1.0 J 0 BASE: U 20, 3

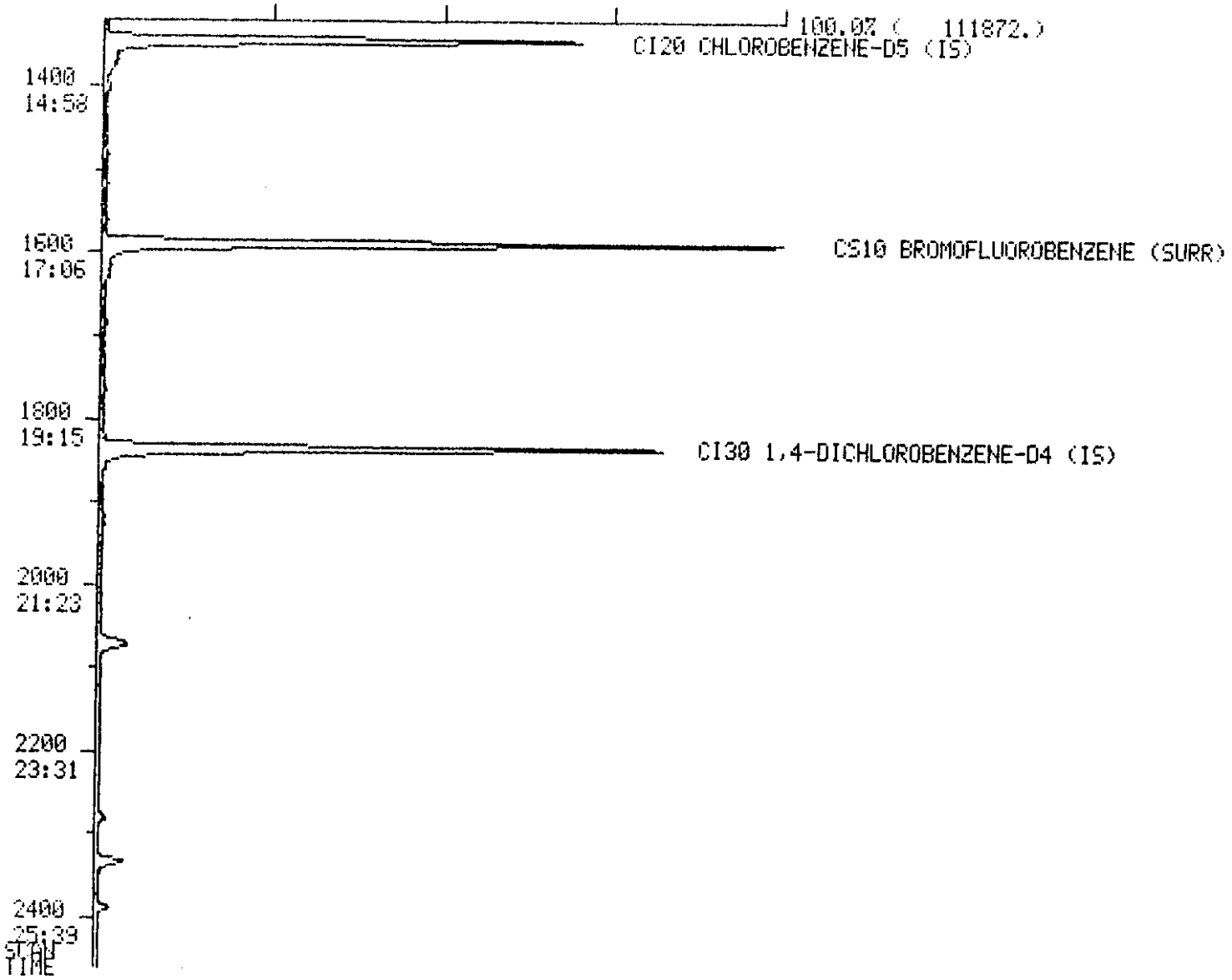
DATA: IF2101294 #235 SCANS 200 TO 250
CALI: CALTAB #3



DATA FROM FILE: IBL21012 SCANS 180 TO 1320 ACQUIRED: 10/12/94 16:03:00
CALI: IBL21012 #3 OUT OF 180 TO 2460
SAMPLE: VOLATILE INSTRUMENT BLANK 10/12/94
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



DATA FROM FILE: IBL21012 SCANS 1320 TO 2460 ACQUIRED: 10/12/94 16:09:00
CALI: IBL21012 #3 OUT OF 180 TO 2460
SAMPLE: VOLATILE INSTRUMENT BLANK 10/12/94
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



Quantitation Report File: IBL21012

Data: IBL21012.TI
10/12/94 16:09:00
Sample: VOLATILE INSTRUMENT BLANK 10/12/94
onds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 50.000
Submitted by: HIH/SWL Analyst: DBD Acct. No.: 5454/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI05 PENTAFLUOROBENZENE (IS)
2	CI10 1,4-DIFLUOROBENZENE (IS)
3	CI20 CHLOROBENZENE-D5 (IS)
4	CI30 1,4-DICHLOROBENZENE-D4 (IS)
5	CS15 1,2-DICHLOROETHANE-D4 (SURR)
6	CS05 TOLUENE-D8 (SURR)
7	CS10 BROMOFLUOROBENZENE (SURR)
8	C010 CHLOROMETHANE
9	C015 BROMOMETHANE
10	C020 VINYL CHLORIDE
11	C025 CHLOROETHANE
12	C031 TRICHLOROFLUOROMETHANE
13	C045 1,1-DICHLOROETHENE
14	C261 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE
15	C035 ACETONE
16	C040 CARBON DISULFIDE
17	C125 VINYL ACETATE
18	C030 METHYLENE CHLORIDE
19	C308 BROMOCHLOROMETHANE
20	C053 TRANS-1,2-DICHLOROETHENE
21	C050 1,1-DICHLOROETHANE
22	C110 2-BUTANONE (MEK)
23	C060 CHLOROFORM
24	C115 1,1,1-TRICHLOROETHANE
25	C120 CARBON TETRACHLORIDE
26	C165 BENZENE
27	C065 1,2-DICHLOROETHANE
28	C150 TRICHLOROETHENE
29	C140 1,2-DICHLOROPROPANE
30	C130 BROMODICHLOROMETHANE
31	C175 2-CHLOROETHYLVINYL ETHER
32	C143 CIS-1,3-DICHLOROPROPENE
33	C205 4-METHYL-2-PENTANONE (MIBK)
34	C230 TOLUENE
35	C172 TRANS-1,3-DICHLOROPROPENE
36	C160 1,1,2-TRICHLOROETHANE
37	C220 TETRACHLOROETHENE
38	C210 2-HEXANONE
39	C155 DIBROMOCHLOROMETHANE
40	C235 CHLOROBENZENE
41	C240 ETHYL BENZENE
42	C245 STYRENE
43	C180 BROMOFORM
44	C225 1,1,2,2-TETRACHLOROETHANE
45	C292 O-DICHLOROBENZENE
46	C250 M & P-XYLENE
47	C250 O-XYLENE

No	Name
48	C147 ETHYLENE DIBROMIDE
49	C254 IODOMETHANE
50	C148 DIBROMOMETHANE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	168	699	7:28	1	1.000	A BB	216842.	50.000 UG/L	12.04
2	114	814	8:42	2	1.000	A BB	257317.	50.000 UG/L	12.04
3	117	1343	14:21	3	1.000	A BB	219827.	50.000 UG/L	12.04
4	150	1833	19:36	4	1.000	A BB	181071.	50.000 UG/L	12.04
5	65	741	7:55	1	1.060	A BB	107010.	51.141 UG/L	12.31
6	98	1068	11:25	2	1.312	A BB	289347.	55.221 UG/L	13.29
7	95	1586	16:57	3	1.181	A BB	208405.	53.195 UG/L	12.81
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	83	666	7:07	1	0.953	A BB	1882.	0.459 UG/L	0.11
24	97	694	7:25	1	0.993	A BB	3061.	0.916 UG/L	0.22
25	NOT FOUND								
26	78	751	8:02	2	0.923	A BB	6634.	1.669 UG/L	0.40
27	62	754	8:04	2	0.926	A BB	1324.	0.585 UG/L	0.14
28	130	857	9:10	2	1.053	A BB	5090.	1.900 UG/L	0.46
29	63	892	9:32	2	1.096	A BB	3178.	1.703 UG/L	0.41
30	83	942	10:04	2	1.157	A BB	2709.	0.742 UG/L	0.18
31	NOT FOUND								
32	75	1022	10:56	2	1.256	A BB	2644.	1.139 UG/L	0.27
33	43	1053	11:15	2	1.294	A BV	4334.	2.822 UG/L	0.68
34	92	1081	11:33	2	1.328	A BB	3720.	1.316 UG/L	0.32
35	75	1124	12:01	2	1.381	A BB	2049.	0.844 UG/L	0.20
36	97	1156	12:21	2	1.420	A BB	2772.	1.387 UG/L	0.33
37	164	1183	12:39	3	0.881	A BB	4179.	1.304 UG/L	0.31
38	43	1212	12:57	3	0.902	A BB	3720.	3.567 UG/L	0.86
39	129	1230	13:09	3	0.916	A BB	3185.	0.863 UG/L	0.21
40	112	1348	14:25	3	1.004	A BB	4598.	0.983 UG/L	0.24
41	106	1374	14:41	3	1.023	A BB	997.	0.503 UG/L	0.12
42	104	1483	15:51	3	1.104	A BB	947.	0.239 UG/L	0.06
43	173	1515	16:12	3	1.128	A BB	1645.	0.567 UG/L	0.14
44	83	1623	17:21	4	0.885	A BB	2283.	0.811 UG/L	0.20
45	146	1919	20:31	4	1.047	A BB	1174.	0.263 UG/L	0.06
46	NOT FOUND								
47	106	1478	15:48	3	1.101	A BB	327.	0.351 UG/L	0.08
48	107	1249	13:21	3	0.930	A BB	4086.	1.261 UG/L	0.30
49	NOT FOUND								
50	93	913	9:46	2	1.122	A BB	1136.	0.504 UG/L	0.12

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	7:29	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	8:44	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	14:23	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	19:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
5	7:57	1.00	1.063	1.00	51.14	50.00	0.493	0.482	1.02
6	11:27	1.00	1.311	1.00	55.22	50.00	1.124	1.018	1.10
7	16:59	1.00	1.181	1.00	53.20	50.00	0.948	0.891	1.06
8	2:17		0.306						
9	2:49		0.377						
10	2:25		0.323						
11	2:57		0.394						
12	3:18		0.440						
13	4:00		0.534						
14	4:01		0.536						
15	4:07		0.550						
16	4:18		0.574						
17	5:50		0.779						
18	4:41		0.626						
19	7:00		0.936						
20	5:05		0.680						
21	5:43		0.764						
22	6:41		0.893						
23	7:08	1.00	0.954	1.00	0.46	50.00	0.009	0.945	0.01
24	7:26	1.00	0.993	1.00	0.92	50.00	0.014	0.770	0.02
25	7:43		0.884						
26	8:03	1.00	0.922	1.00	1.67	50.00	0.026	0.772	0.03
27	8:05	1.00	0.925	1.00	0.58	50.00	0.005	0.440	0.01
28	9:11	1.00	1.051	1.00	1.90	50.00	0.020	0.521	0.04
29	9:33	1.00	1.094	1.00	1.70	50.00	0.012	0.363	0.03
30	10:05	1.00	1.155	1.00	0.74	50.00	0.011	0.709	0.01
31	10:41		1.224						
32	10:56	1.00	1.252	1.00	1.14	53.00	0.010	0.451	0.02
33	11:17	1.00	1.291	1.00	2.82	50.00	0.017	0.298	0.06
34	11:35	1.00	1.326	1.00	1.32	50.00	0.014	0.549	0.03
35	12:02	1.00	1.378	1.00	0.84	47.00	0.008	0.472	0.02
36	12:23	1.00	1.419	1.00	1.39	50.00	0.011	0.388	0.03
37	12:40	1.00	0.881	1.00	1.30	50.00	0.019	0.729	0.03
38	12:58	1.00	0.902	1.00	3.57	50.00	0.017	0.237	0.07
39	13:10	1.00	0.916	1.00	0.86	50.00	0.014	0.840	0.02
40	14:27	1.00	1.004	1.00	0.98	50.00	0.021	1.064	0.02
41	14:43	1.00	1.023	1.00	0.50	50.00	0.005	0.451	0.01
42	15:52	1.00	1.103	1.00	0.24	50.00	0.004	0.901	0.00
43	16:13	1.00	1.128	1.00	0.57	50.00	0.007	0.660	0.01
44	17:22	1.00	0.885	1.00	0.81	50.00	0.013	0.778	0.02
45	20:31	1.00	1.046	1.00	0.26	50.00	0.006	1.232	0.01
46	14:59		1.042						
47	15:51	1.00	1.100	1.00	0.35	150.00	0.000	0.212	0.00
48	13:23	1.00	0.931	1.00	1.26	50.00	0.019	0.737	0.03
49	4:12		0.561						
50	9:47	1.00	1.120	1.00	0.50	50.00	0.004	0.438	0.01

Quantitation Report File: IBL21012

Data: IBL21012.TI
10/12/94 16:09:00
Sample: VOLATILE INSTRUMENT BLANK 10/12/94
Conds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 50.000
Submitted by: HIH/SWL Analyst: DBD Acct. No.: 5454/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	C280 CIS-1,2-DICHLOROETHENE
52	C279 1,1,1,2-TETRACHLOROETHANE
53	C267 TRANS-1,4-DICHLORO-2-BUTENE
54	C278 1,2,3-TRICHLOROPROPANE
55	C277 P-DICHLOROBENZENE
56	C276 1,2-DIBROMO-3-CHLOROPROPANE
57	C032 DICHLORODIFLUOROMETHANE
58	C282 ISOBUTYL ALCOHOL
59	C275 ACETONITRILE
60	C259 ALLYL CHLORIDE
61	C283 CHLOROPRENE
62	C285 PROPIONITRILE
63	C287 METHACRYLONITRILE
64	C288 METHYL METHACRYLATE
65	C289 ETHYL METHACRYLATE
66	C281 M-DICHLOROBENZENE
67	C033 DICHLOROFLUOROMETHANE
68	C298 EPICHLOROHYDRIN
69	C122 1,4-DIOXANE
70	C266 N-HEXANE
71	C296 CYCLOHEXANE
72	C268 2,2,4-TRIMETHYLPENTANE(ISO OCTANE)
73	C258 1,3-BUTADIENE
74	C271 METHYL-TERT-BUTYL ETHER
75	C445 1,2,4-TRICHLOROBENZENE
76	C256 DIMETHYL SULFIDE
77	C252 VINYL BROMIDE
78	C382 A-PINENE
79	C384 B-PINENE
80	C263 ACROLEIN
81	C264 ACRYLONITRILE
82	C309 BROMOBENZENE
83	C380 CUMENE
84	C300 N-PROPYLBENZENE
85	C301 2-CHLOROTOLUENE
86	C302 4-CHLOROTOLUENE
87	C385 1,3,5-TRIMETHYLBENZENE
88	C386 1,2,4-TRIMETHYLBENZENE
89	C303 TERT-BUTYLBENZENE
90	C304 SEC-BUTYLBENZENE
91	C311 N-BUTYLBENZENE
92	C390 P-CYMENE
93	C375 HEXACHLOROETHANE
94	C410 NITROBENZENE
95	C460 HEXACHLOROBUTADIENE
96	C450 NAPHTHALENE
97	C446 1,2,3-TRICHLOROBENZENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	96	616	6:35	1	0.881	A BB	880.	0.390 UG/L	0.09
52	131	1367	14:37	3	1.018	A BV	3690.	1.514 UG/L	0.36
53	NOT FOUND								
54	75	1627	17:24	4	0.888	A BB	3148.	1.412 UG/L	0.34
55	146	1839	19:40	4	1.003	A BB	1466.	0.382 UG/L	0.09
56	NOT FOUND								
57	NOT FOUND								
58	45	345	3:41	1	0.494	A BB	888.	10.590 UG/L	2.55
59	NOT FOUND								
60	NOT FOUND								
61	NOT FOUND								
62	NOT FOUND								
63	41	711	7:36	1	1.017	A BB	1871.	1.309 UG/L	0.32
64	41	919	9:49	2	1.129	A BB	2222.	1.828 UG/L	0.44
65	41	1149	12:17	3	0.856	A BB	1896.	1.189 UG/L	0.29
66	146	1819	19:27	4	0.992	A BB	1708.	0.419 UG/L	0.10
67	NOT FOUND								
68	NOT FOUND								
69	NOT FOUND								
70	NOT FOUND								
71	NOT FOUND								
72	NOT FOUND								
73	NOT FOUND								
74	73	478	5:07	1	0.684	A BB	3838.	1.120 UG/L	0.27
75	180	2279	24:22	4	1.243	A BB	3235.	0.774 UG/L	0.19
76	NOT FOUND								
77	NOT FOUND								
78	NOT FOUND								
79	NOT FOUND								
80	NOT FOUND								
81	NOT FOUND								
82	156	1614	17:15	4	0.881	A BB	812.	0.298 UG/L	0.07
83	105	1558	16:39	4	0.850	A BB	2126.	0.318 UG/L	0.08
84	91	1645	17:35	4	0.897	A BB	2163.	0.339 UG/L	0.08
85	91	1659	17:44	4	0.905	A BB	1651.	0.382 UG/L	0.09
86	91	1683	17:59	4	0.918	A BB	1755.	0.292 UG/L	0.07
87	105	1558	16:39	4	0.850	A BB	2126.	0.370 UG/L	0.09
88	105	1763	18:51	4	0.962	A BB	1986.	0.349 UG/L	0.08
89	119	1753	18:44	4	0.956	A BB	1622.	0.224 UG/L	0.05
90	105	1802	19:16	4	0.983	A BB	1941.	0.232 UG/L	0.06
91	91	1925	20:35	4	1.050	A BB	1835.	0.309 UG/L	0.07
92	119	1834	19:36	4	1.001	A BB	1965.	0.313 UG/L	0.08
93	NOT FOUND								
94	NOT FOUND								
95	225	2322	24:49	4	1.267	A BB	240.	0.075 UG/L	0.02
96	128	2330	24:54	4	1.271	A BB	20781.	3.988 UG/L	0.96
97	180	2279	24:22	4	1.243	A BB	3235.	0.920 UG/L	0.22

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	6:37	1.00	0.884	1.00	0.39	50.00	0.004	0.521	0.01
52	14:38	1.00	1.018	1.00	1.51	50.00	0.017	0.555	0.03
53	17:30		1.217						
54	17:25	1.00	0.888	1.00	1.41	50.00	0.017	0.615	0.03
55	19:41	1.00	1.003	1.00	0.38	50.00	0.008	1.060	0.01
56	22:23		1.141						
57	2:03		0.273						

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
58	3:43	0.99	0.496	1.00	10.59	500.00	0.000	0.019	0.02
59	4:31		0.603						
60	4:31		0.603						
61	6:31		1.000						
62	6:49		0.911						
63	7:37	1.00	1.019	1.00	1.31	50.00	0.009	0.329	0.03
64	9:51	1.00	1.127	1.00	1.83	50.00	0.009	0.236	0.04
65	12:17	1.00	0.854	1.00	1.19	50.00	0.009	0.363	0.02
66	19:28	1.00	0.992	1.00	0.42	50.00	0.009	1.125	0.01
67	2:22		0.303						
68	10:47		1.235						
69	9:57		1.138						
70	5:28		0.735						
71	8:03		1.119						
72	8:11		0.940						
73	2:26		0.326						
74	5:07	1.00	0.684	1.00	1.12	50.00	0.018	0.790	0.02
75	24:22	1.00	1.242	1.00	0.77	50.00	0.018	1.154	0.02
76	4:07		0.552						
77	3:09		0.423						
78	16:36		1.156						
79	18:05		0.922						
80	3:52		0.517						
81	5:05		0.679						
82	17:17	1.00	0.881	1.00	0.30	50.00	0.004	0.752	0.01
83	16:40	1.00	0.849	1.00	0.32	50.00	0.012	1.847	0.01
84	17:36	1.00	0.897	1.00	0.34	50.00	0.012	1.762	0.01
85	17:45	1.00	0.905	1.00	0.38	50.00	0.009	1.194	0.01
86	18:01	1.00	0.918	1.00	0.29	50.00	0.010	1.662	0.01
87	18:01	0.92	0.918	0.93	0.37	50.00	0.012	1.589	0.01
88	18:53	1.00	0.962	1.00	0.35	50.00	0.011	1.570	0.01
89	18:46	1.00	0.956	1.00	0.22	50.00	0.009	2.001	0.00
90	19:16	1.00	0.982	1.00	0.23	50.00	0.011	2.307	0.00
91	20:36	1.00	1.050	1.00	0.31	50.00	0.010	1.640	0.01
92	19:38	1.00	1.001	1.00	0.31	50.00	0.011	1.732	0.01
93	21:07		1.076						
94	22:53		1.166						
95	24:51	1.00	1.266	1.00	0.08	50.00	0.001	0.880	0.00
96	24:56	1.00	1.271	1.00	3.99	50.00	0.115	1.439	0.08
97	25:32	0.95	1.301	0.96	0.92	50.00	0.018	0.971	0.02

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PD-2_MS

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Lab Code: SWL HOU Case No.: 410061 SAS No.: WORKPLA SDG No.: 941006

Matrix: (soil/water) WATER Lab Sample ID: 9410061-11C

Sample wt/vol: _____ (g/mL) ML Lab File ID: I101203

Level: (low/med) LOW Date Received: 10/07/94

% Moisture: not dec. _____ Date Analyzed: 10/12/94

Column: (pack/cap) CAP Dilution Factor: 1

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	50	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	Methylethyl ketone (MEK)	50	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PD-2_MS

Lab Name: SWL - HOUSTON Contract: CORCO WORK

L Code: SWL HOU Case No.: 410061 SAS No.: WORKPLA SDG No.: 941006

Matrix: (soil/water) WATER Lab Sample ID: 9410061-11C

Sample wt/vol: _____ (g/mL) ML Lab File ID: I101203

Level: (low/med) LOW Date Received: 10/07/94

% Moisture: not dec. _____ Date Analyzed: 10/12/94

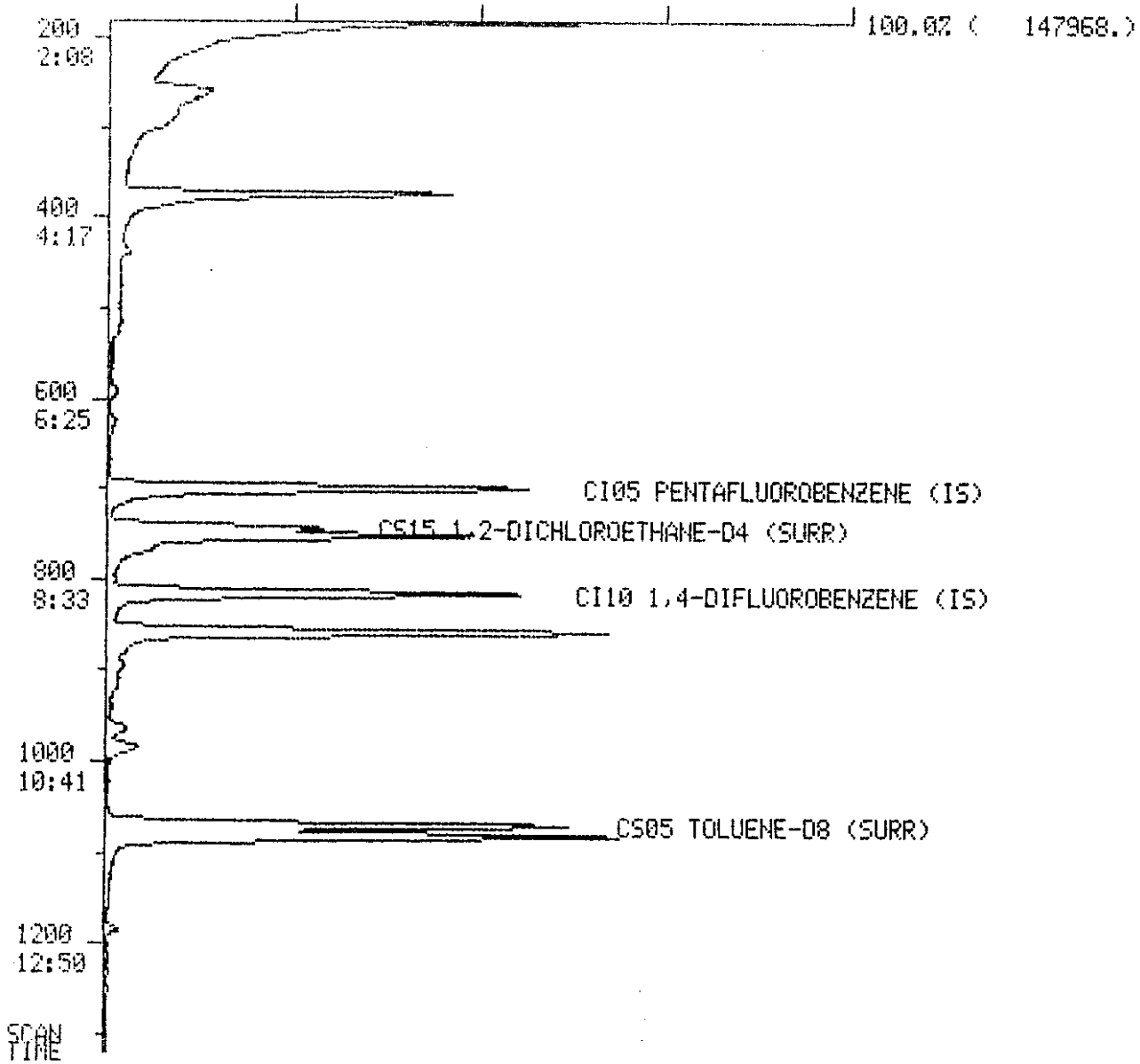
Column (pack/cap) CAP Dilution Factor: 1

Number TICs found: 0

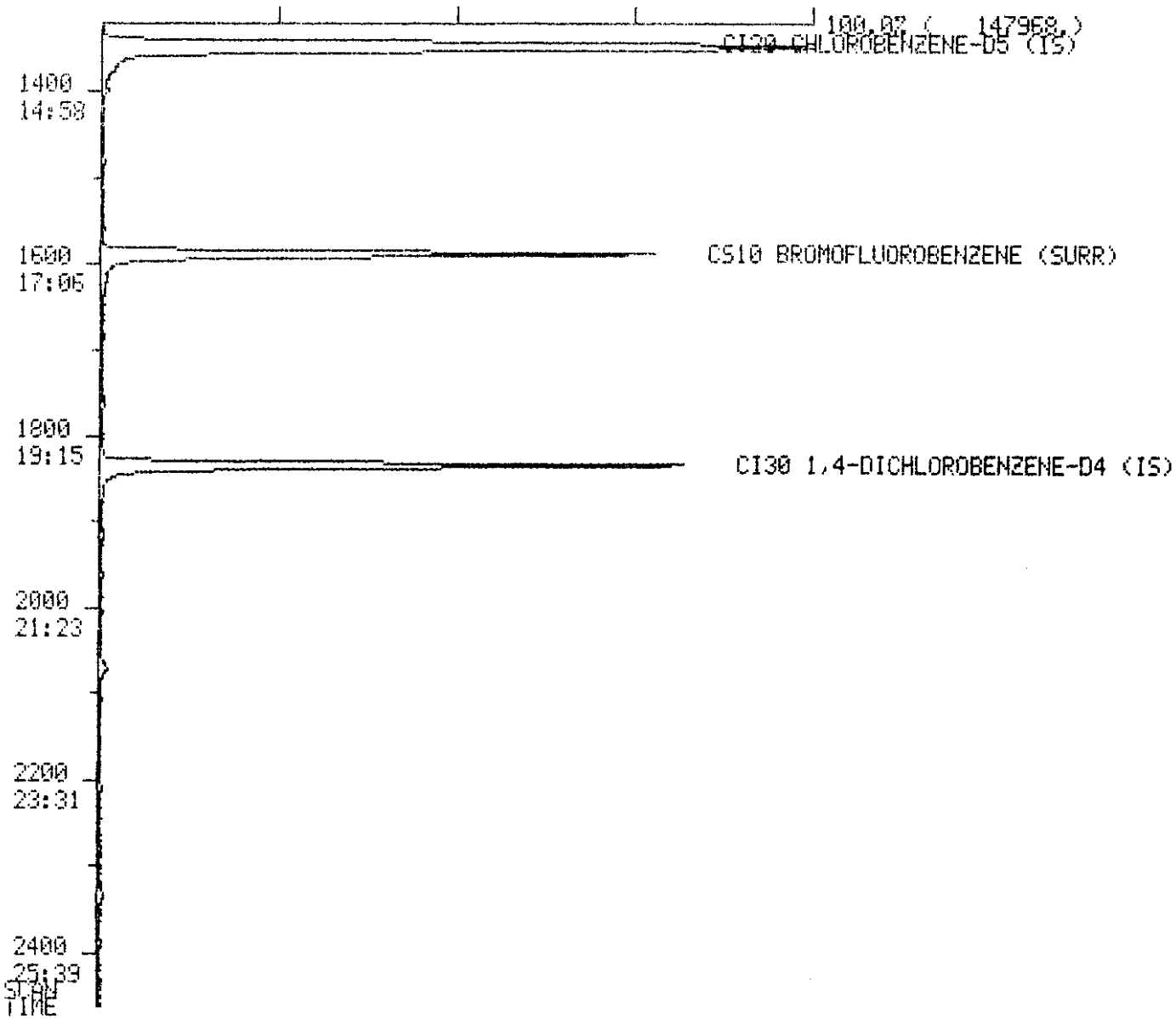
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

DATA FROM FILE: I101203 SCANS 180 TO 1320 ACQUIRED: 10/12/94 18:48:00
CALI: I101203 #3 OUT OF 180 TO 2460
SAMPLE: 9410061-11C DSM ENV PD-2 / MS 5.0 ML
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



DATA FROM FILE: I101203 SCANS 1320 TO 2460 ACQUIRED: 10/12/94 18:48:00
CALI: I101203 #3 OUT OF 180 TO 2460
SAMPLE: 9410061-11C DSM ENV FD-2 / MS 5.0 ML
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



Quantitation Report File: I101203

Date: I101203.TI
10/12/94 18:48:00
mple: 9410061-11C DSM ENV PD-2 / MS 5.0 ML
ds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
mula: VOLATILES Instrument: FINN Weight: 50.000
Submitted by: CORCO Analyst: DBD Acct. No.: WORKPLAN

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI05 PENTAFLUOROBENZENE (IS)
2	CI10 1,4-DIFLUOROBENZENE (IS)
3	CI20 CHLOROBENZENE-D5 (IS)
4	CI30 1,4-DICHLOROBENZENE-D4 (IS)
5	CS15 1,2-DICHLOROETHANE-D4 (SURR)
6	CS05 TOLUENE-D8 (SURR)
7	CS10 BROMOFLUOROBENZENE (SURR)
8	C010 CHLOROMETHANE
9	C015 BROMOMETHANE
10	C020 VINYL CHLORIDE
11	C025 CHLOROETHANE
12	C031 TRICHLOROFLUOROMETHANE
13	C045 1,1-DICHLOROETHENE
14	C261 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE
15	C035 ACETONE
16	C040 CARBON DISULFIDE
17	C125 VINYL ACETATE
[illegible]	C030 METHYLENE CHLORIDE
19	C308 BROMOCHLOROMETHANE
20	C053 TRANS-1,2-DICHLOROETHENE
21	C050 1,1-DICHLOROETHANE
22	C110 2-BUTANONE (MEK)
23	C060 CHLOROFORM
24	C115 1,1,1-TRICHLOROETHANE
25	C120 CARBON TETRACHLORIDE
26	C165 BENZENE
27	C065 1,2-DICHLOROETHANE
28	C150 TRICHLOROETHENE
29	C140 1,2-DICHLOROPROPANE
30	C130 BROMODICHLOROMETHANE
31	C175 2-CHLOROETHYLVINYL ETHER
32	C143 CIS-1,3-DICHLOROPROPENE
33	C205 4-METHYL-2-PENTANONE (MIBK)
34	C230 TOLUENE
35	C172 TRANS-1,3-DICHLOROPROPENE
36	C160 1,1,2-TRICHLOROETHANE
37	C220 TETRACHLOROETHENE
38	C210 2-HEXANONE
39	C155 DIBROMOCHLOROMETHANE
40	C235 CHLOROBENZENE
41	C240 ETHYL BENZENE
42	C245 STYRENE
[illegible]	C180 BROMOFORM
[illegible]	C225 1,1,2,2-TETRACHLOROETHANE
[illegible]	C292 O-DICHLOROBENZENE
46	C250 M & P-XYLENE
47	C250 O-XYLENE

No	Name
48	C147 ETHYLENE DIBROMIDE
49	C254 IODOMETHANE
50	C148 DIBROMOMETHANE

J	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	168	697	7:27	1	1.000	A BB	266711.	50.000 UG/L	7.91
2	114	814	8:42	2	1.000	A BB	296734.	50.000 UG/L	7.91
3	117	1342	14:21	3	1.000	A BB	272261.	50.000 UG/L	7.91
4	150	1833	19:36	4	1.000	A BB	234861.	50.000 UG/L	7.91
5	65	741	7:55	1	1.063	A BB	112369.	43.661 UG/L	6.91
6	98	1067	11:24	2	1.311	A BB	296716.	49.105 UG/L	7.77
7	95	1586	16:57	3	1.182	A BB	218245.	44.979 UG/L	7.12
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	96	372	3:59	1	0.534	A BB	114191.	46.169 UG/L	7.31
14	101	372	3:59	1	0.534	A BB	1368.	0.339 UG/L	0.05
15	NOT FOUND								
16	76	399	4:16	1	0.572	A BB	2530.	0.487 UG/L	0.08
17	NOT FOUND								
18	84	435	4:39	1	0.624	A BB	1347.	0.485 UG/L	0.08
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	72	623	6:40	1	0.894	A BB	1906.	7.037 UG/L	1.11
23	83	666	7:07	1	0.956	A BB	203.	0.040 UG/L	0.01
24	97	692	7:24	1	0.993	A BB	991.	0.241 UG/L	0.04
25	NOT FOUND								
26	78	750	8:01	2	0.921	A BB	249724.	54.484 UG/L	8.62
27	NOT FOUND								
28	130	856	9:09	2	1.052	A BB	151268.	48.965 UG/L	7.75
29	63	891	9:31	2	1.095	A BB	1335.	0.620 UG/L	0.10
30	83	942	10:04	2	1.157	A BB	715.	0.170 UG/L	0.03
31	NOT FOUND								
32	75	1022	10:56	2	1.256	A BB	583.	0.218 UG/L	0.03
33	43	1053	11:15	2	1.294	A BV	1811.	1.023 UG/L	0.16
34	92	1080	11:33	2	1.327	A BB	199107.	61.060 UG/L	9.66
35	75	1124	12:01	2	1.381	A BB	551.	0.197 UG/L	0.03
36	97	1155	12:21	2	1.419	A BB	981.	0.426 UG/L	0.07
37	164	1181	12:37	3	0.880	A BB	2532.	0.638 UG/L	0.10
38	43	1213	12:58	3	0.904	A BB	1428.	1.106 UG/L	0.17
39	129	1230	13:09	3	0.917	A BB	1042.	0.228 UG/L	0.04
40	112	1348	14:25	3	1.004	A BB	306112.	52.847 UG/L	8.36
41	106	1373	14:41	3	1.023	A BB	1005.	0.409 UG/L	0.06
42	104	1482	15:51	3	1.104	A BB	853.	0.174 UG/L	0.03
43	NOT FOUND								
44	83	1622	17:20	4	0.885	A BB	1262.	0.345 UG/L	0.05
45	NOT FOUND								
46	NOT FOUND								
47	106	1476	15:47	3	1.100	A BB	493.	0.115 UG/L	0.02
48	107	1249	13:21	3	0.931	A BB	1428.	0.356 UG/L	0.06
49	NOT FOUND								
	NOT FOUND								

Quantitation Report File: I101203

Data: I101203.TI
10/12/94 18:48:00
mple: 9410061-11C DSM ENV PD-2 / MS 5.0 ML
ds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
rmula: VOLATILES Instrument: FINN Weight: 50.000
Submitted by: CORCO Analyst: DBD Acct. No.: WORKPLAN

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	C280 CIS-1,2-DICHLOROETHENE
52	C279 1,1,1,2-TETRACHLOROETHANE
53	C267 TRANS-1,4-DICHLORO-2-BUTENE
54	C278 1,2,3-TRICHLOROPROPANE
55	C277 P-DICHLOROBENZENE
56	C276 1,2-DIBROMO-3-CHLOROPROPANE
57	C032 DICHLORODIFLUOROMETHANE
58	C282 ISOBUTYL ALCOHOL
59	C275 ACETONITRILE
60	C259 ALLYL CHLORIDE
61	C283 CHLOROPRENE
62	C285 PROPIONITRILE
63	C287 METHACRYLONITRILE
64	C288 METHYL METHACRYLATE
65	C289 ETHYL METHACRYLATE
66	C281 M-DICHLOROBENZENE
67	C033 DICHLOROFLUOROMETHANE
68	C298 EPICHLOROHYDRIN
69	C122 1,4-DIOXANE
70	C266 N-HEXANE
71	C296 CYCLOHEXANE
72	C268 2,2,4-TRIMETHYLPENTANE(ISO OCTANE)
73	C258 1,3-BUTADIENE
74	C271 METHYL-TERT-BUTYL ETHER
75	C445 1,2,4-TRICHLOROBENZENE
76	C256 DIMETHYL SULFIDE
77	C252 VINYL BROMIDE
78	C382 A-PINENE
79	C384 B-PINENE
80	C263 ACROLEIN
81	C264 ACRYLONITRILE
82	C309 BROMOBENZENE
83	C380 CUMENE
84	C300 N-PROPYLBENZENE
85	C301 2-CHLOROTOLUENE
86	C302 4-CHLOROTOLUENE
87	C385 1,3,5-TRIMETHYLBENZENE
88	C386 1,2,4-TRIMETHYLBENZENE
89	C303 TERT-BUTYLBENZENE
90	C304 SEC-BUTYLBENZENE
91	C311 N-BUTYLBENZENE
92	C390 P-CYMENE
93	C375 HEXACHLOROETHANE
	C410 NITROBENZENE
95	C460 HEXACHLOROBUTADIENE
96	C450 NAPHTHALENE
97	C446 1,2,3-TRICHLOROBENZENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT	FOUND							
52	131	1367	14:37	3	1.019	A BV	2497.	0.827 UG/L	0.13
53	NOT	FOUND							
54	75	1629	17:25	4	0.889	A BB	1789.	0.619 UG/L	0.10
55	146	1837	19:38	4	1.002	A BB	852.	0.171 UG/L	0.03
56	NOT	FOUND							
57	NOT	FOUND							
58	NOT	FOUND							
59	NOT	FOUND							
60	NOT	FOUND							
61	NOT	FOUND							
62	NOT	FOUND							
63	41	710	7:35	1	1.019	A BB	6719.	3.823 UG/L	0.61
64	41	918	9:49	2	1.128	A BB	2219.	1.583 UG/L	0.25
65	41	1146	12:15	3	0.854	A BV	759.	0.384 UG/L	0.06
66	146	1819	19:27	4	0.992	A BB	1268.	0.240 UG/L	0.04
67	NOT	FOUND							
68	NOT	FOUND							
69	NOT	FOUND							
70	57	514	5:30	1	0.737	A BB	702.	0.456 UG/L	0.07
71	NOT	FOUND							
72	57	767	8:12	2	0.942	A BB	25315.	4.614 UG/L	0.73
73	NOT	FOUND							
74	73	475	5:05	1	0.681	A BB	998.	0.237 UG/L	0.04
75	180	2278	24:21	4	1.243	A BB	603.	0.111 UG/L	0.02
76	47	388	4:09	1	0.557	A VB	398.	0.416 UG/L	0.07
77	NOT	FOUND							
78	NOT	FOUND							
79	NOT	FOUND							
80	NOT	FOUND							
81	NOT	FOUND							
82	156	1615	17:16	4	0.881	A BB	215.	0.061 UG/L	0.01
83	105	1556	16:38	4	0.849	A BB	1413.	0.163 UG/L	0.03
84	91	1645	17:35	4	0.897	A BB	1196.	0.145 UG/L	0.02
85	91	1658	17:43	4	0.905	A BB	1204.	0.215 UG/L	0.03
86	91	1683	17:59	4	0.918	A BB	657.	0.084 UG/L	0.01
87	105	1556	16:38	4	0.849	A BB	1413.	0.163 UG/L	0.03
88	105	1764	18:51	4	0.962	A BB	1774.	0.241 UG/L	0.04
89	119	1752	18:44	4	0.956	A BB	959.	0.102 UG/L	0.02
90	NOT	FOUND							
91	91	1924	20:34	4	1.050	A BB	373.	0.048 UG/L	0.01
92	119	1834	19:36	4	1.001	A BB	1310.	0.161 UG/L	0.03
93	NOT	FOUND							
94	NOT	FOUND							
95	NOT	FOUND							
96	128	2330	24:54	4	1.271	A BB	7561.	1.119 UG/L	0.18
97	180	2278	24:21	4	1.243	A BB	603.	0.111 UG/L	0.02

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PD-2_MSD

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Lab Code: SWL HOU Case No.: 410061 SAS No.: WORKPLA SDG No.: 941006

Matrix: (soil/water) WATER Lab Sample ID: 9410061-11D

Sample wt/vol: _____ (g/mL) ML Lab File ID: I101204

Level: (low/med) LOW Date Received: 10/07/94

% Moisture: not dec. ____ Date Analyzed: 10/12/94

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	50	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	Methylethyl ketone (MEK)	50	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PD-2_MSD

Lab Name: SWL - HOUSTON Contract: CORCO WORK

L Code: SWL HOU Case No.: 410061 SAS No.: WORKPLA SDG No.: 941006

Matrix: (soil/water) WATER Lab Sample ID: 9410061-11D

Sample wt/vol: _____ (g/mL) ML Lab File ID: I101204

Level: (low/med) LOW Date Received: 10/07/94

% Moisture: not dec. _____ Date Analyzed: 10/12/94

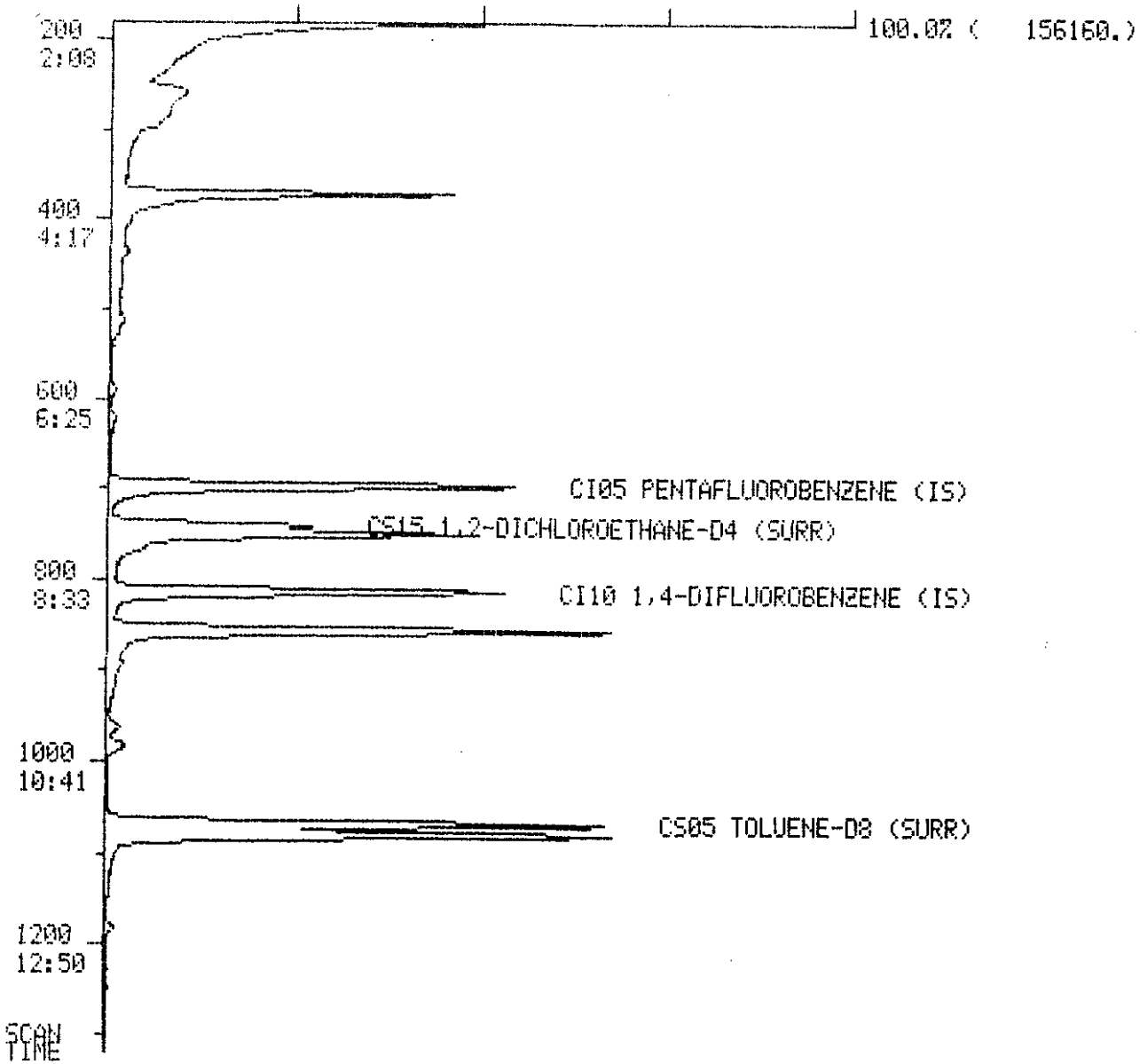
Column (pack/cap) CAP Dilution Factor: 1

Number TICs found: 0

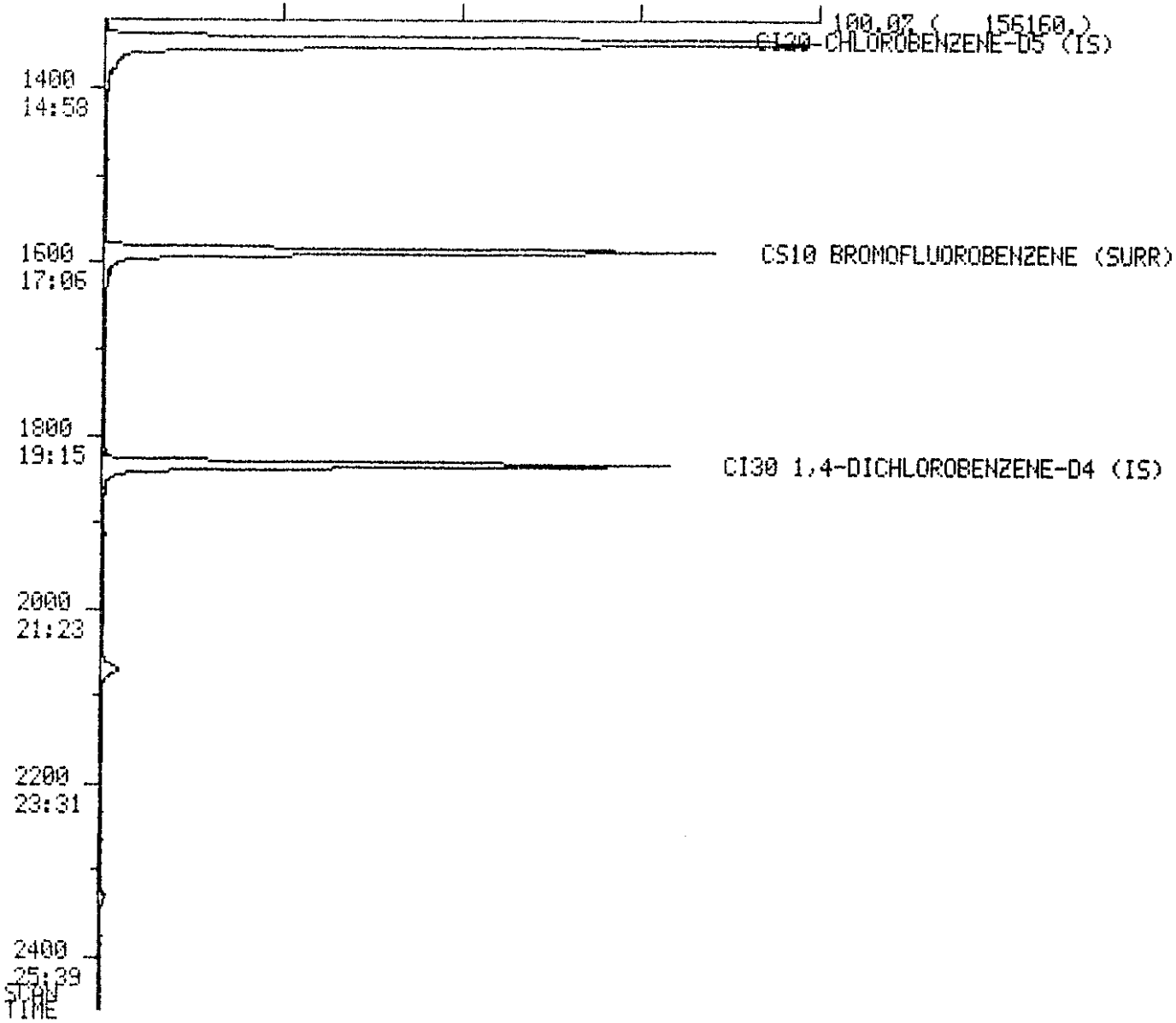
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

DATA FROM FILE: I101204 SCANS 180 TO 1320 ACQUIRED: 10/12/94 19:24:00
CALI: I101204 #3 OUT OF 180 TO 2460
SAMPLE: 9410061-11D DSM ENV PD-2 / MSD 5.0 ML
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



DATA FROM FILE: I101204 SCANS 1320 TO 2460 ACQUIRED: 10/12/94 19:24:00
CALI: I101204 #3 OUT OF 180 TO 2460
SAMPLE: 9410061-11D DSM ENV PD-2 / MSD 5.0 ML
CONDS.: 40(3) 40-180 @ 6/MIN WATER MATRIX



Quantitation Report File: I101204

Data: I101204.TI
10/12/94 19:24:00
ample: 9410061-11D DSM ENV PD-2 / MSD 5.0 ML
ids.: 40(3) 40-180 @ 6/MIN WATER MATRIX
Formula: VOLATILES Instrument: FINN Weight: 50.000
Submitted by: CORCO Analyst: DBD Acct. No.: WORKPLAN

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI05 PENTAFLUOROBENZENE (IS)
2	CI10 1,4-DIFLUOROBENZENE (IS)
3	CI20 CHLOROBENZENE-D5 (IS)
4	CI30 1,4-DICHLOROBENZENE-D4 (IS)
5	CS15 1,2-DICHLOROETHANE-D4 (SURR)
6	CS05 TOLUENE-D8 (SURR)
7	CS10 BROMOFLUOROBENZENE (SURR)
8	C010 CHLOROMETHANE
9	C015 BROMOMETHANE
10	C020 VINYL CHLORIDE
11	C025 CHLOROETHANE
12	C031 TRICHLOROFLUOROMETHANE
13	C045 1,1-DICHLOROETHENE
14	C261 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE
15	C035 ACETONE
16	C040 CARBON DISULFIDE
7	C125 VINYL ACETATE
3	C030 METHYLENE CHLORIDE
19	C308 BROMOCHLOROMETHANE
20	C053 TRANS-1,2-DICHLOROETHENE
21	C050 1,1-DICHLOROETHANE
22	C110 2-BUTANONE (MEK)
23	C060 CHLOROFORM
24	C115 1,1,1-TRICHLOROETHANE
25	C120 CARBON TETRACHLORIDE
26	C165 BENZENE
27	C065 1,2-DICHLOROETHANE
28	C150 TRICHLOROETHENE
29	C140 1,2-DICHLOROPROPANE
30	C130 BROMODICHLOROMETHANE
31	C175 2-CHLOROETHYLVINYL ETHER
32	C143 CIS-1,3-DICHLOROPROPENE
33	C205 4-METHYL-2-PENTANONE (MIBK)
34	C230 TOLUENE
35	C172 TRANS-1,3-DICHLOROPROPENE
36	C160 1,1,2-TRICHLOROETHANE
37	C220 TETRACHLOROETHENE
38	C210 2-HEXANONE
39	C155 DIBROMOCHLOROMETHANE
40	C235 CHLOROBENZENE
41	C240 ETHYL BENZENE
42	C245 STYRENE
3	C180 BROMOFORM
	C225 1,1,2,2-TETRACHLOROETHANE
45	C292 O-DICHLOROBENZENE
46	C250 M & P-XYLENE
47	C250 O-XYLENE

No	Name
48	C147 ETHYLENE DIBROMIDE
49	C254 IODOMETHANE
50	C148 DIBROMOMETHANE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	168	696	7:26	1	1.000	A BB	273734.	50.000 UG/L	7.83
2	114	812	8:41	2	1.000	A BB	304905.	50.000 UG/L	7.83
3	117	1341	14:20	3	1.000	A BB	285929.	50.000 UG/L	7.83
4	150	1832	19:35	4	1.000	A BB	246531.	50.000 UG/L	7.83
5	65	739	7:54	1	1.062	A BB	116911.	44.261 UG/L	6.93
6	98	1066	11:24	2	1.313	A BB	337154.	54.302 UG/L	8.50
7	95	1585	16:57	3	1.182	A BB	248400.	48.746 UG/L	7.63
8	NOT FOUND								
9	94	260	2:47	1	0.374	A BB	336.	0.073 UG/L	0.01
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	96	369	3:57	1	0.530	A BB	119332.	47.010 UG/L	7.36
14	101	369	3:57	1	0.530	A BB	1255.	0.303 UG/L	0.05
15	NOT FOUND								
16	76	398	4:15	1	0.572	A BB	4684.	0.879 UG/L	0.14
17	NOT FOUND								
18	84	433	4:38	1	0.622	A BB	1931.	0.678 UG/L	0.11
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	72	620	6:38	1	0.891	A BB	1699.	6.112 UG/L	0.96
3	NOT FOUND								
4	97	692	7:24	1	0.994	A BB	908.	0.215 UG/L	0.03
25	NOT FOUND								
26	78	748	8:00	2	0.921	A BB	263504.	55.950 UG/L	8.76
27	NOT FOUND								
28	130	854	9:08	2	1.052	A BB	155973.	49.135 UG/L	7.69
29	63	892	9:32	2	1.099	A BB	1094.	0.495 UG/L	0.08
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	43	1052	11:15	2	1.296	A BB	1339.	0.736 UG/L	0.12
34	92	1078	11:31	2	1.328	A BB	205367.	61.292 UG/L	9.60
35	NOT FOUND								
36	97	1155	12:21	2	1.422	A BB	323.	0.136 UG/L	0.02
37	164	1181	12:37	3	0.881	A BB	2252.	0.540 UG/L	0.08
38	43	1210	12:56	3	0.902	A BB	534.	0.394 UG/L	0.06
39	129	1229	13:08	3	0.916	A BB	485.	0.101 UG/L	0.02
40	112	1346	14:23	3	1.004	A BB	332086.	54.591 UG/L	8.55
41	106	1371	14:39	3	1.022	A BB	233.	0.090 UG/L	0.01
42	104	1481	15:50	3	1.104	A BB	539.	0.105 UG/L	0.02
43	NOT FOUND								
44	83	1622	17:20	4	0.885	A BB	771.	0.201 UG/L	0.03
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	107	1248	13:20	3	0.931	A BB	967.	0.229 UG/L	0.04
9	NOT FOUND								
	NOT FOUND								

Quantitation Report File: I101204

Data: I101204.TI
10/12/94 19:24:00
mple: 9410061-11D DSM ENV PD-2 / MSD 5.0 ML
ds.: 40(3) 40-180 @ 6/MIN WATER MATRIX
rmula: VOLATILES Instrument: FINN Weight: 50.000
Submitted by: CORCO Analyst: DBD Acct. No.: WORKPLAN

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	C280 CIS-1,2-DICHLOROETHENE
52	C279 1,1,1,2-TETRACHLOROETHANE
53	C267 TRANS-1,4-DICHLORO-2-BUTENE
54	C278 1,2,3-TRICHLOROPROPANE
55	C277 P-DICHLOROBENZENE
56	C276 1,2-DIBROMO-3-CHLOROPROPANE
57	C032 DICHLORODIFLUOROMETHANE
58	C282 ISOBUTYL ALCOHOL
59	C275 ACETONITRILE
60	C259 ALLYL CHLORIDE
61	C283 CHLOROPRENE
62	C285 PROPIONITRILE
63	C287 METHACRYLONITRILE
64	C288 METHYL METHACRYLATE
65	C289 ETHYL METHACRYLATE
66	C281 M-DICHLOROBENZENE
7	C033 DICHLOROFLUOROMETHANE
3	C298 EPICHLOROHYDRIN
69	C122 1,4-DIOXANE
70	C266 N-HEXANE
71	C296 CYCLOHEXANE
72	C268 2,2,4-TRIMETHYLPENTANE(ISO OCTANE)
73	C258 1,3-BUTADIENE
74	C271 METHYL-TERT-BUTYL ETHER
75	C445 1,2,4-TRICHLOROBENZENE
76	C256 DIMETHYL SULFIDE
77	C252 VINYL BROMIDE
78	C382 A-PINENE
79	C384 B-PINENE
80	C263 ACROLEIN
81	C264 ACRYLONITRILE
82	C309 BROMOBENZENE
83	C380 CUMENE
84	C300 N-PROPYLBENZENE
85	C301 2-CHLOROTOLUENE
86	C302 4-CHLOROTOLUENE
87	C385 1,3,5-TRIMETHYLBENZENE
88	C386 1,2,4-TRIMETHYLBENZENE
89	C303 TERT-BUTYLBENZENE
90	C304 SEC-BUTYLBENZENE
91	C311 N-BUTYLBENZENE
92	C390 P-CYMENE
3	C375 HEXACHLOROETHANE
	C410 NITROBENZENE
95	C460 HEXACHLOROBUTADIENE
96	C450 NAPHTHALENE
97	C446 1,2,3-TRICHLOROBENZENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT	FOUND							
52	131	1365	14:36	3	1.018	A BB	1570.	0.495 UG/L	0.08
53	NOT	FOUND							
54	75	1626	17:23	4	0.888	A BB	1586.	0.523 UG/L	0.08
55	146	1836	19:38	4	1.002	A BB	317.	0.061 UG/L	0.01
56	NOT	FOUND							
57	85	188	2:01	1	0.270	A BB	221.	0.048 UG/L	0.01
58	NOT	FOUND							
59	NOT	FOUND							
60	NOT	FOUND							
61	NOT	FOUND							
62	NOT	FOUND							
63	41	708	7:34	1	1.017	A BB	4288.	2.377 UG/L	0.37
64	41	916	9:48	2	1.128	A BB	1063.	0.738 UG/L	0.12
65	41	1147	12:16	3	0.855	A BB	536.	0.258 UG/L	0.04
66	146	1817	19:25	4	0.992	A BB	999.	0.180 UG/L	0.03
67	NOT	FOUND							
68	NOT	FOUND							
69	NOT	FOUND							
70	57	511	5:28	1	0.734	A BB	2782.	1.759 UG/L	0.28
71	NOT	FOUND							
72	57	764	8:10	2	0.941	A BB	19649.	3.485 UG/L	0.55
73	NOT	FOUND							
74	73	473	5:03	1	0.680	A BB	499.	0.115 UG/L	0.02
75	NOT	FOUND							
76	47	384	4:06	1	0.552	A BB	301.	0.307 UG/L	0.05
77	NOT	FOUND							
78	NOT	FOUND							
[illegible]	NOT	FOUND							
80	NOT	FOUND							
81	NOT	FOUND							
82	NOT	FOUND							
83	105	1554	16:37	4	0.848	A BB	1061.	0.117 UG/L	0.02
84	91	1643	17:34	4	0.897	A BB	746.	0.086 UG/L	0.01
85	91	1658	17:43	4	0.905	A BB	474.	0.081 UG/L	0.01
86	91	1681	17:58	4	0.918	A BB	433.	0.053 UG/L	0.01
87	105	1554	16:37	4	0.848	A BB	1061.	0.117 UG/L	0.02
88	105	1762	18:50	4	0.962	A BB	957.	0.124 UG/L	0.02
89	119	1751	18:43	4	0.956	A BB	567.	0.057 UG/L	0.01
90	105	1798	19:13	4	0.981	A BB	320.	0.028 UG/L	0.00
91	NOT	FOUND							
92	119	1833	19:36	4	1.001	A BB	1122.	0.131 UG/L	0.02
93	NOT	FOUND							
94	NOT	FOUND							
95	NOT	FOUND							
96	128	2329	24:54	4	1.271	A BB	7063.	0.995 UG/L	0.16
97	NOT	FOUND							

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: _____

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	PD-2	73	57	31 *	19	30	38	0	1
02	PD-2_DUP	66	57	42	21	32	45	0	0
03	PD-2_MS	55	44	29 *	23	33	34	0	1
04	PD-2_MSD	66	45	14 *	21	29	36	0	1
05	BLK_1011_H2O	59	60	93	22	39	66	0	0

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(35-114)
S2 (FBP) = 2-Fluorobiphenyl	(43-116)
S3 (TPH) = Terphenyl	(33-141)
S4 (PHL) = Phenol-d5	(10-110)
S5 (2FP) = 2-Fluorophenol	(21-110)
S6 (TBP) = 2,4,6-Tribromophenol	(10-123)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: PD-2

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	200	0	60.6	30	12- 89
2-Chlorophenol	200	0	123	62	27-123
1,4-Dichlorobenzene	100	0	39.2	39	36 97
N-Nitroso-di-n-prop.(1)	100	0	59.0	59	41 116
1,2,4-Trichlorobenzene	100	0	42.8	43	39 98
4-Chloro-3-methylphenol	200	0	135	68	23 97
Acenaphthene	100	0	45.2	45 *	46-118
4-Nitrophenol	200	0	63.8	32	10- 80
2,4-Dinitrotoluene	100	0	44.6	45	24- 96
Pentachlorophenol	200	0	77.4	39	9-103
Pyrene	100	0	24.6	25 *	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	200	57.2	29	3	42	12- 89
2-Chlorophenol	200	114	57	8	40	27-123
1,4-Dichlorobenzene	100	52.0	52	-29 *	28	36 97
N-Nitroso-di-n-prop.(1)	100	72.0	72	-20	38	41 116
1,2,4-Trichlorobenzene	100	51.0	51	-17	28	39 98
4-Chloro-3-methylphenol	200	130	65	5	42	23 97
Acenaphthene	100	47.4	47	-4	31	46-118
4-Nitrophenol	200	52.4	26	21	50	10- 80
2,4-Dinitrotoluene	100	54.6	55	-20	38	24- 96
Pentachlorophenol	200	88.6	44	-12	50	9-103
Pyrene	100	14.2	14 *	56 *	31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
Values outside of QC limits

PD: 2 out of 11 outside limits
Spike Recovery: 3 out of 22 outside limits

COMMENTS: 9410061-12A DSM ENV PD-2
40(4) TO 285 @ 12/MIN HOLD 17

4B

SEMIVOLATILE METHOD BLANK SUMMARY

ab Name: SWL - HOUSTON Contract: CORCO WORK

Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: _____

ab File ID: X1012005 Lab Sample ID: BLK DI H2O

ate Extracted: 10/11/94 Extraction:(SepF/Cont/Sonc) SEPF

ate Analyzed: 10/12/94 Time Analyzed: 2149

atrix: (soil/water) WATER Level:(low/med) LOW

nstrument ID: FINN

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	PD-2	9410061-12A	X1012001	10/12/94
02	PD-2_DUP	9410061-12B	X1012002	10/12/94
03	PD-2_MS	9410061-12C	X1012003	10/12/94
04	PD-2_MSD	9410061-12D	X1012004	10/12/94

OMMENTS: BLK DI H2O 10/11/94
40(4) TO 285 @ 12/MIN HOLD 17

5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

ab Name: SWL - HOUSTON Contract: CORCO WORK

a Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: _____

ab File ID: DFTPX0921 DFTPP Injection Date: 09/21/94

nstrument ID: XLE DFTPP Injection Time: 0955

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	49.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	52.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	42.0
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	24.8
365	Greater than 1.00% of mass 198	1.76
441	Present, but less than mass 443	0.1
442	Greater than 40.0% of mass 198	72.6
443	17.0 - 23.0% of mass 442	12.9 (17.8)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050		BCLX0921	09/21/94	1011
02	SSTD160		B0921160	09/21/94	1128
03	SSTD120		B0921120	09/21/94	1226
04	SSTD080		B0921080	09/21/94	1325
05	SSTD020		B0921020	09/21/94	1423

5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

.ab Name: SWL - HOUSTON Contract: CORCO WORK

.. .ode: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: _____

.ab File ID: DFTPX1012 DFTPP Injection Date: 10/12/94

:nstrument ID: XLE DFTPP Injection Time: 1433

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	58.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	54.6
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	45.4
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	28.0
365	Greater than 1.00% of mass 198	2.91
441	Present, but less than mass 443	13.4
442	Greater than 40.0% of mass 198	69.2
443	17.0 - 23.0% of mass 442	12.5 (18.1)2

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

. TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050		BCLX1012	10/12/94	1451
02	PD-2	9410061-12A	X1012001	10/12/94	1805
03	PD-2_DUP	9410061-12B	X1012002	10/12/94	1901
04	PD-2_MS	9410061-12C	X1012003	10/12/94	1956
05	PD-2_MSD	9410061-12D	X1012004	10/12/94	2053
06	BLK_1011_H2O	BLK_DI_H2O	X1012005	10/12/94	2149

8C

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

ab Name: SWL - HOUSTON Contract: CORCO WORK

Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: _____

ab File ID (Standard): BCLX1012 Date Analyzed: 10/12/94

nstrument ID: FINN Time Analyzed: 1451

		IS4(PHN) AREA #	RT	IS5(CRY) AREA #	RT	IS6(PRY) AREA #	RT
	12 HOUR STD	199254	19.29	148764	25.12	106261	30.01
	UPPER LIMIT	398508		297528		212522	
	LOWER LIMIT	99627		74382		53130	
	EPA SAMPLE NO.						
01	PD-2	153021	19.30	121384	25.16	73329	30.06
02	PD-2_DUP	147444	19.35	120488	25.19	71885	30.12
03	PD-2_MS	134424	19.40	116645	25.24	71588	30.21
04	PD-2_MSD	139942	19.40	122120	25.26	75482	30.21
05	BLK_1011_H2O	145621	19.37	124553	25.22	71211	30.19

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-2 1/87 Rev.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PD-2

ab Name: SWL - HOUSTON Contract: CORCO WORK

Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: 941006

atrix: (soil/water) WATER Lab Sample ID: 9410061-12A

ample wt/vol: 1000 (g/mL) ML Lab File ID: X1012001

evel: (low/med) LOW Date Received: 10/07/94

Moisture: not dec. ____ dec. ____ Date Extracted: 10/11/94

xtraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/12/94

PC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PD-2

ab Name: SWL - HOUSTON Contract: CORCO WORK

Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: 941006

atrix: (soil/water) WATER Lab Sample ID: 9410061-12A

ample wt/vol: 1000 (g/mL) ML Lab File ID: X1012001

evel: (low/med) LOW Date Received: 10/07/94

Moisture: not dec. ____ dec. ____ Date Extracted: 10/11/94

xtraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/12/94

PC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PD-2

ab Name: SWL - HOUSTON Contract: CORCO WORK

Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: 941006

atrix: (soil/water) WATER Lab Sample ID: 9410061-12A

ample wt/vol: 1000 (g/mL) ML Lab File ID: X1012001

evel: (low/med) LOW Date Received: 10/07/94

Moisture: not dec. ____ dec. ____ Date Extracted: 10/11/94

xtraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/12/94

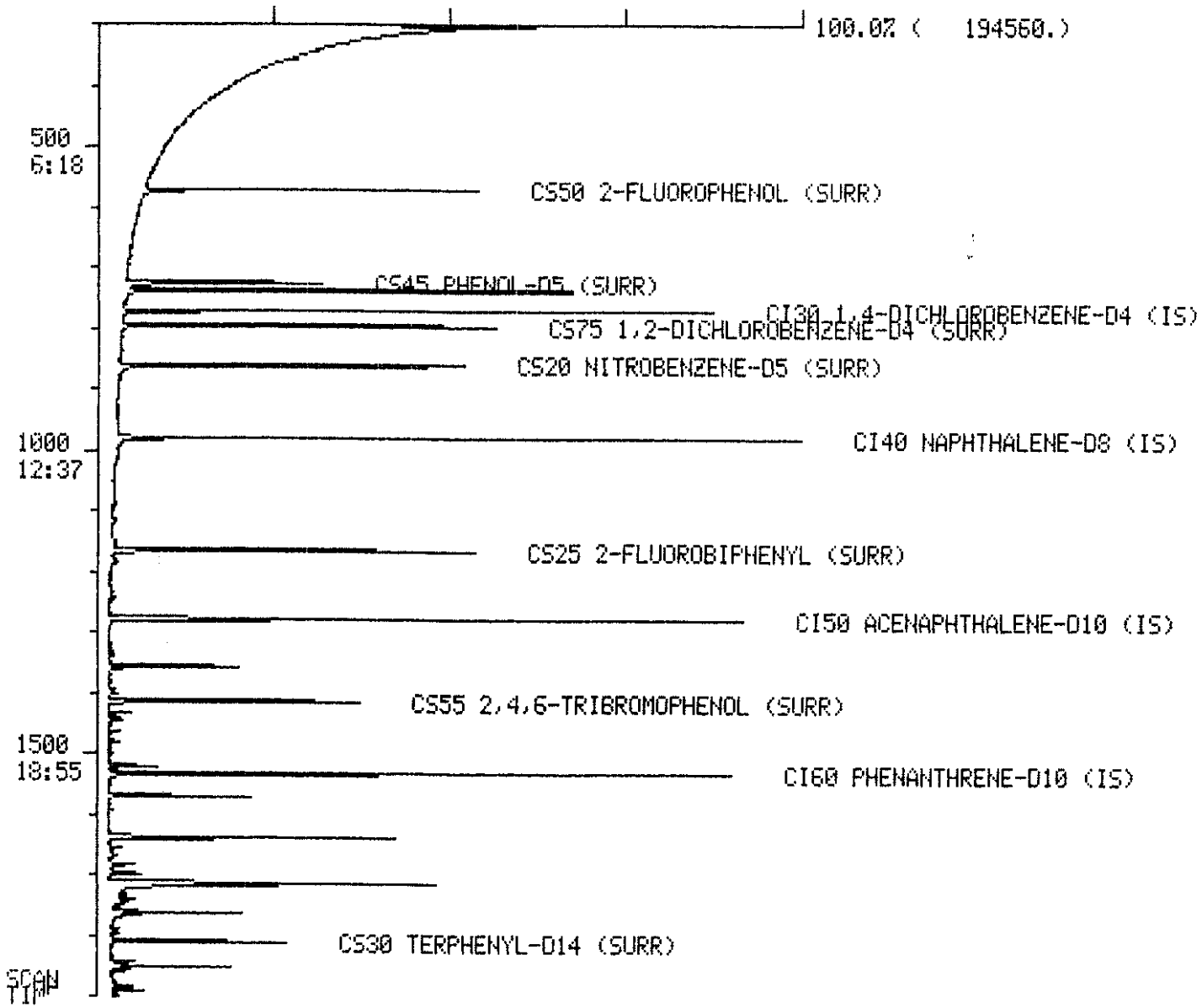
PC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

umber TICs found: 7

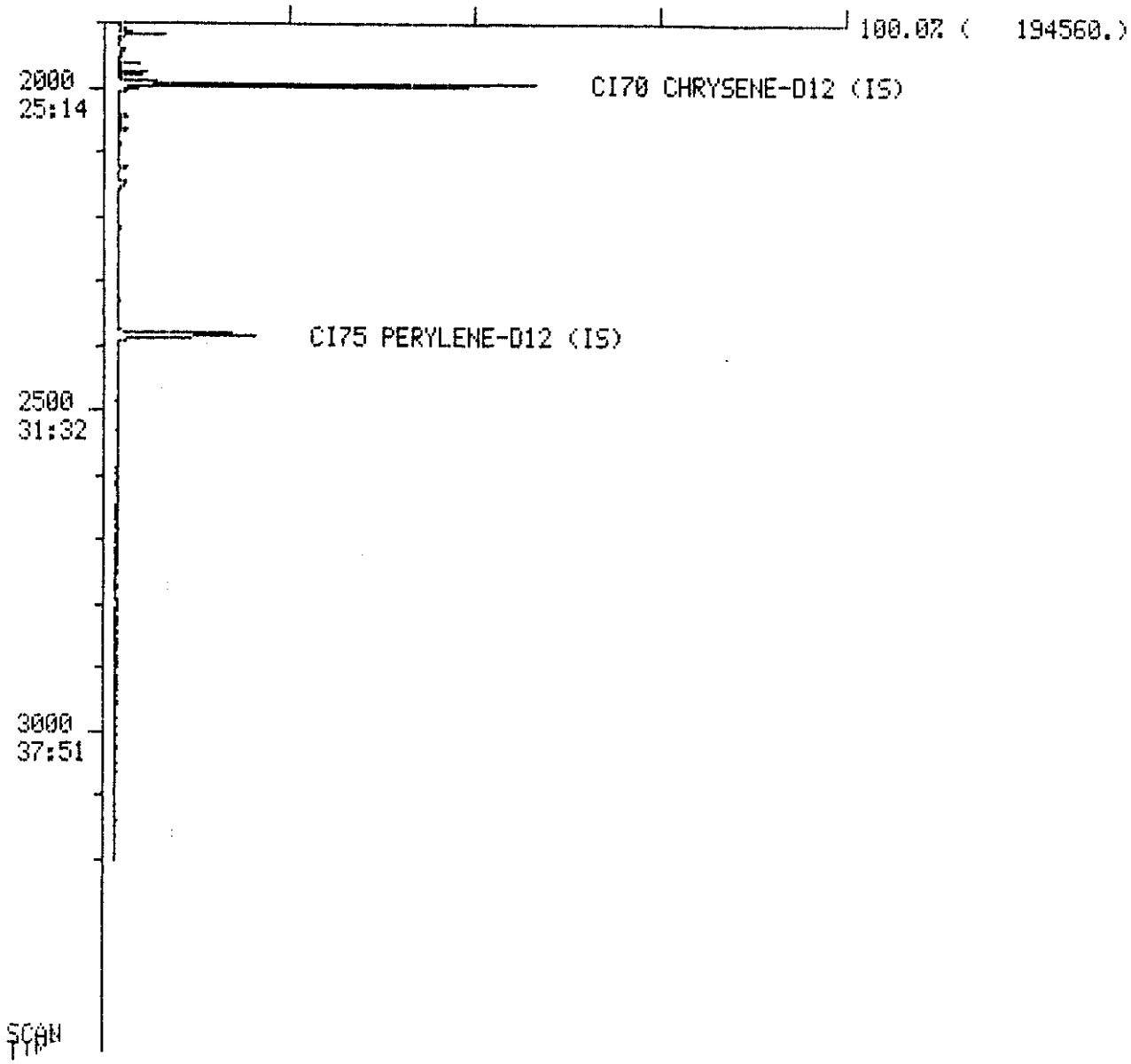
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.13	0.52	J
2.	UNKNOWN	7.18	12	J
3.	UNKNOWN	21.59	8.0	J
. 15297-92-4	2H-NAPHTHO[2,3-B]PYRAN-5,10-	21.60	34	J
. 4707-33-9	2H-NAPHTHO[2,3-B]PYRAN-5,10-	22.20	13	J
6.	UNKNOWN	23.34	20	J
7.	UNKNOWN	24.17	7.7	J

DATA FROM FILE: X1012001 SCANS 300 TO 1900 ACQUIRED: 10/12/94 18:05:00
CALI: X1012001 #3 OUT OF 300 TO 3200
SAMPLE: 9410061-12A DSM ENV PD-2
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17



DATA FROM FILE: X1012001 SCANS 1900 TO 3200 ACQUIRED: 10/12/94 18:05:00
CALI: X1012001 #3 OUT OF 300 TO 3200
SAMPLE: 9410061-12A DSM ENV PD-2
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17



1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PD-2_DUP

ab Name: SWL - HOUSTON Contract: CORCO WORK

Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: 941006

atrix: (soil/water) WATER Lab Sample ID: 9410061-12B

ample wt/vol: 1000 (g/mL) ML Lab File ID: X1012002

evel: (low/med) LOW Date Received: 10/07/94

Moisture: not dec. ____ dec. ____ Date Extracted: 10/11/94

xtraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/12/94

PC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PD-2_DUP

ab Name: SWL - HOUSTON Contract: CORCO WORK

a Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: 941006

atrix: (soil/water) WATER Lab Sample ID: 9410061-12B

ample wt/vol: 1000 (g/mL) ML Lab File ID: X1012002

evel: (low/med) LOW Date Received: 10/07/94

Moisture: not dec. ____ dec. ____ Date Extracted: 10/11/94

xtraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/12/94

PC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PD-2_DUP

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Lab Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: 941006

Matrix: (soil/water) WATER Lab Sample ID: 9410061-12B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: X1012002

Level: (low/med) LOW Date Received: 10/07/94

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/11/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/12/94

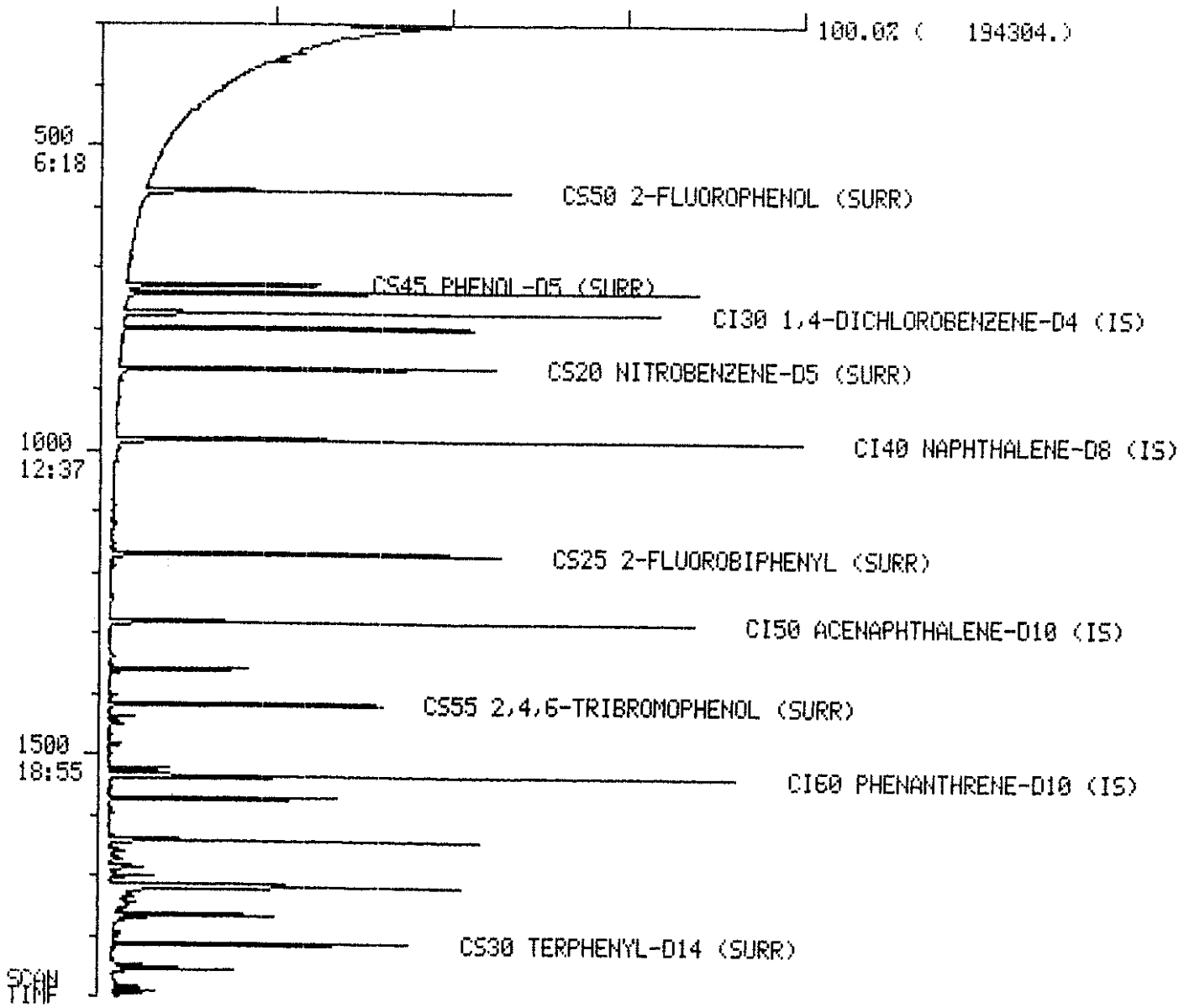
GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 7

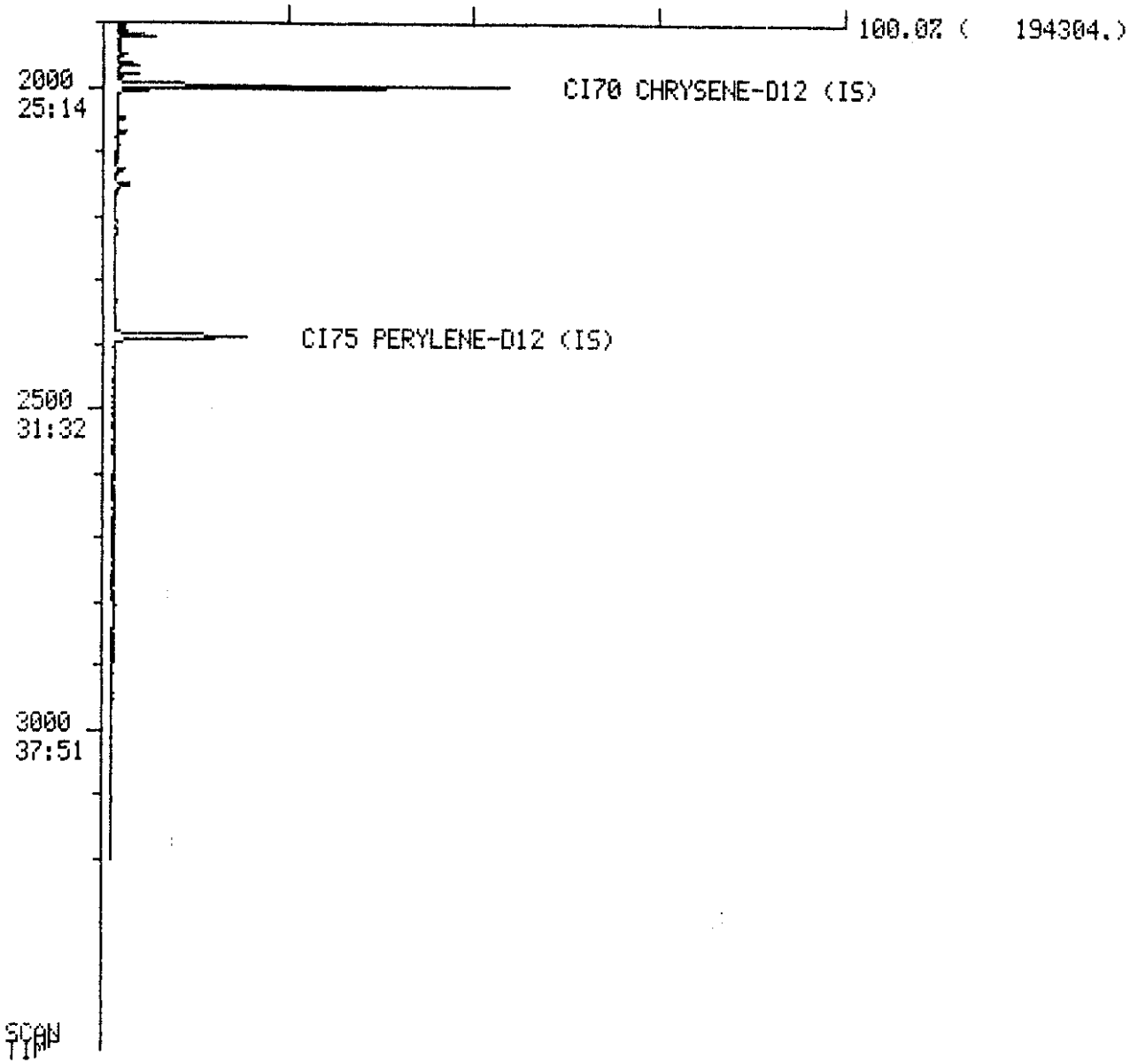
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.23	13	J
2.	UNKNOWN	19.85	0.76	J
3. 15297-92-4	2H-NAPHTHO[2,3-B]PYRAN-5,10-	21.64	36	J
. 4707-33-9	2H-NAPHTHO[2,3-B]PYRAN-5,10-	21.64	14	J
5.	UNKNOWN	22.25	13	J
6.	UNKNOWN	23.39	2.5	J
7. 17851-53-5	1,2-BENZENEDICARBOXYLIC ACID	23.85	0.91	J

DATA FROM FILE: X1012002 SCANS 300 TO 1900 ACQUIRED: 10/12/94 19:01:00
CALI: X1012002 #3 OUT OF 300 TO 3200
SAMPLE: 9410061-12B DSM ENV PD-2/DUP
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17



DATA FROM FILE: X1012002 SCANS 1900 TO 3200 ACQUIRED: 10/12/94 19:01:00
CALI: X1012002 #3 OUT OF 300 TO 3200
SAMPLE: 9410061-12B DSM ENV PD-2/DUP
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17



1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PD-2_MS

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Lab Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: 941006

Matrix: (soil/water) WATER Lab Sample ID: 9410061-12C

Sample wt/vol: 1000 (g/mL) ML Lab File ID: X1012003

Level: (low/med) LOW Date Received: 10/07/94

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/11/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/12/94

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	61	
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	120	
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	39	
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	59	
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	43	
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	130	
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PD-2_MS

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Lab Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: 941006

Matrix: (soil/water) WATER Lab Sample ID: 9410061-12C

Sample wt/vol: 1000 (g/mL) ML Lab File ID: X1012003

Level: (low/med) LOW Date Received: 10/07/94

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/11/94

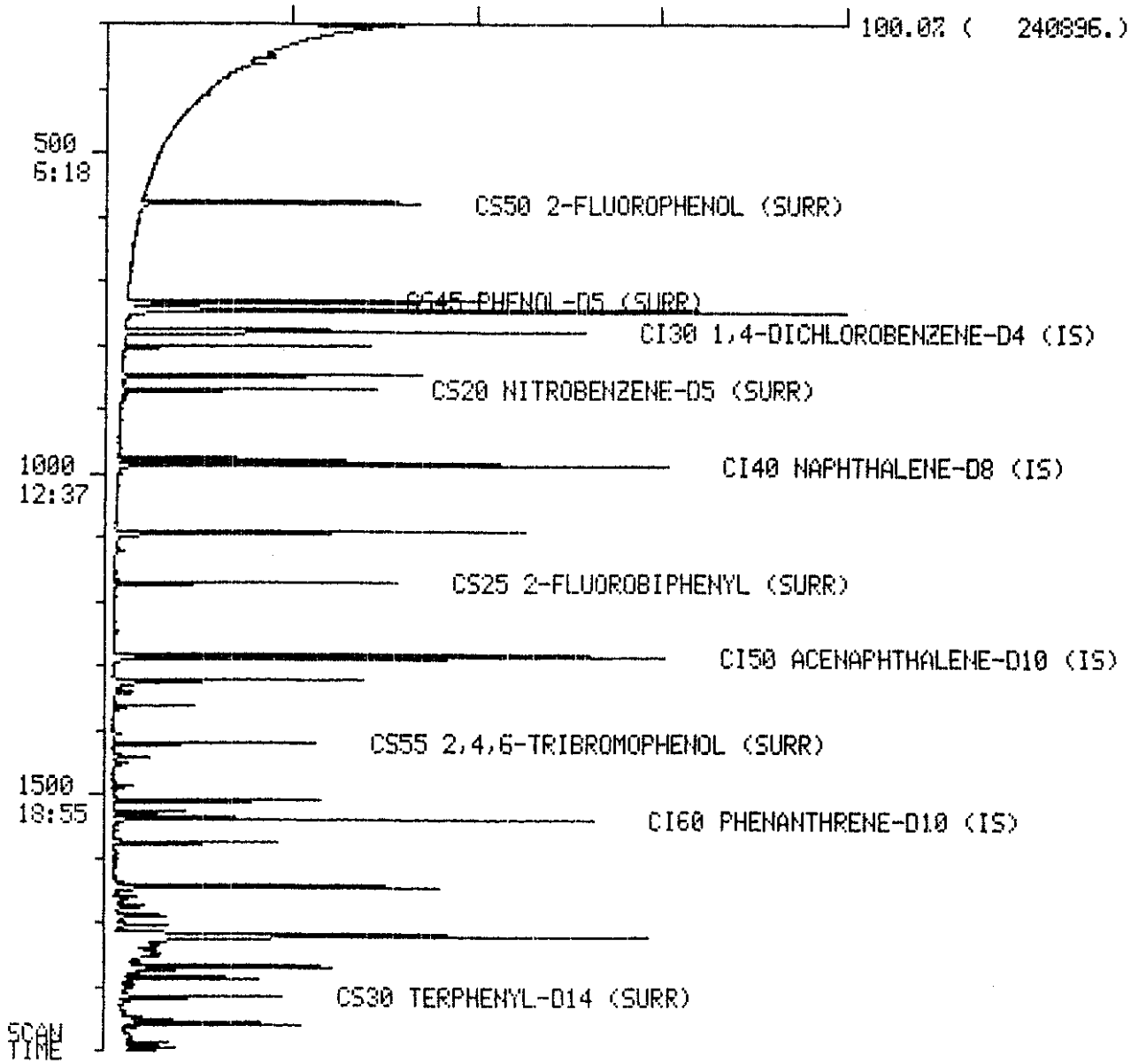
Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/12/94

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

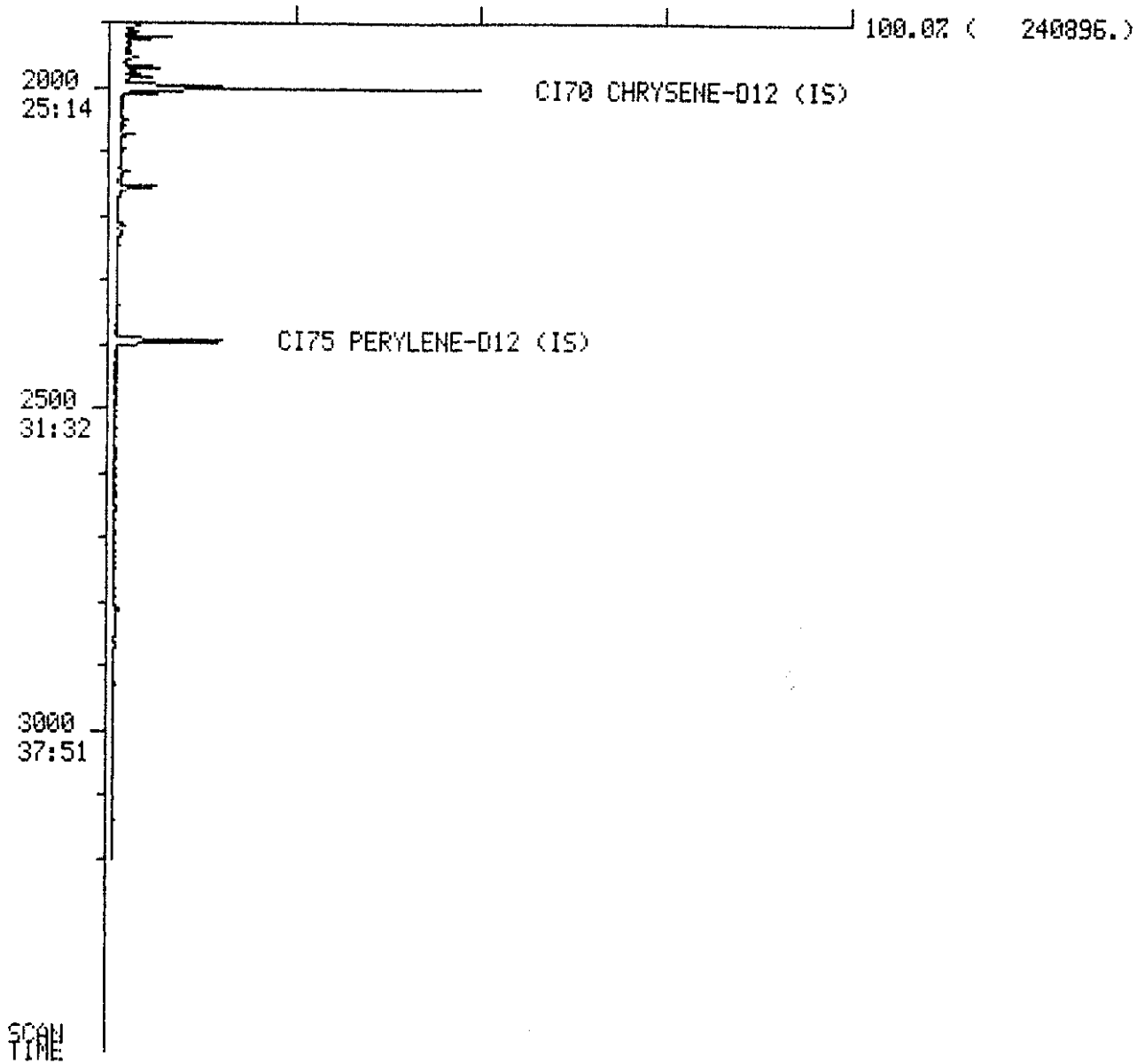
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	45	
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	64	
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	45	
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	77	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	25	
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

DATA FROM FILE: X1012003 SCANS 300 TO 1900 ACQUIRED: 10/12/94 19:56:00
CALI: X1012003 #3 OUT OF 300 TO 3200
SAMPLE: 9410061-12C DSM ENV PD-2/MS
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17



DATA FROM FILE: X1012003 SCANS 1900 TO 3200 ACQUIRED: 10/12/94 19:56:00
CALI: X1012003 #3 OUT OF 300 TO 3200
SAMPLE: 9410061-12C DSM ENV PD-2/MS
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17



1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PD-2_MSD

ab Name: SWL - HOUSTON Contract: CORCO WORK

Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: 941006

atrix: (soil/water) WATER Lab Sample ID: 9410061-12D

ample wt/vol: 1000 (g/mL) ML Lab File ID: X1012004

evel: (low/med) LOW Date Received: 10/07/94

Moisture: not dec. ____ dec. ____ Date Extracted: 10/11/94

xtraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/12/94

PC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	57	
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	110	
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	52	
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	72	
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	51	
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	130	
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PD-2_MSD

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Lab Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: 941006

Matrix: (soil/water) WATER Lab Sample ID: 9410061-12D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: X1012004

Level: (low/med) LOW Date Received: 10/07/94

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/11/94

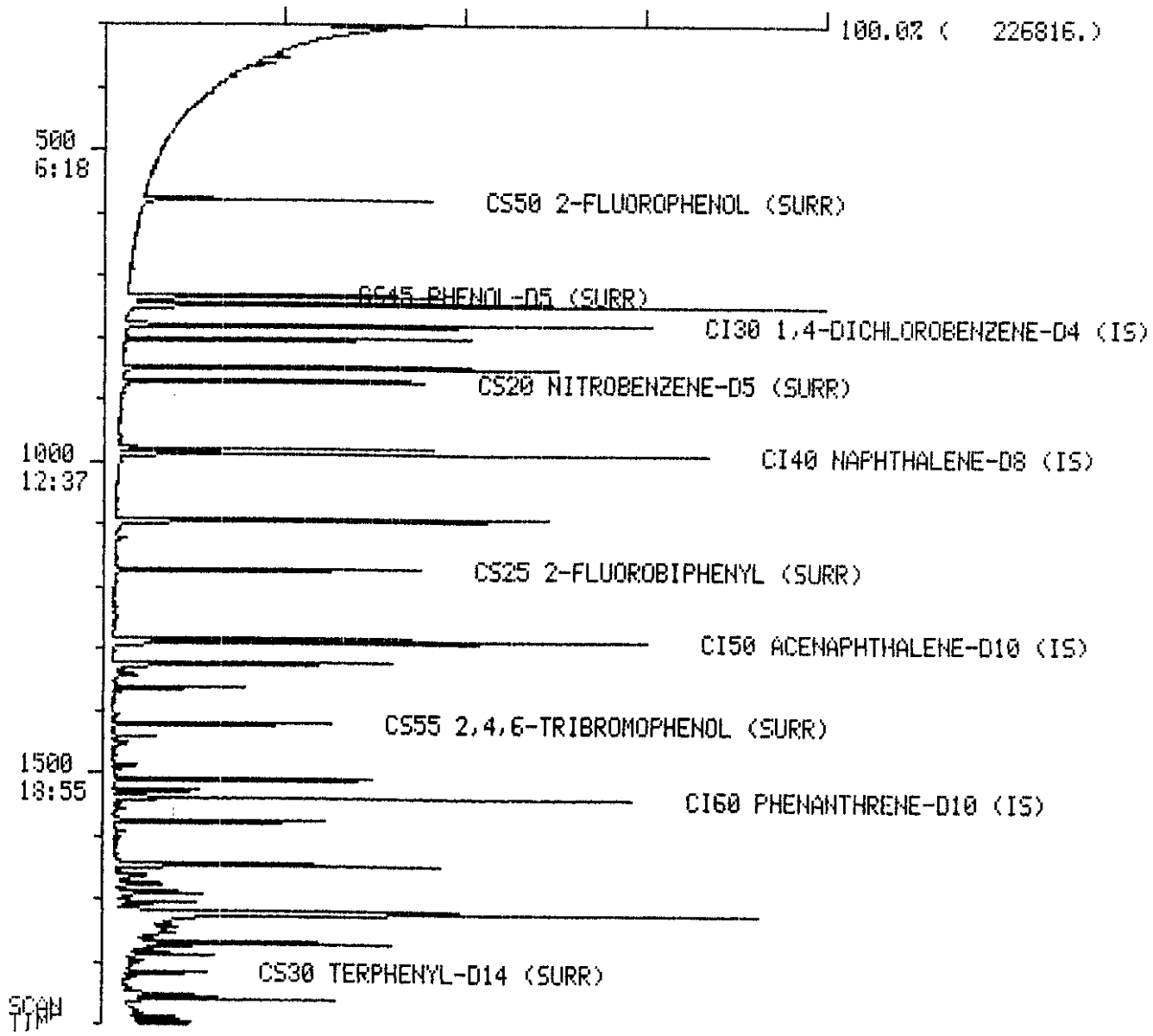
Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/12/94

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

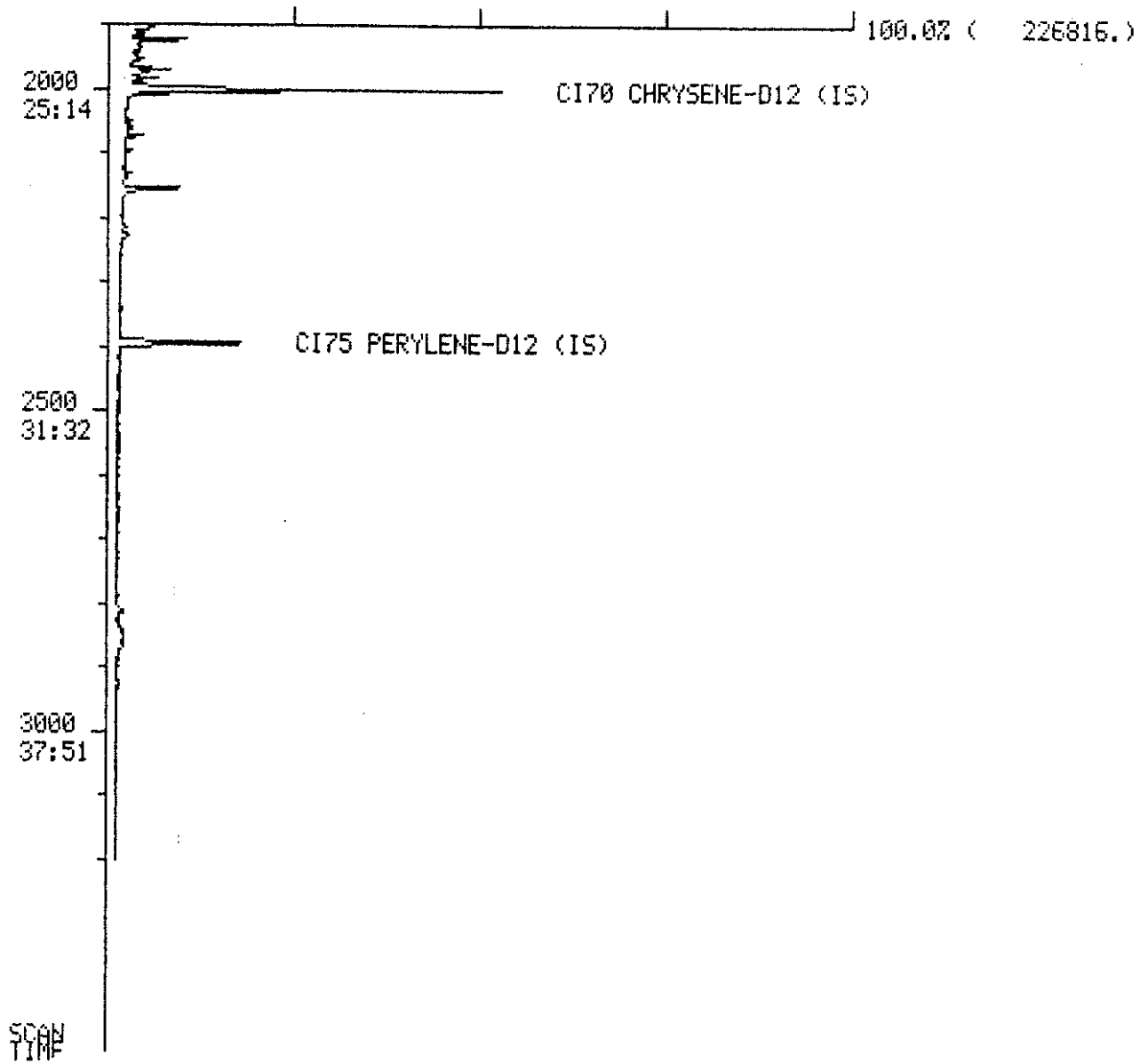
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	47	
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	52	
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	55	
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	89	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	14	
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

DATA FROM FILE: X1012004 SCANS 300 TO 1900 ACQUIRED: 10/12/94 20:53:00
CALI: X1012004 #3 OUT OF 300 TO 3200
SAMPLE: 9410061-12D DSM ENV PD-2/MSD
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17



DATA FROM FILE: X1012004 SCANS 1900 TO 3200 ACQUIRED: 10/12/94 20:53:00
CALI: X1012004 #3 OUT OF 300 TO 3200
SAMPLE: 9410061-12D DSM ENV PD-2/MSD
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17



ROCEDURE: TCA DIAGNOSTIC REPORT 10/12/94 18:48:36
FILE: X1012001
E. ENCE: SV11
AML LIST: SVNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: SVRT

---- STANDARDS ----- ><				--- PLUS UNKNOWNS --- ><				- LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
6	6	1	74	14	13	1	78	SVRT/SVTG
1	1	1	0	8	1	1	0	SVRT1/SVTG1
1	1	1	0	9	1	1	0	SVRT2/SVTG2
1	1	1	0	8	1	1	0	SVRT3/SVTG3
1	1	1	0	8	1	1	0	SVRT4/SVTG4
1	1	1	0	8	1	1	0	SVRT5/SVTG5
1	1	1	0	7	1	1	0	SVRT6/SVTG6
1	1	1	0	7	1	1	0	SVRT7/SVTG7
1	1	1	0	11	3	1	46	SVRT8/SVTG8
1	1	1	0	7	2	1	1	SVRT9/SVTG9
1	1	1	0	9	1	1	0	SVRT10/SVTG10

86 COMPOUNDS PROCESSED, 16 FOUND

COMPOUND ><				---------- SEARCH ---------- >< SAT ><					------ CHRO ------- >			
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	SV	1	-768	770	770	.	1	996	.	152	770	.	1
2	SV	2	-976	978	978	.	1	990	.	136	978	.	1
7	SV	3	-1273	1275	1276	1	1	990	.	164	1276	.	1
	SV	4	-1528	1531	1530	-1	1	992	.	188	1530	.	1
5	SV	5	-1991	1994	1993	-1	1	970	.	240	1993	.	1
6	SV	6	-2378	2381	2382	1	1	939	.	264	2382	.	1
7	SV	7	-568	569	569	.	1	969	.	112	569	.	1
8	SV	8	-722	723	723	.	1	996	.	99	723	.	1
9	SV	9	-859	861	860	-1	1	995	.	82	860	.	1
0	SV	10	-1161	1163	1163	.	1	994	.	172	1163	.	1
1	SV	11	-1409	1411	1412	1	1	990	.	330	1412	.	1
2	SV	12	-1806	1809	1807	-2	1	960	.	244	1807	.	1
3	SV	150	-734	736	.	.	.	.	.	132	735	.	1
4	SV	149	-792	794	794	.	1	977	.	152	794	.	1
5	SV	82	-331	332	.	.	.	.	.	79	.	.	.
6	SV	24	-327	328	.	.	.	.	.	42	.	.	.
7	SV	13	-724	726	.	.	.	.	.	94	.	.	.
8	SV	72	-718	720	.	.	.	.	.	93	.	.	.
9	SV	25	-730	732	.	.	.	.	.	93	.	.	.
0	SV	14	-737	739	.	.	.	.	.	128	.	.	.
1	SV	38	-758	760	.	.	.	.	.	146	.	.	.
2	SV	39	-771	773	.	.	.	.	.	146	.	.	.
3	SV	40	-795	797	.	.	.	.	.	146	.	.	.
4	SV	68	-818	820	.	.	.	.	.	108	.	.	.
5	SV	26	-817	819	.	.	.	.	.	45	.	.	.
6	SV	151	-817	819	.	.	.	.	.	45	.	.	.
7	SV	27	-839	841	.	.	.	.	.	70	.	.	.
8	SV	69	-843	845	.	.	.	.	.	108	.	.	.
[illegible]	SV	41	-848	850	.	.	.	.	.	117	.	.	.
[illegible]	SV	73	-796	798	.	.	.	.	.	108	.	.	.
1	SV	42	-862	864	.	.	.	.	.	77	.	.	.
2	SV	43	-903	905	.	.	.	.	.	82	905	.	1
3	SV	15	-915	917	.	.	.	.	.	139	.	.	.
4	SV	16	-929	931	.	.	.	.	.	122	.	.	.
5	SV	28	-942	944	.	.	.	.	.	93	.	.	.
6	SV	17	-957	959									

38	SV	44	-968	970	.	.	.	.	.	180	.	.	.
39	SV	52	-980	982	.	.	.	.	.	128	981	.	1
40	SV	74	-993	995	.	.	.	.	.	127	.	.	.
41	SV	45	-1002	1004	.	.	.	.	.	225	.	.	.
42	SV	18	-1080	1082	.	.	.	.	.	107	.	.	.
43	SV	75	-1097	1099	.	.	.	.	.	142	1099	.	1
[illegible]	SV	46	-1123	1126	.	.	.	.	.	237	.	.	.
[illegible]	SV	19	-1148	1151	.	.	.	.	.	196	.	.	.
46	SV	71	-1155	1158	.	.	.	.	.	196	.	.	.
47	SV	47	-1179	1182	.	.	.	.	.	162	1181	.	1
48	SV	76	-1201	1204	.	.	.	.	.	65	.	.	.
49	SV	29	-1233	1236	.	.	.	.	.	163	1235	.	1
50	SV	48	-1243	1246	.	.	.	.	.	165	.	.	.
51	SV	53	-1249	1252	.	.	.	.	.	152	1250	.	1
52	SV	77	-1272	1275	.	.	.	.	.	138	.	.	.
53	SV	54	-1279	1282	.	.	.	.	.	153	1281	.	1
54	SV	20	-1290	1293	.	.	.	.	.	184	.	.	.
55	SV	21	-1311	1314	.	.	.	.	.	109	.	.	.
56	SV	49	-1312	1315	.	.	.	.	.	89	.	.	.
57	SV	78	-1309	1312	.	.	.	.	.	168	1311	.	1
58	SV	30	-1354	1357	.	.	.	.	.	149	1355	.	1
59	SV	55	-1367	1370	.	.	.	.	.	166	1369	.	1
60	SV	31	-1369	1372	.	.	.	.	.	204	1372	.	1
61	SV	79	-1378	1381	.	.	.	.	.	138	.	.	.
62	SV	50	-1397	1400	.	.	.	.	.	77	1399	.	1
63	SV	22	-1381	1383	.	.	.	.	.	198	.	.	.
64	SV	32	-1391	1393	1393	.	1	810	.	169	1393	.	1
65	SV	33	-1453	1455	.	.	.	.	.	248	.	.	.
66	SV	51	-1462	1464	.	.	.	.	.	284	1463	.	1
67	SV	23	-1498	1500	.	.	.	.	.	266	.	.	.
68	SV	56	-1532	1534	.	.	.	.	.	178	1534	.	1
69	SV	57	-1541	1543	.	.	.	.	.	178	1543	.	1
[illegible]	SV	142	-1572	1573	.	.	.	.	.	167	1575	.	1
71	SV	34	-1635	1636	1636	.	1	991	.	149	1636	.	1
72	SV	58	-1738	1739	.	.	.	.	.	202	1739	.	1
73	SV	80	-1766	1768	.	.	.	.	.	184	.	.	.
74	SV	59	-1777	1779	.	.	.	.	.	202	1778	.	1
75	SV	35	-1893	1895	.	.	.	.	.	149	1894	.	1
76	SV	60	-1989	1991	.	.	.	.	.	228	1992	.	1
77	SV	61	-1997	1999	.	.	.	.	.	228	1998	.	1
78	SV	36	-1999	2001	2001	.	1	849	.	149	2001	.	1
79	SV	81	-1988	1991	.	.	.	.	.	252	1990	.	1
80	SV	37	-2151	2155	.	.	.	.	.	149	.	.	.
81	SV	62	-2253	2257	.	.	.	.	.	252	.	.	.
82	SV	63	-2261	2265	.	.	.	.	.	252	2265	.	1
83	SV	64	-2357	2361	.	.	.	.	.	252	.	.	.
84	SV	65	-2857	2862	.	.	.	.	.	276	.	.	.
85	SV	66	-2876	2881	.	.	.	.	.	278	.	.	.
86	SV	67	-3008	3013	.	.	.	.	.	276	.	.	.

ıantitation Report File: X1012001

ı. X1012001.TI
)/_ _/94 18:05:00
ımple: 9410061-12A DSM ENV PD-2
ınds.: 40(4) TO 285 @ 12/MIN HOLD 17
ırmula: Instrument: FINN Weight: 0.000
ıbmitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

IOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
ısp. fac. from Library Entry

lo	Name
1	CI30 1,4-DICHLOROBENZENE-D4 (IS)
2	CI40 NAPHTHALENE-D8 (IS)
3	CI50 ACENAPHTHALENE-D10 (IS)
4	CI60 PHENANTHRENE-D10 (IS)
5	CI70 CHRYSENE-D12 (IS)
6	CI75 PERYLENE-D12 (IS)
7	CS50 2-FLUOROPHENOL (SURR)
8	CS45 PHENOL-D5 (SURR)
9	CS20 NITROBENZENE-D5 (SURR)
0	CS25 2-FLUOROBIPHENYL (SURR)
1	CS55 2,4,6-TRIBROMOPHENOL (SURR)
2	CS30 TERPHENYL-D14 (SURR)
3	CS70 2-CHLOROPHENOL-D4 (SURR)
4	CS75 1,2-DICHLOROBENZENE-D4 (SURR)
'	C322 PYRIDINE
6	C310 N-NITROSODIMETHYLAMINE
7	C315 PHENOL
8	C320 ANALINE
9	C325 BIS(2-CHLOROETHYL)ETHER
0	C330 2-CHLOROPHENOL
1	C335 1,3 DICHLOROBENZENE
2	C340 1,4 DICHLOROBENZENE
3	C350 1,2 DICHLOROBENZENE
4	C355 2-METHYLPHENOL
5	C360 BIS(2-CHLOROISOPROPYL)ETHER
6	C357 2,2-OXYBIS(1-CHLOROPROPANE)
7	C370 N-NITROSO-DI-N-PROPYLAMINE
8	C365 4-METHYLPHENOL
9	C375 HEXACHLOROETHANE
0	C345 BENZYL ALCOHOL
1	C410 NITROBENZENE
2	C415 ISOPHORONE
3	C420 2-NITROPHENOL
4	C425 2,4-DIMETHYLPHENOL
5	C435 BIS(2-CHLOROETHOXY)METHANE
6	C440 2,4-DICHLOROPHENOL
7	C430 BENZOIC ACID
8	C445 1,2,4-TRICHLOROBENZENE
9	C450 NAPHTHALENE
0	C455 4-CHLOROANALINE
1	460 HEXACHLOROBUTADIENE
2	C465 4-CHLORO-3-METHYLPHENOL
3	C470 2-METHYLNAPHTHALENE
4	C510 HEXACHLOROCYCLOPENTADIENE
5	C515 2,4,6-TRICHLOROPHENOL
6	C520 2,4,5-TRICHLOROPHENOL
7	C525 2-CHLORONAPHTHALENE

	Name
K	C530 2-NITROANALINE
49	C535 DIMETHYLPHTHALATE
50	C543 2,6-DINITROTOLUENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	770	9:43	1	1.000	A BB	49626.	40.000 NG	8.23
2	136	978	12:20	2	1.000	A BB	169862.	40.000 NG	8.23
3	164	1276	16:06	3	1.000	A VB	93734.	40.000 NG	8.23
4	188	1530	19:18	4	1.000	A BB	153021.	40.000 NG	8.23
5	240	1993	25:09	5	1.000	A BB	121384.	40.000 NG	8.23
6	264	2382	30:03	6	1.000	A BB	73329.	40.000 NG	8.23
7	112	569	7:11	1	0.739	A BB	50739.	28.845 NG	5.93
8	99	723	9:07	1	0.939	A BB	46514.	19.421 NG	3.99
9	82	860	10:51	2	0.879	A BB	76361.	31.304 NG	6.44
0	172	1163	14:40	3	0.911	A BB	76016.	23.835 NG	4.90
1	330	1412	17:49	3	1.107	A BB	26360.	37.822 NG	7.78
2	244	1807	22:48	5	0.907	A BB	50250.	14.735 NG	3.03
3	132	735	9:16	1	0.955	A BB	74639.	44.316 NG	9.11
4	152	794	10:01	1	1.031	A BB	30958.	25.659 NG	5.28
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
0	NOT FOUND								
	NOT FOUND								
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
0	NOT FOUND								
1	NOT FOUND								
2	82	905	11:25	2	0.925	A BB	308.	0.071 NG	0.01
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	NOT FOUND								
9	128	981	12:23	2	1.003	A BB	258.	0.057 NG	0.01
0	NOT FOUND								
1	NOT FOUND								
2	NOT FOUND								
3	142	1099	13:52	2	1.124	A BB	304.	0.101 NG	0.02
4	NOT FOUND								
5	NOT FOUND								
	NOT FOUND								
7	162	1181	14:54	3	0.926	A VB	496.	0.161 NG	0.03
8	NOT FOUND								
9	163	1235	15:35	3	0.968	A BB	174.	0.051 NG	0.01
0	NOT FOUND								

	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
	9:41	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:19	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	16:04	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	19:17	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	25:07	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	30:00	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	7:10	1.00	0.740	1.00	28.85	50.00	0.818	1.418	0.58
8	9:07	1.00	0.940	1.00	19.42	50.00	0.750	1.930	0.39
9	10:50	1.00	0.880	1.00	31.30	50.00	0.360	0.574	0.63
10	14:39	1.00	0.912	1.00	23.84	50.00	0.649	1.361	0.48
11	17:47	1.00	1.107	1.00	37.82	50.00	0.225	0.297	0.76
12	22:47	1.00	0.907	1.00	14.73	50.00	0.331	1.124	0.29
13	9:16	1.00	0.956	1.00	44.32	50.00	1.203	1.358	0.89
14	10:00	1.00	1.031	1.00	25.66	50.00	0.499	0.972	0.51
15	4:11		0.431						
16	4:08		0.426						
17	9:08		0.943						
18	9:04		0.935						
19	9:13		0.951						
20	9:18		0.960						
21	9:34		0.987						
22	9:44		1.004						
23	10:02		1.035						
24	10:19		1.065						
25	10:18		1.064						
	10:18		1.064						
27	10:35		1.092						
28	10:38		1.098						
29	10:42		1.104						
30	10:03		0.816						
31	10:53		0.883						
32	11:24	1.00	0.925	1.00	0.07	50.00	0.001	1.023	0.00
33	11:33		0.937						
34	11:43		0.952						
35	11:53		0.965						
36	12:04		0.981						
37	12:02		0.977						
38	12:13		0.992						
39	12:22	1.00	1.004	1.00	0.06	50.00	0.001	1.074	0.00
40	12:32		1.017						
41	12:39		1.027						
42	13:38		1.107						
43	13:50	1.00	1.124	1.00	0.10	50.00	0.001	0.711	0.00
44	14:10		0.882						
45	14:29		0.902						
46	14:34		0.907						
47	14:53	1.00	0.926	1.00	0.16	50.00	0.004	1.312	0.00
48	15:09		0.943						
49	15:33	1.00	0.969	1.00	0.05	50.00	0.001	1.446	0.00
50	15:41		0.976						

uantitation Report File: X1012001

3 X1012001.TI
)/12/94 18:05:00
mple: 9410061-12A DSM ENV PD-2
nds.: 40(4) TO 285 @ 12/MIN HOLD 17
rmula: Instrument: FINN Weight: 0.000
bmitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

IOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
sp. fac. from Library Entry

No	Name
1	C540 ACENAPHTHYLENE
2	C545 3-NITROANALINE
3	C550 ACENAPHTHENE
4	C555 2,4-DINITROPHENOL
5	C560 4-NITROPHENOL
6	C570 2,4-DINITROTOLUENE
7	C565 DIBENZOFURAN
8	C580 DIETHYLPHTHALATE
9	C590 FLUORENE
0	C585 4-CHLOROPHENYL-PHENYLETHER
1	C595 4-NITROANALINE
2	C576 AZOBENZENE
3	C610 4,6-DINITRO-2-METHYLPHENOL
	C615 N-NITROSODIPHENYLAMINE
	C625 4-BROMOPHENYL-PHENYLETHER
6	C630 HEXACHLOROBENZENE
7	C635 PENTACHLOROPHENOL
8	C640 PHENANTHRENE
9	C645 ANTHRACENE
0	C647 CARBAZOLE
1	C650 DI-N-BUTYLPHTHALATE
2	C655 FLUORANTHENE
3	C710 BENZIDINE
4	C715 PYRENE
5	C720 BUTYLBENZYLPHTHALATE
6	C740 CHRYSENE
7	C730 BENZO(A)ANTHRACENE
8	C745 BIS(2-ETHYLHEXYL)PHTHALATE
9	C725 3,3-DICHLOROBENZIDINE
0	C760 DI-N-OCTYLPHTHALATE
1	C770 BENZO(K)FLUORANTHENE
2	C765 BENZO(B)FLUORANTHENE
3	C775 BENZO(A)PYRENE
4	C780 INDENO(1,2,3-CD)PYRENE
5	C785 DIBENZ(A,H)ANTHRACENE
6	C790 BENZO(G,H,I)PERYLENE

o	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	1250	15:46	3	0.980	A BB	76.	0.017 NG	0.00
	NOT FOUND								
	153	1281	16:10	3	1.004	A BB	48.	0.017 NG	0.00
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	168	1311	16:32	3	1.027	A BB	740.	0.179 NG	0.04

	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
5.	149	1355	17:06	3	1.062	A BB	1174.	0.330	NG	0.07
59	166	1369	17:16	3	1.073	A BB	390.	0.126	NG	0.03
60	204	1372	17:19	3	1.075	A BB	126.	0.077	NG	0.02
61	NOT FOUND									
62	77	1399	17:39	3	1.096	A BB	928.	0.194	NG	0.04
63	NOT FOUND									
64	169	1393	17:35	4	0.910	A BB	1774.	0.870	NG	0.18
65	NOT FOUND									
66	284	1463	18:27	4	0.956	A BB	644.	0.417	NG	0.09
67	NOT FOUND									
68	178	1534	19:21	4	1.003	A BB	1252.	0.282	NG	0.06
69	178	1543	19:28	4	1.008	A BB	590.	0.136	NG	0.03
70	167	1575	19:52	4	1.029	A BB	416.	0.213	NG	0.04
71	149	1636	20:38	4	1.069	A BB	82906.	Contam ~~14.365~~	NG RKW	2.95
72	202	1739	21:56	4	1.137	A BB	554.	0.137	NG	0.03
73	NOT FOUND									
74	202	1778	22:26	5	0.892	A BB	456.	0.107	NG	0.02
75	149	1894	23:54	5	0.950	A BB	808.	0.417	NG	0.09
76	228	1992	25:08	5	0.999	A BB	418.	0.112	NG	0.02
77	228	1998	25:12	5	1.003	A BB	78.	0.025	NG	0.01
78	149	2001	25:15	5	1.004	A BB	3006.	1.013	NG	0.21
79	252	1990	25:06	6	0.835	A BB	374.	0.919	NG	0.19
80	NOT FOUND									
81	NOT FOUND									
7	252	2265	28:35	6	0.951	A BB	52.	0.018	NG	0.00
	NOT FOUND									
84	NOT FOUND									
85	NOT FOUND									
86	NOT FOUND									

o	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	15:45	1.00	0.981	1.00	0.02	50.00	0.001	1.873	0.00
2	16:03		0.999						
3	16:08	1.00	1.005	1.00	0.02	50.00	0.000	1.232	0.00
4	16:17		1.013						
5	16:32		1.030						
6	16:33		1.031						
7	16:31	1.00	1.028	1.00	0.18	50.00	0.006	1.766	0.00
8	17:05	1.00	1.064	1.00	0.33	50.00	0.010	1.520	0.01
9	17:15	1.00	1.074	1.00	0.13	50.00	0.003	1.320	0.00
0	17:16	1.00	1.075	1.00	0.08	50.00	0.001	0.701	0.00
1	17:23		1.082						
2	17:38	1.00	1.097	1.00	0.19	50.00	0.008	2.047	0.00
3	17:25		0.904						
4	17:33	1.00	0.910	1.00	0.87	50.00	0.009	0.533	0.02
5	18:20		0.951						
6	18:27	1.00	0.957	1.00	0.42	50.00	0.003	0.404	0.01
7	18:54		0.980						
8	19:20	1.00	1.003	1.00	0.28	50.00	0.007	1.161	0.01
9	19:27	1.00	1.009	1.00	0.14	50.00	0.003	1.132	0.00
0	19:50	1.00	1.029	1.00	0.21	50.00	0.002	0.509	0.00
	20:38	1.00	1.070	1.00	14.37	50.00	0.433	1.509	0.29
2	21:56	1.00	1.137	1.00	0.14	50.00	0.003	1.057	0.00
3	22:17		0.888						
4	22:25	1.00	0.893	1.00	0.11	50.00	0.003	1.406	0.00
5	23:53	1.00	0.951	1.00	0.42	50.00	0.005	0.639	0.01

N	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
[illegible]	25:06	1.00	0.999	1.00	0.11	50.00	0.003	1.231	0.00
7[illegible]	25:12	1.00	1.003	1.00	0.02	50.00	0.001	1.034	0.00
78	25:13	1.00	1.004	1.00	1.01	50.00	0.020	0.977	0.02
79	25:05	1.00	0.836	1.00	0.92	50.00	0.004	0.222	0.02
80	27:08		0.905						
81	28:26		0.947						
82	28:32	1.00	0.951	1.00	0.02	50.00	0.001	1.542	0.00
83	29:44		0.991						
84	36:03		1.201						
85	36:17		1.209						
86	37:57		1.265						

OCEDURE: TCA DIAGNOSTIC REPORT 10/13/94 12:35:33
FILE: X1012001
ENCE: BAPP911
ME LIST: BAPP9NL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: SVRT

---- STANDARDS ----- ><				--- PLUS UNKNOWNS --- ><				- LIST NAMES - >
ROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
6	6	1	74	12	12	1	87	SVRT/SVTG
1	1	1	0	10	1	1	0	BAPP9RT1/BAPP9TG1
1	1	1	0	10	1	1	0	BAPP9RT2/BAPP9TG2
1	1	1	0	12	2	1	0	BAPP9RT3/BAPP9TG3
1	1	1	0	10	1	1	0	BAPP9RT4/BAPP9TG4
1	1	1	0	10	1	1	0	BAPP9RT5/BAPP9TG5
1	1	1	0	9	1	1	0	BAPP9RT6/BAPP9TG6
1	1	1	0	4	1	1	0	BAPP9RT7/BAPP9TG7

70 COMPOUNDS PROCESSED, 13 FOUND

COMPOUND ><				---------- SEARCH ---------- ><				SAT ><	------ CHRO ------- >			
O	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	SV	1	-768	770	770	.	1	996	.	152	770	.	1
2	SV	2	-976	978	978	.	1	990	.	136	978	.	1
3	SV	3	-1273	1275	1276	1	1	990	.	164	1276	.	1
4	SV	4	-1528	1531	1530	-1	1	992	.	188	1530	.	1
5	SV	5	-1991	1994	1993	-1	1	970	.	240	1993	.	1
6	SV	6	-2378	2381	2382	1	1	939	.	264	2382	.	1
7	SV	7	-568	569	569	.	1	969	.	112	569	.	1
8	SV	8	-722	723	723	.	1	996	.	99	723	.	1
9	SV	9	-860	861	860	-1	1	995	.	82	860	.	1
0	SV	10	-1161	1163	1163	.	1	994	.	172	1163	.	1
1	SV	11	-1410	1412	1412	.	1	990	.	330	1412	.	1
2	SV	12	-1806	1808	1807	-1	1	960	.	244	1807	.	1
3	SV	125	-459	460	.	.	.	.	.	93	.	.	.
4	SV	87	-483	484	.	.	.	.	.	88	.	.	.
5	SV	114	-537	538	.	.	.	.	.	80	.	.	.
6	SV	88	-598	600	.	.	.	.	.	102	.	.	.
7	SV	115	-651	653	.	.	.	.	.	79	.	.	.
8	SV	140	-722	724	.	.	.	.	.	167	.	.	.
9	SV	90	-836	838	.	.	.	.	.	100	.	.	.
0	SV	102	-842	844	.	.	.	.	.	106	.	.	.
1	SV	89	-842	844	.	.	.	.	.	56	.	.	.
2	SV	116	-836	838	.	.	.	.	.	105	.	.	.
3	SV	91	-888	890	.	.	.	.	.	114	.	.	.
4	SV	93	-937	939	.	.	.	.	.	198	.	.	.
5	SV	103	-975	977	.	.	.	.	.	58	978	.	1
6	SV	83	-993	995	.	.	.	.	.	162	.	.	.
7	SV	136	-994	996	.	.	.	.	.	213	.	.	.
8	SV	92	-1051	1053	.	.	.	.	.	84	.	.	.
9	SV	104	-1017	1019	.	.	.	.	.	108	.	.	.
0	SV	117	-1085	1087	.	.	.	.	.	162	.	.	.
1	SV	137	-1125	1130	.	.	.	.	.	216	.	.	.
2	SV	118	-1173	1178	.	.	.	.	.	162	.	.	.
3	SV	119	-1211	1215	.	.	.	.	.	158	.	.	.
4	SV	120	-1238	1242	.	.	.	.	.	168	.	.	.
5	SV	138	-1302	1305	.	.	.	.	.	250	1303	.	1
6	SV	105	-1324	1326	.	.	.	.	.	143	1327	.	1
7	SV	84	-1333	1335	.	.	.	.	.	232	1336	.	1
8	SV	106	-1338	1340	.	.	.	.	.	143	.	.	.

41	SV	108	-1392	1393	1393	.	1	818	.	169	1393	.	1
42	SV	95	-1421	1423	.	.	.	.	.	97	1423	.	1
43	SV	128	-1441	1443	.	.	.	.	.	86	.	.	.
44	SV	121	-1446	1448	.	.	.	.	.	213	.	.	.
45	SV	96	-1442	1444	.	.	.	.	.	75	1444	.	1
46	SV	109	-1451	1453	.	.	.	.	.	108	1452	.	1
7	SV	129	-1456	1458	.	.	.	.	.	86	.	.	.
4	SV	97	-1474	1476	.	.	.	.	.	87	.	.	.
49	SV	122	-1499	1501	.	.	.	.	.	237	.	.	.
50	SV	110	-1499	1501	.	.	.	.	.	169	1502	.	1
51	SV	130	-1513	1515	.	.	.	.	.	173	1514	.	1
52	SV	85	-1532	1534	.	.	.	.	.	211	.	.	.
53	SV	98	-1532	1534	.	.	.	.	.	88	.	.	.
54	SV	99	-1597	1599	.	.	.	.	.	109	.	.	.
55	SV	139	-1606	1608	.	.	.	.	.	144	.	.	.
56	SV	126	-1669	1671	.	.	.	.	.	174	.	.	.
57	SV	100	-1665	1667	.	.	.	.	.	109	.	.	.
58	SV	127	-1684	1686	.	.	.	.	.	97	.	.	.
59	SV	131	-1710	1712	.	.	.	.	.	193	1711	.	1
60	SV	132	-1805	1807	.	.	.	.	.	185	.	.	.
61	SV	133	-1818	1820	.	.	.	.	.	185	.	.	.
62	SV	111	-1831	1833	.	.	.	.	.	225	1833	.	1
63	SV	134	-1840	1842	.	.	.	.	.	251	1841	.	1
64	SV	101	-1882	1884	.	.	.	.	.	218	.	.	.
65	SV	135	-1894	1896	.	.	.	.	.	272	.	.	.
66	SV	112	-1890	1892	.	.	.	.	.	212	.	.	.
67	SV	113	-1935	1937	.	.	.	.	.	181	1938	.	1
68	SV	123	-2251	2255	.	.	.	.	.	256	.	.	.
69	SV	86	-2356	2360	.	.	.	.	.	196	.	.	.
70	SV	124	-2495	2499	.	.	.	.	.	268	.	.	.

uantitation Report File: X1012001

App9/Rest Printout

a X1012001.TI
0/__/94 18:05:00
ample: 9410061-12A DSM ENV PD-2
onds.: 40(4) TO 285 @ 12/MIN HOLD 17
ormula: Instrument: FINN Weight: 0.000
ubmitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

MOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
esp. fac. from Library Entry

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 (IS)
2	CI40 NAPHTHALENE-D8 (IS)
3	CI50 ACENAPHTHALENE-D10 (IS)
4	CI60 PHENANTHRENE-D10 (IS)
5	CI70 CHRYSENE-D12 (IS)
6	CI75 PERYLENE-D12 (IS)
7	CS50 2-FLUOROPHENOL (SURR)
8	CS45 PHENOL-D5 (SURR)
9	CS20 NITROBENZENE-D5 (SURR)
10	CS25 2-FLUOROBIPHENYL (SURR)
11	CS55 2,4,6-TRIBROMOPHENOL (SURR)
12	CS30 TERPHENYL-D14 (SURR)
13	C781 2-PICOLINE
14	C666 N-NITROSOMETHYLETHYLAMINE
1	C738 METHYLMETHANESULFONATE
16	C668 N-NITROSODIETHYLAMINE
17	C742 ETHYLMETHANESULFONATE
18	C809 PENTACHLOROETHANE
19	C672 N-NITROSOPYRROLIDINE
20	C696 O-TOLUIDINE
21	C670 N-NITROSOMORPHOLINE
22	C748 ACETOPHENONE
23	C674 N-NITROSOPIPERDINE
24	C678 O,O,O-TRIETHYLPHOSPHOROTHIOATE
25	C698 A,A-DIMETHYLPHENETHYLAMINE
26	C658 2,6-DICHLOROPHENOL
27	C804 HEXACHLOROPROPENE
28	C676 N-NITROSO-DI-N-BUTYLAMINE
29	C700 P-PHENYLENEDIAMINE
30	C750 ISOSAFROLE
31	C806 1,2,4,5-TETRACHLOROPHENOL
32	C752 SAFROLE
33	C754 1,4-NAPTHOQUINONE
34	C756 M-DINITROBENZENE
35	C808 PENTACHLOROBENZENE
36	C702 2-NAPHTHYLAMINE
37	C660 2,3,4,6-TETRACHLOROPHENOL
38	C704 1-NAPHTHYLAMINE
39	C680 O,O-DIETHYL-O-2-PYRAZYNYLPHOSPHOROTHIOATE
4	C706 5-NITRO-O-TOLUIDINE
4	C708 DIPHENYLAMINE
42	C682 TETRAETHYLDITHIOPYROPHOSPHATE
43	C786 DIALLATE (CIS OR TRANS)
44	C762 1,3,5-TRINITROBENZENE
45	C684 PHORATE
46	C712 PHENACETIN
47	C788 DIALLATE (TRANS OR CIS)

	Name
48	C686 DIMETHOATE
49	C768 PENTACHLORONITROBENZENE
50	C718 4-AMINOBIPHENYL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	770	9:43	1	1.000	A BB	49626.	40.000 NG	9.76
2	136	978	12:20	2	1.000	A BB	169862.	40.000 NG	9.76
3	164	1276	16:06	3	1.000	A VB	93734.	40.000 NG	9.76
4	188	1530	19:18	4	1.000	A BB	153021.	40.000 NG	9.76
5	240	1993	25:09	5	1.000	A BB	121384.	40.000 NG	9.76
6	264	2382	30:03	6	1.000	A BB	73329.	40.000 NG	9.76
7	112	569	7:11	1	0.739	A BB	50739.	29.483 NG	7.19
8	99	723	9:07	1	0.939	A BB	46514.	18.691 NG	4.56
9	82	860	10:51	2	0.879	A BB	76361.	36.291 NG	8.86
10	172	1163	14:40	3	0.911	A BB	76016.	28.325 NG	6.91
11	330	1412	17:49	3	1.107	A BB	26360.	38.311 NG	9.35
12	244	1807	22:48	5	0.907	A BB	50250.	15.272 NG	3.73
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	58	978	12:20	2	1.000	A BB	246.	0.164 NG	0.04
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	250	1303	16:26	4	0.852	A BB	230.	0.148 NG	0.04
36	143	1327	16:45	3	1.040	A BB	44.	0.034 NG	0.01
37	232	1336	16:51	3	1.047	A BB	276.	0.322 NG	0.08
38	NOT FOUND								
39	96	1369	17:16	3	1.073	A BB	56.	0.059 NG	0.01
40	NOT FOUND								
41	169	1393	17:35	3	1.092	A BB	1774.	0.403 NG	0.10
42	97	1423	17:57	4	0.930	A BB	42.	0.051 NG	0.01
43	NOT FOUND								
44	NOT FOUND								
45	75	1444	18:13	4	0.944	A BB	90.	0.025 NG	0.01
[illegible]	108	1452	18:19	4	0.949	A BB	404.	0.253 NG	0.06
47	NOT FOUND								
48	NOT FOUND								
49	NOT FOUND								
50	169	1502	18:57	4	0.982	A BB	124.	0.068 NG	0.02

	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
	9:41	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:19	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	16:04	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	19:17	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	25:07	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	30:00	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	7:10	1.00	0.740	1.00	29.48	50.00	0.818	1.387	0.59
8	9:07	1.00	0.940	1.00	18.69	50.00	0.750	2.006	0.37
9	10:51	1.00	0.881	1.00	36.29	50.00	0.360	0.495	0.73
0	14:39	1.00	0.912	1.00	28.33	50.00	0.649	1.145	0.57
1	17:47	1.00	1.108	1.00	38.31	50.00	0.225	0.294	0.77
2	22:47	1.00	0.907	1.00	15.27	50.00	0.331	1.084	0.31
3	5:47		0.598						
4	6:06		0.629						
5	6:47		0.699						
6	7:33		0.779						
7	8:13		0.848						
8	9:07		0.940						
9	10:33		1.089						
0	10:37		1.096						
1	10:37		1.096						
2	10:33		0.857						
3	11:12		0.910						
4	11:49		0.960						
5	12:18	1.00	0.985	1.02	0.16	50.00	0.001	0.352	0.00
	12:32		1.017						
7	12:32		1.018						
8	13:16		1.077						
9	12:50		1.027						
0	13:41		1.112						
1	14:12		1.153						
2	14:48		0.921						
3	15:17		0.951						
4	15:37		0.973						
5	16:26	1.00	0.852	1.00	0.15	50.00	0.001	0.407	0.00
6	16:42	1.00	1.040	1.00	0.03	50.00	0.000	0.554	0.00
7	16:49	1.00	1.047	1.00	0.32	50.00	0.002	0.365	0.01
8	16:53		1.051						
9	17:16	1.00	1.075	1.00	0.06	50.00	0.000	0.406	0.00
0	17:21		1.080						
1	17:34	1.00	1.093	1.00	0.40	50.00	0.015	1.879	0.01
2	17:56	1.00	0.930	1.00	0.05	50.00	0.000	0.216	0.00
3	18:11		0.943						
4	18:15		0.946						
5	18:12	1.00	0.944	1.00	0.02	50.00	0.000	0.953	0.00
6	18:18	1.00	0.950	1.00	0.25	50.00	0.002	0.418	0.01
7	18:22		0.953						
8	18:36		0.965						
9	18:55		0.981						
0	18:55	1.00	0.981	1.00	0.07	50.00	0.001	0.477	0.00

uantitation Report File: X1012001

a X1012001.TI
0/.2/94 18:05:00
ample: 9410061-12A DSM ENV PD-2
onds.: 40(4) TO 285 @ 12/MIN HOLD 17
ormula: Instrument: FINN Weight: 0.000
ubmitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

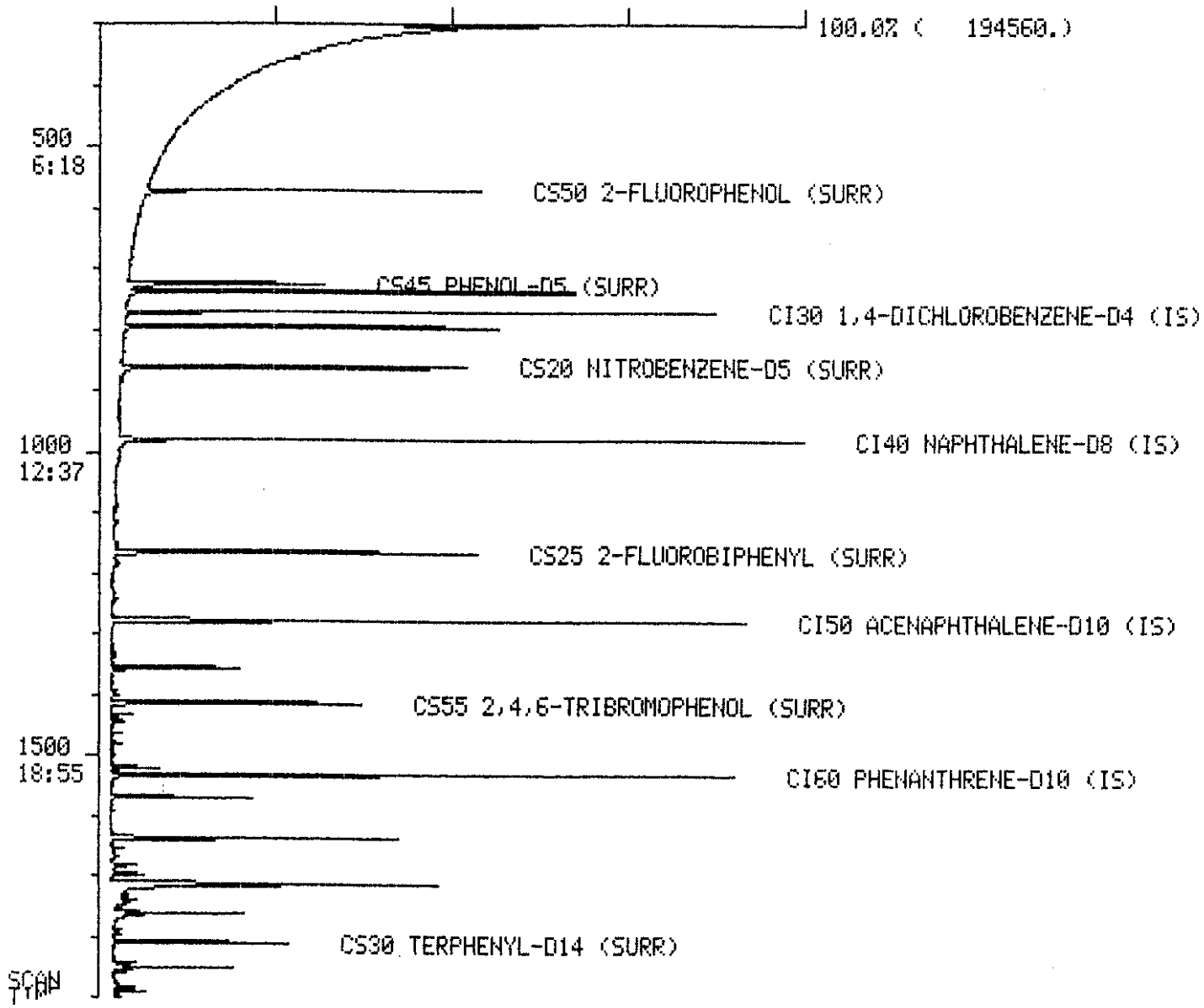
MOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
esp. fac. from Library Entry

No	Name
51	C792 PRONAMIDE
52	C662 DINOSEB
53	C688 DISULFOTON
54	C690 METHYL PARATHION
55	C812 SEVIN
56	C782 4-NITROQUINOLINE-1-OXIDE
57	C692 PARATHION
58	C784 METHAPYRILENE
59	C794 ISODRIN
60	C796 ARAMITE (1)
61	C798 ARAMITE (2)
62	C722 P(DIMETHYLAMINO)AZOBENZENE
63	C800 CHLOROBENZILATE
64	C694 FAMPHUR
[illegible]	C802 KEPONE
66	C728 3,3-DIMETHYLBENZIDINE
67	C732 2-ACETYLAMINOFLUORENE
68	C772 7,12-DIMETHYLBENZ(A)ANTHRACENE
69	C664 HEXACHLOROPHENE
70	C778 3-METHYLCHOLANTHRENE

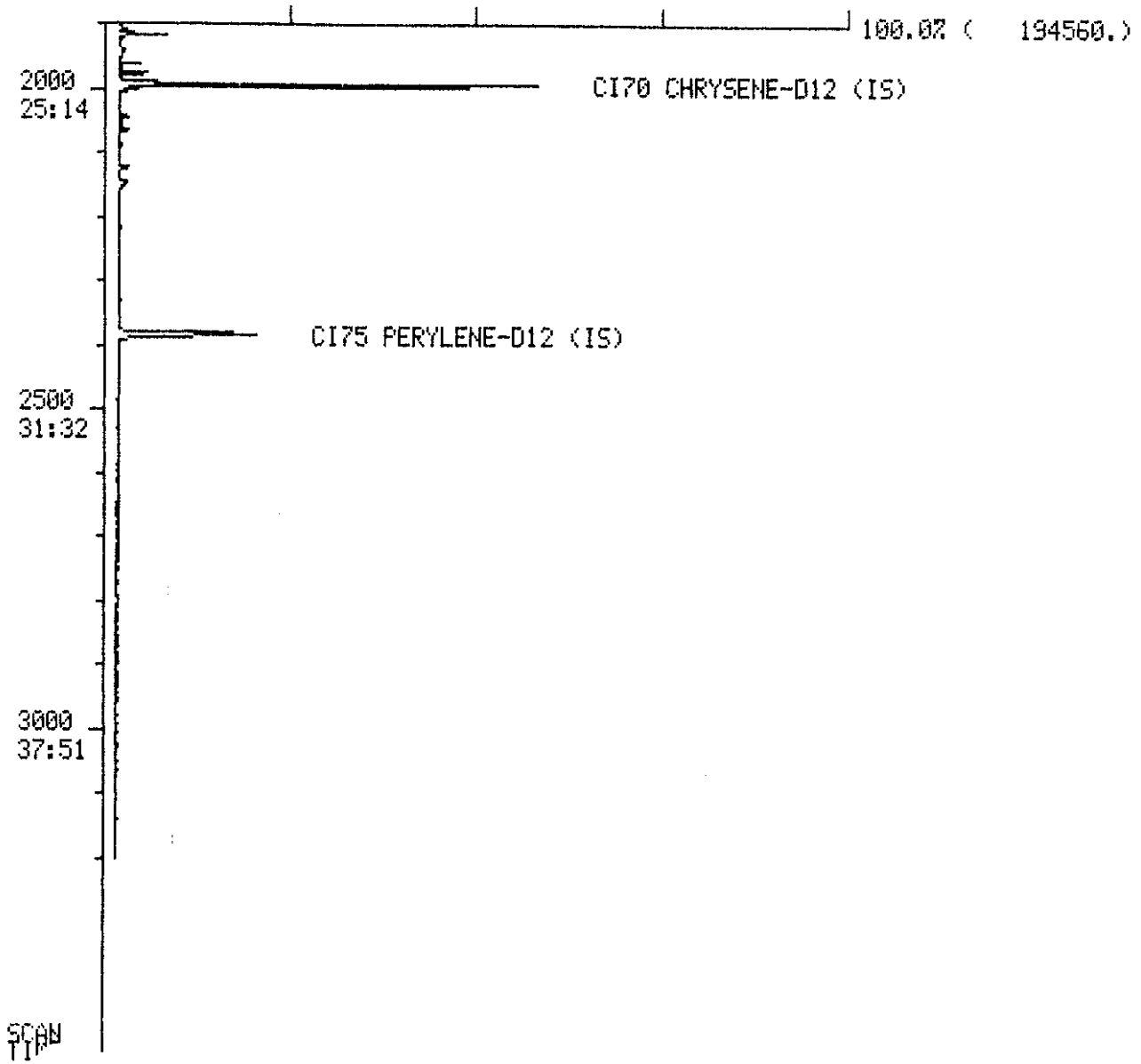
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	173	1514	19:06	4	0.990	A BB	108.	0.067 NG	0.02
52	NOT FOUND								
53	NOT FOUND								
54	NOT FOUND								
55	NOT FOUND								
56	NOT FOUND								
57	NOT FOUND								
58	NOT FOUND								
59	193	1711	21:35	4	1.118	A BB	842.	1.347 NG	0.33
60	NOT FOUND								
61	NOT FOUND								
62	225	1833	23:08	5	0.920	A BB	100.	0.121 NG	0.03
63	251	1841	23:14	5	0.924	A BB	128.	0.085 NG	0.02
64	NOT FOUND								
65	NOT FOUND								
66	NOT FOUND								
67	181	1938	24:27	5	0.972	A BB	680.	0.504 NG	0.12
[illegible]	NOT FOUND								
[illegible]	NOT FOUND								
70	NOT FOUND								

	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
	19:05	1.00	0.990	1.00	0.07	50.00	0.001	0.421	0.00
52	19:20		1.003						
53	19:20		1.003						
54	20:09		1.045						
55	20:16		1.052						
56	21:03		1.092						
57	21:00		1.090						
58	21:15		1.102						
59	21:34	1.00	1.119	1.00	1.35	50.00	0.004	0.163	0.03
0	22:46		0.907						
1	22:56		0.913						
2	23:06	1.00	0.920	1.00	0.12	50.00	0.001	0.273	0.00
3	23:13	1.00	0.924	1.00	0.08	50.00	0.001	0.499	0.00
4	23:45		0.945						
5	23:54		0.951						
6	23:51		0.949						
7	24:25	1.00	0.972	1.00	0.50	50.00	0.004	0.445	0.01
8	28:24		0.947						
9	29:43		0.975						
0	31:29		1.049						

DATA FROM FILE: X1012001 SCANS 300 TO 1900 ACQUIRED: 10/12/94 18:05:00
CALI: X1012001 #3 OUT OF 300 TO 3200
SAMPLE: 9410061-12A DSM ENV PD-2
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17



DATA FROM FILE: X1012001 SCANS 1900 TO 3200 ACQUIRED: 10/12/94 18:05:00
CALI: X1012001 #3 OUT OF 300 TO 3200
SAMPLE: 9410061-12A DSM ENV PD-2
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17



PROCEDURE: TCA DIAGNOSTIC REPORT 10/12/94 19:44:10
DA FILE: X1012002
RE. ENCE: SV11
NAME LIST: SVNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: SVRT

< ---- STANDARDS ----- >				< --- PLUS UNKNOWNS --- >				< - LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
6	6	1	126	14	13	1	104	SVRT/SVTG
1	1	1	0	8	1	1	0	SVRT1/SVTG1
1	1	1	0	9	1	1	0	SVRT2/SVTG2
1	1	1	0	8	1	1	0	SVRT3/SVTG3
1	1	1	0	8	1	1	0	SVRT4/SVTG4
1	1	1	0	8	1	1	0	SVRT5/SVTG5
1	1	1	0	7	1	1	0	SVRT6/SVTG6
1	1	1	0	7	1	1	0	SVRT7/SVTG7
1	1	1	0	11	2	1	0	SVRT8/SVTG8
1	1	1	0	7	2	1	1	SVRT9/SVTG9
1	1	1	0	9	1	1	0	SVRT10/SVTG10

86 COMPOUNDS PROCESSED, 15 FOUND

< COMPOUND >			< ---------- SEARCH ---------- >					< SAT >		< ------ CHRO ------- >			
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	SV	1	-768	773	773	.	1	996	.	152	773	.	1
2	SV	2	-976	981	982	1	1	984	.	136	982	.	1
3	SV	3	-1273	1279	1279	.	1	995	.	164	1279	.	1
	SV	4	-1528	1534	1534	.	1	990	.	188	1534	.	1
5	SV	5	-1991	1998	1996	-2	1	974	.	240	1996	.	1
6	SV	6	-2378	2386	2387	1	1	936	.	264	2387	.	1
7	SV	7	-568	573	573	.	1	991	.	112	573	.	1
8	SV	8	-722	727	726	-1	1	993	.	99	726	.	1
9	SV	9	-859	864	864	.	1	995	.	82	864	.	1
10	SV	10	-1161	1167	1167	.	1	994	.	172	1167	.	1
11	SV	11	-1409	1415	1416	1	1	993	.	330	1415	-1	1
12	SV	12	-1806	1813	1811	-2	1	973	.	244	1811	.	1
13	SV	150	-734	739	.	.	.	.	.	132	739	.	1
14	SV	149	-792	797	798	1	1	980	.	152	797	-1	1
15	SV	82	-331	333	.	.	.	.	.	79	.	.	.
16	SV	24	-327	329	.	.	.	.	.	42	.	.	.
17	SV	13	-724	729	.	.	.	.	.	94	.	.	.
18	SV	72	-718	723	.	.	.	.	.	93	.	.	.
19	SV	25	-730	735	.	.	.	.	.	93	.	.	.
20	SV	14	-737	742	.	.	.	.	.	128	.	.	.
21	SV	38	-758	763	.	.	.	.	.	146	.	.	.
22	SV	39	-771	776	.	.	.	.	.	146	.	.	.
23	SV	40	-795	800	.	.	.	.	.	146	.	.	.
24	SV	68	-818	823	.	.	.	.	.	108	.	.	.
25	SV	26	-817	822	.	.	.	.	.	45	.	.	.
26	SV	151	-817	822	.	.	.	.	.	45	.	.	.
27	SV	27	-839	844	.	.	.	.	.	70	.	.	.
28	SV	69	-843	848	.	.	.	.	.	108	.	.	.
29	SV	41	-848	854	.	.	.	.	.	117	.	.	.
30	SV	73	-796	801	.	.	.	.	.	108	.	.	.
31	SV	42	-862	867	.	.	.	.	.	77	.	.	.
32	SV	43	-903	909	.	.	.	.	.	82	908	.	1
33	SV	15	-915	921	.	.	.	.	.	139	.	.	.
34	SV	16	-929	935	.	.	.	.	.	122	.	.	.
35	SV	28	-942	948	.	.	.	.	.	93	.	.	.
36	SV	17	-957	[illegible]									

38	SV	44	-968	974	.	.	.	.	.	180	.	.	.
39	SV	52	-980	986	.	.	.	.	.	128	985	.	1
40	SV	74	-993	999	.	.	.	.	.	127	.	.	.
41	SV	45	-1002	1008	.	.	.	.	.	225	.	.	.
42	SV	18	-1080	1087	.	.	.	.	.	107	.	.	.
43	SV	75	-1097	1104	.	.	.	.	.	142	1103	.	1
[illegible]	SV	46	-1123	1128	.	.	.	.	.	237	.	.	.
4[illegible]	SV	19	-1148	1153	.	.	.	.	.	196	.	.	.
46	SV	71	-1155	1160	.	.	.	.	.	196	.	.	.
47	SV	47	-1179	1185	.	.	.	.	.	162	1185	.	1
48	SV	76	-1201	1207	.	.	.	.	.	65	.	.	.
49	SV	29	-1233	1239	.	.	.	.	.	163	.	.	.
50	SV	48	-1243	1249	.	.	.	.	.	165	.	.	.
51	SV	53	-1249	1255	.	.	.	.	.	152	.	.	.
52	SV	77	-1272	1278	.	.	.	.	.	138	.	.	.
53	SV	54	-1279	1285	.	.	.	.	.	153	.	.	.
54	SV	20	-1290	1296	.	.	.	.	.	184	.	.	.
55	SV	21	-1311	1317	.	.	.	.	.	109	.	.	.
56	SV	49	-1312	1318	.	.	.	.	.	89	.	.	.
57	SV	78	-1309	1315	.	.	.	.	.	168	1315	.	1
58	SV	30	-1354	1360	.	.	.	.	.	149	1359	.	1
59	SV	55	-1367	1373	.	.	.	.	.	166	.	.	.
60	SV	31	-1369	1375	.	.	.	.	.	204	.	.	.
61	SV	79	-1378	1384	.	.	.	.	.	138	.	.	.
62	SV	50	-1397	1404	.	.	.	.	.	77	1404	.	1
63	SV	22	-1381	1388	.	.	.	.	.	198	.	.	.
64	SV	32	-1391	1398	.	.	.	.	.	169	1397	.	1
65	SV	33	-1453	1460	.	.	.	.	.	248	.	.	.
66	SV	51	-1462	1469	.	.	.	.	.	284	.	.	.
67	SV	23	-1498	1504	.	.	.	.	.	266	.	.	.
68	SV	56	-1532	1538	.	.	.	.	.	178	1537	.	1
6[illegible]	SV	57	-1541	1547	.	.	.	.	.	178	.	.	.
7	SV	142	-1572	1578	.	.	.	.	.	167	.	.	.
71	SV	34	-1635	1640	1640	.	1	990	.	149	1640	.	1
72	SV	58	-1738	1742	.	.	.	.	.	202	1743	.	1
73	SV	80	-1766	1770	.	.	.	.	.	184	.	.	.
74	SV	59	-1777	1781	.	.	.	.	.	202	1782	.	1
75	SV	35	-1893	1898	.	.	.	.	.	149	1897	.	1
76	SV	60	-1989	1994	.	.	.	.	.	228	1996	.	1
77	SV	61	-1997	2002	.	.	.	.	.	228	.	.	.
78	SV	36	-1999	2004	2004	.	1	932	.	149	2004	.	1
79	SV	81	-1988	1996	.	.	.	.	.	252	.	.	.
80	SV	37	-2151	2159	.	.	.	.	.	149	.	.	.
81	SV	62	-2253	2262	.	.	.	.	.	252	.	.	.
82	SV	63	-2261	2270	.	.	.	.	.	252	.	.	.
83	SV	64	-2357	2366	.	.	.	.	.	252	.	.	.
84	SV	65	-2857	2868	.	.	.	.	.	276	.	.	.
85	SV	66	-2876	2887	.	.	.	.	.	278	.	.	.
86	SV	67	-3008	3019	.	.	.	.	.	276	.	.	.

Quantitation Report File: X1012002

Da X1012002.TI
10/12/94 19:01:00
Sample: 9410061-12B DSM ENV PD-2/DUP
Conds.: 40(4) TO 285 @ 12/MIN HOLD 17
Formula: Instrument: FINN Weight: 0.000
Submitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 (IS)
2	CI40 NAPHTHALENE-D8 (IS)
3	CI50 ACENAPHTHALENE-D10 (IS)
4	CI60 PHENANTHRENE-D10 (IS)
5	CI70 CHRYSENE-D12 (IS)
6	CI75 PERYLENE-D12 (IS)
7	CS50 2-FLUOROPHENOL (SURR)
8	CS45 PHENOL-D5 (SURR)
9	CS20 NITROBENZENE-D5 (SURR)
10	CS25 2-FLUOROBIPHENYL (SURR)
11	CS55 2,4,6-TRIBROMOPHENOL (SURR)
12	CS30 TERPHENYL-D14 (SURR)
13	CS70 2-CHLOROPHENOL-D4 (SURR)
14	CS75 1,2-DICHLOROBENZENE-D4 (SURR)
15	C322 PYRIDINE
16	C310 N-NITROSODIMETHYLAMINE
17	C315 PHENOL
18	C320 ANALINE
19	C325 BIS(2-CHLOROETHYL)ETHER
20	C330 2-CHLOROPHENOL
21	C335 1,3 DICHLOROBENZENE
22	C340 1,4 DICHLOROBENZENE
23	C350 1,2 DICHLOROBENZENE
24	C355 2-METHYLPHENOL
25	C360 BIS(2-CHLOROISOPROPYL)ETHER
26	C357 2,2-OXYBIS(1-CHLOROPROPANE)
27	C370 N-NITROSO-DI-N-PROPYLAMINE
28	C365 4-METHYLPHENOL
29	C375 HEXACHLOROETHANE
30	C345 BENZYL ALCOHOL
31	C410 NITROBENZENE
32	C415 ISOPHORONE
33	C420 2-NITROPHENOL
34	C425 2,4-DIMETHYLPHENOL
35	C435 BIS(2-CHLOROETHOXY)METHANE
36	C440 2,4-DICHLOROPHENOL
37	C430 BENZOIC ACID
38	C445 1,2,4-TRICHLOROBENZENE
39	C450 NAPHTHALENE
40	C455 4-CHLOROANALINE
41	C460 HEXACHLOROBUTADIENE
42	C465 4-CHLORO-3-METHYLPHENOL
43	C470 2-METHYLNAPHTHALENE
44	C510 HEXACHLOROCYCLOPENTADIENE
45	C515 2,4,6-TRICHLOROPHENOL
46	C520 2,4,5-TRICHLOROPHENOL
47	C525 2-CHLORONAPHTHALENE

N	Name
4	C530 2-NITROANALINE
45	C535 DIMETHYLPHTHALATE
50	C543 2,6-DINITROTOLUENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	773	9:45	1	1.000	A BB	48424.	40.000 NG	7.67
2	136	982	12:23	2	1.000	A BB	160460.	40.000 NG	7.67
3	164	1279	16:08	3	1.000	A BB	91288.	40.000 NG	7.67
4	188	1534	19:21	4	1.000	A BB	147444.	40.000 NG	7.67
5	240	1996	25:11	5	1.000	A BB	120488.	40.000 NG	7.67
6	264	2387	30:07	6	1.000	A BB	71885.	40.000 NG	7.67
7	112	573	7:14	1	0.741	A BB	55278.	32.206 NG	6.17
8	99	726	9:10	1	0.939	A BV	48409.	20.714 NG	3.97
9	82	864	10:54	2	0.880	A BB	75529.	32.778 NG	6.28
10	172	1167	14:43	3	0.912	A BB	87846.	28.283 NG	5.42
11	330	1415	17:51	3	1.106	A BB	30780.	45.348 NG	8.69
12	244	1811	22:51	5	0.907	A BB	71221.	21.040 NG	4.03
13	132	739	9:19	1	0.956	A BB	80857.	49.200 NG	9.43
14	152	797	10:03	1	1.031	A BB	33258.	28.249 NG	5.41
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
2	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	82	908	11:27	2	0.925	A BB	290.	0.071 NG	0.01
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	128	985	12:26	2	1.003	A BB	260.	0.060 NG	0.01
40	NOT FOUND								
41	NOT FOUND								
42	NOT FOUND								
43	142	1103	13:55	2	1.123	A BB	100.	0.035 NG	0.01
44	NOT FOUND								
45	NOT FOUND								
47	NOT FOUND								
4	162	1185	14:57	3	0.927	A BB	80.	0.027 NG	0.01
46	NOT FOUND								
49	NOT FOUND								
50	NOT FOUND								

N	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
	9:41	1.01	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:19	1.01	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	16:04	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	19:17	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	25:07	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	30:00	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	7:10	1.01	0.740	1.00	32.21	50.00	0.913	1.418	0.64
8	9:07	1.01	0.940	1.00	20.71	50.00	0.800	1.930	0.41
9	10:50	1.01	0.880	1.00	32.78	50.00	0.377	0.574	0.66
10	14:39	1.01	0.912	1.00	28.28	50.00	0.770	1.361	0.57
11	17:47	1.00	1.107	1.00	45.35	50.00	0.270	0.297	0.91
12	22:47	1.00	0.907	1.00	21.04	50.00	0.473	1.124	0.42
13	9:16	1.01	0.956	1.00	49.20	50.00	1.336	1.358	0.98
14	10:00	1.01	1.031	1.00	28.25	50.00	0.549	0.972	0.56
15	4:11		0.431						
16	4:08		0.426						
17	9:08		0.943						
18	9:04		0.935						
19	9:13		0.951						
20	9:18		0.960						
21	9:34		0.987						
22	9:44		1.004						
23	10:02		1.035						
24	10:19		1.065						
25	10:18		1.064						
2	10:18		1.064						
27	10:35		1.092						
28	10:38		1.098						
29	10:42		1.104						
30	10:03		0.816						
31	10:53		0.883						
32	11:24	1.01	0.925	1.00	0.07	50.00	0.001	1.023	0.00
33	11:33		0.937						
34	11:43		0.952						
35	11:53		0.965						
36	12:04		0.981						
37	12:02		0.977						
38	12:13		0.992						
39	12:22	1.01	1.004	1.00	0.06	50.00	0.001	1.074	0.00
40	12:32		1.017						
41	12:39		1.027						
42	13:38		1.107						
43	13:50	1.01	1.124	1.00	0.04	50.00	0.000	0.711	0.00
44	14:10		0.882						
45	14:29		0.902						
46	14:34		0.907						
47	14:53	1.01	0.926	1.00	0.03	50.00	0.001	1.312	0.00
48	15:09		0.943						
49	15:33		0.969						
50	15:41		0.976						

Quantitation Report File: X1012002

Da X1012002.TI
10/12/94 19:01:00
Sample: 9410061-12B DSM ENV PD-2/DUP
Conds.: 40(4) TO 285 @ 12/MIN HOLD 17
Formula: Instrument: FINN Weight: 0.000
Submitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	C540 ACENAPHTHYLENE
52	C545 3-NITROANALINE
53	C550 ACENAPHTHENE
54	C555 2,4-DINITROPHENOL
55	C560 4-NITROPHENOL
56	C570 2,4-DINITROTOLUENE
57	C565 DIBENZOFURAN
58	C580 DIETHYLPHTHALATE
59	C590 FLUORENE
60	C585 4-CHLOROPHENYL-PHENYLETHER
61	C595 4-NITROANALINE
62	C576 AZOBENZENE
63	C610 4,6-DINITRO-2-METHYLPHENOL
64	C615 N-NITROSODIPHENYLAMINE
65	C625 4-BROMOPHENYL-PHENYLETHER
66	C630 HEXACHLOROBENZENE
67	C635 PENTACHLOROPHENOL
68	C640 PHENANTHRENE
69	C645 ANTHRACENE
70	C647 CARBAZOLE
71	C650 DI-N-BUTYLPHTHALATE
72	C655 FLUORANTHENE
73	C710 BENZIDINE
74	C715 PYRENE
75	C720 BUTYLBENZYLPHTHALATE
76	C740 CHRYSENE
77	C730 BENZO(A)ANTHRACENE
78	C745 BIS(2-ETHYLHEXYL)PHTHALATE
79	C725 3,3-DICHLOROBENZIDINE
80	C760 DI-N-OCTYLPHTHALATE
81	C770 BENZO(K)FLUORANTHENE
82	C765 BENZO(B)FLUORANTHENE
83	C775 BENZO(A)PYRENE
84	C780 INDENO(1,2,3-CD)PYRENE
85	C785 DIBENZ(A,H)ANTHRACENE
86	C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								
52	NOT FOUND								
53	NOT FOUND								
54	NOT FOUND								
55	NOT FOUND								
56	NOT FOUND								
57	168	1315	16:35	3	1.028	A BB	48.	0.012 NG	0.00

P	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
5.	149	1359	17:09	3	1.063	A BB	498.	0.144 NG	0.03
59	NOT FOUND								
60	NOT FOUND								
61	NOT FOUND								
62	77	1404	17:43	3	1.098	A BB	190.	0.041 NG	0.01
63	NOT FOUND								
64	169	1397	17:38	4	0.911	A BB	164.	0.083 NG	0.02
65	NOT FOUND								
66	NOT FOUND								
67	NOT FOUND								
68	178	1537	19:24	4	1.002	A BB	528.	0.123 NG	0.02
69	NOT FOUND								
70	NOT FOUND								
71	149	1640	20:41	4	1.069	A BB	118504.	~~21.310 NG~~	4.08
72	202	1743	21:59	4	1.136	A BB	134.	0.034 NG	0.01
73	NOT FOUND								
74	202	1782	22:29	5	0.893	A BB	74.	0.017 NG	0.00
75	149	1897	23:56	5	0.950	A BB	662.	0.344 NG	0.07
76	228	1996	25:11	5	1.000	A BB	238.	0.064 NG	0.01
77	NOT FOUND								
78	149	2004	25:17	5	1.004	A BB	5202.	1.767 NG	0.34
79	NOT FOUND								
80	NOT FOUND								
81	NOT FOUND								
82	NOT FOUND								
8	NOT FOUND								
84	NOT FOUND								
85	NOT FOUND								
86	NOT FOUND								

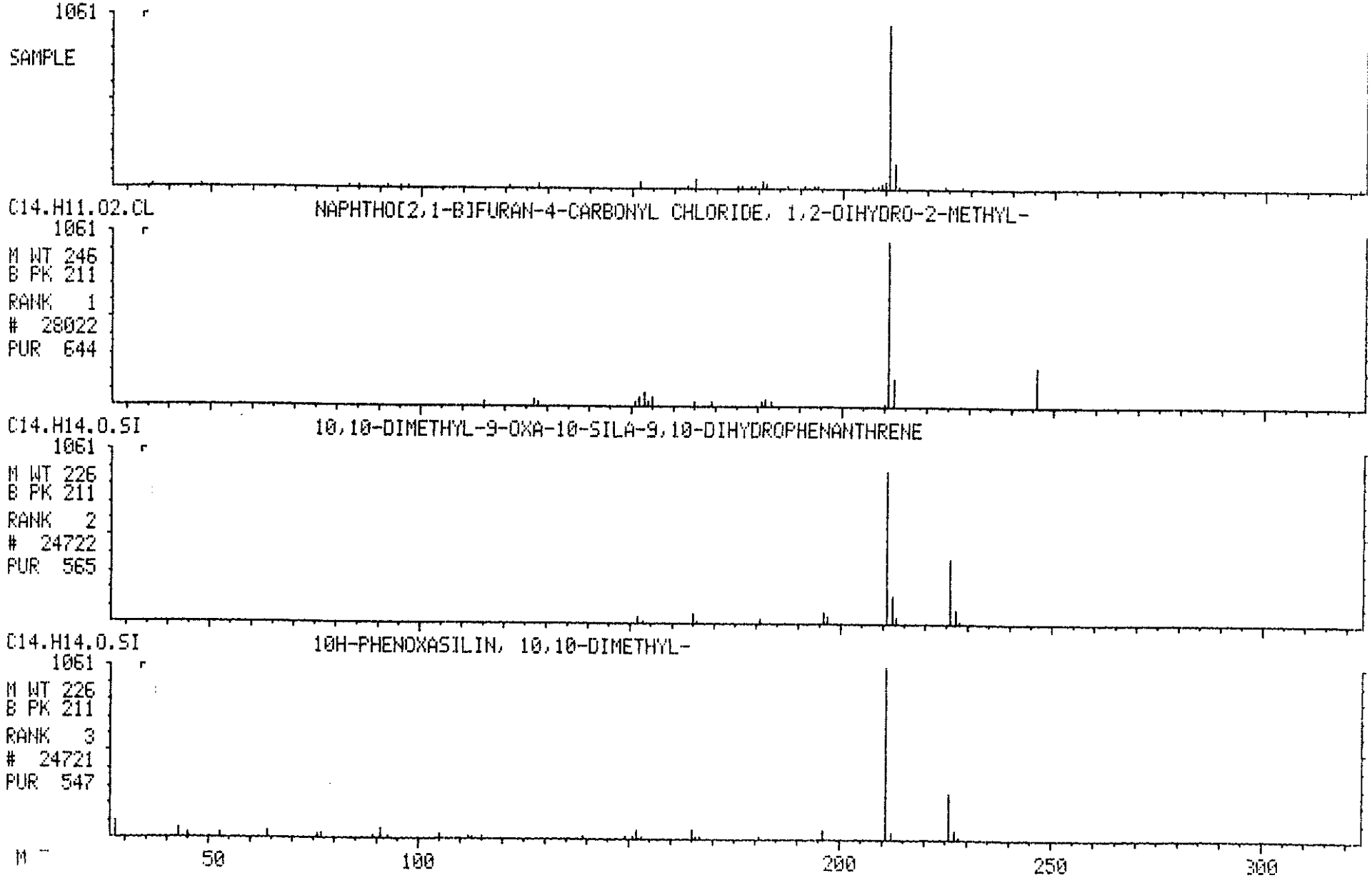
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	15:45		0.981						
52	16:03		0.999						
53	16:08		1.005						
54	16:17		1.013						
55	16:32		1.030						
56	16:33		1.031						
57	16:31	1.00	1.028	1.00	0.01	50.00	0.000	1.766	0.00
58	17:05	1.00	1.064	1.00	0.14	50.00	0.004	1.520	0.00
59	17:15		1.074						
60	17:16		1.075						
61	17:23		1.082						
62	17:38	1.01	1.097	1.00	0.04	50.00	0.002	2.047	0.00
63	17:25		0.904						
64	17:33	1.00	0.910	1.00	0.08	50.00	0.001	0.533	0.00
65	18:20		0.951						
66	18:27		0.957						
67	18:54		0.980						
68	19:20	1.00	1.003	1.00	0.12	50.00	0.003	1.161	0.00
69	19:27		1.009						
70	19:50		1.029						
71	20:38	1.00	1.070	1.00	21.31	50.00	0.643	1.509	0.43
72	21:56	1.00	1.137	1.00	0.03	50.00	0.001	1.057	0.00
73	22:17		0.888						
74	22:25	1.00	0.893	1.00	0.02	50.00	0.000	1.406	0.00
75	23:53	1.00	0.951	1.00	0.34	50.00	0.004	0.639	0.01

N	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
76	25:06	1.00	0.999	1.00	0.06	50.00	0.002	1.231	0.00
77	25:12		1.003						
78	25:13	1.00	1.004	1.00	1.77	50.00	0.035	0.977	0.04
79	25:05		0.836						
80	27:08		0.905						
81	28:26		0.947						
82	28:32		0.951						
83	29:44		0.991						
84	36:03		1.201						
85	36:17		1.209						
86	37:57		1.265						

MID LIBRARY SEARCH (LIBRARYNB)
10/12/94 18:05:00 + 21:34
SAMPLE: 9410061-12A DSM ENV PD-2
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17
ENHANCED (S 15B 2N 0T)

DATA: X1012001 #1709
CALI: X1012001 # 3

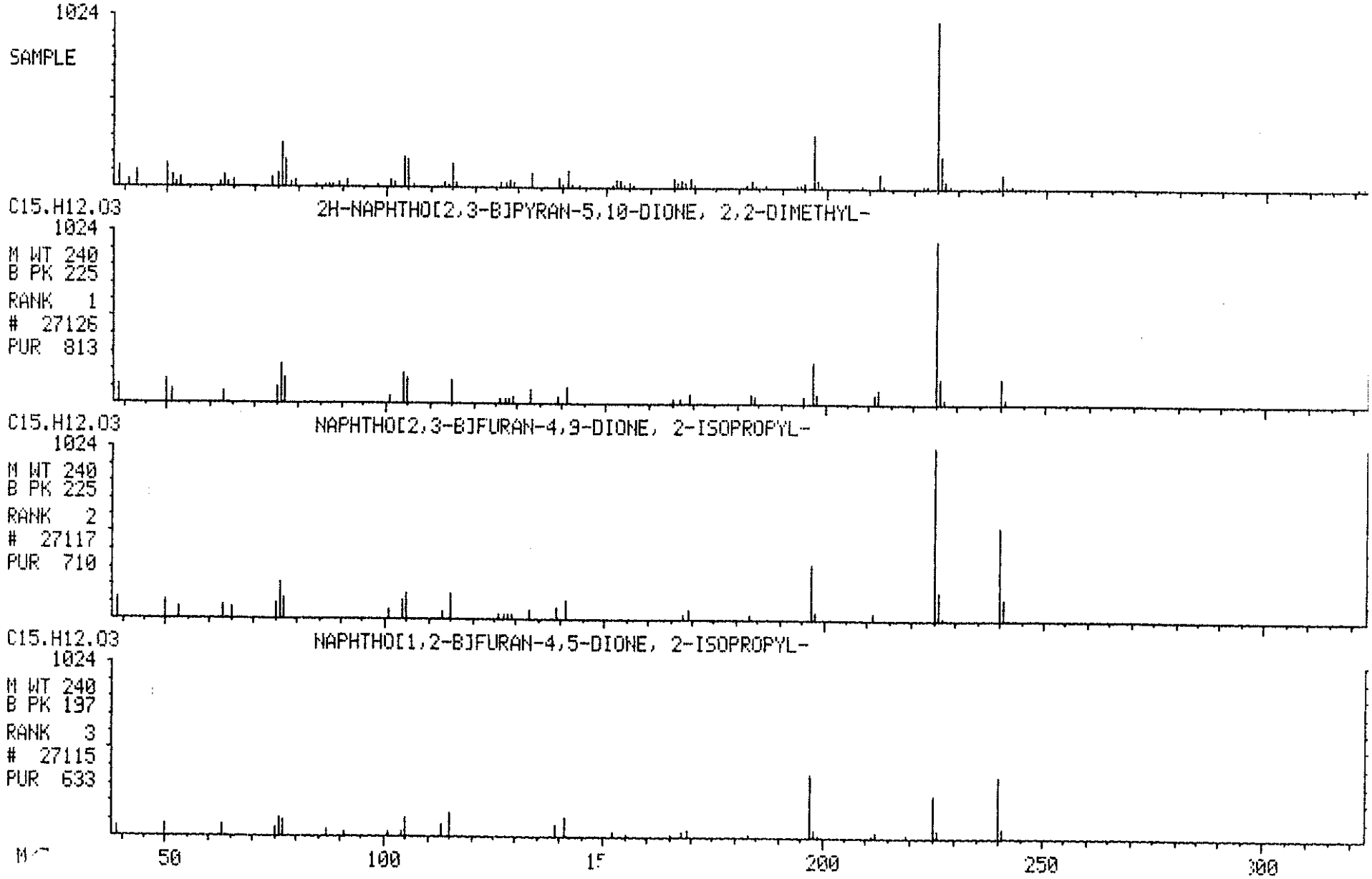
BASE M/Z: 211
RIC: 12352.



MID LIBRARY SEARCH (LIBRARYNB)
10/12/94 18:05:00 + 21:36
SAMPLE: 9410061-12A DSM ENV PD-2
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17
ENHANCED (S 15B 2N 0T)

DATA: X1012001 #1712
CALI: X1012001 # 3

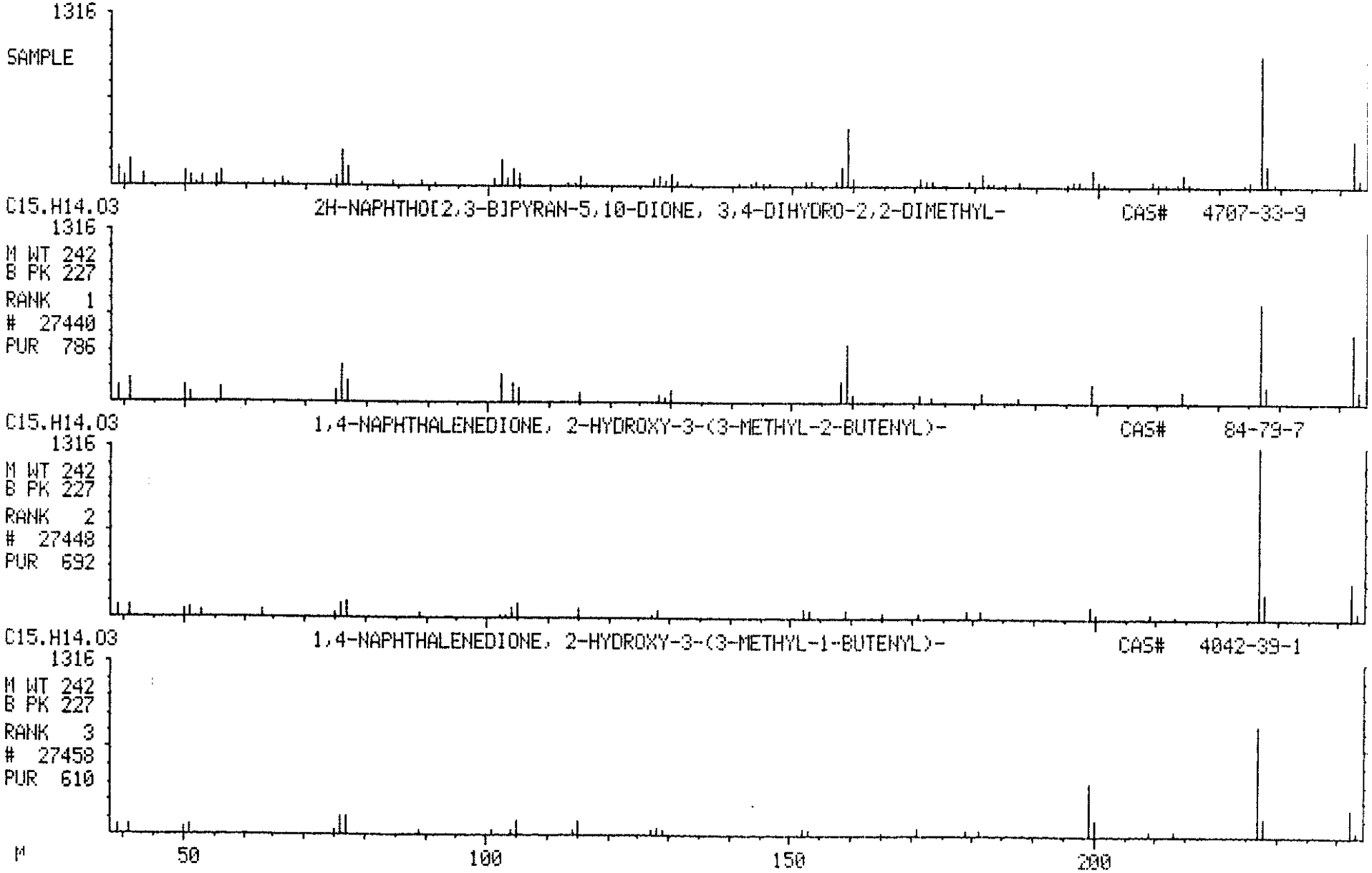
BASE M/Z: 225
RIC: 71808.



MID LIBRARY SEARCH (LIBRARYNB)
10/12/94 18:05:00 + 22:12
SAMPLE: 9410061-12A DSM ENV PD-2
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17
ENHANCED (S 15B 2N 0T)

DATA: X1012001 #1759
CALI: X1012001 # 3

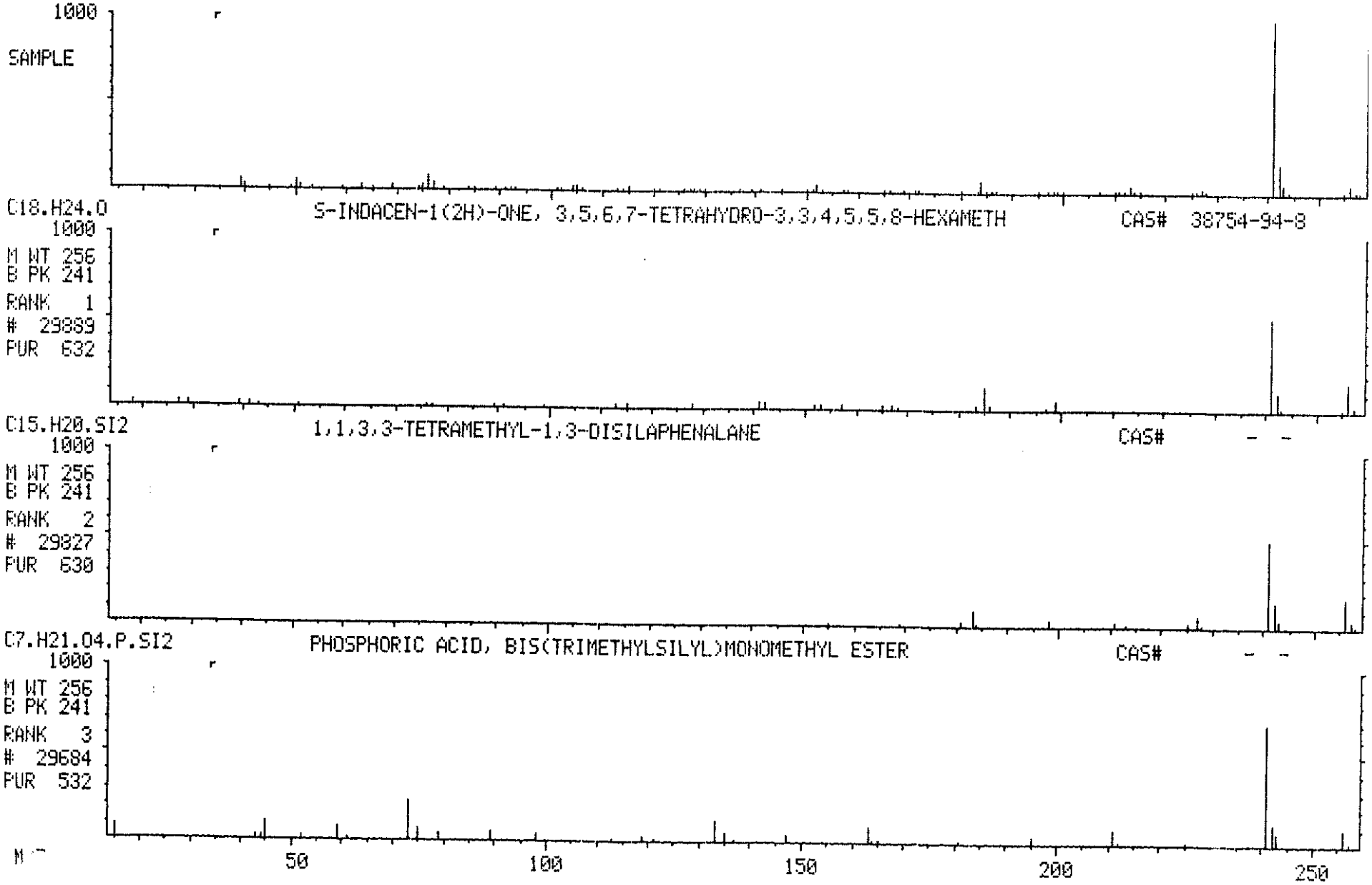
BASE M/Z: 227
RIC: 30848.



MID LIBRARY SEARCH (LIBRARYNB)
10/12/94 18:05:00 + 23:20
SAMPLE: 9410061-12A DSM ENV PD-2
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17
ENHANCED (S 15B 2N 0T)

DATA: X1012001 #1849
CALI: X1012001 # 3

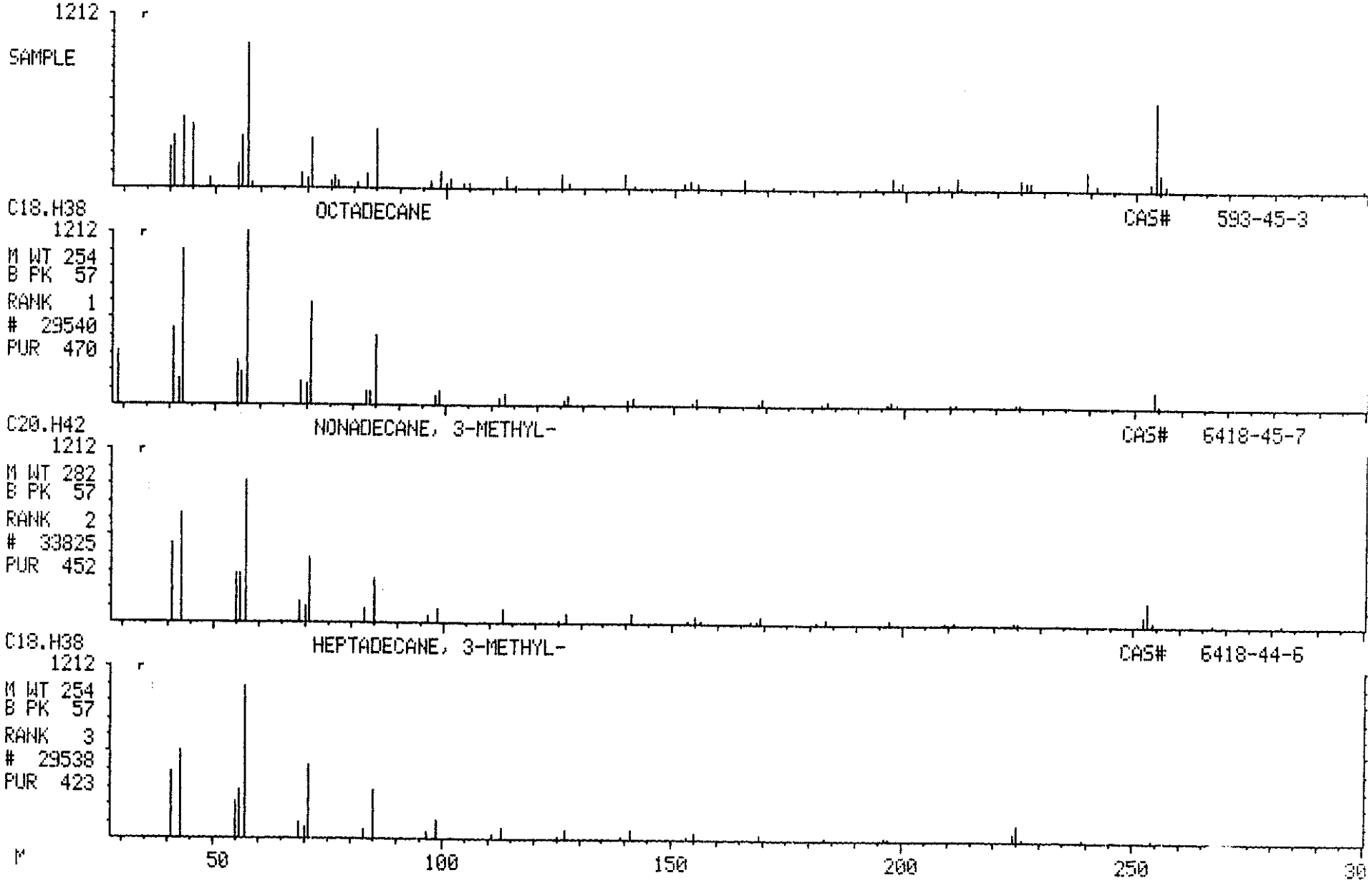
BASE M/Z: 241
RIC: 28000.



MID LIBRARY SEARCH (LIBRARYNB)
10/12/94 18:05:00 + 24:10
SAMPLE: 9410061-12A DSM ENV PD-2
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17
ENHANCED (S 15B 2N 0T)

DATA: X1012001 #1915
CALI: X1012001 # 3

BASE M/Z: 57
RIC: 10480.



PROCEDURE: FILTER/TIC DIAGNOSTIC REPORT 10/14/94 11:05:25

DA FILE: X1012001

FILTER SCAN PARAMETERS

MAX. NUMBER TICS:	26
11-TABLE ENTRIES:	946
SCAN TOLERANCE :	10
MIN. RIC HT. [%]:	10
FIRST SCAN :	400
LAST SCAN :	3200
TIC THRESHOLD :	750

METHOD LIBRARY & LISTS

TIC I.S. LIBRARY:	LIBRARYLJ
NBS SEARCH PROC :	SERLIB
PEAK FINDER PROC:	VOME
TCA I.S. LL :	LJ
FILE NAME LIST :	TCAREF2

TARGET COMPOUND ANALYSIS:

TARGETS (QUAN LIST)	IS PEAKS	TOTAL TARGET PEAKS
34	6	40

FILTER PROCESSING:

TOTAL PEAKS	< 1ST SCAN	> LAST SCAN	< MIN RIC HT	< SCAN TOL	> MAX # PEAKS	TOTAL REJECTS	TOTAL TICS
	<----------REJECT PEAKS---------->						
9	3	0	27	34	0	64	5

TIC PROCESSING:

NO.	SCAN#	PURITY	FIT	MW	COMPOUND NAME [BEFORE TIC THRESHOLD]
1	1709	603	674	246	NAPHTHO[2,1-B]FURAN-4-CARBONYL
2	1712	814	966	240	2H-NAPHTHO[2,3-B]PYRAN-5,10-DI
3	1759	786	984	242	2H-NAPHTHO[2,3-B]PYRAN-5,10-DI
4	1849	632	788	256	S-INDACEN-1(2H)-ONE, 3,5,6,7-T
5	1915	470	695	254	OCTADECANE

Quantitation Report File: X1012001

Da X1012001.TI
10/12/94 18:05:00
Sample: 9410061-12A DSM ENV PD-2
Conds.: 40(4) TO 285 @ 12/MIN HOLD 17
Formula: Instrument: FINN Weight: 0.000
Submitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 (IS)
2	CI40 NAPHTHALENE-D8 (IS)
3	CI50 ACENAPHTHALENE-D10 (IS)
4	CI60 PHENANTHRENE-D10 (IS)
5	CI70 CHRYSENE-D12 (IS)
6	CI75 PERYLENE-D12 (IS)
7	CS50 2-FLUOROPHENOL (SURR)
8	CS45 PHENOL-D5 (SURR)
9	CS20 NITROBENZENE-D5 (SURR)
10	CS25 2-FLUOROBIPHENYL (SURR)
11	CS55 2,4,6-TRIBROMOPHENOL (SURR)
12	CS30 TERPHENYL-D14 (SURR)
13	CS70 2-CHLOROPHENOL-D4 (SURR)
14	CS75 1,2-DICHLOROBENZENE-D4 (SURR)
15	C322 PYRIDINE
16	C310 N-NITROSODIMETHYLAMINE
17	C315 PHENOL
18	C320 ANALINE
19	C325 BIS(2-CHLOROETHYL)ETHER
20	C330 2-CHLOROPHENOL
21	C335 1,3 DICHLOROBENZENE
22	C340 1,4 DICHLOROBENZENE
23	C350 1,2 DICHLOROBENZENE
24	C355 2-METHYLPHENOL
25	C360 BIS(2-CHLOROISOPROPYL)ETHER
26	C357 2,2-OXYBIS(1-CHLOROPROPANE)
27	C370 N-NITROSO-DI-N-PROPYLAMINE
28	C365 4-METHYLPHENOL
29	C375 HEXACHLOROETHANE
30	C345 BENZYL ALCOHOL
31	C410 NITROBENZENE
32	C415 ISOPHORONE
33	C420 2-NITROPHENOL
34	C425 2,4-DIMETHYLPHENOL
35	C435 BIS(2-CHLOROETHOXY)METHANE
36	C440 2,4-DICHLOROPHENOL
37	C430 BENZOIC ACID
38	C445 1,2,4-TRICHLOROBENZENE
39	C450 NAPHTHALENE
40	C455 4-CHLOROANALINE
41	C460 HEXACHLOROBUTADIENE
42	C465 4-CHLORO-3-METHYLPHENOL
43	C470 2-METHYLNAPHTHALENE
44	C510 HEXACHLOROCYCLOPENTADIENE
45	C515 2,4,6-TRICHLOROPHENOL
46	C520 2,4,5-TRICHLOROPHENOL
47	C525 2-CHLORONAPHTHALENE

N	Name
.	C530 2-NITROANALINE
4.	C535 DIMETHYLPHTHALATE
50	C543 2,6-DINITROTOLUENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	770	9:43	1	1.000	A BB	49626.	40.000 NG	8.05
2	136	978	12:20	2	1.000	A BB	169862.	40.000 NG	8.05
3	164	1276	16:06	3	1.000	A VB	93734.	40.000 NG	8.05
4	188	1530	19:18	4	1.000	A BB	153021.	40.000 NG	8.05
5	240	1993	25:09	5	1.000	A BB	121384.	40.000 NG	8.05
6	264	2382	30:03	6	1.000	A BB	73329.	40.000 NG	8.05
7	112	569	7:11	1	0.739	A BB	50739.	29.483 NG	5.94
8	99	723	9:07	1	0.939	A BB	46514.	18.691 NG	3.76
9	82	860	10:51	2	0.879	A BB	76361.	36.291 NG	7.31
10	172	1163	14:40	3	0.911	A BB	76016.	28.325 NG	5.70
11	330	1412	17:49	3	1.107	A BB	26360.	38.311 NG	7.71
12	244	1807	22:48	5	0.907	A BB	50250.	15.272 NG	3.07
13	132	735	9:16	1	0.955	A BB	74639.	44.316 NG	8.92
14	152	794	10:01	1	1.031	A BB	30958.	25.659 NG	5.17
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
2	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	82	905	11:25	2	0.925	A BB	308.	0.071 NG	0.01
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	128	981	12:23	2	1.003	A BB	258.	0.057 NG	0.01
40	NOT FOUND								
41	NOT FOUND								
42	NOT FOUND								
43	142	1099	13:52	2	1.124	A BB	304.	0.101 NG	0.02
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	162	1181	14:54	3	0.926	A VB	496.	0.161 NG	0.03
48	NOT FOUND								
49	163	1235	15:35	3	0.968	A BB	174.	0.051 NG	0.01
50	NOT FOUND								

N	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
	9:41	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:19	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	16:04	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	19:17	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	25:07	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	30:00	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	7:10	1.00	0.740	1.00	29.48	50.00	0.818	1.387	0.59
8	9:07	1.00	0.940	1.00	18.69	50.00	0.750	2.006	0.37
9	10:51	1.00	0.881	1.00	36.29	50.00	0.360	0.495	0.73
10	14:39	1.00	0.912	1.00	28.33	50.00	0.649	1.145	0.57
11	17:47	1.00	1.108	1.00	38.31	50.00	0.225	0.294	0.77
12	22:47	1.00	0.907	1.00	15.27	50.00	0.331	1.084	0.31
13	9:16	1.00	0.956	1.00	44.32	50.00	1.203	1.358	0.89
14	10:00	1.00	1.031	1.00	25.66	50.00	0.499	0.972	0.51
15	4:11		0.431						
16	4:08		0.426						
17	9:08		0.943						
18	9:04		0.935						
19	9:13		0.951						
20	9:18		0.960						
21	9:34		0.987						
22	9:44		1.004						
23	10:02		1.035						
24	10:19		1.065						
25	10:18		1.064						
26	10:18		1.064						
27	10:35		1.092						
28	10:38		1.098						
29	10:42		1.104						
30	10:03		0.816						
31	10:53		0.883						
32	11:24	1.00	0.925	1.00	0.07	50.00	0.001	1.023	0.00
33	11:33		0.937						
34	11:43		0.952						
35	11:53		0.965						
36	12:04		0.981						
37	12:02		0.977						
38	12:13		0.992						
39	12:22	1.00	1.004	1.00	0.06	50.00	0.001	1.074	0.00
40	12:32		1.017						
41	12:39		1.027						
42	13:38		1.107						
43	13:50	1.00	1.124	1.00	0.10	50.00	0.001	0.711	0.00
44	14:10		0.882						
45	14:29		0.902						
46	14:34		0.907						
47	14:53	1.00	0.926	1.00	0.16	50.00	0.004	1.312	0.00
48	15:09		0.943						
49	15:33	1.00	0.969	1.00	0.05	50.00	0.001	1.446	0.00
50	15:41		0.976						

Quantitation Report File: X1012001

D. X1012001.TI
10. 2/94 18:05:00
Sample: 9410061-12A DSM ENV PD-2
Conds.: 40(4) TO 285 @ 12/MIN HOLD 17
Formula: Instrument: FINN Weight: 0.000
Submitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	C540 ACENAPHTHYLENE
52	C545 3-NITROANALINE
53	C550 ACENAPHTHENE
54	C555 2,4-DINITROPHENOL
55	C560 4-NITROPHENOL
56	C570 2,4-DINITROTOLUENE
57	C565 DIBENZOFURAN
58	C580 DIETHYLPHTHALATE
59	C590 FLUORENE
60	C585 4-CHLOROPHENYL-PHENYLETHER
61	C595 4-NITROANALINE
62	C576 AZOBENZENE
63	C610 4,6-DINITRO-2-METHYLPHENOL
64	C615 N-NITROSODIPHENYLAMINE
65	C625 4-BROMOPHENYL-PHENYLETHER
66	C630 HEXACHLOROBENZENE
67	C635 PENTACHLOROPHENOL
68	C640 PHENANTHRENE
69	C645 ANTHRACENE
70	C647 CARBAZOLE
71	C650 DI-N-BUTYLPHTHALATE
72	C655 FLUORANTHENE
73	C710 BENZIDINE
74	C715 PYRENE
75	C720 BUTYLBENZYLPHTHALATE
76	C740 CHRYSENE
77	C730 BENZO(A)ANTHRACENE
78	C745 BIS(2-ETHYLHEXYL)PHTHALATE
79	C725 3,3-DICHLOROBENZIDINE
80	C760 DI-N-OCTYLPHTHALATE
81	C770 BENZO(K)FLUORANTHENE
82	C765 BENZO(B)FLUORANTHENE
83	C775 BENZO(A)PYRENE
84	C780 INDENO(1,2,3-CD)PYRENE
85	C785 DIBENZ(A,H)ANTHRACENE
86	C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	152	1250	15:46	3	0.980	A BB	76.	0.017 NG	0.00
52	NOT FOUND								
53	153	1281	16:10	3	1.004	A BB	48.	0.017 NG	0.00
54	NOT FOUND								
55	NOT FOUND								
56	NOT FOUND								
57	168	1311	16:32	3	1.027	A BB	740.	0.179 NG	0.04

P	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
58	149	1355	17:06	3	1.062	A BB	1174.	0.330 NG	0.07
59	166	1369	17:16	3	1.073	A BB	390.	0.126 NG	0.03
60	204	1372	17:19	3	1.075	A BB	126.	0.077 NG	0.02
61	NOT FOUND								
62	77	1399	17:39	3	1.096	A BB	928.	0.194 NG	0.04
63	NOT FOUND								
64	169	1393	17:35	4	0.910	A BB	1774.	0.870 NG	0.18
65	NOT FOUND								
66	284	1463	18:27	4	0.956	A BB	644.	0.417 NG	0.08
67	NOT FOUND								
68	178	1534	19:21	4	1.003	A BB	1252.	0.282 NG	0.06
69	178	1543	19:28	4	1.008	A BB	590.	0.136 NG	0.03
70	167	1575	19:52	4	1.029	A BB	416.	0.213 NG	0.04
71	149	1636	20:38	4	1.069	A BB	82906.	14.365 NG	2.89
72	202	1739	21:56	4	1.137	A BB	554.	0.137 NG	0.03
73	NOT FOUND								
74	202	1778	22:26	5	0.892	A BB	456.	0.107 NG	0.02
75	149	1894	23:54	5	0.950	A BB	808.	0.417 NG	0.08
76	228	1992	25:08	5	0.999	A BB	418.	0.112 NG	0.02
77	228	1998	25:12	5	1.003	A BB	78.	0.025 NG	0.01
78	149	2001	25:15	5	1.004	A BB	3006.	1.013 NG	0.20
79	252	1990	25:06	6	0.835	A BB	374.	0.919 NG	0.18
80	NOT FOUND								
81	NOT FOUND								
82	252	2265	28:35	6	0.951	A BB	52.	0.018 NG	0.00
83	NOT FOUND								
84	NOT FOUND								
85	NOT FOUND								
86	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	15:45	1.00	0.981	1.00	0.02	50.00	0.001	1.873	0.00
52	16:03		0.999						
53	16:08	1.00	1.005	1.00	0.02	50.00	0.000	1.232	0.00
54	16:17		1.013						
55	16:32		1.030						
56	16:33		1.031						
57	16:31	1.00	1.028	1.00	0.18	50.00	0.006	1.766	0.00
58	17:05	1.00	1.064	1.00	0.33	50.00	0.010	1.520	0.01
59	17:15	1.00	1.074	1.00	0.13	50.00	0.003	1.320	0.00
60	17:16	1.00	1.075	1.00	0.08	50.00	0.001	0.701	0.00
61	17:23		1.082						
62	17:38	1.00	1.097	1.00	0.19	50.00	0.008	2.047	0.00
63	17:25		0.904						
64	17:33	1.00	0.910	1.00	0.87	50.00	0.009	0.533	0.02
65	18:20		0.951						
66	18:27	1.00	0.957	1.00	0.42	50.00	0.003	0.404	0.01
67	18:54		0.980						
68	19:20	1.00	1.003	1.00	0.28	50.00	0.007	1.161	0.01
69	19:27	1.00	1.009	1.00	0.14	50.00	0.003	1.132	0.00
70	19:50	1.00	1.029	1.00	0.21	50.00	0.002	0.509	0.00
71	20:38	1.00	1.070	1.00	14.37	50.00	0.433	1.509	0.29
72	21:56	1.00	1.137	1.00	0.14	50.00	0.003	1.057	0.00
73	22:17		0.888						
74	22:25	1.00	0.893	1.00	0.11	50.00	0.003	1.406	0.00
75	23:53	1.00	0.951	1.00	0.42	50.00	0.005	0.639	0.01

N	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
76	25:06	1.00	0.999	1.00	0.11	50.00	0.003	1.231	0.00
77	25:12	1.00	1.003	1.00	0.02	50.00	0.001	1.034	0.00
78	25:13	1.00	1.004	1.00	1.01	50.00	0.020	0.977	0.02
79	25:05	1.00	0.836	1.00	0.92	50.00	0.004	0.222	0.02
80	27:08		0.905						
81	28:26		0.947						
82	28:32	1.00	0.951	1.00	0.02	50.00	0.001	1.542	0.00
83	29:44		0.991						
84	36:03		1.201						
85	36:17		1.209						
86	37:57		1.265						

Quantitation Report File: X1012001

Da X1012001.TI
10/12/94 18:05:00
Sample: 9410061-12A DSM ENV PD-2
Conds.: 40(4) TO 285 @ 12/MIN HOLD 17
Formula: Instrument: FINN Weight: 0.000
Submitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

AMOUNT=HEIGHT * REF AMNT/(REF HEIGHT * RESP FACT)
Resp. fac. from Library Entry

No	CAS #	Name
1	0-00-0	CI30 1,4-DICHLOROBENZENE-D4 (IS)
2	0-00-0	CI40 NAPHTHALENE-D4 (IS)
3	0-00-0	CI50 ACENAPHTHALENE-D8 (IS)
4	0-00-0	CI60 PHENANTHRENE-D8 (IS)
5	0-00-0	CI70 CHRYSENE-D12 (IS)
6	0-00-0	CI75 PERYLENE-D12 (IS)
7	0-00-0	UNKNOWN
8	0-00-0	UNKNOWN
9	0-00-0	UNKNOWN
10	15297-92-4	2H-NAPHTHO[2,3-B]PYRAN-5,10-DIONE, 2,2-DIMETHYL-
11	4707-33-9	2H-NAPHTHO[2,3-B]PYRAN-5,10-DIONE, 3,4-DIHYDRO-2,2-DIM
12	0-00-0	UNKNOWN
13	0-00-0	UNKNOWN

N	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	TOT	770	9:43	1	1.000	A BB	143039. *	40.000 NG	13.93
2	TOT	978	12:20	2	1.000	A BB	175073. *	40.000 NG	13.93
3	TOT	1276	16:06	3	1.000	A BB	156928. *	40.000 NG	13.93
4	TOT	1530	19:18	4	1.000	A BB	157696. *	40.000 NG	13.93
5	TOT	1993	25:09	5	1.000	A BB	92571. *	40.000 NG	13.93
6	TOT	2382	30:03	6	1.000	A BB	33593. *	40.000 NG	13.93
7	TOT	566	7:08	2	0.579	A BB	458. *	0.262	0.09
8	TOT	569	7:11	2	0.582	A BB	10203. *	5.828	2.03
9	TOT	1711	21:35	4	1.118	A BB	15811. *	4.011	1.40
10	TOT	1712	21:36	4	1.119	A BB	66406. *	16.844	5.86
11	TOT	1760	22:12	4	1.150	A BB	25664. *	6.510	2.27
12	TOT	1849	23:20	5	0.928	A VV	22977. *	9.928	3.46
13	TOT	1915	24:10	5	0.961	A BB	8957. *	3.870	1.35

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:01	1.08	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	11:46	1.05	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	15:33	1.03	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	18:41	1.03	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	24:23	1.03	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	28:11	1.07	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	3:24	2.10	1.000	0.58	0.26	100.00	0.003	1.000	0.00
8	3:24	2.11	1.000	0.58	5.83	100.00	0.058	1.000	0.06
9					4.01	1.00	4.011	1.000	4.01
10					16.84	1.00	16.844	1.000	16.84
11					6.51	1.00	6.510	1.000	6.51
12					9.93	1.00	9.928	1.000	9.93
13					3.87	1.00	3.870	1.000	3.87

TIC Quantitation Result Summary

Data: X1012001.TI
Acquired: 10/12/94 18: 5:00
Sample: 9410061-12A DSM ENV PD-2
Conds : 40(4) TO 285 @ 12/MIN HOLD 17
Submitted By: SWLHOU

Page: 1
Analyst: RKW

Account: W54

Run Factor Multiplier: 1.00
Sample Volume Extracted: 1.00 l
Total Extract Volume: 1.00 ml
Total Extract Injected: 1 uls

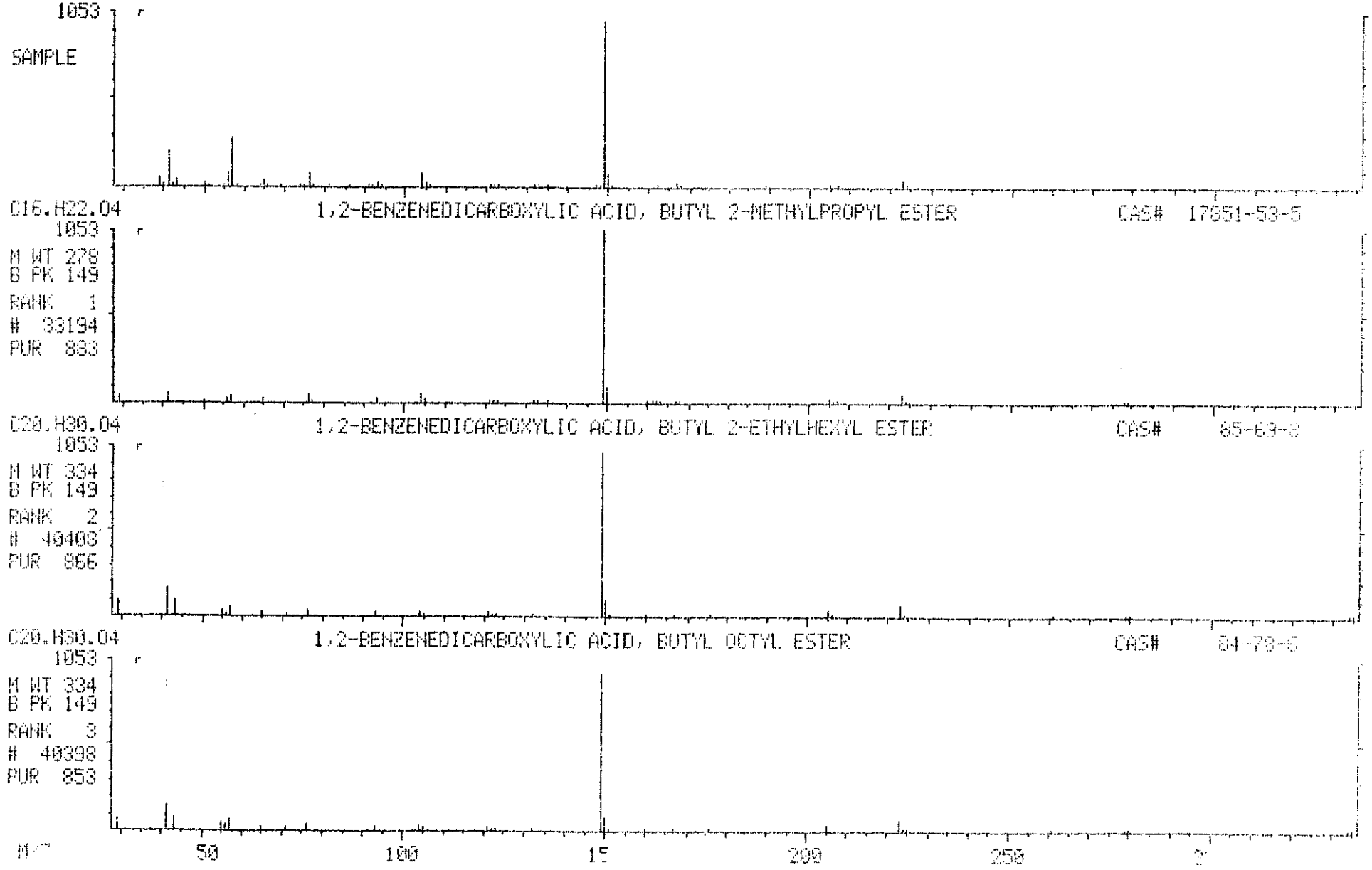
COMPOUND	CAS#	SCAN	RESULTS
CI30 1,4-DICHLOROBENZENE-D4 (IS)	0-00-0	770	40.0ug/l
CI40 NAPHTHALENE-D4 (IS)	0-00-0	978	40.0ug/l
CI50 ACENAPHTHALENE-D8 (IS)	0-00-0	1276	40.0ug/l
CI60 PHENANTHRENE-D8 (IS)	0-00-0	1530	40.0ug/l
CI70 CHRYSENE-D12 (IS)	0-00-0	1993	40.0ug/l
CI75 PERYLENE-D12 (IS)	0-00-0	2382	40.0ug/l
UNKNOWN	0-00-0	566	0.1ug/l
UNKNOWN	0-00-0	569	2.9ug/l
UNKNOWN	67818-28-4	1711	4.0ug/l
2H-[illegible]PHTHO[2,3-B]PYRAN-5,10-DIONE,	15297-92-4	1712	16.8ug/l
2H[illegible]PHTHO[2,3-B]PYRAN-5,10-DIONE,	4707-33-9	1760	6.5ug/l
UNKNOWN	38754-94-8	1849	9.9ug/l
UNKNOWN	593-45-3	1915	3.9ug/l

ND = None Detected, [Detection Limit]

MID LIBRARY SEARCH (LIBRARYNB)
10/12/94 19:01:00 + 19:49
SAMPLE: 9410061-12B DSM ENV PD-2/DUP
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17
ENHANCED (S 15B 2N 0T)

DATA: X1012002 #1571
CALI: X1012002 # 3

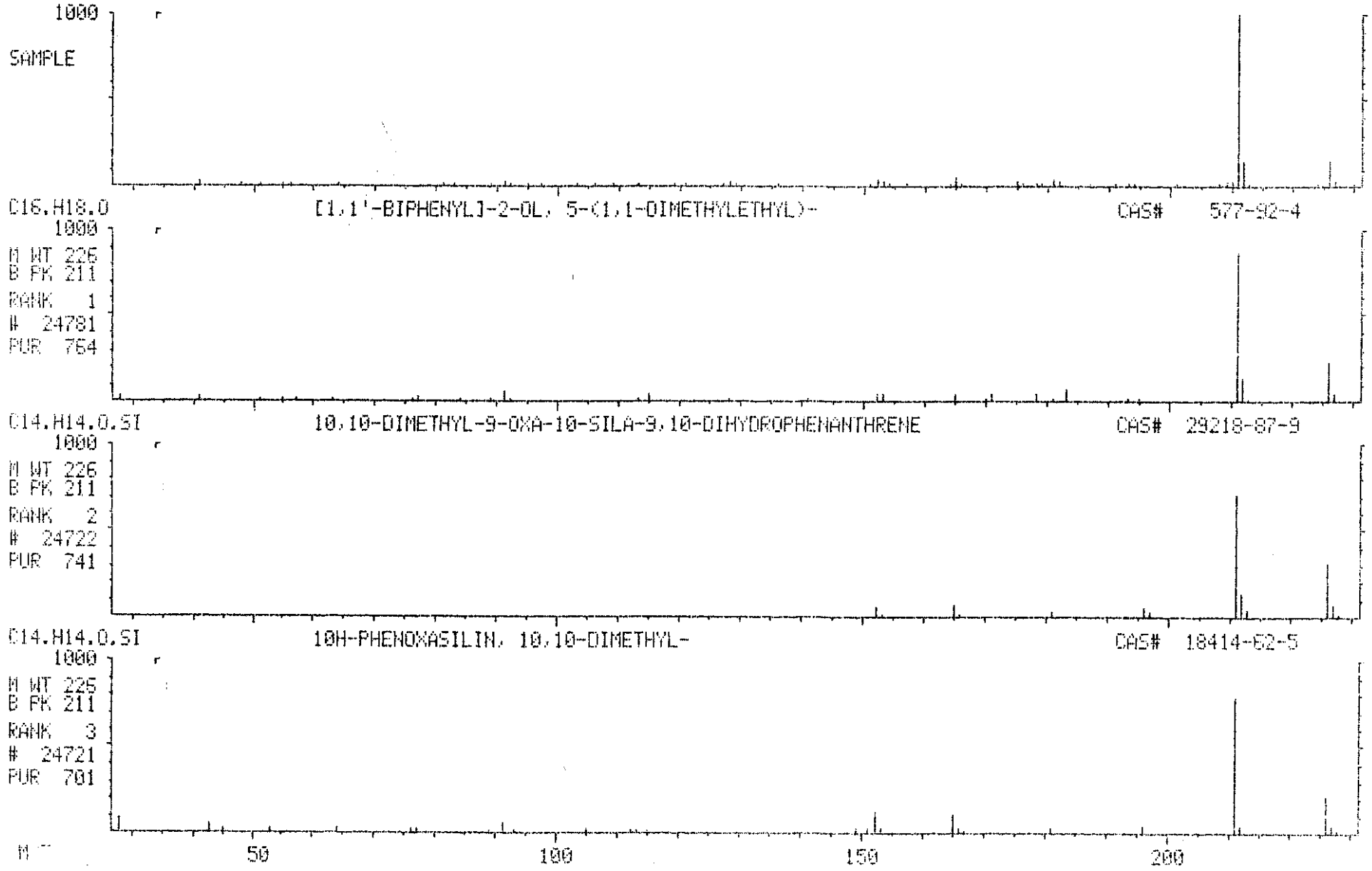
BASE M/Z: 149
RIC: 49536.



MID LIBRARY SEARCH (LIBRARYNB)
10/12/94 19:01:00 + 21:36
SAMPLE: 9410061-12B DSM ENV PD-2/DUP
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17
ENHANCED (S 15B 2N 0T)

DATA: X1012002 #1712
CALI: X1012002 # 3

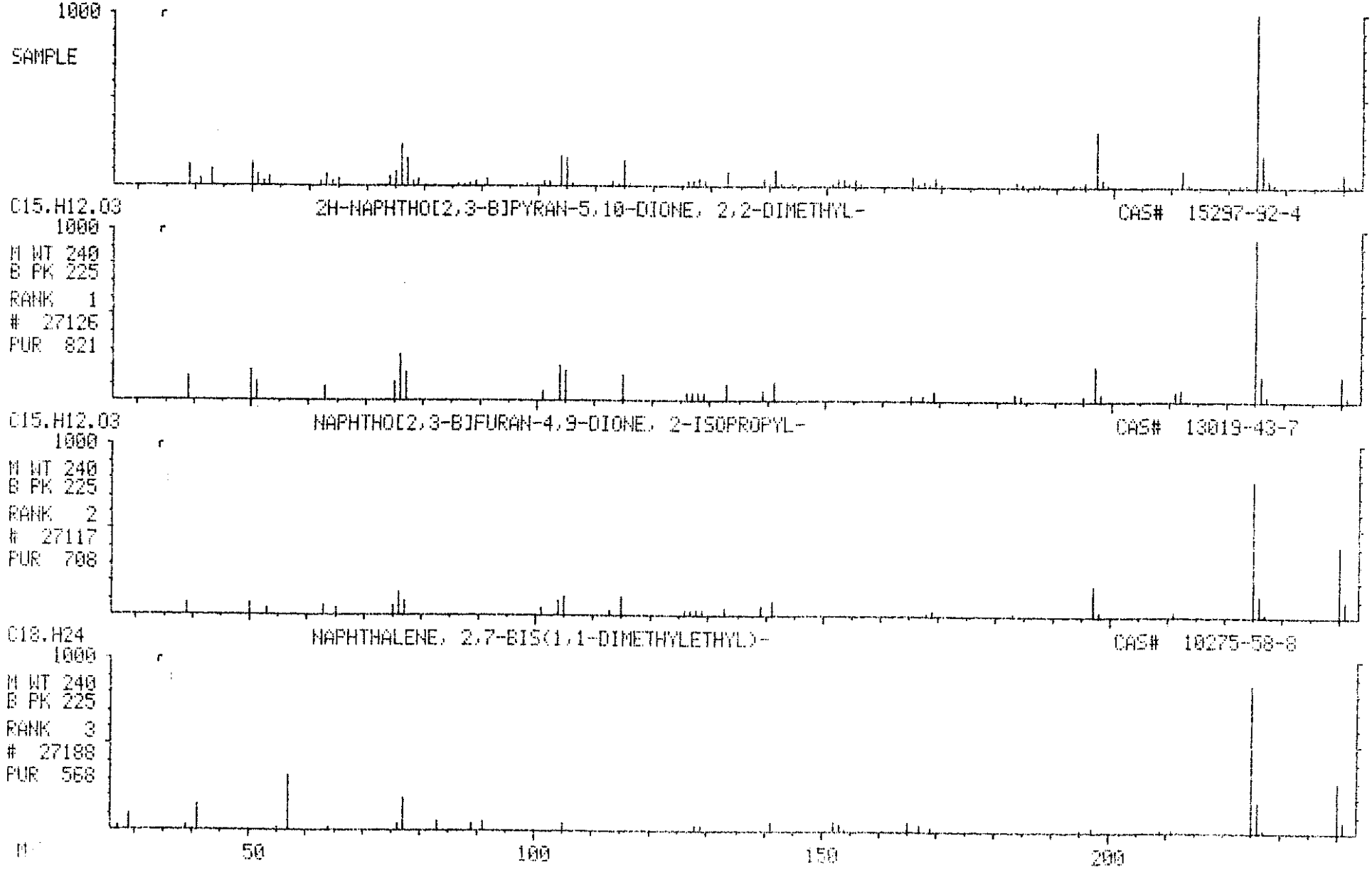
BASE M/Z: 211
RIC: 17696.



MID LIBRARY SEARCH (LIBRARYNB)
10/12/94 19:01:00 + 21:38
SAMPLE: 9410061-12B DSM ENV PD-2/DUP
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17
ENHANCED (S 15B 2N 0T)

DATA: X1012002 #1715
CALI: X1012002 # 3

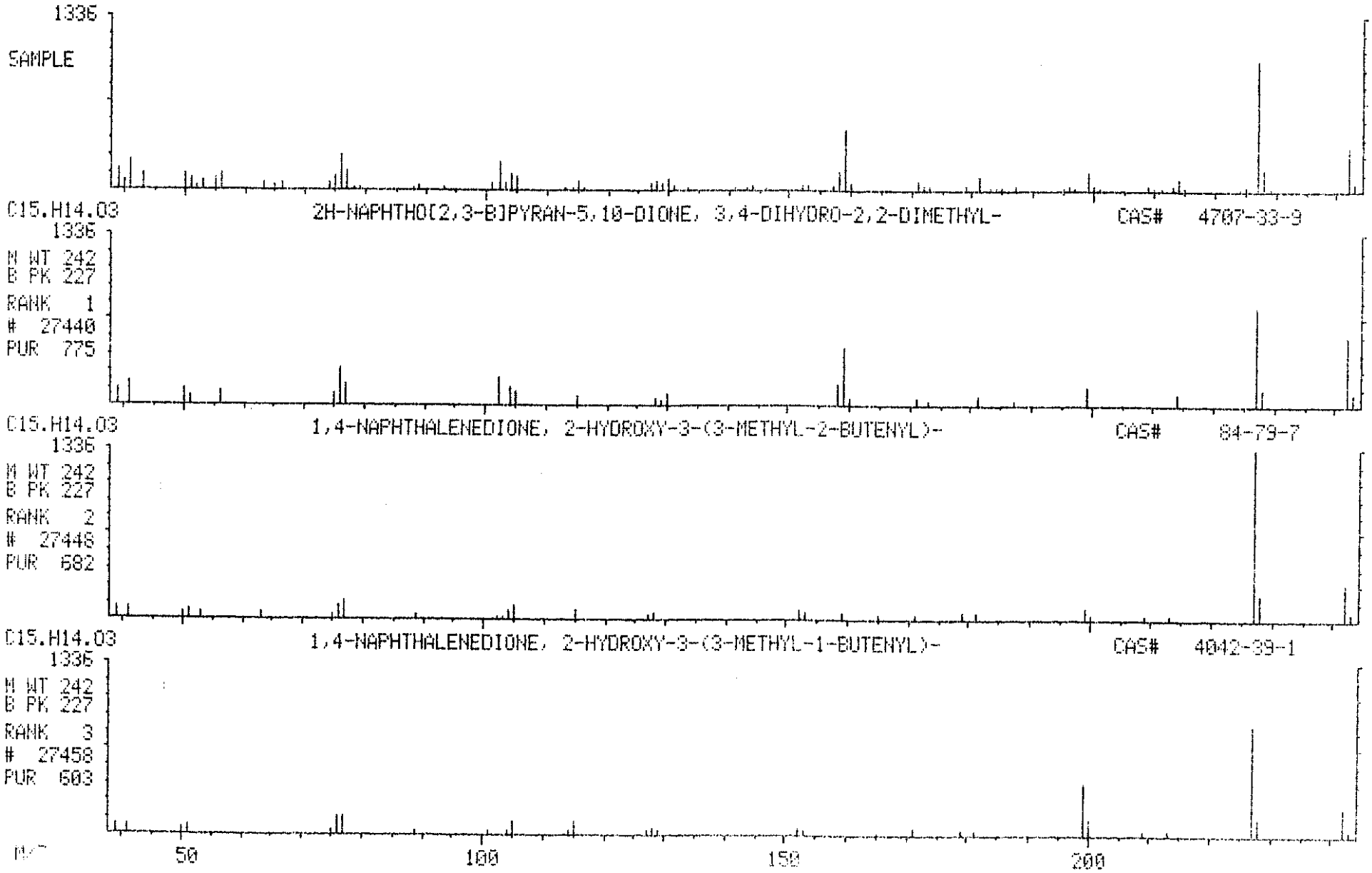
BASE M/Z: 225
RIC: 74368.



MID LIBRARY SEARCH (LIBRARYNB)
10/12/94 19:01:00 + 22:15
SAMPLE: 9410061-12B DSM ENV PD-2/DUP
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17
ENHANCED (S 15B 2N 0T)

DATA: X1012002 #1763
CALI: X1012002 # 3

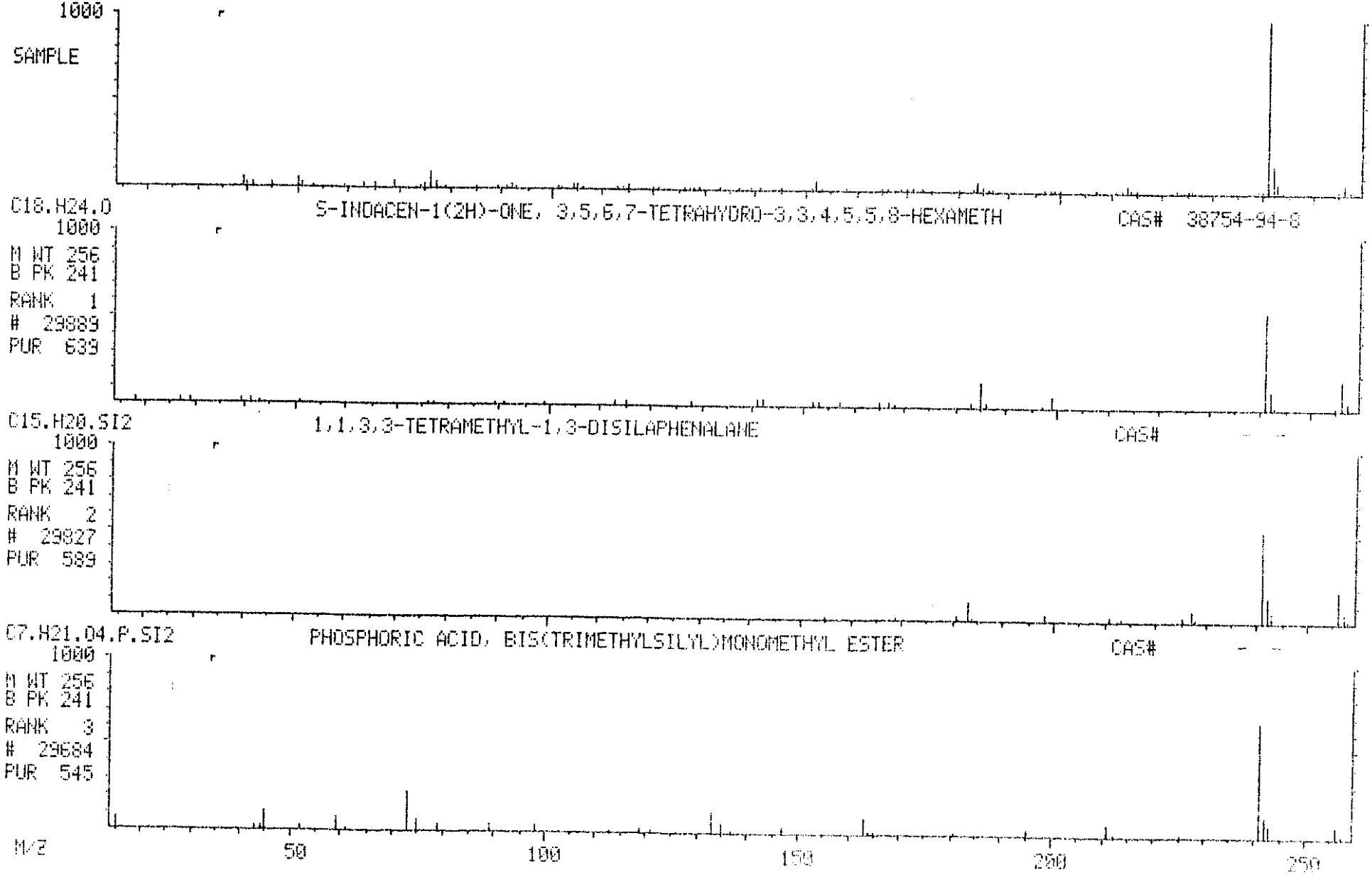
BASE M/Z: 227
RIC: 36032.



MID LIBRARY SEARCH (LIBRARYNB)
10/12/94 19:01:00 + 23:23
SAMPLE: 9410061-12B DSM ENV FD-2/DUP
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17
ENHANCED (S 15B 2N 0T)

DATA: X1012002 #1853
CALI: X1012002 # 3

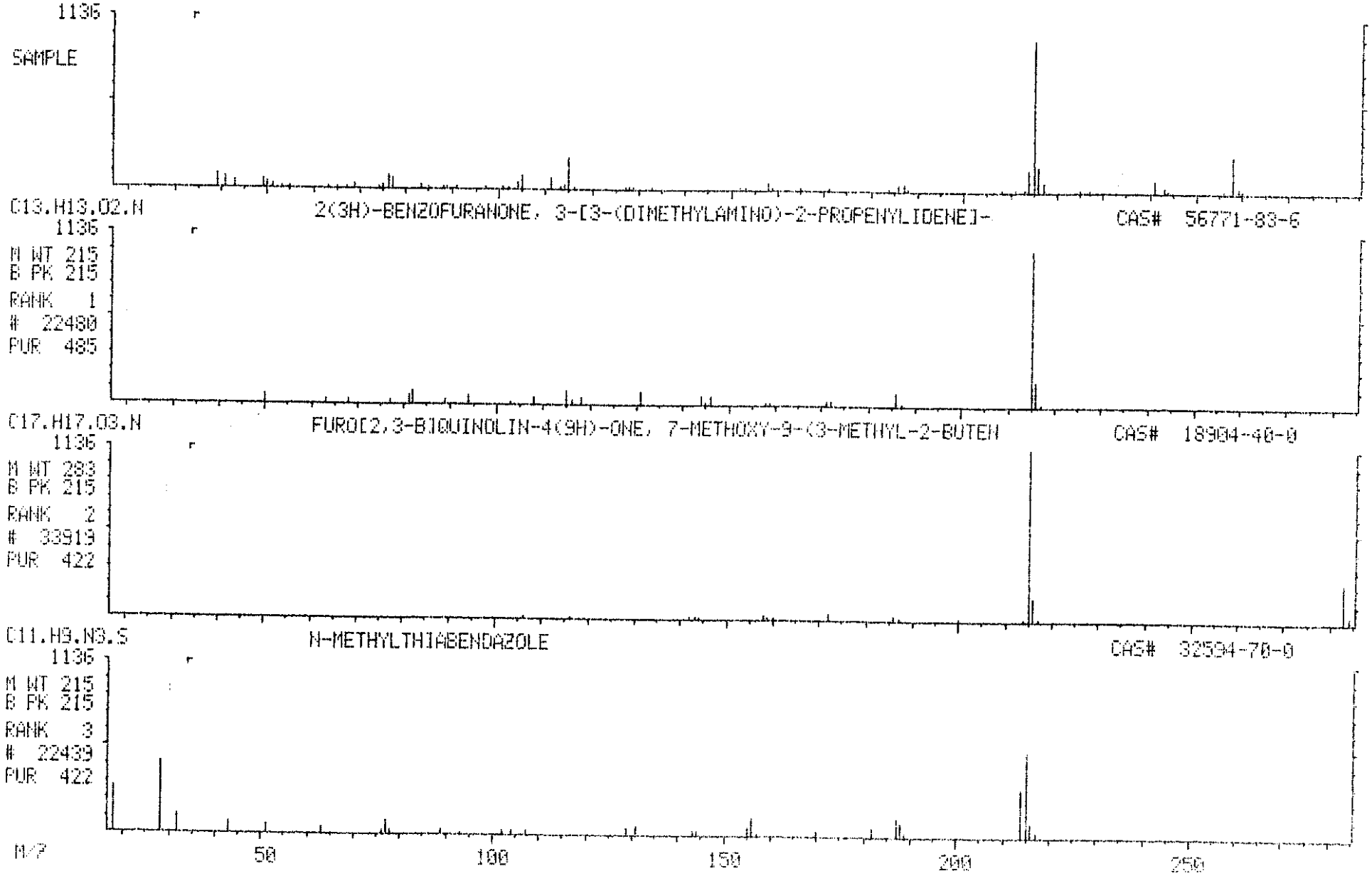
BASE M/Z: 241
RIC: 27424.



MID LIBRARY SEARCH (LIBRARYNB)
10/12/94 19:01:00 + 23:51
SAMPLE: 9410061-12B DSM ENV PD-2/DUP
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17
ENHANCED (S 15B 2N 0T)

DATA: X1012002 #1891
CALI: X1012002 # 3

BASE M/Z: 215
RIC: 10656.



PROCEDURE: FILTER/TIC DIAGNOSTIC REPORT 11/11/94 12:43:08

D4 FILE: X1012002

FILTER SCAN PARAMETERS

MAX. NUMBER TICS:	26
L1-TABLE ENTRIES:	946
SCAN TOLERANCE :	5
MIN. RIC HT. [%]:	10
FIRST SCAN :	350
LAST SCAN :	3190
TIC THRESHOLD :	750

METHOD LIBRARY & LISTS

TIC I.S. LIBRARY:	LIBRARYLJ
NBS SEARCH PROC :	SERLIB
PEAK FINDER PROC:	VOME
TCA I.S. LL :	LJ
FILE NAME LIST :	TCAREF2

TARGET COMPOUND ANALYSIS:

TARGETS (QUAN LIST)	IS PEAKS	TOTAL TARGET PEAKS
23	6	29

FILTER PROCESSING:

TOTAL PEAKS	<---REJECT PEAKS---> < 1ST SCAN	> LAST SCAN	< MIN RIC HT	< SCAN TOL	> MAX # PEAKS	TOTAL REJECTS	TOTAL TICS
0	2	0	37	25	0	64	6

TIC PROCESSING:

ID.	SCAN#	PURITY	FIT	MW	COMPOUND NAME [BEFORE TIC THRESHOLD]
1	1571	983	928	278	1,2-BENZENEDICARBOXYLIC ACID,
2	1712	764	880	226	[1,1'-BIPHENYL]-2-OL, 5-(1,1-D
3	1715	821	965	240	2H-NAPHTHO[2,3-B]PYRAN-5,10-DI
4	1763	775	982	242	2H-NAPHTHO[2,3-B]PYRAN-5,10-DI
5	1853	639	788	256	5-INDACEN-1(2H)-ONE, 3,5,6,7-T
6	1891	485	792	215	2(3H)-BENZOFURANONE, 3-[3-(DIM

Quantitation Report File: X1012002

D: X1012002.TI
10/ /94 19:01:00
Sample: 9410061-12B DSM ENV PD-2/DUP
Conds.: 40(4) TO 285 @ 12/MIN HOLD 17
Formula: Instrument: FINN Weight: 0.000
Submitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 (IS)
2	CI40 NAPHTHALENE-D8 (IS)
3	CI50 ACENAPHTHALENE-D10 (IS)
4	CI60 PHENANTHRENE-D10 (IS)
5	CI70 CHRYSENE-D12 (IS)
6	CI75 PERYLENE-D12 (IS)
7	CS50 2-FLUOROPHENOL (SURR)
8	CS45 PHENOL-D5 (SURR)
9	CS20 NITROBENZENE-D5 (SURR)
10	CS25 2-FLUOROBIPHENYL (SURR)
11	CS55 2,4,6-TRIBROMOPHENOL (SURR)
12	CS30 TERPHENYL-D14 (SURR)
13	CS70 2-CHLOROPHENOL-D4 (SURR)
14	CS75 1,2-DICHLOROBENZENE-D4 (SURR)
[illegible]	C322 PYRIDINE
16	C310 N-NITROSODIMETHYLAMINE
17	C315 PHENOL
18	C320 ANALINE
19	C325 BIS(2-CHLOROETHYL)ETHER
20	C330 2-CHLOROPHENOL
21	C335 1,3 DICHLOROBENZENE
22	C340 1,4 DICHLOROBENZENE
23	C350 1,2 DICHLOROBENZENE
24	C355 2-METHYLPHENOL
25	C360 BIS(2-CHLOROISOPROPYL)ETHER
26	C357 2,2-OXYBIS(1-CHLOROPROPANE)
27	C370 N-NITROSO-DI-N-PROPYLAMINE
28	C365 4-METHYLPHENOL
29	C375 HEXACHLOROETHANE
30	C345 BENZYL ALCOHOL
31	C410 NITROBENZENE
32	C415 ISOPHORONE
33	C420 2-NITROPHENOL
34	C425 2,4-DIMETHYLPHENOL
35	C435 BIS(2-CHLOROETHOXY)METHANE
36	C440 2,4-DICHLOROPHENOL
37	C430 BENZOIC ACID
38	C445 1,2,4-TRICHLOROBENZENE
39	C450 NAPHTHALENE
40	C455 4-CHLOROANALINE
4[illegible]	C460 HEXACHLOROBUTADIENE
42	C465 4-CHLORO-3-METHYLPHENOL
43	C470 2-METHYLNAPHTHALENE
44	C510 HEXACHLOROCYCLOPENTADIENE
45	C515 2,4,6-TRICHLOROPHENOL
46	C520 2,4,5-TRICHLOROPHENOL
47	C525 2-CHLORONAPHTHALENE

No	Name
4	C530 2-NITROANALINE
49	C535 DIMETHYLPHTHALATE
50	C543 2,6-DINITROTOLUENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	773	9:45	1	1.000	A BB	48424.	40.000 NG	7.29
2	136	982	12:23	2	1.000	A BB	160460.	40.000 NG	7.29
3	164	1279	16:08	3	1.000	A BB	91288.	40.000 NG	7.29
4	188	1534	19:21	4	1.000	A BB	147444.	40.000 NG	7.29
5	240	1996	25:11	5	1.000	A BB	120488.	40.000 NG	7.29
6	264	2387	30:07	6	1.000	A BB	71885.	40.000 NG	7.29
7	112	573	7:14	1	0.741	A BB	55278.	34.127 NG	6.22
8	99	726	9:10	1	0.939	A BV	48409.	22.461 NG	4.10
9	82	864	10:54	2	0.880	A BB	75529.	37.308 NG	6.80
10	172	1167	14:43	3	0.912	A BB	87846.	31.769 NG	5.79
11	330	1415	17:51	3	1.106	A BB	30780.	56.410 NG	10.29
12	244	1811	22:51	5	0.907	A BB	71221.	21.237 NG	3.87
13	132	739	9:19	1	0.956	A BB	80857.	51.215 NG	9.34
14	152	797	10:03	1	1.031	A BB	33258.	30.484 NG	5.56
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	82	908	11:27	2	0.925	A BB	290.	0.084 NG	0.02
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	128	985	12:26	2	1.003	A BB	260.	0.062 NG	0.01
40	NOT FOUND								
41	NOT FOUND								
42	NOT FOUND								
43	142	1103	13:55	2	1.123	A BB	100.	0.037 NG	0.01
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	162	1185	14:57	3	0.927	A BB	80.	0.030 NG	0.01
48	NOT FOUND								
49	NOT FOUND								
50	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
	9:22	1.04	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	11:57	1.04	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	15:38	1.03	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	18:46	1.03	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	24:29	1.03	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	28:59	1.04	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	6:52	1.05	0.733	1.01	34.13	50.00	0.913	1.338	0.68
8	8:47	1.04	0.938	1.00	22.46	50.00	0.800	1.780	0.45
9	10:30	1.04	0.878	1.00	37.31	50.00	0.377	0.505	0.75
10	14:14	1.03	0.911	1.00	31:77	50.00	0.770	1.212	0.64
11	17:18	1.03	1.108	1.00	56.41	50.00	0.270	0.239	1.13
12	22:13	1.03	0.908	1.00	21.24	50.00	0.473	1.113	0.42
13	8:56	1.04	0.954	1.00	51.22	50.00	1.336	1.304	1.02
14	9:40	1.04	1.032	1.00	30.48	50.00	0.549	0.901	0.61
15	3:53		0.414						
16	3:50		0.409						
17	8:48		0.941						
18	8:44		0.934						
19	8:54		0.951						
20	8:58		0.958						
21	9:14		0.987						
22	9:24		1.004						
23	9:41		1.035						
24	9:59		1.066						
25	9:59		1.066						
27	9:59		1.066						
2	10:15		1.094						
28	10:18		1.100						
29	10:21		1.107						
30	9:43		0.813						
31	10:32		0.882						
32	11:03	1.04	0.925	1.00	0.08	50.00	0.001	0.856	0.00
33	11:11		0.936						
34	11:21		0.950						
35	11:32		0.965						
36	11:43		0.980						
37	11:42		0.979						
38	11:50		0.990						
39	11:59	1.04	1.003	1.00	0.06	50.00	0.001	1.037	0.00
40	12:09		1.017						
41	12:16		1.026						
42	13:14		1.108						
43	13:26	1.04	1.125	1.00	0.04	50.00	0.000	0.674	0.00
44	13:46		0.881						
45	14:04		0.901						
46	14:10		0.906						
47	14:28	1.03	0.926	1.00	0.03	50.00	0.001	1.161	0.00
48	14:44		0.943						
49	15:09		0.969						
50	15:16		0.977						

Quantitation Report File: X1012002

Data: X1012002.TI
10/ /94 19:01:00
Sample: 9410061-12B DSM ENV PD-2/DUP
Conds.: 40(4) TO 285 @ 12/MIN HOLD 17
Formula: Instrument: FINN Weight: 0.000
Submitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	C540 ACENAPHTHYLENE
52	C545 3-NITROANALINE
53	C550 ACENAPHTHENE
54	C555 2,4-DINITROPHENOL
55	C560 4-NITROPHENOL
56	C570 2,4-DINITROTOLUENE
57	C565 DIBENZOFURAN
58	C580 DIETHYLPHTHALATE
59	C590 FLUORENE
60	C585 4-CHLOROPHENYL-PHENYLETHER
61	C595 4-NITROANALINE
62	C576 AZOBENZENE
63	C610 4,6-DINITRO-2-METHYLPHENOL
64	C615 N-NITROSODIPHENYLAMINE
65	C625 4-BROMOPHENYL-PHENYLETHER
66	C630 HEXACHLOROBENZENE
67	C635 PENTACHLOROPHENOL
68	C640 PHENANTHRENE
69	C645 ANTHRACENE
70	C647 CARBAZOLE
71	C650 DI-N-BUTYLPHTHALATE
72	C655 FLUORANTHENE
73	C710 BENZIDINE
74	C715 PYRENE
75	C720 BUTYLBENZYLPHTHALATE
76	C740 CHRYSENE
77	C730 BENZO(A)ANTHRACENE
78	C745 BIS(2-ETHYLHEXYL)PHTHALATE
79	C725 3,3-DICHLOROBENZIDINE
80	C760 DI-N-OCTYLPHTHALATE
81	C770 BENZO(K)FLUORANTHENE
82	C765 BENZO(B)FLUORANTHENE
83	C775 BENZO(A)PYRENE
84	C780 INDENO(1,2,3-CD)PYRENE
85	C785 DIBENZ(A,H)ANTHRACENE
86	C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								
52	NOT FOUND								
53	NOT FOUND								
54	NOT FOUND								
55	NOT FOUND								
56	NOT FOUND								
57	168	1315	16:35	3	1.028	A BB	48.	0.013 NG	0.00

N	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
5	149	1359	17:09	3	1.063	A BB	498.	0.158 NG	0.03
59	NOT FOUND								
60	NOT FOUND								
61	NOT FOUND								
62	77	1404	17:43	3	1.098	A BB	190.	0.046 NG	0.01
63	NOT FOUND								
64	169	1397	17:38	4	0.911	A BB	164.	0.089 NG	0.02
65	NOT FOUND								
66	NOT FOUND								
67	NOT FOUND								
68	178	1537	19:24	4	1.002	A BB	528.	0.127 NG	0.02
69	NOT FOUND								
70	NOT FOUND								
71	149	1640	20:41	4	1.069	A BB	118504.	20.865 NG	3.80
72	202	1743	21:59	4	1.136	A BB	134.	0.034 NG	0.01
73	NOT FOUND								
74	202	1782	22:29	5	0.893	A BB	74.	0.016 NG	0.00
75	149	1897	23:56	5	0.950	A BB	662.	0.310 NG	0.06
76	228	1996	25:11	5	1.000	A BB	238.	0.064 NG	0.01
77	NOT FOUND								
78	149	2004	25:17	5	1.004	A BB	5202.	1.514 NG	0.28
79	NOT FOUND								
80	NOT FOUND								
81	NOT FOUND								
82	NOT FOUND								
83	NOT FOUND								
84	NOT FOUND								
85	NOT FOUND								
86	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	15:19		0.981						
52	15:38		1.000						
53	15:42		1.005						
54	15:50		1.014						
55	16:06		1.031						
56	16:06		1.031						
57	16:04	1.03	1.028	1.00	0.01	50.00	0.000	1.584	0.00
58	16:38	1.03	1.065	1.00	0.16	50.00	0.004	1.378	0.00
59	16:47		1.074						
60	16:50		1.077						
61	17:00		1.088						
62	17:10	1.03	1.099	1.00	0.05	50.00	0.002	1.821	0.00
63	16:58		0.904						
64	17:05	1.03	0.910	1.00	0.09	50.00	0.001	0.498	0.00
65	17:51		0.951						
66	17:57		0.956						
67	18:24		0.980						
68	18:50	1.03	1.003	1.00	0.13	50.00	0.003	1.130	0.00
69	18:56		1.009						
70	19:20		1.030						
71	20:07	1.03	1.071	1.00	20.86	50.00	0.643	1.541	0.42
72	21:22	1.03	1.139	1.00	0.03	50.00	0.001	1.056	0.00
73	22:13		0.908						
74	21:50	1.03	0.892	1.00	0.02	50.00	0.000	1.537	0.00
75	23:18	1.03	0.952	1.00	0.31	50.00	0.004	0.708	0.01

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
7	24:27	1.03	0.999	1.00	0.06	50.00	0.002	1.239	0.00
77	24:33		1.003						
78	24:36	1.03	1.005	1.00	1.51	50.00	0.035	1.141	0.03
79	24:28		0.844						
80	26:22		0.910						
81	27:32		0.950						
82	27:37		0.953						
83	28:45		0.992						
84	34:30		1.190						
85	34:44		1.198						
86	36:14		1.250						

uantitation Report File: X1012002

a X1012002.TI
.0/ /94 19:01:00
ample: 9410061-12B DSM ENV PD-2/DUP
onds.: 40(4) TO 285 @ 12/MIN HOLD 17
ormula: Instrument: FINN Weight: 0.000
ubmitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

MOUNT=HEIGHT * REF AMNT/(REF HEIGHT * RESP FACT)
esp. fac. from Library Entry

No	CAS #	Name
1	0-00-0	CI30 1,4-DICHLOROBENZENE-D4 (IS)
2	0-00-0	CI40 NAPHTHALENE-D4 (IS)
3	0-00-0	CI50 ACENAPHTHALENE-D8 (IS)
4	0-00-0	CI60 PHENANTHRENE-D8 (IS)
5	0-00-0	CI70 CHRYSENE-D12 (IS)
6	0-00-0	CI75 PERYLENE-D12 (IS)
7	0-00-0	UNKNOWN
8	0-00-0	UNKNOWN
9	15297-92-4	2H-NAPHTHO[2,3-B]PYRAN-5,10-DIONE, 2,2-DIMETHYL-
10	4707-33-9	2H-NAPHTHO[2,3-B]PYRAN-5,10-DIONE, 3,4-DIHYDRO-2,2-DIM
11	0-00-0	UNKNOWN
12	0-00-0	UNKNOWN
13	17851-53-5	1,2-BENZENEDICARBOXYLIC ACID, BUTYL 2-METHYLPROPYL EST

N	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
-	TOT	773	9:45	1	1.000	A BB	132536.*	40.000 NG	14.30
2	TOT	982	12:23	2	1.000	A BV	176380.*	40.000 NG	14.30
3	TOT	1279	16:08	3	1.000	A BB	144384.*	40.000 NG	14.30
4	TOT	1534	19:21	4	1.000	A BB	158464.*	40.000 NG	14.30
5	TOT	1996	25:11	5	1.000	A BB	87532.*	40.000 NG	14.30
6	TOT	2387	30:07	6	1.000	A BB	31958.*	40.000 NG	14.30
7	TOT	573	7:14	2	0.584	A BB	11495.*	6.517	2.33
8	TOT	1573	19:51	4	1.025	A BB	1514.*	0.382	0.14
9	TOT	1715	21:38	4	1.118	A BB	71210.*	17.975	6.43
10	TOT	1715	21:38	4	1.118	A BV	26940.*	6.800	2.43
11	TOT	1763	22:15	5	0.883	A BV	13785.*	6.299	2.25
12	TOT	1853	23:23	5	0.928	A VV	2784.*	1.272	0.45
13	TOT	1891	23:51	4	1.233	A BV	1799.*	0.454	0.16

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:01	1.08	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	11:46	1.05	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	15:33	1.04	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	18:41	1.04	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	24:23	1.03	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	28:11	1.07	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	3:24	2.12	1.000	0.58	6.52	100.00	0.065	1.000	0.07
8					0.38	1.00	0.382	1.000	0.38
9					17.98	1.00	17.975	1.000	17.98
10					6.80	1.00	6.800	1.000	6.80
1					6.30	1.00	6.299	1.000	6.30
12					1.27	1.00	1.272	1.000	1.27
13					0.45	1.00	0.454	1.000	0.45

TIC Quantitation Result Summary

Data: X1012002.TI
Ac ted: 10/12/94 19: 1:00
Sample: 9410061-12B DSM ENV PD-2/DUP
Conds : 40(4) TO 285 @ 12/MIN HOLD 17
Submitted By: SWLHOU

Page: 1
Analyst: RKW

Account: W54

Run Factor Multiplier: 1.00
Sample Volume Extracted: 1.00 l
Total Extract Volume: 1.00 ml
Total Extract Injected: 1 uls

COMPOUND	CAS#	SCAN	RESULTS
CI30 1,4-DICHLOROBENZENE-D4 (IS)	0-00-0	773	40.0ug/l
CI40 NAPHTHALENE-D4 (IS)	0-00-0	982	40.0ug/l
CI50 ACENAPHTHALENE-D8 (IS)	0-00-0	1279	40.0ug/l
CI60 PHENANTHRENE-D8 (IS)	0-00-0	1534	40.0ug/l
CI70 CHRYSENE-D12 (IS)	0-00-0	1996	40.0ug/l
CI75 PERYLENE-D12 (IS)	0-00-0	2387	40.0ug/l
UNKNOWN	0-00-0	573	3.5ug/l
UNKNOWN	67818-28-4	1573	0.4ug/l
2H-NAPHTHO[2,3-B]PYRAN-5,10-DIONE,	15297-92-4	1715	18.0ug/l
2H-NAPHTHO[2,3-B]PYRAN-5,10-DIONE,	4707-33-9	1715	6.8ug/l
UN WN	38754-94-8	1763	3.5ug/l
U WN	593-45-3	1853	1.3ug/l
1,2-BENZENEDICARBOXYLIC ACID, BUTY	17851-53-5	1891	0.8ug/l

ND = None Detected, [Detection Limit]

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: _____

Instrument ID: FINN Calibration Date(s): 09/21/94 09/21/94

Min RRF for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = B0921020 RRF50 = BCLX0921
RRF80 = B0921080 RRF120= B0921120 RRF160= B0921160

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	RRF	% RSD
Phenol *	1.777	2.102	1.952	2.016	2.085	1.986	6.6*
bis(2-Chloroethyl)Ether	1.636	1.691	1.610	1.641	1.634	1.642	1.8
2-Chlorophenol	1.319	1.423	1.333	1.355	1.359	1.358	2.9
1,3-Dichlorobenzene	1.599	1.696	1.599	1.597	1.563	1.611	3.1
1,4-Dichlorobenzene *	1.612	1.723	1.608	1.606	1.560	1.622	3.7*
1,2-Dichlorobenzene	1.528	1.631	1.521	1.511	1.445	1.527	4.4
2-Methylphenol	1.177	1.240	1.201	1.216	1.251	1.217	2.4
bis(2-Chloroisopropyl)Ether	3.183	3.096	3.047	3.010	2.168	2.901	14.3
4-Methylphenol	1.202	1.319	1.282	1.298	1.347	1.290	4.2
N-Nitroso-Di-n-Propylamine #	1.351	1.386	1.383	1.353	1.421	1.379	2.1#
Hexachloroethane	0.681	0.726	0.704	0.716	0.720	0.709	2.5
Nitrobenzene	0.569	0.620	0.562	0.566	0.564	0.576	4.3
Isophorone	0.992	1.060	1.002	0.991	1.000	1.009	2.9
2 itrophenol *	0.176	0.208	0.196	0.200	0.203	0.197	6.3*
-Dimethylphenol	0.246	0.316	0.300	0.311	0.320	0.299	10.2
bis(2-Chloroethoxy)Methane	0.532	0.598	0.573	0.581	0.579	0.573	4.3
2,4-Dichlorophenol *	0.281	0.325	0.313	0.319	0.321	0.312	5.7*
1,2,4-Trichlorobenzene	0.373	0.409	0.384	0.375	0.369	0.382	4.2
Naphthalene	1.006	1.082	0.996	0.979	0.892	0.991	6.9
4-Chloroaniline	0.319	0.392	0.417	0.436	0.445	0.402	12.6
Hexachlorobutadiene *	0.240	0.263	0.244	0.240	0.236	0.245	4.4*
4-Chloro-3-Methylphenol *	0.296	0.343	0.351	0.374	0.391	0.351	10.3*
2-Methylnaphthalene	0.677	0.727	0.677	0.660	0.635	0.675	5.0
Hexachlorocyclopentadiene #	0.419	0.457	0.461	0.481	0.449	0.453	5.0#
2,4,6-Trichlorophenol *	0.372	0.427	0.405	0.420	0.408	0.406	5.2*
2,4,5-Trichlorophenol		0.449	0.431	0.442	0.442	0.441	1.7
2-Chloronaphthalene	1.175	1.268	1.164	1.183	1.103	1.179	5.0
2-Nitroaniline		0.523	0.532	0.566	0.558	0.545	3.8
Dimethylphthalate	1.214	1.351	1.268	1.289	1.264	1.277	3.9
Acenaphthylene	1.691	1.795	1.633	1.606	1.470	1.639	7.3
2,6-Dinitrotoluene	0.256	0.301	0.289	0.297	0.301	0.289	6.6
3-Nitroaniline		0.227	0.226	0.251	0.258	0.240	6.8
Acenaphthene *	1.056	1.164	1.060	1.051	0.980	1.062	6.2*
2,4-Dinitrophenol #		0.127	0.150	0.162	0.165	0.151	11.4#
4-Nitrophenol #		0.134	0.148	0.167	0.169	0.154	10.8#

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL - HOUSTON Contract: CORCO WORK

L Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: _____

Instrument ID: FINN Calibration Date(s): 09/21/94 09/21/94

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

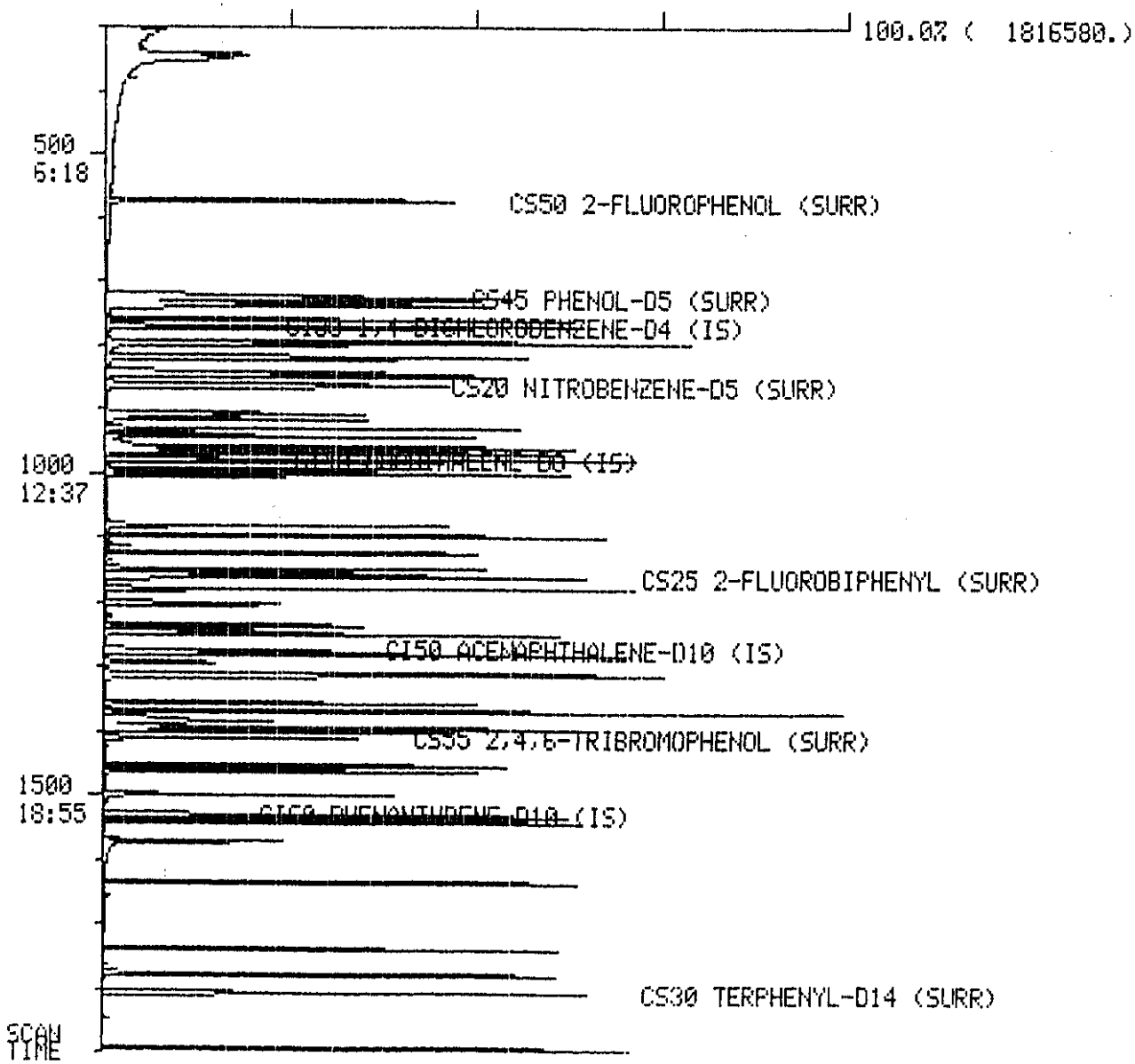
LAB FILE ID: RRF20 = B0921020 RRF50 = BCLX0921
RRF80 = B0921080 RRF120= B0921120 RRF160= B0921160

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Dibenzofuran	1.542	1.693	1.604	1.567	1.476	1.576	5.1
2,4-Dinitrotoluene	0.340	0.411	0.400	0.420	0.420	0.398	8.4
Diethylphthalate	1.209	1.375	1.328	1.348	1.324	1.317	4.8
4-Chlorophenyl-phenylether	0.620	0.694	0.641	0.642	0.614	0.642	4.9
Fluorene	1.141	1.277	1.201	1.163	1.097	1.176	5.8
4-Nitroaniline		0.113	0.118	0.153	0.154	0.134	16.4
4,6-Dinitro-2-Methylphenol		0.127	0.131	0.136	0.137	0.133	3.5
N-Nitrosodiphenylamine (1) *	0.489	0.520	0.493	0.486	0.483	0.494	3.0*
4-Bromophenyl-phenylether	0.257	0.292	0.288	0.290	0.295	0.284	5.5
Hexachlorobenzene	0.330	0.346	0.342	0.340	0.341	0.340	1.7
Pentachlorophenol *		0.178	0.187	0.196	0.198	0.190	4.8*
Phenanthrene	1.053	1.142	1.075	1.036	1.002	1.062	4.9
Anthracene	1.065	1.131	1.072	1.037	0.973	1.056	5.4
[illegible]-Butylphthalate	1.219	1.401	1.374	1.299	1.136	1.286	8.5
[illegible]oranthene *	1.172	1.309	1.202	1.151	1.085	1.184	6.9*
Pyrene	1.384	1.403	1.360	1.279	1.214	1.328	6.0
Butylbenzylphthalate	0.514	0.596	0.626	0.653	0.653	0.608	9.5
3,3'-Dichlorobenzidine	0.314	0.230	0.252	0.305	0.302	0.281	13.2
Benzo(a)Anthracene	1.003	1.047	1.030	1.007	0.930	1.003	4.5
Chrysene	1.243	1.256	1.266	1.239	1.205	1.242	1.9
bis(2-Ethylhexyl)Phthalate	0.752	0.851	0.903	0.940	0.941	0.877	9.0
Di-n-Octyl Phthalate *	1.715	1.919	2.138	2.380	2.300	2.090	13.1*
Benzo(b)Fluoranthene	1.456	1.474	1.530	1.584	1.508	1.510	3.3
Benzo(k)Fluoranthene	1.581	1.627	1.720	1.842	1.728	1.700	5.9
Benzo(a)Pyrene *	1.388	1.389	1.456	1.552	1.527	1.462	5.2*
Indeno(1,2,3-cd)Pyrene	1.072	1.147	1.080	1.151	1.102	1.110	3.3
Dibenz(a,h)Anthracene	1.032	1.111	1.116	1.221	1.273	1.151	8.3
Benzo(g,h,i)Perylene	0.997	1.100	1.076	1.130	1.100	1.081	4.7
Nitrobenzene-d5	0.532	0.587	0.539	0.551	0.557	0.553	3.8
2-Fluorobiphenyl	1.265	1.356	1.182	1.146	1.045	1.199	9.9
Terphenyl-d14	1.045	1.088	1.038	0.986	0.926	1.017	6.1
Phenol-d6	1.720	1.901	1.785	1.865	1.881	1.830	4.1
2-Fluorophenol	1.279	1.455	1.363	1.425	1.433	1.391	5.1
2,4,6-Tribromophenol	0.213	0.256	0.252	0.267	0.265	0.251	8.7
2-Chlorophenol-d4	1.255	1.336	1.256	1.303	1.305	1.291	2.7
1,2-Dichlorobenzene-d4	0.902	0.969	0.928	0.925	0.911	0.927	2.8

(Cannot be separated from Diphenylamine

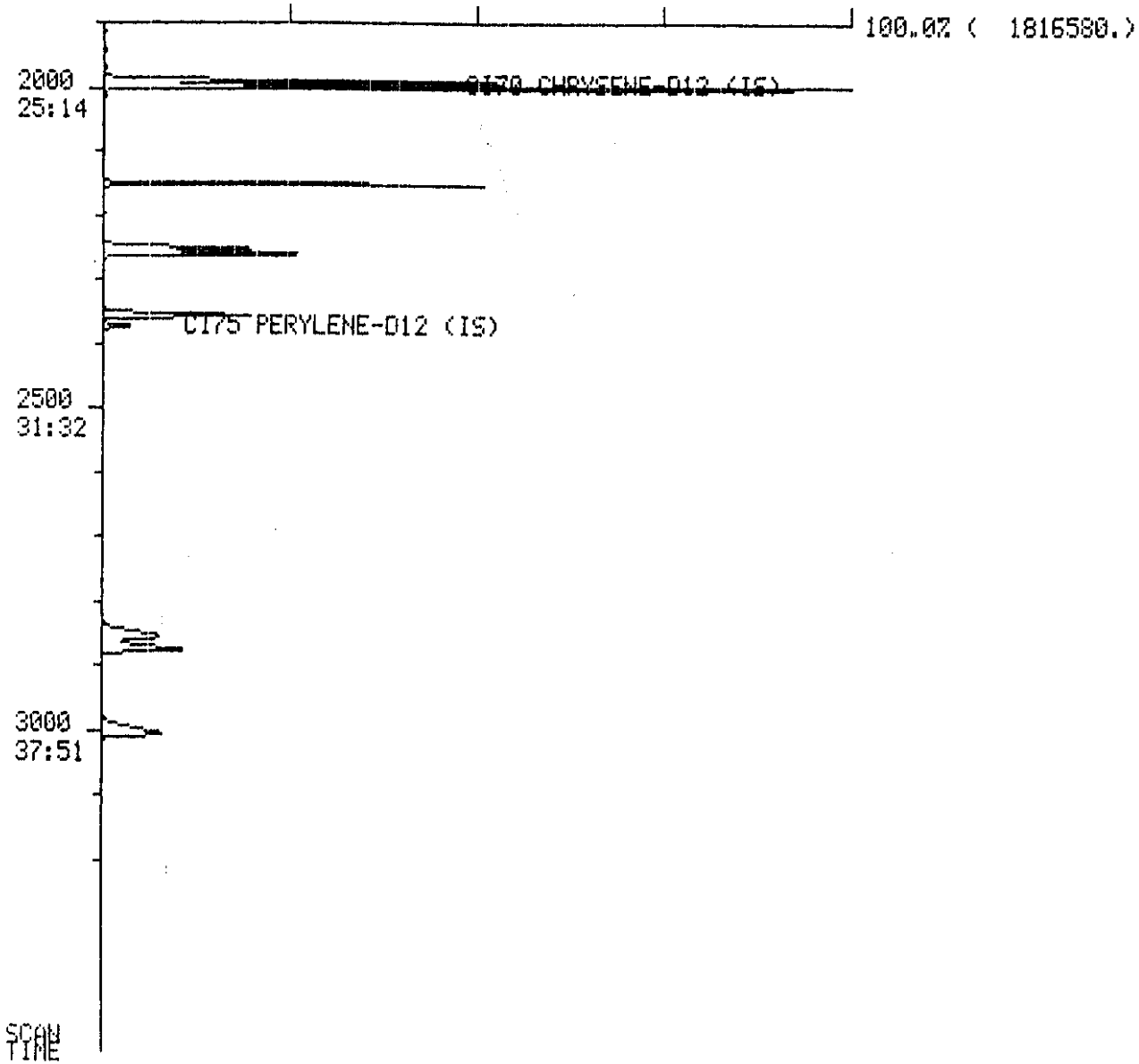
DATA FROM FILE: B0921160 SCANS 300 TO 1900 ACQUIRED: 09/21/94 11:28:00
CALI: B0921160 #3 OUT OF 300 TO 3200

SAMPLE: BNA CLP STD 160NG
CONDS.: 40/4-285 @12/MIN HOLD 17



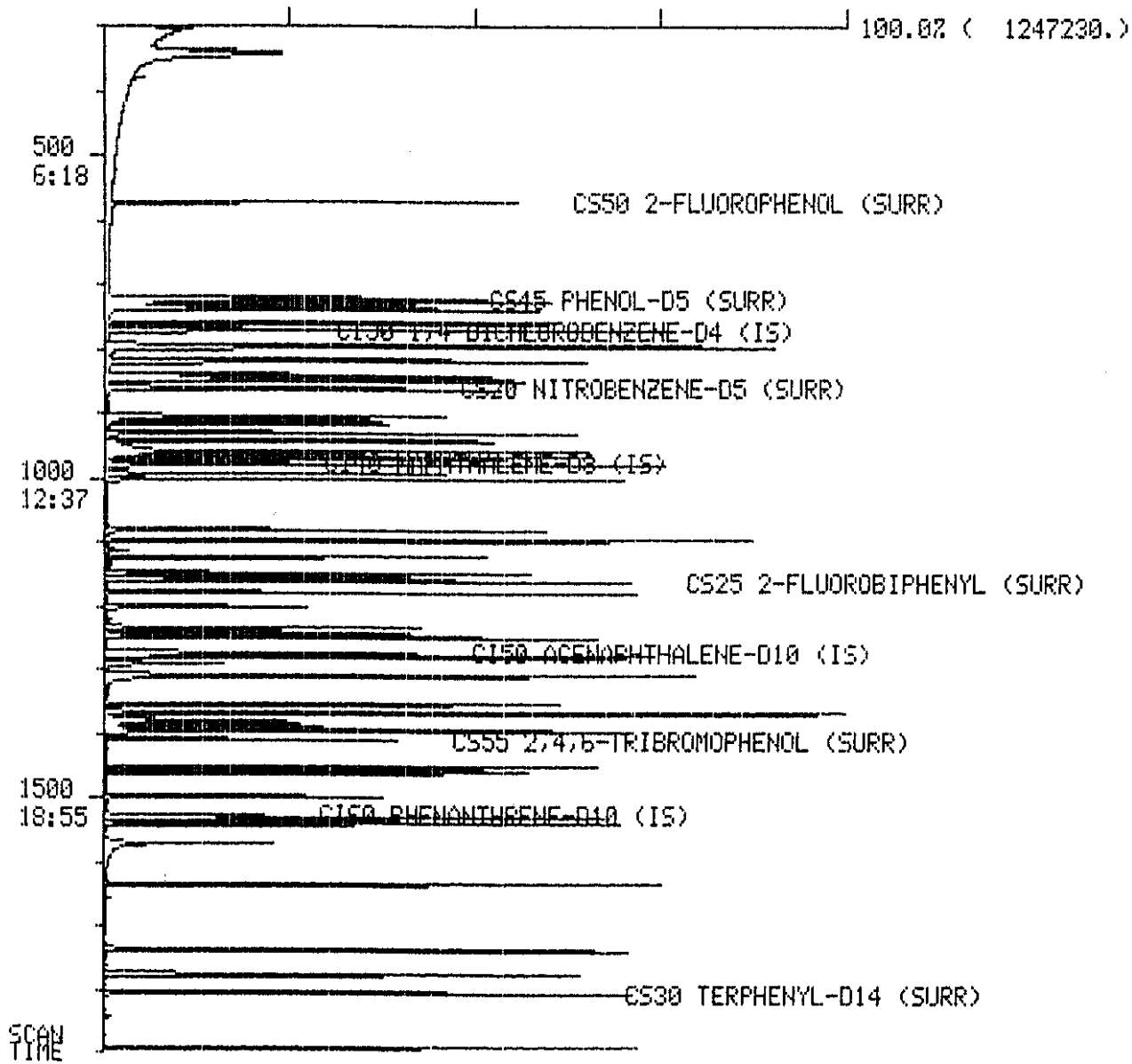
DATA FROM FILE: B0921160 SCANS 1900 TO 3200 ACQUIRED: 09/21/94 11:28:00
CALI: B0921160 #3 OUT OF 300 TO 3200

SAMPLE: BNA CLP STD 160NG
CONDS.: 40/4-285 @12/MIN HOLD 17



DATA FROM FILE: B0921120 SCANS 300 TO 1900 ACQUIRED: 09/21/94 12:26:00
CALI: B0921120 #3 OUT OF 300 TO 3200

SAMPLE: BNA CLP STD 120NG
CONDS.: 40/4-285 @12/MIN HOLD 17

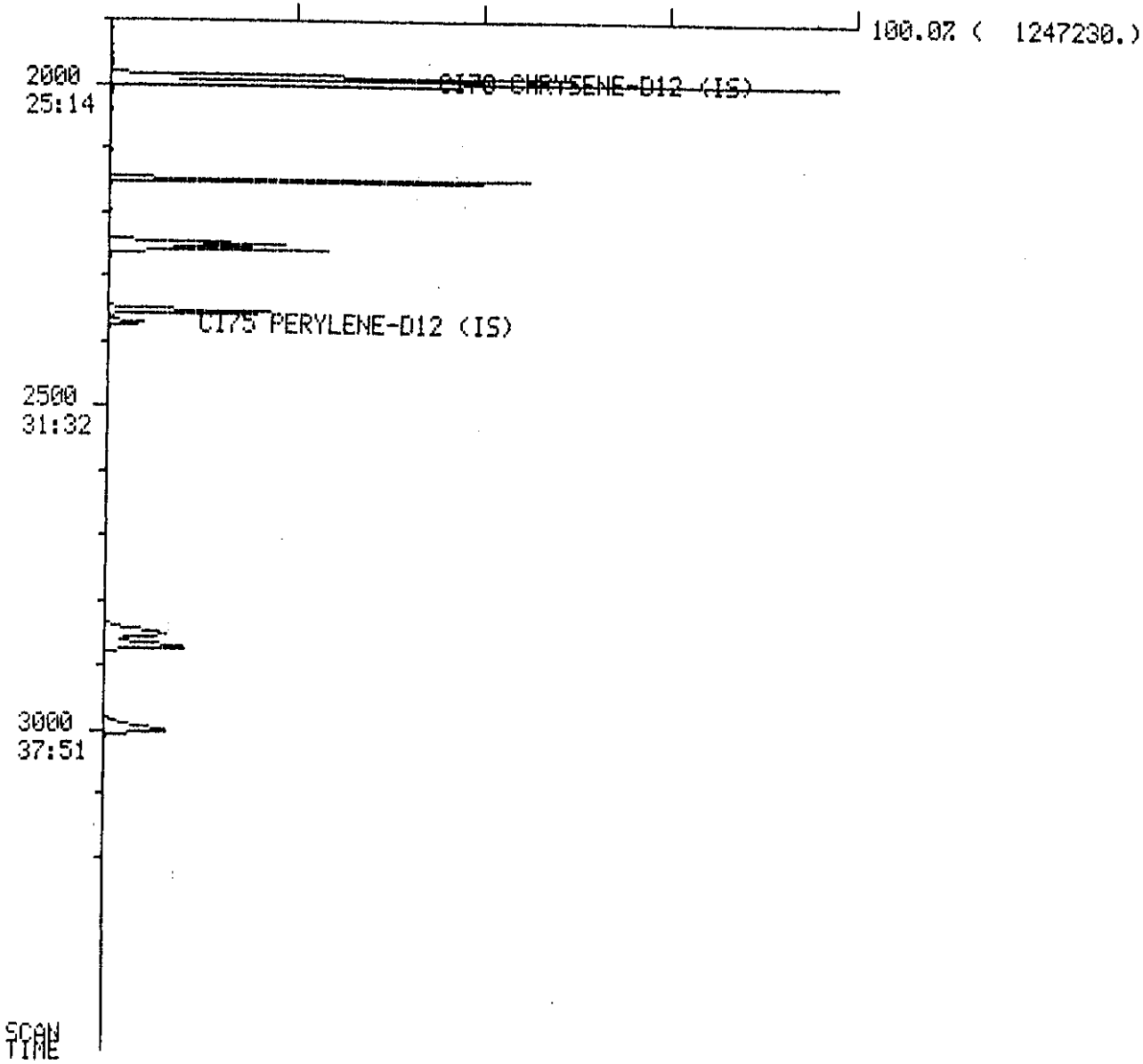


DATA FROM FILE: B0921120 SCANS 1900 TO 3200 ACQUIRED: 09/21/94 12:26:00

CALI: B0921120 #3 OUT OF 300 TO 3200

SAMPLE: BNA CLP STD 120NG

CONDS.: 40/4-285 @12/MIN HOLD 17

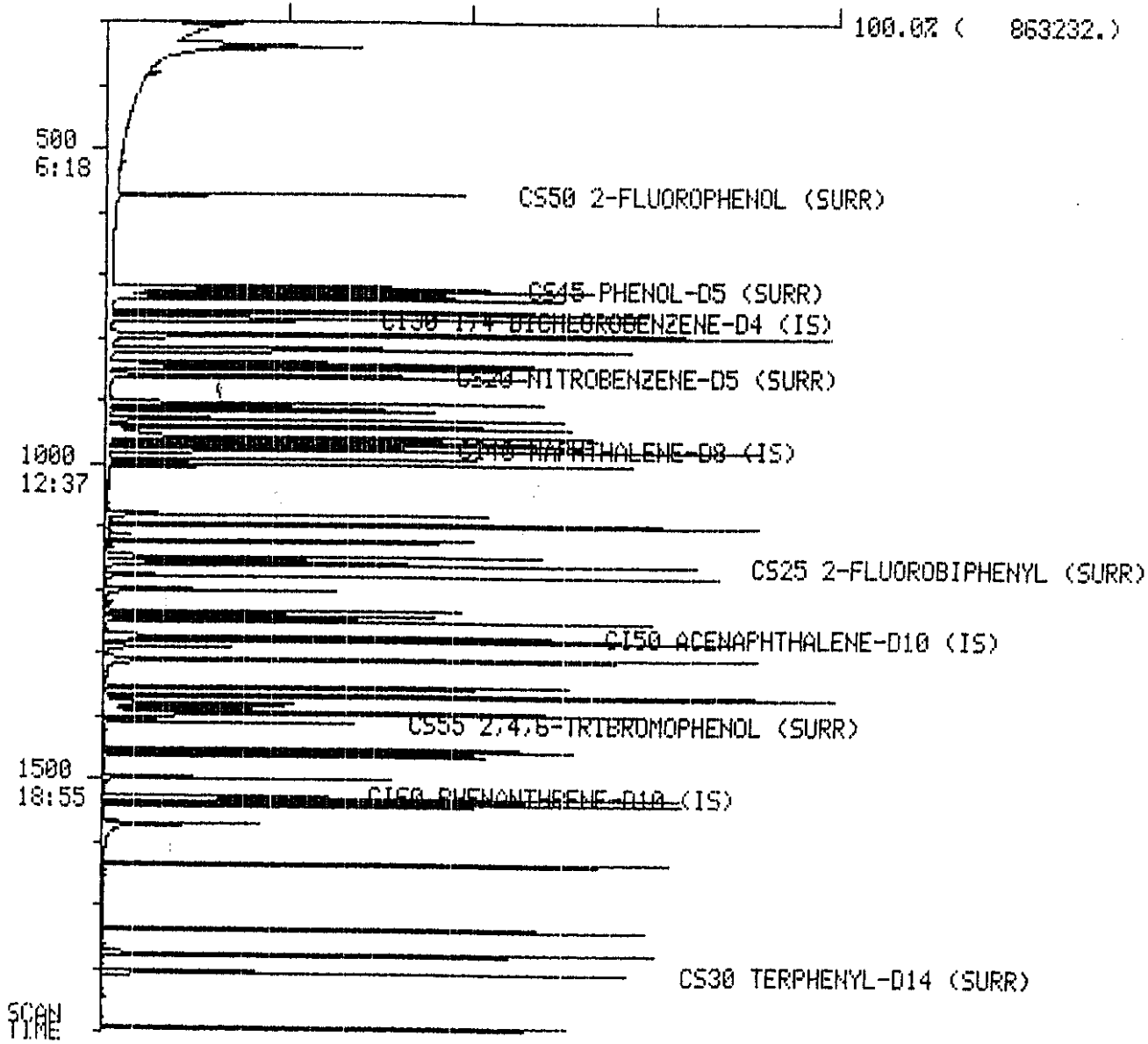


DATA FROM FILE: B0921080 SCANS 300 TO 1900 ACQUIRED: 09/21/94 13:25:00

CALI: B0921080 #3 OUT OF 300 TO 3200

SAMPLE: BNA CLP STD 80NG

CONDS.: 40/4-285 @12/MIN HOLD 17

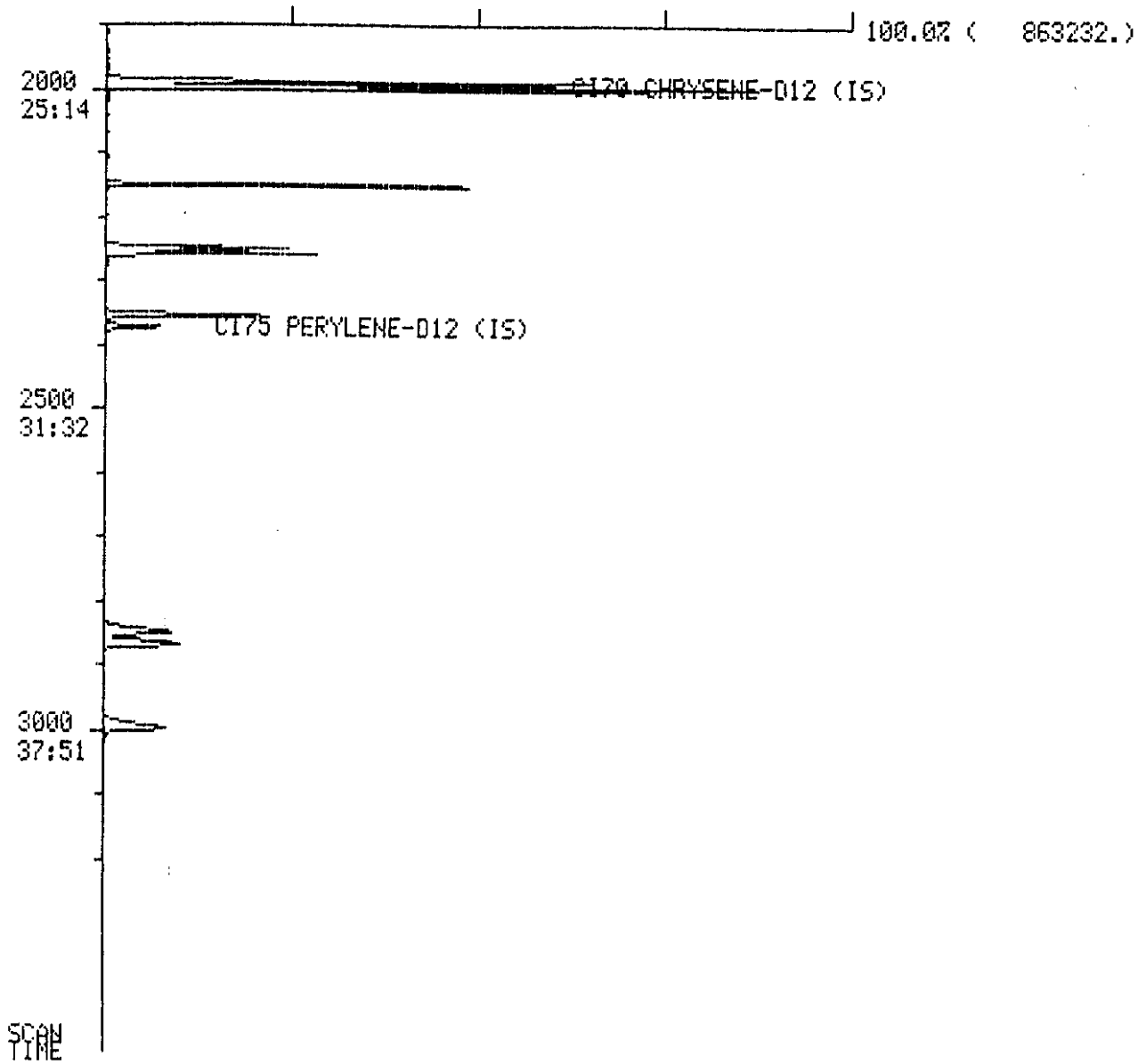


DATA FROM FILE: B0921080 SCANS 1900 TO 3200 ACQUIRED: 09/21/94 13:25:00

CALI: B0921080 #3 OUT OF 300 TO 3200

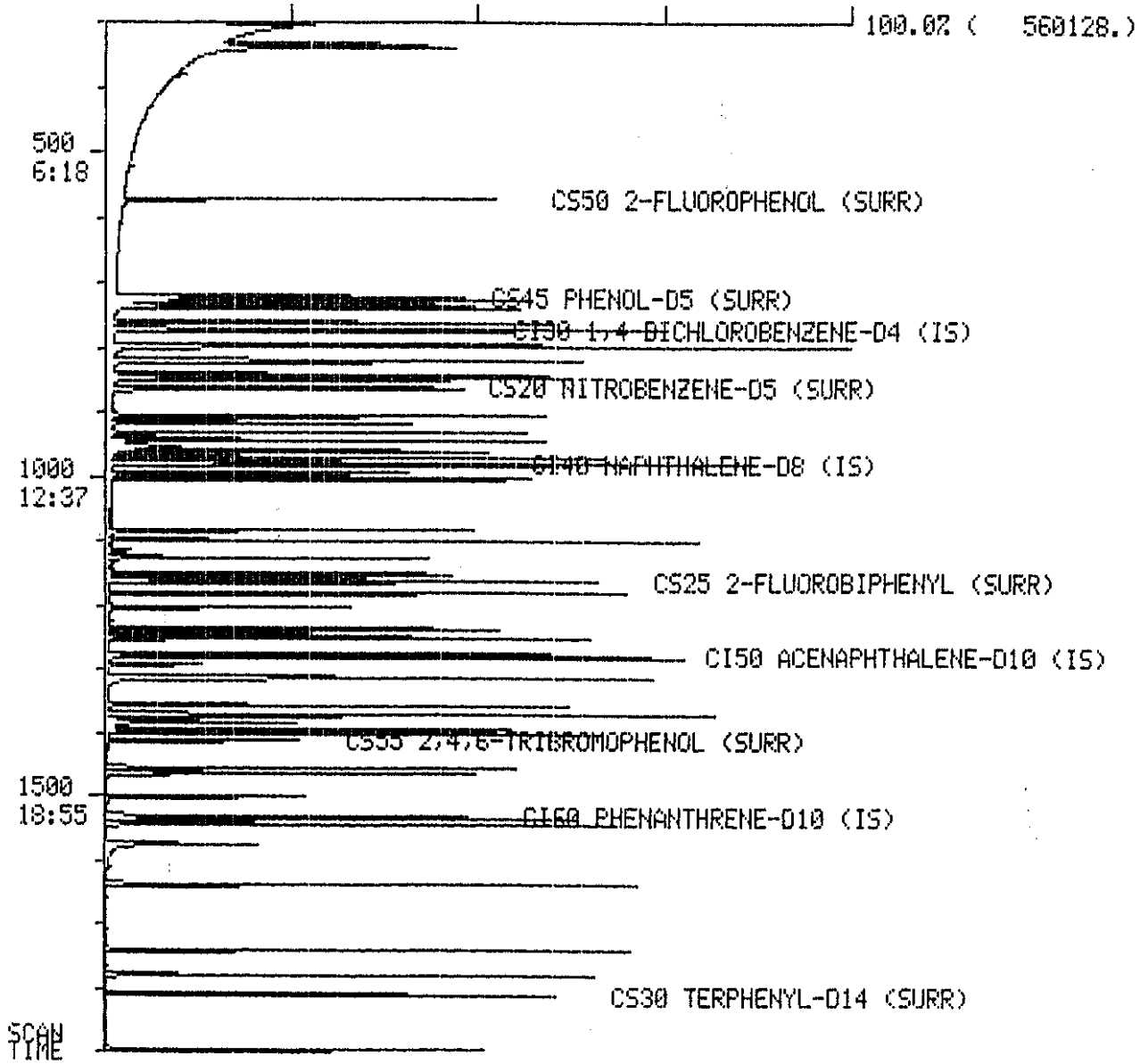
SAMPLE: BNA CLP STD 80NG

CONDS.: 40/4-285 @12/MIN HOLD 17



DATA FROM FILE: BCLX0921 SCANS 300 TO 1900 ACQUIRED: 09/21/94 10:11:00
CALI: BCLX0921 #3 OUT OF 300 TO 3200

SAMPLE: BNA CLP STD @50NG
CONDS.: 40(4)-285@12/MIN HOLD 17MIN

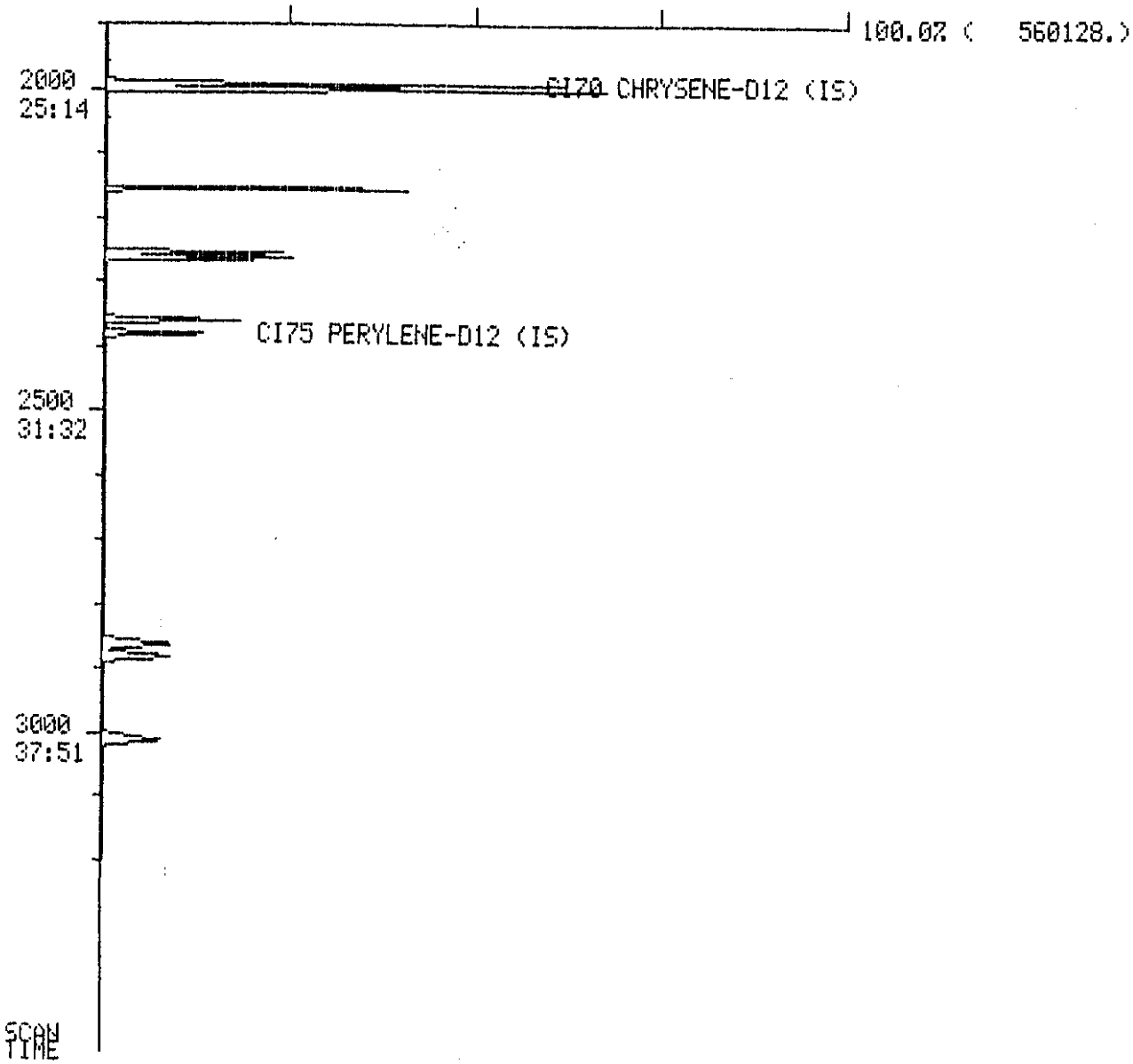


DATA FROM FILE: BCLX0921 SCANS 1900 TO 3200 ACQUIRED: 09/21/94 10:11:00

CALI: BCLX0921 #3 OUT OF 300 TO 3200

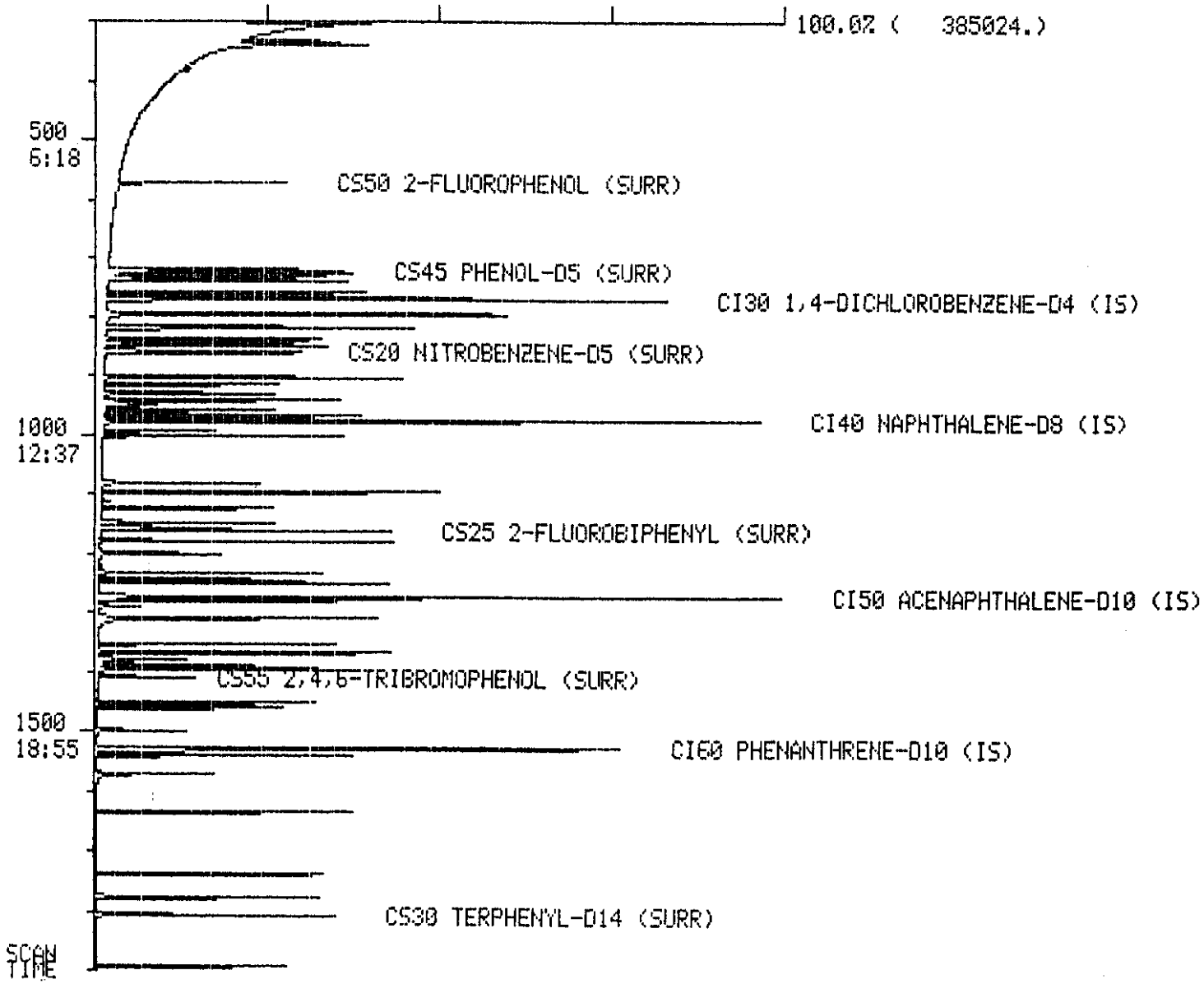
SAMPLE: BNA CLP STD @50NG

CONDS.: 40(4)-285@12/MIN HOLD 17MIN



DATA FROM FILE: B0921020 SCANS 300 TO 1900 ACQUIRED: 09/21/94 14:23:00
CALI: B0921020 #3 OUT OF 300 TO 3200

SAMPLE: BNA CLP STD 20NG
CONDS.: 40/4-285 @12/MIN HOLD 17

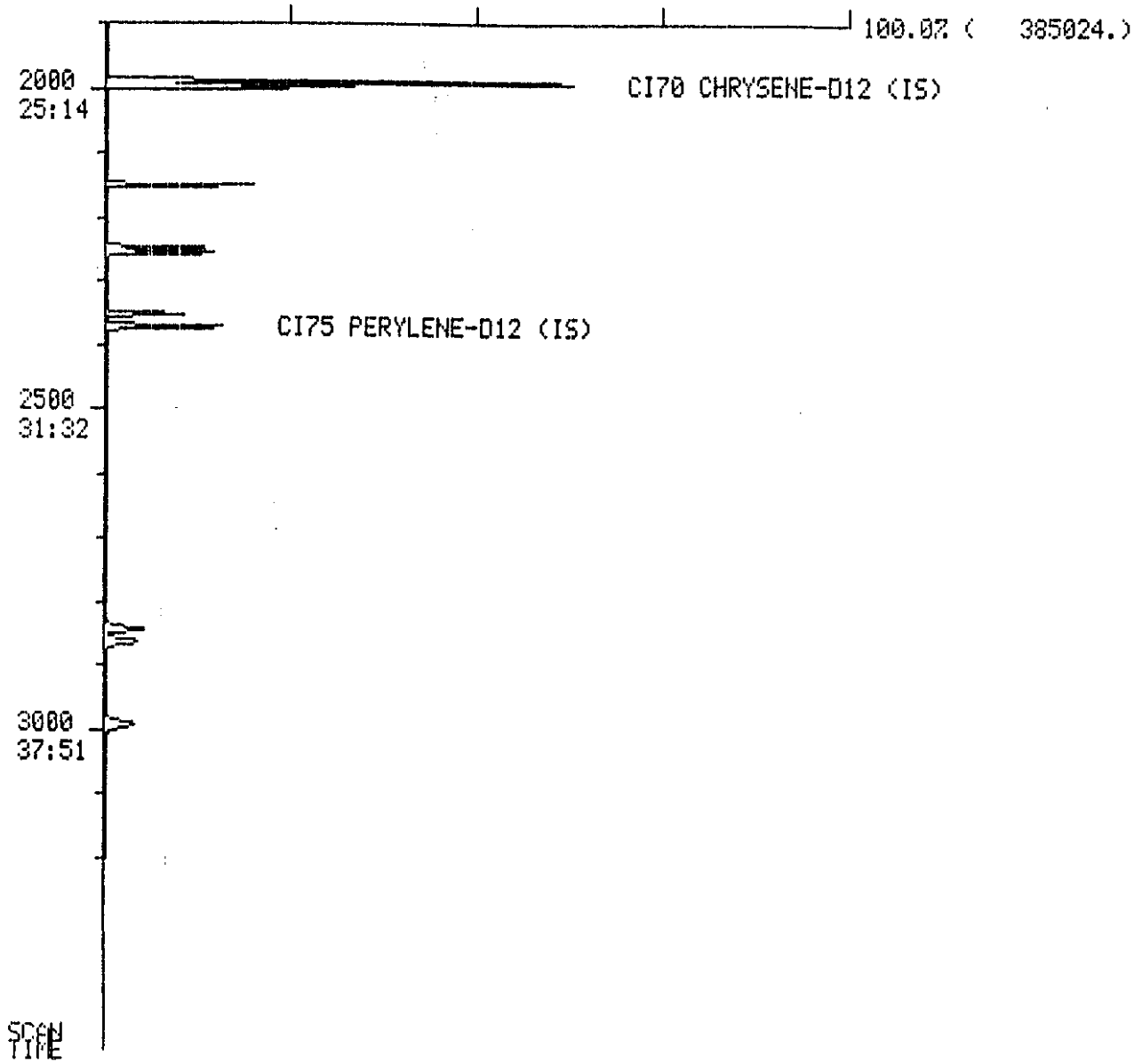


DATA FROM FILE: B0921020 SCANS 1900 TO 3200 ACQUIRED: 09/21/94 14:23:00

CALI: B0921020 #3 OUT OF 300 TO 3200

SAMPLE: BNA CLP STD 20NG

CONDS.: 40/4-285 @12/MIN HOLD 17



ua-titation Report File: B0921160

at B0921160.TI
9/21/94 11:28:00
ample: BNA CLP STD 160NG
onds.: 40/4-285 @12/MIN HOLD 17
ormula: Instrument: FINN Weight: 0.000
ubmitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

MOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
esp. fac. from Library Entry

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 (IS)
2	CI40 NAPHTHALENE-D8 (IS)
3	CI50 ACENAPHTHALENE-D10 (IS)
4	CI60 PHENANTHRENE-D10 (IS)
5	CI70 CHRYSENE-D12 (IS)
6	CI75 PERYLENE-D12 (IS)
7	CS50 2-FLUOROPHENOL (SURR)
8	CS45 PHENOL-D5 (SURR)
9	CS20 NITROBENZENE-D5 (SURR)
.0	CS25 2-FLUOROBIPHENYL (SURR)
.1	CS55 2,4,6-TRIBROMOPHENOL (SURR)
.2	CS30 TERPHENYL-D14 (SURR)
.3	CS70 2-CHLOROPHENOL-D4 (SURR)
.4	CS75 1,2-DICHLOROBENZENE-D4 (SURR)
.5	C310 N-NITROSODIMETHYLAMINE
.6	C315 PHENOL
.7	C320 ANALINE
.8	C325 BIS(2-CHLOROETHYL)ETHER
.9	C330 2-CHLOROPHENOL
20	C335 1,3 DICHLOROBENZENE
21	C340 1,4 DICHLOROBENZENE
22	C350 1,2 DICHLOROBENZENE
23	C355 2-METHYLPHENOL
24	C360 BIS(2-CHLOROISOPROPYL)ETHER
25	C357 2,2-OXYBIS(1-CHLOROPROPANE)
26	C370 N-NITROSO-DI-N-PROPYLAMINE
27	C365 4-METHYLPHENOL
28	C375 HEXACHLOROETHANE
29	C345 BENZYL ALCOHOL
30	C410 NITROBENZENE
31	C415 ISOPHORONE
32	C420 2-NITROPHENOL
33	C425 2,4-DIMETHYLPHENOL
34	C435 BIS(2-CHLOROETHOXY)METHANE
35	C440 2,4-DICHLOROPHENOL
36	C445 1,2,4-TRICHLOROBENZENE
37	C450 NAPHTHALENE
38	C455 4-CHLOROANALINE
39	C460 HEXACHLOROBUTADIENE
40	C465 4-CHLORO-3-METHYLPHENOL
41	C470 2-METHYLNAPHTHALENE
42	C510 HEXACHLOROCYCLOPENTADIENE
43	C515 2,4,6-TRICHLOROPHENOL
44	C520 2,4,5-TRICHLOROPHENOL
45	C525 2-CHLORONAPHTHALENE
46	C530 2-NITROANALINE

N	Name
46	:543 2,6-DINITROTOLUENE
49	C540 ACENAPHTHYLENE
50	C545 3-NITROANALINE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	768	9:41	1	1.000	A BB	88646.	40.000 NG	0.31
2	136	976	12:19	2	1.000	A BB	313588.	40.000 NG	0.31
3	164	1272	16:03	3	1.000	A BB	186866.	40.000 NG	0.31
4	188	1527	19:16	4	1.000	A BV	284460.	40.000 NG	0.31
5	240	1990	25:06	5	1.000	A BB	250504.	40.000 NG	0.31
6	264	2371	29:55	6	1.000	A BB	151447.	40.000 NG	0.31
7	112	572	7:13	1	0.745	A BB	507976.	160.000 NG	1.23
8	99	724	9:08	1	0.943	A BV	666933.	160.000 NG	1.23
9	82	861	10:52	2	0.882	A BB	698268.	160.000 NG	1.23
10	172	1161	14:39	3	0.913	A BV	781310.	160.000 NG	1.23
11	330	1409	17:47	3	1.108	A BB	198098.	160.000 NG	1.23
12	244	1805	22:46	5	0.907	A BB	928288.	160.000 NG	1.23
13	132	736	9:17	1	0.958	A BB	462728.	160.000 NG	1.23
14	152	792	10:00	1	1.031	A BB	323100.	160.000 NG	1.23
15	42	341	4:18	1	0.444	A VB	444603.	160.000 NG	1.23
16	94	727	9:10	1	0.947	A VV	739264.	160.000 NG	1.23
17	93	720	9:05	1	0.937	A BB	792800.	160.000 NG	1.23
18	93	733	9:15	1	0.954	A BV	579262.	160.000 NG	1.23
19	128	739	9:19	1	0.962	A BB	482045.	160.000 NG	1.23
20	46	759	9:35	1	0.988	A BV	554382.	160.000 NG	1.23
21	146	771	9:44	1	1.004	A VB	553293.	160.000 NG	1.23
22	146	795	10:02	1	1.035	A BB	512325.	160.000 NG	1.23
23	108	819	10:20	1	1.066	A BB	443728.	160.000 NG	1.23
24	45	816	10:18	1	1.062	A BV	768562.	160.000 NG	1.23
25	45	816	10:18	1	1.062	A BV	768562.	160.000 NG	1.23
26	70	841	10:37	1	1.095	A BB	503783.	160.000 NG	1.23
27	108	845	10:40	1	1.100	A BV	477598.	160.000 NG	1.23
28	117	848	10:42	1	1.104	A BB	255416.	160.000 NG	1.23
29	108	799	10:05	2	0.819	A BB	333788.	160.000 NG	1.23
30	77	864	10:54	2	0.885	A BB	707672.	160.000 NG	1.23
31	82	907	11:27	2	0.929	A BB	1254370.	160.000 NG	1.23
32	139	915	11:33	2	0.937	A VB	254613.	160.000 NG	1.23
33	122	930	11:44	2	0.953	A BB	401748.	160.000 NG	1.23
34	93	942	11:53	2	0.965	A BB	726677.	160.000 NG	1.23
35	162	958	12:05	2	0.982	A BB	402496.	160.000 NG	1.23
36	180	967	12:12	2	0.991	A BB	462754.	160.000 NG	1.23
37	128	980	12:22	2	1.004	A BV	1118750.	160.000 NG	1.23
38	127	993	12:32	2	1.017	A BB	558793.	160.000 NG	1.23
39	225	1001	12:38	2	1.026	A BB	296048.	160.000 NG	1.23
40	107	1080	13:38	2	1.107	A BB	489923.	160.000 NG	1.23
41	142	1096	13:50	2	1.123	A BB	796682.	160.000 NG	1.23
42	237	1122	14:09	3	0.882	A BB	335812.	160.000 NG	1.23
43	196	1148	14:29	3	0.903	A BV	305211.	160.000 NG	1.23
44	196	1155	14:34	3	0.908	A VB	330020.	160.000 NG	1.23
45	162	1179	14:53	3	0.927	A BB	824636.	160.000 NG	1.23
46	65	1202	15:10	3	0.945	A BB	417240.	160.000 NG	1.23
47	63	1234	15:34	3	0.970	A BV	945062.	160.000 NG	1.23
48	165	1244	15:42	3	0.978	A BB	224684.	160.000 NG	1.23
49	152	1249	15:45	3	0.982	A BB	1098490.	160.000 NG	1.23
50	138	1272	16:03	3	1.000	A BB	193207.	160.000 NG	1.23

N	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:41	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:19	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	16:03	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	19:16	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	25:06	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	29:55	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	7:13	1.00	0.745	1.00	160.00	160.00	1.433	1.433	1.00
8	9:08	1.00	0.943	1.00	160.00	160.00	1.881	1.881	1.00
9	10:52	1.00	0.882	1.00	160.00	160.00	0.557	0.557	1.00
10	14:39	1.00	0.913	1.00	160.00	160.00	1.045	1.045	1.00
11	17:47	1.00	1.108	1.00	160.00	160.00	0.265	0.265	1.00
12	22:46	1.00	0.907	1.00	160.00	160.00	0.926	0.926	1.00
13	9:17	1.00	0.958	1.00	160.00	160.00	1.305	1.305	1.00
14	10:00	1.00	1.031	1.00	160.00	160.00	0.911	0.911	1.00
15	4:18	1.00	0.444	1.00	160.00	160.00	1.254	1.254	1.00
16	9:10	1.00	0.947	1.00	160.00	160.00	2.085	2.085	1.00
17	9:05	1.00	0.937	1.00	160.00	160.00	2.236	2.236	1.00
18	9:15	1.00	0.954	1.00	160.00	160.00	1.634	1.634	1.00
19	9:19	1.00	0.962	1.00	160.00	160.00	1.359	1.359	1.00
20	9:35	1.00	0.988	1.00	160.00	160.00	1.563	1.563	1.00
21	9:44	1.00	1.004	1.00	160.00	160.00	1.560	1.560	1.00
22	10:02	1.00	1.035	1.00	160.00	160.00	1.445	1.445	1.00
23	10:20	1.00	1.066	1.00	160.00	160.00	1.251	1.251	1.00
24	10:18	1.00	1.062	1.00	160.00	160.00	2.168	2.168	1.00
25	0:18	1.00	1.062	1.00	160.00	160.00	2.168	2.168	1.00
26	10:37	1.00	1.095	1.00	160.00	160.00	1.421	1.421	1.00
27	10:40	1.00	1.100	1.00	160.00	160.00	1.347	1.347	1.00
28	10:42	1.00	1.104	1.00	160.00	160.00	0.720	0.720	1.00
29	10:05	1.00	0.819	1.00	160.00	160.00	0.266	0.266	1.00
30	10:54	1.00	0.885	1.00	160.00	160.00	0.564	0.564	1.00
31	11:27	1.00	0.929	1.00	160.00	160.00	1.000	1.000	1.00
32	11:33	1.00	0.937	1.00	160.00	160.00	0.203	0.203	1.00
33	11:44	1.00	0.953	1.00	160.00	160.00	0.320	0.320	1.00
34	11:53	1.00	0.965	1.00	160.00	160.00	0.579	0.579	1.00
35	12:05	1.00	0.982	1.00	160.00	160.00	0.321	0.321	1.00
36	12:12	1.00	0.991	1.00	160.00	160.00	0.369	0.369	1.00
37	12:22	1.00	1.004	1.00	160.00	160.00	0.892	0.892	1.00
38	12:32	1.00	1.017	1.00	160.00	160.00	0.445	0.445	1.00
39	12:38	1.00	1.026	1.00	160.00	160.00	0.236	0.236	1.00
40	13:38	1.00	1.107	1.00	160.00	160.00	0.391	0.391	1.00
41	13:50	1.00	1.123	1.00	160.00	160.00	0.635	0.635	1.00
42	14:09	1.00	0.882	1.00	160.00	160.00	0.449	0.449	1.00
43	14:29	1.00	0.903	1.00	160.00	160.00	0.408	0.408	1.00
44	14:34	1.00	0.908	1.00	160.00	160.00	0.442	0.442	1.00
45	14:53	1.00	0.927	1.00	160.00	160.00	1.103	1.103	1.00
46	15:10	1.00	0.945	1.00	160.00	160.00	0.558	0.558	1.00
47	15:34	1.00	0.970	1.00	160.00	160.00	1.264	1.264	1.00
48	15:42	1.00	0.978	1.00	160.00	160.00	0.301	0.301	1.00
49	15:45	1.00	0.982	1.00	160.00	160.00	1.470	1.470	1.00
50	16:03	1.00	1.000	1.00	160.00	160.00	0.258	0.258	1.00

uantitation Report File: B0921160

a: B0921160.TI
7/21/94 11:28:00
ample: BNA CLP STD 160NG
onds.: 40/4-285 @12/MIN HOLD 17
ormula: Instrument: FINN Weight: 0.000
ubmitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

MOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
esp. fac. from Library Entry

No	Name
51	C550 ACENAPHTHENE
52	C555 2,4-DINITROPHENOL
53	C560 4-NITROPHENOL
54	C570 2,4-DINITROTOLUENE
55	C565 DIBENZOFURAN
56	C580 DIETHYLPHTHALATE
57	C590 FLUORENE
58	C585 4-CHLOROPHENYL-PHENYLETHER
59	C595 4-NITROANALINE
60	C576 AZOBENZENE
61	C610 4,6-DINITRO-2-METHYLPHENOL
62	C615 N-NITROSODIPHENYLAMINE
63	C625 4-BROMOPHENYL-PHENYLETHER
64	C630 HEXACHLOROBENZENE
65	C635 PENTACHLOROPHENOL
66	C640 PHENANTHRENE
67	C645 ANTHRACENE
68	C647 CARBAZOLE
69	C650 DI-N-BUTYLPHTHALATE
70	C655 FLUORANTHENE
71	C710 BENZIDINE
72	C715 PYRENE
73	C720 BUTYLBENZYLPHTHALATE
74	C740 CHRYSENE
75	C730 BENZO(A)ANTHRACENE
76	C745 BIS(2-ETHYLHEXYL)PHTHALATE
77	C725 3,3-DICHLOROBENZIDINE
78	C760 DI-N-OCTYLPHTHALATE
79	C770 BENZO(K)FLUORANTHENE
80	C765 BENZO(B)FLUORANTHENE
81	C775 BENZO(A)PYRENE
82	C780 INDENO(1,2,3-CD)PYRENE
83	C785 DIBENZ(A,H)ANTHRACENE
84	C790 BENZO(G,H,I)PERYLENE
85	C322 PYRIDINE
86	C430 BENZOIC ACID

o	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	153	1279	16:08	3	1.006	A BB	732874.	160.000 NG	1.23
2	84	1292	16:18	3	1.016	A BB	123134.	160.000 NG	1.23
3	09	1312	16:33	3	1.031	A BB	125948.	160.000 NG	1.23
4	89	1313	16:34	3	1.032	A BB	313907.	160.000 NG	1.23
5	168	1309	16:31	3	1.029	A BB	1102910.	160.000 NG	1.23
6	149	1355	17:06	3	1.065	A BV	990006.	160.000 NG	1.23
7	166	1367	17:15	3	1.075	A BB	819874.	160.000 NG	1.23

N	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
58	204	1369	17:16	3	1.076	A BB	458636.	160.000 NG	1.23
59	138	1377	17:22	3	1.083	A BV	114881.	160.000 NG	1.23
60	77	1397	17:38	3	1.098	A BB	1389080.	160.000 NG	1.23
61	198	1383	17:27	4	0.906	A BB	156252.	160.000 NG	1.23
62	169	1392	17:34	4	0.912	A BB	549232.	160.000 NG	1.23
63	248	1452	18:19	4	0.951	A BB	335456.	160.000 NG	1.23
64	284	1462	18:27	4	0.957	A BB	388064.	160.000 NG	1.23
65	266	1498	18:54	4	0.981	A BB	225786.	160.000 NG	1.23
66	178	1532	19:20	4	1.003	A BV	1140250.	160.000 NG	1.23
67	178	1541	19:27	4	1.009	A VB	1106680.	160.000 NG	1.23
68	167	1570	19:48	4	1.028	A BB	630192.	160.000 NG	1.23
69	149	1634	20:37	4	1.070	A BB	1292670.	160.000 NG	1.23
70	202	1737	21:55	4	1.138	A BB	1234280.	160.000 NG	1.23
71	184	1766	22:17	5	0.887	A BB	502.	160.000 NG	1.23
72	202	1776	22:24	5	0.892	A BB	1216910.	160.000 NG	1.23
73	149	1892	23:52	5	0.951	A BB	654692.	160.000 NG	1.23
74	228	1988	25:05	5	0.999	A BV	1207770.	160.000 NG	1.23
75	228	1996	25:11	5	1.003	A VB	931431.	160.000 NG	1.23
76	149	1998	25:12	5	1.004	A BB	942863.	160.000 NG	1.23
77	252	1986	25:03	6	0.838	A BB	183070.	160.000 NG	1.23
78	149	2150	27:08	6	0.907	A BB	1393470.	160.000 NG	1.23
79	252	2252	28:25	6	0.950	A BV	1046590.	160.000 NG	1.23
80	252	2260	28:31	6	0.953	A VB	913356.	160.000 NG	1.23
81	252	2355	29:43	6	0.993	A BB	924886.	160.000 NG	1.23
87	276	2854	36:00	6	1.204	A BB	667784.	160.000 NG	1.23
88	278	2874	36:16	6	1.212	A BB	771431.	160.000 NG	1.23
84	276	3004	37:54	6	1.267	A BB	666428.	160.000 NG	1.23
85	79	344	4:20	1	0.448	A BB	612576.	160.000 NG	1.23
86	122	966	12:11	2	0.990	A BB	253730.	160.000 NG	1.23

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	16:08	1.00	1.006	1.00	160.00	160.00	0.980	0.980	1.00
2	16:18	1.00	1.016	1.00	160.00	160.00	0.165	0.165	1.00
3	16:33	1.00	1.031	1.00	160.00	160.00	0.169	0.169	1.00
4	16:34	1.00	1.032	1.00	160.00	160.00	0.420	0.420	1.00
5	16:31	1.00	1.029	1.00	160.00	160.00	1.476	1.476	1.00
6	17:06	1.00	1.065	1.00	160.00	160.00	1.324	1.324	1.00
7	17:15	1.00	1.075	1.00	160.00	160.00	1.097	1.097	1.00
8	17:16	1.00	1.076	1.00	160.00	160.00	0.614	0.614	1.00
9	17:22	1.00	1.083	1.00	160.00	160.00	0.154	0.154	1.00
0	17:38	1.00	1.098	1.00	160.00	160.00	1.858	1.858	1.00
1	17:27	1.00	0.906	1.00	160.00	160.00	0.137	0.137	1.00
2	17:34	1.00	0.912	1.00	160.00	160.00	0.483	0.483	1.00
3	18:19	1.00	0.951	1.00	160.00	160.00	0.295	0.295	1.00
4	18:27	1.00	0.957	1.00	160.00	160.00	0.341	0.341	1.00
5	18:54	1.00	0.981	1.00	160.00	160.00	0.198	0.198	1.00
6	19:20	1.00	1.003	1.00	160.00	160.00	1.002	1.002	1.00
7	19:27	1.00	1.009	1.00	160.00	160.00	0.973	0.973	1.00
8	19:48	1.00	1.028	1.00	160.00	160.00	0.554	0.554	1.00
9	20:37	1.00	1.070	1.00	160.00	160.00	1.136	1.136	1.00
0	21:55	1.00	1.138	1.00	160.00	160.00	1.085	1.085	1.00
1	22:17	1.00	0.887	1.00	160.00	160.00	0.001	0.001	1.00
2	22:24	1.00	0.892	1.00	160.00	160.00	1.214	1.214	1.00
3	23:52	1.00	0.951	1.00	160.00	160.00	0.653	0.653	1.00
4	25:05	1.00	0.999	1.00	160.00	160.00	1.205	1.205	1.00
5	25:11	1.00	1.003	1.00	160.00	160.00	0.930	0.930	1.00

N	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
76	5:12	1.00	1.004	1.00	160.00	160.00	0.941	0.941	1.00
77	25:03	1.00	0.838	1.00	160.00	160.00	0.302	0.302	1.00
78	27:08	1.00	0.907	1.00	160.00	160.00	2.300	2.300	1.00
79	28:25	1.00	0.950	1.00	160.00	160.00	1.728	1.728	1.00
80	28:31	1.00	0.953	1.00	160.00	160.00	1.508	1.508	1.00
81	29:43	1.00	0.993	1.00	160.00	160.00	1.527	1.527	1.00
82	36:00	1.00	1.204	1.00	160.00	160.00	1.102	1.102	1.00
83	36:16	1.00	1.212	1.00	160.00	160.00	1.273	1.273	1.00
84	37:54	1.00	1.267	1.00	160.00	160.00	1.100	1.100	1.00
85	4:20	1.00	0.448	1.00	160.00	160.00	1.728	1.728	1.00
86	12:11	1.00	0.990	1.00	160.00	160.00	0.202	0.202	1.00

artitation Report File: B0921120

t B0921120.TI
/21/94 12:26:00
mple: BNA CLP STD 120NG
nds.: 40/4-285 @12/MIN HOLD 17
rmula: Instrument: FINN Weight: 0.000
bmitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

OUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
sp. fac. from Library Entry

o	Name
1	CI30 1,4-DICHLOROBENZENE-D4 (IS)
2	CI40 NAPHTHALENE-D8 (IS)
3	CI50 ACENAPHTHALENE-D10 (IS)
4	CI60 PHENANTHRENE-D10 (IS)
5	CI70 CHRYSENE-D12 (IS)
6	CI75 PERYLENE-D12 (IS)
7	CS50 2-FLUOROPHENOL (SURR)
8	CS45 PHENOL-D5 (SURR)
9	CS20 NITROBENZENE-D5 (SURR)
0	CS25 2-FLUOROBIPHENYL (SURR)
1	CS55 2,4,6-TRIBROMOPHENOL (SURR)
2	CS30 TERPHENYL-D14 (SURR)
3	CS70 2-CHLOROPHENOL-D4 (SURR)
4	'S75 1,2-DICHLOROBENZENE-D4 (SURR)
5	,322 PYRIDINE
6	C310 N-NITROSODIMETHYLAMINE
7	C315 PHENOL
8	C320 ANALINE
9	C325 BIS(2-CHLOROETHYL)ETHER
0	C330 2-CHLOROPHENOL
1	C335 1,3 DICHLOROBENZENE
2	C340 1,4 DICHLOROBENZENE
3	C350 1,2 DICHLOROBENZENE
4	C355 2-METHYLPHENOL
5	C370 N-NITROSO-DI-N-PROPYLAMINE
6	C365 4-METHYLPHENOL
7	C375 HEXACHLOROETHANE
8	C345 BENZYL ALCOHOL
9	C410 NITROBENZENE
0	C415 ISOPHORONE
.	C420 2-NITROPHENOL
2	C425 2,4-DIMETHYLPHENOL
3	C435 BIS(2-CHLOROETHOXY)METHANE
4	C440 2,4-DICHLOROPHENOL
5	C430 BENZOIC ACID
6	C445 1,2,4-TRICHLOROBENZENE
7	C450 NAPHTHALENE
8	C455 4-CHLOROANALINE
9	C460 HEXACHLOROBUTADIENE
0	465 4-CHLORO-3-METHYLPHENOL
	,470 2-METHYLNAPHTHALENE
2	C510 HEXACHLOROCYCLOPENTADIENE
1	C515 2,4,6-TRICHLOROPHENOL
	C520 2,4,5-TRICHLOROPHENOL
	C525 2-CHLORONAPHTHALENE
	C530 2-NITROANALINE

N	Name
4[illegible]	C543 2,6-DINITROTOLUENE
49	C540 ACENAPHTHYLENE
50	C545 3-NITROANALINE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	767	9:41	1	1.000	A BB	84814.	40.000 NG	0.41
2	136	974	12:17	2	1.000	A BB	298478.	40.000 NG	0.41
3	164	1271	16:02	3	1.000	A BB	171294.	40.000 NG	0.41
4	188	1526	19:15	4	1.000	A BV	270518.	40.000 NG	0.41
5	240	1989	25:06	5	1.000	A BB	240872.	40.000 NG	0.41
6	264	2370	29:54	6	1.000	A BB	142210.	40.000 NG	0.41
7	112	570	7:11	1	0.743	A BB	362572.	120.000 NG	1.22
8	99	722	9:07	1	0.941	A BV	474553.	120.000 NG	1.22
9	82	859	10:50	2	0.882	A BB	492963.	120.000 NG	1.22
10	172	1159	14:37	3	0.912	A BV	588786.	120.000 NG	1.22
11	330	1408	17:46	3	1.108	A BB	137304.	120.000 NG	1.22
12	244	1803	22:45	5	0.906	A BB	712253.	120.000 NG	1.22
13	132	734	9:16	1	0.957	A BB	331565.	120.000 NG	1.22
14	152	791	9:59	1	1.031	A BB	235370.	120.000 NG	1.22
15	79	341	4:18	1	0.445	A BB	454391.	120.000 NG	1.22
16	42	337	4:15	1	0.439	A BB	334165.	120.000 NG	1.22
17	94	724	9:08	1	0.944	A VB	512884.	120.000 NG	1.22
18	93	718	9:04	1	0.936	A BB	549188.	120.000 NG	1.22
19	93	731	9:13	1	0.953	A BV	417490.	120.000 NG	1.22
20	128	737	9:18	1	0.961	A BB	344760.	120.000 NG	1.22
21	146	757	9:33	1	0.987	A BV	406233.	120.000 NG	1.22
22	146	770	9:43	1	1.004	A VB	408573.	120.000 NG	1.22
23	146	794	10:01	1	1.035	A BB	384402.	120.000 NG	1.22
24	108	817	10:18	1	1.065	A BB	309331.	120.000 NG	1.22
25	70	839	10:35	1	1.094	A BV	344312.	120.000 NG	1.22
26	108	843	10:38	1	1.099	A BV	330290.	120.000 NG	1.22
27	117	847	10:41	1	1.104	A BB	182120.	120.000 NG	1.22
28	108	796	10:03	2	0.817	A BB	238473.	120.000 NG	1.22
29	77	862	10:53	2	0.885	A BB	506581.	120.000 NG	1.22
30	82	904	11:24	2	0.928	A BV	887236.	120.000 NG	1.22
31	139	913	11:31	2	0.937	A BB	179470.	120.000 NG	1.22
32	122	928	11:42	2	0.953	A BB	278198.	120.000 NG	1.22
33	93	941	11:52	2	0.966	A BB	520111.	120.000 NG	1.22
34	162	956	12:04	2	0.982	A BB	285235.	120.000 NG	1.22
35	122	961	12:07	2	0.987	A BB	180342.	120.000 NG	1.22
36	180	966	12:11	2	0.992	A BB	336074.	120.000 NG	1.22
37	128	978	12:20	2	1.004	A BV	876238.	120.000 NG	1.22
38	127	991	12:30	2	1.017	A VB	390061.	120.000 NG	1.22
39	225	1000	12:37	2	1.027	A BB	214694.	120.000 NG	1.22
40	107	1079	13:37	2	1.108	A BV	335106.	120.000 NG	1.22
41	142	1095	13:49	2	1.124	A VB	591255.	120.000 NG	1.22
42	237	1121	14:09	3	0.882	A BB	247260.	120.000 NG	1.22
43	196	1146	14:28	3	0.902	A BV	215638.	120.000 NG	1.22
44	196	1154	14:34	3	0.908	A VB	227374.	120.000 NG	1.22
45	162	1177	14:51	3	0.926	A BB	607718.	120.000 NG	1.22
46	65	1200	15:08	3	0.944	A BB	290865.	120.000 NG	1.22
47	63	1232	15:33	3	0.969	A BV	662312.	120.000 NG	1.22
48	165	1242	15:40	3	0.977	A BB	152646.	120.000 NG	1.22
49	152	1247	15:44	3	0.981	A BV	825430.	120.000 NG	1.22
50	138	1271	16:02	3	1.000	A BB	128978.	120.000 NG	1.22

N	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:41	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:17	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	16:02	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	19:15	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	25:06	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	29:54	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	7:11	1.00	0.743	1.00	120.00	120.00	1.425	1.425	1.00
8	9:07	1.00	0.941	1.00	120.00	120.00	1.865	1.865	1.00
9	10:50	1.00	0.882	1.00	120.00	120.00	0.551	0.551	1.00
10	14:37	1.00	0.912	1.00	120.00	120.00	1.146	1.146	1.00
11	17:46	1.00	1.108	1.00	120.00	120.00	0.267	0.267	1.00
12	22:45	1.00	0.906	1.00	120.00	120.00	0.986	0.986	1.00
13	9:16	1.00	0.957	1.00	120.00	120.00	1.303	1.303	1.00
14	9:59	1.00	1.031	1.00	120.00	120.00	0.925	0.925	1.00
15	4:18	1.00	0.445	1.00	120.00	120.00	1.786	1.786	1.00
16	4:15	1.00	0.439	1.00	120.00	120.00	1.313	1.313	1.00
17	9:08	1.00	0.944	1.00	120.00	120.00	2.016	2.016	1.00
18	9:04	1.00	0.936	1.00	120.00	120.00	2.158	2.158	1.00
19	9:13	1.00	0.953	1.00	120.00	120.00	1.641	1.641	1.00
20	9:18	1.00	0.961	1.00	120.00	120.00	1.355	1.355	1.00
21	9:33	1.00	0.987	1.00	120.00	120.00	1.597	1.597	1.00
22	9:43	1.00	1.004	1.00	120.00	120.00	1.606	1.606	1.00
23	10:01	1.00	1.035	1.00	120.00	120.00	1.511	1.511	1.00
24	10:18	1.00	1.065	1.00	120.00	120.00	1.216	1.216	1.00
25	10:35	1.00	1.094	1.00	120.00	120.00	1.353	1.353	1.00
26	10:38	1.00	1.099	1.00	120.00	120.00	1.298	1.298	1.00
27	10:41	1.00	1.104	1.00	120.00	120.00	0.716	0.716	1.00
28	10:03	1.00	0.817	1.00	120.00	120.00	0.266	0.266	1.00
29	10:53	1.00	0.885	1.00	120.00	120.00	0.566	0.566	1.00
30	11:24	1.00	0.928	1.00	120.00	120.00	0.991	0.991	1.00
31	11:31	1.00	0.937	1.00	120.00	120.00	0.200	0.200	1.00
32	11:42	1.00	0.953	1.00	120.00	120.00	0.311	0.311	1.00
33	11:52	1.00	0.966	1.00	120.00	120.00	0.581	0.581	1.00
34	12:04	1.00	0.982	1.00	120.00	120.00	0.319	0.319	1.00
35	12:07	1.00	0.987	1.00	120.00	120.00	0.201	0.201	1.00
36	12:11	1.00	0.992	1.00	120.00	120.00	0.375	0.375	1.00
37	12:20	1.00	1.004	1.00	120.00	120.00	0.979	0.979	1.00
38	12:30	1.00	1.017	1.00	120.00	120.00	0.436	0.436	1.00
39	12:37	1.00	1.027	1.00	120.00	120.00	0.240	0.240	1.00
40	13:37	1.00	1.108	1.00	120.00	120.00	0.374	0.374	1.00
41	13:49	1.00	1.124	1.00	120.00	120.00	0.660	0.660	1.00
42	14:09	1.00	0.882	1.00	120.00	120.00	0.481	0.481	1.00
43	14:28	1.00	0.902	1.00	120.00	120.00	0.420	0.420	1.00
44	14:34	1.00	0.908	1.00	120.00	120.00	0.442	0.442	1.00
45	14:51	1.00	0.926	1.00	120.00	120.00	1.183	1.183	1.00
46	15:08	1.00	0.944	1.00	120.00	120.00	0.566	0.566	1.00
47	15:33	1.00	0.969	1.00	120.00	120.00	1.289	1.289	1.00
48	15:40	1.00	0.977	1.00	120.00	120.00	0.297	0.297	1.00
49	15:44	1.00	0.981	1.00	120.00	120.00	1.606	1.606	1.00
50	16:02	1.00	1.000	1.00	120.00	120.00	0.251	0.251	1.00

Quantitation Report File: B0921120

Data B0921120.TI
09/21/94 12:26:00
Sample: BNA CLP STD 120NG
Conds.: 40/4-285 @12/MIN HOLD 17
Formula: Instrument: FINN Weight: 0.000
Submitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	C550 ACENAPHTHENE
52	C555 2,4-DINITROPHENOL
53	C560 4-NITROPHENOL
54	C570 2,4-DINITROTOLUENE
55	C565 DIBENZOFURAN
56	C580 DIETHYLPHTHALATE
57	C590 FLUORENE
58	C585 4-CHLOROPHENYL-PHENYLETHER
59	C595 4-NITROANALINE
60	C576 AZOBENZENE
61	C610 4,6-DINITRO-2-METHYLPHENOL
62	C615 N-NITROSODIPHENYLAMINE
63	C625 4-BROMOPHENYL-PHENYLETHER
6	C630 HEXACHLOROBENZENE
6	C635 PENTACHLOROPHENOL
66	C640 PHENANTHRENE
67	C645 ANTHRACENE
68	C647 CARBAZOLE
69	C650 DI-N-BUTYLPHTHALATE
70	C655 FLUORANTHENE
71	C710 BENZIDINE
72	C715 PYRENE
73	C720 BUTYLBENZYLPHTHALATE
74	C740 CHRYSENE
75	C730 BENZO(A)ANTHRACENE
76	C745 BIS(2-ETHYLHEXYL)PHTHALATE
77	C725 3,3-DICHLOROBENZIDINE
78	C760 DI-N-OCTYLPHTHALATE
79	C770 BENZO(K)FLUORANTHENE
80	C765 BENZO(B)FLUORANTHENE
81	C775 BENZO(A)PYRENE
82	C780 INDENO(1,2,3-CD)PYRENE
83	C785 DIBENZ(A,H)ANTHRACENE
84	C790 BENZO(G,H,I)PERYLENE
85	C360 BIS(2-CHLOROISOPROPYL)ETHER
86	C357 2,2-OXYBIS(1-CHLOROPROPANE)

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	153	1277	16:07	3	1.005	A BB	539902.	120.000 NG	1.22
2	184	1289	16:16	3	1.014	A BB	83293.	120.000 NG	1.22
3	109	1309	16:31	3	1.030	A BB	85788.	120.000 NG	1.22
4	89	1311	16:32	3	1.031	A BB	215657.	120.000 NG	1.22
5	168	1307	16:29	3	1.028	A BB	805108.	120.000 NG	1.22
6	149	1353	17:04	3	1.065	A BB	692814.	120.000 NG	1.22
7	166	1366	17:14	3	1.075	A BB	597576.	120.000 NG	1.22

	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
68	04	1368	17:16	3	1.076	A BB	329930.	120.000	NG	1.22
69	138	1374	17:20	3	1.081	A BV	78757.	120.000	NG	1.22
70	77	1395	17:36	3	1.098	A BV	1007920.	120.000	NG	1.22
71	198	1381	17:25	4	0.905	A BB	110474.	120.000	NG	1.22
72	169	1390	17:32	4	0.911	A BB	394158.	120.000	NG	1.22
73	248	1451	18:18	4	0.951	A BB	235366.	120.000	NG	1.22
74	284	1460	18:25	4	0.957	A BB	275758.	120.000	NG	1.22
75	266	1496	18:52	4	0.980	A BB	159087.	120.000	NG	1.22
76	178	1530	19:18	4	1.003	A BV	841015.	120.000	NG	1.22
77	178	1539	19:25	4	1.009	A VB	841693.	120.000	NG	1.22
78	167	1569	19:48	4	1.028	A BB	432992.	120.000	NG	1.22
79	149	1633	20:36	4	1.070	A BB	1054370.	120.000	NG	1.22
80	202	1736	21:54	4	1.138	A BB	933873.	120.000	NG	1.22
81	184	1765	22:16	5	0.887	A BB	350.	120.000	NG	1.22
82	202	1774	22:23	5	0.892	A BB	924204.	120.000	NG	1.22
83	149	1891	23:51	5	0.951	A BB	472172.	120.000	NG	1.22
84	228	1987	25:04	5	0.999	A BV	895074.	120.000	NG	1.22
85	228	1994	25:09	5	1.003	A VB	727386.	120.000	NG	1.22
86	149	1996	25:11	5	1.004	A BB	678971.	120.000	NG	1.22
87	252	1985	25:03	6	0.838	A BB	130021.	120.000	NG	1.22
88	149	2148	27:06	6	0.906	A BB	1015520.	120.000	NG	1.22
89	252	2249	28:22	6	0.949	A BV	785888.	120.000	NG	1.22
90	252	2258	28:29	6	0.953	A VB	675934.	120.000	NG	1.22
91	252	2353	29:41	6	0.993	A BB	662329.	120.000	NG	1.22
92	76	2849	35:57	6	1.202	A BB	491192.	120.000	NG	1.22
93	278	2869	36:12	6	1.211	A BB	520936.	120.000	NG	1.22
94	276	2998	37:49	6	1.265	A BB	482238.	120.000	NG	1.22
95	45	815	10:17	1	1.063	A BB	765824.	120.000	NG	1.22
96	45	815	10:17	1	1.063	A BB	765824.	120.000	NG	1.22

o	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	16:07	1.00	1.005	1.00	120.00	120.00	1.051	1.051	1.00
2	16:16	1.00	1.014	1.00	120.00	120.00	0.162	0.162	1.00
3	16:31	1.00	1.030	1.00	120.00	120.00	0.167	0.167	1.00
4	16:32	1.00	1.031	1.00	120.00	120.00	0.420	0.420	1.00
5	16:29	1.00	1.028	1.00	120.00	120.00	1.567	1.567	1.00
6	17:04	1.00	1.065	1.00	120.00	120.00	1.348	1.348	1.00
7	17:14	1.00	1.075	1.00	120.00	120.00	1.163	1.163	1.00
8	17:16	1.00	1.076	1.00	120.00	120.00	0.642	0.642	1.00
9	17:20	1.00	1.081	1.00	120.00	120.00	0.153	0.153	1.00
0	17:36	1.00	1.098	1.00	120.00	120.00	1.961	1.961	1.00
1	17:25	1.00	0.905	1.00	120.00	120.00	0.136	0.136	1.00
2	17:32	1.00	0.911	1.00	120.00	120.00	0.486	0.486	1.00
3	18:18	1.00	0.951	1.00	120.00	120.00	0.290	0.290	1.00
4	18:25	1.00	0.957	1.00	120.00	120.00	0.340	0.340	1.00
5	18:52	1.00	0.980	1.00	120.00	120.00	0.196	0.196	1.00
6	19:18	1.00	1.003	1.00	120.00	120.00	1.036	1.036	1.00
7	19:25	1.00	1.009	1.00	120.00	120.00	1.037	1.037	1.00
8	19:48	1.00	1.028	1.00	120.00	120.00	0.534	0.534	1.00
9	20:36	1.00	1.070	1.00	120.00	120.00	1.299	1.299	1.00
0	1:54	1.00	1.138	1.00	120.00	120.00	1.151	1.151	1.00
1	2:16	1.00	0.887	1.00	120.00	120.00	0.000	0.000	1.00
2	22:23	1.00	0.892	1.00	120.00	120.00	1.279	1.279	1.00
3	23:51	1.00	0.951	1.00	120.00	120.00	0.653	0.653	1.00
4	25:04	1.00	0.999	1.00	120.00	120.00	1.239	1.239	1.00
5	25:09	1.00	1.003	1.00	120.00	120.00	1.007	1.007	1.00

N	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
76	15:11	1.00	1.004	1.00	120.00	120.00	0.940	0.940	1.00
77	25:03	1.00	0.838	1.00	120.00	120.00	0.305	0.305	1.00
78	27:06	1.00	0.906	1.00	120.00	120.00	2.380	2.380	1.00
79	28:22	1.00	0.949	1.00	120.00	120.00	1.842	1.842	1.00
80	28:29	1.00	0.953	1.00	120.00	120.00	1.584	1.584	1.00
81	29:41	1.00	0.993	1.00	120.00	120.00	1.552	1.552	1.00
82	35:57	1.00	1.202	1.00	120.00	120.00	1.151	1.151	1.00
83	36:12	1.00	1.211	1.00	120.00	120.00	1.221	1.221	1.00
84	37:49	1.00	1.265	1.00	120.00	120.00	1.130	1.130	1.00
85	10:17	1.00	1.063	1.00	120.00	120.00	3.010	3.010	1.00
86	10:17	1.00	1.063	1.00	120.00	120.00	3.010	3.010	1.00

ɹ titation Report File: B0921080

ɜt. B0921080.TI
?/21/94 13:25:00
ample: BNA CLP STD 80NG
nds.: 40/4-285 @12/MIN HOLD 17
rmula: Instrument: FINN Weight: 0.000
bmitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

IOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
esp. fac. from Library Entry

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 (IS)
2	CI40 NAPHTHALENE-D8 (IS)
3	CI50 ACENAPHTHALENE-D10 (IS)
4	CI60 PHENANTHRENE-D10 (IS)
5	CI70 CHRYSENE-D12 (IS)
6	CI75 PERYLENE-D12 (IS)
7	CS50 2-FLUOROPHENOL (SURR)
8	CS45 PHENOL-D5 (SURR)
9	CS20 NITROBENZENE-D5 (SURR)
0	CS25 2-FLUOROBIPHENYL (SURR)
1	CS55 2,4,6-TRIBROMOPHENOL (SURR)
2	CS30 TERPHENYL-D14 (SURR)
3	CS70 2-CHLOROPHENOL-D4 (SURR)
4	S75 1,2-DICHLOROBENZENE-D4 (SURR)
5	C322 PYRIDINE
6	C310 N-NITROSODIMETHYLAMINE
7	C315 PHENOL
8	C320 ANALINE
9	C325 BIS(2-CHLOROETHYL)ETHER
0	C330 2-CHLOROPHENOL
1	C335 1,3 DICHLOROBENZENE
2	C340 1,4 DICHLOROBENZENE
3	C350 1,2 DICHLOROBENZENE
4	C355 2-METHYLPHENOL
5	C370 N-NITROSO-DI-N-PROPYLAMINE
6	C365 4-METHYLPHENOL
7	C375 HEXACHLOROETHANE
8	C345 BENZYL ALCOHOL
9	C410 NITROBENZENE
0	C415 ISOPHORONE
1	C420 2-NITROPHENOL
2	C425 2,4-DIMETHYLPHENOL
3	C435 BIS(2-CHLOROETHOXY)METHANE
4	C440 2,4-DICHLOROPHENOL
5	C430 BENZOIC ACID
6	C445 1,2,4-TRICHLOROBENZENE
7	C450 NAPHTHALENE
8	C455 4-CHLOROANALINE
9	C460 HEXACHLOROBUTADIENE
0	C465 4-CHLORO-3-METHYLPHENOL
1	C470 2-METHYLNAPHTHALENE
2	C510 HEXACHLOROCYCLOPENTADIENE
3	C515 2,4,6-TRICHLOROPHENOL
4	C520 2,4,5-TRICHLOROPHENOL
5	C525 2-CHLORONAPHTHALENE
6	C530 2-NITROANALINE

	Name
48	C543 2,6-DINITROTOLUENE
49	C540 ACENAPHTHYLENE
50	C545 3-NITROANALINE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	767	9:41	1	1.000	A BB	85630.	40.000 NG	0.61
2	136	975	12:18	2	1.000	A BB	301522.	40.000 NG	0.61
3	164	1272	16:03	3	1.000	A BB	172834.	40.000 NG	0.61
4	188	1526	19:15	4	1.000	A BV	270202.	40.000 NG	0.61
5	240	1989	25:06	5	1.000	A BB	237928.	40.000 NG	0.61
6	264	2371	29:55	6	1.000	A BB	150114.	40.000 NG	0.61
7	112	570	7:11	1	0.743	A BB	233452.	80.000 NG	1.22
8	99	722	9:07	1	0.941	A BV	305730.	80.000 NG	1.22
9	82	859	10:50	2	0.881	A BB	324977.	80.000 NG	1.22
10	172	1160	14:38	3	0.912	A BB	408576.	80.000 NG	1.22
11	330	1408	17:46	3	1.107	A BB	87032.	80.000 NG	1.22
12	244	1804	22:46	5	0.907	A BB	493920.	80.000 NG	1.22
13	132	734	9:16	1	0.957	A BB	215162.	80.000 NG	1.22
14	152	791	9:59	1	1.031	A BB	158858.	80.000 NG	1.22
15	79	338	4:16	1	0.441	A BB	338598.	80.000 NG	1.22
16	42	334	4:13	1	0.435	A BB	214574.	80.000 NG	1.22
17	94	724	9:08	1	0.944	A VB	334316.	80.000 NG	1.22
18	93	718	9:04	1	0.936	A BB	362096.	80.000 NG	1.22
19	93	730	9:13	1	0.952	A BV	275740.	80.000 NG	1.22
20	128	737	9:18	1	0.961	A BB	228303.	80.000 NG	1.22
21	146	758	9:34	1	0.988	A BV	273925.	80.000 NG	1.22
22	146	770	9:43	1	1.004	A VB	275331.	80.000 NG	1.22
23	146	794	10:01	1	1.035	A BB	260480.	80.000 NG	1.22
24	108	817	10:18	1	1.065	A BB	205648.	80.000 NG	1.22
25	70	839	10:35	1	1.094	A BV	236854.	80.000 NG	1.22
26	108	843	10:38	1	1.099	A BB	219638.	80.000 NG	1.22
27	117	847	10:41	1	1.104	A BB	120564.	80.000 NG	1.22
28	108	796	10:03	2	0.816	A BB	155668.	80.000 NG	1.22
29	77	862	10:53	2	0.884	A BB	338703.	80.000 NG	1.22
30	82	903	11:24	2	0.926	A BV	604386.	80.000 NG	1.22
31	139	914	11:32	2	0.937	A BB	118058.	80.000 NG	1.22
32	122	928	11:42	2	0.952	A BB	180666.	80.000 NG	1.22
33	93	941	11:52	2	0.965	A BV	345658.	80.000 NG	1.22
34	162	957	12:04	2	0.982	A BB	189026.	80.000 NG	1.22
35	122	957	12:04	2	0.982	A BB	125657.	80.000 NG	1.22
36	180	967	12:12	2	0.992	A BB	231542.	80.000 NG	1.22
37	128	979	12:21	2	1.004	A BV	600535.	80.000 NG	1.22
38	127	992	12:31	2	1.017	A VB	251729.	80.000 NG	1.22
39	225	1001	12:38	2	1.027	A BB	147144.	80.000 NG	1.22
40	107	1079	13:37	2	1.107	A BV	211785.	80.000 NG	1.22
41	142	1096	13:50	2	1.124	A VB	408081.	80.000 NG	1.22
42	237	1122	14:09	3	0.882	A BB	159386.	80.000 NG	1.22
43	196	1147	14:28	3	0.902	A BV	139846.	80.000 NG	1.22
44	196	1154	14:34	3	0.907	A VB	149080.	80.000 NG	1.22
45	162	1178	14:52	3	0.926	A BB	402260.	80.000 NG	1.22
46	65	1200	15:08	3	0.943	A BB	183753.	80.000 NG	1.22
47	63	1232	15:33	3	0.969	A BV	438480.	80.000 NG	1.22
48	165	1242	15:40	3	0.976	A BB	100010.	80.000 NG	1.22
49	152	1248	15:45	3	0.981	A BB	564360.	80.000 NG	1.22
50	138	1272	16:03	3	1.000	A BB	77997.	80.000 NG	1.22

\	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	9:41	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:18	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	16:03	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	19:15	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	25:06	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	29:55	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	7:11	1.00	0.743	1.00	80.00	80.00	1.363	1.363	1.00
8	9:07	1.00	0.941	1.00	80.00	80.00	1.785	1.785	1.00
9	10:50	1.00	0.881	1.00	80.00	80.00	0.539	0.539	1.00
.0	14:38	1.00	0.912	1.00	80.00	80.00	1.182	1.182	1.00
.1	17:46	1.00	1.107	1.00	80.00	80.00	0.252	0.252	1.00
.2	22:46	1.00	0.907	1.00	80.00	80.00	1.038	1.038	1.00
.3	9:16	1.00	0.957	1.00	80.00	80.00	1.256	1.256	1.00
.4	9:59	1.00	1.031	1.00	80.00	80.00	0.928	0.928	1.00
.5	4:16	1.00	0.441	1.00	80.00	80.00	1.977	1.977	1.00
6	4:13	1.00	0.435	1.00	80.00	80.00	1.253	1.253	1.00
7	9:08	1.00	0.944	1.00	80.00	80.00	1.952	1.952	1.00
8	9:04	1.00	0.936	1.00	80.00	80.00	2.114	2.114	1.00
9	9:13	1.00	0.952	1.00	80.00	80.00	1.610	1.610	1.00
0	9:18	1.00	0.961	1.00	80.00	80.00	1.333	1.333	1.00
1	9:34	1.00	0.988	1.00	80.00	80.00	1.599	1.599	1.00
2	9:43	1.00	1.004	1.00	80.00	80.00	1.608	1.608	1.00
3	10:01	1.00	1.035	1.00	80.00	80.00	1.521	1.521	1.00
4	10:18	1.00	1.065	1.00	80.00	80.00	1.201	1.201	1.00
5	10:35	1.00	1.094	1.00	80.00	80.00	1.383	1.383	1.00
6	10:38	1.00	1.099	1.00	80.00	80.00	1.282	1.282	1.00
7	10:41	1.00	1.104	1.00	80.00	80.00	0.704	0.704	1.00
8	10:03	1.00	0.816	1.00	80.00	80.00	0.258	0.258	1.00
9	10:53	1.00	0.884	1.00	80.00	80.00	0.562	0.562	1.00
0	11:24	1.00	0.926	1.00	80.00	80.00	1.002	1.002	1.00
1	11:32	1.00	0.937	1.00	80.00	80.00	0.196	0.196	1.00
2	11:42	1.00	0.952	1.00	80.00	80.00	0.300	0.300	1.00
3	11:52	1.00	0.965	1.00	80.00	80.00	0.573	0.573	1.00
4	12:04	1.00	0.982	1.00	80.00	80.00	0.313	0.313	1.00
5	12:04	1.00	0.982	1.00	80.00	80.00	0.208	0.208	1.00
6	12:12	1.00	0.992	1.00	80.00	80.00	0.384	0.384	1.00
7	12:21	1.00	1.004	1.00	80.00	80.00	0.996	0.996	1.00
8	12:31	1.00	1.017	1.00	80.00	80.00	0.417	0.417	1.00
9	12:38	1.00	1.027	1.00	80.00	80.00	0.244	0.244	1.00
0	13:37	1.00	1.107	1.00	80.00	80.00	0.351	0.351	1.00
1	13:50	1.00	1.124	1.00	80.00	80.00	0.677	0.677	1.00
2	14:09	1.00	0.882	1.00	80.00	80.00	0.461	0.461	1.00
3	14:28	1.00	0.902	1.00	80.00	80.00	0.405	0.405	1.00
4	14:34	1.00	0.907	1.00	80.00	80.00	0.431	0.431	1.00
5	14:52	1.00	0.926	1.00	80.00	80.00	1.164	1.164	1.00
6	15:08	1.00	0.943	1.00	80.00	80.00	0.532	0.532	1.00
7	15:33	1.00	0.969	1.00	80.00	80.00	1.268	1.268	1.00
8	15:40	1.00	0.976	1.00	80.00	80.00	0.289	0.289	1.00
9	15:45	1.00	0.981	1.00	80.00	80.00	1.633	1.633	1.00
0	16:03	1.00	1.000	1.00	80.00	80.00	0.226	0.226	1.00

ıantitation Report File: B0921080

ıt B0921080.TI
)/21/94 13:25:00
ımple: BNA CLP STD 80NG
ınds.: 40/4-285 @12/MIN HOLD 17
ırmula: Instrument: FINN Weight: 0.000
ıbmitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

IOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
ısp. fac. from Library Entry

lo	Name
1	C550 ACENAPHTHENE
2	C555 2,4-DINITROPHENOL
3	C570 2,4-DINITROTOLUENE
4	C565 DIBENZOFURAN
5	C580 DIETHYLPHTHALATE
6	C590 FLUORENE
7	C585 4-CHLOROPHENYL-PHENYLETHER
8	C595 4-NITROANALINE
9	C576 AZOBENZENE
0	C610 4,6-DINITRO-2-METHYLPHENOL
1	C615 N-NITROSODIPHENYLAMINE
2	C625 4-BROMOPHENYL-PHENYLETHER
3	C630 HEXACHLOROBENZENE
4	`635 PENTACHLOROPHENOL
5	:640 PHENANTHRENE
6	C645 ANTHRACENE
7	C647 CARBAZOLE
8	C650 DI-N-BUTYLPHTHALATE
9	C655 FLUORANTHENE
0	C710 BENZIDINE
1	C715 PYRENE
2	C720 BUTYLBENZYLPHTHALATE
3	C740 CHRYSENE
4	C730 BENZO(A)ANTHRACENE
5	C745 BIS(2-ETHYLHEXYL)PHTHALATE
6	C725 3,3-DICHLOROBENZIDINE
7	C760 DI-N-OCTYLPHTHALATE
8	C770 BENZO(K)FLUORANTHENE
9	C765 BENZO(B)FLUORANTHENE
0	C775 BENZO(A)PYRENE
	C780 INDENO(1,2,3-CD)PYRENE
2	C785 DIBENZ(A,H)ANTHRACENE
3	C790 BENZO(G,H,I)PERYLENE
	C360 BIS(2-CHLOROISOPROPYL)ETHER
	C357 2,2-OXYBIS(1-CHLOROPROPANE)
	C560 4-NITROPHENOL

m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
153	1278	16:07	3	1.005	A BB	366290.	80.000 NG	1.22
34	1289	16:16	3	1.013	A BB	51910.	80.000 NG	1.22
39	1311	16:32	3	1.031	A BB	138370.	80.000 NG	1.22
168	1308	16:30	3	1.028	A BB	554574.	80.000 NG	1.22
149	1353	17:04	3	1.064	A BB	459026.	80.000 NG	1.22
166	1366	17:14	3	1.074	A BB	415028.	80.000 NG	1.22
204	1368	17:16	3	1.075	A BB	221638.	80.000 NG	1.22

	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
8	38	1377	17:22	3	1.083	A BV	40634.	80.000 NG	1.22
9	77	1396	17:37	3	1.097	A VB	605833.	80.000 NG	1.22
0	198	1380	17:25	4	0.904	A BB	70994.	80.000 NG	1.22
1	169	1390	17:32	4	0.911	A BB	266390.	80.000 NG	1.22
2	248	1451	18:18	4	0.951	A BB	155682.	80.000 NG	1.22
3	284	1460	18:25	4	0.957	A BB	184768.	80.000 NG	1.22
4	266	1497	18:53	4	0.981	A BB	100849.	80.000 NG	1.22
5	178	1531	19:19	4	1.003	A BV	580792.	80.000 NG	1.22
6	178	1540	19:26	4	1.009	A VB	579454.	80.000 NG	1.22
7	167	1570	19:48	4	1.029	A BB	284628.	80.000 NG	1.22
8	149	1633	20:36	4	1.070	A BB	742654.	80.000 NG	1.22
9	202	1736	21:54	4	1.138	A BB	649731.	80.000 NG	1.22
0	NOT	FOUND							
1	202	1775	22:24	5	0.892	A BB	646986.	80.000 NG	1.22
2	149	1891	23:51	5	0.951	A BB	298020.	80.000 NG	1.22
3	228	1987	25:04	5	0.999	A BV	602633.	80.000 NG	1.22
4	228	1995	25:10	5	1.003	A VB	489991.	80.000 NG	1.22
5	149	1997	25:12	5	1.004	A BB	429846.	80.000 NG	1.22
6	252	1986	25:03	6	0.838	A BB	75779.	80.000 NG	1.22
7	149	2148	27:06	6	0.906	A BB	641966.	80.000 NG	1.22
8	252	2249	28:22	6	0.949	A BV	516446.	80.000 NG	1.22
9	252	2257	28:29	6	0.952	A VB	459450.	80.000 NG	1.22
0	252	2353	29:41	6	0.992	A BB	437008.	80.000 NG	1.22
1	276	2848	35:56	6	1.201	A BB	324252.	80.000 NG	1.22
2	78	2866	36:10	6	1.209	A BB	334932.	80.000 NG	1.22
3	276	2995	37:47	6	1.263	A BB	323120.	80.000 NG	1.22
4	45	816	10:18	1	1.064	A BB	521774.	80.000 NG	1.22
5	45	816	10:18	1	1.064	A BB	521774.	80.000 NG	1.22
6	109	1309	16:31	3	1.029	A BB	51217.	80.000 NG	1.22

	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	16:07	1.00	1.005	1.00	80.00	80.00	1.060	1.060	1.00
2	16:16	1.00	1.013	1.00	80.00	80.00	0.150	0.150	1.00
3	16:32	1.00	1.031	1.00	80.00	80.00	0.400	0.400	1.00
4	16:30	1.00	1.028	1.00	80.00	80.00	1.604	1.604	1.00
5	17:04	1.00	1.064	1.00	80.00	80.00	1.328	1.328	1.00
6	17:14	1.00	1.074	1.00	80.00	80.00	1.201	1.201	1.00
7	17:16	1.00	1.075	1.00	80.00	80.00	0.641	0.641	1.00
8	17:22	1.00	1.083	1.00	80.00	80.00	0.118	0.118	1.00
9	17:37	1.00	1.097	1.00	80.00	80.00	1.753	1.753	1.00
0	17:25	1.00	0.904	1.00	80.00	80.00	0.131	0.131	1.00
	17:32	1.00	0.911	1.00	80.00	80.00	0.493	0.493	1.00
2	18:18	1.00	0.951	1.00	80.00	80.00	0.288	0.288	1.00
3	18:25	1.00	0.957	1.00	80.00	80.00	0.342	0.342	1.00
4	18:53	1.00	0.981	1.00	80.00	80.00	0.187	0.187	1.00
5	19:19	1.00	1.003	1.00	80.00	80.00	1.075	1.075	1.00
6	19:26	1.00	1.009	1.00	80.00	80.00	1.072	1.072	1.00
7	19:48	1.00	1.029	1.00	80.00	80.00	0.527	0.527	1.00
8	20:36	1.00	1.070	1.00	80.00	80.00	1.374	1.374	1.00
9	21:54	1.00	1.138	1.00	80.00	80.00	1.202	1.202	1.00
	2:16		0.887						
	2:24	1.00	0.892	1.00	80.00	80.00	1.360	1.360	1.00
	23:51	1.00	0.951	1.00	80.00	80.00	0.626	0.626	1.00
	25:04	1.00	0.999	1.00	80.00	80.00	1.266	1.266	1.00
	25:10	1.00	1.003	1.00	80.00	80.00	1.030	1.030	1.00
	25:12	1.00	1.004	1.00	80.00	80.00	0.903	0.903	1.00

	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
6	5:03	1.00	0.838	1.00	80.00	80.00	0.252	0.252	1.00
7	27:06	1.00	0.906	1.00	80.00	80.00	2.138	2.138	1.00
8	28:22	1.00	0.949	1.00	80.00	80.00	1.720	1.720	1.00
9	28:29	1.00	0.952	1.00	80.00	80.00	1.530	1.530	1.00
0	29:41	1.00	0.992	1.00	80.00	80.00	1.456	1.456	1.00
1	35:56	1.00	1.201	1.00	80.00	80.00	1.080	1.080	1.00
2	36:10	1.00	1.209	1.00	80.00	80.00	1.116	1.116	1.00
3	37:47	1.00	1.263	1.00	80.00	80.00	1.076	1.076	1.00
4	10:18	1.00	1.064	1.00	80.00	80.00	3.047	3.047	1.00
5	10:18	1.00	1.064	1.00	80.00	80.00	3.047	3.047	1.00
6	16:31	1.00	1.029	1.00	80.00	80.00	0.148	0.148	1.00

ıntitation Report File: BCLX0921

ıt BCLX0921.TI
/21/94 10:11:00
ımple: BNA CLP STD @50NG
ınds.: 40(4)-285@12/MIN HOLD 17MIN
ırmula: Instrument: FINN Weight: 0.000
ıbmitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

IOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
ısp. fac. from Library Entry

lo	Name
1	CI30 1,4-DICHLOROBENZENE-D4 (IS)
2	CI40 NAPHTHALENE-D8 (IS)
3	CI50 ACENAPHTHALENE-D10 (IS)
4	CI60 PHENANTHRENE-D10 (IS)
5	CI70 CHRYSENE-D12 (IS)
6	CI75 PERYLENE-D12 (IS)
7	CS50 2-FLUOROPHENOL (SURR)
8	CS45 PHENOL-D5 (SURR)
9	CS20 NITROBENZENE-D5 (SURR)
0	CS25 2-FLUOROBIPHENYL (SURR)
1	CS55 2,4,6-TRIBROMOPHENOL (SURR)
2	CS30 TERPHENYL-D14 (SURR)
3	CS70 2-CHLOROPHENOL-D4 (SURR)
4	CS75 1,2-DICHLOROBENZENE-D4 (SURR)
	C322 PYRIDINE
6	C310 N-NITROSODIMETHYLAMINE
7	C315 PHENOL
8	C320 ANALINE
9	C325 BIS(2-CHLOROETHYL)ETHER
0	C330 2-CHLOROPHENOL
1	C335 1,3 DICHLOROBENZENE
2	C340 1,4 DICHLOROBENZENE
3	C350 1,2 DICHLOROBENZENE
4	C355 2-METHYLPHENOL
5	C370 N-NITROSO-DI-N-PROPYLAMINE
6	C365 4-METHYLPHENOL
7	C375 HEXACHLOROETHANE
8	C345 BENZYL ALCOHOL
9	C410 NITROBENZENE
0	C415 ISOPHORONE
1	C420 2-NITROPHENOL
2	C425 2,4-DIMETHYLPHENOL
3	C435 BIS(2-CHLOROETHOXY)METHANE
4	C440 2,4-DICHLOROPHENOL
5	C430 BENZOIC ACID
6	C445 1,2,4-TRICHLOROBENZENE
7	C450 NAPHTHALENE
8	C455 4-CHLOROANALINE
9	C460 HEXACHLOROBUTADIENE
	C465 4-CHLORO-3-METHYLPHENOL
1	C470 2-METHYLNAPHTHALENE
2	C510 HEXACHLOROCYCLOPENTADIENE
3	C515 2,4,6-TRICHLOROPHENOL
4	C520 2,4,5-TRICHLOROPHENOL
5	C525 2-CHLORONAPHTHALENE
6	C530 2-NITROANALINE

	Name
48	C543 2,6-DINITROTOLUENE
49	C540 ACENAPHTHYLENE
50	C545 3-NITROANALINE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	768	9:41	1	1.000	A BB	80406.	40.000 NG	0.95
2	136	976	12:19	2	1.000	A BB	268812.	40.000 NG	0.95
3	164	1274	16:04	3	1.000	A BB	148572.	40.000 NG	0.95
4	188	1529	19:17	4	1.000	A BV	233238.	40.000 NG	0.95
5	240	1993	25:09	5	1.000	A BB	217582.	40.000 NG	0.95
6	264	2380	30:02	6	1.000	A BB	148579.	40.000 NG	0.95
7	112	570	7:11	1	0.742	A BB	146250.	50.000 NG	1.19
8	99	722	9:07	1	0.940	A BV	191052.	50.000 NG	1.19
9	82	859	10:50	2	0.880	A BB	197304.	50.000 NG	1.19
0	172	1162	14:40	3	0.912	A BB	251888.	50.000 NG	1.19
1	330	1410	17:47	3	1.107	A BB	47612.	50.000 NG	1.19
2	244	1807	22:48	5	0.907	A BB	295984.	50.000 NG	1.19
3	132	735	9:16	1	0.957	A BB	134306.	50.000 NG	1.19
4	152	792	10:00	1	1.031	A BB	97378.	50.000 NG	1.19
5	79	336	4:14	1	0.437	A BB	226749.	50.000 NG	1.19
6	42	332	4:11	1	0.432	A BB	130640.	50.000 NG	1.19
7	94	725	9:09	1	0.944	A VB	211276.	50.000 NG	1.19
8	93	718	9:04	1	0.935	A BB	197580.	50.000 NG	1.19
9	93	731	9:13	1	0.952	A BV	169946.	50.000 NG	1.19
0	128	737	9:18	1	0.960	A BB	142996.	50.000 NG	1.19
.	146	758	9:34	1	0.987	A BV	170481.	50.000 NG	1.19
2	146	771	9:44	1	1.004	A VB	173199.	50.000 NG	1.19
3	146	795	10:02	1	1.035	A BB	163977.	50.000 NG	1.19
4	108	818	10:19	1	1.065	A BB	124614.	50.000 NG	1.19
5	70	839	10:35	1	1.092	A BV	139278.	50.000 NG	1.19
6	108	844	10:39	1	1.099	A BB	132613.	50.000 NG	1.19
7	117	849	10:43	1	1.105	A BB	72938.	50.000 NG	1.19
8	108	796	10:03	2	0.816	A BB	93538.	50.000 NG	1.19
9	77	862	10:53	2	0.883	A BB	208264.	50.000 NG	1.19
0	82	903	11:24	2	0.925	A BV	356342.	50.000 NG	1.19
1	139	915	11:33	2	0.937	A BB	69980.	50.000 NG	1.19
2	122	929	11:43	2	0.952	A BB	106328.	50.000 NG	1.19
3	93	942	11:53	2	0.965	A BB	200942.	50.000 NG	1.19
4	162	958	12:05	2	0.982	A BB	109161.	50.000 NG	1.19
5	122	954	12:02	2	0.977	A BB	61423.	50.000 NG	1.19
6	180	968	12:13	2	0.992	A BB	137412.	50.000 NG	1.19
7	128	980	12:22	2	1.004	A BV	363729.	50.000 NG	1.19
8	127	993	12:32	2	1.017	A BB	131568.	50.000 NG	1.19
9	225	1002	12:39	2	1.027	A BB	88498.	50.000 NG	1.19
0	107	1081	13:38	2	1.108	A BB	115086.	50.000 NG	1.19
1	142	1097	13:50	2	1.124	A BB	244176.	50.000 NG	1.19
2	237	1124	14:11	3	0.882	A BB	84784.	50.000 NG	1.19
3	196	1148	14:29	3	0.901	A BV	79227.	50.000 NG	1.19
4	196	1156	14:35	3	0.907	A VB	83448.	50.000 NG	1.19
5	162	1180	14:53	3	0.926	A BB	235514.	50.000 NG	1.19
	65	1201	15:09	3	0.943	A BB	97062.	50.000 NG	1.19
	63	1234	15:34	3	0.969	A BB	250836.	50.000 NG	1.19
3	165	1243	15:41	3	0.976	A BB	55972.	50.000 NG	1.19
	152	1250	15:46	3	0.981	A BB	333388.	50.000 NG	1.19
	138	1273	16:04	3	0.999	A BB	42250.	50.000 NG	1.19

\	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:41	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:19	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	16:04	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	19:17	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	25:09	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	30:02	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	7:11	1.00	0.742	1.00	50.00	50.00	1.455	1.455	1.00
8	9:07	1.00	0.940	1.00	50.00	50.00	1.901	1.901	1.00
9	10:50	1.00	0.880	1.00	50.00	50.00	0.587	0.587	1.00
.0	14:40	1.00	0.912	1.00	50.00	50.00	1.356	1.356	1.00
.1	17:47	1.00	1.107	1.00	50.00	50.00	0.256	0.256	1.00
.2	22:48	1.00	0.907	1.00	50.00	50.00	1.088	1.088	1.00
.3	9:16	1.00	0.957	1.00	50.00	50.00	1.336	1.336	1.00
.4	10:00	1.00	1.031	1.00	50.00	50.00	0.969	0.969	1.00
5	4:14	1.00	0.437	1.00	50.00	50.00	2.256	2.256	1.00
6	4:11	1.00	0.432	1.00	50.00	50.00	1.300	1.300	1.00
7	9:09	1.00	0.944	1.00	50.00	50.00	2.102	2.102	1.00
8	9:04	1.00	0.935	1.00	50.00	50.00	1.966	1.966	1.00
9	9:13	1.00	0.952	1.00	50.00	50.00	1.691	1.691	1.00
0	9:18	1.00	0.960	1.00	50.00	50.00	1.423	1.423	1.00
1	9:34	1.00	0.987	1.00	50.00	50.00	1.696	1.696	1.00
2	9:44	1.00	1.004	1.00	50.00	50.00	1.723	1.723	1.00
3	10:02	1.00	1.035	1.00	50.00	50.00	1.631	1.631	1.00
4	10:19	1.00	1.065	1.00	50.00	50.00	1.240	1.240	1.00
5	10:35	1.00	1.092	1.00	50.00	50.00	1.386	1.386	1.00
6	10:39	1.00	1.099	1.00	50.00	50.00	1.319	1.319	1.00
7	10:43	1.00	1.105	1.00	50.00	50.00	0.726	0.726	1.00
8	10:03	1.00	0.816	1.00	50.00	50.00	0.278	0.278	1.00
9	10:53	1.00	0.883	1.00	50.00	50.00	0.620	0.620	1.00
0	11:24	1.00	0.925	1.00	50.00	50.00	1.060	1.060	1.00
1	11:33	1.00	0.937	1.00	50.00	50.00	0.208	0.208	1.00
2	11:43	1.00	0.952	1.00	50.00	50.00	0.316	0.316	1.00
3	11:53	1.00	0.965	1.00	50.00	50.00	0.598	0.598	1.00
4	12:05	1.00	0.982	1.00	50.00	50.00	0.325	0.325	1.00
5	12:02	1.00	0.977	1.00	50.00	50.00	0.183	0.183	1.00
6	12:13	1.00	0.992	1.00	50.00	50.00	0.409	0.409	1.00
7	12:22	1.00	1.004	1.00	50.00	50.00	1.082	1.082	1.00
8	12:32	1.00	1.017	1.00	50.00	50.00	0.392	0.392	1.00
9	12:39	1.00	1.027	1.00	50.00	50.00	0.263	0.263	1.00
0	13:38	1.00	1.108	1.00	50.00	50.00	0.343	0.343	1.00
1	13:50	1.00	1.124	1.00	50.00	50.00	0.727	0.727	1.00
2	14:11	1.00	0.882	1.00	50.00	50.00	0.457	0.457	1.00
3	14:29	1.00	0.901	1.00	50.00	50.00	0.427	0.427	1.00
4	14:35	1.00	0.907	1.00	50.00	50.00	0.449	0.449	1.00
5	14:53	1.00	0.926	1.00	50.00	50.00	1.268	1.268	1.00
6	15:09	1.00	0.943	1.00	50.00	50.00	0.523	0.523	1.00
7	15:34	1.00	0.969	1.00	50.00	50.00	1.351	1.351	1.00
8	15:41	1.00	0.976	1.00	50.00	50.00	0.301	0.301	1.00
9	15:46	1.00	0.981	1.00	50.00	50.00	1.795	1.795	1.00
0	16:04	1.00	0.999	1.00	50.00	50.00	0.227	0.227	1.00

uantitation Report File: BCLX0921

Da BCLX0921.TI
09/2.1/94 10:11:00
Sample: BNA CLP STD @50NG
Conds.: 40(4)-285@12/MIN HOLD 17MIN
Formula: Instrument: FINN Weight: 0.000
Submitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
resp. fac. from Library Entry

No	Name
51	C550 ACENAPHTHENE
52	C555 2,4-DINITROPHENOL
53	C560 4-NITROPHENOL
54	C570 2,4-DINITROTOLUENE
55	C565 DIBENZOFURAN
56	C580 DIETHYLPHTHALATE
57	C590 FLUORENE
58	C585 4-CHLOROPHENYL-PHENYLETHER
59	C595 4-NITROANALINE
60	C576 AZOBENZENE
61	C610 4,6-DINITRO-2-METHYLPHENOL
62	C615 N-NITROSODIPHENYLAMINE
63	C625 4-BROMOPHENYL-PHENYLETHER
64	C630 HEXACHLOROBENZENE
65	C635 PENTACHLOROPHENOL
66	C640 PHENANTHRENE
67	C645 ANTHRACENE
68	C647 CARBAZOLE
69	C650 DI-N-BUTYLPHTHALATE
70	C655 FLUORANTHENE
71	C710 BENZIDINE
72	C715 PYRENE
73	C720 BUTYLBENZYLPHTHALATE
74	C740 CHRYSENE
75	C730 BENZO(A)ANTHRACENE
76	C745 BIS(2-ETHYLHEXYL)PHTHALATE
77	C725 3,3-DICHLOROBENZIDINE
78	C760 DI-N-OCTYLPHTHALATE
79	C770 BENZO(K)FLUORANTHENE
80	C765 BENZO(B)FLUORANTHENE
81	C775 BENZO(A)PYRENE
82	C780 INDENO(1,2,3-CD)PYRENE
83	C785 DIBENZ(A,H)ANTHRACENE
84	C790 BENZO(G,H,I)PERYLENE
85	C360 BIS(2-CHLOROISOPROPYL)ETHER
86	C357 2,2-OXYBIS(1-CHLOROPROPANE)

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	153	1280	16:09	3	1.005	A BB	216194.	50.000 NG	1.19
2	94	1290	16:17	3	1.013	A BB	23530.	50.000 NG	1.19
3	09	1312	16:33	3	1.030	A BB	24856.	50.000 NG	1.19
4	89	1312	16:33	3	1.030	A BB	76240.	50.000 NG	1.19
5	168	1310	16:32	3	1.028	A BB	314508.	50.000 NG	1.19
6	149	1355	17:06	3	1.064	A BB	255334.	50.000 NG	1.19
7	166	1368	17:16	3	1.074	A BB	237148.	50.000 NG	1.19

P	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
58	204	1370	17:17	3	1.075	A BB	128836.	50.000 NG	1.19
59	138	1378	17:23	3	1.082	A BV	21070.	50.000 NG	1.19
60	77	1398	17:38	3	1.097	A VB	328051.	50.000 NG	1.19
61	198	1382	17:26	4	0.904	A BB	36936.	50.000 NG	1.19
62	169	1392	17:34	4	0.910	A BB	151690.	50.000 NG	1.19
63	248	1454	18:21	4	0.951	A BB	85194.	50.000 NG	1.19
64	284	1463	18:27	4	0.957	A BB	100750.	50.000 NG	1.19
65	266	1499	18:55	4	0.980	A BB	51774.	50.000 NG	1.19
66	178	1533	19:20	4	1.003	A BV	332990.	50.000 NG	1.19
67	178	1542	19:27	4	1.009	A VB	329869.	50.000 NG	1.19
68	167	1573	19:51	4	1.029	A BB	176088.	50.000 NG	1.19
69	149	1636	20:38	4	1.070	A BB	408556.	50.000 NG	1.19
70	202	1739	21:56	4	1.137	A BB	381528.	50.000 NG	1.19
71	NOT	FOUND							
72	202	1778	22:26	5	0.892	A BB	381597.	50.000 NG	1.19
73	149	1894	23:54	5	0.950	A BB	161976.	50.000 NG	1.19
74	228	1991	25:07	5	0.999	A BV	341738.	50.000 NG	1.19
75	228	1998	25:12	5	1.003	A VB	284861.	50.000 NG	1.19
76	149	2001	25:15	5	1.004	A BB	231570.	50.000 NG	1.19
77	252	1989	25:06	6	0.836	A BB	42650.	50.000 NG	1.19
78	149	2154	27:11	6	0.905	A BB	356410.	50.000 NG	1.19
79	252	2255	28:27	6	0.947	A BV	302266.	50.000 NG	1.19
80	252	2263	28:33	6	0.951	A VB	273812.	50.000 NG	1.19
81	252	2359	29:46	6	0.991	A BB	257909.	50.000 NG	1.19
82	276	2861	36:06	6	1.202	A BB	212985.	50.000 NG	1.19
83	278	2880	36:20	6	1.210	A BB	206352.	50.000 NG	1.19
84	276	3011	37:59	6	1.265	A BB	204250.	50.000 NG	1.19
85	45	817	10:18	1	1.064	A BB	311148.	50.000 NG	1.19
86	45	817	10:18	1	1.064	A BB	311148.	50.000 NG	1.19

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	16:09	1.00	1.005	1.00	50.00	50.00	1.164	1.164	1.00
52	16:17	1.00	1.013	1.00	50.00	50.00	0.127	0.127	1.00
53	16:33	1.00	1.030	1.00	50.00	50.00	0.134	0.134	1.00
54	16:33	1.00	1.030	1.00	50.00	50.00	0.411	0.411	1.00
55	16:32	1.00	1.028	1.00	50.00	50.00	1.693	1.693	1.00
56	17:06	1.00	1.064	1.00	50.00	50.00	1.375	1.375	1.00
57	17:16	1.00	1.074	1.00	50.00	50.00	1.277	1.277	1.00
58	17:17	1.00	1.075	1.00	50.00	50.00	0.694	0.694	1.00
59	17:23	1.00	1.082	1.00	50.00	50.00	0.113	0.113	1.00
60	17:38	1.00	1.097	1.00	50.00	50.00	1.766	1.766	1.00
61	17:26	1.00	0.904	1.00	50.00	50.00	0.127	0.127	1.00
62	17:34	1.00	0.910	1.00	50.00	50.00	0.520	0.520	1.00
63	18:21	1.00	0.951	1.00	50.00	50.00	0.292	0.292	1.00
64	18:27	1.00	0.957	1.00	50.00	50.00	0.346	0.346	1.00
65	18:55	1.00	0.980	1.00	50.00	50.00	0.178	0.178	1.00
66	19:20	1.00	1.003	1.00	50.00	50.00	1.142	1.142	1.00
67	19:27	1.00	1.009	1.00	50.00	50.00	1.131	1.131	1.00
68	19:51	1.00	1.029	1.00	50.00	50.00	0.604	0.604	1.00
69	20:38	1.00	1.070	1.00	50.00	50.00	1.401	1.401	1.00
70	21:56	1.00	1.137	1.00	50.00	50.00	1.309	1.309	1.00
71	2:17		0.888						
72	22:26	1.00	0.892	1.00	50.00	50.00	1.403	1.403	1.00
73	23:54	1.00	0.950	1.00	50.00	50.00	0.596	0.596	1.00
74	25:07	1.00	0.999	1.00	50.00	50.00	1.256	1.256	1.00
75	25:12	1.00	1.003	1.00	50.00	50.00	1.047	1.047	1.00

N	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
7	25:15	1.00	1.004	1.00	50.00	50.00	0.851	0.851	1.00
77	25:06	1.00	0.836	1.00	50.00	50.00	0.230	0.230	1.00
78	27:11	1.00	0.905	1.00	50.00	50.00	1.919	1.919	1.00
79	28:27	1.00	0.947	1.00	50.00	50.00	1.627	1.627	1.00
80	28:33	1.00	0.951	1.00	50.00	50.00	1.474	1.474	1.00
81	29:46	1.00	0.991	1.00	50.00	50.00	1.389	1.389	1.00
82	36:06	1.00	1.202	1.00	50.00	50.00	1.147	1.147	1.00
83	36:20	1.00	1.210	1.00	50.00	50.00	1.111	1.111	1.00
84	37:59	1.00	1.265	1.00	50.00	50.00	1.100	1.100	1.00
85	10:18	1.00	1.064	1.00	50.00	50.00	3.096	3.096	1.00
86	10:18	1.00	1.064	1.00	50.00	50.00	3.096	3.096	1.00

Quantitation Report File: B0921020

Da. B0921020.TI
09/..../94 14:23:00
Sample: BNA CLP STD 20NG
Conds.: 40/4-285 @12/MIN HOLD 17
Formula: Instrument: FINN Weight: 0.000
Submitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 (IS)
2	CI40 NAPHTHALENE-D8 (IS)
3	CI50 ACENAPHTHALENE-D10 (IS)
4	CI60 PHENANTHRENE-D10 (IS)
5	CI70 CHRYSENE-D12 (IS)
6	CI75 PERYLENE-D12 (IS)
7	CS50 2-FLUOROPHENOL (SURR)
8	CS45 PHENOL-D5 (SURR)
9	CS20 NITROBENZENE-D5 (SURR)
10	CS25 2-FLUOROBIPHENYL (SURR)
11	CS55 2,4,6-TRIBROMOPHENOL (SURR)
12	CS30 TERPHENYL-D14 (SURR)
13	CS70 2-CHLOROPHENOL-D4 (SURR)
14	CS75 1,2-DICHLOROBENZENE-D4 (SURR)
15	C322 PYRIDINE
16	C310 N-NITROSODIMETHYLAMINE
17	C315 PHENOL
18	C320 ANALINE
19	C325 BIS(2-CHLOROETHYL)ETHER
20	C330 2-CHLOROPHENOL
21	C335 1,3 DICHLOROBENZENE
22	C340 1,4 DICHLOROBENZENE
23	C350 1,2 DICHLOROBENZENE
24	C355 2-METHYLPHENOL
25	C370 N-NITROSO-DI-N-PROPYLAMINE
26	C365 4-METHYLPHENOL
27	C375 HEXACHLOROETHANE
28	C345 BENZYL ALCOHOL
29	C410 NITROBENZENE
30	C415 ISOPHORONE
31	C420 2-NITROPHENOL
32	C425 2,4-DIMETHYLPHENOL
33	C435 BIS(2-CHLOROETHOXY)METHANE
34	C440 2,4-DICHLOROPHENOL
35	C430 BENZOIC ACID
36	C445 1,2,4-TRICHLOROBENZENE
37	C450 NAPHTHALENE
38	C455 4-CHLOROANALINE
39	C460 HEXACHLOROBUTADIENE
40	C465 4-CHLORO-3-METHYLPHENOL
41	C470 2-METHYLNAPHTHALENE
42	C510 HEXACHLOROCYCLOPENTADIENE
43	C515 2,4,6-TRICHLOROPHENOL
44	C520 2,4,5-TRICHLOROPHENOL
45	C525 2-CHLORONAPHTHALENE
46	C530 2-NITROANALINE
47	C535 DIMETHYLPHTHALATE

N	Name
48	C543 2,6-DINITROTOLUENE
49	C540 ACENAPHTHYLENE
50	C545 3-NITROANALINE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	767	9:41	1	1.000	A BB	85536.	40.000 NG	2.17
2	136	975	12:18	2	1.000	A BB	300514.	40.000 NG	2.17
3	164	1272	16:03	3	1.000	A BB	168860.	40.000 NG	2.17
4	188	1526	19:15	4	1.000	A BV	256476.	40.000 NG	2.17
5	240	1989	25:06	5	1.000	A BB	218539.	40.000 NG	2.17
6	264	2371	29:55	6	1.000	A BB	153875.	40.000 NG	2.17
7	112	569	7:11	1	0.742	A BB	54694.	20.000 NG	1.09
8	99	721	9:06	1	0.940	A BV	73554.	20.000 NG	1.09
9	82	857	10:49	2	0.879	A BB	79990.	20.000 NG	1.09
10	172	1159	14:37	3	0.911	A BB	106774.	20.000 NG	1.09
11	330	1407	17:45	3	1.106	A BB	18024.	20.000 NG	1.09
12	244	1804	22:46	5	0.907	A BB	114148.	20.000 NG	1.09
13	132	733	9:15	1	0.956	A BB	53686.	20.000 NG	1.09
14	152	791	9:59	1	1.031	A BB	38572.	20.000 NG	1.09
15	79	336	4:14	1	0.438	A BV	93800.	20.000 NG	1.09
16	42	332	4:11	1	0.433	A BB	51348.	20.000 NG	1.09
17	94	723	9:07	1	0.943	A VV	76007.	20.000 NG	1.09
18	93	717	9:03	1	0.935	A BB	98560.	20.000 NG	1.09
19	93	729	9:12	1	0.950	A BV	69987.	20.000 NG	1.09
20	128	736	9:17	1	0.960	A BB	56396.	20.000 NG	1.09
21	146	757	9:33	1	0.987	A BB	68368.	20.000 NG	1.09
22	146	770	9:43	1	1.004	A VB	68926.	20.000 NG	1.09
23	146	793	10:00	1	1.034	A BB	65332.	20.000 NG	1.09
24	108	817	10:18	1	1.065	A BB	50356.	20.000 NG	1.09
25	70	836	10:33	1	1.090	A BB	57796.	20.000 NG	1.09
26	108	842	10:37	1	1.098	A BB	51391.	20.000 NG	1.09
27	117	847	10:41	1	1.104	A BB	29118.	20.000 NG	1.09
28	108	794	10:01	2	0.814	A BB	35975.	20.000 NG	1.09
29	77	860	10:51	2	0.882	A BB	85434.	20.000 NG	1.09
30	82	901	11:22	2	0.924	A BV	148994.	20.000 NG	1.09
31	139	913	11:31	2	0.936	A BB	26384.	20.000 NG	1.09
32	122	927	11:42	2	0.951	A BB	36944.	20.000 NG	1.09
33	93	940	11:52	2	0.964	A BB	79868.	20.000 NG	1.09
34	162	956	12:04	2	0.981	A BB	42250.	20.000 NG	1.09
35	122	948	11:58	2	0.972	A BB	21380.	20.000 NG	1.09
36	180	966	12:11	2	0.991	A BB	56070.	20.000 NG	1.09
37	128	978	12:20	2	1.003	A BV	151107.	20.000 NG	1.09
38	127	991	12:30	2	1.016	A VB	47957.	20.000 NG	1.09
39	225	1001	12:38	2	1.027	A BB	36074.	20.000 NG	1.09
40	107	1079	13:37	2	1.107	A BB	44428.	20.000 NG	1.09
41	142	1095	13:49	2	1.123	A VB	101768.	20.000 NG	1.09
42	237	1122	14:09	3	0.882	A BB	35378.	20.000 NG	1.09
43	196	1146	14:28	3	0.901	A BV	31442.	20.000 NG	1.09
44	196	1155	14:34	3	0.908	A VB	33100.	20.000 NG	1.09
45	162	1177	14:51	3	0.925	A BB	99176.	20.000 NG	1.09
46	65	1198	15:07	3	0.942	A BB	38108.	20.000 NG	1.09
47	63	1231	15:32	3	0.968	A BB	102476.	20.000 NG	1.09
48	165	1240	15:39	3	0.975	A BB	21602.	20.000 NG	1.09
49	152	1247	15:44	3	0.980	A BB	142810.	20.000 NG	1.09
50	138	1270	16:01	3	0.998	A BB	18022.	20.000 NG	1.09

N	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
	9:41	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:18	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	16:03	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	19:15	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	25:06	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	29:55	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	7:11	1.00	0.742	1.00	20.00	20.00	1.279	1.279	1.00
8	9:06	1.00	0.940	1.00	20.00	20.00	1.720	1.720	1.00
9	10:49	1.00	0.879	1.00	20.00	20.00	0.532	0.532	1.00
10	14:37	1.00	0.911	1.00	20.00	20.00	1.265	1.265	1.00
11	17:45	1.00	1.106	1.00	20.00	20.00	0.213	0.213	1.00
12	22:46	1.00	0.907	1.00	20.00	20.00	1.045	1.045	1.00
13	9:15	1.00	0.956	1.00	20.00	20.00	1.255	1.255	1.00
14	9:59	1.00	1.031	1.00	20.00	20.00	0.902	0.902	1.00
15	4:14	1.00	0.438	1.00	20.00	20.00	2.193	2.193	1.00
16	4:11	1.00	0.433	1.00	20.00	20.00	1.201	1.201	1.00
17	9:07	1.00	0.943	1.00	20.00	20.00	1.777	1.777	1.00
18	9:03	1.00	0.935	1.00	20.00	20.00	2.305	2.305	1.00
19	9:12	1.00	0.950	1.00	20.00	20.00	1.636	1.636	1.00
20	9:17	1.00	0.960	1.00	20.00	20.00	1.319	1.319	1.00
21	9:33	1.00	0.987	1.00	20.00	20.00	1.599	1.599	1.00
22	9:43	1.00	1.004	1.00	20.00	20.00	1.612	1.612	1.00
23	10:00	1.00	1.034	1.00	20.00	20.00	1.528	1.528	1.00
24	10:18	1.00	1.065	1.00	20.00	20.00	1.177	1.177	1.00
25	10:33	1.00	1.090	1.00	20.00	20.00	1.351	1.351	1.00
26	10:37	1.00	1.098	1.00	20.00	20.00	1.202	1.202	1.00
27	10:41	1.00	1.104	1.00	20.00	20.00	0.681	0.681	1.00
28	10:01	1.00	0.814	1.00	20.00	20.00	0.239	0.239	1.00
29	10:51	1.00	0.882	1.00	20.00	20.00	0.569	0.569	1.00
30	11:22	1.00	0.924	1.00	20.00	20.00	0.992	0.992	1.00
31	11:31	1.00	0.936	1.00	20.00	20.00	0.176	0.176	1.00
32	11:42	1.00	0.951	1.00	20.00	20.00	0.246	0.246	1.00
33	11:52	1.00	0.964	1.00	20.00	20.00	0.532	0.532	1.00
34	12:04	1.00	0.981	1.00	20.00	20.00	0.281	0.281	1.00
35	11:58	1.00	0.972	1.00	20.00	20.00	0.142	0.142	1.00
36	12:11	1.00	0.991	1.00	20.00	20.00	0.373	0.373	1.00
37	12:20	1.00	1.003	1.00	20.00	20.00	1.006	1.006	1.00
38	12:30	1.00	1.016	1.00	20.00	20.00	0.319	0.319	1.00
39	12:38	1.00	1.027	1.00	20.00	20.00	0.240	0.240	1.00
40	13:37	1.00	1.107	1.00	20.00	20.00	0.296	0.296	1.00
41	13:49	1.00	1.123	1.00	20.00	20.00	0.677	0.677	1.00
42	14:09	1.00	0.882	1.00	20.00	20.00	0.419	0.419	1.00
43	14:28	1.00	0.901	1.00	20.00	20.00	0.372	0.372	1.00
44	14:34	1.00	0.908	1.00	20.00	20.00	0.392	0.392	1.00
45	14:51	1.00	0.925	1.00	20.00	20.00	1.175	1.175	1.00
46	15:07	1.00	0.942	1.00	20.00	20.00	0.451	0.451	1.00
47	15:32	1.00	0.968	1.00	20.00	20.00	1.214	1.214	1.00
48	15:39	1.00	0.975	1.00	20.00	20.00	0.256	0.256	1.00
49	15:44	1.00	0.980	1.00	20.00	20.00	1.691	1.691	1.00
50	16:01	1.00	0.998	1.00	20.00	20.00	0.213	0.213	1.00

Quantitation Report File: B0921020

Da B0921020.TI
09/__/94 14:23:00
Sample: BNA CLP STD 20NG
Conds.: 40/4-285 @12/MIN HOLD 17
Formula: Instrument: FINN Weight: 0.000
Submitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
resp. fac. from Library Entry

No	Name
51	C550 ACENAPHTHENE
52	C555 2,4-DINITROPHENOL
53	C570 2,4-DINITROTOLUENE
54	C565 DIBENZOFURAN
55	C580 DIETHYLPHTHALATE
56	C590 FLUORENE
57	C585 4-CHLOROPHENYL-PHENYLETHER
58	C595 4-NITROANALINE
59	C576 AZOBENZENE
60	C610 4,6-DINITRO-2-METHYLPHENOL
61	C615 N-NITROSODIPHENYLAMINE
62	C625 4-BROMOPHENYL-PHENYLETHER
63	C630 HEXACHLOROBENZENE
64	C635 PENTACHLOROPHENOL
65	C640 PHENANTHRENE
66	C645 ANTHRACENE
67	C647 CARBAZOLE
68	C650 DI-N-BUTYLPHTHALATE
69	C655 FLUORANTHENE
70	C710 BENZIDINE
71	C715 PYRENE
72	C720 BUTYLBENZYLPHTHALATE
73	C740 CHRYSENE
74	C730 BENZO(A)ANTHRACENE
75	C745 BIS(2-ETHYLHEXYL)PHTHALATE
76	C725 3,3-DICHLOROBENZIDINE
77	C760 DI-N-OCTYLPHTHALATE
78	C770 BENZO(K)FLUORANTHENE
79	C765 BENZO(B)FLUORANTHENE
80	C775 BENZO(A)PYRENE
81	C780 INDENO(1,2,3-CD)PYRENE
82	C785 DIBENZ(A,H)ANTHRACENE
83	C790 BENZO(G,H,I)PERYLENE
84	C360 BIS(2-CHLOROISOPROPYL)ETHER
85	C357 2,2-OXYBIS(1-CHLOROPROPANE)
86	C560 4-NITROPHENOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	153	1277	16:07	3	1.004	A BB	89126.	20.000 NG	1.09
52	184	1288	16:15	3	1.013	A BB	7498.	20.000 NG	1.09
53	89	1309	16:31	3	1.029	A BB	28692.	20.000 NG	1.09
54	168	1307	16:29	3	1.028	A BB	130200.	20.000 NG	1.09
55	149	1352	17:03	3	1.063	A BB	102066.	20.000 NG	1.09
56	166	1366	17:14	3	1.074	A BB	96300.	20.000 NG	1.09
57	204	1368	17:16	3	1.075	A BB	52356.	20.000 NG	1.09

P	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
5	138	1375	17:21	3	1.081	A BV	8313.	20.000 NG	1.09
5[illegible]	77	1395	17:36	3	1.097	A VB	132436.	20.000 NG	1.09
60	198	1379	17:24	4	0.904	A BB	13004.	20.000 NG	1.09
61	169	1389	17:31	4	0.910	A BB	62772.	20.000 NG	1.09
62	248	1451	18:18	4	0.951	A BB	32924.	20.000 NG	1.09
63	284	1459	18:24	4	0.956	A BB	42306.	20.000 NG	1.09
64	266	1497	18:53	4	0.981	A BB	18102.	20.000 NG	1.09
65	178	1530	19:18	4	1.003	A BV	135024.	20.000 NG	1.09
66	178	1539	19:25	4	1.009	A VB	136519.	20.000 NG	1.09
67	167	1570	19:48	4	1.029	A BB	88013.	20.000 NG	1.09
68	149	1633	20:36	4	1.070	A BB	156314.	20.000 NG	1.09
69	202	1735	21:53	4	1.137	A BB	150240.	20.000 NG	1.09
70	184	1766	22:17	5	0.888	A BB	572.	20.000 NG	1.09
71	202	1774	22:23	5	0.892	A BB	151178.	20.000 NG	1.09
72	149	1891	23:51	5	0.951	A BB	56184.	20.000 NG	1.09
73	228	1987	25:04	5	0.999	A BV	135876.	20.000 NG	1.09
74	228	1994	25:09	5	1.003	A VB	109641.	20.000 NG	1.09
75	149	1997	25:12	5	1.004	A BB	82150.	20.000 NG	1.09
76	252	1985	25:03	6	0.837	A BB	24169.	20.000 NG	1.09
77	149	2147	27:05	6	0.906	A BB	131936.	20.000 NG	1.09
78	252	2246	28:20	6	0.947	A BV	121653.	20.000 NG	1.09
79	252	2255	28:27	6	0.951	A VB	112036.	20.000 NG	1.09
80	252	2350	29:39	6	0.991	A BB	106791.	20.000 NG	1.09
81	276	2842	35:51	6	1.199	A BB	82481.	20.000 NG	1.09
82	278	2863	36:07	6	1.208	A BB	79436.	20.000 NG	1.09
8[illegible]	276	2991	37:44	6	1.261	A BB	76709.	20.000 NG	1.09
84	45	816	10:18	1	1.064	A BB	136130.	20.000 NG	1.09
85	45	816	10:18	1	1.064	A BB	136130.	20.000 NG	1.09
86	109	1311	16:32	3	1.031	A BB	7900.	20.000 NG	1.09

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	16:07	1.00	1.004	1.00	20.00	20.00	1.056	1.056	1.00
52	16:15	1.00	1.013	1.00	20.00	20.00	0.089	0.089	1.00
53	16:31	1.00	1.029	1.00	20.00	20.00	0.340	0.340	1.00
54	16:29	1.00	1.028	1.00	20.00	20.00	1.542	1.542	1.00
55	17:03	1.00	1.063	1.00	20.00	20.00	1.209	1.209	1.00
56	17:14	1.00	1.074	1.00	20.00	20.00	1.141	1.141	1.00
57	17:16	1.00	1.075	1.00	20.00	20.00	0.620	0.620	1.00
58	17:21	1.00	1.081	1.00	20.00	20.00	0.098	0.098	1.00
59	17:36	1.00	1.097	1.00	20.00	20.00	1.569	1.569	1.00
60	17:24	1.00	0.904	1.00	20.00	20.00	0.101	0.101	1.00
61	17:31	1.00	0.910	1.00	20.00	20.00	0.489	0.489	1.00
62	18:18	1.00	0.951	1.00	20.00	20.00	0.257	0.257	1.00
63	18:24	1.00	0.956	1.00	20.00	20.00	0.330	0.330	1.00
64	18:53	1.00	0.981	1.00	20.00	20.00	0.141	0.141	1.00
65	19:18	1.00	1.003	1.00	20.00	20.00	1.053	1.053	1.00
66	19:25	1.00	1.009	1.00	20.00	20.00	1.065	1.065	1.00
67	19:48	1.00	1.029	1.00	20.00	20.00	0.686	0.686	1.00
68	20:36	1.00	1.070	1.00	20.00	20.00	1.219	1.219	1.00
69	21:53	1.00	1.137	1.00	20.00	20.00	1.172	1.172	1.00
70	22:17	1.00	0.888	1.00	20.00	20.00	0.005	0.005	1.00
71	22:23	1.00	0.892	1.00	20.00	20.00	1.384	1.384	1.00
72	23:51	1.00	0.951	1.00	20.00	20.00	0.514	0.514	1.00
73	25:04	1.00	0.999	1.00	20.00	20.00	1.243	1.243	1.00
74	25:09	1.00	1.003	1.00	20.00	20.00	1.003	1.003	1.00
75	25:12	1.00	1.004	1.00	20.00	20.00	0.752	0.752	1.00

N	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
76	25:03	1.00	0.837	1.00	20.00	20.00	0.314	0.314	1.00
77	27:05	1.00	0.906	1.00	20.00	20.00	1.715	1.715	1.00
78	28:20	1.00	0.947	1.00	20.00	20.00	1.581	1.581	1.00
79	28:27	1.00	0.951	1.00	20.00	20.00	1.456	1.456	1.00
80	29:39	1.00	0.991	1.00	20.00	20.00	1.388	1.388	1.00
81	35:51	1.00	1.199	1.00	20.00	20.00	1.072	1.072	1.00
82	36:07	1.00	1.208	1.00	20.00	20.00	1.032	1.032	1.00
83	37:44	1.00	1.261	1.00	20.00	20.00	0.997	0.997	1.00
84	10:18	1.00	1.064	1.00	20.00	20.00	3.183	3.183	1.00
85	10:18	1.00	1.064	1.00	20.00	20.00	3.183	3.183	1.00
86	16:32	1.00	1.031	1.00	20.00	20.00	0.094	0.094	1.00

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Lab Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: _____

Instrument ID: FINN Calibration date: 10/12/94 Time: 1451

Lab File ID: BCLX1012 Init. Calib. Date(s): 09/21/94 09/21/94

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRF50	%D
Phenol *	1.986	2.114	-6.4 *
bis(2-Chloroethyl)Ether	1.642	1.743	-6.2
2-Chlorophenol	1.358	1.434	-5.6
1,3-Dichlorobenzene	1.611	1.677	-4.1
1,4-Dichlorobenzene *	1.622	1.708	-5.3 *
1,2-Dichlorobenzene	1.527	1.615	-5.8
2-Methylphenol	1.217	1.247	-2.5
bis(2-Chloroisopropyl)Ether	2.901	3.132	-8.0
4-Methylphenol	1.290	1.354	-5.0
N-Nitroso-Di-n-Propylamine #	1.379	1.409	-2.2 #
Hexachloroethane	0.709	0.751	-5.9
Nitrobenzene	0.576	0.597	-3.6
Isophorone	1.009	1.023	-1.4
2-Nitrophenol *	0.197	0.199	-1.0 *
2,4-Dimethylphenol	0.299	0.312	-4.3
bis(2-Chloroethoxy)Methane	0.573	0.594	-3.7
2,4-Dichlorophenol *	0.312	0.311	0.3 *
1,2,4-Trichlorobenzene	0.382	0.381	0.3
Naphthalene	0.991	1.074	-8.4
4-Chloroaniline	0.402	0.384	4.5
Hexachlorobutadiene *	0.245	0.248	-1.2 *
4-Chloro-3-Methylphenol *	0.351	0.360	-2.6 *
2-Methylnaphthalene	0.675	0.711	-5.3
Hexachlorocyclopentadiene #	0.453	0.439	3.1 #
2,4,6-Trichlorophenol *	0.406	0.431	-6.2 *
2,4,5-Trichlorophenol	0.441	0.462	-4.8
2-Chloronaphthalene	1.179	1.312	-11.3
2-Nitroaniline	0.545	0.664	-21.8
Dimethylphthalate	1.277	1.446	-13.2
Acenaphthylene	1.639	1.873	-14.3
2,6-Dinitrotoluene	0.289	0.322	-11.4
3-Nitroaniline	0.240	0.237	1.2
Acenaphthene *	1.062	1.232	-16.0 *
2,4-Dinitrophenol #	0.151	0.148	2.0 #
4-Nitrophenol #	0.154	0.179	-16.2 #

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL - HOUSTON Contract: CORCO WORK

L Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: _____

Instrument ID: FINN Calibration date: 10/12/94 Time: 1451

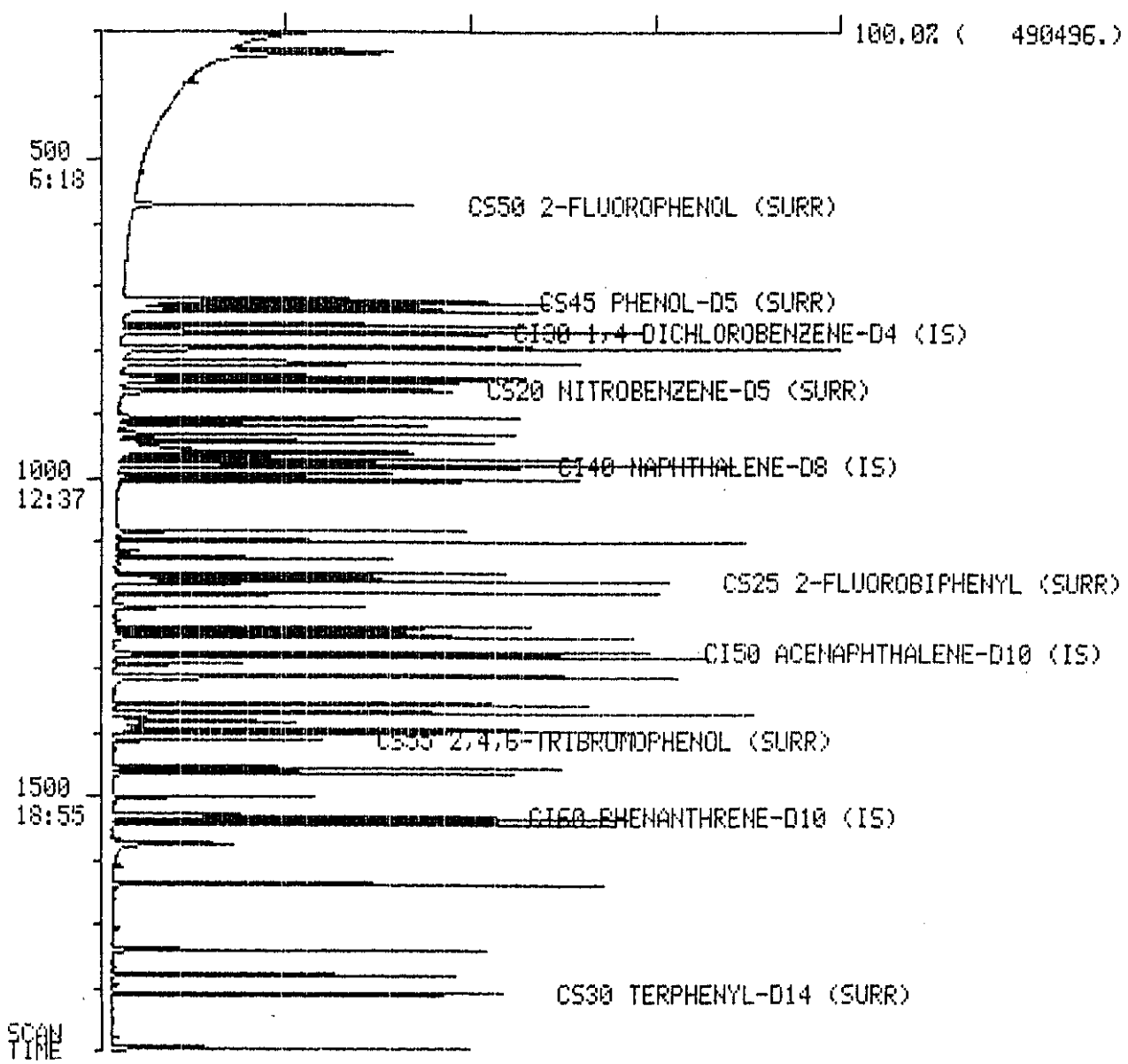
Lab File ID: BCLX1012 Init. Calib. Date(s): 09/21/94 09/21/94

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRF50	%D
Dibenzofuran	1.576	1.766	-12.1
2,4-Dinitrotoluene	0.398	0.479	-20.4
Diethylphthalate	1.317	1.520	-15.4
4-Chlorophenyl-phenylether	0.642	0.701	-9.2
Fluorene	1.176	1.320	-12.2
4-Nitroaniline	0.134	0.134	0.0
4,6-Dinitro-2-Methylphenol	0.133	0.137	-3.0
N-Nitrosodiphenylamine (1) *	0.494	0.533	-7.9 *
4-Bromophenyl-phenylether	0.284	0.311	-9.5
Hexachlorobenzene	0.340	0.404	-18.8
Pentachlorophenol *	0.190	0.194	-2.1 *
Phenanthrene	1.062	1.161	-9.3
Anthracene	1.056	1.132	-7.2
Di-n-Butylphthalate	1.286	1.509	-17.3
Fluoranthene *	1.184	1.057	10.7 *
Pyrene	1.328	1.406	-5.9
Butylbenzylphthalate	0.608	0.639	-5.1
3,3'-Dichlorobenzidine	0.281	0.222	21.0
Benzo(a)Anthracene	1.003	1.034	-3.1
Chrysene	1.242	1.231	0.9
bis(2-Ethylhexyl)Phthalate	0.877	0.977	-11.4
Di-n-Octyl Phthalate *	2.090	1.960	6.2 *
Benzo(b)Fluoranthene	1.510	1.542	-2.1
Benzo(k)Fluoranthene	1.700	1.565	7.9
Benzo(a)Pyrene *	1.462	1.403	4.0 *
Indeno(1,2,3-cd)Pyrene	1.110	1.098	1.1
Dibenz(a,h)Anthracene	1.151	1.050	8.8
Benzo(g,h,i)Perylene	1.081	1.008	6.8
Nitrobenzene-d5	0.553	0.574	-3.8
2-Fluorobiphenyl	1.199	1.361	-13.5
Terphenyl-d14	1.017	1.124	-10.5
Phenol-d6	1.830	1.930	-5.5
2-Fluorophenol	1.391	1.418	-1.9
2,4,6-Tribromophenol	0.251	0.297	-18.3
2-Chlorophenol-d4	1.291	1.358	-5.2
1,2-Dichlorobenzene-d4	0.927	0.972	-4.9

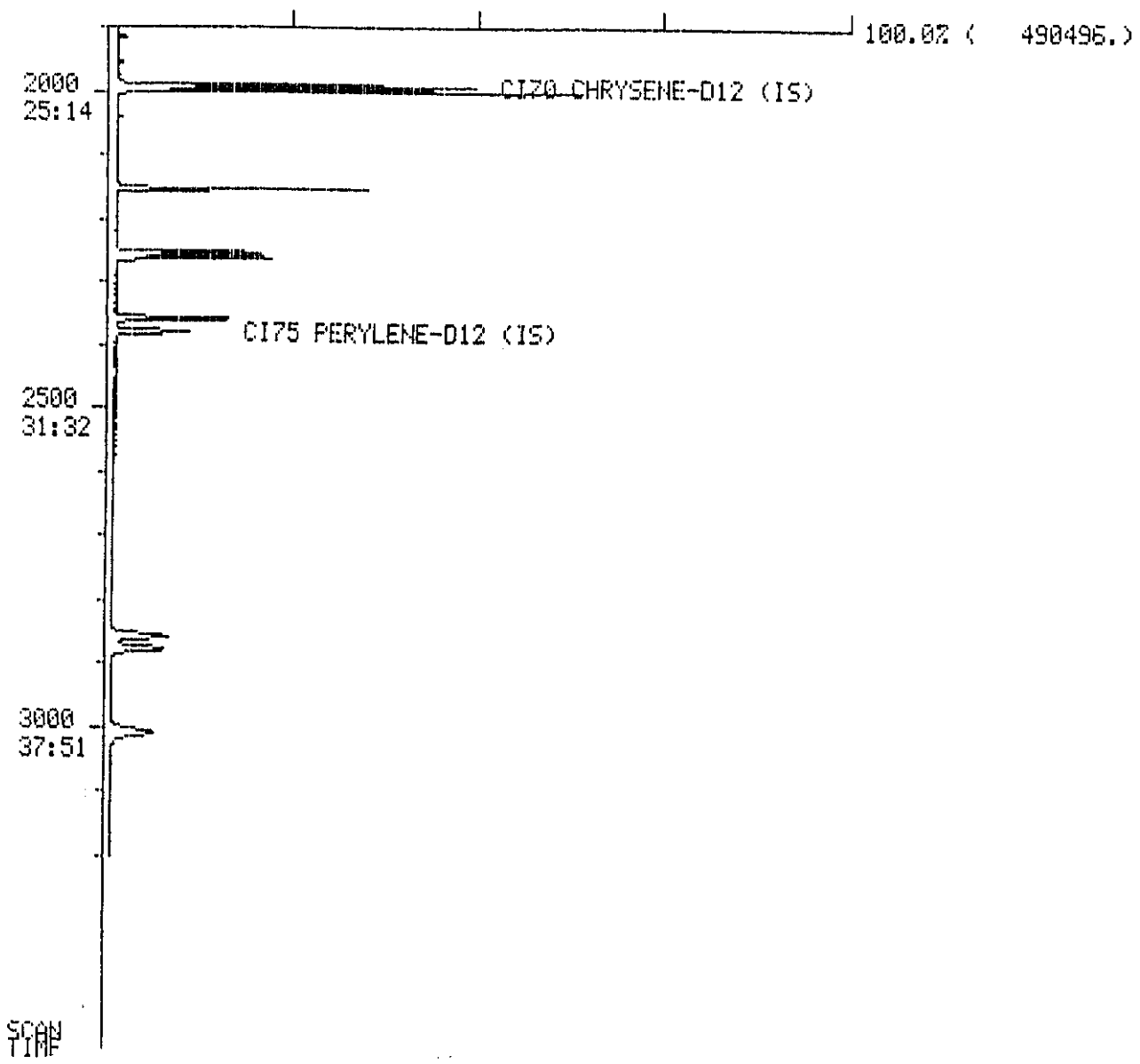
(1) Cannot be separated from Diphenylamine

DATA FROM FILE: BCLX1012 SCANS 300 TO 1900 ACQUIRED: 10/12/94 14:51:00
CALI: BCLX1012 #3 OUT OF 300 TO 3200
SAMPLE: BNA CLP STD @50NG
CONDS.: 40(4)-285@12/MIN HOLD 17MIN



DATA FROM FILE: BCLX1012 SCANS 1900 TO 3200 ACQUIRED: 10/12/94 14:51:00
CALI: BCLX1012 #3 OUT OF 300 TO 3200

SAMPLE: BNA CLP STD @50NG
CONDS.: 40(4)-285@12/MIN HOLD 17MIN



PROCEDURE: TCA DIAGNOSTIC REPORT 10/12/94 15:41:15
DA FILE: BCLX1012
REFERENCE: SV11
NAME LIST: SVNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: SVRT

---- STANDARDS -----				>< --- PLUS UNKNOWNS ---				>< - LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
6	6	1	209	14	13	1	200	SVRT/SVTG
1	1	1	0	8	7	4	43	SVRT1/SVTG1
1	1	1	0	9	9	4	173	SVRT2/SVTG2
1	1	1	0	8	8	1	65	SVRT3/SVTG3
1	1	1	0	8	8	2	78	SVRT4/SVTG4
1	1	1	0	8	8	4	96	SVRT5/SVTG5
1	1	1	0	7	7	1	117	SVRT6/SVTG6
1	1	1	0	7	6	1	0	SVRT7/SVTG7
1	1	1	0	11	11	4	79	SVRT8/SVTG8
1	1	1	0	7	6	2	88	SVRT9/SVTG9
1	1	1	0	9	8	2	105	SVRT10/SVTG10

86 COMPOUNDS PROCESSED, 81 FOUND

COMPOUND		>< ---------- SEARCH ----------					>< SAT	>< ------ CHRO ------- >				
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	SV	1	-766	769	768	-1	1	994	.	152	768	.	1
2	SV	2	-975	977	976	-1	1	989	.	136	976	.	1
3	SV	3	-1273	1272	1273	1	1	982	.	164	1273	.	1
	SV	4	-1529	1526	1528	2	1	988	.	188	1528	.	1
5	SV	5	-1995	1989	1991	2	1	975	.	240	1991	.	1
6	SV	6	-2390	2381	2378	-3	1	959	.	264	2378	.	1
7	SV	7	-568	571	568	-3	1	970	.	112	568	.	1
8	SV	8	-720	722	722	.	1	968	.	99	722	.	1
9	SV	9	-857	859	859	.	1	1000	.	82	859	.	1
10	SV	10	-1160	1160	1161	1	1	993	.	172	1161	.	1
11	SV	11	-1410	1408	1410	2	1	813	.	330	1409	-1	1
12	SV	12	-1808	1804	1806	2	1	958	.	244	1806	.	1
13	SV	150	-733	735	.	.	.	.	.	132	734	.	1
14	SV	149	-790	792	792	.	1	984	.	152	792	.	1
15	SV	82	-334	331	331	.	1	860	.	79	331	.	1
16	SV	24	-330	327	.	.	.	.	.	42	327	.	1
17	SV	13	-722	724	724	.	2	994	.	94	724	.	1
18	SV	72	-716	718	718	.	1	953	.	93	718	.	1
19	SV	25	-729	731	730	-1	1	957	.	93	730	.	1
20	SV	14	-735	737	737	.	1	998	.	128	737	.	1
21	SV	38	-757	759	759	.	2	990	.	146	758	-1	1
22	SV	39	-769	772	771	-1	2	990	.	146	771	.	1
23	SV	40	-793	795	795	.	1	981	.	146	795	.	1
24	SV	68	-817	819	818	-1	1	994	.	108	818	.	1
25	SV	26	-815	817	817	.	2	933	.	45	817	.	1
26	SV	151	-815	817	821	4	1	914	.	45	821	.	1
27	SV	27	-837	839	839	.	1	982	.	70	839	.	1
28	SV	69	-843	845	843	-2	1	1000	.	108	843	.	1
29	SV	41	-847	849	848	-1	1	985	.	117	848	.	1
30	SV	73	-794	796	796	.	1	963	.	108	796	.	1
31	SV	42	-861	863	863	.	1	987	.	77	862	-1	1
32	SV	43	-902	903	903	.	1	986	.	82	903	.	1
33	SV	15	-913	914	915	1	1	996	.	139	915	.	1
34	SV	16	-928	929	929	.	1	1000	.	122	929	.	1
35	SV	28	-940	941	942	1	1	956	.	93	942	.	1
36	SV	17	-957	958	957	-1	1	994		162	957		1

38	SV	44	-966	967	968	1	1	992	.	180	968	.	1
39	SV	52	-978	979	980	1	1	985	.	128	980	.	1
40	SV	74	-992	993	993	.	1	996	.	127	993	.	1
41	SV	45	-1001	1002	1002	.	1	977	.	225	1002	.	1
42	SV	18	-1081	1081	1080	-1	1	996	.	107	1080	.	1
43	SV	75	-1096	1096	1097	1	2	966	.	142	1097	.	1
44	SV	46	-1122	1123	1124	1	1	994	.	237	1123	-1	1
45	SV	19	-1148	1149	1148	-1	2	989	.	196	1148	.	1
46	SV	71	-1157	1158	1156	-2	2	988	.	196	1155	-1	1
47	SV	47	-1178	1178	1179	1	1	992	.	162	1179	.	1
48	SV	76	-1201	1201	1201	.	1	963	.	65	1201	.	1
49	SV	29	-1232	1232	1233	1	1	998	.	163	1233	.	1
50	SV	48	-1243	1243	1243	.	1	997	.	165	1243	.	1
51	SV	53	-1248	1249	1249	.	1	989	.	152	1249	.	1
52	SV	77	-1273	1273	1273	.	1	960	.	138	1272	-1	1
53	SV	54	-1278	1278	1279	1	1	962	.	153	1279	.	1
54	SV	20	-1292	1291	1290	-1	1	998	.	184	1290	.	1
55	SV	21	-1315	1312	1311	-1	1	899	.	109	1311	.	1
56	SV	49	-1313	1311	1312	1	1	986	.	89	1312	.	1
57	SV	78	-1309	1309	1309	.	1	985	.	168	1309	.	1
58	SV	30	-1354	1354	1354	.	1	990	.	149	1354	.	1
59	SV	55	-1368	1368	1368	.	1	979	.	166	1367	-1	1
60	SV	31	-1369	1369	1369	.	1	991	.	204	1369	.	1
61	SV	79	-1391	1391	.	.	.	.	.	138	.	.	.
62	SV	50	-1397	1397	1397	.	1	977	.	77	1397	.	1
63	SV	22	-1383	1382	1381	-1	1	989	.	198	1381	.	1
64	SV	32	-1391	1390	1391	1	1	990	.	169	1391	.	1
65	SV	33	-1453	1452	1453	1	1	985	.	248	1453	.	1
66	SV	51	-1462	1461	1462	1	1	990	.	284	1462	.	1
67	SV	23	-1500	1499	1498	-1	1	981	.	266	1498	.	1
68	SV	56	-1533	1532	1532	.	2	995	.	178	1532	.	1
69	SV	57	-1542	1541	1541	.	2	995	.	178	1541	.	1
70	SV	142	-1574	1573	1572	-1	1	976	.	167	1572	.	1
71	SV	34	-1636	1635	1635	.	1	990	.	149	1635	.	1
72	SV	58	-1740	1738	1738	.	1	997	.	202	1738	.	1
73	SV	80	-1766	1764	.	.	.	.	.	184	.	.	.
74	SV	59	-1779	1777	1777	.	1	964	.	202	1777	.	1
75	SV	35	-1895	1892	1893	1	1	993	.	149	1893	.	1
76	SV	60	-1993	1990	1990	.	1	990	.	228	1989	-1	1
77	SV	61	-2001	1998	1997	-1	2	990	.	228	1997	.	1
78	SV	36	-2001	1998	1999	1	1	988	.	149	1999	.	1
79	SV	81	-1994	1992	.	.	.	.	.	252	.	.	.
80	SV	37	-2156	2150	2152	2	1	985	.	149	2151	-1	1
81	SV	62	-2261	2253	2253	.	1	987	.	252	2253	.	1
82	SV	63	-2269	2261	2261	.	2	969	.	252	2261	.	1
83	SV	64	-2369	2359	2357	-2	1	976	.	252	2357	.	1
84	SV	65	-2880	2858	2858	.	1	968	.	276	2857	-1	1
85	SV	66	-2898	2876	2876	.	1	968	.	278	2876	.	1
86	SV	67	-3032	3007	3007	.	1	978	.	276	3008	1	1

Quantitation Report File: BCLX1012

D: BCLX1012.TI
10/ /94 14:51:00
Sample: BNA CLP STD @50NG
Conds.: 40(4)-285@12/MIN HOLD 17MIN
Formula: Instrument: FINN Weight: 0.000
Submitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 (IS)
2	CI40 NAPHTHALENE-D8 (IS)
3	CI50 ACENAPHTHALENE-D10 (IS)
4	CI60 PHENANTHRENE-D10 (IS)
5	CI70 CHRYSENE-D12 (IS)
6	CI75 PERYLENE-D12 (IS)
7	CS50 2-FLUOROPHENOL (SURR)
8	CS45 PHENOL-D5 (SURR)
9	CS20 NITROBENZENE-D5 (SURR)
10	CS25 2-FLUOROBIPHENYL (SURR)
11	CS55 2,4,6-TRIBROMOPHENOL (SURR)
12	CS30 TERPHENYL-D14 (SURR)
13	CS70 2-CHLOROPHENOL-D4 (SURR)
14	CS75 1,2-DICHLOROBENZENE-D4 (SURR)
1	C322 PYRIDINE
16	C310 N-NITROSODIMETHYLAMINE
17	C315 PHENOL
18	C320 ANALINE
19	C325 BIS(2-CHLOROETHYL)ETHER
20	C330 2-CHLOROPHENOL
21	C335 1,3 DICHLOROBENZENE
22	C340 1,4 DICHLOROBENZENE
23	C350 1,2 DICHLOROBENZENE
24	C355 2-METHYLPHENOL
25	C360 BIS(2-CHLOROISOPROPYL)ETHER
26	C357 2,2-OXYBIS(1-CHLOROPROPANE)
27	C370 N-NITROSO-DI-N-PROPYLAMINE
28	C365 4-METHYLPHENOL
29	C375 HEXACHLOROETHANE
30	C345 BENZYL ALCOHOL
31	C410 NITROBENZENE
32	C415 ISOPHORONE
33	C420 2-NITROPHENOL
34	C425 2,4-DIMETHYLPHENOL
35	C435 BIS(2-CHLOROETHOXY)METHANE
36	C440 2,4-DICHLOROPHENOL
37	C430 BENZOIC ACID
38	C445 1,2,4-TRICHLOROBENZENE
39	C450 NAPHTHALENE
40	C455 4-CHLOROANALINE
41	C460 HEXACHLOROBUTADIENE
42	C465 4-CHLORO-3-METHYLPHENOL
43	C470 2-METHYLNAPHTHALENE
44	C510 HEXACHLOROCYCLOPENTADIENE
45	C515 2,4,6-TRICHLOROPHENOL
46	C520 2,4,5-TRICHLOROPHENOL
47	C525 2-CHLORONAPHTHALENE

N	Name
4[illegible]	C530 2-NITROANALINE
49	C535 DIMETHYLPHTHALATE
50	C543 2,6-DINITROTOLUENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	768	9:41	1	1.000	A BB	66962.	40.000 NG	0.94
2	136	976	12:19	2	1.000	A BB	239453.	40.000 NG	0.94
3	164	1273	16:04	3	1.000	A BB	127374.	40.000 NG	0.94
4	188	1528	19:17	4	1.000	A BV	199254.	40.000 NG	0.94
5	240	1991	25:07	5	1.000	A BB	148764.	40.000 NG	0.94
6	264	2378	30:00	6	1.000	A BB	106261.	40.000 NG	0.94
7	112	568	7:10	1	0.740	A BB	118674.	51.435 NG	1.20
8	99	722	9:07	1	0.940	A BV	161584.	51.076 NG	1.19
9	82	859	10:50	2	0.880	A BB	171934.	50.089 NG	1.17
10	172	1161	14:39	3	0.912	A BV	216690.	49.377 NG	1.15
11	330	1409	17:47	3	1.107	A BB	47354.	53.079 NG	1.24
12	244	1806	22:47	5	0.907	A BB	208975.	46.794 NG	1.09
13	132	734	9:16	1	0.956	A BB	113630.	50.062 NG	1.17
14	152	792	10:00	1	1.031	A BB	81400.	50.783 NG	1.19
15	79	331	4:11	1	0.431	A BB	150964.	53.015 NG	1.24
16	42	327	4:08	1	0.426	A BB	107732.	56.660 NG	1.32
17	94	724	9:08	1	0.943	A VB	176924.	47.668 NG	1.11
18	93	718	9:04	1	0.935	A BB	159726.	53.647 NG	1.25
19	93	730	9:13	1	0.951	A BV	145920.	50.351 NG	1.18
20	128	737	9:18	1	0.960	A BB	120005.	51.443 NG	1.20
2[illegible]	146	758	9:34	1	0.987	A BV	140381.	50.340 NG	1.18
22	146	771	9:44	1	1.004	A VB	142957.	50.481 NG	1.18
23	146	795	10:02	1	1.035	A BB	135187.	50.642 NG	1.18
24	108	818	10:19	1	1.065	A BB	104352.	51.442 NG	1.20
25	45	817	10:18	1	1.064	A BV	185094.	35.258 NG	0.82
26	45	821	10:21	1	1.069	A VB	76924.	14.653 NG	0.34
27	70	839	10:35	1	1.092	A BV	117934.	50.680 NG	1.19
28	108	843	10:38	1	1.098	A BB	113335.	51.759 NG	1.21
29	117	848	10:42	1	1.104	A BB	62890.	51.037 NG	1.19
30	108	796	10:03	2	0.816	A BB	73786.	56.211 NG	1.31
31	77	862	10:53	2	0.883	A BB	178707.	50.030 NG	1.17
32	82	903	11:24	2	0.925	A BV	306231.	52.379 NG	1.22
33	139	915	11:33	2	0.937	A BB	59612.	52.313 NG	1.22
34	122	929	11:43	2	0.952	A BB	93432.	54.677 NG	1.28
35	93	942	11:53	2	0.965	A BB	177905.	51.447 NG	1.20
36	162	957	12:04	2	0.981	A BB	93029.	53.178 NG	1.24
37	122	954	12:02	2	0.977	A BB	58837.	63.740 NG	1.49
38	180	968	12:13	2	0.992	A BB	113962.	49.941 NG	1.17
39	128	980	12:22	2	1.004	A BV	321365.	49.817 NG	1.16
40	127	993	12:32	2	1.017	A BB	115061.	72.750 NG	1.70
41	225	1002	12:39	2	1.027	A BB	74178.	50.373 NG	1.18
42	107	1080	13:38	2	1.107	A BB	107886.	52.021 NG	1.22
43	142	1097	13:50	2	1.124	A BB	212763.	50.689 NG	1.19
44	237	1123	14:10	3	0.882	A BB	69914.	55.748 NG	1.30
45	196	1148	14:29	3	0.902	A BV	68595.	53.913 NG	1.26
4[illegible]	196	1155	14:34	3	0.907	A VB	73515.	53.408 NG	1.25
4[illegible]	162	1179	14:53	3	0.926	A BB	208930.	51.150 NG	1.20
48	65	1201	15:09	3	0.943	A BB	105674.	58.742 NG	1.37
49	163	1233	15:33	3	0.969	A BV	230208.	51.214 NG	1.20
50	165	1243	15:41	3	0.976	A BB	51318.	51.965 NG	1.22

N	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
.	9:43	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:21	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	16:07	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	19:22	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	25:16	0.99	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	30:21	0.99	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	7:11	1.00	0.740	1.00	51.44	50.00	1.418	1.378	1.03
8	9:08	1.00	0.940	1.00	51.08	50.00	1.930	1.890	1.02
9	10:52	1.00	0.879	1.00	50.09	50.00	0.574	0.573	1.00
10	14:42	1.00	0.912	1.00	49.38	50.00	1.361	1.378	0.99
11	17:53	0.99	1.109	1.00	53.08	50.00	0.297	0.280	1.06
12	22:53	1.00	0.906	1.00	46.79	50.00	1.124	1.201	0.94
13	9:17	1.00	0.956	1.00	50.06	50.00	1.358	1.356	1.00
14	10:01	1.00	1.031	1.00	50.78	50.00	0.972	0.957	1.02
15	4:13	0.99	0.434	0.99	53.01	50.00	1.804	1.701	1.06
16	4:11	0.99	0.430	0.99	56.66	50.00	1.287	1.136	1.13
17	9:10	1.00	0.943	1.00	47.67	50.00	2.114	2.217	0.95
18	9:05	1.00	0.935	1.00	53.65	50.00	1.908	1.779	1.07
19	9:14	1.00	0.951	1.00	50.35	50.00	1.743	1.731	1.01
20	9:19	1.00	0.960	1.00	51.44	50.00	1.434	1.393	1.03
21	9:35	1.00	0.987	1.00	50.34	50.00	1.677	1.666	1.01
22	9:45	1.00	1.004	1.00	50.48	50.00	1.708	1.692	1.01
23	10:03	1.00	1.034	1.00	50.64	50.00	1.615	1.595	1.01
24	10:21	1.00	1.066	1.00	51.44	50.00	1.247	1.212	1.03
25	10:20	1.00	1.064	1.00	35.26	50.00	2.211	3.136	0.71
2	10:20	1.00	1.064	1.01	14.65	50.00	0.919	3.136	0.29
27	10:37	1.00	1.092	1.00	50.68	50.00	1.409	1.390	1.01
28	10:41	1.00	1.100	1.00	51.76	50.00	1.354	1.308	1.04
29	10:43	1.00	1.104	1.00	51.04	50.00	0.751	0.736	1.02
30	10:04	1.00	0.815	1.00	56.21	50.00	0.247	0.219	1.12
31	10:55	1.00	0.884	1.00	50.03	50.00	0.597	0.597	1.00
32	11:26	1.00	0.925	1.00	52.38	50.00	1.023	0.977	1.05
33	11:34	1.00	0.937	1.00	52.31	50.00	0.199	0.190	1.05
34	11:46	1.00	0.953	1.00	54.68	50.00	0.312	0.285	1.09
35	11:55	1.00	0.964	1.00	51.45	50.00	0.594	0.578	1.03
36	12:08	0.99	0.983	1.00	53.18	50.00	0.311	0.292	1.06
37	12:05	1.00	0.979	1.00	63.74	50.00	0.197	0.154	1.27
38	12:15	1.00	0.992	1.00	49.94	50.00	0.381	0.381	1.00
39	12:24	1.00	1.004	1.00	49.82	50.00	1.074	1.078	1.00
40	12:35	1.00	1.018	1.00	72.75	50.00	0.384	0.264	1.45
41	12:41	1.00	1.027	1.00	50.37	50.00	0.248	0.246	1.01
42	13:43	0.99	1.110	1.00	52.02	50.00	0.360	0.346	1.04
43	13:53	1.00	1.125	1.00	50.69	50.00	0.711	0.701	1.01
44	14:13	1.00	0.882	1.00	55.75	50.00	0.439	0.394	1.11
45	14:33	1.00	0.902	1.00	53.91	50.00	0.431	0.400	1.08
46	14:40	0.99	0.910	1.00	53.41	50.00	0.462	0.432	1.07
47	14:56	1.00	0.926	1.00	51.15	50.00	1.312	1.283	1.02
48	15:14	1.00	0.944	1.00	58.74	50.00	0.664	0.565	1.17
49	15:37	1.00	0.969	1.00	51.21	50.00	1.446	1.412	1.02
50	15:45	1.00	0.977	1.00	51.97	50.00	0.322	0.310	1.04

Quantitation Report File: BCLX1012

Data: BCLX1012.TI
10/12/94 14:51:00
Sample: BNA CLP STD @50NG
Conds.: 40(4)-285@12/MIN HOLD 17MIN
Formula: Instrument: FINN Weight: 0.000
Submitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	C540 ACENAPHTHYLENE
52	C545 3-NITROANALINE
53	C550 ACENAPHTHENE
54	C555 2,4-DINITROPHENOL
55	C560 4-NITROPHENOL
56	C570 2,4-DINITROTOLUENE
57	C565 DIBENZOFURAN
58	C580 DIETHYLPHTHALATE
59	C590 FLUORENE
60	C585 4-CHLOROPHENYL-PHENYLETHER
61	C595 4-NITROANALINE
62	C576 AZOBENZENE
63	C610 4,6-DINITRO-2-METHYLPHENOL
64	C615 N-NITROSODIPHENYLAMINE
65	C625 4-BROMOPHENYL-PHENYLETHER
66	C630 HEXACHLOROBENZENE
67	C635 PENTACHLOROPHENOL
68	C640 PHENANTHRENE
69	C645 ANTHRACENE
70	C647 CARBAZOLE
71	C650 DI-N-BUTYLPHTHALATE
72	C655 FLUORANTHENE
73	C710 BENZIDINE
74	C715 PYRENE
75	C720 BUTYLBENZYLPHTHALATE
76	C740 CHRYSENE
77	C730 BENZO(A)ANTHRACENE
78	C745 BIS(2-ETHYLHEXYL)PHTHALATE
79	C725 3,3-DICHLOROBENZIDINE
80	C760 DI-N-OCTYLPHTHALATE
81	C770 BENZO(K)FLUORANTHENE
82	C765 BENZO(B)FLUORANTHENE
83	C775 BENZO(A)PYRENE
84	C780 INDENO(1,2,3-CD)PYRENE
85	C785 DIBENZ(A,H)ANTHRACENE
86	C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	152	1249	15:45	3	0.981	A BB	298216.	51.143 NG	1.20
52	138	1272	16:03	3	0.999	A BB	37703.	72.811 NG	1.70
53	153	1279	16:08	3	1.005	A BB	196120.	50.297 NG	1.18
54	184	1290	16:17	3	1.013	A BB	23610.	66.739 NG	1.56
55	109	1311	16:32	3	1.030	A BB	28498.	80.248 NG	1.88
56	89	1312	16:33	3	1.031	A BB	76266.	55.947 NG	1.31
57	168	1309	16:31	3	1.028	A BB	281102.	49.826 NG	1.17

N	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
58	149	1354	17:05	3	1.064	A BV	241976.	52.194 NG	1.22
59	166	1367	17:15	3	1.074	A BB	210204.	49.380 NG	1.15
60	204	1369	17:16	3	1.075	A BB	111680.	49.653 NG	1.16
61	NOT	FOUND							
62	77	1397	17:38	3	1.097	A VV	325851.	50.702 NG	1.19
63	198	1381	17:25	4	0.904	A BB	34034.	61.534 NG	1.44
64	169	1391	17:33	4	0.910	A BB	132730.	50.545 NG	1.18
65	248	1453	18:20	4	0.951	A BB	77526.	51.878 NG	1.21
66	284	1462	18:27	4	0.957	A BB	100584.	51.986 NG	1.22
67	266	1498	18:54	4	0.980	A BB	48394.	61.363 NG	1.43
68	178	1532	19:20	4	1.003	A BV	289055.	51.395 NG	1.20
69	178	1541	19:27	4	1.009	A VB	281894.	51.549 NG	1.21
70	167	1572	19:50	4	1.029	A BB	126888.	52.748 NG	1.23
71	149	1635	20:38	4	1.070	A BB	375754.	50.067 NG	1.17
72	202	1738	21:56	4	1.137	A BB	263354.	51.736 NG	1.21
73	NOT	FOUND							
74	202	1777	22:25	5	0.893	A BB	261530.	48.136 NG	1.13
75	149	1893	23:53	5	0.951	A BB	118856.	49.254 NG	1.15
76	228	1989	25:06	5	0.999	A BV	228864.	52.351 NG	1.22
77	228	1997	25:12	5	1.003	A VB	192278.	47.475 NG	1.11
78	149	1999	25:13	5	1.004	A BB	181756.	43.099 NG	1.01
79	NOT	FOUND							
80	149	2151	27:08	6	0.905	A BB	260354.	37.719 NG	0.88
81	252	2253	28:26	6	0.947	A BV	207897.	44.394 NG	1.04
82	252	2261	28:32	6	0.951	A VB	204857.	48.035 NG	1.12
83	252	2357	29:44	6	0.991	A BB	186310.	49.029 NG	1.15
84	276	2857	36:03	6	1.201	A BB	145862.	55.038 NG	1.29
85	278	2876	36:17	6	1.209	A BB	139525.	62.840 NG	1.47
86	276	3008	37:57	6	1.265	A BB	133868.	78.100 NG	1.83

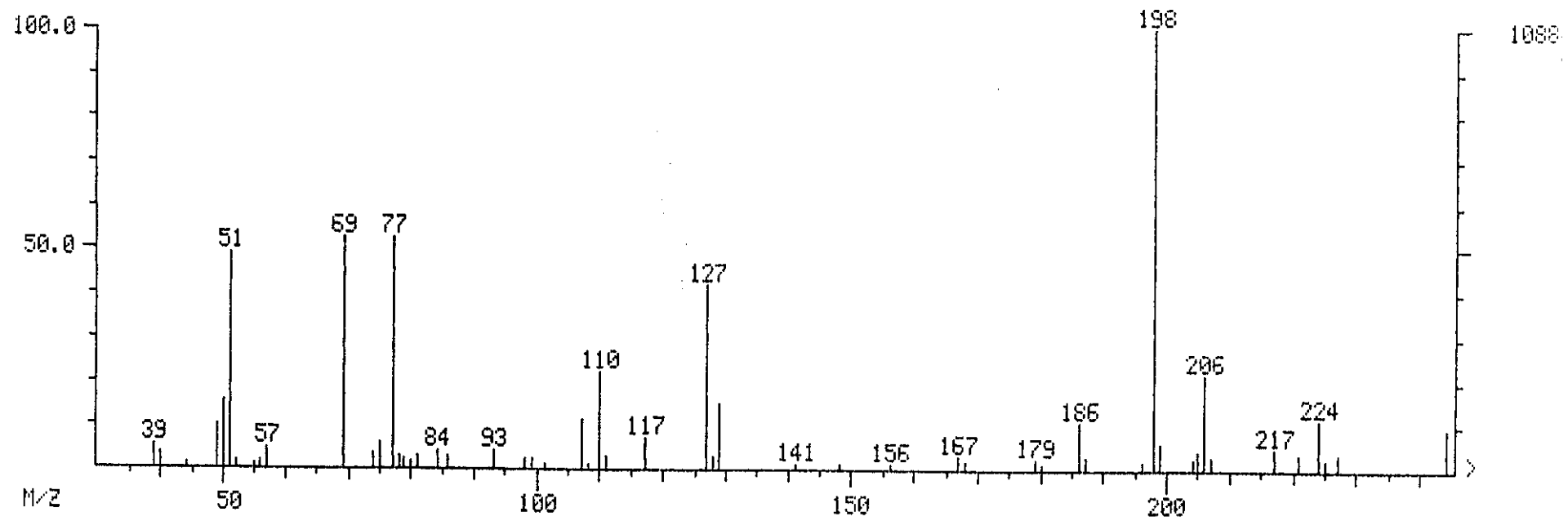
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	15:49	1.00	0.981	1.00	51.14	50.00	1.873	1.831	1.02
52	16:09	0.99	1.002	1.00	72.81	50.00	0.237	0.163	1.46
53	16:12	1.00	1.005	1.00	50.30	50.00	1.232	1.224	1.01
54	16:23	0.99	1.016	1.00	66.74	50.00	0.148	0.111	1.33
55	16:43	0.99	1.037	0.99	80.25	50.00	0.179	0.112	1.60
56	16:38	0.99	1.032	1.00	55.95	50.00	0.479	0.428	1.12
57	16:35	1.00	1.028	1.00	49.83	50.00	1.766	1.772	1.00
58	17:09	1.00	1.063	1.00	52.19	50.00	1.520	1.456	1.04
59	17:19	1.00	1.074	1.00	49.38	50.00	1.320	1.337	0.99
60	17:21	1.00	1.076	1.00	49.65	50.00	0.701	0.706	0.99
61	17:38		1.093						
62	17:42	1.00	1.098	1.00	50.70	50.00	2.047	2.018	1.01
63	17:33	0.99	0.906	1.00	61.53	50.00	0.137	0.111	1.23
64	17:38	1.00	0.910	1.00	50.54	50.00	0.533	0.527	1.01
65	18:24	1.00	0.950	1.00	51.88	50.00	0.311	0.300	1.04
66	18:31	1.00	0.956	1.00	51.99	50.00	0.404	0.388	1.04
67	19:02	0.99	0.982	1.00	61.36	50.00	0.194	0.158	1.23
68	19:25	1.00	1.003	1.00	51.40	50.00	1.161	1.129	1.03
69	19:33	0.99	1.009	1.00	51.55	50.00	1.132	1.098	1.03
70	19:58	0.99	1.031	1.00	52.75	50.00	0.509	0.483	1.05
71	20:42	1.00	1.069	1.00	50.07	50.00	1.509	1.507	1.00
72	22:02	1.00	1.137	1.00	51.74	50.00	1.057	1.022	1.03
73	22:17		0.888						
74	22:32	0.99	0.892	1.00	48.14	50.00	1.406	1.461	0.96
75	23:59	1.00	0.949	1.00	49.25	50.00	0.639	0.649	0.99

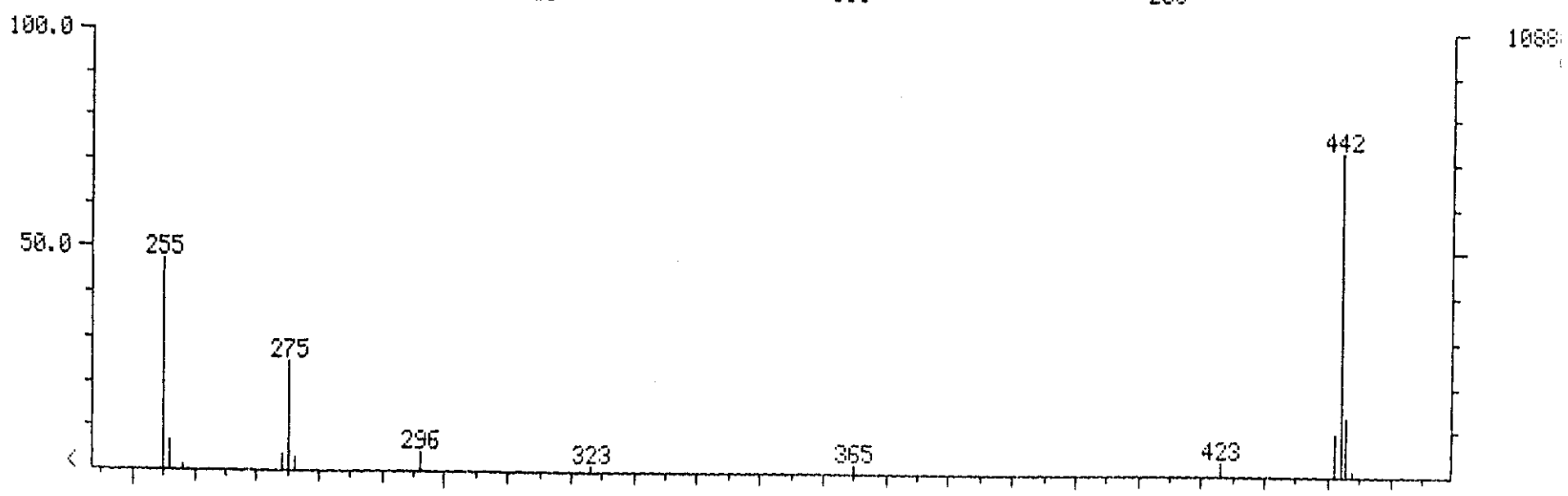
N	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
76	25:14	0.99	0.999	1.00	52.35	50.00	1.231	1.175	1.05
77	25:20	0.99	1.002	1.00	47.48	50.00	1.034	1.089	0.95
78	25:19	1.00	1.002	1.00	43.10	50.00	0.977	1.134	0.86
79	25:17		0.833						
80	27:17	0.99	0.899	1.01	37.72	50.00	1.960	2.598	0.75
81	28:40	0.99	0.945	1.00	44.39	50.00	1.565	1.763	0.89
82	28:47	0.99	0.948	1.00	48.03	50.00	1.542	1.605	0.96
83	30:04	0.99	0.991	1.00	49.03	50.00	1.403	1.430	0.98
84	36:37	0.98	1.207	1.00	55.04	50.00	1.098	0.998	1.10
85	36:49	0.99	1.213	1.00	62.84	50.00	1.050	0.836	1.26
86	38:38	0.98	1.273	0.99	78.10	50.00	1.008	0.645	1.56

MASS SPECTRUM
09/21/94 9:55:00 + 8:23
SAMPLE: DFTPP @50NG
CONDS.: 100(2)-310@25/MIN HOLD 5MIN
TEMP: 263 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: DFTPX0921 #664
CALI: CALTAB #3

BASE M/Z: 198
RIC: 80000.





Mass List
09/21/94 9:55:00 + 8:23
Sa `e: DFTPP @50NG
Co. : 100(2)-310@25/MIN HOLD 5MIN
Inh. .ed (S 15B 2N OT)

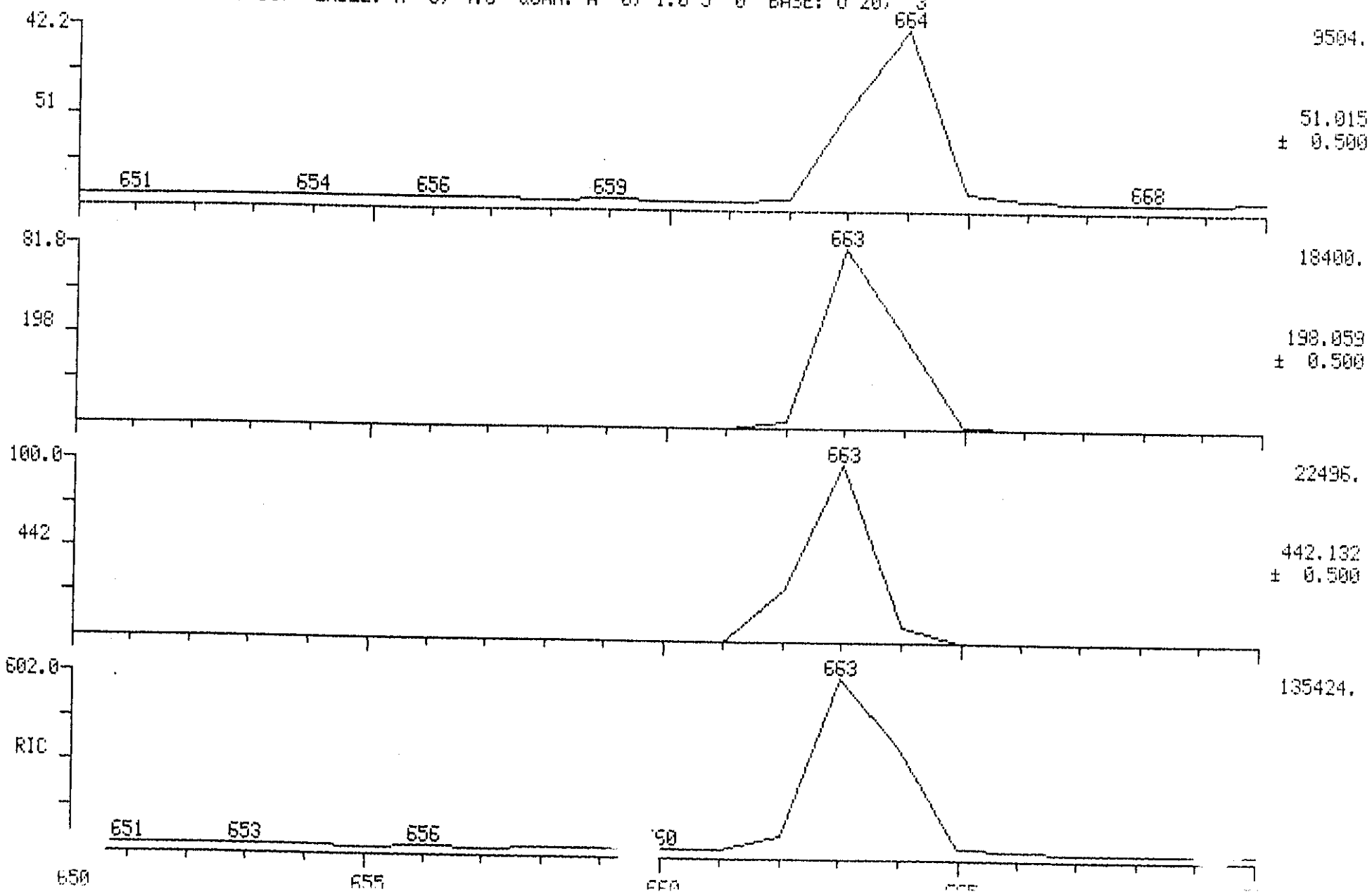
Data: DFTPX0921 # 664
Cali: CALTAB # 3

Base m/z: 198
RIC: 80000.

39	0.00	0.	Minima	Min Inten:	0.
444			Maxima	# 0	
Mass	% RA	Inten.	Mass	% RA	Inten.
39?	5.42	590.	224	11.21	1220.
40?	3.35	364.	225	2.17	236.
44?	1.07	116.	227	3.72	405.
49?	10.18	1108.	244	9.54	1038.
50?	15.37	1672.	255	47.57	5176.
51?	49.04	5336.	256	6.44	701.
52?	1.99	217.	258	1.37	149.
55?	1.21	132.	274	3.50	381.
56?	1.59	173.	275	24.82	2700.
57?	5.04	548.	276	2.72	296.
69	52.87	5752.	296	4.46	485.
74	3.89	423.	323	1.26	137.
75	6.09	663.	365	1.76	192.
77	52.72	5736.	423	3.26	355.
78	2.91	317.	441	9.80	1066.
79	2.36	257.	442	72.57	7896.
80	1.59	173.	443	12.92	1406.
81	2.87	312.	444	1.02	111.
	4.17	454.			
86	3.25	354.			
93	3.91	425.			
98	2.42	263.			
99	2.37	258.			
101	1.01	110.			
107	11.12	1210.			
108	1.19	130.			
110	22.32	2428.			
111	2.85	310.			
117	7.34	799.			
127	41.99	4568.			
128	2.79	304.			
129	14.98	1630.			
141	1.34	146.			
148	1.50	163.			
156	1.22	133.			
167	3.15	343.			
168	1.66	181.			
179	2.24	244.			
180	1.48	161.			
186	10.59	1152.			
187	2.72	296.			
196	1.90	207.			
198	100.00	10880.			
19	6.08	661.			
20	2.13	232.			
205	4.26	463.			
206	21.69	2360.			
207	2.91	317.			
217	4.84	527.			
221	3.50	381.			

RIC+MASS CHROMATOGRAMS
09/21/94 9:55:00
SAMPLE: DFTPP @50NG
CONDS.: 100(2)-310@25/MIN HOLD 5MIN
RANGE: G 1, 987 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

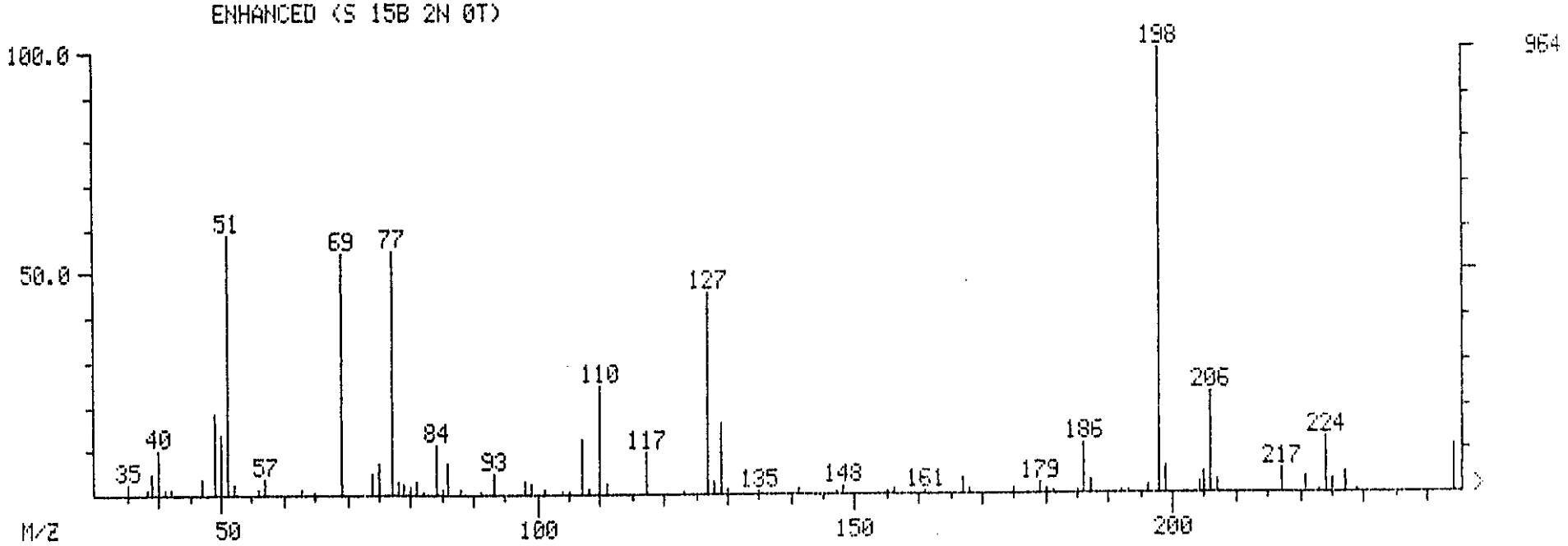
DATA: DFTPX0921 #664 SCANS 650 TO 670
CALI: CALTAB #3

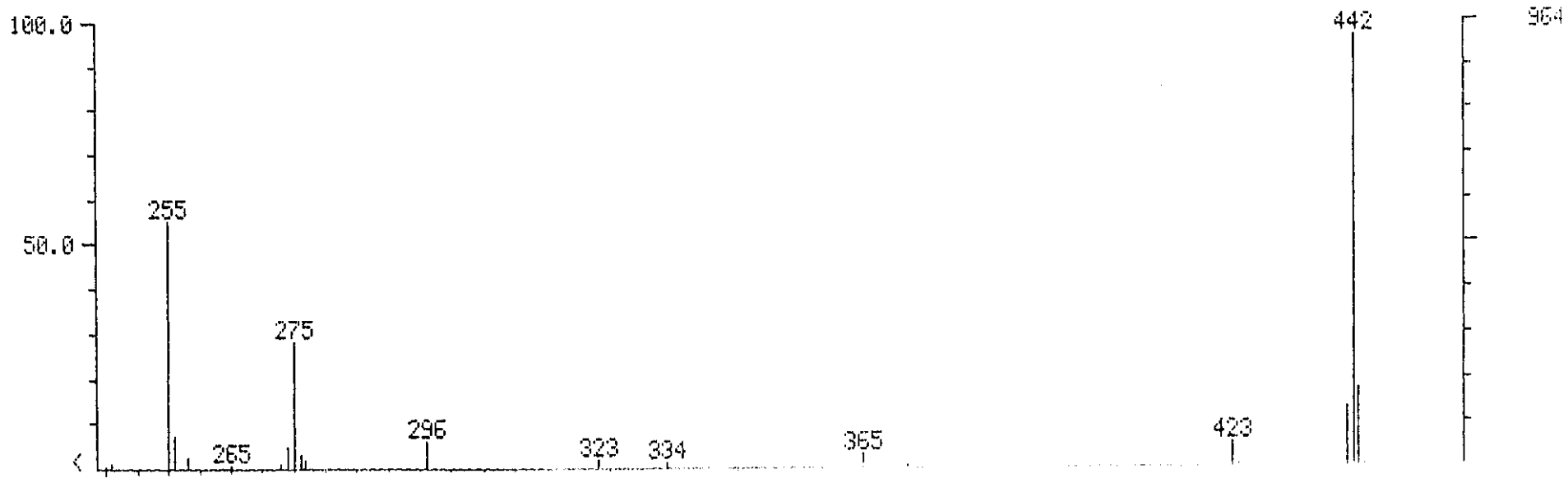


MASS SPECTRUM
10/12/94 14:33:00 + 8:22
SAMPLE: DFTPP @50NG
CONDS.: 100(2)-310@25/MIN HOLD 5MIN
TEMP: 263 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: DFTPX1012 #663
CALI: CALTAB #3

BASE M/Z: 198
RIC: 84480.



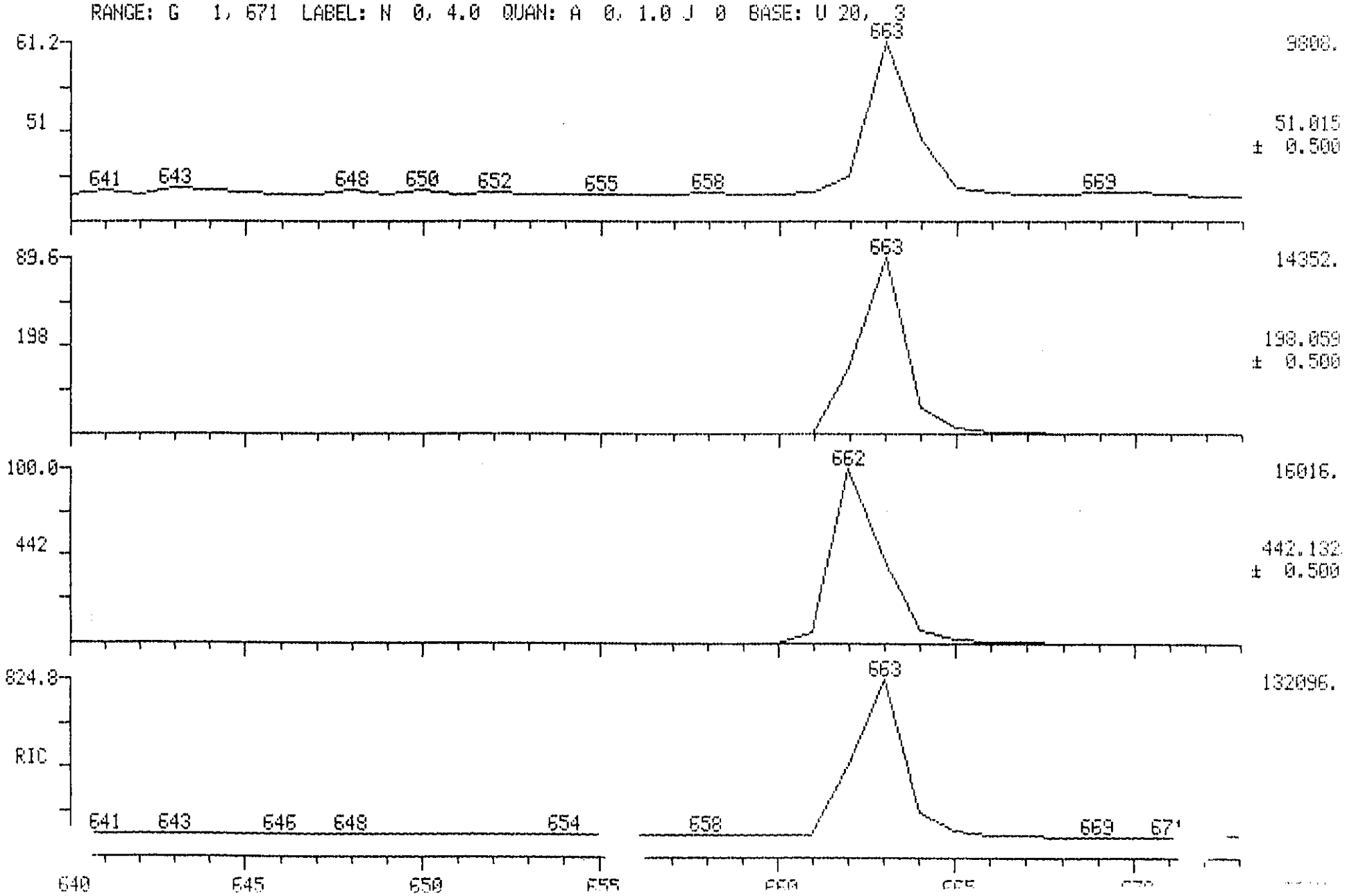


ass List Data: DFTPX1012 # 663 Base m/z: 198
0/12/94 14:33:00 + 8:22 Cali: CALTAB # 3 RIC: 84480.
ar e: DFTPP @50NG
on : 100(2)-310@25/MIN HOLD 5MIN
nhanced (S 15B 2N OT)

35 0.00 0. Minima Min Inten: 0.
444 Maxima # 0

Mass	% RA	Inten.	Mass	% RA	Inten.
35?	2.56	247.	156	1.23	119.
38?	1.37	132.	161	0.60	58.
39?	4.59	443.	167	3.80	367.
40?	9.92	957.	168	1.30	125.
41?	1.41	136.	175	1.13	109.
42?	1.34	129.	179	2.52	243.
47?	3.44	332.	180	1.42	137.
49?	18.30	1766.	181	0.63	61.
50?	13.50	1302.	185	0.83	80.
51?	58.62	5656.	186	11.53	1112.
52?	2.23	215.	187	3.05	294.
56?	1.21	117.	192	0.61	59.
57?	3.68	355.	193	0.74	71.
63?	1.36	131.	196	1.69	163.
65?	0.66	64.	198	100.00	9648.
69	54.56	5264.	199	6.15	593.
74	4.80	463.	204	2.62	253.
7[illegible]	6.93	669.	205	4.82	465.
[illegible]	54.98	5304.	206	22.84	2204.
78	3.03	292.	207	3.12	301.
79	2.63	254.	217	5.46	527.
80	1.79	173.	221	3.43	331.
81	3.22	311.	223	0.81	78.
82	0.84	81.	224	12.52	1208.
84	11.59	1118.	225	2.83	273.
85	0.90	87.	227	4.53	437.
86	7.44	718.	229	0.61	59.
88	1.35	130.	244	10.68	1030.
91	0.64	62.	245	0.82	79.
93	4.94	477.	246	1.15	111.
98	2.74	264.	255	55.14	5320.
99	2.11	204.	256	7.35	709.
101	1.11	107.	258	2.37	229.
104	0.69	67.	265	0.58	56.
105	0.79	76.	273	1.34	129.
107	12.71	1226.	274	4.57	441.
108	1.44	139.	275	28.03	2704.
110	24.46	2360.	276	3.18	307.
111	2.62	253.	277	1.67	161.
117	9.58	924.	296	5.81	561.
23	0.89	86.	323	1.89	182.
27	45.44	4384.	334	1.11	107.
28	3.00	289.	365	2.91	281.
[illegible]	16.42	1584.	372	0.47	45.
3[illegible]	0.90	87.	423	5.19	501.
35	0.87	84.	424	0.41	40.
41	1.48	143.	441	13.37	1290.
47	0.75	72.	442	96.68	9328.
48	1.75	169.	443	17.50	1688.
55	0.72	69.	444	0.77	74.

RIC+MASS CHROMATOGRAMS DATA: DFTPX1012 #663 SCANS 640 TO 673
10/12/94 14:33:00 CALI: CALTAB #3
SAMPLE: DFTPP @50NG
CONDS.: 100(2)-310@25/MIN HOLD 5MIN
RANGE: G 1, 671 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



SB

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: SWL - HOUSTON Contract: CORCO WORK

L Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: _____

Lab File ID (Standard): BCLX1012 Date Analyzed: 10/12/94

Instrument ID: FINN Time Analyzed: 1451

		IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
	12 HOUR STD	66962	9.69	239453	12.32	127374	16.07
	UPPER LIMIT	133924		478906		254748	
	LOWER LIMIT	33481		119726		63687	
	EPA SAMPLE NO.						
01	PD-2	49626	9.72	169862	12.34	93734	16.10
02	PD-2_DUP	48424	9.75	160460	12.39	91288	16.14
03	PD-2_MS	45914	9.80	156880	12.44	88098	16.19
04	PD-2_MSD	47664	9.82	163085	12.44	89740	16.20
05	BLK_1011_H2O	51232	9.77	161639	12.40	90221	16.17

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BLK_1011_H2O

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Lab Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: BLK DI H2O

Sample wt/vol: 1000 (g/mL) ML Lab File ID: X1012005

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/11/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/12/94

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BLK_1011_H2O

Lab Name: SWL - HOUSTON Contract: CORCO WORK

Lab Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: BLK DI H2O

Sample wt/vol: 1000 (g/mL) ML Lab File ID: X1012005

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/11/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/12/94

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BLK_1011_H2O

Lab Name: SWL - HOUSTON Contract: CORCO WORK

L Code: SWL HOU Case No.: 410061 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: BLK DI H2O

Sample wt/vol: 1000 (g/mL) ML Lab File ID: X1012005

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/11/94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/12/94

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX COMPOUNDS

CASE NO BLANK
SAS NO
LABORATORY SwL - Houston
REPORTED 10/13/94 13:24
CONTRACT
CUSTOMER

FILE NAME X1012005
TYPE BLANK
INST FINN
SAMPLE ID BLK 1011 H2O
LAB SAMP ID BLK DI H2O
ANALYZED 10/12/94 21:49
LEVEL LOW
MATRIX WATER
UNITS ug/L

CODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
C310	62-75-9	N-Nitrosodimethylamine		10.0	U
C315	108-95-2	Phenol		10.0	U
C320	62-53-3	Aniline		10.0	U
C322	110-86-1	Pyridine		10.0	U
C325	111-44-4	bis(2-Chloroethyl)Ether		10.0	U
C330	95-57-8	2-Chlorophenol		10.0	U
C335	541-73-1	1,3-Dichlorobenzene		10.0	U
C340	106-46-7	1,4-Dichlorobenzene		10.0	U
C345	100-51-6	Benzyl Alcohol		10.0	U
C7	95-50-1	1,2-Dichlorobenzene		10.0	U
C	95-48-7	2-Methylphenol		10.0	U
C360	39638-32-9	bis(2-Chloroisopropyl)Ether		10.0	U
C365	106-44-5	4-Methylphenol		10.0	U
C370	621-64-7	N-Nitroso-Di-n-Propylamine		10.0	U
C375	67-72-1	Hexachloroethane		10.0	U
C410	98-95-3	Nitrobenzene		10.0	U
C415	78-59-1	Isophorone		10.0	U
C420	88-75-5	2-Nitrophenol		10.0	U
C425	105-67-9	2,4-Dimethylphenol		10.0	U
C435	111-91-1	bis(2-Chloroethoxy)Methane		10.0	U
C440	120-83-2	2,4-Dichlorophenol		10.0	U
C445	120-82-1	1,2,4-Trichlorobenzene		10.0	U
C450	91-20-3	Naphthalene		10.0	U
C455	106-47-8	4-Chloroaniline		10.0	U
C460	87-68-3	Hexachlorobutadiene		10.0	U
C465	59-50-7	4-Chloro-3-Methylphenol		10.0	U
C470	91-57-6	2-Methylnaphthalene		10.0	U
C510	77-47-4	Hexachlorocyclopentadiene		10.0	U
C515	88-06-2	2,4,6-Trichlorophenol		10.0	U
C520	95-95-4	2,4,5-Trichlorophenol		10.0	U
C525	91-58-7	2-Chloronaphthalene		10.0	U
C530	88-74-4	2-Nitroaniline		50.0	U
C535	131-11-3	Dimethylphthalate		10.0	U
C540	208-96-8	Acenaphthylene		10.0	U
C543	606-20-2	2,6-Dinitrotoluene		10.0	U
C	99-09-2	3-Nitroaniline		50.0	U
C	83-32-9	Acenaphthene		10.0	U
C555	51-28-5	2,4-Dinitrophenol		50.0	U
C560	100-02-7	4-Nitrophenol		50.0	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX COMPOUNDS

CASE NO BLANK LABORATORY SwL - Houston CONTRACT
SAS NO REPORTED 10/13/94 13:24 CUSTOMER

CODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
C565	132-64-9	Dibenzofuran		10.0	U
C570	121-14-2	2,4-Dinitrotoluene		10.0	U
C580	84-66-2	Diethylphthalate		10.0	U
C585	7005-72-3	4-Chlorophenyl-phenylether		10.0	U
C590	86-73-7	Fluorene		10.0	U
C595	100-01-6	4-Nitroaniline		50.0	U
C610	534-52-1	4,6-Dinitro-2-Methylphenol		20.0	U
C615	86-30-6	N-Nitrosodiphenylamine (1)		10.0	U
C625	101-55-3	4-Bromophenyl-phenylether		10.0	U
C630	118-74-1	Hexachlorobenzene		10.0	U
C635	87-86-5	Pentachlorophenol		25.0	U
C640	85-01-8	Phenanthrene		10.0	U
C645	120-12-7	Anthracene		10.0	U
C650	84-74-2	Di-n-Butylphthalate		10.0	U
C655	206-44-0	Fluoranthene		10.0	U
C658	87-65-0	2,6-Dichlorophenol		10.0	U
C660	58-90-2	2,3,4,6-Tetrachlorophenol		10.0	U
C6	88-85-7	Dinoseb		10.0	U
C6	70-30-4	Hexachlorophene		20.0	U
C666	10595-95-6	N-Nitrosomehtylethylamine		10.0	U
C668	55-18-5	N-Nitrosodiethylamine		10.0	U
C670	59-89-2	N-Nitrosomorpholine		10.0	U
C672	930-55-2	N-Nitrosopyrrolidine		10.0	U
C674	100-75-4	N-Nitrosopiperdine		10.0	U
C676	924-16-3	N-Nitroso-di-n-butylamine		10.0	U
C678	126-68-1	O,O,O-Triethylphosphorothioat		10.0	U
C680	297-97-2	Thionazin		10.0	U
C682	3689-24-5	Tetraethyldithiopyrophosphate		10.0	U
C684	298-02-2	Phorate		10.0	U
C686	60-51-5	Dimethoate		10.0	U
C688	298-04-4	Disulfoton		10.0	U
C690	298-00-0	Methyl Parathion		10.0	U
C692	56-38-2	Parathion		10.0	U
C694	52-85-7	Famphur		20.0	U
C696	95-53-4	o-Toluidine		10.0	U
C698	122-09-8	a,a-Dimethylphenethylamine		10.0	U
C700	106-50-3	p-Phenylenediamine		50.0	U
C702	91-59-8	2-Naphthylamine		10.0	U
C704	134-32-7	1-Naphthylamine		10.0	U
C706	99-55-8	5-Nitro-o-toluidine		10.0	U
C712	62-44-2	Phenacetin		10.0	U
C715	129-00-0	Pyrene		10.0	U
C718	92-67-1	4-Aminobiphenyl		10.0	U
C7	85-68-7	Butylbenzylphthalate		10.0	U
C7	60-11-7	p-Dimethylaminoazobenzene		10.0	U
C725	91-94-1	3,3'-Dichlorobenzidine		20.0	U
C728	119-93-7	3,3-Dimethylbenzidine		10.0	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX COMPOUNDS

CASE NO BLANK LABORATORY SwL - Houston CONTRACT
SAS NO REPORTED 10/13/94 13:24 CUSTOMER

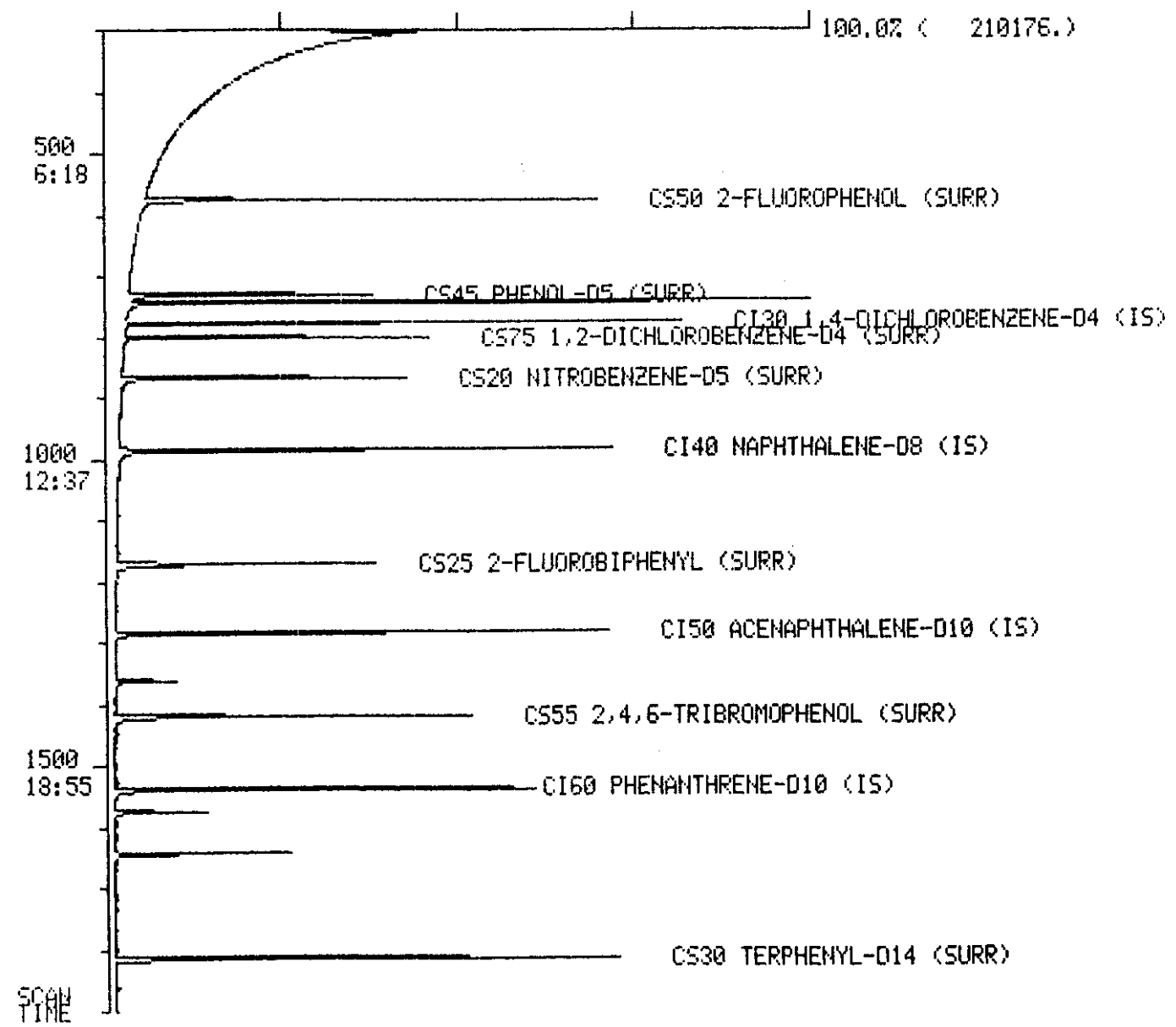
CODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
C730	56-55-3	Benzo(a)Anthracene		10.0	U
C732	53-96-3	2-Acetylaminofluroene		10.0	U
C738	66-27-3	Methylmethanesulfonate		10.0	U
C740	218-01-9	Chrysene		10.0	U
C742	62-50-0	Ethylmethanesulfonate		10.0	U
C745	117-81-7	bis(2-Ethylhexyl)Phthalate		10.0	U
C748	98-86-2	Acetophenone		10.0	U
C750	120-58-1	Isosafrole		10.0	U
C752	94-59-7	Safrole		10.0	U
C754	130-15-4	1,4-Napthoquinone		10.0	U
C756	99-65-0	m-Dinitrobenzene		10.0	U
C760	117-84-0	Di-n-Octyl Phthalate		10.0	U
C762	99-35-4	1,3,5-Trinitrobenzene		50.0	U
C765	205-99-2	Benzo(b)Fluoranthene		10.0	U
C768	82-68-8	Pentachloronitrobenzene		50.0	U
C770	207-08-9	Benzo(k)Fluoranthene		10.0	U
C772	57-97-6	7,12-Dimethylbenz(a)anthracen		10.0	U
C7[illegible]	50-32-8	Benzo(a)Pyrene		10.0	U
C7[illegible]	56-49-5	3-Methylcholanthrene		10.0	U
C780	193-39-5	Indeno(1,2,3-cd)Pyrene		10.0	U
C781	109-06-8	2-Picoline		10.0	U
C782	56-57-5	4-Nitroquinoline-1-oxide		100	U
C784	91-80-5	Methapyrilene		100	U
C785	53-70-3	Dibenz(a,h)Anthracene		10.0	U
C786	2303-16-4	Diallate (cis or trans)		10.0	U
C788	2303-16-4	Diallate (trans or cis)		10.0	U
C790	191-24-2	Benzo(g,h,i)Perylene		10.0	U
C792	23950-58-5	Pronamide		10.0	U
C794	465-73-6	Isodrin		10.0	U
C796	140-57-8	Aramite (1)		10.0	U
C798	140-57-8	Aramite (2)		10.0	U
C800	510-15-6	Chlorobenzilate		10.0	U
C802	143-50-0	Kepone		50.0	U
C804	70-30-4	Hexachloropropene		10.0	U
C806	95-94-3	1,2,4,5-Tetrachlorobenzene		10.0	U
C808	608-93-5	Pentachlorobenzene		10.0	U

Notes and summary data for this report.

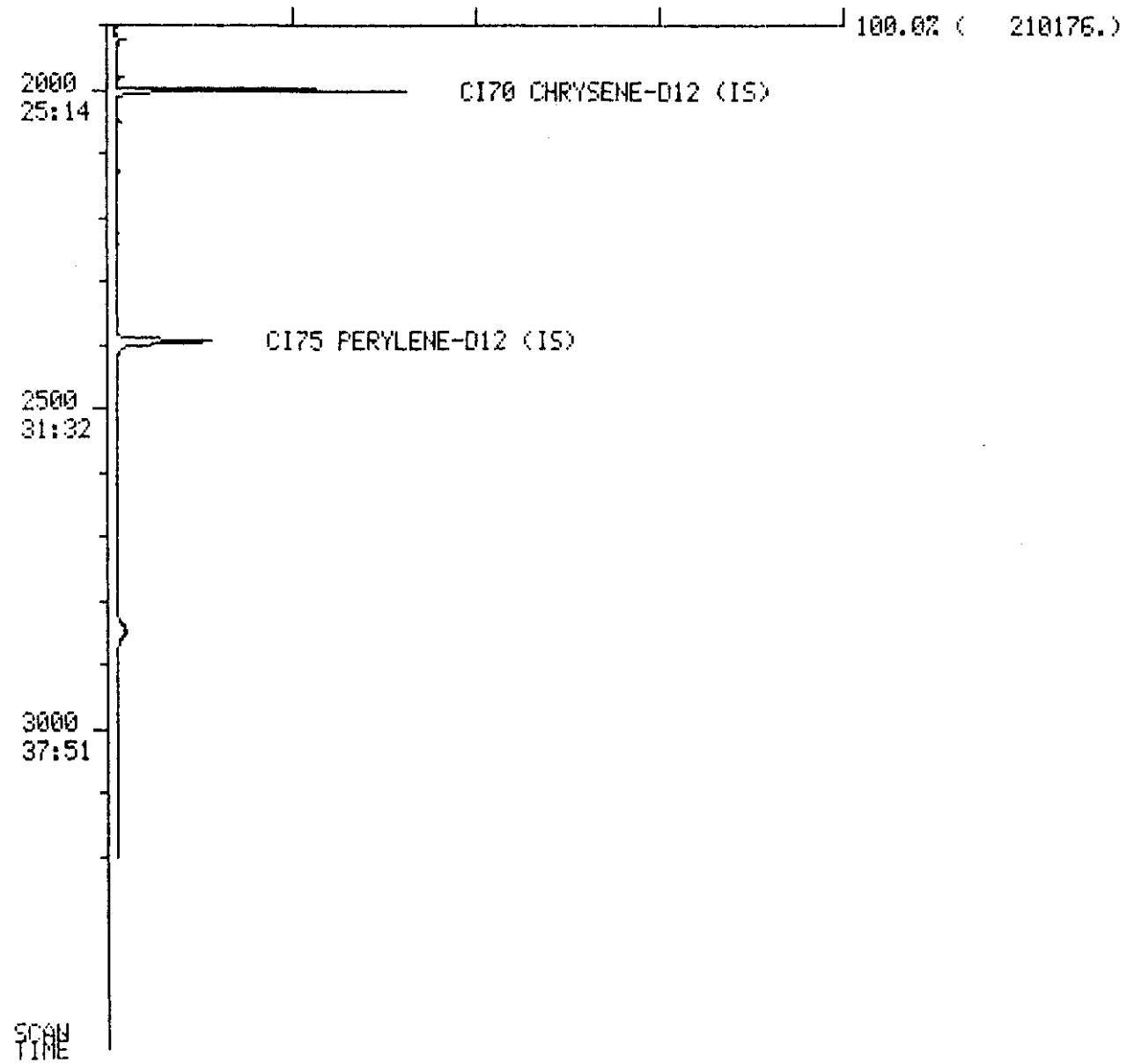
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

DATA FROM FILE: X1012005 SCANS 300 TO 1900 ACQUIRED: 10/12/94 21:49:00
CALI: X1012005 #3 OUT OF 300 TO 3200

SAMPLE: BLK DI H2O 10/11/94
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17



DATA FROM FILE: X1012005 SCANS 1900 TO 3200 ACQUIRED: 10/12/94 21:49:00
CALI: X1012005 #3. OUT OF 300 TO 3200
SAMPLE: BLK DI H2O 10/11/94
CONDS.: 40(4) TO 285 @ 12/MIN HOLD 17



WATER MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

Case No. 410061 Contractor SwL - Houston Contract No. CORCO WORK

FR TION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	REC-REC
	1,1-Dichloroethene								14	61-145
SMO	Trichloroethene								14	71-120
SAMPLE NO.	Chlorobenzene								13	75-130
	Toluene								13	76-125
	Benzene								11	76-127
B/N	1,2,4-Trichlorobenzene . .	100	0	42.8	43	51.0	51	-17	28	39-98
SMO	Acenaphthene	100	0	45.2	45*	47.4	47	-5	31	46-118
SAMPLE NO.	2,4-Dinitrotoluene	100	0	44.6	45	54.6	55	-20	38	24-96
PD-2	Pyrene	100	0	24.6	25*	14.2	14*	54*	31	26-127
	N-Nitroso-Di-n-Propylamine	100	0	59.0	59	72.0	72	-20	38	41-116
	1,4-Dichlorobenzene . . .	100	0	39.2	39	52.0	52	-28	28	36-97
ACID	Pentachlorophenol	200	0	77.4	39	88.6	44	-13	50	9-103
SMO	Phenol	200	0	60.6	30	57.2	29	6	42	12-89
SAMPLE NO.	2-Chlorophenol	200	0	123	62	114	57	8	40	27-123
PD-2	4-Chloro-3-Methylphenol .	200	0	135	68	130	65	4	42	23-97
	4-Nitrophenol	200	0	63.8	32	52.4	26	20	50	10-80
PEST	Lindane								15	56-123
SMO	Heptachlor								20	40-131
SAMPLE NO.	Aldrin								22	40-120
	Dieldrin								18	52-126
	Endrin								21	56-121
	4,4'-DDT								27	38-127

* ASTERISKED VALUES ARE OUTSIDE QC LIMITS

RP VOAs ____ out of 5; outside QC limits RECOVERY: VOAs ____ out of 10; outside QC limits
B/N 1 out of 6; outside QC limits B/N 3 out of 12; outside QC limits
ACID 0 out of 5; outside QC limits ACID 0 out of 10; outside QC limits
PEST ____ out of 6; outside QC limits PEST ____ out of 12; outside QC limits

Comments:

FORM III

WATER MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORK
SAS NO REPORTED 10/13/94 13:15 CUSTOMER DSM ENV

FILE NAME X1012001 SAMPLE ID PD-2 LEVEL LOW
SPIKE X1012003 LAB SAMP ID 9410061-12A MATRIX WATER
DUP SPIKE X1012004 ANALYZED 10/12/94 18:05 UNITS ug/L

COMPOUND	TYPES	CONC SAMPLE	CONC SPIKED	CONC MS	% REC	CONC MSD	% REC	RPD
1,1-Dichloroethene	V		50.00					
Trichloroethene	V		50.00					
Benzene	V		50.00					
Toluene	V		50.00					
Chlorobenzene	V		50.00					
Phenol	A		100.00	30.30	30	28.60	29	6
2-Chlorophenol	A		100.00	61.50	62	57.10	57	7
1,4-Dichlorobenzene	B		50.00	19.60	39	26.00	52	-28
N-Nitroso-Di-n-Propylamine	B		50.00	29.50	59	36.00	72	-20
1,2,4-Trichlorobenzene	B		50.00	21.40	43	25.50	51	-17
4-Chloro-3-Methylphenol	A		100.00	67.40	67	64.90	65	4
Acenaphthene	B		50.00	22.60	45	23.70	47	-5
4-Nitrophenol	A		100.00	31.90	32	26.20	26	20
2,4-Dinitrotoluene	B		50.00	22.30	45	27.30	55	-20
Pentachlorophenol	A		100.00	38.70	39	44.30	44	-13
Pyrene	B		50.00	12.30	25	7.12	14	53
Lindane	P		0.02					
Heptachlor	P		0.02					
Aldrin	P		0.02					
Dieldrin	P		0.05					
Endrin	P		0.05					
4,4'-DDT	P		0.05					

Notes and summary data for this report.
% REC = (MS - SAMPLE) / SPIKE * 100
RPD = (MS - MSD) / ((MS + MSD) / 2 - SAMPLE) * 100
Underlined values are outside of QC limits.

Recovery: Base/Neutrals outside QC limits: 2 of 6
Acids outside QC limits - - - -: 0 of 5

RPD: Base/Neutrals outside QC limits: 1 of 6
Acids outside QC limits - - - -: 0 of 5

PROCEDURE: TCA DIAGNOSTIC REPORT 10/12/94 20:39:38
DA FILE: X1012003
REF ENCE: SV11
NAME LIST: SVNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: SVRT

---- STANDARDS -----				>< --- PLUS UNKNOWNS ---				>< - LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
6	6	1	192	14	13	1	149	SVRT/SVTG
1	1	1	0	8	4	1	701	SVRT1/SVTG1
1	1	1	0	9	3	1	66	SVRT2/SVTG2
1	1	1	0	8	1	1	0	SVRT3/SVTG3
1	1	1	0	8	3	1	5	SVRT4/SVTG4
1	1	1	0	8	1	1	0	SVRT5/SVTG5
1	1	1	0	7	4	1	109	SVRT6/SVTG6
1	1	1	0	7	1	1	0	SVRT7/SVTG7
1	1	1	0	11	3	1	17	SVRT8/SVTG8
1	1	1	0	7	3	1	72	SVRT9/SVTG9
1	1	1	0	9	1	1	0	SVRT10/SVTG10

86 COMPOUNDS PROCESSED, 27 FOUND

COMPOUND		>< ---------- SEARCH ----------					>< SAT	>< ------ CHRO ------ >			
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	SV	1	-768	776	777	1	1	997	.	152	777	.	1
2	SV	2	-976	985	985	.	1	989	.	136	985	.	1
3	SV	3	-1273	1283	1283	.	1	994	.	164	1283	.	1
.	SV	4	-1528	1538	1537	-1	1	993	.	188	1537	.	1
5	SV	5	-1991	2003	2000	-3	1	969	.	240	2000	.	1
6	SV	6	-2378	2391	2393	2	1	940	.	264	2393	.	1
7	SV	7	-568	576	576	.	1	968	.	112	576	.	1
8	SV	8	-722	730	729	-1	1	966	.	99	729	.	1
9	SV	9	-859	867	867	.	1	997	.	82	867	.	1
10	SV	10	-1161	1170	1170	.	1	997	.	172	1170	.	1
11	SV	11	-1409	1419	1419	.	1	986	.	330	1419	.	1
12	SV	12	-1806	1817	1814	-3	1	969	.	244	1814	.	1
13	SV	150	-734	742	.	.	.	.	.	132	742	.	1
14	SV	149	-792	800	801	1	1	977	.	152	801	.	1
15	SV	82	-331	276	.	.	.	.	.	79	.	.	.
16	SV	24	-327	271	.	.	.	.	.	42	.	.	.
17	SV	13	-724	732	731	-1	1	996	.	94	731	.	1
18	SV	72	-718	725	.	.	.	.	.	93	.	.	.
19	SV	25	-730	739	.	.	.	.	.	93	.	.	.
20	SV	14	-737	747	745	-2	1	1000	.	128	745	.	1
21	SV	38	-758	771	779	8	1	987	.	146	779	.	1
22	SV	39	-771	779	779	.	1	988	.	146	779	.	1
23	SV	40	-795	803	.	.	.	.	.	146	.	.	.
24	SV	68	-818	825	.	.	.	.	.	108	.	.	.
25	SV	26	-817	824	.	.	.	.	.	45	.	.	.
26	SV	151	-817	824	.	.	.	.	.	45	.	.	.
27	SV	27	-839	846	846	.	1	993	.	70	846	.	1
28	SV	69	-843	850	.	.	.	.	.	108	.	.	.
29	SV	41	-848	855	.	.	.	.	.	117	.	.	.
30	SV	73	-796	803	.	.	.	.	.	108	801	.	1
31	SV	42	-862	870	.	.	.	.	.	77	.	.	.
32	SV	43	-903	911	.	.	.	.	.	82	911	.	1
33	SV	15	-915	923	.	.	.	.	.	139	.	.	.
34	SV	16	-929	938	.	.	.	.	.	122	.	.	.
35	SV	28	-942	951	.	.	.	.	.	93	.	.	.
36	SV	17	-957	966	.	.	.	.	.	162	.	.	.

38	SV	44	-968	977	977	.	1	991	.	180	976	-1	1
39	SV	52	-980	989	.	.	.	.	.	128	988	.	1
40	SV	74	-993	1002	.	.	.	.	.	127	.	.	.
41	SV	45	-1002	1011	.	.	.	.	.	225	.	.	.
42	SV	18	-1080	1090	1090	.	1	994	.	107	1090	.	1
43	SV	75	-1097	1107	.	.	.	.	.	142	1106	.	1
44	SV	46	-1123	1132	.	.	.	.	.	237	.	.	.
45	SV	19	-1148	1157	.	.	.	.	.	196	.	.	.
46	SV	71	-1155	1164	.	.	.	.	.	196	.	.	.
47	SV	47	-1179	1188	.	.	.	.	.	162	1188	.	1
48	SV	76	-1201	1210	.	.	.	.	.	65	.	.	.
49	SV	29	-1233	1243	.	.	.	.	.	163	.	.	.
50	SV	48	-1243	1253	.	.	.	.	.	165	.	.	.
51	SV	53	-1249	1259	.	.	.	.	.	152	1259	.	1
52	SV	77	-1272	1282	.	.	.	.	.	138	.	.	.
53	SV	54	-1279	1289	1288	-1	1	996	.	153	1288	.	1
54	SV	20	-1290	1299	.	.	.	.	.	184	.	.	.
55	SV	21	-1311	1320	1321	1	1	882	.	109	1321	.	1
56	SV	49	-1312	1321	1320	-1	1	976	.	89	1320	.	1
57	SV	78	-1309	1319	.	.	.	.	.	168	1318	.	1
58	SV	30	-1354	1365	.	.	.	.	.	149	.	.	.
59	SV	55	-1367	1378	.	.	.	.	.	166	.	.	.
60	SV	31	-1369	1380	.	.	.	.	.	204	.	.	.
61	SV	79	-1378	1389	.	.	.	.	.	138	.	.	.
62	SV	50	-1397	1408	.	.	.	.	.	77	1408	.	1
63	SV	22	-1381	1391	.	.	.	.	.	198	.	.	.
64	SV	32	-1391	1401	.	.	.	.	.	169	1400	.	1
65	SV	33	-1453	1462	.	.	.	.	.	248	.	.	.
66	SV	51	-1462	1471	.	.	.	.	.	284	.	.	.
67	SV	23	-1498	1507	1507	.	1	974	.	266	1507	.	1
68	SV	56	-1532	1541	.	.	.	.	.	178	1541	.	1
69	SV	57	-1541	1550	.	.	.	.	.	178	.	.	.
70	SV	142	-1572	1581	.	.	.	.	.	167	1583	.	1
71	SV	34	-1635	1643	1643	.	1	989	.	149	1643	.	1
72	SV	58	-1738	1745	.	.	.	.	.	202	1746	.	1
73	SV	80	-1766	1774	.	.	.	.	.	184	.	.	.
74	SV	59	-1777	1785	1785	.	1	984	.	202	1785	.	1
75	SV	35	-1893	1901	.	.	.	.	.	149	1900	.	1
76	SV	60	-1989	1997	.	.	.	.	.	228	.	.	.
77	SV	61	-1997	2005	.	.	.	.	.	228	.	.	.
78	SV	36	-1999	2008	2007	-1	1	965	.	149	2007	.	1
79	SV	81	-1988	2001	.	.	.	.	.	252	.	.	.
80	SV	37	-2151	2165	.	.	.	.	.	149	.	.	.
81	SV	62	-2253	2267	.	.	.	.	.	252	.	.	.
82	SV	63	-2261	2275	.	.	.	.	.	252	.	.	.
83	SV	64	-2357	2372	.	.	.	.	.	252	.	.	.
84	SV	65	-2857	2875	.	.	.	.	.	276	.	.	.
85	SV	66	-2876	2894	.	.	.	.	.	278	.	.	.
86	SV	67	-3008	3027	.	.	.	.	.	276	.	.	.

Quantitation Report File: X1012003

Da X1012003.TI
10/ /94 19:56:00
Sample: 9410061-12C DSM ENV PD-2/MS
Conds.: 40(4) TO 285 @ 12/MIN HOLD 17
Formula: Instrument: FINN Weight: 0.000
Submitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 (IS)
2	CI40 NAPHTHALENE-D8 (IS)
3	CI50 ACENAPHTHALENE-D10 (IS)
4	CI60 PHENANTHRENE-D10 (IS)
5	CI70 CHRYSENE-D12 (IS)
6	CI75 PERYLENE-D12 (IS)
7	CS50 2-FLUOROPHENOL (SURR)
8	CS45 PHENOL-D5 (SURR)
9	CS20 NITROBENZENE-D5 (SURR)
10	CS25 2-FLUOROBIPHENYL (SURR)
11	CS55 2,4,6-TRIBROMOPHENOL (SURR)
12	CS30 TERPHENYL-D14 (SURR)
13	CS70 2-CHLOROPHENOL-D4 (SURR)
14	CS75 1,2-DICHLOROBENZENE-D4 (SURR)
1	C322 PYRIDINE
16	C310 N-NITROSODIMETHYLAMINE
17	C315 PHENOL
18	C320 ANALINE
19	C325 BIS(2-CHLOROETHYL)ETHER
20	C330 2-CHLOROPHENOL
21	C335 1,3 DICHLOROBENZENE
22	C340 1,4 DICHLOROBENZENE
23	C350 1,2 DICHLOROBENZENE
24	C355 2-METHYLPHENOL
25	C360 BIS(2-CHLOROISOPROPYL)ETHER
26	C357 2,2-OXYBIS(1-CHLOROPROPANE)
27	C370 N-NITROSO-DI-N-PROPYLAMINE
28	C365 4-METHYLPHENOL
29	C375 HEXACHLOROETHANE
30	C345 BENZYL ALCOHOL
31	C410 NITROBENZENE
32	C415 ISOPHORONE
33	C420 2-NITROPHENOL
34	C425 2,4-DIMETHYLPHENOL
35	C435 BIS(2-CHLOROETHOXY)METHANE
36	C440 2,4-DICHLOROPHENOL
37	C430 BENZOIC ACID
38	C445 1,2,4-TRICHLOROBENZENE
39	C450 NAPHTHALENE
40	C455 4-CHLOROANALINE
4.	C460 HEXACHLOROBUTADIENE
42	C465 4-CHLORO-3-METHYLPHENOL
43	C470 2-METHYLNAPHTHALENE
44	C510 HEXACHLOROCYCLOPENTADIENE
45	C515 2,4,6-TRICHLOROPHENOL
46	C520 2,4,5-TRICHLOROPHENOL
47	C525 2-CHLORONAPHTHALENE

I	Name
4[illegible]	C530 2-NITROANALINE
49	C535 DIMETHYLPHTHALATE
50	C543 2,6-DINITROTOLUENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	777	9:48	1	1.000	A BB	45914.	40.000 NG	4.60
2	136	985	12:26	2	1.000	A BB	156880.	40.000 NG	4.60
3	164	1283	16:11	3	1.000	A BB	88098.	40.000 NG	4.60
4	188	1537	19:24	4	1.000	A BV	134424.	40.000 NG	4.60
5	240	2000	25:14	5	1.000	A BB	116645.	40.000 NG	4.60
6	264	2393	30:12	6	1.000	A BB	71588.	40.000 NG	4.60
7	112	576	7:16	1	0.741	A BB	54214.	33.313 NG	3.83
8	99	729	9:12	1	0.938	A BV	51559.	23.268 NG	2.68
9	82	867	10:56	2	0.880	A BB	61580.	27.334 NG	3.15
10	172	1170	14:46	3	0.912	A BB	65845.	21.967 NG	2.53
11	330	1419	17:54	3	1.106	A BB	22490.	34.333 NG	3.95
12	244	1814	22:53	5	0.907	A BB	46787.	14.277 NG	1.64
13	132	742	9:22	1	0.955	A BB	78480.	50.364 NG	5.80
14	152	801	10:06	1	1.031	A BB	23998.	21.498 NG	2.47
15	NOT FOUND								
16	NOT FOUND								
17	94	731	9:13	1	0.941	A BB	73500.	30.294 NG	3.49
18	NOT FOUND								
19	NOT FOUND								
20	128	745	9:24	1	0.959	A BB	101131.	61.452 NG	7.07
2	146	779	9:50	1	1.003	A BB	38444.	19.970 NG	2.30
22	146	779	9:50	1	1.003	A BB	38444.	19.610 NG	2.26
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	70	846	10:40	1	1.089	A BB	47788.	29.548 NG	3.40
28	NOT FOUND								
29	NOT FOUND								
30	108	801	10:06	2	0.813	A BB	144.	0.149 NG	0.02
31	NOT FOUND								
32	82	911	11:30	2	0.925	A BB	260.	0.065 NG	0.01
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	180	976	12:19	2	0.991	A BB	31904.	21.365 NG	2.46
39	128	988	12:28	2	1.003	A BB	216.	0.051 NG	0.01
40	NOT FOUND								
41	NOT FOUND								
42	107	1090	13:45	2	1.107	A BB	95315.	67.424 NG	7.76
43	142	1106	13:57	2	1.123	A BB	157.	0.056 NG	0.01
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	62	1188	14:59	3	0.926	A BB	50.	0.017 NG	0.00
48	NOT FOUND								
49	NOT FOUND								
50	NOT FOUND								

#	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:41	1.01	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:19	1.01	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	16:04	1.01	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	19:17	1.01	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	25:07	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	30:00	1.01	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	7:10	1.01	0.740	1.00	33.31	50.00	0.945	1.418	0.67
8	9:07	1.01	0.940	1.00	23.27	50.00	0.898	1.930	0.47
9	10:50	1.01	0.880	1.00	27.33	50.00	0.314	0.574	0.55
10	14:39	1.01	0.912	1.00	21.97	50.00	0.598	1.361	0.44
11	17:47	1.01	1.107	1.00	34.33	50.00	0.204	0.297	0.69
12	22:47	1.00	0.907	1.00	14.28	50.00	0.321	1.124	0.29
13	9:16	1.01	0.956	1.00	50.36	50.00	1.367	1.358	1.01
14	10:00	1.01	1.031	1.00	21.50	50.00	0.418	0.972	0.43
15	4:11		0.431						
16	4:08		0.426						
17	9:08	1.01	0.943	1.00	30.29	50.00	1.281	2.114	0.61
18	9:04		0.935						
19	9:13		0.951						
20	9:18	1.01	0.960	1.00	61.45	50.00	1.762	1.434	1.23
21	9:34	1.03	0.987	1.02	19.97	50.00	0.670	1.677	0.40
22	9:44	1.01	1.004	1.00	19.61	50.00	0.670	1.708	0.39
23	10:02		1.035						
24	10:19		1.065						
25	10:18		1.064						
26	10:18		1.064						
27	10:35	1.01	1.092	1.00	29.55	50.00	0.833	1.409	0.59
28	10:38		1.098						
29	10:42		1.104						
30	10:03	1.01	0.816	1.00	0.15	50.00	0.001	0.247	0.00
31	10:53		0.883						
32	11:24	1.01	0.925	1.00	0.06	50.00	0.001	1.023	0.00
33	11:33		0.937						
34	11:43		0.952						
35	11:53		0.965						
36	12:04		0.981						
37	12:02		0.977						
38	12:13	1.01	0.992	1.00	21.37	50.00	0.163	0.381	0.43
39	12:22	1.01	1.004	1.00	0.05	50.00	0.001	1.074	0.00
40	12:32		1.017						
41	12:39		1.027						
42	13:38	1.01	1.107	1.00	67.42	50.00	0.486	0.360	1.35
43	13:50	1.01	1.124	1.00	0.06	50.00	0.001	0.711	0.00
44	14:10		0.882						
45	14:29		0.902						
46	14:34		0.907						
47	14:53	1.01	0.926	1.00	0.02	50.00	0.000	1.312	0.00
48	15:09		0.943						
49	15:33		0.969						
50	15:41		0.976						

Quantitation Report File: X1012003

Da. X1012003.TI
10/1_/94 19:56:00
Sample: 9410061-12C DSM ENV PD-2/MS
Conds.: 40(4) TO 285 @ 12/MIN HOLD 17
Formula: Instrument: FINN Weight: 0.000
Submitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	C540 ACENAPHTHYLENE
52	C545 3-NITROANALINE
53	C550 ACENAPHTHENE
54	C555 2,4-DINITROPHENOL
55	C560 4-NITROPHENOL
56	C570 2,4-DINITROTOLUENE
57	C565 DIBENZOFURAN
58	C580 DIETHYLPHTHALATE
59	C590 FLUORENE
60	C585 4-CHLOROPHENYL-PHENYLETHER
61	C595 4-NITROANALINE
62	C576 AZOBENZENE
63	C610 4,6-DINITRO-2-METHYLPHENOL
64	C615 N-NITROSODIPHENYLAMINE
65	C625 4-BROMOPHENYL-PHENYLETHER
66	C630 HEXACHLOROBENZENE
67	C635 PENTACHLOROPHENOL
68	C640 PHENANTHRENE
69	C645 ANTHRACENE
70	C647 CARBAZOLE
71	C650 DI-N-BUTYLPHTHALATE
72	C655 FLUORANTHENE
73	C710 BENZIDINE
74	C715 PYRENE
75	C720 BUTYLBENZYLPHTHALATE
76	C740 CHRYSENE
77	C730 BENZO(A)ANTHRACENE
78	C745 BIS(2-ETHYLHEXYL)PHTHALATE
79	C725 3,3-DICHLOROBENZIDINE
80	C760 DI-N-OCTYLPHTHALATE
81	C770 BENZO(K)FLUORANTHENE
82	C765 BENZO(B)FLUORANTHENE
83	C775 BENZO(A)PYRENE
84	C780 INDENO(1,2,3-CD)PYRENE
85	C785 DIBENZ(A,H)ANTHRACENE
86	C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
51	152	1259	15:53	3	0.981	A BB	162.	0.039	NG	0.00
52	NOT	FOUND								
53	53	1288	16:15	3	1.004	A BB	61310.	22.599	NG	2.60
54	NOT	FOUND								
55	109	1321	16:40	3	1.030	A BB	12560.	31.861	NG	3.67
56	89	1320	16:39	3	1.029	A BB	23516.	22.290	NG	2.57
57	168	1318	16:38	3	1.027	A BB	170.	0.044	NG	0.01

N	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
58	NOT FOUND								
59	NOT FOUND								
60	NOT FOUND								
61	NOT FOUND								
62	77	1408	17:46	3	1.097	A BB	236.	0.052 NG	0.01
63	NOT FOUND								
64	169	1400	17:40	4	0.911	A BB	124.	0.069 NG	0.01
65	NOT FOUND								
66	NOT FOUND								
67	266	1507	19:01	4	0.980	A BB	25288.	38.728 NG	4.46
68	178	1541	19:27	4	1.003	A BB	390.	0.100 NG	0.01
69	NOT FOUND								
70	167	1583	19:58	4	1.030	A BB	146.	0.085 NG	0.01
71	149	1643	20:44	4	1.069	A BB	109840.	21.665 NG	2.49
72	202	1746	22:02	4	1.136	A BB	112.	0.032 NG	0.00
73	NOT FOUND								
74	202	1785	22:31	5	0.893	A BV	50330.	12.272 NG	1.41
75	149	1900	23:58	5	0.950	A BB	656.	0.352 NG	0.04
76	NOT FOUND								
77	NOT FOUND								
78	149	2007	25:19	5	1.003	A BB	7170.	2.516 NG	0.29
79	NOT FOUND								
80	NOT FOUND								
81	NOT FOUND								
82	NOT FOUND								
83	NOT FOUND								
84	NOT FOUND								
85	NOT FOUND								
86	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	15:45	1.01	0.981	1.00	0.04	50.00	0.001	1.873	0.00
52	16:03		0.999						
53	16:08	1.01	1.005	1.00	22.60	50.00	0.557	1.232	0.45
54	16:17		1.013						
55	16:32	1.01	1.030	1.00	31.86	50.00	0.114	0.179	0.64
56	16:33	1.01	1.031	1.00	22.29	50.00	0.214	0.479	0.45
57	16:31	1.01	1.028	1.00	0.04	50.00	0.002	1.766	0.00
58	17:05		1.064						
59	17:15		1.074						
60	17:16		1.075						
61	17:23		1.082						
62	17:38	1.01	1.097	1.00	0.05	50.00	0.002	2.047	0.00
63	17:25		0.904						
64	17:33	1.01	0.910	1.00	0.07	50.00	0.001	0.533	0.00
65	18:20		0.951						
66	18:27		0.957						
67	18:54	1.01	0.980	1.00	38.73	50.00	0.150	0.194	0.77
68	19:20	1.01	1.003	1.00	0.10	50.00	0.002	1.161	0.00
69	19:27		1.009						
70	19:50	1.01	1.029	1.00	0.09	50.00	0.001	0.509	0.00
71	20:38	1.00	1.070	1.00	21.67	50.00	0.654	1.509	0.43
72	21:56	1.00	1.137	1.00	0.03	50.00	0.001	1.057	0.00
73	22:17		0.888						
74	22:25	1.00	0.893	1.00	12.27	50.00	0.345	1.406	0.25
75	23:53	1.00	0.951	1.00	0.35	50.00	0.004	0.639	0.01

N	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
76	25:06		0.999						
77	25:12		1.003						
78	25:13	1.00	1.004	1.00	2.52	50.00	0.049	0.977	0.05
79	25:05		0.836						
80	27:08		0.905						
81	28:26		0.947						
82	28:32		0.951						
83	29:44		0.991						
84	36:03		1.201						
85	36:17		1.209						
86	37:57		1.265						

PROCEDURE: TCA DIAGNOSTIC REPORT 10/12/94 21:35:46
DA FILE: X1012004
RE. ENCE: SV11
NAME LIST: SVNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: SVRT

---- STANDARDS -----				>< --- PLUS UNKNOWNS ---				>< - LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
6	6	1	161	14	13	1	125	SVRT/SVTG
1	1	1	0	8	4	1	698	SVRT1/SVTG1
1	1	1	0	9	3	1	66	SVRT2/SVTG2
1	1	1	0	8	1	1	0	SVRT3/SVTG3
1	1	1	0	8	3	1	5	SVRT4/SVTG4
1	1	1	0	8	1	1	0	SVRT5/SVTG5
1	1	1	0	7	4	1	109	SVRT6/SVTG6
1	1	1	0	7	1	1	0	SVRT7/SVTG7
1	1	1	0	11	3	1	17	SVRT8/SVTG8
1	1	1	0	7	3	1	72	SVRT9/SVTG9
1	1	1	0	9	1	1	0	SVRT10/SVTG10

86 COMPOUNDS PROCESSED, 27 FOUND

COMPOUND		>< ---------- SEARCH ----------					>< SAT	>< ------ CHRO ------- >				
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	SV	1	-768	777	778	1	1	991	.	152	778	.	1
2	SV	2	-976	986	986	.	1	991	.	136	986	.	1
3	SV	3	-1273	1284	1284	.	1	987	.	164	1284	.	1
	SV	4	-1528	1539	1538	-1	1	991	.	188	1538	.	1
5	SV	5	-1991	2003	2001	-2	1	975	.	240	2001	.	1
6	SV	6	-2378	2391	2393	2	1	943	.	264	2393	.	1
7	SV	7	-568	577	577	.	1	972	.	112	577	.	1
8	SV	8	-722	731	731	.	1	986	.	99	730	-1	1
9	SV	9	-859	869	869	.	1	996	.	82	869	.	1
10	SV	10	-1161	1171	1171	.	1	997	.	172	1171	.	1
11	SV	11	-1409	1420	1420	.	1	930	.	330	1420	.	1
12	SV	12	-1806	1817	1815	-2	1	966	.	244	1815	.	1
13	SV	150	-734	743	.	.	.	.	.	132	743	.	1
14	SV	149	-792	801	802	1	1	980	.	152	802	.	1
15	SV	82	-331	285	.	.	.	.	.	79	.	.	.
16	SV	24	-327	280	.	.	.	.	.	42	.	.	.
17	SV	13	-724	733	733	.	1	997	.	94	732	-1	1
18	SV	72	-718	726	.	.	.	.	.	93	.	.	.
19	SV	25	-730	740	.	.	.	.	.	93	.	.	.
20	SV	14	-737	748	746	-2	1	999	.	128	746	.	1
21	SV	38	-758	772	780	8	1	987	.	146	780	.	1
22	SV	39	-771	780	780	.	1	985	.	146	780	.	1
23	SV	40	-795	804	.	.	.	.	.	146	804	.	1
24	SV	68	-818	826	.	.	.	.	.	108	.	.	.
25	SV	26	-817	825	.	.	.	.	.	45	.	.	.
26	SV	151	-817	825	.	.	.	.	.	45	.	.	.
27	SV	27	-839	847	847	.	1	992	.	70	847	.	1
28	SV	69	-843	851	.	.	.	.	.	108	.	.	.
29	SV	41	-848	856	.	.	.	.	.	117	.	.	.
30	SV	73	-796	804	.	.	.	.	.	108	802	.	1
31	SV	42	-862	871	.	.	.	.	.	77	869	.	1
32	SV	43	-903	912	.	.	.	.	.	82	913	.	1
33	SV	15	-915	924	.	.	.	.	.	139	.	.	.
34	SV	16	-929	939	.	.	.	.	.	122	.	.	.
35	SV	28	-942	952	.	.	.	.	.	93	.	.	.
36	SV	17	-957	967	.	.	.	.	.	162	.	.	.

38	SV	44	-968	978	978	.	1	979	.	180	978	.	1
39	SV	52	-980	990	.	.	.	.	.	128	989	.	1
40	SV	74	-993	1003	.	.	.	.	.	127	.	.	.
41	SV	45	-1002	1012	.	.	.	.	.	225	.	.	.
42	SV	18	-1080	1091	1091	.	1	992	.	107	1091	.	1
43	SV	75	-1097	1108	.	.	.	.	.	142	1107	.	1
4	SV	46	-1123	1133	.	.	.	.	.	237	.	.	.
45	SV	19	-1148	1158	.	.	.	.	.	196	.	.	.
46	SV	71	-1155	1165	.	.	.	.	.	196	.	.	.
47	SV	47	-1179	1189	.	.	.	.	.	162	1190	.	1
48	SV	76	-1201	1211	.	.	.	.	.	65	.	.	.
49	SV	29	-1233	1244	.	.	.	.	.	163	.	.	.
50	SV	48	-1243	1254	.	.	.	.	.	165	.	.	.
51	SV	53	-1249	1260	.	.	.	.	.	152	1259	.	1
52	SV	77	-1272	1283	.	.	.	.	.	138	.	.	.
53	SV	54	-1279	1290	1289	-1	1	995	.	153	1289	.	1
54	SV	20	-1290	1300	.	.	.	.	.	184	.	.	.
55	SV	21	-1311	1321	1322	1	1	850	.	109	1322	.	1
56	SV	49	-1312	1322	1321	-1	1	986	.	89	1321	.	1
57	SV	78	-1309	1320	.	.	.	.	.	168	1319	.	1
58	SV	30	-1354	1366	.	.	.	.	.	149	.	.	.
59	SV	55	-1367	1379	.	.	.	.	.	166	1378	.	1
60	SV	31	-1369	1381	.	.	.	.	.	204	.	.	.
61	SV	79	-1378	1390	.	.	.	.	.	138	.	.	.
62	SV	50	-1397	1409	.	.	.	.	.	77	1409	.	1
63	SV	22	-1381	1392	.	.	.	.	.	198	.	.	.
64	SV	32	-1391	1402	.	.	.	.	.	169	1401	.	1
65	SV	33	-1453	1463	.	.	.	.	.	248	.	.	.
66	SV	51	-1462	1472	.	.	.	.	.	284	.	.	.
67	SV	23	-1498	1508	1508	.	1	972	.	266	1508	.	1
68	SV	56	-1532	1542	.	.	.	.	.	178	1542	.	1
69	SV	57	-1541	1551	.	.	.	.	.	178	1551	.	1
70	SV	142	-1572	1582	.	.	.	.	.	167	1584	.	1
71	SV	34	-1635	1644	1644	.	1	987	.	149	1643	-1	1
72	SV	58	-1738	1746	.	.	.	.	.	202	1747	.	1
73	SV	80	-1766	1775	.	.	.	.	.	184	.	.	.
74	SV	59	-1777	1786	1786	.	1	981	.	202	1786	.	1
75	SV	35	-1893	1902	.	.	.	.	.	149	1901	.	1
76	SV	60	-1989	1998	.	.	.	.	.	228	2000	.	1
77	SV	61	-1997	2006	.	.	.	.	.	228	2007	.	1
78	SV	36	-1999	2009	2008	-1	1	949	.	149	2008	.	1
79	SV	81	-1988	2001	.	.	.	.	.	252	.	.	.
80	SV	37	-2151	2165	.	.	.	.	.	149	.	.	.
81	SV	62	-2253	2267	.	.	.	.	.	252	.	.	.
82	SV	63	-2261	2275	.	.	.	.	.	252	.	.	.
83	SV	64	-2357	2372	.	.	.	.	.	252	.	.	.
84	SV	65	-2857	2875	.	.	.	.	.	276	.	.	.
85	SV	66	-2876	2894	.	.	.	.	.	278	.	.	.
86	SV	67	-3008	3027	.	.	.	.	.	276	.	.	.

Quantitation Report File: X1012004

Da X1012004.TI
10/ /94 20:53:00
Sample: 9410061-12D DSM ENV PD-2/MSD
Conds.: 40(4) TO 285 @ 12/MIN HOLD 17
Formula: Instrument: FINN Weight: 0.000
Submitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 (IS)
2	CI40 NAPHTHALENE-D8 (IS)
3	CI50 ACENAPHTHALENE-D10 (IS)
4	CI60 PHENANTHRENE-D10 (IS)
5	CI70 CHRYSENE-D12 (IS)
6	CI75 PERYLENE-D12 (IS)
7	CS50 2-FLUOROPHENOL (SURR)
8	CS45 PHENOL-D5 (SURR)
9	CS20 NITROBENZENE-D5 (SURR)
10	CS25 2-FLUOROBIPHENYL (SURR)
11	CS55 2,4,6-TRIBROMOPHENOL (SURR)
12	CS30 TERPHENYL-D14 (SURR)
13	CS70 2-CHLOROPHENOL-D4 (SURR)
14	CS75 1,2-DICHLOROBENZENE-D4 (SURR)
1	C322 PYRIDINE
16	C310 N-NITROSODIMETHYLAMINE
17	C315 PHENOL
18	C320 ANALINE
19	C325 BIS(2-CHLOROETHYL)ETHER
20	C330 2-CHLOROPHENOL
21	C335 1,3 DICHLOROBENZENE
22	C340 1,4 DICHLOROBENZENE
23	C350 1,2 DICHLOROBENZENE
24	C355 2-METHYLPHENOL
25	C360 BIS(2-CHLOROISOPROPYL)ETHER
26	C357 2,2-OXYBIS(1-CHLOROPROPANE)
27	C370 N-NITROSO-DI-N-PROPYLAMINE
28	C365 4-METHYLPHENOL
29	C375 HEXACHLOROETHANE
30	C345 BENZYL ALCOHOL
31	C410 NITROBENZENE
32	C415 ISOPHORONE
33	C420 2-NITROPHENOL
34	C425 2,4-DIMETHYLPHENOL
35	C435 BIS(2-CHLOROETHOXY)METHANE
36	C440 2,4-DICHLOROPHENOL
37	C430 BENZOIC ACID
38	C445 1,2,4-TRICHLOROBENZENE
39	C450 NAPHTHALENE
40	C455 4-CHLOROANALINE
41	460 HEXACHLOROBUTADIENE
42	C465 4-CHLORO-3-METHYLPHENOL
43	C470 2-METHYLNAPHTHALENE
44	C510 HEXACHLOROCYCLOPENTADIENE
45	C515 2,4,6-TRICHLOROPHENOL
46	C520 2,4,5-TRICHLOROPHENOL
47	C525 2-CHLORONAPHTHALENE

N	Name
46	C530 2-NITROANALINE
49	C535 DIMETHYLPHTHALATE
50	C543 2,6-DINITROTOLUENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	778	9:49	1	1.000	A BB	47664.	40.000 NG	4.54
2	136	986	12:26	2	1.000	A BB	163085.	40.000 NG	4.54
3	164	1284	16:12	3	1.000	A BB	89740.	40.000 NG	4.54
4	188	1538	19:24	4	1.000	A BV	139942.	40.000 NG	4.54
5	240	2001	25:15	5	1.000	A BB	122120.	40.000 NG	4.54
6	264	2393	30:12	6	1.000	A BB	75482.	40.000 NG	4.54
7	112	577	7:17	1	0.742	A BB	48630.	28.784 NG	3.27
8	99	730	9:13	1	0.938	A BV	49243.	21.407 NG	2.43
9	82	869	10:58	2	0.881	A BB	77606.	33.137 NG	3.76
10	172	1171	14:46	3	0.912	A BB	68380.	22.395 NG	2.54
11	330	1420	17:55	3	1.106	A BB	24258.	36.355 NG	4.13
12	244	1815	22:54	5	0.907	A VB	24092.	7.022 NG	0.80
13	132	743	9:22	1	0.955	A BB	73071.	45.171 NG	5.13
14	152	802	10:07	1	1.031	A BB	31208.	26.931 NG	3.06
15	NOT FOUND								
16	NOT FOUND								
17	94	732	9:14	1	0.941	A BB	72036.	28.600 NG	3.25
18	NOT FOUND								
19	NOT FOUND								
20	128	746	9:25	1	0.959	A BB	97521.	57.083 NG	6.48
21	146	780	9:50	1	1.003	A BB	52844.	26.442 NG	3.00
22	146	780	9:50	1	1.003	A BB	52844.	25.966 NG	2.95
23	146	804	10:09	1	1.033	A BB	142.	0.074 NG	0.01
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	70	847	10:41	1	1.089	A BB	60485.	36.026 NG	4.09
28	NOT FOUND								
29	NOT FOUND								
30	108	802	10:07	2	0.813	A BB	142.	0.141 NG	0.02
31	77	869	10:58	2	0.881	A BB	168.	0.069 NG	0.01
32	82	913	11:31	2	0.926	A BB	420.	0.101 NG	0.01
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	180	978	12:20	2	0.992	A BB	39644.	25.538 NG	2.90
39	128	989	12:29	2	1.003	A BB	288.	0.066 NG	0.01
40	NOT FOUND								
41	NOT FOUND								
42	107	1091	13:46	2	1.106	A BB	95428.	64.936 NG	7.38
43	142	1107	13:58	2	1.123	A VB	541.	0.187 NG	0.02
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	162	1190	15:01	3	0.927	A BB	66.	0.022 NG	0.00
48	NOT FOUND								
49	NOT FOUND								
50	NOT FOUND								

	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
	9:41	1.01	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:19	1.01	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	16:04	1.01	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	19:17	1.01	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	25:07	1.01	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	30:00	1.01	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	7:10	1.02	0.740	1.00	28.78	50.00	0.816	1.418	0.58
8	9:07	1.01	0.940	1.00	21.41	50.00	0.827	1.930	0.43
9	10:50	1.01	0.880	1.00	33.14	50.00	0.381	0.574	0.66
10	14:39	1.01	0.912	1.00	22.40	50.00	0.610	1.361	0.45
11	17:47	1.01	1.107	1.00	36.35	50.00	0.216	0.297	0.73
12	22:47	1.00	0.907	1.00	7.02	50.00	0.158	1.124	0.14
13	9:16	1.01	0.956	1.00	45.17	50.00	1.226	1.358	0.90
14	10:00	1.01	1.031	1.00	26.93	50.00	0.524	0.972	0.54
15	4:11		0.431						
16	4:08		0.426						
17	9:08	1.01	0.943	1.00	28.60	50.00	1.209	2.114	0.57
18	9:04		0.935						
19	9:13		0.951						
20	9:18	1.01	0.960	1.00	57.08	50.00	1.637	1.434	1.14
21	9:34	1.03	0.987	1.02	26.44	50.00	0.887	1.677	0.53
22	9:44	1.01	1.004	1.00	25.97	50.00	0.887	1.708	0.52
23	10:02	1.01	1.035	1.00	0.07	50.00	0.002	1.615	0.00
24	10:19		1.065						
25	10:18		1.064						
2	10:18		1.064						
27	10:35	1.01	1.092	1.00	36.03	50.00	1.015	1.409	0.72
28	10:38		1.098						
29	10:42		1.104						
30	10:03	1.01	0.816	1.00	0.14	50.00	0.001	0.247	0.00
31	10:53	1.01	0.883	1.00	0.07	50.00	0.001	0.597	0.00
32	11:24	1.01	0.925	1.00	0.10	50.00	0.002	1.023	0.00
33	11:33		0.937						
34	11:43		0.952						
35	11:53		0.965						
36	12:04		0.981						
37	12:02		0.977						
38	12:13	1.01	0.992	1.00	25.54	50.00	0.194	0.381	0.51
39	12:22	1.01	1.004	1.00	0.07	50.00	0.001	1.074	0.00
40	12:32		1.017						
41	12:39		1.027						
42	13:38	1.01	1.107	1.00	64.94	50.00	0.468	0.360	1.30
43	13:50	1.01	1.124	1.00	0.19	50.00	0.003	0.711	0.00
44	14:10		0.882						
45	14:29		0.902						
46	14:34		0.907						
47	14:53	1.01	0.926	1.00	0.02	50.00	0.001	1.312	0.00
48	15:09		0.943						
49	15:33		0.969						
50	15:41		0.976						

Quantitation Report File: X1012004

Da. X1012004.TI
10/12/94 20:53:00
Sample: 9410061-12D DSM ENV PD-2/MSD
Conds.: 40(4) TO 285 @ 12/MIN HOLD 17
Formula: Instrument: FINN Weight: 0.000
Submitted by: SWLHOU Analyst: RKW Acct. No.: 54/605

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	C540 ACENAPHTHYLENE
52	C545 3-NITROANALINE
53	C550 ACENAPHTHENE
54	C555 2,4-DINITROPHENOL
55	C560 4-NITROPHENOL
56	C570 2,4-DINITROTOLUENE
57	C565 DIBENZOFURAN
58	C580 DIETHYLPHTHALATE
59	C590 FLUORENE
60	C585 4-CHLOROPHENYL-PHENYLETHER
61	C595 4-NITROANALINE
62	C576 AZOBENZENE
63	C610 4,6-DINITRO-2-METHYLPHENOL
64	C615 N-NITROSODIPHENYLAMINE
65	C625 4-BROMOPHENYL-PHENYLETHER
66	C630 HEXACHLOROBENZENE
67	C635 PENTACHLOROPHENOL
68	C640 PHENANTHRENE
69	C645 ANTHRACENE
70	C647 CARBAZOLE
71	C650 DI-N-BUTYLPHTHALATE
72	C655 FLUORANTHENE
73	C710 BENZIDINE
74	C715 PYRENE
75	C720 BUTYLBENZYLPHTHALATE
76	C740 CHRYSENE
77	C730 BENZO(A)ANTHRACENE
78	C745 BIS(2-ETHYLHEXYL)PHTHALATE
79	C725 3,3-DICHLOROBENZIDINE
80	C760 DI-N-OCTYLPHTHALATE
81	C770 BENZO(K)FLUORANTHENE
82	C765 BENZO(B)FLUORANTHENE
83	C775 BENZO(A)PYRENE
84	C780 INDENO(1,2,3-CD)PYRENE
85	C785 DIBENZ(A,H)ANTHRACENE
86	C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
51	152	1259	15:53	3	0.981	A BB	170.	0.040	NG	0.00
52	NOT FOUND									
53	153	1289	16:16	3	1.004	A BB	65498.	23.701	NG	2.69
54	NOT FOUND									
55	109	1322	16:41	3	1.030	A BB	10517.	26.190	NG	2.98
56	89	1321	16:40	3	1.029	A BB	29296.	27.261	NG	3.10
57	168	1319	16:38	3	1.027	A BB	206.	0.052	NG	0.01

	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
58	NOT	FOUND							
59	166	1378	17:23	3	1.073	A BB	68.	0.023 NG	0.00
60	NOT	FOUND							
61	NOT	FOUND							
62	77	1409	17:47	3	1.097	A BB	400.	0.087 NG	0.01
63	NOT	FOUND							
64	169	1401	17:41	4	0.911	A BB	152.	0.082 NG	0.01
65	NOT	FOUND							
66	NOT	FOUND							
67	266	1508	19:02	4	0.980	A BB	30114.	44.300 NG	5.03
68	178	1542	19:27	4	1.003	A BB	620.	0.153 NG	0.02
69	178	1551	19:34	4	1.008	A BB	32.	0.008 NG	0.00
70	167	1584	19:59	4	1.030	A BB	200.	0.112 NG	0.01
71	149	1643	20:44	4	1.068	A BV	115354.	~~21.055 NG~~ RW	2.48
72	202	1747	22:02	4	1.136	A BB	184.	0.050 NG	0.01
73	NOT	FOUND							
74	202	1786	22:32	5	0.893	A BV	30592.	7.125 NG	0.81
75	149	1901	23:59	5	0.950	A BB	520.	0.266 NG	0.03
76	228	2000	25:14	5	1.000	A BV	496.	0.132 NG	0.01
77	228	2007	25:19	5	1.003	A VB	114.	0.036 NG	0.00
78	149	2008	25:20	5	1.003	A BB	7520.	2.520 NG	0.29
79	NOT	FOUND							
80	NOT	FOUND							
81	NOT	FOUND							
82	NOT	FOUND							
83	NOT	FOUND							
84	NOT	FOUND							
85	NOT	FOUND							
86	NOT	FOUND							

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	15:45	1.01	0.981	1.00	0.04	50.00	0.002	1.873	0.00
52	16:03		0.999						
53	16:08	1.01	1.005	1.00	23.70	50.00	0.584	1.232	0.47
54	16:17		1.013						
55	16:32	1.01	1.030	1.00	26.19	50.00	0.094	0.179	0.52
56	16:33	1.01	1.031	1.00	27.26	50.00	0.261	0.479	0.55
57	16:31	1.01	1.028	1.00	0.05	50.00	0.002	1.766	0.00
58	17:05		1.064						
59	17:15	1.01	1.074	1.00	0.02	50.00	0.001	1.320	0.00
60	17:16		1.075						
61	17:23		1.082						
62	17:38	1.01	1.097	1.00	0.09	50.00	0.004	2.047	0.00
63	17:25		0.904						
64	17:33	1.01	0.910	1.00	0.08	50.00	0.001	0.533	0.00
65	18:20		0.951						
66	18:27		0.957						
67	18:54	1.01	0.980	1.00	44.30	50.00	0.172	0.194	0.89
68	19:20	1.01	1.003	1.00	0.15	50.00	0.004	1.161	0.00
69	19:27	1.01	1.009	1.00	0.01	50.00	0.000	1.132	0.00
70	19:50	1.01	1.029	1.00	0.11	50.00	0.001	0.509	0.00
71	20:38	1.00	1.070	1.00	21.86	50.00	0.659	1.509	0.44
72	21:56	1.01	1.137	1.00	0.05	50.00	0.001	1.057	0.00
73	22:17		0.888						
74	22:25	1.01	0.893	1.00	7.12	50.00	0.200	1.406	0.14
75	23:53	1.00	0.951	1.00	0.27	50.00	0.003	0.639	0.01

	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
76	25:06	1.01	0.999	1.00	0.13	50.00	0.003	1.231	0.00
77	25:12	1.01	1.003	1.00	0.04	50.00	0.001	1.034	0.00
78	25:13	1.00	1.004	1.00	2.52	50.00	0.049	0.977	0.05
79	25:05		0.836						
80	27:08		0.905						
81	28:26		0.947						
82	28:32		0.951						
83	29:44		0.991						
84	36:03		1.201						
85	36:17		1.209						
86	37:57		1.265						

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: HUNTINGDON Contract: CORCO

Lab Code: . Case No.: 410061 SAS No.: _____ SDG No.: _____

GC Column(1): DB-5 ID: 0.53 (mm) GC Column(2): _____ ID: _____ (mm)

	EPA SAMPLE NO.	TCX 1 %REC	#	TCX 2 %REC	#	DCB 1 %REC	#	DCB 2 %REC	#	OTHER (1)	OTHER (2)	TOT OUT
01	PD-2	50	*			49	*					2
02	PD-2/DUP	40	*			57	*					2
03	PD-2/MS	31	*			39	*					2
04	PD-2/MSD	44	*			43	*					2
05	PBLK 1	57	*			49	*					2
06												
07												
08												
09												
10												
11												
12												
13												
14												
15												
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22												
23												
24												
25												
26												
27												
28												
29												
30												

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out * Note: 1/20 dilution

FORM II PEST-1 3/90

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: HUNTINGDON Contract: CORCO

Lab Code: _____ Case No.: 410061 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: PD-2

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
gamma-BHC (Lindane)	20	0	8	40 *	56-123
Heptachlor	20	0	0	0 *	40-131
Aldrin	20	0	0	0 *	40-120
Dieldrin	80	0	0	0 *	52-126
Endrin	80	0	0	0 *	56-121
4,4'-DDT	80	0	0	0 *	38-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	20	9	45 *	12	15	56-123
Heptachlor	20	0	0 *	0	20	40-131
Aldrin	20	0	0 *	0	22	40-120
Dieldrin	80	0	0 *	0	18	52-126
Endrin	80	0	0 *	0	21	56-121
4,4'-DDT	80	0	0 *	0	27	38-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 6 out of 6 outside limits

COMMENTS: spiking compounds diluted out.

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK 1

Lab Name: HUNTINGDON Contract: CORCO

Lab Code: . Case No.: 4/0061 SAS No.: _____ SDG No.: _____

Lab Sample ID: _____ Lab File ID: _____

Matrix: (soil/water) WATER Extraction: (SepF/Cont/Sonc) SEPF

Sulfur Cleanup: (Y/N) Y Date Extracted: 10/11/94

Date Analyzed (1): 10/20/94 Date Analyzed (2): _____

Time Analyzed (1): 10:58:07 Time Analyzed (2): _____

Instrument ID (1): Sys# 2986 Instrument ID (2): _____

GC Column (1): DB-5 ID: 0.53 (mm) GC Column (2): _____ ID: _____ (mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PD-2	9410061-16A	10/20/94	
02	PD-2/DUP	9410061-16B	10/20/94	
03	PD-2/MS	9410061-16C	10/20/94	
04	PD-2/MSD	9410061-16D	10/20/94	
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: samples AERAN on 11/02/94.

FORM IV PEST

3/90

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK 2

Lab Name: HUNTINGDON Contract: CORCO

Lab Code: . Case No.: 41006I SAS No.: _____ SDG No.: _____

Lab Sample ID: _____ Lab File ID: _____

Matrix: (soil/water) WATER Extraction: (SepF/Cont/Sonc) SEPF

Sulfur Cleanup: (Y/N) Y Date Extracted: 10/27/94

Date Analyzed (1): 11/02/94 Date Analyzed (2): _____

Time Analyzed (1): 18:09:10 Time Analyzed (2): _____

Instrument ID (1): Sys# 2986 Instrument ID (2): _____

GC Column (1): DB-5 ID: 1.53 (mm) GC Column (2): _____ ID: _____ (mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PD-2	9410061-16A	11/02/94	
02	PD-2/DUP	9410061-16B	11/02/94	
03	PD-2/MS	9410061-16C	11/02/94	
04	PD-2/MSD	9410061-16D	11/02/94	
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PD-2

ab Name: HUNTINGDON Contract: CORCO

Code: . Case No.: 410061 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9410061-16A

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 10/07/94

Extraction: (SepF/Cont/Sonc) SepF Date Extracted: 10/11/94

Concentrated Extract Volume: 10,000 (uL) Date Analyzed: 11/02/94

Injection Volume: 3 (uL) Dilution Factor: 20

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS: (ug/L or ug/Kg) ~~ug~~/L

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.40	U
319-85-7	beta-BHC	0.40	U
319-86-8	delta-BHC	0.40	U
58-89-9	gamma-BHC (Lindane)	0.40	U
76-44-8	Heptachlor	0.40	U
309-00-2	Aldrin	0.40	U
1024-57-3	Heptachlor epoxide	0.40	U
959-98-8	Endosulfan I	0.80	U
60-57-1	Dieldrin	0.80	U
72-55-9	4,4'-DDE	0.80	U
72-20-8	Endrin	0.80	U
33213-65-9	Endosulfan II	0.80	U
72-54-8	4,4'-DDD	0.80	U
1031-07-8	Endosulfan sulfate	0.80	U
50-29-3	4,4'-DDT	0.80	U
72-43-5	Methoxychlor	4.0	U
53494-70-5	Endrin ketone	0.80	U
7421-36-3	Endrin aldehyde	0.80	U
5103-71-9	alpha-Chlordane	0.40	U
5103-74-2	gamma-Chlordane	0.40	U
8001-35-2	Toxaphene	10.0	U
12674-11-2	Aroclor-1016	20.0	U
11104-28-2	Aroclor-1221	20.0	U
11141-16-5	Aroclor-1232	20.0	U
53469-21-9	Aroclor-1242	20.0	U
12672-29-6	Aroclor-1248	20.0	U
11097-69-1	Aroclor-1254	20.0	U
11096-82-5	Aroclor-1260	20.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PD-2/DUP

Lab Name: HUNTINGDON Contract: CORCO

Lab Code: ____ Case No.: 4/0061 SAS No.: ____ SDG No.: ____

Matrix: (soil/water) WATER Lab Sample ID: 9410061-16B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: ____

% Moisture: ____ decanted: (Y/N) ____ Date Received: 10/07/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 10/11/94

Concentrated Extract Volume: 10,000 (uL) Date Analyzed: 11/02/94

Injection Volume: 3 (uL) Dilution Factor: 20

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.40	U
319-85-7	beta-BHC	0.40	U
319-86-8	delta-BHC	0.40	U
58-89-9	gamma-BHC (Lindane)	0.40	U
76-44-8	Heptachlor	0.40	U
309-00-2	Aldrin	0.40	U
1024-57-3	Heptachlor epoxide	0.40	U
959-98-8	Endosulfan I	0.80	U
60-57-1	Dieldrin	0.80	U
72-55-9	4,4'-DDE	0.80	U
72-20-8	Endrin	0.80	U
33213-65-9	Endosulfan II	0.80	U
72-54-8	4,4'-DDD	0.80	U
1031-07-8	Endosulfan sulfate	0.80	U
50-29-3	4,4'-DDT	0.80	U
72-43-5	Methoxychlor	4.0	U
53494-70-5	Endrin ketone	0.80	U
7421-36-3	Endrin aldehyde	0.80	U
5103-71-9	alpha-Chlordane	0.40	U
5103-74-2	gamma-Chlordane	0.40	U
8001-35-2	Toxaphene	10.0	U
12674-11-2	Aroclor-1016	20.0	U
11104-28-2	Aroclor-1221	20.0	U
11141-16-5	Aroclor-1232	20.0	U
53469-21-9	Aroclor-1242	20.0	U
12672-29-6	Aroclor-1248	20.0	U
11097-69-1	Aroclor-1254	20.0	U
11096-82-5	Aroclor-1260	20.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PD-2/MS

Lab Name: HUNTINGDON Contract: CORCO

Lab Code: . Case No.: 410061 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9410061-16C

Sample wt/vol: 1000 (g/mL) mL Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 10/07/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 10/11/94

Concentrated Extract Volume: 10,000 (uL) Date Analyzed: 11/02/94

Injection Volume: 3 (uL) Dilution Factor: 20

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µg/L	Q
319-84-6	alpha-BHC	0.40	U
319-85-7	beta-BHC	0.40	U
319-86-8	delta-BHC	0.40	U
58-89-9	gamma-BHC (Lindane)	0.40	U
76-44-8	Heptachlor	0.40	U
309-00-2	Aldrin	0.40	U
1024-57-3	Heptachlor epoxide	0.40	U
959-98-8	Endosulfan I	0.80	U
60-57-1	Dieldrin	0.80	U
72-55-9	4,4'-DDE	0.80	U
72-20-8	Endrin	0.80	U
33213-65-9	Endosulfan II	0.80	U
72-54-8	4,4'-DDD	0.80	U
1031-07-8	Endosulfan sulfate	0.80	U
50-29-3	4,4'-DDT	0.80	U
72-43-5	Methoxychlor	4.0	U
53494-70-5	Endrin ketone	0.80	U
7421-36-3	Endrin aldehyde	0.80	U
5103-71-9	alpha-Chlordane	0.40	U
5103-74-2	gamma-Chlordane	0.40	U
8001-35-2	Toxaphene	10.0	U
12674-11-2	Aroclor-1016	20.0	U
11104-28-2	Aroclor-1221	20.0	U
11141-16-5	Aroclor-1232	20.0	U
53469-21-9	Aroclor-1242	20.0	U
12672-29-6	Aroclor-1248	20.0	U
11097-69-1	Aroclor-1254	20.0	U
11096-82-5	Aroclor-1260	20.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PD-2/MSD

Lab Name: HUNTINGDON Contract: CORCO

Lab Code: ____ Case No.: 410061 SAS No.: ____ SDG No.: ____

Matrix: (soil/water) WATER Lab Sample ID: 9410061-16D

Sample wt/vol: 1000 (g/mL) mL Lab File ID: ____

% Moisture: ____ decanted: (Y/N) ____ Date Received: 10/07/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 10/11/94

Concentrated Extract Volume: 10,000 (uL) Date Analyzed: 11/02/94

Injection Volume: 3 (uL) Dilution Factor: 20

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.40	U
319-85-7	beta-BHC	0.40	U
319-86-8	delta-BHC	0.40	U
58-89-9	gamma-BHC (Lindane)	0.40	U
76-44-8	Heptachlor	0.40	U
309-00-2	Aldrin	0.40	U
1024-57-3	Heptachlor epoxide	0.40	U
959-98-8	Endosulfan I	0.80	U
60-57-1	Dieldrin	0.80	U
72-55-9	4,4'-DDE	0.80	U
72-20-8	Endrin	0.80	U
33213-65-9	Endosulfan II	0.80	U
72-54-8	4,4'-DDD	0.80	U
1031-07-8	Endosulfan sulfate	0.80	U
50-29-3	4,4'-DDT	0.80	U
72-43-5	Methoxychlor	4.0	U
53494-70-5	Endrin ketone	0.80	U
7421-36-3	Endrin aldehyde	0.80	U
5103-71-9	alpha-Chlordane	0.40	U
5103-74-2	gamma-Chlordane	0.40	U
8001-35-2	Toxaphene	10.0	U
12674-11-2	Aroclor-1016	20.0	U
11104-28-2	Aroclor-1221	20.0	U
11141-16-5	Aroclor-1232	20.0	U
53469-21-9	Aroclor-1242	20.0	U
12672-29-6	Aroclor-1248	20.0	U
11097-69-1	Aroclor-1254	20.0	U
11096-82-5	Aroclor-1260	20.0	U

6E

PESTICIDE INITIAL CALIBRATION OF SINGLE COMPONENT ANALYTES

Lab Name: Huntingdon Contract: CoRco

Lab Code: ____ Case No.: 410061 SAS No.: ____ SDG No.: ____

Instrument ID: 2986 Level (x low): low ____ mid ____ high ____

GC Column: DB-5 ID: 0.53 (mm) Date(s) Analyzed: 09/30/94 ____

SOUTHWESTERN LABORATORIES - 5 POINT CALIBRATION

Date: 09/30/94 Test Code: PEST Column: DB-5
Instrument ID: 2986 Analyst: JH ID (mm): 0.53

Compound	Conc1 LOW	Conc2 2XLOW	Conc3 MID	Conc4 10XLOW	Conc5 HIGH	Mean	%RSD
	---Response Factors---						
Alpha-BHC	27972	29314	28803	27181	25800	27814	5.0
Gamma-BHC	26885	27562	25803	25030	23631	25782	6.0
Heptachlor	31123	30368	27845	26460	25088	28177	9.1
Endosulfan I	24470	23859	23166	23198	22107	23360	3.8
Dieldrin	25365	25572	24770	24353	23087	24629	4.0
Endrin	21925	21690	20417	19958	18743	20547	6.4
4,4'-DDD	17265	18238	16068	18175	16420	17233	5.7
4'-DDT	20684	21625	19222	21453	20993	20795	4.6
Methoxychlor	12060	11124	9068.6	8926.7	8274.5	9890.8	16.3
Tetrachloro-m-xylene	15108	13568	12241	10743	9934.5	12319	17.0
Decachorobiphenyl	24096	22465	18815	17815	16457	19930	16.2
Beta-BHC	14780	13637	12193	11478	10305	12479	14.1
Delta-BHC	24741	25223	23335	25685	23411	24479	4.3
Aldrin	29419	28781	26750	27104	25032	27417	6.3
Heptachlor epoxide	28274	26804	25142	25846	23535	25920	6.9
4,4'-DDE	22241	22581	20083	22225	20918	21610	4.9
Endosulfan II	25006	25182	23325	22961	21307	23556	6.8
Endosulfan Sulfate	22257	22969	21762	21744	20519	21850	4.1
Endrin Ketone	28968	28740	26317	25593	23656	26655	8.4
Endrin Aldehyde	20689	20142	18431	18085	16925	18854	8.2
Alpha-Chlordane	27214	26855	25467	26587	24193	26063	4.7
Gamma-Chlordane	28332	28182	26543	26960	25236	27051	4.7

Form VI Pest 2

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: HUNTINGDON Contract: CORCO

Lab Code: . Case No.: 410061 SAS No.: _____ SDG No.: _____

GC Column: DB-5 ID: 0.53 (mm) Init. Calib. Date(s): 09/30/94 _____

EPA Sample No.(PIBLK): PIBLK 1 Date Analyzed : 11/02/94

Lab Sample ID (PIBLK): PIBLK 1 Time Analyzed : 07:52:42

EPA Sample No.(PEM): _____ Date Analyzed : 11/02/94

Lab Sample ID (PEM): PEM Time Analyzed : 08:40:18

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC RESPONSE FACTOR	DAILY RESPONSE FACTOR	RPD
alpha-BHC	1.558	1.509	1.609	25642	29232	14.3
beta-BHC	1.764	1.716	1.816	10094	13007	22.4
gamma-BHC (Lindane)	1.862	1.813	1.913	25537	26704	4.4
Endrin	7.493	7.426	7.566	18122	20645	12.2
4,4'-DDT	11.033	10.967	11.107	19843	22421	15.1
Methoxychlor	16.846	16.790	16.930	8809.8	10735	17.9

4,4'-DDT % breakdown (1): 0.0% Endrin % breakdown (1): 18.2%

Combined % breakdown (1): 18.2%

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 20.0%

Endrin breakdown must be less than or equal to 20.0%

Combined breakdown must be less than or equal to 30.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: HUNTINGDON Contract: CORCO

b Code: . Case No.: 41006I SAS No.: _____ SDG No.: _____

GC Column: DB-5 ID: 0.53 (mm) Init. Calib. Date(s): 09/30/94 _____

EPA Sample No.(PIBLK): PIBLK2 Date Analyzed : 11/03/94

Lab Sample ID (PIBLK): PIBLK2 Time Analyzed : 00:29:52

EPA Sample No.(PEM): _____ Date Analyzed : 11/03/94

Lab Sample ID (PEM): PEM Time Analyzed : 01:17:22

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC RESPONSE FACTOR	DAILY RESPONSE FACTOR	RPD
alpha-BHC	1.558	1.509	1.609	27773	29232	5.0
beta-BHC	1.764	1.716	1.816	11200	13007	13.9
gamma-BHC (Lindane)	1.861	1.813	1.913	28208	26704	5.6
Endrin	7.495	7.426	7.566	20493	20645	0.74
4,4'-DDT	11.036	10.967	11.107	21892	22421	2.4
Methoxychlor	16.849	16.790	16.930	10755	10735	0.19

,4'-DDT % breakdown (1): 0.0% Endrin % breakdown (1): 17.1%

Combined % breakdown (1): 17.1%

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 20.0%

Endrin breakdown must be less than or equal to 20.0%

Combined breakdown must be less than or equal to 30.0%

7E
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: HUNTINGDON Contract: CORCO

Lab Code: _____ Case No.: 410061 SAS No.: _____ SDG No.: _____

GC Column: DB-5 ID: 0.53 (mm) Init. Calib. Date(s): 09/30/94 _____

EPA Sample No.(PIBLK): PIBLK 1 Date Analyzed : 11/02/94

Lab Sample ID (PIBLK): PIBLK 1 Time Analyzed : 07:52:42

EPA Sample No.(INDA): _____ Date Analyzed : 11/02/94

Lab Sample ID (INDA): INDAM1 Time Analyzed : 13:12:32

INDIVIDUAL MIX A COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	AVERAGE RF	CONTINUING RF	RPD
alpha-BHC	1.559	1.509	1.609	27814	29232	5.1
gamma-BHC (Lindane)	1.863	1.813	1.913	25702	26704	3.6
Heptachlor	2.866	2.816	2.916	28177	28698	1.8
Endosulfan I	5.590	5.520	5.660	23360	24096	3.2
Dieldrin	6.574	6.504	6.644	24629	25427	3.2
Endrin	7.496	7.426	7.566	20547	20645	0.5
4,4'-DDD	8.564	8.494	8.634	17233	18536	7.6
4,4'-DDT	11.037	10.967	11.107	20795	22421	7.8
Methoxychlor	16.860	16.790	16.930	9892.8	10735	8.5
Tetrachloro-m-xylene	1.275	1.225	1.325	12319	13122	6.5
Decachlorobiphenyl	32.687	32.587	32.787	19930	20503	2.9

EPA Sample No.(INDB): _____ Date Analyzed : 11/02/94

Lab Sample ID (INDB): IND BM1 Time Analyzed : 10:15:32

INDIVIDUAL MIX B COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	AVERAGE RF	CONTINUING RF	RPD
beta-BHC	1.766	1.716	1.816	12479	13007	4.2
delta-BHC	2.081	2.031	2.131	24479	25408	3.8
Aldrin	3.544	3.494	3.594	27417	28290	3.2
Heptachlor epoxide	4.470	4.420	4.520	25920	27652	6.7
4,4'-DDE	6.537	6.467	6.607	21610	24765	14.6
Endosulfan II	7.915	7.845	7.985	23556	25048	6.3
Endosulfan sulfate	10.420	10.350	10.490	21850	23156	6.0
Endrin ketone	13.828	13.758	13.898	26655	27868	4.6
Endrin aldehyde	8.910	8.840	8.980	18854	19780	4.9
alpha-Chlordane	5.695	5.625	5.765	26063	27564	5.8
gamma-Chlordane	5.170	5.100	5.240	27051	28079	3.8
Tetrachloro-m-xylene						
Decachlorobiphenyl						

QC LIMITS: RPD of amounts in the Individual Mixes must be less than or equal to 25.0%.

SOUTHWESTERN LABORATORIES - CALIBRATION VERIFICATION

Date: 11/02/94 13:12 Instrument ID: 2986 Column: DB-5
Analyst: JH Test Code: PEST ID (mm): 0.53
Conc: MID 5-Point Date: 09/30/94

Compound	Retention Time	Average RF	Continuing RF	RPD
Alpha-BHC	1.559	27814	29232	5.1
Gamma-BHC	1.863	25782	26704	3.6
Heptachlor	2.866	28177	28698	1.8
Endosulfan I	5.590	23360	24096	3.2
Dieldrin	6.574	24629	25427	3.2
Endrin	7.496	20547	20645	0.5
4,4'-DDD	8.564	17233	18536	7.6
4,4'-DDT	11.037	20795	22421	7.8
Methoxychlor	16.860	9890.8	10735	8.5
Tetrachloro-m-xylene	1.275	12319	13122	6.5
Decachorobiphenyl	32.687	19930	20503	2.9
Beta-BHC	1.766	12479	13007	4.2
Delta-BHC	2.081	24479	25408	3.8
Aldrin	3.544	27417	28290	3.2
Heptachlor epoxide	4.470	25920	27652	6.7
4,4'-DDE	6.537	21610	24765	14.6
Endosulfan II	7.915	23556	25048	6.3
Endosulfan Sulfate	10.420	21850	23156	6.0
Endrin Ketone	13.828	26655	27868	4.6
Endrin Aldehyde	8.910	18854	19780	4.9
Alpha-Chlordane	5.695	26063	27564	5.8
Gamma-Chlordane	5.170	27051	28079	3.8

FORM VII PEST-2

PESTICIDE CALIBRATION VERIFICATION SUMMARY — LCS

Initial Calib Date: 09/30/94

Lab Name: SWL - HOUSTON

Instrument I.D.: HP 5890 Sys#2986

STANDARD: LCS PEST MIX

Analyst: JH

Date Analyzed : 11/02/94

Time Analyzed : 23:42:16

INDIVIDUAL MIX A COMPOUND	ACTUAL CONC. (µg/ml)	RT	DAILY RF	LCS RF	REC CONC (µg/ml)	% REC	% D	RANGE % REC
alpha-BHC	0.020	1.558			0.0171	85.5		37-134
gamma-BHC (Lindane)		1.862			0.0185	92.7		32-127
Heptachlor		2.865			0.0168	83.8		34-111
Endosulfan I		5.590			0.0165	82.7		45-153
Dieldrin		6.553			0.0162	81.2		36-146
Endrin		7.495			0.0170	84.8		30-147
4,4'-DDD		8.564			0.0169	84.5		31-141
4,4'-DDT		11.033			0.0167	83.5		25-160
Methoxychlor		16.858			0.0209	104		
Tetrachloro-m-xylene		1.275			0.0213	107		
Decachlorobiphenyl		32.687			0.0216	108		

Date Analyzed : 11/02/94

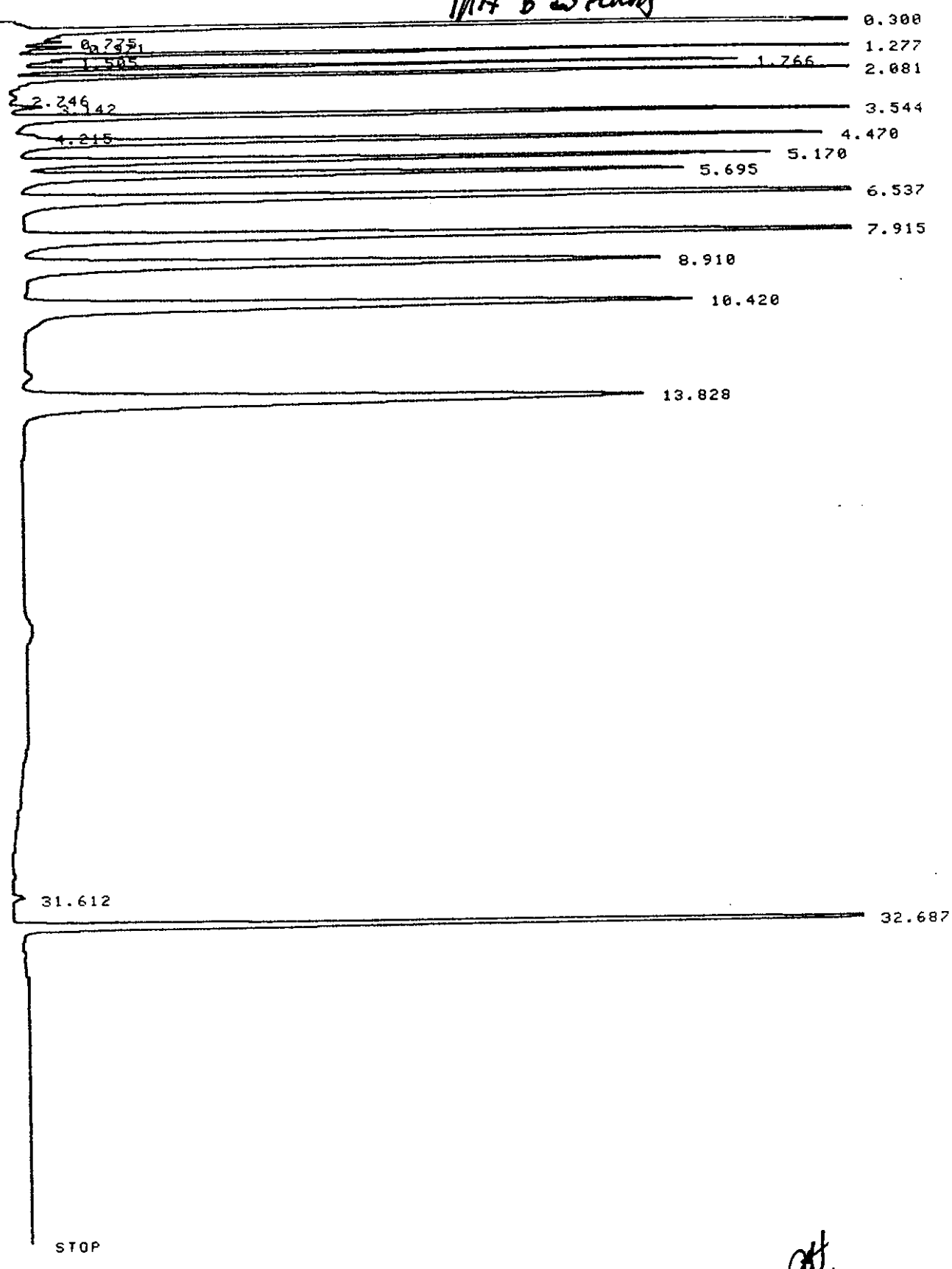
Time Analyzed : 23:42:16

INDIVIDUAL MIX B COMPOUND	ACTUAL CONC. (µg/ml)	RT	DAILY RF	LCS RF	REC CONC. (µg/ml)	% REC	% D	RANGE % REC
beta-BHC	0.020	1.765			0.0149	74.3		17-147
delta-BHC		2.079			0.0179	89.4		19-140
Aldrin		3.541			0.0166	82.8		42-122
Heptachlor epoxide		4.582			0.0166	83.1		37-142
4,4'-DDE		6.553			0.0167	83.4		30-145
Endosulfan II		7.912			0.0170	84.8		D-202
Endosulfan sulfate		10.417			0.0168	84.2		26-144
Endrin ketone								
Endrin aldehyde		8.906			0.0188	94.2		
alpha-Chlordane								
gamma-Chlordane								
Tetrachloro-m-xylene								
Decachlorobiphenyl								

RUN # 866 NOV 2, 1994 10:15:32

START

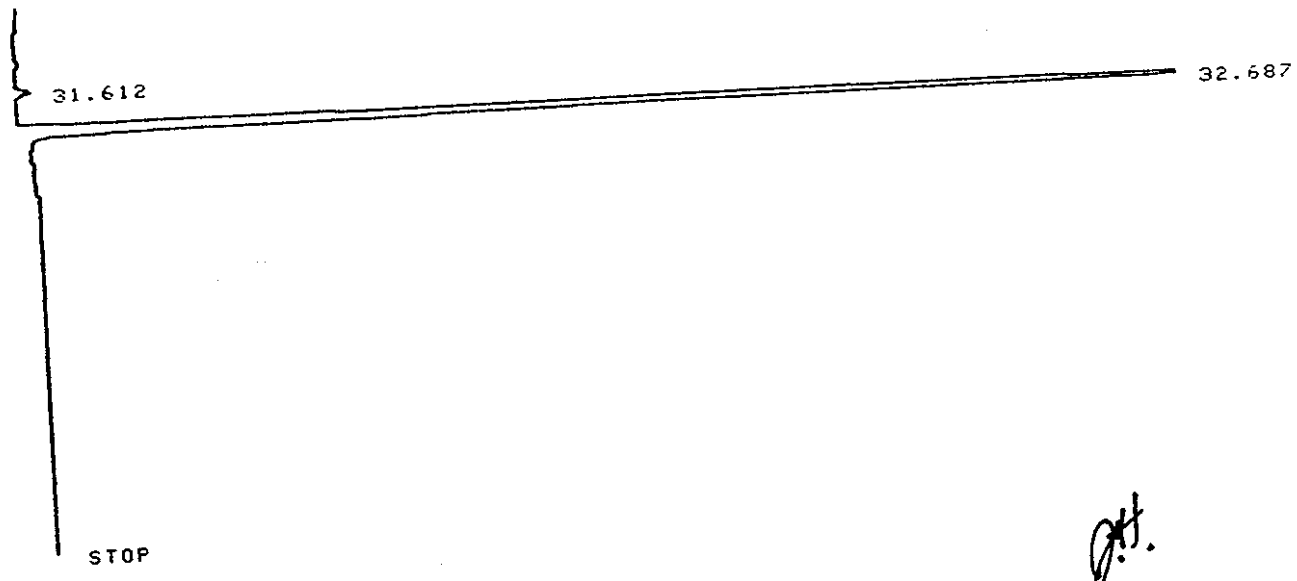
Mix B working



RUN# 866 NOV 2, 1994 10:15:32

SAMPLE# 4

1



RUN# 866 NOV 2, 1994 10:15:32

SAMPLE# 4

Y

ESTD-AREA RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.300	BV	912184	.100	152214		.000	
.775	VV	20105	.096	3481		.000	
.971	VV	27659	.109	4227		.000	
1.277	VV	538578	.070	128715	1R	.004	TETRACHLORO
1.505	VV	19895	.097	3421	2	.001	A-BHC
1.766	VP	260144	.078	55770	3	.030	B-BHC - 13007
2.081	PB	508162	.077	109973	5	.024	D-BHC - 25408
2.746	BP	7707	.226	569	6	.000	HEPTACHLOR
3.142	PP	18814	.128	2451		.000	
3.544	PB	565793	.119	79471	7	.024	ALDRIN - 28290
4.215	BV	8624	.097	1488		.000	
4.470	VB	553049	.149	61766	8	.026	HEPT-EPOX - 27652
5.170	PV	561585	.162	57791	9	.025	G-CHLOR - 28079
5.695	VB	551272	.180	50954	10	.013	~~ENDOI~~/A-CHLOR 27564
6.537	BB	990618	.205	80657	11	.024	~~DIELD~~/DDE 24765
7.915	VB	1001933	.235	71074	13	.049	ENDO II - 25048
8.910	PB	791186	.269	49014	15	.044	END-ALD - 19780
10.420	PB	926243	.301	51217	16	.051	ENDO-SULF - 23156
13.828	PB	1114727	.388	47855	18	.047	END-KET - 27868
31.612	PB	8872	.170	872		.000	
32.687	PB	820387	.158	86568	20	.003	DECACHLORO

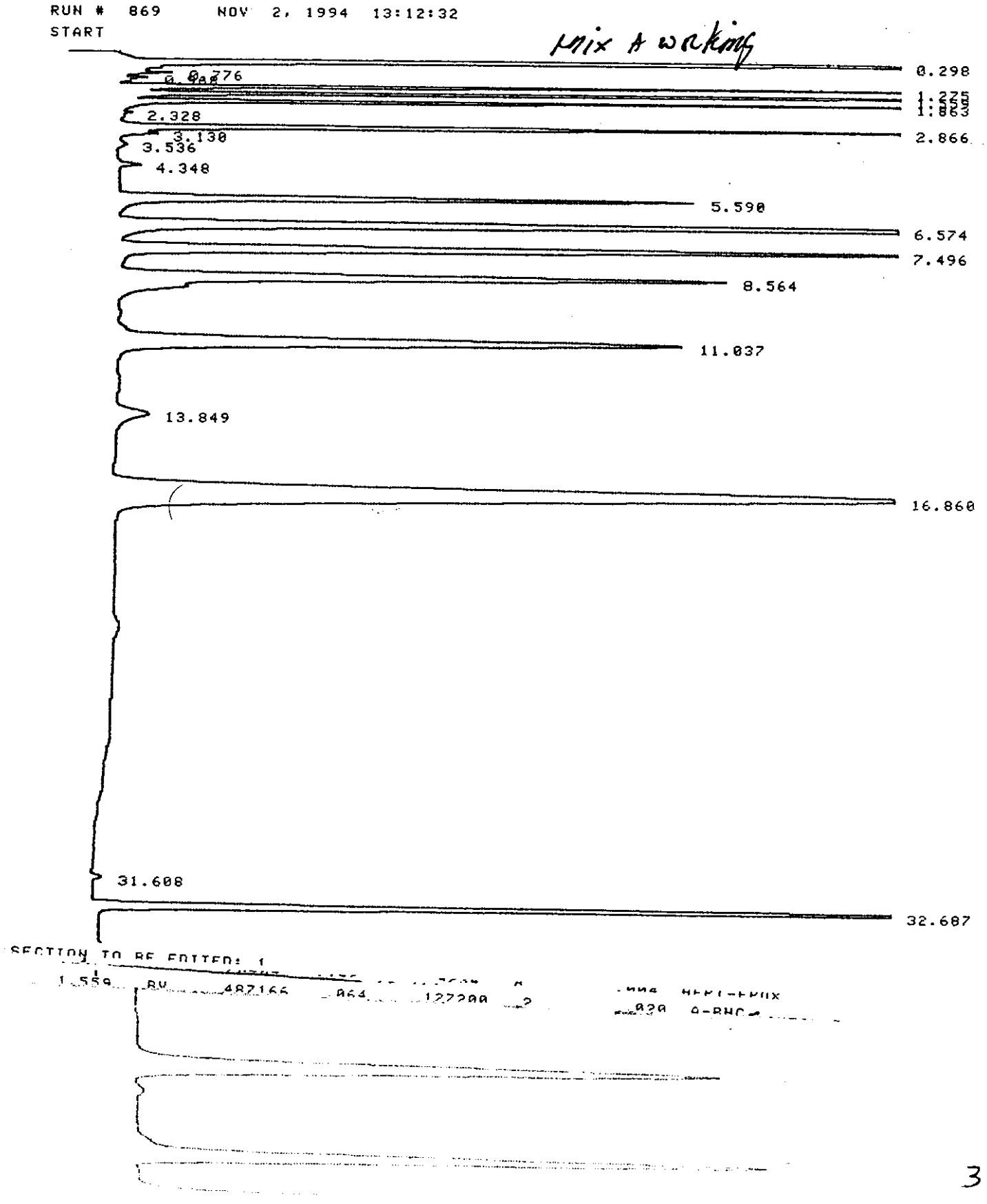
LOOP ADDRESS: 9

REAR INJECTOR

INJ/BOTTLE	1 -->	1	@
FIRST BOTTLE	5 -->	5	@
LAST BOTTLE	5 -->	5	@
# OF SAMPLE WASHES	4 -->	BREAK	

* SEQ START
NOW LOADING M:PEST3.MET

RUN # 869 NOV 2, 1994 13:12:32
START



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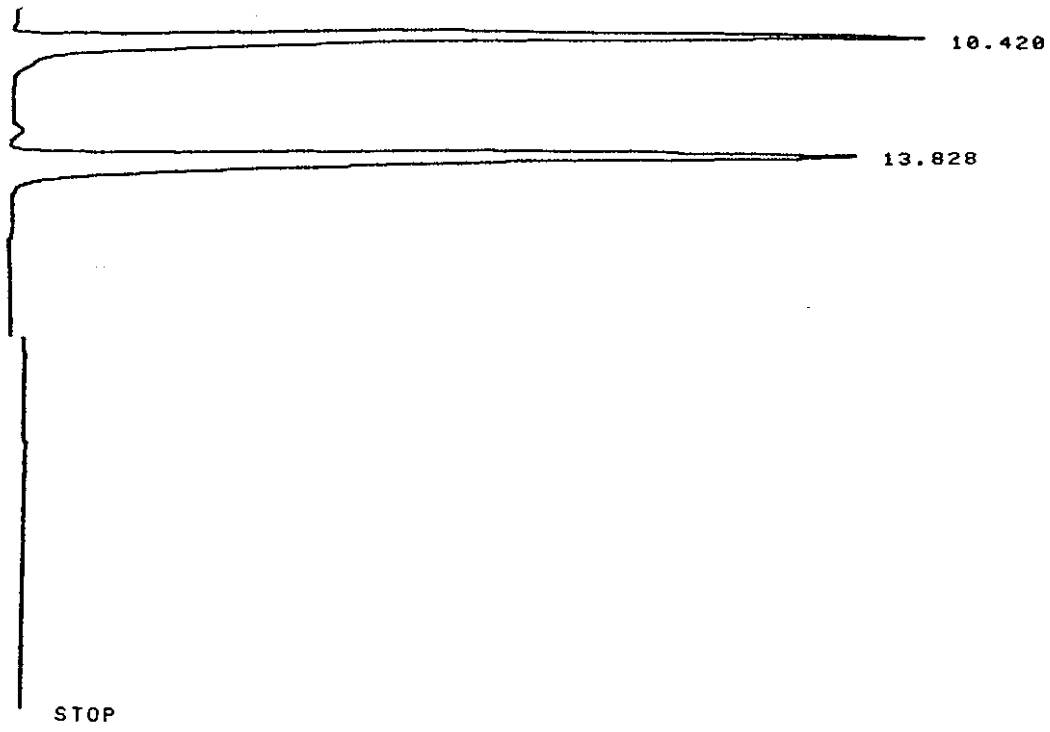


RUN# 869 NOV 2, 1994 13:12:32

SAMPLE# 5

Y

ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.298	BB	906276	.088	171008		.000	
.776	VP	10999	.064	2883		.000	
.968	PB	5436	.056	1613		.000	
1.275	BV	524880	.065	134239	1R	.004	TETRACHLORO - 13122
1.559	VB	584645	.066	148548	2	.024	A-BHC - 29232
1.863	PB	534090	.070	126908	4	.023	LINDANE - 26904
2.866	PV	573968	.102	94012	6	.024	HEPTACHLOR - 28698
3.130	VV	27580	.140	3273		.000	
3.536	VP	11441	.229	834	7	.000	ALDRIN
4.348	PB	20070	.174	1919	8	.001	HEPT-EPOX
5.590	PB	481920	.171	47022	10	.011	ENDOI ~~A-CHLOR~~ 24096
6.574	PB	1017087	.193	87659	11	.025	DIELD ~~ADDE~~ 25427
7.496	BB	825803	.208	66166	12	.042	ENDRIN - 20645
8.564	BV	741437	.249	49715	14	.055	DDD - 18536
11.037	BB	896854	.323	46328	17	.041	DDT - 22421
13.849	BB	64988	.418	2589	18	.003	END-KET
16.860	BB	2147077	.523	68487	19	.255	METHOXYCHLOR - 10735
31.608	PB	8984	.167	896		.000	
32.687	PB	820127	.154	88829	20	.003	DECACHLORO - 20503

TOTAL AREA=1.0204E+07
MUL FACTOR=1.0000E+00

CALIB - @
TO
REF % RTW: 5.000 NON-REF % RTW: 5.000

LEVEL: 1 RECALIBRATIONS: 1

CAL#	RT	LV	AMT	AMT/AREA
1R	1.281	1	4.0000E-02	7.6208E-08
2	1.567	1	2.0000E-02	3.4209E-08
3	1.778	1	2.0000E-02	1.1577E-07
4	1.875	1	2.0000E-02	3.7447E-08
5	2.097	1	2.0000E-02	4.7240E-08
6	2.886	1	2.0000E-02	3.4845E-08
7	3.566	1	2.0000E-02	1.7481E-06
8	4.471	1	2.0000E-02	9.9651E-07
9	5.220	1	2.0000E-02	4.4442E-08
10	5.677	1	2.0000E-02	4.1501E-08
11	6.613	1	4.0000E-02	3.9328E-08
12	7.555	1	4.0000E-02	4.8438E-08
13	7.995	1	4.0000E-02	4.8858E-08
14	8.630	1	4.0000E-02	5.3949E-08
15	9.000	1	4.0000E-02	5.5307E-08
16	10.529	1	4.0000E-02	5.4785E-08
17	11.128	1	4.0000E-02	4.4600E-08
18	13.944	1	4.0000E-02	6.1550E-07
19	16.993	1	2.0000E-01	9.3150E-08
20	32.730	1	4.0000E-02	4.8773E-08

CAL#	NAME
1	TETRACHLORO
2	A-BHC
3	B-BHC
4	LINDANE
5	D-BHC
6	HEPTACHLOR
7	ALDRIN
8	HEPT-EPOX
9	G-CHLOR
10	ENDOI/A-CHLOR
11	DIELD/DDE
12	ENDRIN
13	ENDO II
14	DDD
15	END-ALD
16	ENDO-SULF
17	DDT
18	END-KET
19	METHOXYCHLOR
20	DECACHLORO

CALIBRATION OPTIONS
RF of uncalibrated peaks .... 0.0000E+00
Calibration fit ..... P
Disable post-run RT update .. NO
SAMPLE AMT ..... 0.0000E+00
MUL FACTOR ..... 1.0000E+00

EDIT SEQ

1 - ALS INFORMATION
2 = EQUILIBRATION TIME DELAY
3 = METHOD FILE SPECIFICATION
4 = SAMPLE INFORMATION TABLE

SECTION TO BE EDITED: 1

7673A SAMPLER:
LOOP ADDRESS: 9

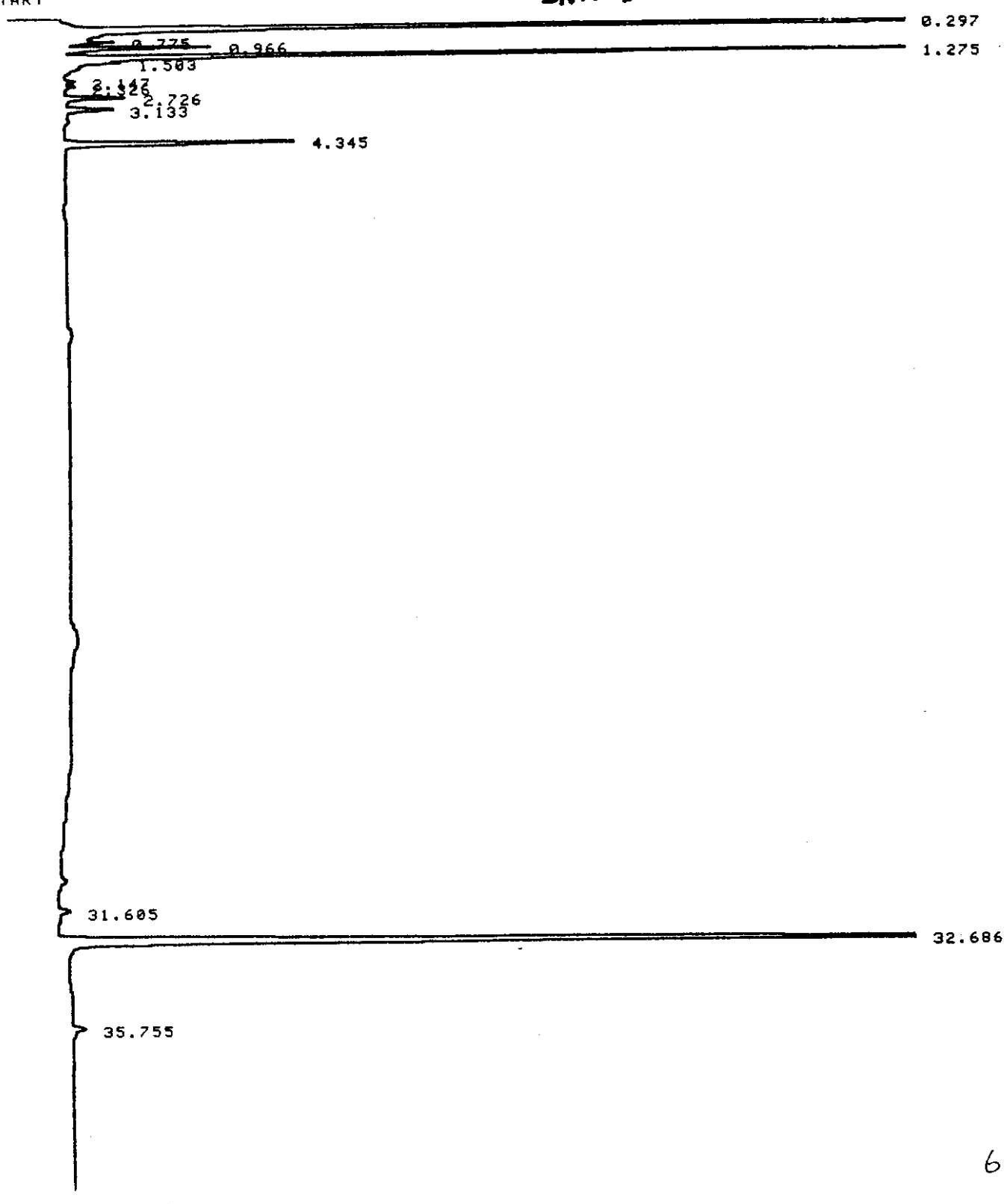
REAR INJECTOR

INJ/BOTTLE	1 -->	1	@
FIRST BOTTLE	1 -->	1	@
LAST BOTTLE	4 -->	4	@
# OF SAMPLE WASHES	4 -->	BREAK	

* SEQ START
NOW LOADING M:PEST3.MET

RUN # 863 NOV 2, 1994 07:52:42
START

INST. Blk



6

V.

RUN# 863 NOV 2, 1994 07:52:42

SAMPLE# 1

Y

ESTD-AREA

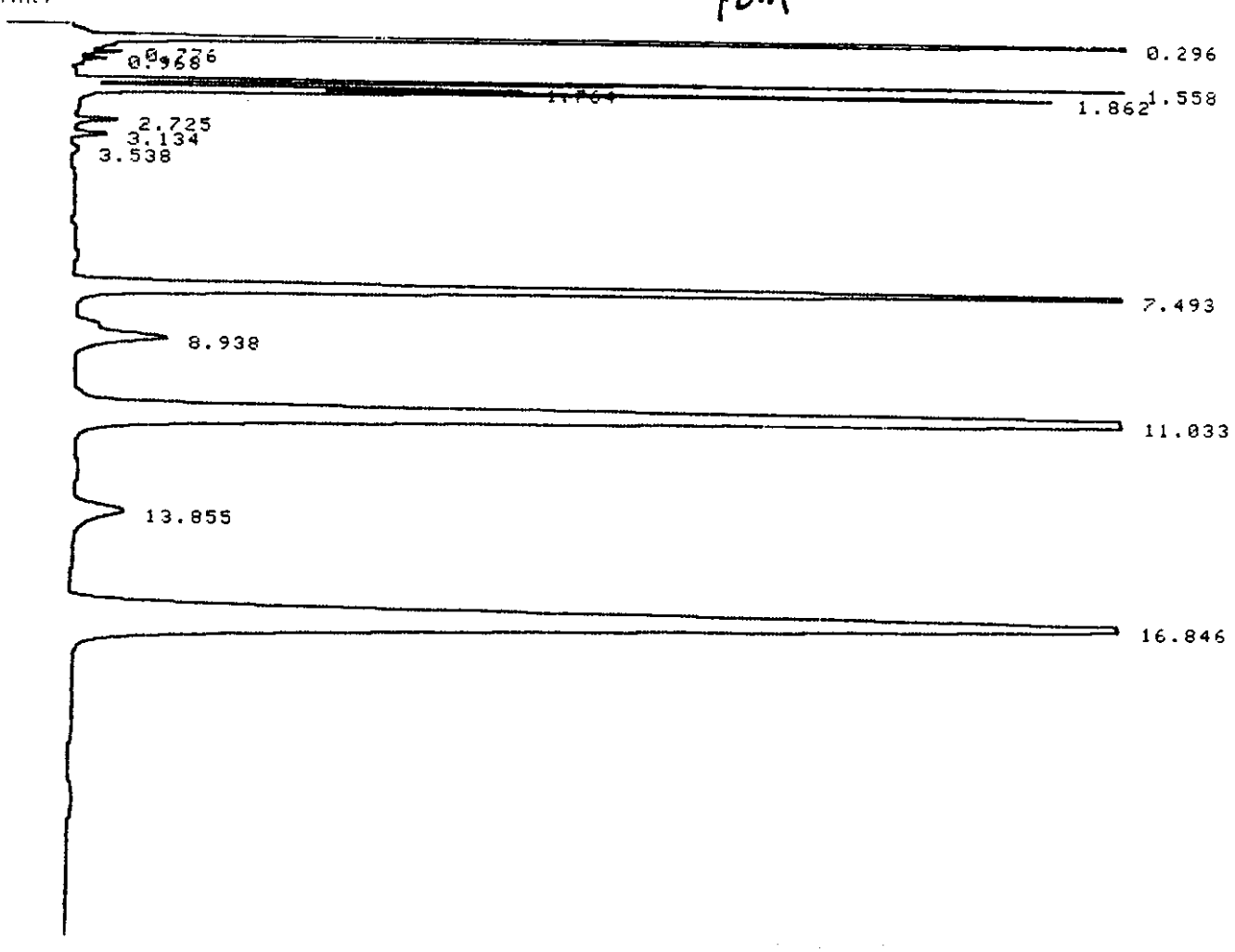
RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.297	BB	795655	.092	143981		.000	
.775	VP	9900	.063	2637		.000	
.966	PV	31697	.049	10823		.000	
1.275	PV	568804	.070	134905	1R	.004	TETRACHLORO = 0.0433 = / 0.05 100 = 86.7%
1.503	VB	29363	.120	4078	2	.001	A-BHC
2.147	BV	5217	.100	868	5	.000	D-BHC
2.326	VP	5693	.103	920		.000	
2.726	PB	30609	.110	4649		.000	
3.133	BV	28906	.129	3730		.000	
4.345	PB	125198	.119	17594	8	.006	HEPT-EPOX
31.605	PB	9615	.175	917		.000	
32.686	PB	846558	.157	90065	20	.003	DECACHLORO = 0.0413 = 82.6%
35.755	PB	10164	.180	943		.000	

TOTAL AREA=2497379
MUL FACTOR=1.0000E+00

RUN # 864 NOV 2, 1994 08:40:18

PBM

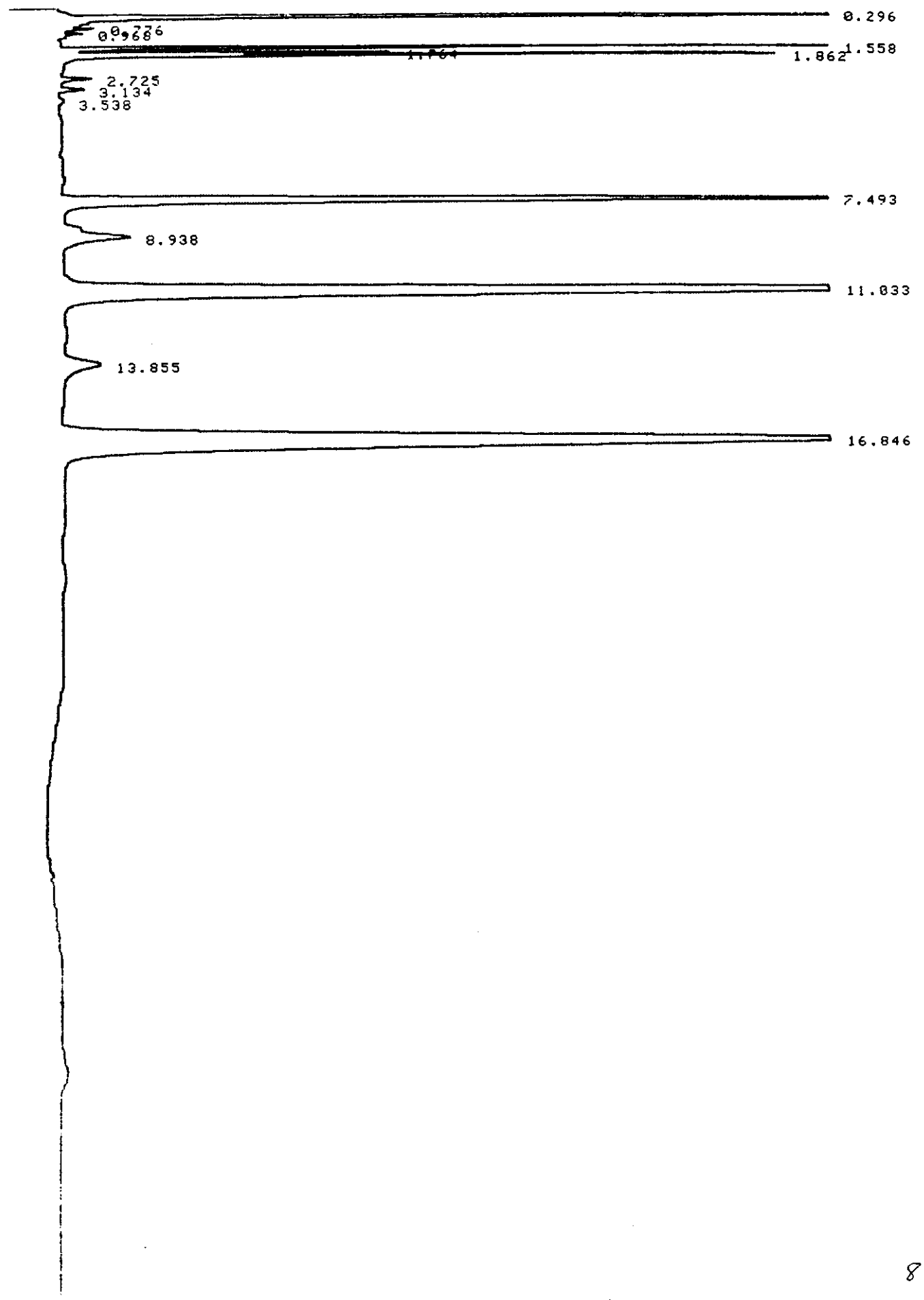
START



7

RUN # 864 NOV 2, 1994 08:40:18

START



8

STOP

RUN# 864 NOV 2, 1994 08:40:18

SAMPLE# 2

Y

ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.296	BV	858453	.084	169617		.000	
.776	VV	11183	.073	2569		.000	
.968	VB	5053	.056	1516		.000	
1.558	BV	250418	.063	66084	2	.010	A-BHC
1.764	VV	100938	.062	26924	3	.012	B-BHC
1.862	VB	255365	.072	59055	4	.011	LINDANE
2.725	PV	19213	.121	2654		.000	
3.134	VP	17941	.134	2237		.000	
3.538	PB	7145	.205	582	7	.000	ALDRIN
7.493	PB	906107	.212	71094	12	.046	ENDRIN 0.0439
8.938	BB	135630	.405	5586	15	.008	END-ALD 0.0069
11.033	PB	1904288	.332	95703	17	.088	DDT
13.855	BB	79952	.442	3015	18	.003	END-KET 0.0029
16.846	BB	2202453	.535	68641	19	.261	METHOXYCHLOR

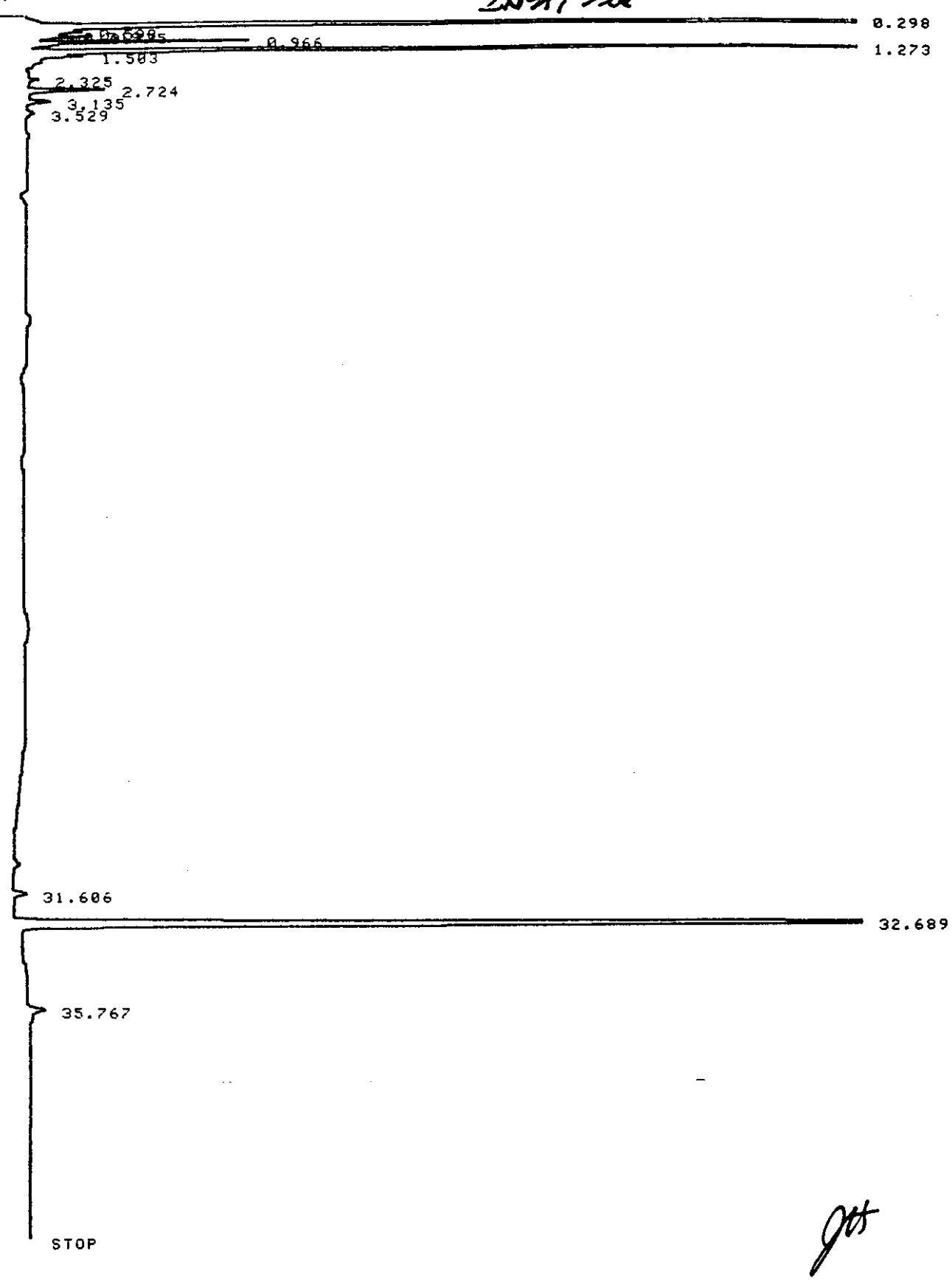
TOTAL AREA=6754138
MUL FACTOR=1.0000E+00

% Breakdown
= 18.2%

RUN # 883 NOV 3, 1994 00:29:52

START

INST, Blk



RUN# 883 NOV 3, 1994 00:29:52

SAMPLE# 19

10

Y

STOP

RUN# 883 NOV 3, 1994 00:29:52

SAMPLE# 19

Y

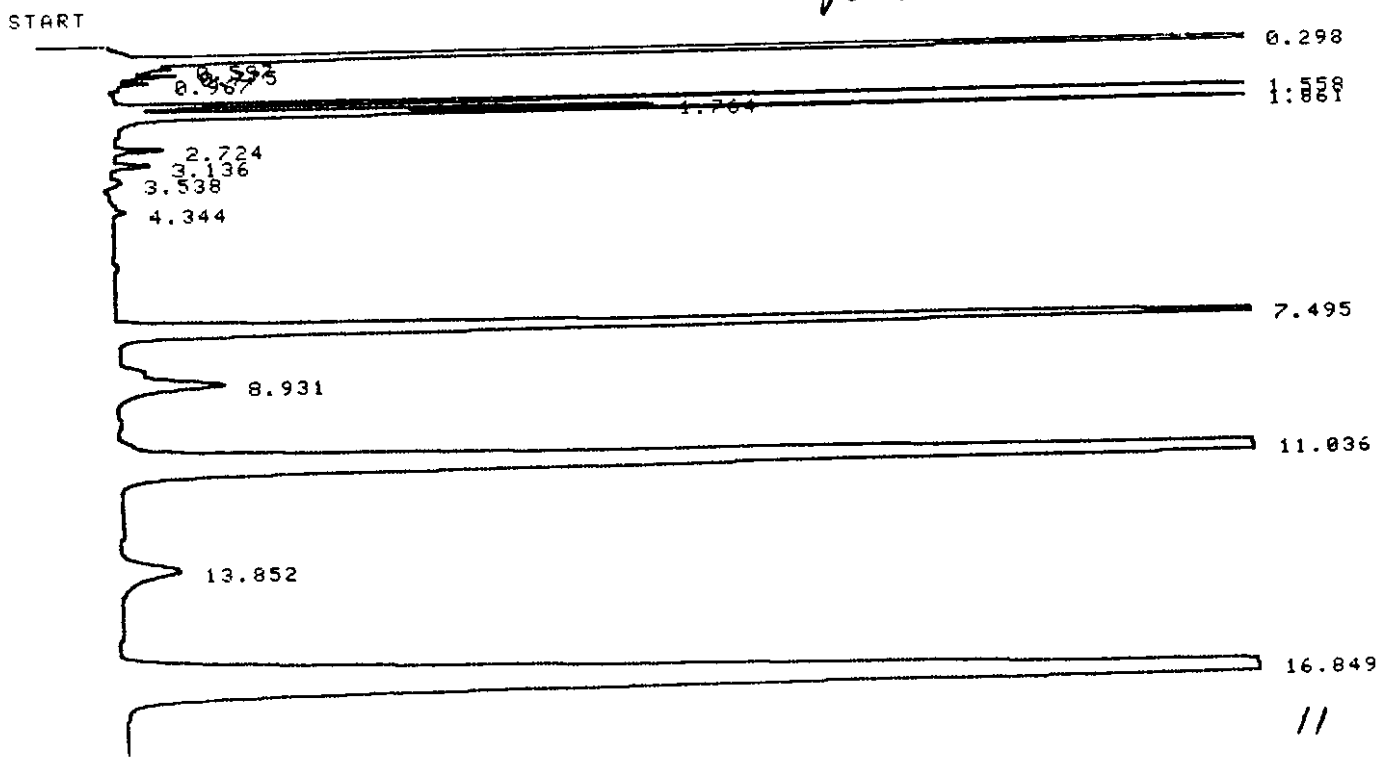
ESTD-AREA

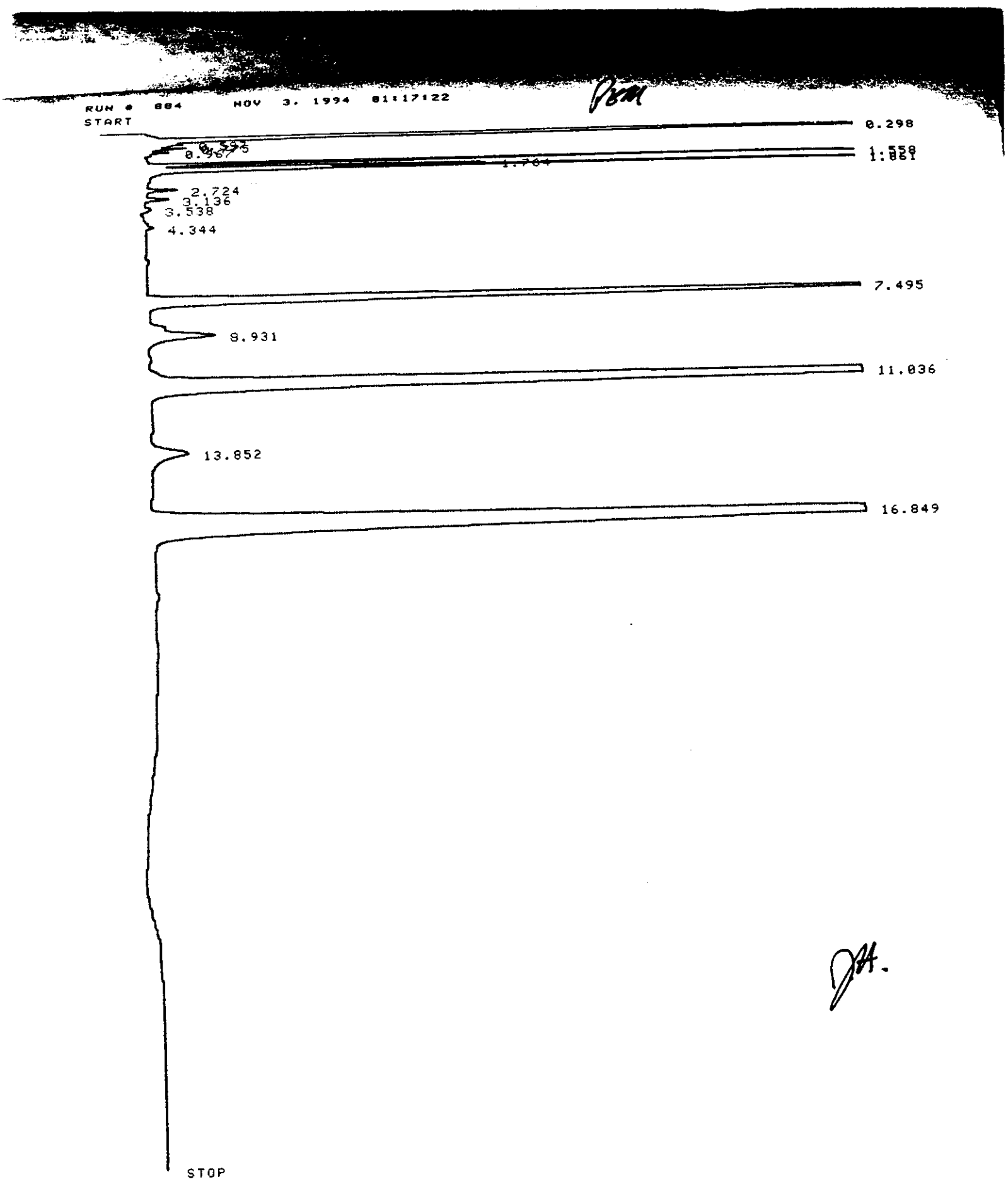
RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.298	BV	871383	.107	136232		.000	
.598	VV	24188	.099	4071		.000	
.719	VV	7689	.047	2709		.000	
.775	VV	23258	.081	4757		.000	
.966	VP	69118	.069	16776		.000	
1.273	PB	606252	.063	159980	1R	.004	TETRACHLORO – 0.0462 = 92.4%
2.325	BP	9453	.169	931		.000	
2.724	PB	38223	.107	5954		.000	
3.135	BP	13075	.121	1804		.000	
3.529	PB	6003	.159	629	7	.000	ALDRIN
31.606	PB	11052	.169	1092		.000	
32.689	PB	960249	.154	103957	20	.004	DECACHLORO – 0.0468 = 93.7%
35.767	BB	17057	.229	1239		.000	

TOTAL AREA=2657000
MUL FACTOR=1.0000E+00

RUN # 884 NOV 3, 1994 01:17:22

START





RUN# 884 NOV 3. 1994 01:17:22

SAMPLE# 20

12

STOP

RUN# 884 NOV 3, 1994 01:17:22

SAMPLE# 20

Y

ESTD-AREA

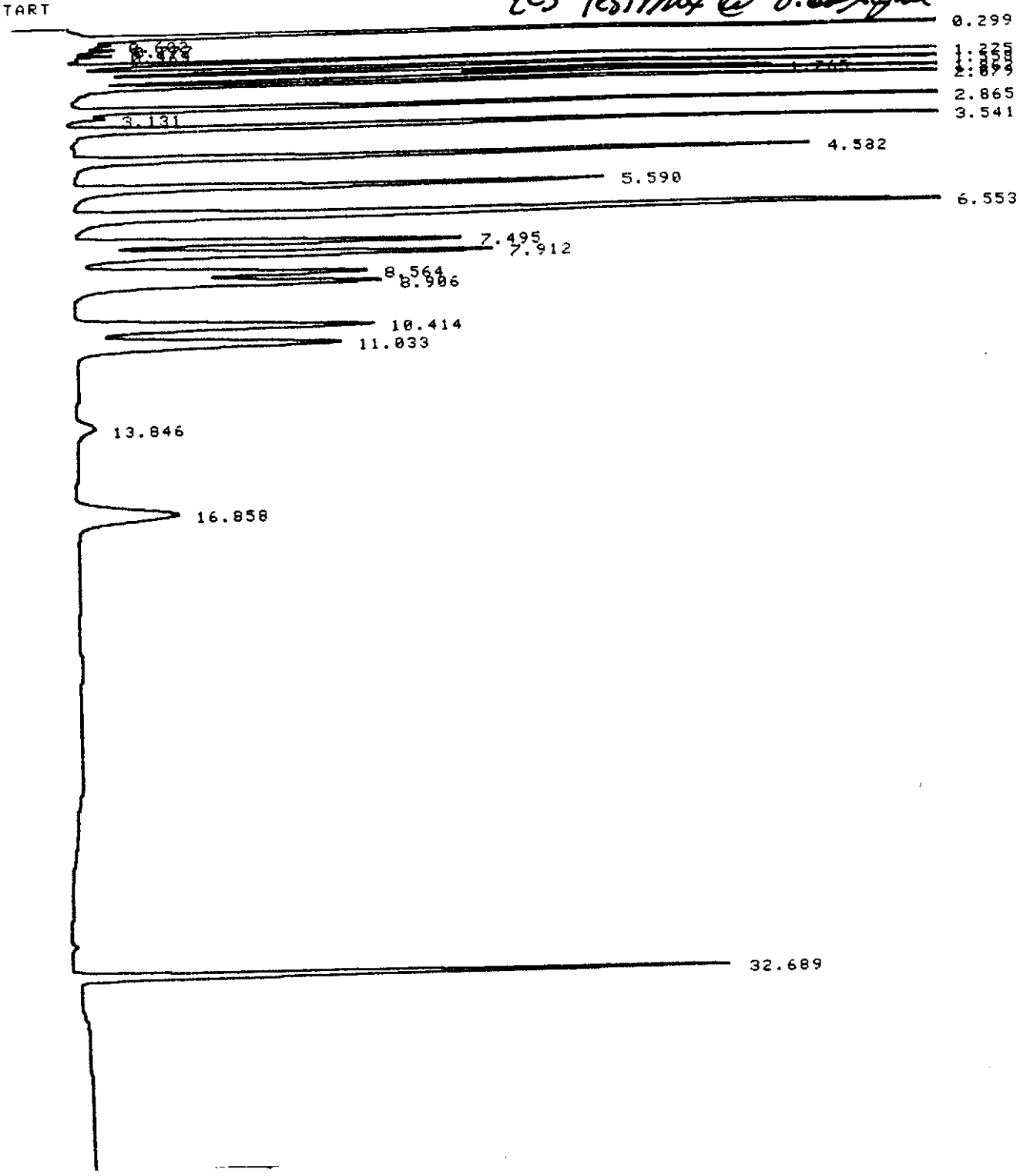
RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.298	BV	866929	.089	162951		.000	
.597	VV	28224	.136	3449		.000	
.775	VV	20094	.088	3793		.000	
.967	VV	10978	.080	2289		.000	
1.558	PV	277728	.063	73966	2	.011	A-BHC
1.764	VV	111998	.062	30139	3	.013	B-BHC
1.861	VB	282079	.072	65702	4	.012	LINDANE
2.724	PB	17715	.106	2775		.000	
3.136	BP	16149	.123	2193		.000	
3.538	PP	11523	.228	843	7	.000	ALDRIN
4.344	PB	16069	.316	847	8	.001	HEPT-EPOX
7.495	PB	1024675	.209	81818	12	.052	ENDRIN 0.0496
8.931	BP	138190	.384	5993	15	.008	END-ALD 0.0070
11.036	BB	2189206	.327	111486	16	.120	~~ENDO SULF~~ ~~0.0496~~
13.852	BB	88459	.440	3347		.000	DDT 0.0032
16.849	BB	2688710	.526	85160	19	.319	METHOXYCHLOR

TOTAL AREA=7788726
MUL FACTOR=1.0000E+00

% Breakdown = 17.1%

RUN # 882 NOV 2, 1994 23:42:16
START

LCS PestMix @ 0.02 µg/ml



STOP

RUN# 882 NOV 2, 1994 23:42:16

SAMPLE# 18

Y

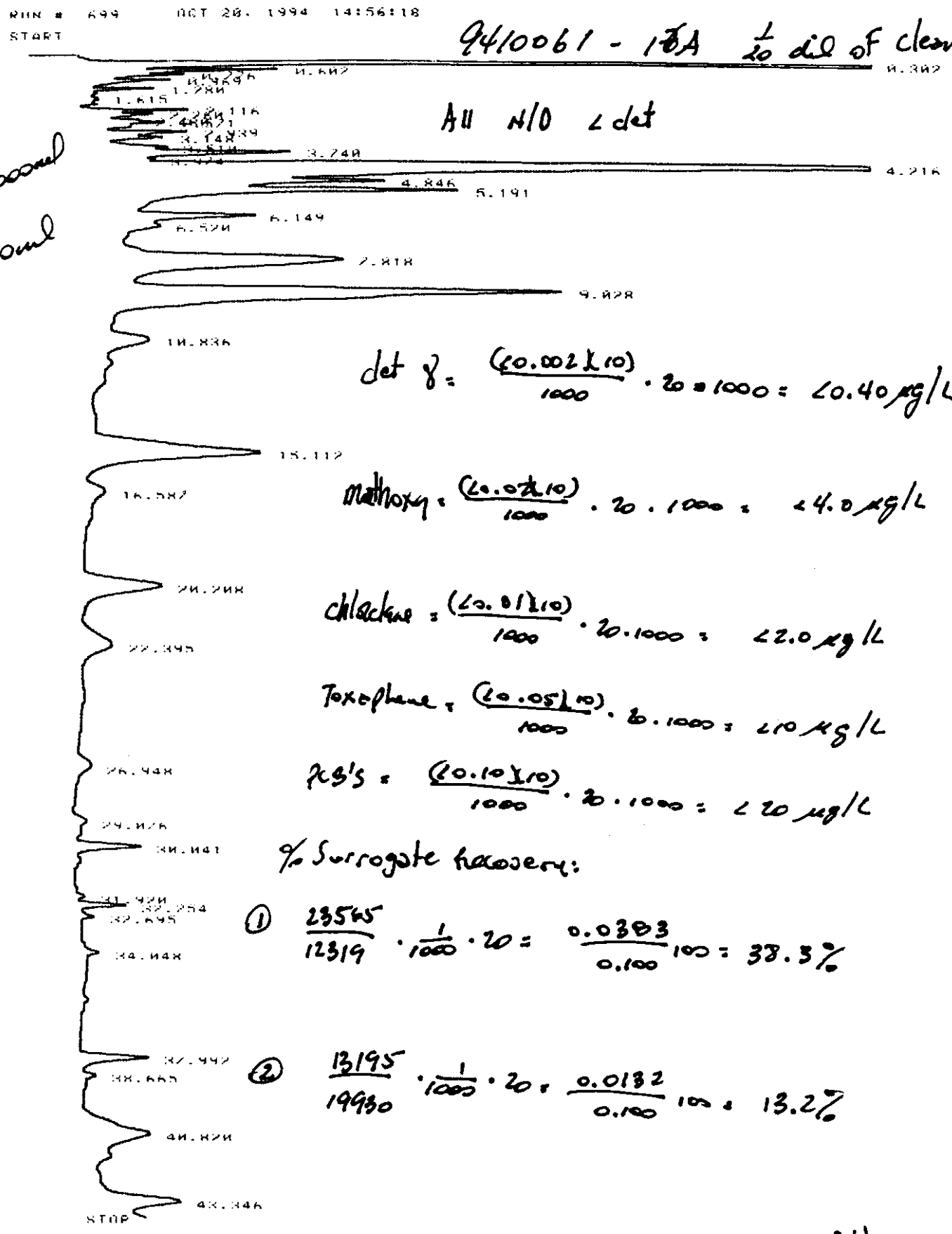
ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.299	BV	695637	.095	122388		.000	
.602	VV	22256	.117	3174		.000	
.777	VV	20019	.095	3494		.000	
.969	VV	14288	.071	3340		.000	
1.275	PV	280078	.065	72012	1R	.002	TETRACHLORO
1.558	VV	499864	.065	128163	2	.021	A-BHC
1.765	VV	193395	.063	51184	3	.022	B-BHC
1.862	VV	495068	.073	112497	4	.022	LINDANE
2.079	VB	454118	.075	101011	5	.021	D-BHC
2.865	PV	481072	.101	79403	6	.020	HEPTACHLOR
3.131	VP	21489	.132	2723		.000	
3.541	PB	468509	.116	67272	7	.020	ALDRIN
4.582	VB	459469	.142	54066	8	.021	HEPT-EPOX
5.590	PB	398619	.170	39014	10	.009	ENDOI/~~A-CHLOR~~
6.553	PB	826200	.202	68282	11	.020	DIELD/DDE
7.495	BV	350062	.203	28725	12	.018	ENDRIN
7.912	VV	424692	.228	30979	13	.021	ENDO II
8.564	VV	313283	.241	21699	14	.023	DDD
8.906	VP	372786	.273	22799	15	.021	END-ALD
10.414	PV	390144	.294	22109		.000	E.S
11.033	VB	374213	.319	19535	16	.021	~~ENDO SULF~~ DDT
13.846	BB	33551	.403	1386		.000	
16.858	BB	224329	.496	7538	19	.027	METHOXYCHLOR
32.689	PB	441866	.153	48087	20	.002	DECACHLORO

TOTAL AREA=8255008
MUL FACTOR=1.0000E+00

Sample ID: PD-2

5-flw



9410061 - 1BA $\frac{1}{20}$ dil of cleanup

All N/D < det

V_i = 1000ml

V_f = 10ml

det γ = $\frac{(<0.002 \times 10)}{1000} \cdot 20 \cdot 1000$ = <0.40 µg/L

methoxy = $\frac{(<0.02 \times 10)}{1000} \cdot 20 \cdot 1000$ = <4.0 µg/L

chlordane = $\frac{(<0.01 \times 10)}{1000} \cdot 20 \cdot 1000$ = <2.0 µg/L

Toxaphene = $\frac{(<0.05 \times 10)}{1000} \cdot 20 \cdot 1000$ = <10 µg/L

PCB's = $\frac{(<0.10 \times 10)}{1000} \cdot 20 \cdot 1000$ = <20 µg/L

% Surrogate Recovery:

① $\frac{23545}{12319} \cdot \frac{1}{1000} \cdot 20 = \frac{0.0383}{0.100} 100 = 38.3\%$

② $\frac{13195}{19930} \cdot \frac{1}{1000} \cdot 20 = \frac{0.0132}{0.100} 100 = 13.2\%$

OH.

RUN# 699 OCT 20, 1994 14:56:18

SAMPLE# 11

(Not used)

Y

ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.302	BV	916479	.121	126174		.000	
.602	VV	100909	.106	15921		.000	
.776	VV	47144	.096	8203		.000	
.969	VV	53073	.128	6890		.000	
1.280	VV	23565	.073	5381	1R	.000	TETRACHLORO ← ①
2.116	PV	55269	.107	8643	5	.003	D-BHC
2.260	VV	46239	.139	5558		.000	
2.480	VV	20183	.080	4193		.000	
2.571	VV	41827	.114	6104		.000	
2.939	VV	61561	.138	7434	6	.003	HEPTACHLOR
3.148	VV	42457	.134	5264		.000	
3.510	VV	52935	.171	5164	7	.002	ALDRIN
3.740	VV	163293	.183	14851		.000	
3.974	VV	24019	.112	3576		.000	
4.216	VV	1666215	.301	92137	8	.077	HEPT-EPOX
4.846	VV	278411	.218	21250		.000	
5.191	VB	369035	.230	26758	9	.016	G-CHLOR
6.149	BV	124395	.211	9812		.000	
6.520	VP	37807	.254	2481	11	.001	DIELD/DDE
7.818	PV	602474	.554	18121	13	.029	ENDO II
9.028	VB	976827	.450	36153	15	.054	ENO-ALD
10.836	BV	100965	.492	3418	17	.005	DDT
15.112	BP	513175	.621	13773		.000	
16.587	PP	79236	.839	1574	19	.009	METHOXYCHLOR
20.208	PP	228824	.596	6372		.000	
22.395	PB	112741	.766	2453		.000	
26.948	BP	32698	.498	1094		.000	
29.076	PV	24078	.367	1092		.000	
30.041	VV	81181	.249	5423		.000	
31.920	PV	5886	.150	653		.000	
32.254	VV	37819	.164	3851		.000	
32.695	VB	13195	.196	1120	20	.000	DECACHLORO ← ②
34.048	PB	18919	.261	1210		.000	
37.992	BP	85224	.261	5436		.000	
38.665	PB	11907	.193	1028		.000	
40.820	BV	220356	.749	4903		.000	
43.346	BV	192015	.493	6488		.000	

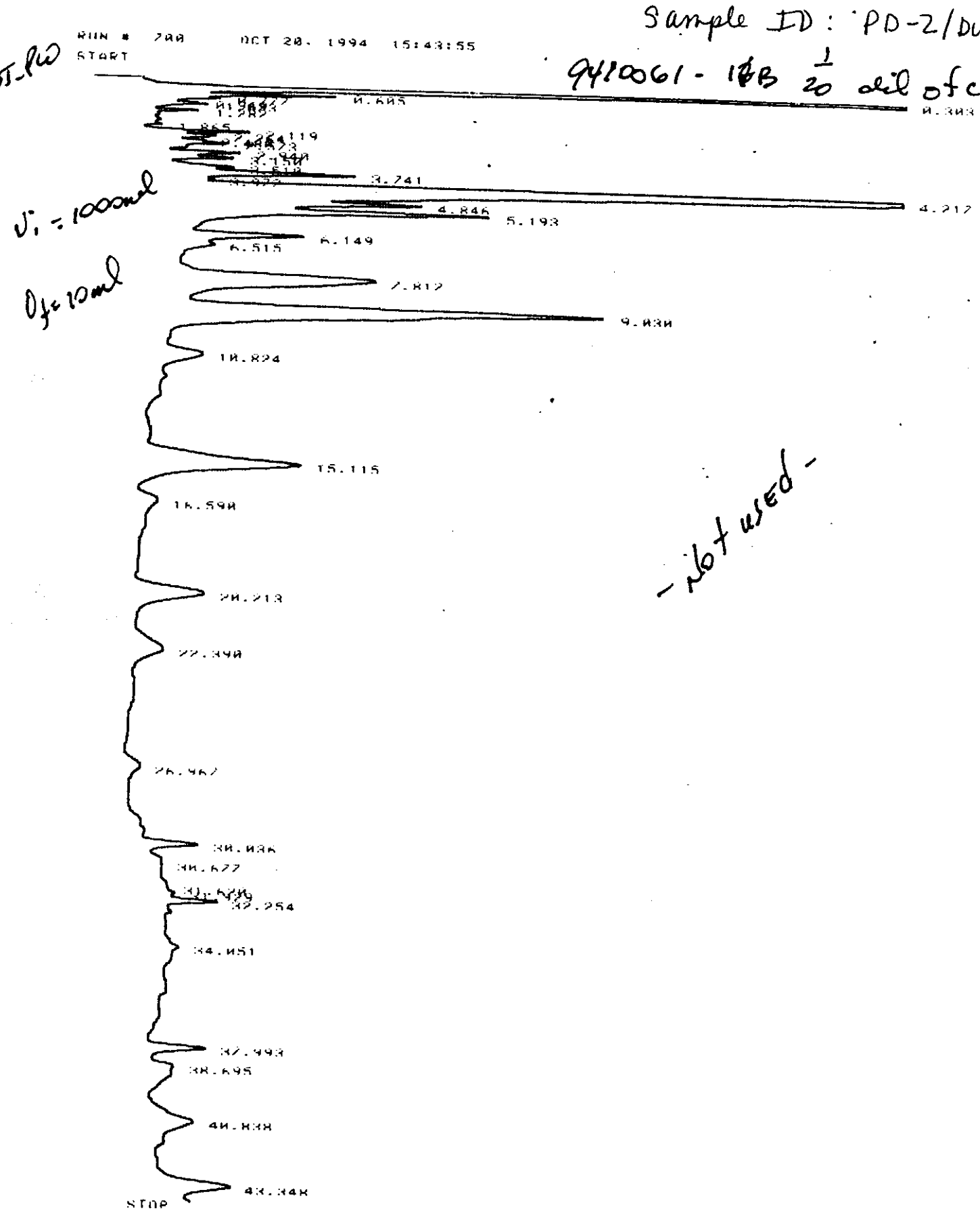
TOTAL AREA=7461456

MUL FACTOR=1.0000E+00

Sample ID: PD-2/DUP

9410061-1BB $\frac{1}{20}$ dil of clean

PST-PW



V_i = 1000ml

V_f = 10ml

- not used -

RUN# 200 OCT 20, 1994 15:43:55

SAMPLE# 12

Y

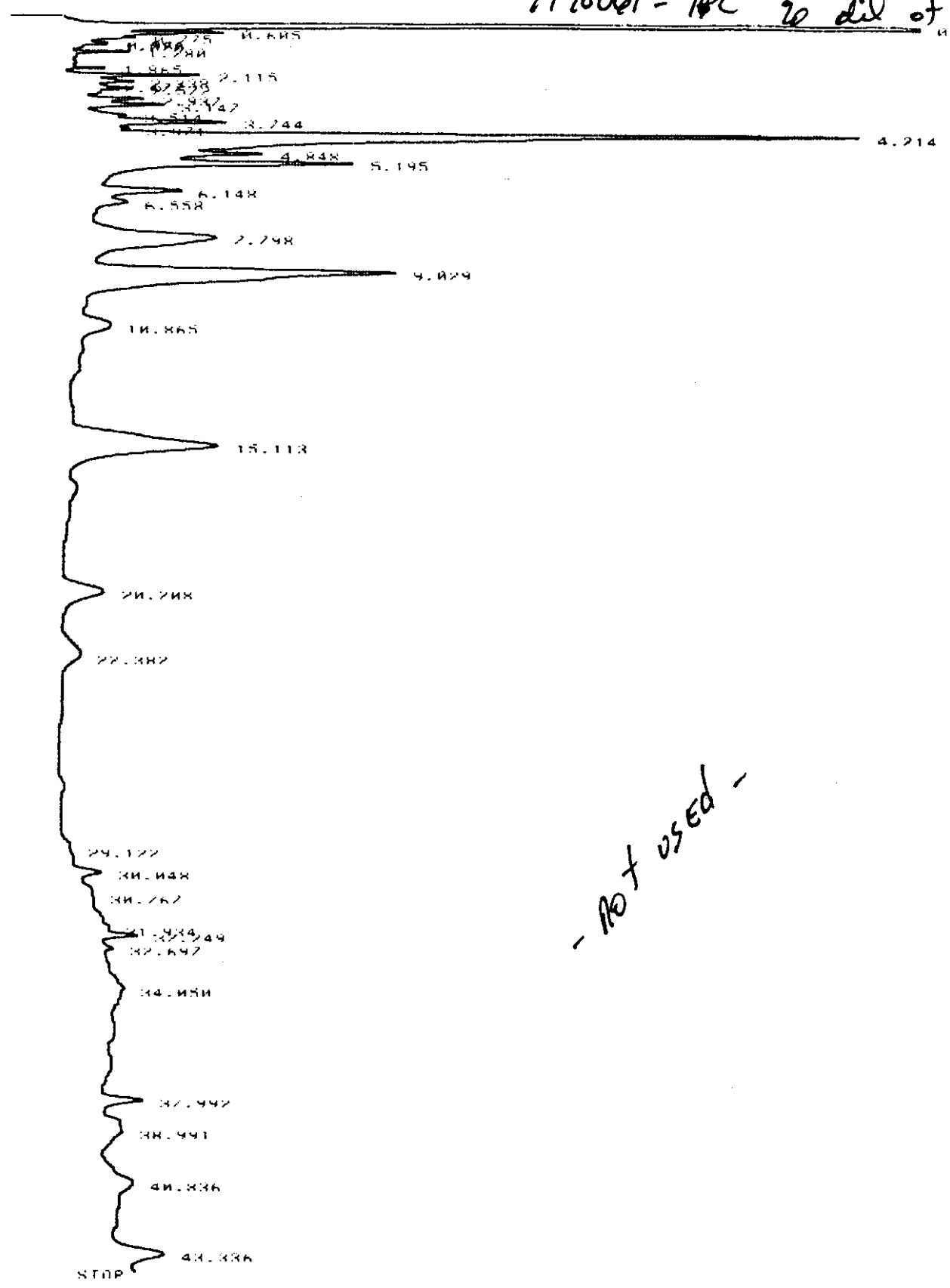
ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.303	BV	916841	.130	117438		.000	
.605	VV	110458	.114	16216		.000	
.777	VV	41028	.107	6403		.000	
.969	VV	21737	.078	4618		.000	
1.023	VV	34584	.107	5368		.000	
1.282	VV	25011	.091	4603	1R	.000	TETRACHLORO
1.865	VP	7667	.083	1547	4	.000	LINDANE
2.119	PV	57029	.109	8718	5	.003	D-BHC
2.264	VV	56247	.162	5771		.000	
2.480	VV	22403	.081	4589		.000	
2.573	VV	47469	.123	6424		.000	
2.940	VV	58128	.137	7067	6	.002	HEPTACHLOR
3.150	VV	51979	.139	6237		.000	
3.510	VV	59220	.168	5883	7	.003	ALDRIN
3.741	VV	172547	.182	15837		.000	
3.972	VV	25164	.113	3715		.000	
4.217	VV	1626218	.309	87790	8	.075	HEPT-EPOX
4.846	VV	263576	.217	20262		.000	
5.193	VB	356514	.232	25564	9	.016	G-CHLOR
6.149	BV	121934	.212	9574		.000	
6.515	VP	37780	.262	2403	11	.001	DIELD/DDE
7.812	PV	558573	.554	16803	13	.027	ENDO II
9.030	VB	972007	.446	36296	15	.054	END-ALD
10.824	BV	97723	.492	3312	17	.005	DDT
15.115	BP	481735	.609	13180		.000	
16.590	PV	72821	.683	1776	19	.009	METHOXYCHLOR
20.213	VV	210167	.598	5858		.000	
22.390	VB	119278	.784	2537		.000	
26.967	BB	37547	.538	1163		.000	
30.836	PV	61795	.238	4327		.000	
30.677	VV	17991	.436	688		.000	
31.620	VB	5851	.430	227		.000	
31.929	BV	6693	.167	668		.000	
32.254	VV	43871	.178	4304	20	.000	DECACHLORO
34.051	VV	57476	.694	1380		.000	
37.993	BV	76218	.261	4866		.000	
38.695	VV	39938	.295	2255		.000	
40.838	VV	196219	.809	4040		.000	
43.348	VV	310837	.712	7280		.000	

TOTAL AREA=7480275
MUL FACTOR=1.0000E+00

Sample ID: PD-2/MS
9410061 - AC 1/20 dil of cleanup

RUN # 201 OCT 20, 1994 16:31:47
START



- not used -

RUN# 201 OCT 20, 1994 16:31:47

SAMPLE# 13

20

Y

ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.303	BV	918868	.123	124104		.000	
.605	VV	81066	.116	11669		.000	
.775	VV	29685	.099	5005		.000	
.966	VV	13709	.080	2870		.000	
1.020	VV	14026	.085	2750		.000	
1.280	VV	18661	.071	4387	18	.000	TETRACHLORO
1.865	BP	9827	.061	2694	4	.000	LINDANE
2.115	PV	58538	.097	10011	5	.003	B-BHC
2.338	VV	45789	.159	4790		.000	
2.477	VV	11504	.070	2726		.000	
2.572	VV	48744	.176	4605		.000	
2.937	VV	41754	.135	5141	6	.002	HEPTACHLOR
3.147	VV	54261	.142	6383		.000	
3.514	VV	36180	.178	3383	7	.002	ALDRIN
3.744	VV	116461	.181	10703		.000	
3.971	VV	24373	.122	3335		.000	
4.214	VV	1013630	.292	57845	8	.047	HEPT-EPOX
4.848	VV	163775	.217	12586		.000	
5.195	VB	258557	.225	19175	9	.011	G-CHLOR
6.148	PV	74449	.204	6069		.000	
6.558	VB	31385	.233	2247	11	.001	DIELDRDE
7.798	BV	314951	.557	9417	13	.015	ENDO II
9.029	VB	617699	.444	23165	15	.034	ENO-ALD
10.865	BV	64010	.496	2153	17	.003	DDT
15.113	BB	426105	.644	11025		.000	
20.208	BP	109629	.584	3131		.000	
22.382	PB	73285	.808	1512		.000	
30.048	BP	23525	.227	1727		.000	
30.767	PB	10109	.455	370		.000	
31.934	PV	23314	.432	899		.000	
32.249	VV	33846	.197	2866		.000	
32.697	VV	10916	.201	906	20	.000	DECACHLORO
34.050	VB	73164	.987	1235		.000	
37.992	BV	45081	.251	2999		.000	
38.991	VB	76489	.813	1568		.000	
40.836	BV	43268	.515	1399		.000	
43.336	BV	115024	.501	3826		.000	

TOTAL AREA=5125658
MUL FACTOR=1.0000E+00

1

Sample ID : PD-2/MSD

94D061- (BD) $\frac{1}{10}$ cell extract

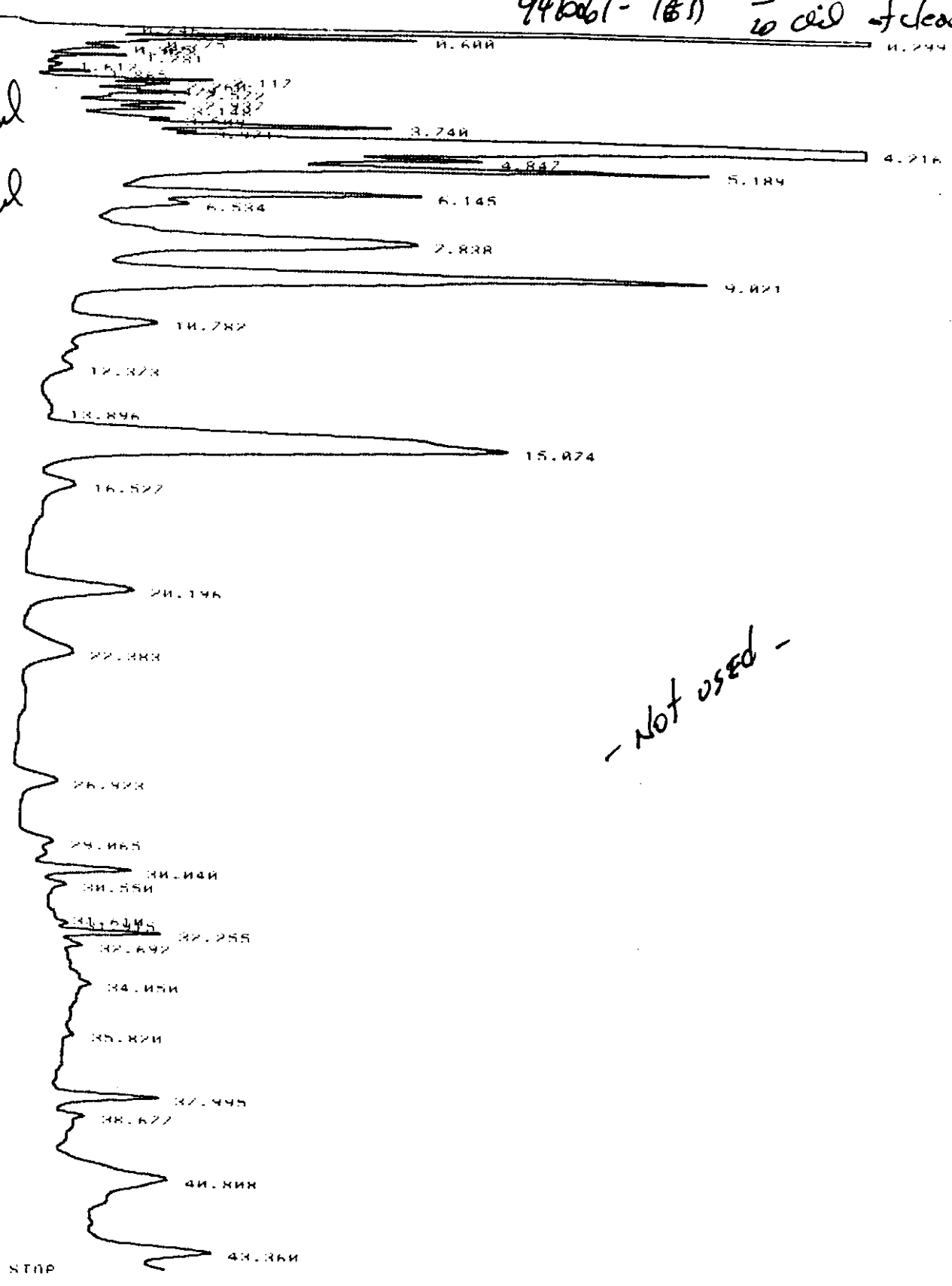
75.1W

RUN # 202 OCT 20, 1994 17:19:22

START

V_i = 1000 ml

V_f = 1 ml



- Not used -

RUN# 202 OCT 20, 1994 17:19:22

SAMPLE# 14

ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.246	BV	26953	.059	7573		.000	
.299	VV	1411679	.098	240951		.000	
.600	VV	188236	.106	29523		.000	
.775	VV	56429	.104	9054		.000	
.965	VV	34147	.089	6419		.000	
1.023	VV	45623	.113	6752		.000	TETRACHLORO
1.281	VV	37334	.088	7097	1R	.000	A-BHC
1.612	VV	8923	.078	1906	2	.001	LINDANE
1.865	VP	16253	.069	3927	4	.004	D-BHC
2.117	PV	82246	.107	12867	5	.000	
2.260	VV	87052	.156	9279		.000	
2.479	VV	32094	.079	6742		.000	
2.572	VV	75337	.125	10056		.003	HEPTACHLOR
2.937	VV	78962	.138	9503	6	.000	
3.148	VV	68670	.139	8237		.003	ALDRIN
3.509	VV	78607	.181	7236	7	.000	
3.740	VV	250803	.177	23618		.000	
3.971	VV	67025	.130	8592		.119	HEPT-EPOX
4.216	VV	2570638	.306	139913	8	.000	
4.847	VV	381018	.221	28713		.027	G-CHLOR
5.189	VB	616963	.228	45198	9	.000	
6.145	PV	290650	.213	22792		.003	DIELD/DDE
6.534	VP	102786	.288	5955	11	.043	ENDO II
7.838	PV	881602	.603	24375	13	.069	END-ALD
9.021	VB	1245163	.442	46945	15	.009	DDT
10.782	BV	204530	.501	6800	17	.000	
12.373	VP	48446	.454	1780		.002	END-KET
13.896	PV	39744	.655	1011	18	.000	
15.074	VV	1634053	.770	35387		.015	METHOXYCHLOR
16.527	VV	126718	.647	3266	19	.000	
20.196	BP	286633	.586	8152		.000	
22.383	PB	177298	.771	3832		.000	
26.923	BP	104326	.564	3085		.000	
29.065	PV	22611	.213	1772		.000	
30.040	PV	100383	.240	6976		.000	
30.550	VB	28211	.278	1694		.000	
31.610	BV	6920	.237	486		.000	
31.915	VV	16281	.209	1300		.000	
32.255	VV	86701	.175	8257		.000	DECACHLORO
32.692	VV	36292	.277	2183	20	.000	
34.050	VV	140066	.906	2576		.000	
35.820	VB	19030	.337	941		.000	
37.995	BV	121275	.262	7717		.000	
38.677	VV	32556	.250	2169		.000	
40.808	VV	571911	1.115	8551		.000	
43.360	VV	463811	.647	11950		.000	

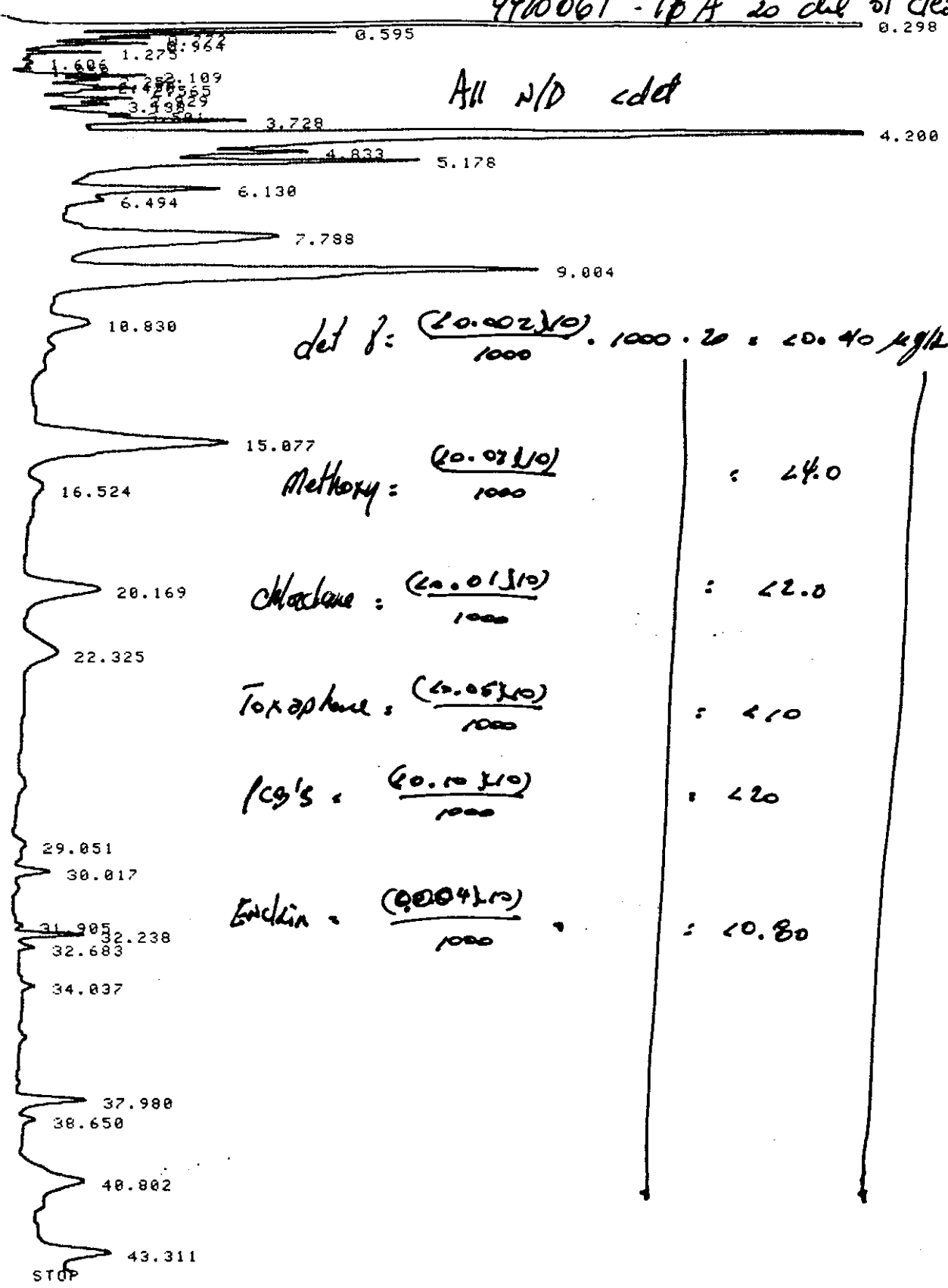
TOTAL AREA=1.3003E+07
MUL FACTOR=1.0000E+00

Sample ID: PD-2

940061 - 1B A 1/20 dil of cleanup

Pesticide

RUN # 871 NOV 2, 1994 14:58:41
START



All N/D <det

V_i = 1000 ml

V_f = 10 ml

det γ: $\frac{(<0.002)(10)}{1000} \cdot 1000 \cdot 20$ = <0.40 µg/L

Methoxy: $\frac{(<0.02)(10)}{1000}$ = <4.0

Chlordane: $\frac{(<0.01)(10)}{1000}$ = <2.0

Toxaphene: $\frac{(<0.05)(10)}{1000}$ = <10

PCB's: $\frac{(<0.10)(10)}{1000}$ = <20

Endrin: $\frac{(0.0004)(10)}{1000}$ = <0.80

RUN# 871 NOV 2, 1994 14:58:41

SAMPLE# 7

Y

RUN# 57 NOV 2, 1994 14:58:41

SAMPLE# 7

Y

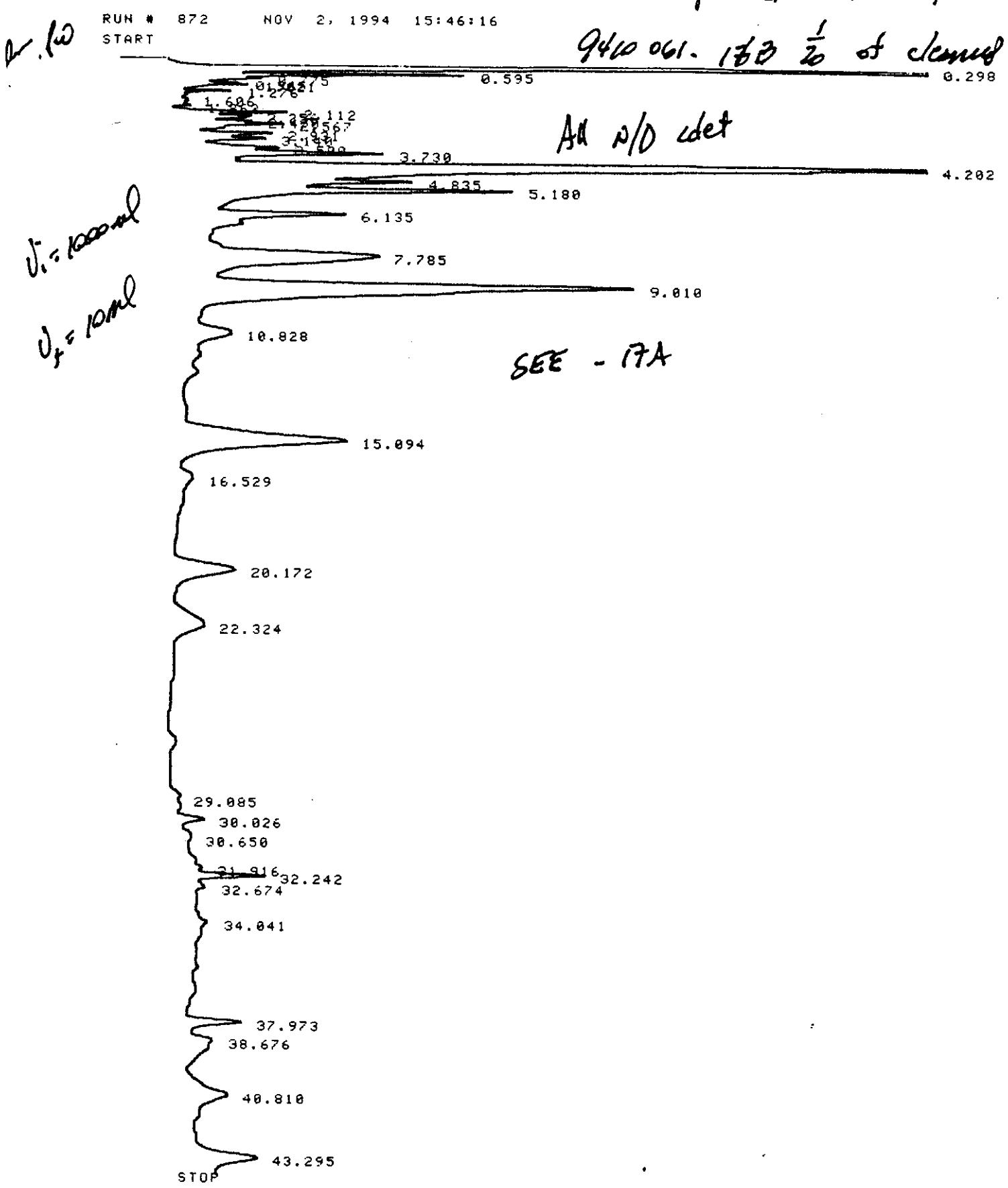
ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.298	BV	1007818	.100	168497		.000	
.595	VV	142373	.096	24645		.000	
.772	VV	59031	.093	10537		.000	
.964	VV	79467	.128	10361		.000	
1.275	VV	32830	.081	6777	1R	.000	TETRACHLORO — 50.0%
1.606	VV	6379	.072	1474	2	.000	A-BHC
1.858	VP	7229	.080	1498	4	.000	LINDANE
2.109	PV	64611	.110	9833	5	.003	D-BHC
2.252	VV	52777	.142	6195		.000	
2.470	VV	29019	.083	5832		.000	
2.565	VV	88272	.173	8489		.000	
2.929	VV	67850	.144	7829	6	.003	HEPTACHLOR
3.138	VV	47397	.137	5783		.000	
3.501	VV	74108	.180	6860	7	.003	ALDRIN
3.728	VV	173239	.187	15439		.000	
4.200	VV	1456946	.288	84446		.000	
4.833	VV	240640	.215	18678		.000	
5.178	VB	369961	.231	26671	9	.016	G-CHLOR
6.130	BV	142156	.210	11269		.000	
6.494	VP	39455	.243	2706	11	.001	DIELD/DDE
7.788	PV	541027	.548	16469	13	.026	ENDO II
9.004	VB	990105	.454	36360	15	.055	END-ALD
10.830	BV	98045	.502	3258	16	.005	ENDO-SULF
15.077	BP	544446	.616	14721		.000	
16.524	PV	47566	.644	1231	19	.006	METHOXYCHLOR
20.169	PV	205498	.604	5675		.000	
22.325	VB	126228	.814	2584		.000	
29.051	PB	12099	.296	682		.000	
30.017	PV	36919	.236	2610		.000	
31.905	PV	5272	.145	604		.000	
32.238	VV	50346	.165	5100	20	.000	DECACHLORO — 49.1%
32.683	VB	14634	.193	1261		.000	
34.037	BB	7165	.137	872		.000	
37.980	BP	80344	.266	5036		.000	
38.650	PB	12337	.198	1039		.000	
40.802	BV	183016	.707	4315		.000	
43.311	BV	140455	.450	5205		.000	

TOTAL AREA=7277059
MUL FACTOR=1.0000E+00

Sample ID : PD-2/DUP

9410061. 1B3 1/20 of cleanup



RUN# 872 NOV 2, 1994 15:46:16

SAMPLE# 8

Y

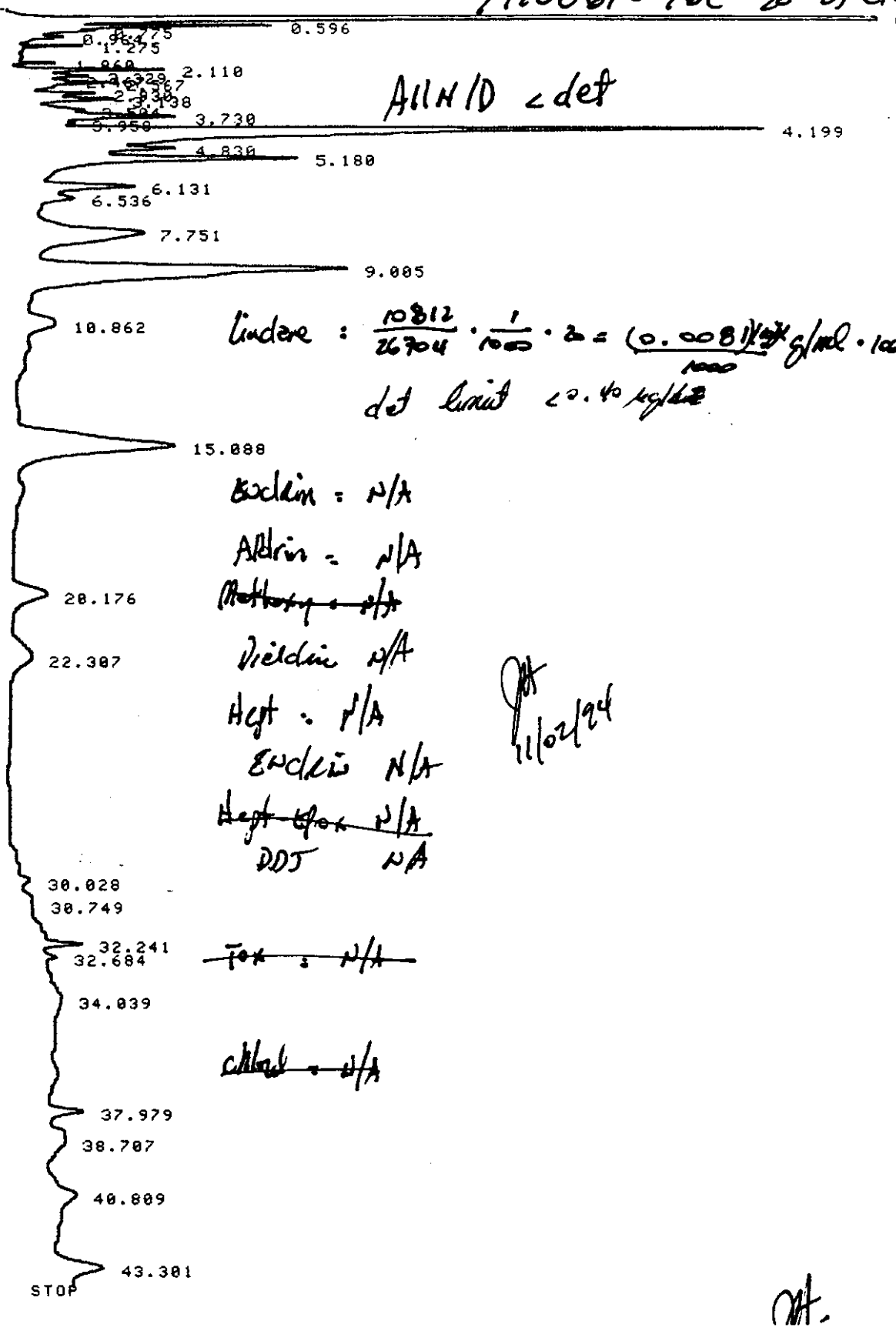
ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.298	BV	1047169	.101	173071		.000	
.595	VV	149011	.099	24983		.000	
.775	VV	46626	.100	7736		.000	
.965	VV	28397	.082	5791		.000	
1.021	VV	38814	.099	6549		.000	
1.276	VV	26264	.087	5058	1R	.000	TETRACHLORO - 40.0%
1.606	VV	6211	.076	1360	2	.000	A-BHC
1.862	VP	7698	.079	1627	4	.000	LINDANE
2.112	PV	64529	.111	9680	5	.003	D-BHC
2.256	VV	32367	.084	6414		.000	
2.470	VV	31541	.084	6274		.000	
2.567	VV	88415	.165	8949		.000	
2.931	VV	64865	.143	7553	6	.003	HEPTACHLOR
3.140	VV	57457	.142	6763		.000	
3.500	VV	80773	.180	7471	7	.003	ALDRIN
3.730	VV	179153	.186	16054		.000	
4.202	VV	776845	.163	79447		.000	
4.835	VV	223832	.214	17436		.000	
5.180	VB	362036	.237	25489	9	.016	G-CHLOR
6.135	BV	142526	.215	11059		.000	
7.785	PV	484605	.547	14769	13	.024	ENDO II
9.010	VB	986619	.451	36467	15	.055	END-ALD
10.828	BV	96056	.518	3089	16	.005	ENDO-SULF
15.094	BP	502143	.599	13961		.000	
16.529	PV	49786	.657	1263	19	.006	METHOXYCHLOR
20.172	PV	181029	.588	5129		.000	
22.324	VB	131541	.818	2681		.000	
29.085	BB	6686	.269	415		.000	
30.026	PP	28349	.228	2075		.000	
30.650	PB	12184	.361	563		.000	
31.916	PV	5485	.168	544		.000	
32.242	VV	57918	.164	5869	20	.000	DECACHLORO - 56.5%
32.674	VB	9371	.217	721		.000	
34.041	PP	17446	.390	746		.000	
37.973	BV	73377	.263	4649		.000	
38.676	VP	98203	.733	2233		.000	
40.810	PV	134144	.693	3225		.000	
43.295	BV	163435	.521	5225		.000	

TOTAL AREA=6492906
MUL FACTOR=1.0000E+00

Sample ID: PD-2/MS
9410061-16C 1/20 of cleanup

RUN # 873 NOV 2, 1994 16:33:53
START



All N/D < det

Lindane : $\frac{10812}{26704} \cdot \frac{1}{100} \cdot 2 = \frac{(0.0081)}{100}$ g/ml · 1000 = ~~0.081~~ ~~0.10~~

det limit < 0.40 ug/kg

Endrin : N/A

Aldrin : N/A

~~Methoxy : N/A~~

Dieldrin N/A

Hept : N/A

Endrin N/A

~~Hept epox N/A~~

DDT N/A

~~Tox : N/A~~

~~chlord : N/A~~

11/02/94

RUN# 873 NOV 2, 1994 16:33:53

SAMPLE# 9

Y

ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.297	BV	1061062	.100	177229		.000	
.596	VV	115308	.100	19255		.000	
.775	VV	34824	.097	6012		.000	
.964	VV	18683	.085	3667		.000	
1.275	VV	20953	.071	4950	1R	.000	TETRACHLORO 31.4%
1.860	BP	10812	.060	2991	4	.000	LINDANE
2.110	PV	66635	.100	11141	5	.003	D-BHC
2.329	VV	49866	.154	5383		.000	
2.467	VV	17091	.076	3744		.000	
2.567	VV	63590	.161	6602		.000	
2.930	VV	46394	.141	5489	6	.002	HEPTACHLOR
3.138	VV	58640	.145	6734		.000	
3.504	VV	48612	.188	4314	7	.002	ALDRIN
3.730	VV	124774	.190	10917		.000	
3.958	VV	23988	.120	3318		.000	
4.199	VV	881181	.272	54033		.000	
4.830	VV	122505	.200	10199		.000	
5.180	VB	262762	.232	18888	9	.012	G-CHLOR
6.131	BV	84269	.207	6792		.000	
6.536	VB	32502	.228	2373	11	.001	DIELD/DDE
7.751	BV	266860	.558	7976	13	.013	ENDO II
9.005	VB	628757	.451	23246	15	.035	END-ALD
10.862	BV	65609	.510	2146	16	.004	ENDO-SULF
15.088	BB	445697	.643	11557	18	.019	END-KET
20.176	BP	87047	.569	2549		.000	
22.307	PB	82569	.852	1615		.000	
30.028	BP	9693	.229	706		.000	
30.749	PB	9856	.443	371		.000	
32.241	VP	40024	.225	2965	20	.000	DECACHLORO 39.0%
32.684	PP	9270	.174	889		.000	
34.039	BV	30208	.671	750		.000	
37.979	BV	39139	.256	2548		.000	
38.707	VB	69106	.827	1392		.000	
40.809	BP	65152	.731	1485		.000	
43.301	PV	111718	.531	3509		.000	

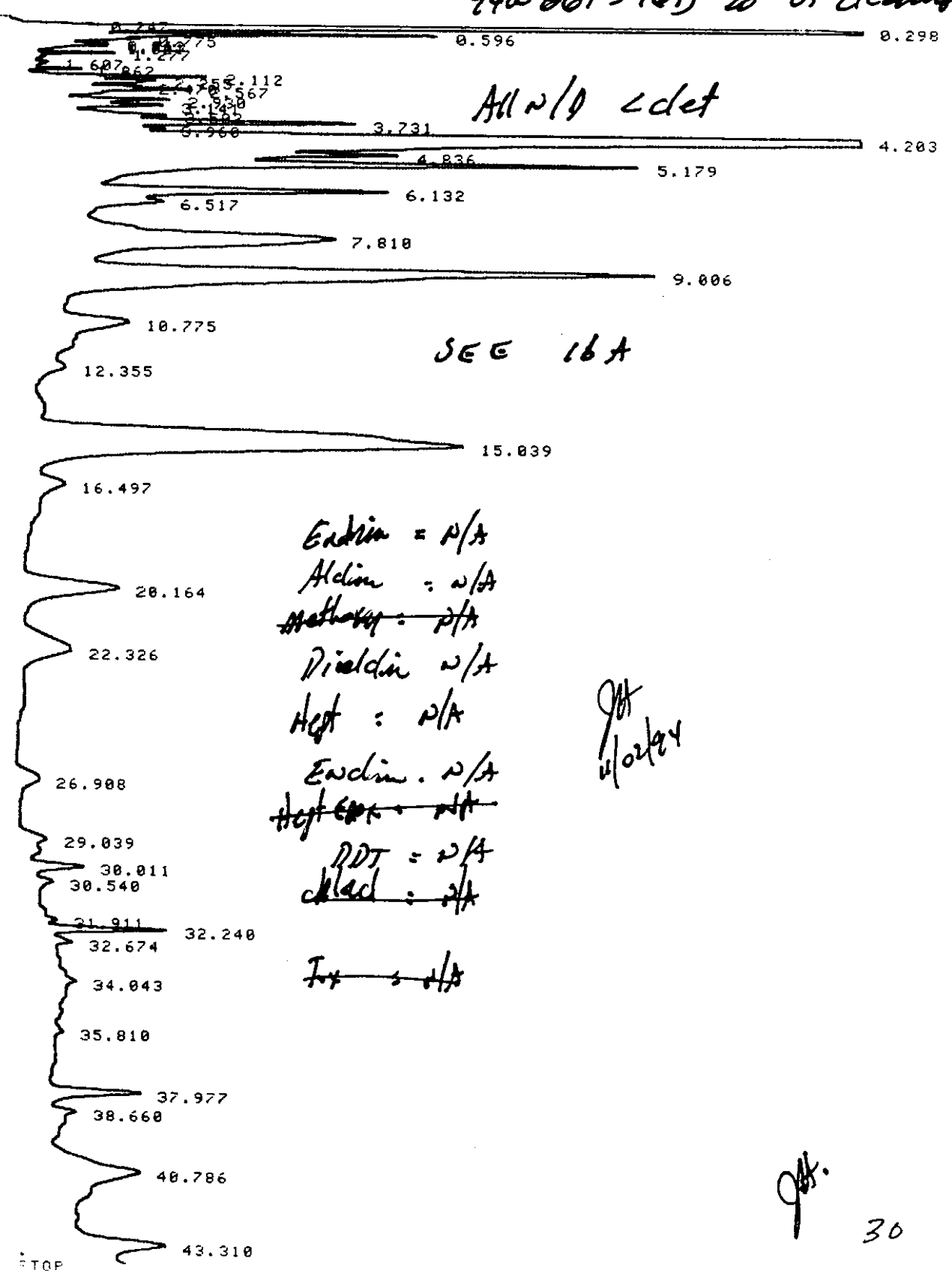
MUL FACTOR=1.0000E+00

Sample ID : PD-2/MSD

PST-PW

RUN # 874 NOV 2, 1994 17:21:29
START

940861-161) 1/20 of cleanup



All n/d <det

V_i = 10ml

V_f = 10ml

SEE 16A

Endrin = n/a
Aldrin : n/a
~~Methoxy : n/a~~
Dieldrin n/a
Heptachlor : n/a
Endrin . n/a
~~Heptachlor epox : n/a~~
DDT : n/a
~~chlord : n/a~~

~~Tox : n/a~~

JH
11/02/94

JH.

RUN# 874 NOV 2, 1994 17:21:29

SAMPLE# 10

Y

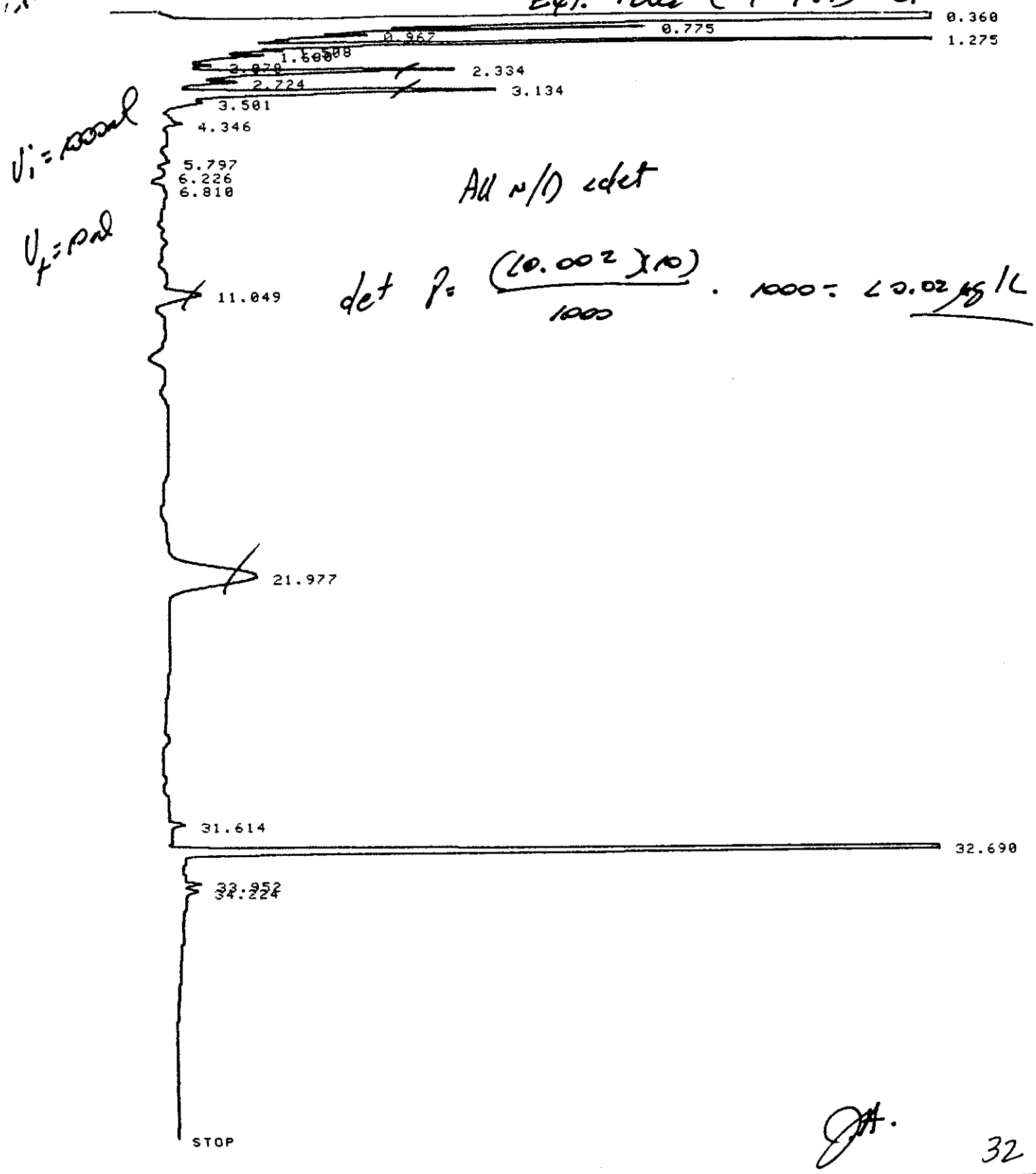
ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.247	BV	21401	.060	5917		.000	
.298	VV	1006589	.101	166213		.000	
.596	VV	188027	.099	31706		.000	
.775	VV	52495	.099	8867		.000	
.963	VV	33189	.088	6251		.000	
1.021	VV	35730	.097	6144		.000	
1.277	VV	28910	.075	6385	1R	.000	TETRACHLORO 44.1%
1.862	BP	12354	.059	3474	4	.001	LINDANE 0.0093
2.112	PV	85983	.108	13246	5	.004	D-BHC
2.255	VV	88400	.160	9218		.000	
2.470	VV	38127	.082	7796		.000	
2.567	VV	113048	.163	11548		.000	
2.930	VV	79537	.142	9334	6	.003	HEPTACHLOR
3.141	VV	72322	.142	8483		.000	
3.502	VV	92805	.187	8262	7	.004	ALDRIN
3.731	VV	238007	.178	22240		.000	
3.960	VV	57219	.127	7491		.000	
4.203	VV	2043679	.299	113794		.000	
4.836	VV	312243	.217	23933		.000	
5.179	VB	576300	.232	41430	9	.026	G-CHLOR
6.132	BV	282169	.214	21952		.000	
6.517	VP	85903	.272	5255	11	.002	DIELD/DDE
7.810	PV	690596	.597	19282	13	.034	ENDO II
9.006	VB	1176180	.447	43855	15	.065	END-ALD
10.775	BV	184750	.579	5322	16	.010	ENDO-SULF
12.355	VB	45105	.444	1693		.000	
15.039	BV	1447712	.753	32050	18	.060	END-KET
16.497	VV	83087	.595	2328	19	.010	METHOXYCHLOR
20.164	PP	250281	.587	7101		.000	
22.326	PB	177205	.802	3682		.000	
26.908	BB	59510	.570	1739		.000	
29.039	BV	36839	.360	1706		.000	
30.011	VV	66042	.263	4180		.000	
30.540	VV	37371	.362	1720		.000	
31.911	VV	39701	.424	1559		.000	
32.240	VV	108683	.185	9814	20	.000	DECACHLORO
32.674	VV	43824	.294	2486		.000	42.7%
34.043	VV	93435	.666	2339		.000	
35.810	VV	18147	.354	854		.000	
37.977	BP	104376	.257	6760		.000	
38.660	PB	14935	.195	1279		.000	
40.786	BV	323838	.894	6040		.000	
43.310	BV	215129	.517	6941		.000	

TOTAL AREA=1.0761E+07
MUL FACTOR=1.0000E+00

RUN # 893 NOV 3, 1994 08:25:26
START

Ext. Blk (10/27/94) cleanup



V_i = 100ml

V_f = 5ml

All n/D <det

$$\text{det } \rho = \frac{(<0.002)(10)}{1000} \cdot 1000 = <0.02\ \mu g/L$$

32

RUN# 893 NOV 3, 1994 08:25:26

SAMPLE# 29

Y

ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.360	PB	4135110	.133	516911		.000	
.775	BP	67621	.049	22803		.000	
.967	VV	14741	.049	5019		.000	
1.275	PB	795402	.062	213131	1R	.005	TETRACHLORO ① 60.6%
1.508	BP	5706	.039	2455	2	.000	A-BHC
1.680	PV	12439	.061	3382	3	.001	B-BHC
2.078	PV	8321	.079	1750	5	.000	D-BHC
2.334	VV	228120	.170	22306		.000	
2.724	VV	43044	.158	4550		.000	
3.134	VV	299057	.187	26701	6	.013	HEPTACHLOR
3.501	VP	36538	.231	2631	7	.002	ALDRIN
4.346	PP	23254	.256	1512	8	.001	HEPT-EPOX
5.797	BV	21835	.369	987	10	.001	ENDOI/A-CHLOR
6.226	VP	21871	.373	976		.000	
6.810	PB	5086	.159	533	11	.000	DIELD/DDE
11.049	BB	74551	.379	3279	16	.004	ENDO-SULF
21.977	BP	341956	.797	7153		.000	
31.614	PV	14594	.189	1289	20	.000	DECACHLORO
32.690	PB	1221842	.153	133029		.000	② 59.6%
33.952	VV	13566	.152	1487		.000	
34.224	VB	26084	.352	1235		.000	

TOTAL AREA=7410739
MUL FACTOR=1.0000E+00

Sgst 2986

```
ALS INFORMATION
INET SAMPLER CONTROL [Y*/N]:

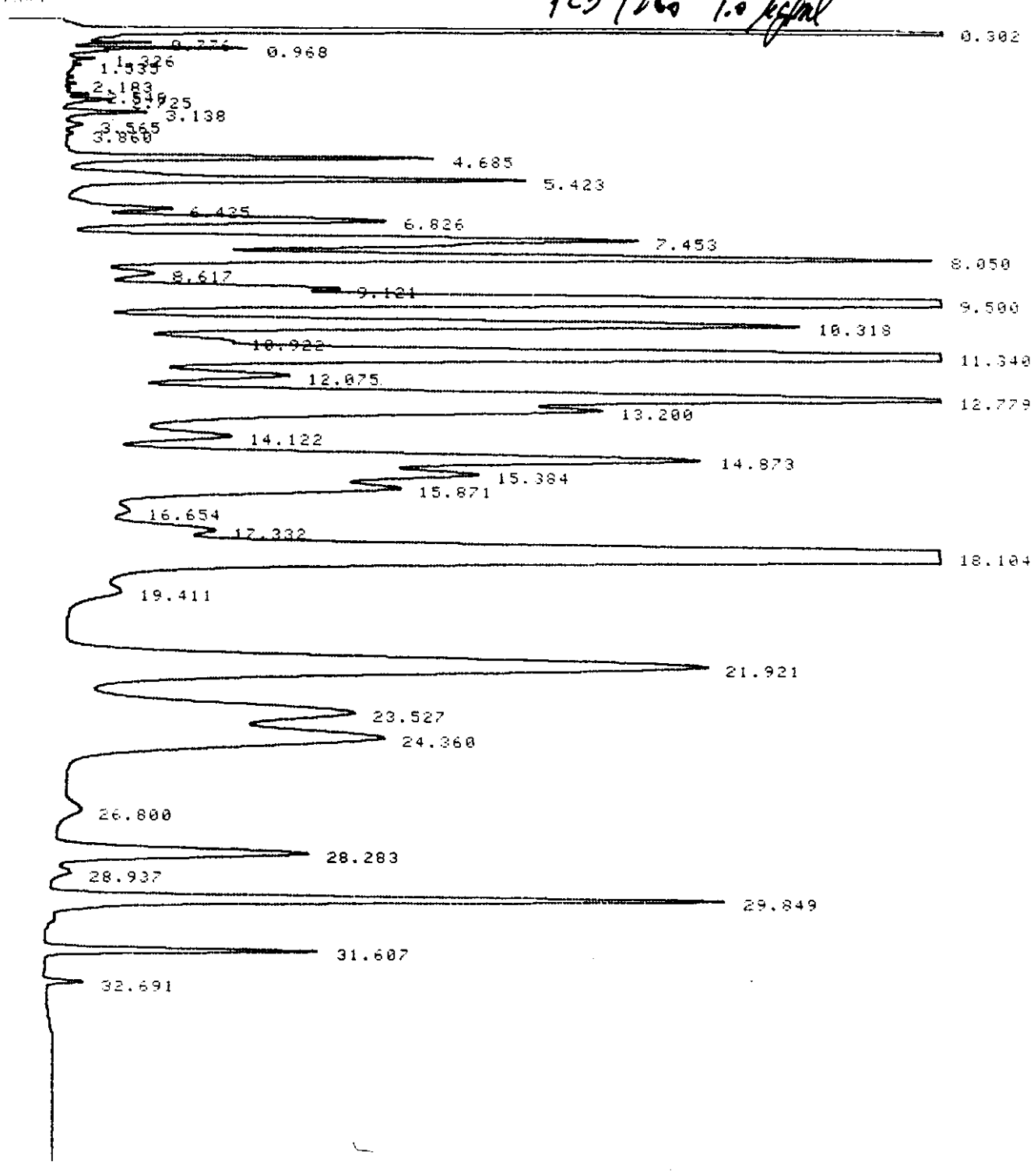

7673A SAMPLER:
 LOOP ADDRESS:  9

 REAR INJECTOR
  INJ/BOTTLE            1 -->   1  @
  FIRST BOTTLE          5 -->   6  @
  LAST BOTTLE           5 -->   100  @
  # OF SAMPLE WASHES    4 -->     BREAK

*  SEQ  START
NOW LOADING M:PEST3.MET

RUN #  870      NOV  2, 1994  14:11:00
START
```

PCB 1260 1.0 µg/ml



Sept 2984

STOP

RUN# 379 NOV 3, 1994 14:11:00

SAMPLE# 6

Y

ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.302	BB	1256672	.103	203833		.000	
.776	BP	15848	.055	4817		.000	
.966	PV	42838	.056	12826		.000	
1.336	PV	10698	.092	1928	1R	.000	TETRACHLORO
1.535	VV	5267	.089	987		.000	
2.548	VV	10405	.092	1876		.000	
2.725	VP	27913	.130	3584		.000	
3.138	PV	48872	.132	6154		.000	
3.565	VP	14048	.177	1326	7	.001	ALDRIN
4.685	PV	270343	.168	26859	8	.013	HEPT-EPOX
5.413	VB	431527	.216	33340	9	.019	G-CHLOR
6.435	PV	97084	.212	7617		.000	
6.826	VV	398671	.286	23232	11	.010	DIELD/DDE
7.453	VV	891957	.357	41666	12	.045	ENDRIN
8.050	VV	1048721	.278	62894	13	.051	ENDO II
8.417	VV	122392	.326	6264	14	.009	DDD
9.121	VV	275862	.231	19890	15	.015	END-ALD
9.500	VV	2147429	.325	110158		.000	
10.316	VV	1110823	.347	53347		.000	
10.522	VV	161398	.222	12129	16	.009	ENDO-SULF
11.340	VV	2334818	.398	93490	17	.103	DDT
12.075	VV	366439	.377	16198		.000	
12.779	VV	1652748	.411	67101		.000	
13.200	VV	875996	.417	39019		.000	
14.123	VV	315630	.439	11975	18	.013	END-KET
14.373	VV	1248076	.450	46229		.000	
15.334	VV	756208	.419	30057		.000	
15.571	VV	689467	.471	24417		.000	
16.654	VV	125084	.458	4550		.000	
17.332	VV	282275	.435	10827	19	.033	METHOXYCHLOR
18.134	VV	3840414	.585	109478		.000	
19.411	VB	137985	.576	3990		.000	
21.311	BV	1650498	.659	46772		.000	
23.517		875576	.693	21051		.000	
24.360	B	1016274	.727	23293		.000	
26.600	BP	34576	.451	1279		.000	
28.233	PV	407618	.365	18614		.000	
28.937	VP	28295	.319	1477		.000	
29.849	PV	783602	.264	49392		.000	
31.607	PB	211334	.176	20008		.000	
32.691	BB	26526	.150	2951	20	.000	DECACHLORO

TOTAL AREA=1.6248E+07
MCL FACTOR=1.0000E+00

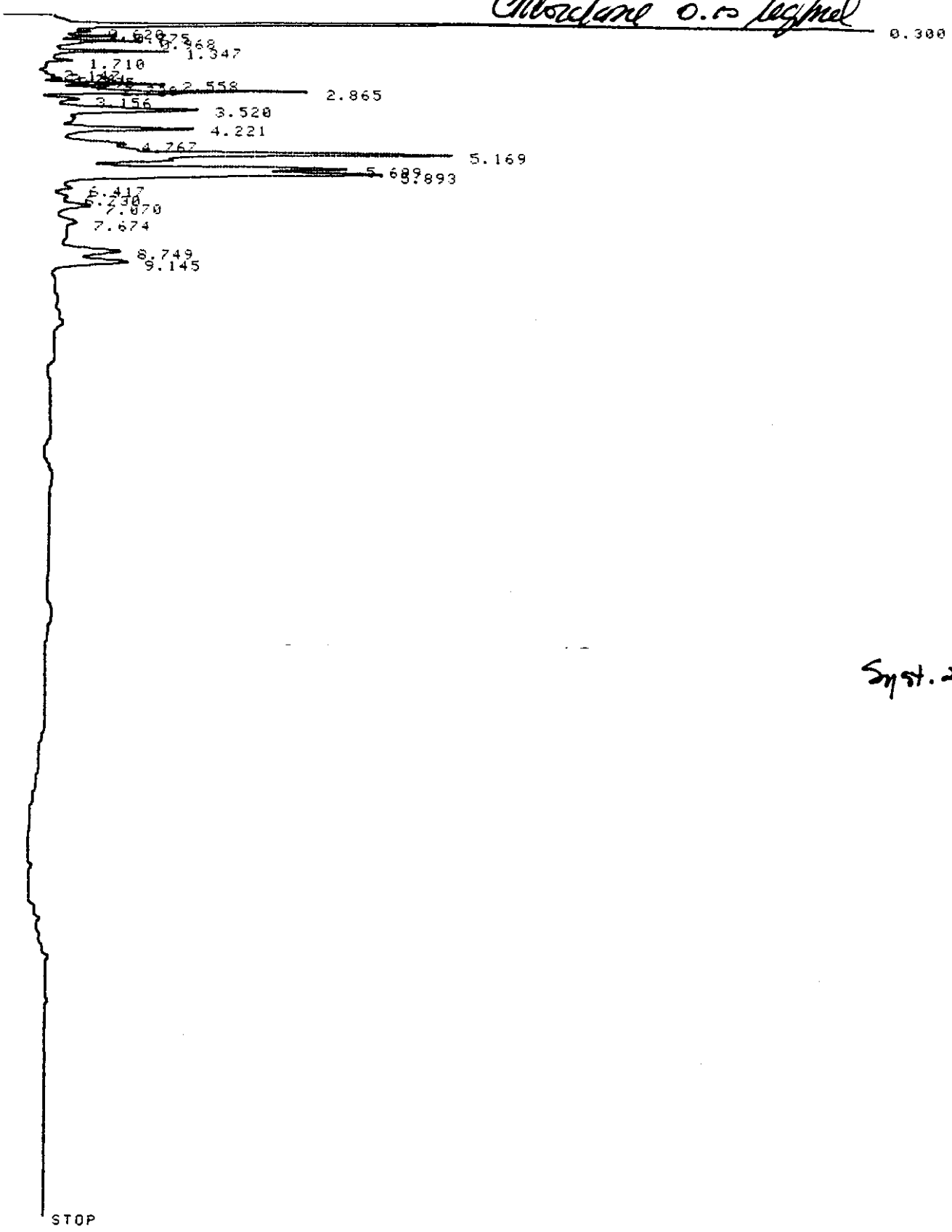
18644408

Syst 2986

RUN # 880 NOV 2, 1994 22:07:10

START

Chlordane 0.05 spiked



Syst. 2986

RUN# 880 NOV 2, 1994 22:07:10

SAMPLE# 16

36

Sym st. 2986

RUN# 880 NOV 2, 1994 22:07:10

SAMPLE# 16

Y

ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.300	BV	411184	.091	75501		.000	
.620	VV	21589	.126	2865		.000	
.775	VV	23683	.081	4872		.000	
.968	VV	27043	.065	6957		.000	
1.347	VB	43167	.079	9139		.000	
1.710	BP	10280	.092	1869	3	.001	B-BHC
2.261	VV	6497	.097	1113		.000	
2.395	VV	8784	.089	1652		.000	
2.558	VV	51082	.088	9708		.000	
2.729	VV	25626	.087	4884		.000	
2.865	VP	138317	.110	20888	6	.006	HEPTACHLOR
3.156	PV	21326	.139	2563		.000	
3.520	VV	119779	.182	10952	7	.005	ALDRIN
4.221	BV	91071	.147	10351	8	.004	HEPT-EPOX
4.767	VV	55596	.182	5086		.000	
5.169	VV	363820	.196	30972	9	.016	G-CHLOR
5.699	VV	232922	.170	22824	10	.005	ENDOI/A-CHLOR
5.893	VV	307482	.200	25622		.000	
6.417	VP	14787	.180	1369		.000	
6.730	PV	11063	.187	985	11	.000	DIELD/DDE
7.070	VP	34229	.221	2577		.000	
7.674	PB	15214	.216	1172	12	.001	ENDRIN
8.749	BV	76734	.264	4836	14	.006	DDD
9.145	VB	87901	.257	5695	15	.005	END-ALD

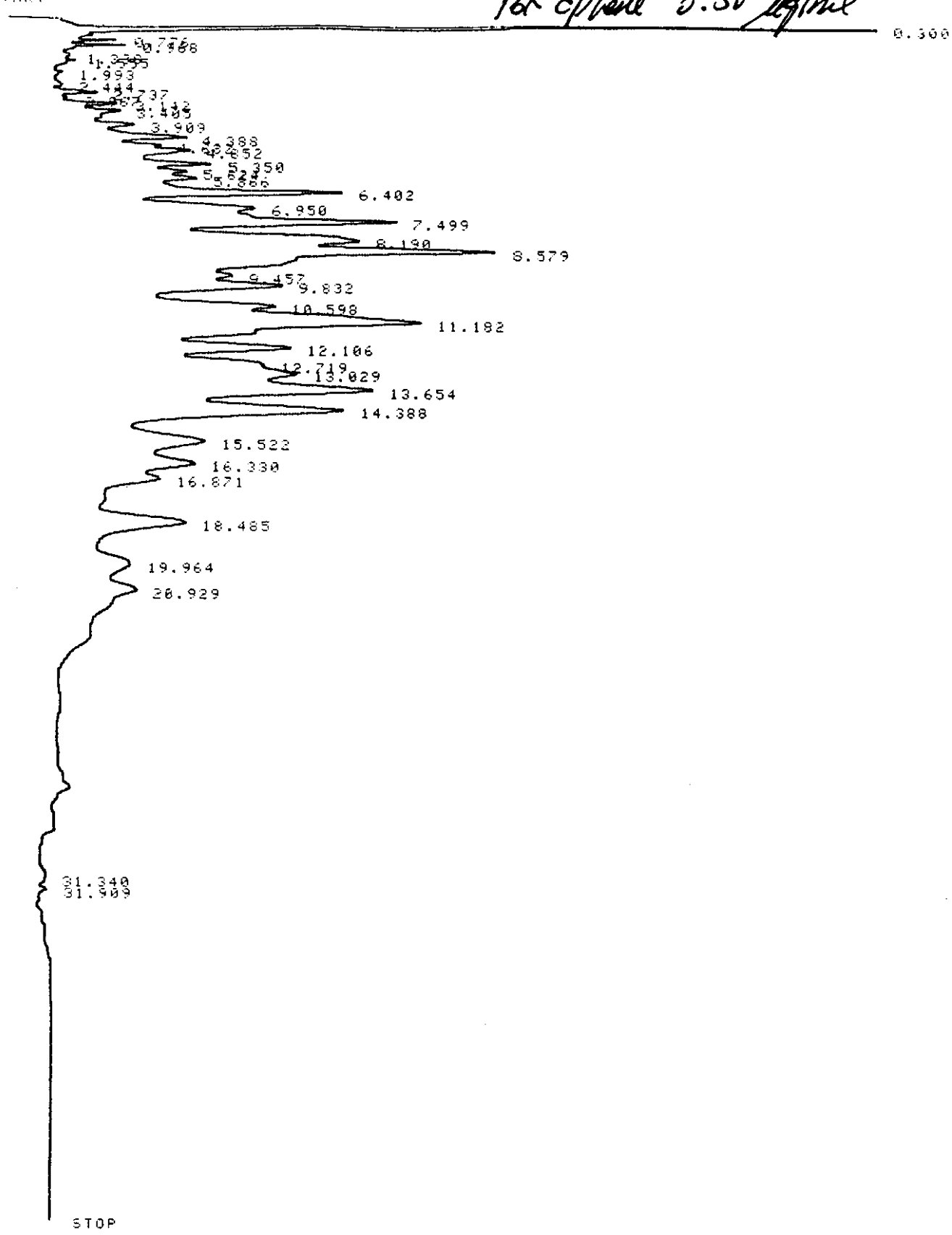
TOTAL AREA=2199176
MUL FACTOR=1.0000E+00

SYST. 2986

RUN # 881 NOV 2, 1994 22:54:46

START

Tox cPhene 0.50 µg/ml



RUN# 881 NOV 2, 1994 22:54:46

SAMPLE# 17

SYST.: 2986

ESTD-AREA

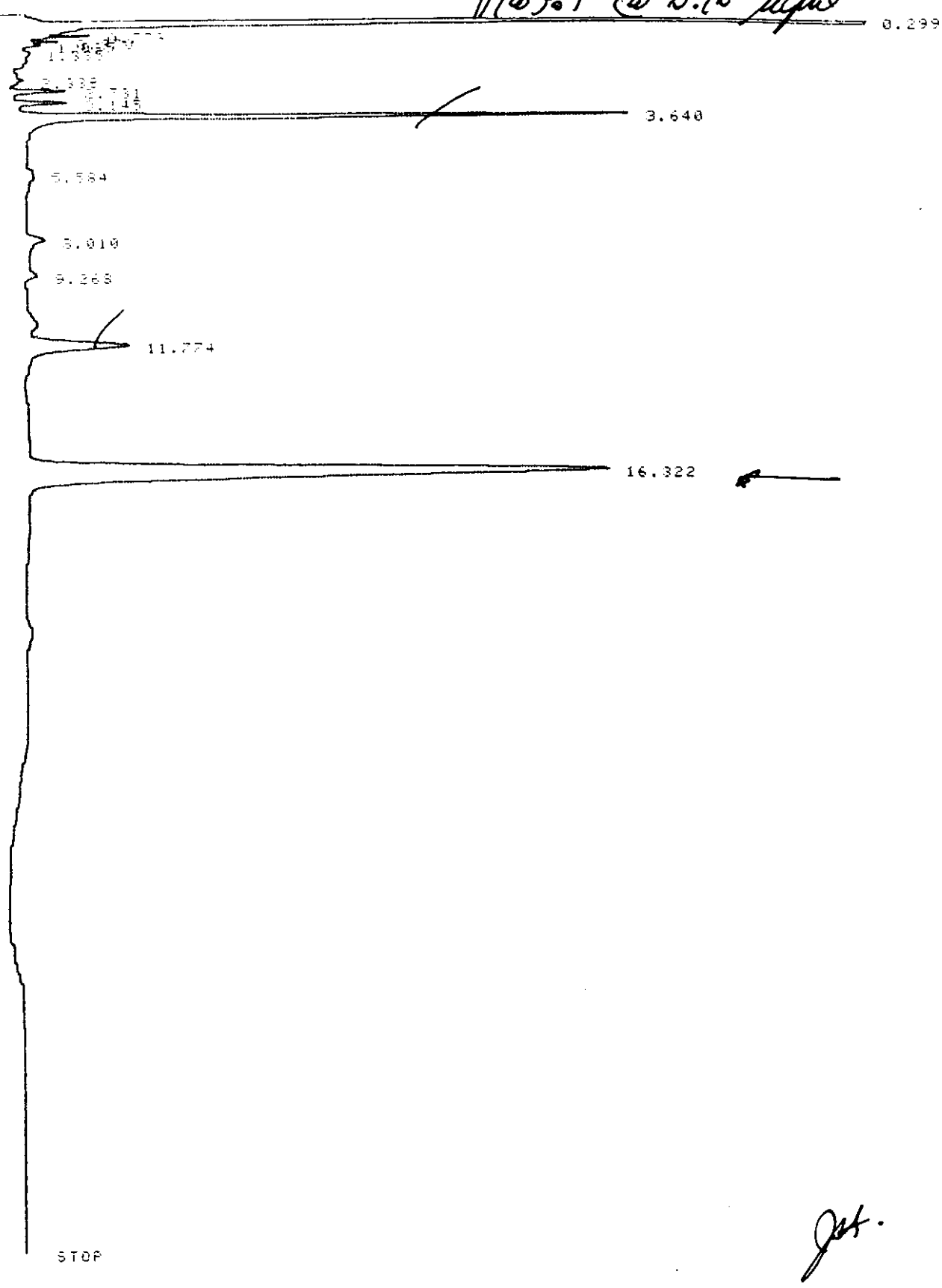
RT	TYPE	AREA	WIDTH	HEIGHT	CHL#	AMOUNT	NAME
.300	BV	464078	.099	86436		.000	
.776	VB	15735	.069	3787		.000	
.966	PB	14653	.057	4318		.000	
1.333	BV	3703	.185	745	1	.000	TETRACHLORO
1.555	VV	6675	.075	1426		.000	
1.993	PB	5251	.115	760	4	.000	LINDANE
2.444	PP	7664	.181	723		.000	
2.737	P	28277	.135	3482		.000	
2.967	VV	8765	.123	1135	6	.000	HEPTACHLOR
3.142	VV	46750	.152	5112		.000	
3.405	VV	83257	.203	5349		.000	
3.903	VV	98702	.257	6389		.000	
4.388	VV	201753	.317	10597		.000	
4.682	VV	66614	.170	8510	8	.004	HEPT-EPOX
4.852	VV	196787	.307	10796		.000	
5.350	VV	210710	.282	12433	9	.009	G-CHLOR
5.624	VV	139556	.220	10555		.000	
5.866	VV	180809	.266	11322	10	.004	ENDOI/A-CHLOR
6.402	VV	491042	.359	22774		.000	
6.950	VV	335836	.354	15813	11	.008	DIELD/ODE
7.499	VV	722190	.445	27039		.000	
8.190	VV	681347	.472	24070	13	.033	ENDO II
8.579	VV	1222616	.585	34813		.000	
9.457	VV	352618	.300	14056	15	.014	END-ALD
9.832	VV	492391	.458	17929		.000	
10.598	VV	409734	.393	17368		.000	
11.182	VV	990918	.571	38925	16	.054	ENDO-SULF
12.106	VV	494970	.446	18512	17	.023	DDT
12.719	VV	315426	.321	16398		.000	
13.039	VV	544305	.478	18995		.000	
13.654	VV	850928	.566	25064		.000	
14.388	VV	799053	.586	22716		.000	
15.522	VV	534309	.758	11747	18	.022	END-KET
16.330	VV	399274	.599	10948		.000	
16.571	VV	363175	.537	8165		.000	
18.485	VV	495067	.807	10221	19	.059	METHOXYCHLOR
19.964	VV	319305	.916	5812		.000	
20.929	VB	590883	1.572	6266		.000	
31.340	PP	19982	.544	612		.000	

TOTAL AREA=1.3008E+07
MUL FACTOR=1.0000E-00

SYST: 2784

RUN # 921 NOV 4, 1994 06:37:15

Diesel @ 0.10 µg/ml



Jst.

RUN# 921 NOV 4, 1994 06:37:15

SAMPLE# 57

STOP

RUN# 921 NOV 4, 1994 06:37:15

SAMPLE# 57

Y

ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.299	PB	1971009	.083	394304		.000	
.779	BP	12090	.057	3537		.000	
.970	PV	8141	.058	2330		.000	
1.095	VP	6486	.089	1214		.000	
2.338	VP	7976	.164	813		.000	
2.731	PV	30334	.120	4213		.000	
3.145	PP	29295	.124	3922	6	.001	HEPTACHLOR
3.640	PB	395244	.144	45762	7	.017	ALDRIN
8.010	PB	21969	.289	1265	13	.001	ENDO II
9.268	BB	9335	.210	742	15	.001	END-ALD
11.774	PB	157511	.345	7609		.000	
16.322	BB	1142302	.433	43991		.000	

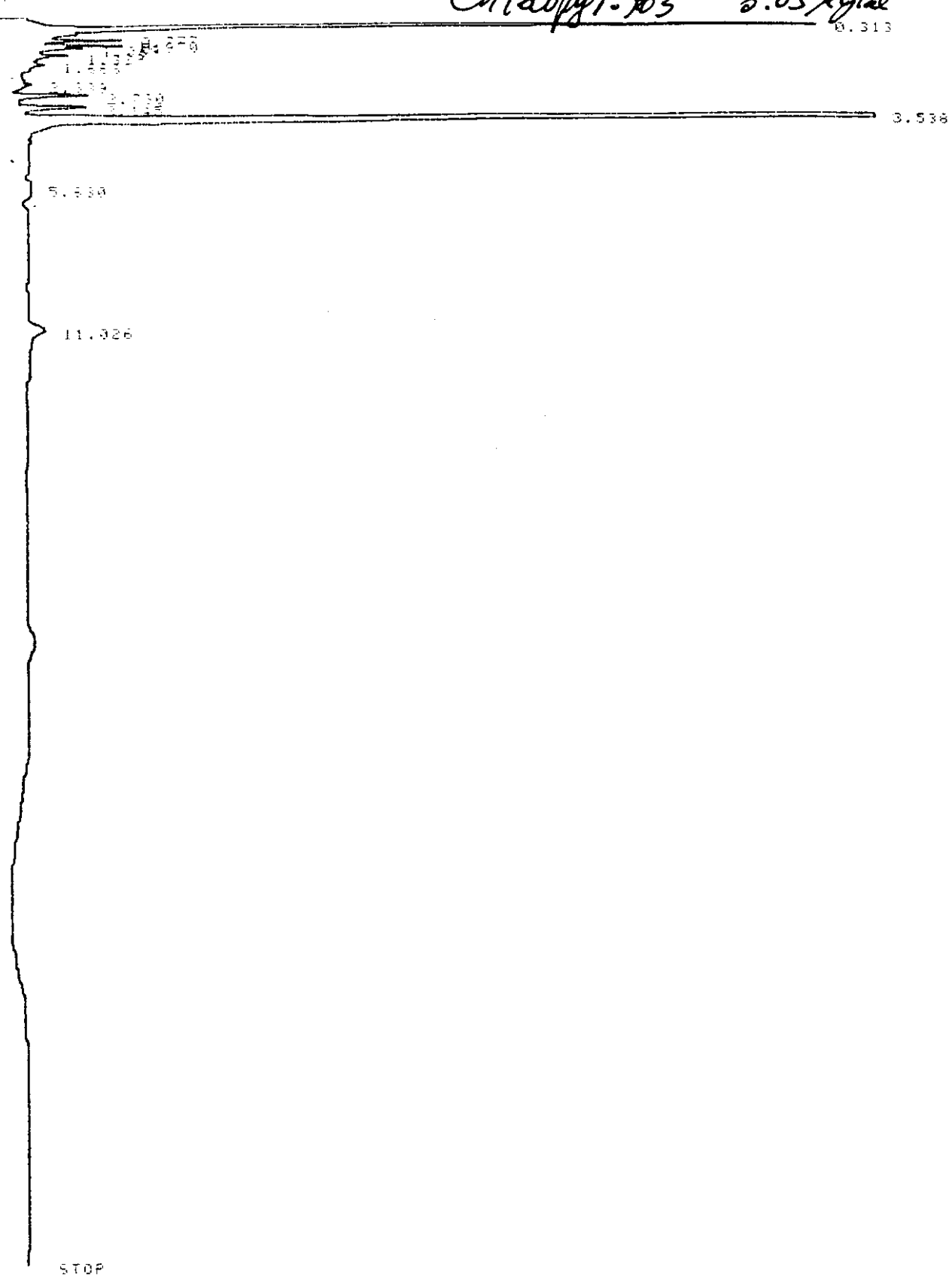
TOTAL AREA=3791693
MUL FACTOR=1.0000E+00

SYST 2986

RUN # 921 NOV 4, 1994 07:25:00

START

Chlorpyrifos 0.05 µg/ml



RUN# 921 NOV 4, 1994 07:25:00

SAMPLE# 58

gb.

42

STOP

RUN# 522 NOV 4, 1994 07:25:00

SAMPLE# 58

ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.313	BV	418088	.117	59789		.000	
.777	VV	39049	.088	7357		.000	
.970	VV	30319	.067	7540		.000	
1.068	VV	31256	.115	4539		.000	
1.329	VV	37430	.175	3557	1R	.000	TETRACHLORO
1.663	VV	38150	.241	1950		.000	
2.339	VP	21789	.278	1305		.000	
2.730	PV	38489	.116	5527		.000	
3.145	PP	37174	.125	4955	6	.003	HEPTACHLOR
3.533	PB	1323070	.134	164398	7	.057	ALDRIN
5.110	BB	5925	.230	423	10	.000	ENDOI A-CHLOR
11.014	BB	26385	.369	1192	16	.001	ENDO-SULF

TOTAL AREA=2016014
AVG FACTOR=1.0000E-00

43

11/02/94 IH 0600 PEST/PCB

1	INST. Blk	GC#1	p. 08-05
2	Pem	"	p. 08-06
3	Mix A working	"	p. 07-05
4	B	"	p. 07-06
5	A	"	p. 07-05
6	PCB 1260 1.0 µg/ml	"	p. 04-11
7	9410061-1A 1/20 dil of cleanup		
8	-1B		DSM ENV.
9	-1C	MS	
10	-1D	MSD	
11	Ext. Blk (10/27/94) 1/10 of cleanup		
12	9410233-01		
13	9410275-01		
14	-02		
15	-02 SPK		
16	Chlordane 0.10 µg/ml	GC#1	
17	Toxaphene 0.50	"	
18	LCS Pest mix @ 0.02 µg/ml	"	
19	INST. Blk	"	p. 08-05
20	Pem	"	p. 08-06
21	PCB 1260 0.02 µg/ml		
22	0.05		
23	0.10	GC#1	p. 04-11
24	0.50		
25	0.75		
26	1.0		
27	INST. Blk	GC#1	p. 08-05
28	Pem	"	p. 08-a

11/03/94 PEST/PCB 0600 Cont.

(29) Ext. Blk (10/27/94) cleanup

(30) 9410275-01 cleanup [WALL ASSOC] PST.PCB

(31) -02

(32) 9410233 ~~-02 spk~~ -01

(33) 9410275-02 spk

(34) LCS PEST mix @ 0.02 µg/ml GCH1

(35) INST Blk " p. 08-05

(36) Pom " p. 08-06

(37) Ext. Blk (10/25/94)

(38) 9410210-01 [SOIL-DALLAS] PCB.SW

(39) -01 spk

(40) -01 dup spk

(41) Ext. Blk (11/02/94)

(42) 9410309-01 [EARTH TEC] PCB.SW

(43) -02

(44) -02 spk

(45) -02 dup spk

(46) LCS PCB 1260 0.10 µg/ml GCH1

(47) LCS PEST mix @ 0.02 µg/ml "

(48) Pom " p. 08-06

(49) PCB 1016 0.10 µg/ml

(50) 1221

(51) 1232 GCH1 p

(52) 1242

(53) 1248

(54) 1254

(55) LCS PCB 1260 0.10 µg/ml GCH1 p

11/04/94 Cont 0600

56	Mirex 0.01 µg/ml	GC#1
57	Dicofol 0.10	"
58	Chlorpyrifos 0.05	"
59	PCB 1260 1.0 µg/ml	GC#1 p. 04-11
60	THST Rb	" p. 08-05
61	PCBM	" p. 08-06
62	Chlordane 0.02 µg/ml	
63	0.05	
64	0.10	GC#1 p.
65	0.50	
66	0.75	
67	1.0	

Sample Extraction Log - Pesticide/Herbicide

Method: EPA, EMSL Matrix: Water

Hexane: Ref# 02-8

Methylene Chloride: Ref# 02-10 02-9

Pesticide

ab #	Client	Vi	Vf	Date	Analyst
94.10.047 -1	SWL-Dallas 409242-1	200	10 ml	10.11.94	CAM CJG
94.10.061 -16A	DSM ENV. PD-2	1000 ml	10 ml		
-16B	PD-2/DUP	1000 ml	10 ml		
-16C	PD-2/MS	1000 ml	10 ml		
-16D	PD-2/MSD	1000 ml	10 ml		
BLK	DI H_2O	1000 ml	10 ml		
NOTE: Vol:Vol macro column clean up was done on all of the above. Then checked E Hg and again.					CAM 10/17/94

COMMENTS: 047 is a TCLP, 1ml of Pest Surrogates was added to each of the above (Ref# 22-1) -16C & -16D were spiked with 1ml of Pest Spiking Soln (Ref# 29-1)
all of the above were checked E Hg.

Herbicide

Ethyl Ether: Ref# 02-6

Lab #	Client	Vi	Vf	Date	Analyst
94.10.047 -1	SWL-Dallas 409242-1	50 ml	10 ml	10.11.94	CAM CJG
94.10.061 -17A	DSM ENV. PD-2	200 ml	10 ml		
-17B	PD-2/DUP	200 ml	10 ml		
-17C	PD-2/MS	200 ml	10 ml		
-17D	PD-2/MSD	200 ml	10 ml		
BLK	DI H_2O	200 ml	10 ml		

COMMENTS: 047 is a TCLP
17C & -17D were spiked c̄ 1 ml Herbicide Spiking Sol'n (Ref# 22-2)
1 ml Herbicide Surrogates was added to each of the above (Ref# 24-1)
the Above samples were cleaned VOL:VOL 10-17-94 CJG

Lab Name: HUNTINGDON Contract: CORCO

Case No.: 410061

Instrument ID: Sys# 0166

SOUTHWESTERN LABORATORIES - 5 POINT CALIBRATION 08/23/94 11:06:24

Date: 08/23/94 Test Code: HERB Column: OV-101
Instrument ID: 0166 Analyst: JH ID (mm): 4

Compound	Conc1 0.02	Conc2 0.05	Conc3 0.10	Conc4 0.20	Conc5 0.30	Conc6 0.40	Conc7	Conc8	Conc9	Conc10	Mean	%RSD
	Response Factors											
2,4-DICHLOROPHENYL-SURR	8931.5	8771.8	8059.6	7617.6	6052.6	9038.6					8078.6	14.1
2,4-D	8567.5	10454	9844.5	9136.1	7505.5	10623					9355.1	12.8
SILVEX	68049	60264	66784	58815	46980	46856					57958	16.0

Lab Name: HUNTINGDON Contract: COKCO

Case No: 410061 Init. Calib Date(s): 08/23/94

SOUTHWESTERN LABORATORIES - CALIBRATION VERIFICATION

Date: 10/21/94 06:36 Instrument ID: 0166 Column: OV-101

Analyst: JH Test Code: HERB ID (mm): 4

Conc: 0.20 Ug/mL 5-Point Date: 08/23/94

Compound	Retention Time	Average RF	Continuing RF	RPD
2,4-DICHLOROPHENYL-SURR	0.85	8078.6	8050.3	0.4
2,4-D	1.30	9355.1	9289.5	0.7
SILVEX	1.89	57958	55338	4.5

SOUTHWESTERN LABORATORIES

CLIENT: SWL- DALLAS

SAMPLE I.D.: Ext. Blk (10/11/94)

DATA FILE:

FILE NO.:

REPORT NO.: 9410047

REPORT DATE: 10/17/94

HERBICIDES

Matrix: WATER

PARAMETERS	CONCENTRATION mg/l	REGULATORY LEVEL mg/l
2,4,5-T	<0.0007	
2,4-D	<0.003	
2,4,5-TP Silvex	<0.0007	

% Surrogate Recovery:

① 2,4 Dichlorophenylacetic acid methyl ester => 52.9%

Batch w/SA 9410061

Method: EPA SW846

Herbicides - 8150

MATRIX SPIKE RECOVERY - HERBICIDES

Client: DSAM EWU
Sample I.D.: PD-2 /MS
Sample Matrix: WATER
Spiking Solution: SwL Herbicide Spike Mix

SwL Lab No.: 9410061-17C
Date: 10/21/94
Analyst: JH
Parameter: SWDA/RCRA Herbicides

Compound	Amount Added (ug/ml)	Sample Conc. (ug/ml)	MS Conc. (ug/ml)	MS % Recovery
2,4-D	0.20 ug/ml	n/D	0.1403	70.1%
2,4,5-TP Silvex	0.20 ug/ml		0.1185	59.2%
SURROGATE:				
2,4 Dichlorophenylacetic Acid methyl ester	0.20 µg/ml		0.0950	47.5%

Batch w/SE 94 10047-01

MATRIX SPIKE RECOVERY - HERBICIDES

Client: DSM EWU
Sample I.D.: PD-2/MSD
Sample Matrix: WATER
Spiking Solution: SwL Herbicide Spike Mix

SwL Lab No.: 94100061-17D
Date: 10/21/94
Analyst: JH
Parameter: SWDA/RCRA Herbicides

Compound	Amount Added (ug/ml)	Sample Conc. (ug/ml)	MS Conc. (ug/ml)	MS % Recovery	% RPD
2,4-D	0.20 ug/ml	N/D	0.1266	63.3%	10.2%
2,4,5-TP Silvex	0.20 ug/ml		0.1305	65.2%	9.6%
SURROGATE:					
2,4 Dichlorophenylacetic Acid methyl ester	0.20 ug/ml		0.0950	47.5%	0.0%

Batch w/94100047-01

ab Name: Huntingdon

Contract CORCO

Qa No: 410061

Instrument ID: Sys # 0166

SURROGATE RECOVERY

QA SAMPLE ID	RESULT	REF. RESULT	THEORETICAL	% RECOVERY	% RPD
SURROGATE RECOVERY:					
C 2,4 Dichlorophenylacetic					
acid methyl ester					
Herb mix @ 0.20 ug/ml					
	0.2087	8050.3	0.20	104	0.4
TM ST. Blk	0.20 ug/ml				
06:06 ①	0.1488		0.20	74.4	
11:12 ②	0.1801			90.0	
③					
LCS Herb mix 0.20 ug/ml					
07:13 ①	0.1795		0.20	89.7	
12:38 ②	0.2190			109	
③					
9410061-17A	~~[illegible]~~	~~[illegible]~~			
	0.0750		0.20	37.5	
-17B					
	0.0640		0.20	32.0	
-17C					
	~~0.0095~~	0.095	0.20	47.5	
-17D					
	0.0950		0.20	47.5	
LCS Herb mix					
13:04 ①	0.2112		0.20	106	
13:34 ②	0.2032			102	
13:58 ③	0.1819			90.9	

Lab Name: Huntingdon Contract Cocco

Case No: 410061 1) LCS Recovery

Instrument ID: Sys# 0166 2) Spike Recovery

QA SAMPLE ID	RESULT	REF. RESULT	THEORETICAL	% RECOVERY	% RPD
Compound Recovery:					
① 2-4D					
② Silvex					
HERB mix @	0.20 µg/ml				
①	0.2019	9289.5	0.20	101	0.7
②	0.2058	55338	↓	103	4.5
LCS Herb mix @ 0.20 µg/ml					
07:13 ①	0.2128		0.20	106	
②	0.2113		↓	106	
12:35 ①	0.2499			125	
②	0.2417			121	
410061 - 17C ½-clC [1] SMM (GW) Herb-DW					
MS ①	0.1403		0.20	70.1	
②	0.1185		↓	59.2	
- [illegible] ½					
MSD ①	0.1266		0.20	63.3	
②	0.1305		↓	65.2	
LCS Herb Mix @ 0.20 µg/ml					
13:14 ①	0.2452		0.20	123	
②	0.2350		↓	117	
13:34 ①	0.2359			118	
②	0.2258			113	
①	0.2139			107	
②	0.2083			104	

HEXB's 10/21/94 Jet 0600

1	Hex Blk	
2	HEXB mix @ 0.20 µg/ml	GC#1 p.05-19
3	INST. Blk	" p. 05-22
4	LCS HEXB mix @ 0.20 µg/ml	" p. 05-21
5	9410061-17A 1/20 cleanup 2nd x	
6	-17A 1/10	
7	-17A	
8	Hex Blk	
9	9410061-17A 1/5 cleanup 2nd x	
10	-17B	
11	-17C	
12	-17D	
13	INST. Blk	GC#1 p.05-22
14	LCS HEXB mix @ 0.20 µg/ml	" p.05-21
15		" "
16		" "
17		" "
18	Hept-Eplx 0.05 µg/ml	
19	Hex Blk.	
20	9410116-01 1/2 dil	
21	Hept Eplx @ 0.05 µg/ml	

S TEST 50

SLOPE 696.5

TO TRI 7
MAX 3
MODE 1

#	NAME	TIME	WINDOW	F1/F2	C1/C2
1	SURR	0.85	0	0.000001297	0.2
2	2-4D	1.3		0.000001007	0.2
3	SILVEX	1.9		0.000000196	0.2

CAL PM 7
WIDTH 5
SLOPE 696.5
DRIFT 0
MIN AR 10
T-DBL 0
LOCK 0
STP TM 15
ATTEN 5
SPEED 5
METHOD 44
SPL WT 100
IS WT 1

HERB'S
10/21/94
JH
2600

HEX BLK
START 10.21.06.19.

HEX BLK

0.18

0.97 0.76

STOP

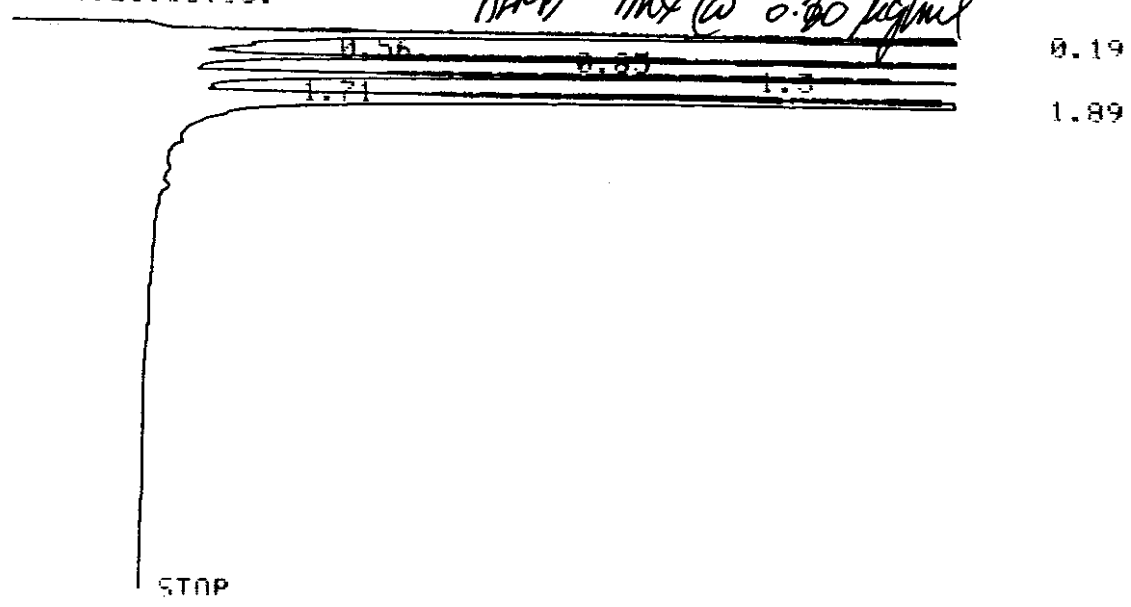
C-R1A
SMPL # 00
FILE # 7
RPRT # 2469
METHOD 44

JH

#	NAME	TIME	CONC	MK	AREA
		0.18			3145367
		0.57		T	3936
		0.76		T	16976
		0.97		T	5715
	TOTAL		0		3171995

HERB MIX 0.20
START 10.21.06.36.

Herb mix @ 0.30 µg/ml



C-R1A
SMPL # 00
FILE # 7
REPT # 2470
METHOD 44

#	NAME	TIME	CONC	MK	AREA
		0.19			2554065
		0.56		T	2108
1	SURR	0.85	0.2087	T	161006 = 8050.3
2	2-4D	1.3	0.2019	T	185791 = 9289.55
		1.71		TV	1151
3	SILVEX	1.89	0.2058	V	1106762 = 55338.1
	TOTAL		0.6165		4010885

ID TBL 7
MAX 3
MODE 1

#	NAME	TIME	WINDOW	F1/F2	C1/C2
1	SURR	0.85	0	0.000001297	0.2
2	2-4D	1.3		0.000001087	0.2
3	SILVEX	0.89		0.000000186	0.2

END

ID TBL 7
MAX 3
MODE 1

#	NAME	TIME	WINDOW	F1/F2	C1/C2
1	SURR	0.85	0	0.000001297	0.2
2	2-4D	1.3		0.000001087	0.2
3	SILVEX	1.89		0.000000186	0.2

END
CALIB 1

FILE # 7
RPRT # 2470
METHOD 44

#	NAME	TIME	CONC	MK	AREA	
		0.19			2554065	
		0.56		T	2108	
1	SURR	0.85	0.2087	T	161006 =	8050.3
2	2-4D	1.3	0.2019	T	185791 =	9289.55
		1.71		TV	1151	
3	SILVEX	1.89	0.2058	V	1106762 =	55338.1
	TOTAL		0.6165		4010885	

ID TBL 7
MAX 3
MODE 1

#	NAME	TIME	WINDOW	F1/F2	C1/C2
1	SURR	0.85	0	0.000001297	0.2
2	2-4D	1.3		0.000001087	0.2
3	SILVEX	0.89		0.000000186	0.2

END

ID TBL 7
MAX 3
MODE 1

#	NAME	TIME	WINDOW	F1/F2	C1/C2
1	SURR	0.85	0	0.000001297	0.2
2	2-4D	1.3		0.000001087	0.2
3	SILVEX	1.89		0.000000186	0.2

END
CALIB 1

C-R1A
SMPL # 00
FILE # 7
RPRT # 2471
METHOD 44
CLB C1 1

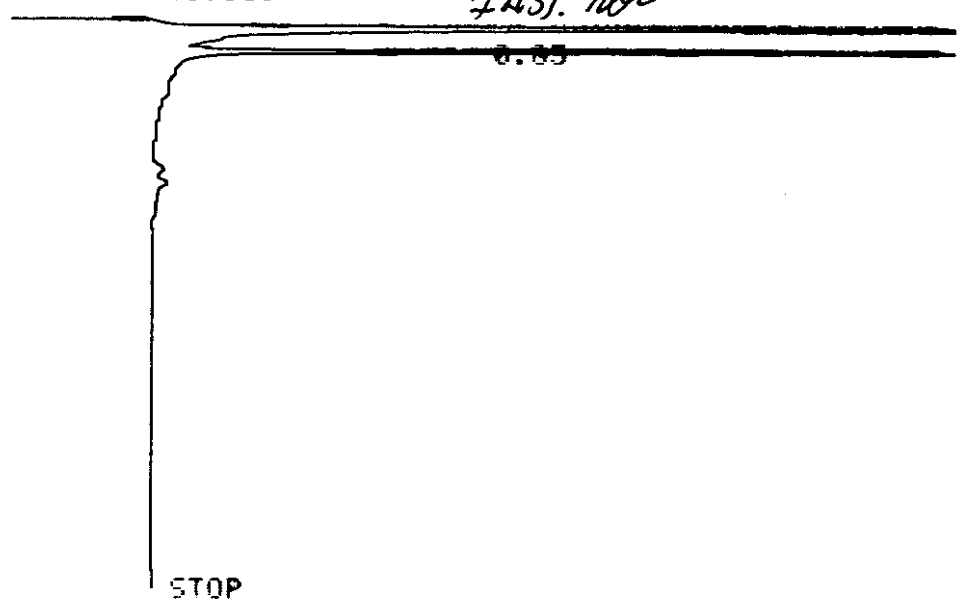
#	NAME	TIME	CONC	MK	AREA
		0.19			2554065
		0.56		T	2108
1	SURR	0.85		T	161006
2	2-4D	1.3		T	185791
		1.71		TV	1151
3	SILVEX	1.89		V	1106762
	TOTAL		0		4010885

ID TBL 7
MAX 3
MODE 1

#	NAME	TIME	WINDOW	F1/F2	C1/C2
1	SURR	0.85	0	0.000001242	0.2
2	2-4D	1.3		0.000001076	0.2
3	SILVEX	1.89		0.0000001007	0.2

INST. BLK
START 10.21.06.56.

Inst. Blk



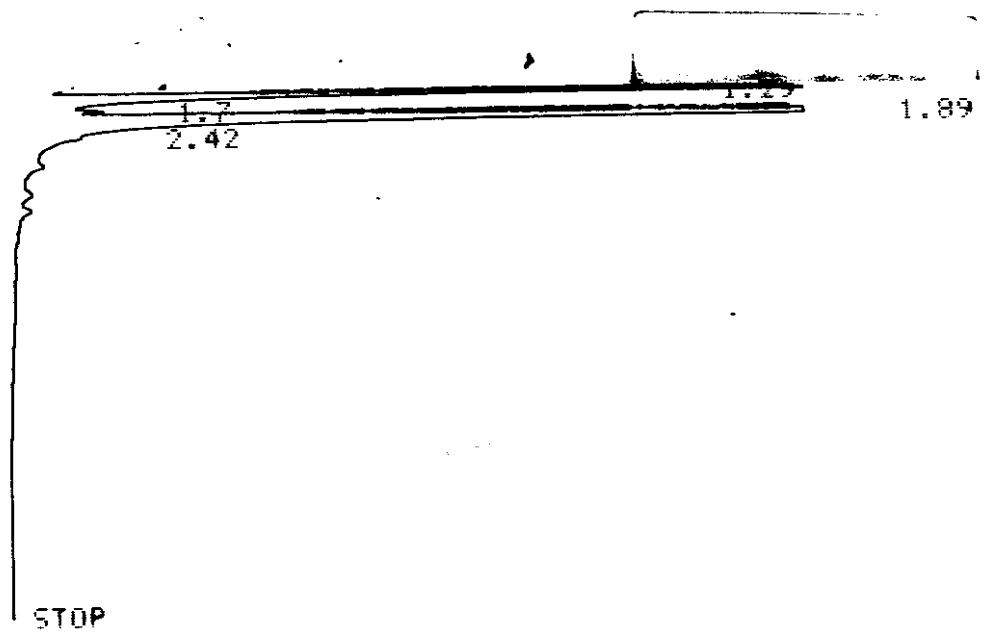
C-R1B
SMPL # 00
FILE # 7
RFPT # 2472
METHOD 44

JH.

*	NAME	TIME	CONC	MK	AREA
		0.19			2294723
1	SURR	0.85	0.1488	T	119848 = 74.4%
	TOTAL		0.1488		2414572

LCS-HERB 0.20
START 10.21.07.13.

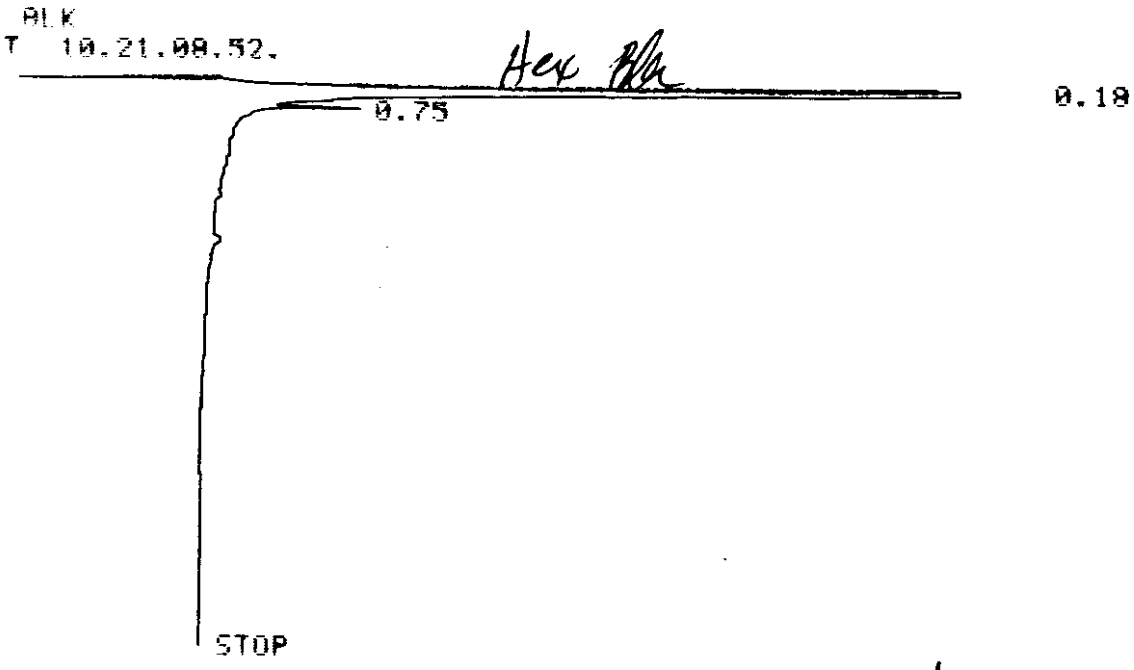
LCS Herb mix @ 0.2mg/ml



C-R1R
SMPL # 00
FILE # 7
REPT # 2473
METHOD 44

#	NAME	TIME	CONC	MK	AREA
		0.19			2502574
		0.54		T	779
1	SURR	0.84	0.1795	T	144525 = 89.7%
2	2-4D	1.29	0.2128	T	197762 = 106%
		1.7		T	3580
3	STLVEX	1.89	0.2113	V	1169796 = 106%
		2.42		T	1125
	TOTAL		0.6037		4020142

HEX BLK
START 10.21.08.52.



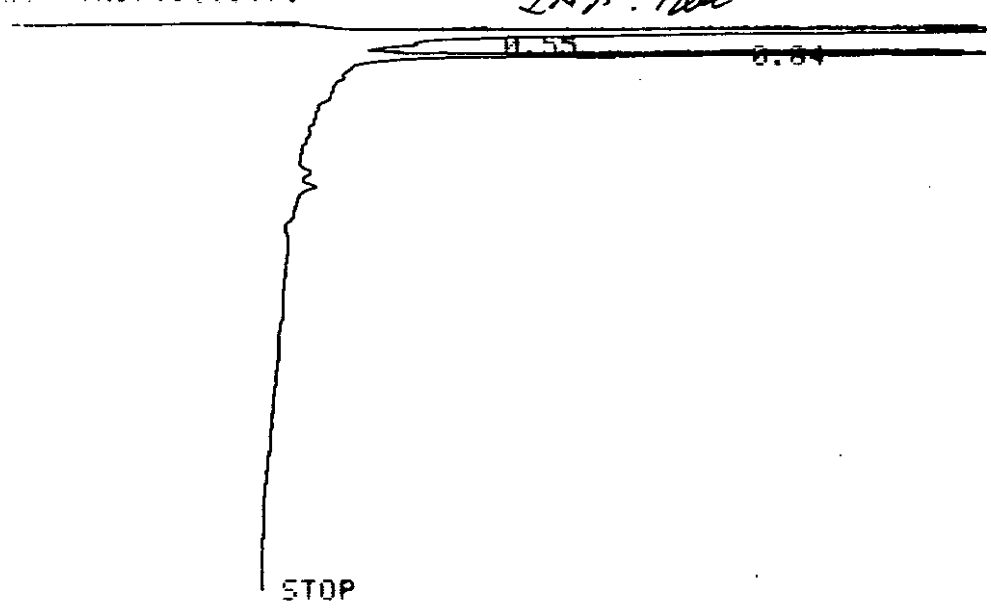
JA.

C-R18
SMPL # 00
FILE # 7
REPT # 2478
METHOD 44

#	NAME	TIME	CONC	MK	AREA
		0.19			2984789
		0.75		T	9476
	TOTAL		0		2994266

INST. BLK
START 10.21.11.12.

INST. Blk



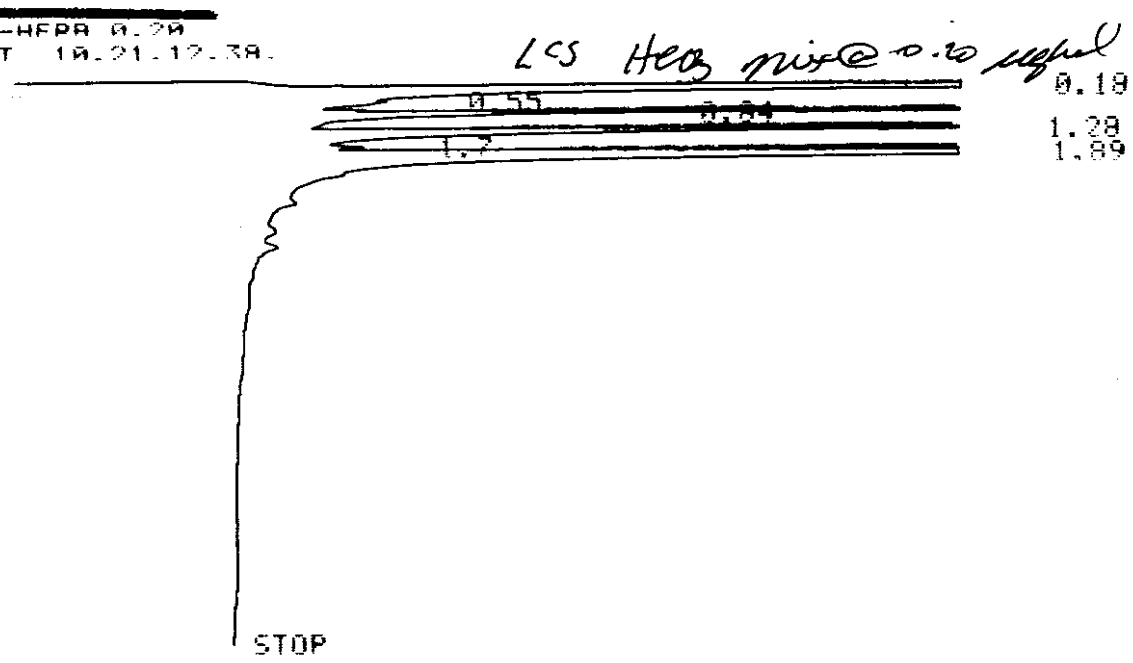
C-R18
SMPL # 00
FILE # 7
RFPT # 2483
METHOD 44

#	NAME	TIME	CONC	MK	AREA
		0.19			2859292
		0.55		T	1900
1	SURR	0.84	0.1801	T	145043 = 90.0%
	TOTAL		0.1801		3006236

[redacted]

LCS-HERB 0.20
START 10.21.12.38.

LCS Herb mix @ 0.20 ug/ml



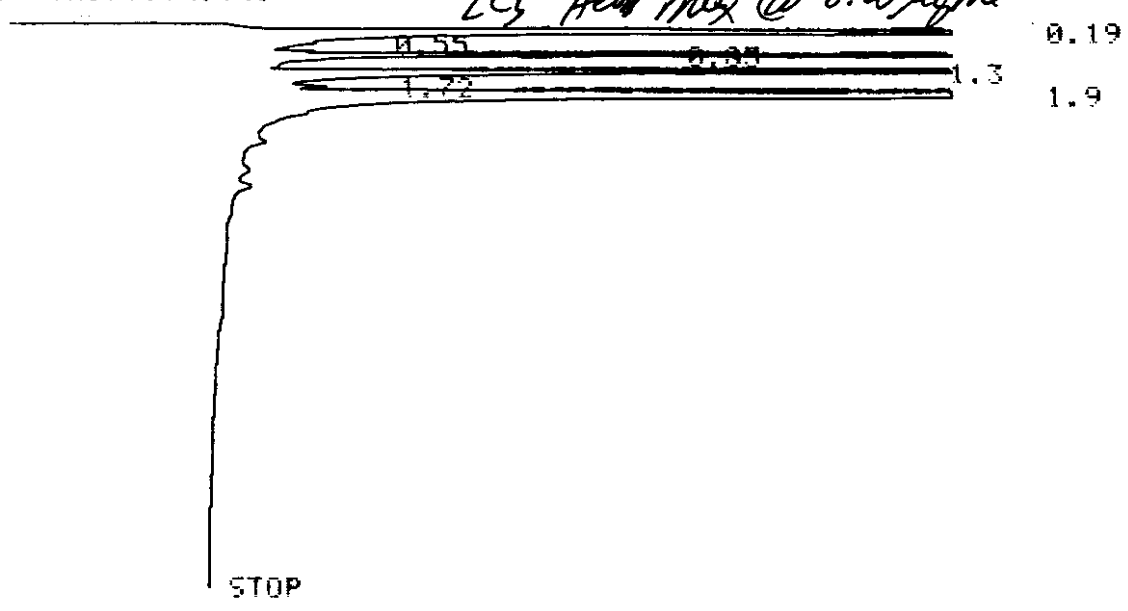
JH.

F-R1B
SMPL # 00
FILE # 7
REPT # 2484
METHOD 44

#	NAME	TIME	CONC	MK	AREA
		0.18			3300476
		0.55		T	4682
1	SURR	0.84	0.219	T	176358: 10%
2	2-4D	1.28	0.2499	T	232216: 12.5%
		1.7		TV	4268
3	SILVEX	1.89	0.2417	V	1337561: 12.1%
	TOTAL		0.7107		5055563

LD
LCS-HERB 0.20
START 10.21.13.14.

LCS Herb mix @ 0.20 ug/ml

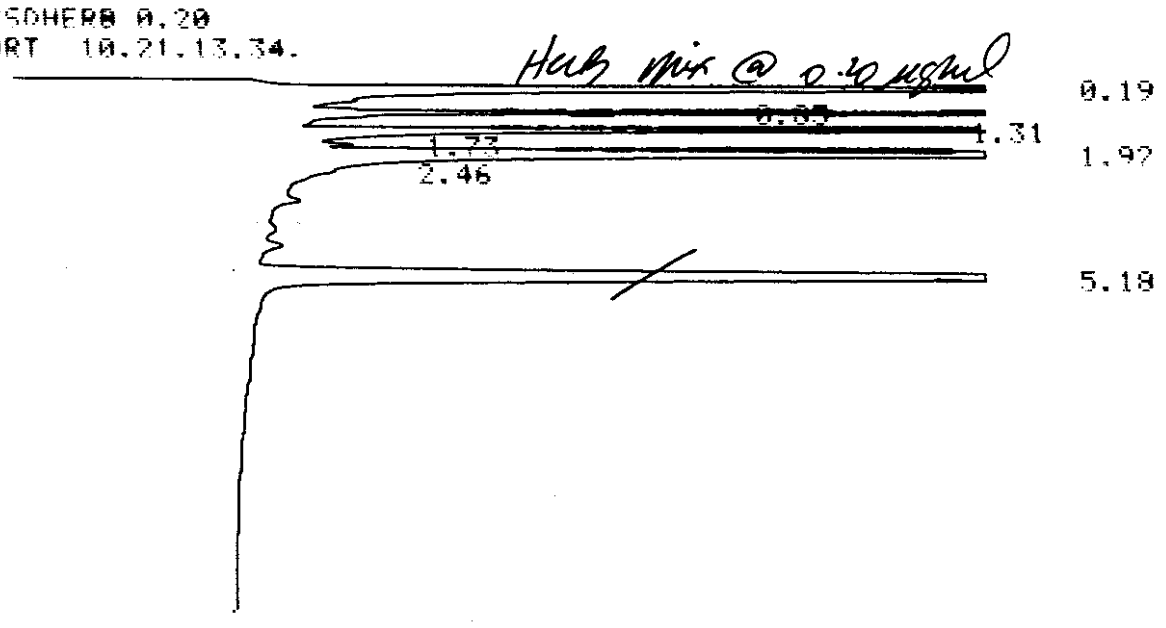


C-R10
SMPL # 00
FILE # 7
REPT # 2485
METHOD 44

#	NAME	TIME	CONC	MK	AREA	
		0.19			2794354	
		0.55		T	954	
1	SURR	0.85	0.2112	T	170046	= 106%
2	2-4D	1.3	0.2452	T	227794	= 123%
		1.72		T	4304	
3	SILVEX	1.9	0.235	V	1300573	= 117%
	TOTAL		0.6914		4498026	

LCSDHERB 0.20
START 10.21.13.34.

Herb mix @ 0.20 ug/ml



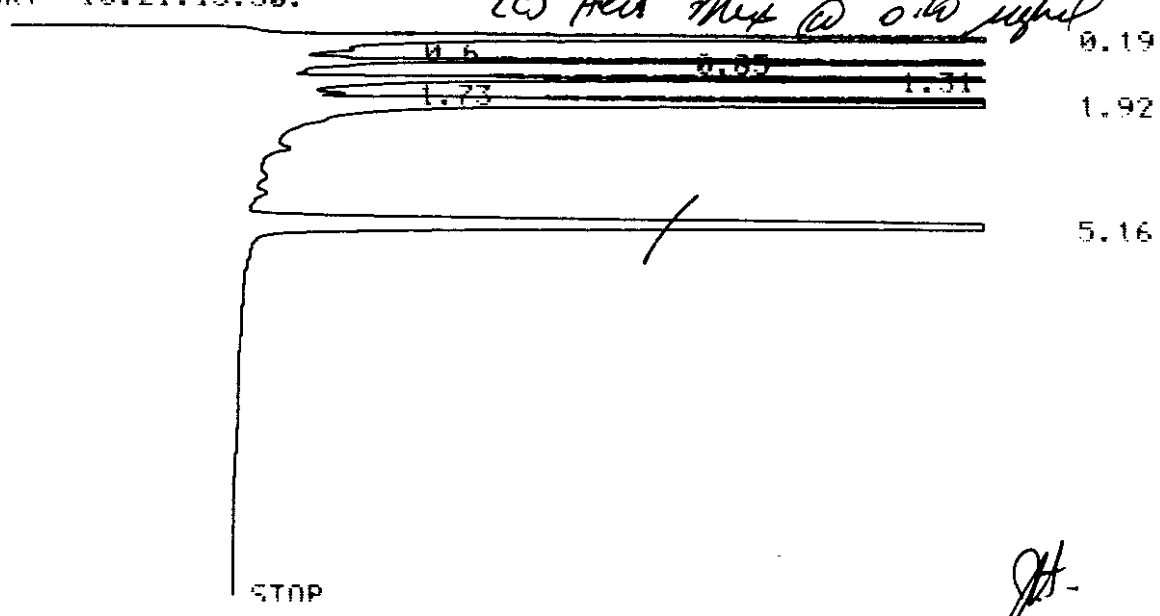
STOP

C-R1R
SMPL # 00
FILE # 7
REPT # 2486
METHOD 44

#	NAME	TIME	CONC	MK	AREA	
		0.19			2811086	
1	SURR	0.85	0.2032	T	163636	= 102%
2	2-4D	1.31	0.2359	T	219195	= 118%
		1.73		TV	4136	
		1.92	0.2258	V	1249630	= 113%
		2.46		T	528	
		5.18			590587	
	TOTAL		0.4392		5038801	

LCS-HERB 0.20
START 10.21.13.50.

LCS Herb Mix @ 0.10 ug/ml



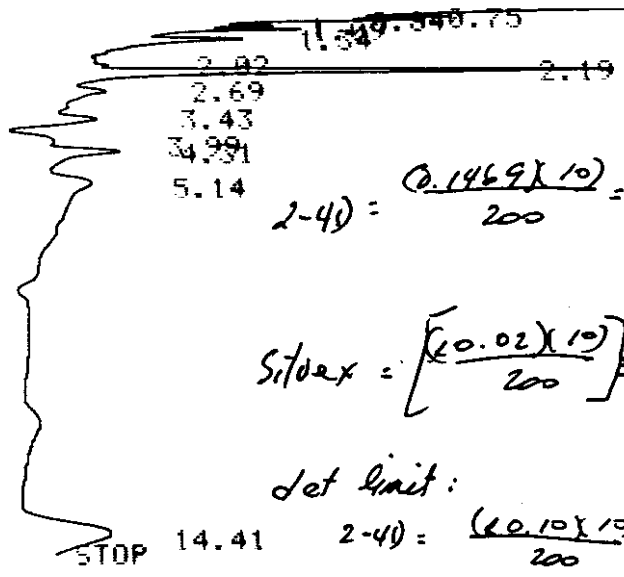
C-R1R
SMPL # 00
FILE # 7
REPT # 2487
METHOD 44

#	NAME	TIME	CONC	MK	AREA	
		0.19			2715973	
		0.6		T	2799	
1	SURR	0.85	0.1819	T	146473	= 90.9%
2	2-4D	1.31	0.2139	T	198733	= 107%
		1.73		TV	3912	
		1.92	0.2083	V	1152476	= 104%
		5.16			563271	
	TOTAL		0.3958		4783639	

Sample ID: PD-2 (USE THIS DATA)

HRB-DW 9410061-17A 1-5CU
START 10.21.09.27.

9410061-17A 1/5 cleanup (2nd X)



$V_i = 200ml$

$V_f = 10ml$

2-41) = $\frac{(0.1469)(10)}{200}$ = 0.0073 mg/L

Silvex = $\left[\frac{(<0.02)(10)}{200}\right]5$ = <0.005

det limit:

2-41) = $\frac{(<0.10)(10)}{200} \cdot 5$ = <0.025 mg/L

C-R1B
SMPL # 00
FILE # 7
REPT # 2479
METHOD 44

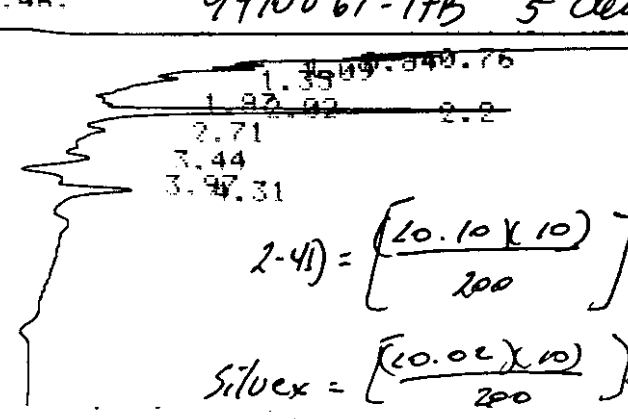
JA.

#	NAME	TIME	CONC	MK	AREA
		0.19			6088655
		0.44		T	24269
		0.75		T	9637
1	SURR	0.84	5 (0.015)	TV	12154 = 0.0750 = 37.5%
		1		T	5370
		1.09		TV	13935
2-41)		1.34	(0.0294)5	T	27296 × 10076 × 10⁻⁶ = 0.1469
		2.02			3096
		2.19		V	138385
		2.69			14172
		3.43			29829
		3.99			24385
		4.31		V	76380
		5.14		V	91748
		14.41			68914
	TOTAL		0.015		6628220

Sample ID PD-2 / DUP

HRB-DW 9410061-17B 1-5CU
START 10.21.09.46.

9410061-17B 1/5 cleanup (2nd X)



$V_i = 200ml$

$V_f = 10ml$

2-41) = $\left[\frac{(<0.10)(10)}{200}\right]5$ = <0.025 mg/L

Silvex = $\left[\frac{(<0.02)(10)}{200}\right]5$ = <0.005

11

STOP

C-R1B
SMPL # 00
FILE # 7
REPT # 2480
METHOD 44

#	NAME	TIME	CONC	MK	AREA
		0.19			5879274
		0.44		T	37756
		0.76		T	9259
1	SURR	0.84	5 (0.0128)	TV	10320 = 0.0640 = 32.0%
		1.		T	3823
		1.09		TV	6860
	2-4D	-1.35	5(0.00818)	T	7606 × 1.076×10⁻⁶ = 0.0409
		1.87		T	3328
		2.02		TV	4343
		2.2		TV	115303
		2.71		TV	10963
		3.44			20435
		3.97			20809
		4.31		V	51985
	TOTAL		0.0128		6182067

9410061-17C 1-5CH
START 10.21.10.04.

Sample ID : PD-2 | MS
9410061-17C 1/5 cleanup (2nd x x)

0.19
0.44
0.76
1.32
2.19
2.7
3.42
4.32

V_i = 200 ml
V_f = 5 ml

2-4D) $= \frac{(0.1403)(10)}{200} = 0.007$ mg/L

Silvex $= \frac{(0.1185)(10)}{200} = 0.006$

STOP

C-R1B
SMPL # 00
FILE # 7
REPT # 2481
METHOD 44

#	NAME	TIME	CONC	MK	AREA
		0.18			6021620
		0.44		T	31716
		0.76		T	10666
1	SURR	0.84	5(0.019)	TV	15313 = 0.095 = 47.5%
		0.99		T	6340
		1.09		TV	12541
	2-4D	-1.32	5(0.028)	T	26077 × 1.076×10⁻⁶ = 0.1403
3	SILVEX	1.89	5(0.0237)	T	131583 = 0.1185 = [illegible]

12

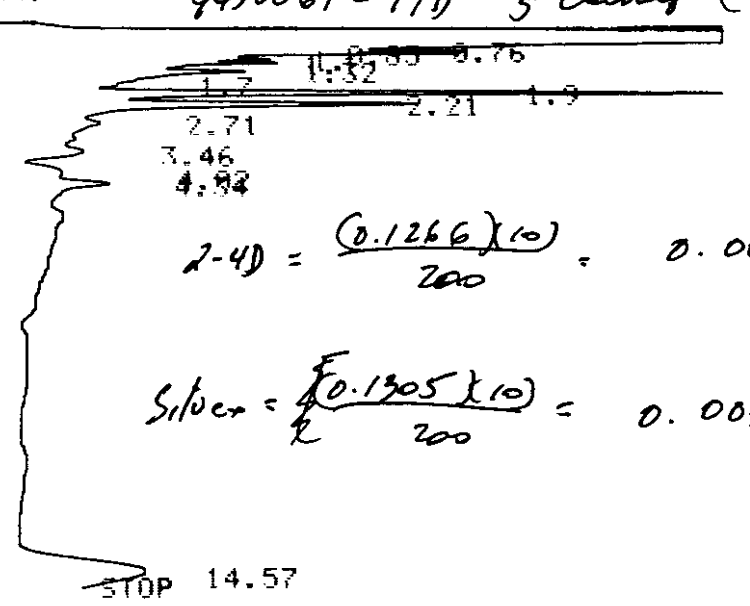
	1.77		TV	12541	
2-4D	-1.32	5(0.020)	T	26077 × 1.076 × 10^-6 =	0.1403
3 SILVEX	1.89	5(0.0237)	T	131583 = 0.1185 =	59.2%
	2.19		TV	126107	
	2.7		TV	12953	
	3.42			18860	
	3.99			17181	
	4.32		V	56871	
TOTAL		0.0427		6487832	

Sample ID: ~~BD~~ PD-2/MSD

9410061-17D 1-5CH

START 10.21.10.55.

9410061-17D) 1/5 cleanup (2nd x)



$V_i = 200$ ml

$V_f = 10$ ml

2-4D = (0.1266)(10) / 200 = 0.006 mg/L

Silvex = (0.1305)(10) / 200 = 0.007

C-R18

SMPL # 00

FILE # 7

REPT # 2482

METHOD 44

#	NAME	TIME	CONC	MK	AREA	
		0.19			6294904	
		0.44		T	39263	
		0.76		T	12806	
1	SURR	0.85	5(0.019)	TV	15317	= 0.095 = 47.5%
		1.		T	6351	
		1.1		TV	10690	
	2-4D	-1.32	5(0.02533)	T	23538	× 1.076 × 10^-6 = 0.1266
		1.7		TV	2493	
3	SILVEX	1.9	5(0.0261)	T	144759	= 0.1305 =
		2.21		TV	104290	
		2.71		TV	10118	
		3.46			18315	
		4.02			19360	
		4.34		V	39445	
		14.57			66242	
TOTAL			0.0451		6806894	

13

$V_f = 10$ ml

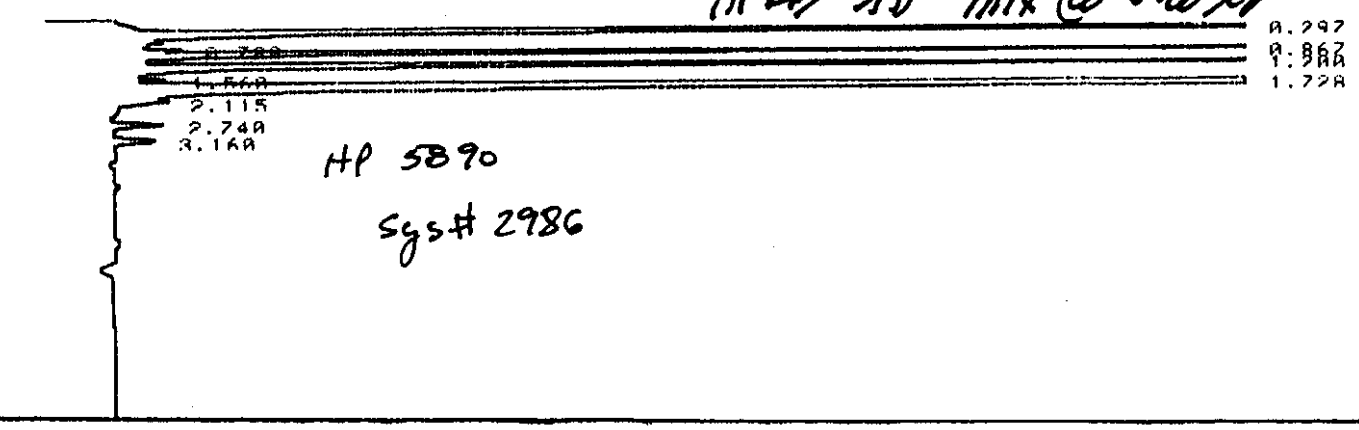
2-4D = [/ 200] 5 = <0.005 mg/L

Silvex = [(<0.02)(10) / 200] 5 = <0.005

RUN # 677 OCT 18, 1994 15:47:10

START

HFLAB STD mix @ 0.20 ug/ml



HP 5890

Sys# 2986

RUN# 677 OCT 18, 1994 15:47:10

SAMPLE# 41

Y

ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.297	BV	569675	.081	117556		.000	
.780	VV	8391	.051	2716		.000	
.867	VV	328176	.068	80642		.000	Surr
1.200	VB	421596	.074	95377		.000	2.4D
1.560	BP	5492	.058	1566	2	.000	A-BHC
1.728	PB	2379213	.082	482838	3	.275	~~Lindane~~ Silvex
2.740	BV	23713	.126	3125	6	.001	HEPTACHLOR
3.160	VV	26550	.167	2642		.000	
11.043	BV	31718	.703	752	17	.001	DDT

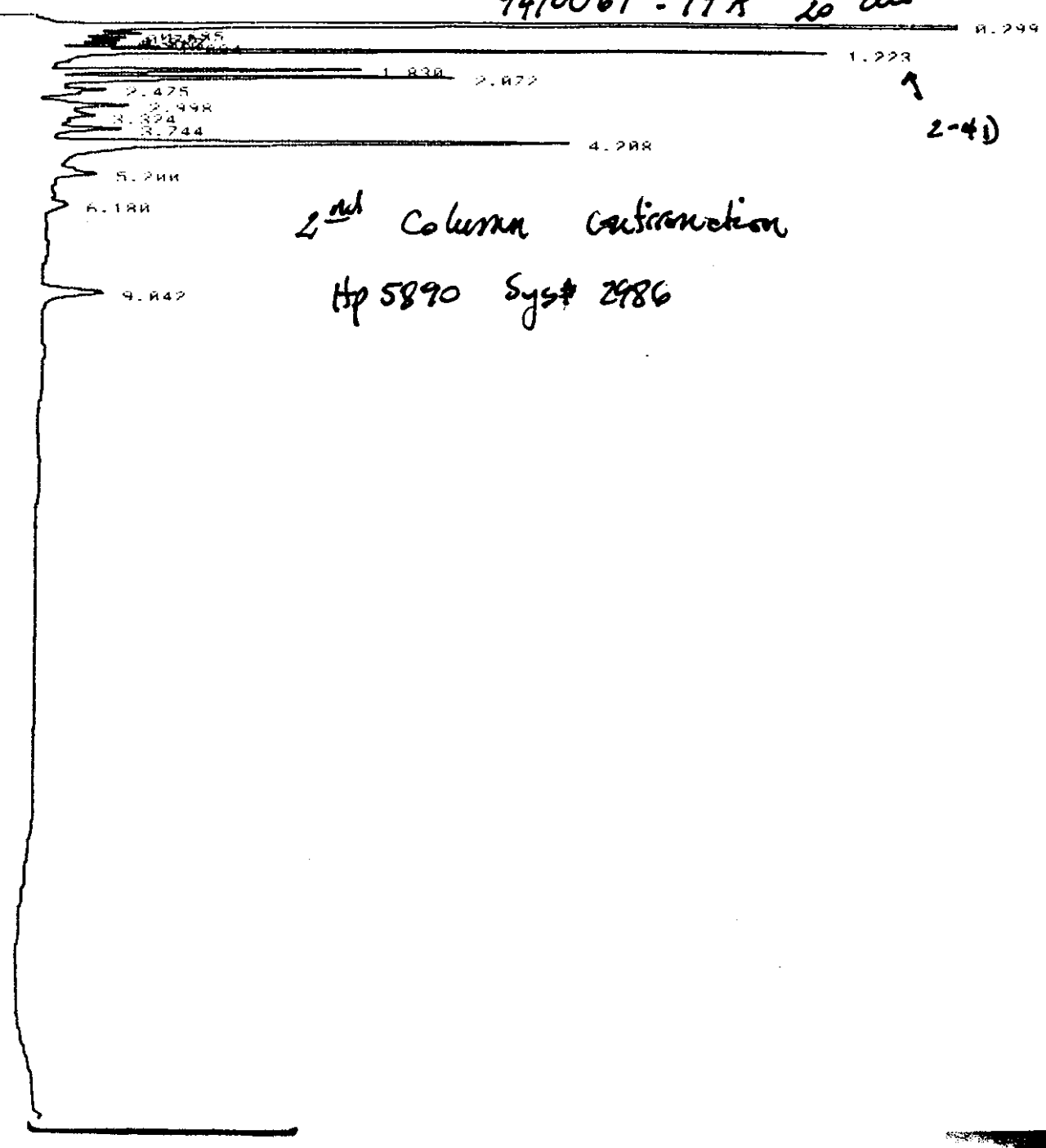
TOTAL AREA=3794523

MUL FACTOR=1.0000E+00

Sample ID: PD-2

RUN # 628 OCT 18, 1994 16:34:44
START

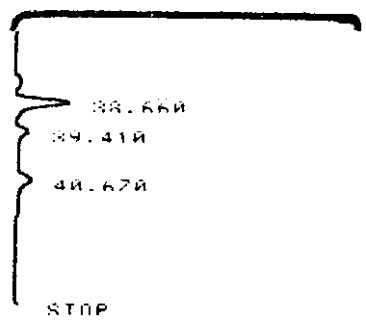
9410061-17A 1/20 dil



2nd Column confirmation

Hp 5890 Sys# 2986

15



RUN# 678 OCT 18, 1994 16:34:44

SAMPLE# 42

Y

ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.299	BV	1198274	.095	209347		.000	
.635	VV	43614	.120	6037		.000	
.777	VV	19072	.067	4759		.000	
.863	VV	17369	.068	4236		.000	← Surr
.970	VP	13708	.060	3801		.000	
1.094	PV	19656	.051	6429		.000	
1.223	VB	257426	.081	52787		.000	← + 2-4D
1.830	PV	119596	.093	21391	4	.005	LINDANE
2.072	VB	171063	.103	27697	5	.008	D-BHC
2.475	BV	19894	.098	3387		.000	
2.998	PV	62481	.177	5891		.000	
3.324	VV	45721	.231	3300		.000	
3.744	VP	43113	.149	4809	7	.002	ALDRIN
4.208	PB	353730	.165	35663		.000	
5.200	BP	33809	.206	2738	9	.002	G-CHLOR
6.180	VB	21847	.268	1357		.000	
9.042	BB	70813	.281	4197	15	.004	ENO-ALD
38.660	VP	44502	.243	3052		.000	
39.410	PB	11389	.255	743		.000	
40.670	BB	14726	.306	803		.000	

TOTAL AREA=2581803
MUL FACTOR=1.0000E+00

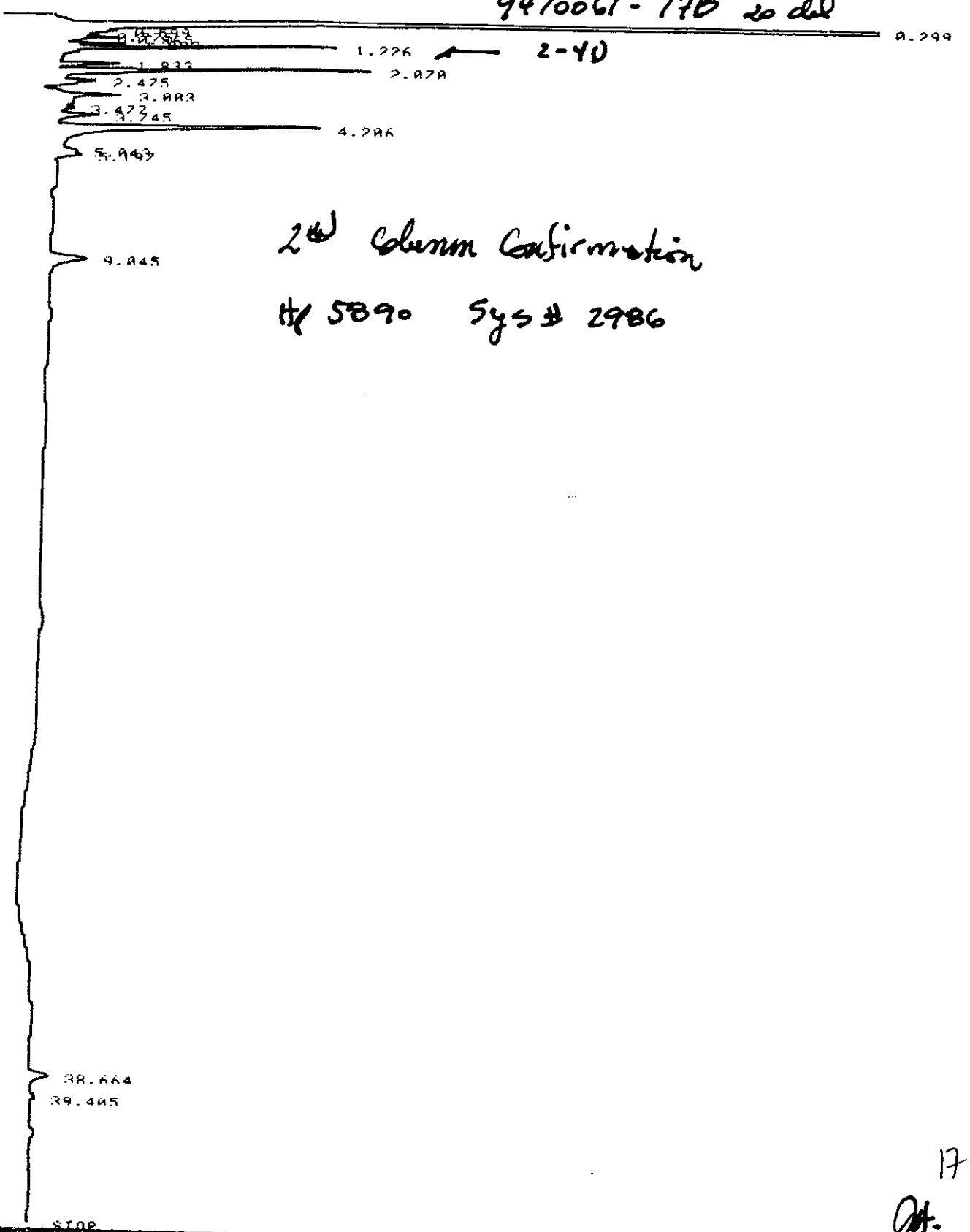
16

Sample ID: PD-2 / DUP

RUN # 679 OCT 18, 1994 17:22:16

START

9410061-17B 1/20 dil



2nd Column Confirmation

H/ 5890 Sys # 2986

17

RUN# 679 OCT 18, 1994 17:22:16

SAMPLE# 43

Y

ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.299	BV	1218483	.096	211751		.000	
.599	VV	38051	.137	4635		.000	
.775	VV	14704	.077	3200		.000	
.865	VV	29655	.105	4723		.000	← Surr
1.093	VV	19177	.060	5285		.000	
1.226	VV	98064	.076	21629		.000	← + 2.4D
1.833	BV	29505	.103	4792	4	.001	LINDANE
2.070	VV	161482	.109	24805	5	.008	D-BHC
2.475	VP	42321	.185	3810		.000	
3.003	PB	40764	.142	4775		.000	
3.745	PP	22829	.127	2993	7	.001	ALDRIN
4.206	PB	194761	.161	20198		.000	
5.043	BV	10939	.132	1380		.000	
5.197	VP	16834	.154	1819	9	.001	G-CHLOR
9.045	BB	47633	.281	2829	15	.003	END-ALD
38.664	BP	21885	.247	1479		.000	
39.405	PB	7888	.249	527		.000	

TOTAL AREA=2014975

NUL FACTOR=1.0000E+00

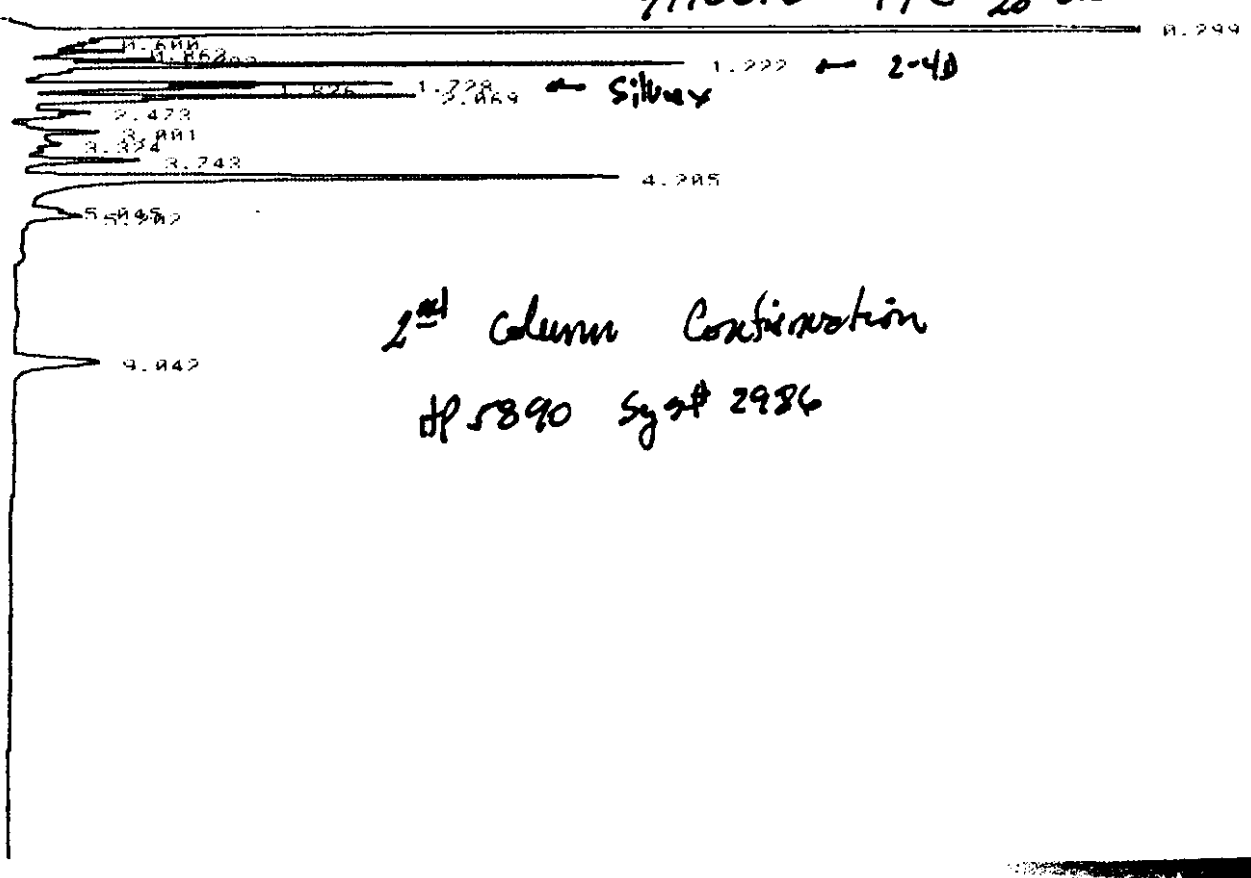
18

Sample ID: PD-2/MS

RUN # 680 OCT 18, 1994 18:09:48

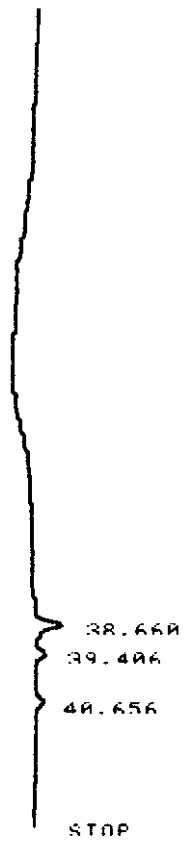
START

9410016 - 17C $\frac{1}{20}$ dil



2nd column Confirmation

HP 5890 Sys# 2986



RUN# 680 OCT 18, 1994 18:09:48

SAMPLE# 44

Y

ESTD-AREA

RT	TYPE	AREA	WIDTH	HEIGHT	CAL#	AMOUNT	NAME
.299	BV	1193642	.094	210554		.000	
.600	VV	29860	.101	4908		.000	
.863	VV	43323	.111	6530		.000	← Surr
1.092	VV	28892	.059	8162		.000	
1.222	VV	189552	.082	38407		.000	← 2,4,5
1.728	VV	92898	.071	21657	3	.011	~~A-BHC~~ Sirvex
1.826	VV	83341	.100	13832	4	.004	LINDANE
2.069	VV	125571	.090	23148	5	.006	D-BHC
2.473	VV	29764	.111	4477		.000	
3.001	PB	26795	.121	3702		.000	
3.324	BV	8075	.110	1224		.000	
3.743	PP	47786	.125	6366	7	.002	ALDRIN
4.205	PB	307675	.153	33425		.000	
5.045	BV	13220	.121	1821		.000	
5.202	VB	30337	.168	3002	9	.001	G-CHLOR
9.042	BB	83762	.285	4894	15	.005	END-ALD
38.660	BP	22297	.256	1454		.000	
39.406	PB	8752	.230	633		.000	
40.656	BP	10039	.310	539		.000	

20

TOTAL AREA=2375581

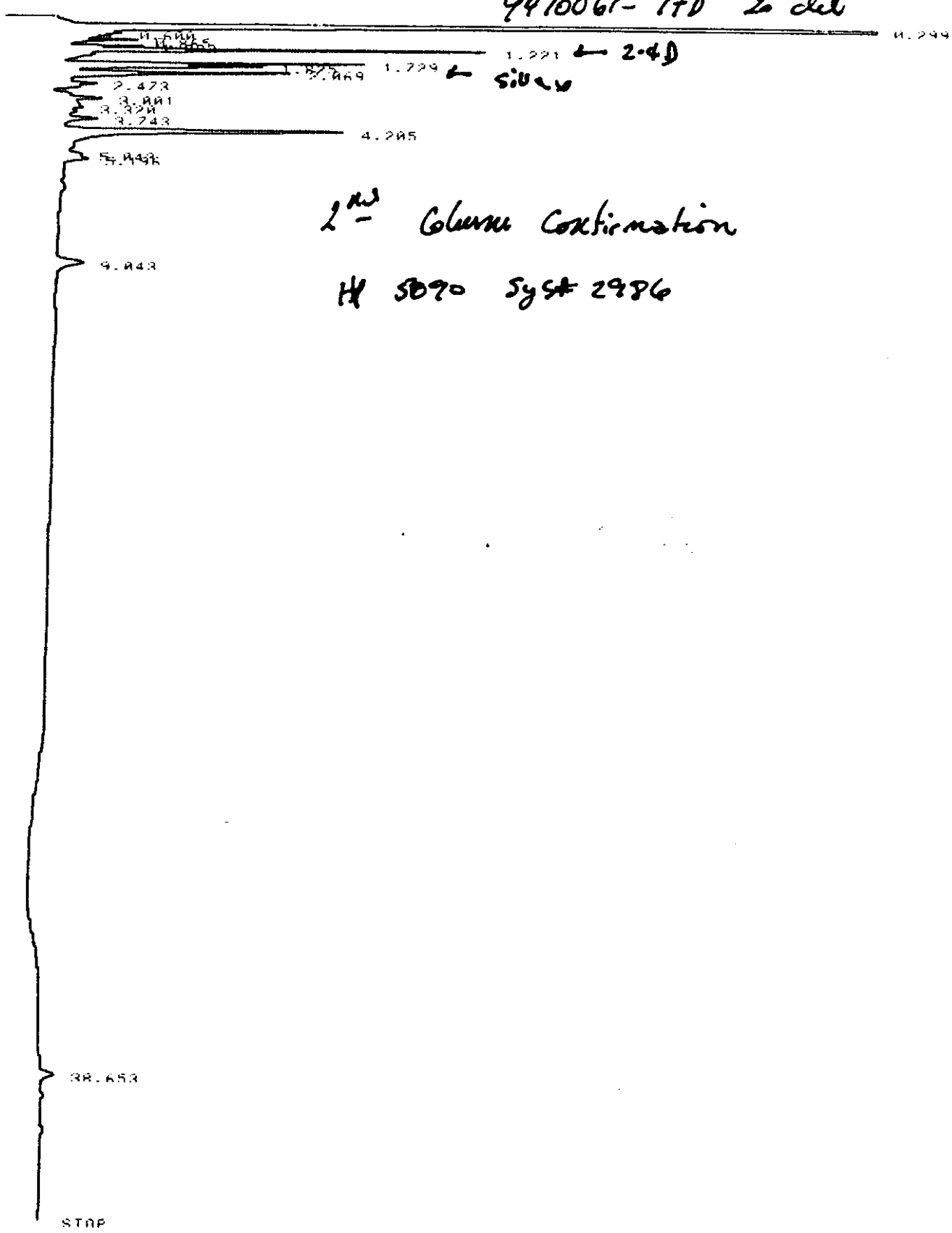
MUL FACTOR=1.0000E+00

Sample ID: PD-2/MSD

RUN # 681 OCT 18, 1994 18:57:21

START

9410061-17D 1/20 dil



2nd Column Confirmation

HP 5890 Syst 2986

RUN# 681 OCT 18, 1994 18:57:21

SAMPLE# 45

JH.

21

.600	VV	25871	.098	4415		.000	
.865	VP	26522	.081	5442		.000	
1.093	PV	16555	.050	5477		.000	
1.221	VV	152407	.079	31980		.000	
1.729	BV	97149	.069	23552	3	.011	B-BHC
1.825	VV	89210	.095	15695	4	.004	LINDANE
2.069	VV	100683	.093	18079	5	.005	D-BHC
2.473	VV	21808	.115	3150		.000	
3.001	PV	37180	.172	3606		.000	
3.320	VV	30367	.272	1859		.000	
3.743	VP	23434	.145	2690	7	.001	ALDRIN
4.205	PB	202013	.155	21691		.000	
5.043	PV	8189	.122	1123		.000	
5.196	VB	14177	.143	1656	9	.001	G-CHLOR
9.043	BB	35771	.279	2139	15	.002	END-ALD
38.653	BP	15875	.239	1108		.000	

TOTAL AREA=2090546
MUL FACTOR=1.0000E+00

Sample Extraction Log - Pesticide/Herbicide

Method: EPA, EMSL Matrix: Water

Hexane: Ref# 02-8 02-10

Methylene Chloride: Ref# 02-9

Pesticide

ab #	Client	Vi	Vf	Date	Analyst
94.10.047 -1	SWL-Dallas 409242-1	200	10 ml	10.11.94	CAM CJG
94.10.061 -16A	DSM ENV. PD-2	1000 ml	10 ml		
-16B	PD-2/DUP	1000 ml	10 ml		
-16C	PD-2/MS	1000 ml	10 ml		
-16D	PD-2/MSD	1000 ml	10 ml		
BLK	DI H_2O	1000 ml	10 ml		
NOTE: Vol:Vol macro column clean up was done on all of the above. Then checked E Hg once again.					CAM 10/17/94

COMMENTS: 047 is a TCLP, 1ml of Pest Surrogates was added to each of the above (Ref# 22-1) -16C & -16D were spiked with 1ml of Pest Spiking Soln (Ref# 29-1)

all of the above were checked E Hg.

Herbicide

Ethyl Ether: Ref# 02-6

Lab #	Client	Vi	Vf	Date	Analyst
94.10.047 -1	SWL - Dallas 409242-1	50 ml	10 ml	10.11.94	CAM CJG
94.10.061 -17A	DSM ENV. PD-2	200 ml	10 ml		
-17B	PD-2 /DUP	200 ml	10 ml		
-17C	PD-2 /MS	200 ml	10 ml		
-17D	PD-2/MSD	200 ml	10 ml		
BLK	DI H_2O	200 ml	10 ml		

COMMENTS: 047 is a TCLP

17C & -17D were spiked C 1 ml Herbicide Spiking Sol'n (Ref# 22-2)

1 ml Herbicide Surrogates was added to each of the above (Ref# 24-1)

the Above samples were cleaned VOL:VOL 10-17-94 CJG

Huntingdon

REPORT OF CHEMICAL ANALYSIS

Project: PCDD/PCDF ANALYSES

Prepared for:

Huntingdon/Houston EAS
Attn: Ms. Katren Bursnall
222 Cavalcade Street
Houston, TX 77009

#4411 05-10430

Huntingdon

Huntingdon Engineering & Environmental, Inc.

737 Pelham Boulevard
St. Paul, Minnesota 55114-1739

(612) 659-7600
FAX (612) 659-7515

REPORT OF: CHEMICAL ANALYSES

PROJECT: PCDD/PCDF ANALYSES

DATE: October 24, 1994

ISSUED TO: Huntingdon/Houston EAS
Attn: Ms. Katren Bursnall
222 Cavalcade Street
Houston, TX 77009

INVOICE NO: 4411 05-10430

INTRODUCTION

This report presents the results from the analyses performed on three samples which were submitted by a representative of Huntingdon/Houston EAS. The samples were analyzed for the presence or absence of tetra through hexa-chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs) using a modified version of USEPA Method 8290 as described below.

SAMPLE IDENTIFICATION

Client ID	Sample Type	Date Received	TCT ID
9410061-20A	Water	10/12/94	42742
9410061-20B	Water	10/12/94	42743
9410061-20C*	Water	10/12/94	42744
9410061-20D	Water	10/12/94	42745

*Sample container was broken upon receipt.

METHODOLOGY

Sample Extraction

Each sample was spiked with $^{13}C_{12}$-labeled PCDD/PCDF internal standards (Table 1) and extracted with methylene chloride in a separatory funnel. During the extraction process, emulsions formed at the interface of the aqueous and organic phases. These emulsions were filtered and extracted for 18 hours with toluene in Soxhlet extractors. The extracts were quantitatively transferred to Kuderna Danish concentrators, concentrated, and solvent exchanged to hexane. Each hexane extract was then processed through the enrichment procedures described below.

PCDD/PCDF Analyte Enrichment

The extraction procedure often removes a variety of compounds, in addition to the PCDDs and PCDFs, from the sample matrix. Some of these compounds can directly interfere with the analyses while others can overload the capillary column causing degradation in chromatographic resolution or sensitivity. The analyte enrichment steps described below are used to remove interferences from the extracts.

Each extract was diluted to 100 mL with hexane, transferred to a separatory funnel, and washed with 1N sodium hydroxide, concentrated sulfuric acid, and aqueous sodium chloride (5% w/v) as needed. The hexane extract was quantitatively transferred to a liquid chromatography column containing alternating layers of silica gel, 40% concentrated sulfuric acid on silica gel, and 33% 1 N sodium hydroxide on silica gel. The column was eluted with 90 mL of hexane and the entire eluate was collected and concentrated, under a gentle stream of dry nitrogen, to a volume of 1 mL.

Each concentrated extract was then fractionated on a liquid chromatography column containing 4 g of activated alumina. The column was eluted with 20 mL of hexane, followed by 15 mL of 60% methylene chloride/hexane. The 60% methylene chloride/hexane fraction was concentrated to 1 mL under a stream of dry nitrogen and applied to the top of a chromatography column containing 1 g of 8% AX-21 activated carbon in Celite 545. The column was eluted with two 2 mL portions of hexane, 2 mL of cyclohexane/methylene chloride (50:50 v/v) and cyclohexane/methanol/toluene (75:20:5 v/v) in the forward direction, and then with toluene in the reverse direction. The respective toluene fractions were collected, spiked with recovery standards (1,2,3,4-TCDD-$^{13}C_{12}$ and 1,2,3,7,8,9-HxCDD-$^{13}C_{12}$), and concentrated to a final volume of 20 uL.

PCDD/PCDF Analyses

The sample extracts were analyzed for the presence of PCDDs and PCDFs using combined capillary column gas chromatography/high resolution mass spectrometry (HRGC/HRMS). The instrumentation consisted of a Hewlett Packard Model 5890 gas chromatograph interfaced to a VG Model 70SE high resolution mass spectrometer. The capillary column was interfaced directly into the ion source of the mass spectrometer, thus providing the highest possible sensitivity while minimizing degradation of the chromatographic resolution.

The mass spectrometer was operated in the electron impact ionization mode at a mass resolution of 10,000-11,000 (M/ΔM, 10 percent valley definition). This resolution is sufficient to resolve most interferences, such as PCBs, thus providing the highest level of confidence that the detected levels of PCDD/PCDF were not false positives resulting from interferences. Typical operating parameters for the HRGC/HRMS analyses are summarized in Table 2.

PCDD/PCDF Analyses (Cont.)

The data were acquired by selected-ion-recording (SIR) using groups of ion masses similar to those described in USEPA Method 8290. The five groups corresponded to the tetrachlorinated through octachlorinated congener classes. Each group contained two ion masses for the PCDDs, two ion masses for the PCDFs, the corresponding ion masses from the two isotopically labeled internal standards, and the ion mass characteristic of the polychlorinated diphenylether (PCDE) which, if present, could cause false responses in the dibenzofuran channels.

Each group of ion masses also contained a lock mass which was used by the data system to automatically correct the mass focus of the instrument. The data system determined the centroid of the lock mass during each data acquisition cycle and corrected the mass focus of the analyte and internal standard ion masses to assure that the centers of the mass peaks were being monitored.

The criteria used to judge positive responses for a PCDD/PCDF isomer included:

* Simultaneous response at both ion masses of the PCDD or PCDF
* Signal-to-noise ratio equal to or greater than 2.5:1.0 for both ion masses
* Chlorine isotope ratio within 15% of the theoretical value
* Chromatographic retention time within +/- 2 seconds of the expected retention time
* Chromatographic retention times within elution windows determined from analyses of standard mixtures
* Absence of simultaneous response in the PCDF and PCDPE ion traces

A list of the exact ion masses monitored for the determination of PCDD/PCDF isomers and the PCDE interferences is presented in Table 3. Also included are the theoretical chlorine isotope ratios for the ten congener classes.

PCDD/PCDF Quantification and Calculations

The PCDD/PCDF isomers were quantified by comparison of their responses to the responses of the labeled internal standards. Relative response factors were calculated from analyses of standard mixtures containing representatives of each of the PCDD/PCDF congener classes at five concentration levels, and each of the internal standards at one concentration level, as shown in Table 4. The PCDD/PCDF response factors were calculated by comparing the sum of the responses from the two ion masses monitored for each chlorine congener class to the sum of the responses from the two ion masses of the corresponding isotopically labeled internal standard. The response factor at each of the calibration levels as well as the average response factors and the relative deviation for each are included in Appendix C. The formula for the response factor calculation is:

$$Rf = \frac{An \times Qis}{Ais \times Qn}$$

where:

Rf = Response factor
An = Sum of integrated areas for native isomer
Qis = Quantity of labeled internal standard
Ais = Sum of integrated areas for labeled internal standard
Qn = Quantity of native isomer

A summary of high resolution initial calibration chlorine isotope ratios is presented in Appendix C.

The levels of PCDD/PCDF in the samples were quantified using the following equation:

$$C = \frac{An \times Qis}{Ais \times W \times Rf}$$

where:

C = Concentration of target isomer or congener class
An = Sum of integrated areas for the target isomer or congener class
Qis = Quantity of labeled internal standard added to the sample
Ais = Sum of integrated areas for the labeled internal standard
W = Sample amount
Rf = Response factor

PCDD/PCDF Quantification and Calculations (Cont.)

Each pair of ion mass peaks in the selected-ion-current chromatograms was evaluated manually to determine if it met the criteria for a PCDD or PCDF isomer. Areas of all peaks exhibiting correct ion ratios, having retention times within the correct windows, and having areas corresponding to concentrations in the range covered by the initial calibration were then summed for calculations of total congener concentrations.

A limit of detection (LOD) based on producing a signal that is 2.5 times the noise level, was calculated for each undetected 2,3,7,8-substituted isomer of any tetra through octa chlorinated congener class. The noise heights used to calculate the detection limits were measured at the retention time of the specific isomer. The formula used for calculating the LOD is:

$$LOD = \frac{Hn \times Qis \times 2.5}{His \times W \times Rf}$$

where:

LOD = Single isomer limit of detection
Hn = Sum of noise heights at native isomer retention time
Qis = Quantity of labeled internal standard
His = Sum of peak heights for labeled internal standard
W = Sample amount
Rf = Response factor

The recovery of the 2,3,7,8-TCDD-$^{37}Cl_4$ enrichment efficiency standard and each $^{13}C_{12}$-labeled internal standard, relative to either 1,2,3,4-TCDD-$^{13}C_{12}$ or 1,2,3,7,8,9-HxCDD-$^{13}C_{12}$, was calculated using the following equation:

$$\%R = \frac{Ais \times Qrs \times 100\%}{Rfr \times Ars \times Qis}$$

where:

%R =Percent recovery of labeled internal standard
Ais =Sum of integrated areas of labeled internal standard
Qrs =Quantity of recovery standard
Ars =Sum of integrated areas of recovery standard
Rfr =Response factor of the specific labeled internal standard relative to the recovery standard
Qis = Quantity of the labeled internal standard congener added to the sample

REPORT OF: CHEMICAL ANALYSES

PROJECT: PCDD/PCDF ANALYSES DATE: October 24, 1994

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Quality Control

The performance of the sample processing steps and the instrumentation are monitored on a routine basis. The procedures and criteria are summarized below.

One method blank and one laboratory spike sample are typically prepared with each ten samples of any given matrix. The recoveries of the native PCDD/PCDF analytes in the laboratory spike samples generally range from 70 to 130%. Recoveries of selected analytes outside this range do not invalidate the data but provide information which is used by the laboratory to monitor recovery trends and to assure optimization of the method.

Internal standards are spiked into each sample prior to extraction in order to monitor the level of recovery which is achieved for each individual sample. Acceptable recoveries range from 40 to 135 percent for the internal standards unless a deviation is due to variation in instrument response as a result of analytical interferences.

The resolution of the mass spectrometer is verified prior to each analysis to be 10,000 or greater. Hardcopies of the reference peaks are printed at the beginning and end of each analysis day. The resolving power of the DB-5 chromatographic column is checked daily by analyzing a standard solution containing 2,3,7,8-TCDD and the adjacent TCDD isomers. DB-DIOXIN column resolution is checked daily by analyzing a standard solution containing 2,3,7,8-TCDF and the adjacent TCDF isomers. Acceptable performance is achieved when 2,3,7,8-TCDD or 2,3,7,8-TCDF is resolved from the adjacent isomers by a valley of 25% or less. The group times for the selected-ion-monitoring data acquisitions are also checked daily by analyzing the column performance mix which has been modified to contain the first and last eluting isomers of each congener class. In this way one is assured of collecting data representative of the total PCDD/PCDF content and that the 2,3,7,8-substituted isomers are suitably resolved.

Quality Control (Cont.)

Initial calibrations are generated by analyzing standard solutions (see Table 4) containing target native and labeled PCDD/PCDF compounds. Response factors are calculated and averaged for each compound. These averages are used for quantification and for comparison to the daily continuing calibration. The relative standard deviation for each native compound must be 20% or less (30% or less for the labeled compounds) as specified in USEPA Method 8290. A continuing calibration standard is analyzed at the beginning and end of each 12-hour shift on days when initial calibrations are not performed. The initial calibration is considered to be valid when the response factors from the continuing calibration analysis agree to within +/- 20% (+/- 30% for the labeled compounds) of the averages from the initial calibration.

RESULTS

The results from the analyses are presented in the following:

Appendix A Chain of Custody Documentation
Appendix B Sample Analysis Results
Appendix C QC Sample and Calibration Results
Appendix D Sample Chromatograms and Raw Data
Appendix E Standard Chromatograms and Raw Data
Appendix F QC Chromatograms and Raw Data

DISCUSSION

The container for sample 9410061-20C, the Matrix Spike (MS) designate, was received broken and the sample was lost in its entirety. Therefore, with the approval of Huntingdon/Houston EAS staff, sample 9410061-20D, the Matrix Spike Duplicate (MSD) designate, was split into equal portions for use in preparing the MS/MSD samples.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the water sample extracts generally ranged from 50-75%, indicating a level of efficiency through the extraction and enrichment steps that is slightly lower than typically achieved for this sample matrix type. Recovery values below the 40-135% target range specified in Method 8290 were achieved for selected internal standards. However, since the quantifications of the native 2,3,7,8-substituted isomers are based on isotope dilution, the data are automatically corrected for variations in recovery and accurate values are obtained.

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DISCUSSION (Cont.)

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results, found at the beginning of Appendix C, show the blank to be free of the target analytes, with the exception of a trace background level (4 picograms) of HxCDF. This level was below the instrument calibration range and was also "not detected" the unfortified samples. These results indicate that the sample processing steps did not contribute significantly to the levels reported for the water samples.

A laboratory quality control PCDD/PCDF spike sample was also prepared with the sample batch by extracting reagent water that had been fortified with native standard materials. The results, included in Appendix C, show that the spiked native compounds were recovered at levels ranging from 96-120%. Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples were prepared using separate aliquots of sample 9410061-20D that had been similarly fortified. The results from the MS/MSD analyses show that the spiked native compounds were recovered at 89-118%. These results indicate a high degree of accuracy for these determinations. Relative Percent Difference (RPD) values from the MS/MSD analyses ranged from 5-27%.

REMARKS

The sample extracts will be retained for a period of 60 days from the date of this report and then discarded unless other arrangements are made. The raw mass spectral data will be archived on magnetic tape for a period of not less than one year. Questions regarding the data contained in this report may be directed to the authors at the numbers provided below.

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SWH/CVS/lml

TABLE 1. Spike Levels of PCDD/PCDF Standards

Internal Standards	Spike Level (ng)
2,3,7,8-TCDF-$^{13}C_{12}$	2.0
2,3,7,8-TCDD-$^{13}C_{12}$	2.0
1,2,3,7,8-PeCDF-$^{13}C_{12}$	2.0
2,3,4,7,8-PeCDF-$^{13}C_{12}$	2.0
1,2,3,7,8-PeCDD-$^{13}C_{12}$	2.0
1,2,3,4,7,8-HxCDF-$^{13}C_{12}$	2.0
1,2,3,6,7,8-HxCDF-$^{13}C_{12}$	2.0
1,2,3,7,8,9-HxCDF-$^{13}C_{12}$	2.0
2,3,4,6,7,8-HxCDF-$^{13}C_{12}$	2.0
1,2,3,4,7,8-HxCDD-$^{13}C_{12}$	2.0
1,2,3,6,7,8-HxCDD-$^{13}C_{12}$	2.0
1,2,3,4,6,7,8-HpCDF-$^{13}C_{12}$	2.0
1,2,3,4,7,8,9-HpCDF-$^{13}C_{12}$	2.0
1,2,3,4,6,7,8-HpCDD-$^{13}C_{12}$	2.0
OCDD-$^{13}C_{12}$	4.0
Recovery Standards	
1,2,3,4-TCDD-$^{13}C_{12}$	2.0
1,2,3,7,8,9-HxCDD-$^{13}C_{12}$	2.0
Enrichment Efficiency Standard	
2,3,7,8-TCDD-$^{37}Cl_4$	0.2

TABLE 2. High Resolution PCDD/PCDF Analyses
HRGC/HRMS Operating Parameters

Mass Resolution	10,000-11,000 (M/ΔM, 10% valley)
Electron Energy	32 electron volts
Accelerating Voltage	8,000 volts
Source Temperature	275°C
Preamplifier Gain	10^{-6} amp/volt
Multiplier Gain	$\sim 10^{5}$
Chromatographic Column	60 M DB-5
Transfer Line Temperature	260°C
Injection Mode	Splitless
Carrier Gas	Helium
Carrier Flow Velocity	~30 cm/sec

TABLE 3. Exact Ion Masses Monitored for the Determination of PCDDs, PCDFs, and PCDPEs

Compound	Accurate Mass Mass 1	Accurate Mass Mass 2	Theoretical Ratio Mass 1/Mass 2
Tetra-CDDs	319.8965	321.8936	0.77
Tetra-CDFs	303.9016	305.8987	0.77
Hexa-CDPEs	375.8364		
Penta-CDDs	355.8546	357.8517	1.54
Penta-CDFs	339.8597	341.8567	1.54
Hepta-CDPEs	409.7974		
Hexa-CDDs	389.8156	391.8127	1.23
Hexa-CDFs	373.8207	375.8178	1.23
Octa-CDPEs	445.7555		
Hepta-CDDs	423.7766	425.7737	1.03
Hepta-CDFs	407.7817	409.7788	1.03
Nona-CDPEs	479.7165		
Octa-CDD	457.7377	459.7347	0.88
Octa-CDF	441.7428	443.7398	0.88
Deca-CDPE	513.6775		

CDDs = Chlorinated Dibenzo-p-dioxins
CDFs = Chlorinated Dibenzofurans
CDPEs = Chlorinated Diphenylethers

TABLE 4. High Resolution Calibration Solutions

Native CDDs/CDFs	Concentration (pg/uL) CS1	CS2	CS3	CS4	CS5
2,3,7,8-TCDD	0.5	2	10	40	200
2,3,7,8 TCDF	0.5	2	10	40	200
1,2,3,7,8-PeCDD	2.5	10	50	200	1000
1,2,3,7,8-PeCDF	2.5	10	50	200	1000
2,3,4,7,8-PeCDF	2.5	10	50	200	1000
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000
OCDD	5.0	20	100	400	2000
OCDF	5.0	20	100	400	2000
Internal Standards					
2,3,7,8-TCDD-$^{13}C_{12}$	100	100	100	100	100
2,3,7,8-TCDF-$^{13}C_{12}$	100	100	100	100	100
1,2,3,7,8-PeCDD-$^{13}C_{12}$	100	100	100	100	100
1,2,3,7,8-PeCDF-$^{13}C_{12}$	100	100	100	100	100
2,3,4,7,8-PeCDF-$^{13}C_{12}$	100	100	100	100	100
1,2,3,4,7,8-HxCDD-$^{13}C_{12}$	100	100	100	100	100
1,2,3,6,7,8-HxCDD-$^{13}C_{12}$	100	100	100	100	100
1,2,3,4,7,8-HxCDF-$^{13}C_{12}$	100	100	100	100	100
1,2,3,6,7,8-HxCDF-$^{13}C_{12}$	100	100	100	100	100
1,2,3,7,8,9-HxCDF-$^{13}C_{12}$	100	100	100	100	100
2,3,4,6,7,8-HxCDF-$^{13}C_{12}$	100	100	100	100	100
1,2,3,4,6,7,8-HpCDD-$^{13}C_{12}$	100	100	100	100	100
1,2,3,4,6,7,8-HpCDF-$^{13}C_{12}$	100	100	100	100	100
1,2,3,4,7,8,9-HpCDF-$^{13}C_{12}$	100	100	100	100	100
OCDD-$^{13}C_{12}$	200	200	200	200	200
Recovery Standards					
1,2,3,4-TCDD-$^{13}C_{12}$	100	100	100	100	100
1,2,3,7,8,9-HxCDD-$^{13}C_{12}$	100	100	100	100	100
Enrichment Efficiency Standard					
2,3,7,8-TCDD-$^{37}C1_4$	0.5	2	10	40	200

APPENDIX A

HUNTINGDON/TWIN CITIES ESLING DOW 4 ATTN STEVE HANNAN (612)659-7336
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Analysis Request and Chain of Custody Record Page 1 of 1 SWH

Huntingdon

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☐ **MIDLAND EAS** 1703 WEST INDUSTRIAL, MIDLAND, TEXAS 79701 (915) 683-3349

Project no. 94-10-061

Client/Project Huntingdon/SWL (Houston)/DSM HPN 10430

Lab ID No.	Field Sample No./ Identification	Date and Time	Grab	Comp.	Sample Container (Size/Mat'l)	Sample Type (Liquid Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
	9410061-20A	10/5/94			QT/AMB. GLASS	GROUNDWATER	NONE	APPENDIX IX DIOXINS & FURANS BY METHOD 8290 SW 846	SAMPLE 42742
	-20B								DUP 42743
*	-20C								42744 MATRIX SPIKE
	-20D								42745 MATRIX SPIKE DUP

*Sample broken during shipping
no remaining sample - TYF
Samples to lab 10/13/94 - SEW
REC @ 9°C OK

Samplers: (Print)	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	COC Seal No.
	Chris Fuller	10/11/94 16:00	Fed Ex Airbill #9032375785		
Affiliation	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	REC'D. ON ICE Yes ____ No ____
		10/12/94 10:30	Foster		
	Relinquished by: (Signature)	Date: Time:	Received by Laboratory: (Signature)	Date: Time:	Intact:

Results by 10/21/94
Rush Charges Authorized
Yes ____ No X

REMARKS:
T.A.T. per Steve Hannan
TIER III CLP TYPE DATA PACKAGE

Data Results To:
1. Katren Bursnall
2. by FAX on completion to (713) 696-6274

Laboratory No.

PO# 5454-35858

Please return cooler!

Hun gdon #2

DIOXIN EXTRACTION WORKSHEET

#1 of 2

Client: SWL - HUNTINGDON HPN:

Date Extraction Began: 10/13/94 M. Hogenson Relinquished By: LJA Received By: MSK Date: 10/20/94

	Sample #	10/12/94 M. Hogenson Standards	L or g Extracted	Filtered (Y/N)	Cl-37 Std Mineral Oil	Acid/ Base/ NaCl	Silica Date: 10/14/94 Init: SL	Alumina Date: 10/14/94 Init: SL	Carbon Date: 10/14/94 Init: SL/LJA	10/20/94 LJA Rec Std	Glassware Set	Comments
1	43045 M. Blank	✓	1l	N		B- N A-	Hex Lot #: 940224	Hex Lot #: 940224	Toluene Lot #: 944378	10µl	R1W	
2	43046 SPIKE	✓ x	1l			B- A-	Humidity: 23%	60% Batch #: 315	75% Batch #: 7	10µl	R2W	
3	42742 9410061-20A	✓	1505.9 495.8			B- A- A		Humidity: 22%	50% Batch #: 192	10µl	R3W	
4	42743 9410061-20B	✓	1509.9 518.4			B- A-			Hexane Lot #: 940224	10µl	R4W	
5	MS 42745 9410061-20D	✓ x	735.4 254.4			B- A-			Humidity: 43%	10µl	R5W	SPLIT ½ FOR EXTRACT.
6	MSD 42745 9410061-20D	✓ x	735.3 254.4	↓		B- A- ↓	—	—	—	10µl	R6W	
7						B- A-						
8						B- A-						
9						B- A-						
10						B- A-						
11						B- A-						
12						B- A-						
13						B- A-						

Extract Solvents: H2O - Polished

Toluene Lot # ✓

Hexane Lot # ✓

Methylene Chloride Lot #

Acid Base:

Sulfuric Acid Lot # N/A

Base Batch #

NaCl Batch # A

Silica:

Basic Batch # 107

Neutral Batch # 84

Acid Batch # 108

Internal Std CF2-896 1ml Native CN1-594 1ml

CI-37 Std Others

Recovery Std CR3-112 10µl

Tridecane 05305PF 10µl Filter Lot

Peer Review/Date

10/20. both fractions in vials rinsed + combined in tapes LJA

C-700 (3/94)

GB IN BOX

10/13/94 - SAMPLES ALL HAD BAD EMULSIONS. M. Hogenson

Hum gdon — Solid Phase or Meth Extraction — #2 of 3

DIOXIN EXTRACTION WORKSHEET

Client: SWL

HPN:

Date Extraction Began: M. Hogerton @ 1:45 Am Relinquished By: JGA Received By: Date: 10/20/94

	Sample #	10/13/94 Standards	L or g Extracted	Filtered (Y/N)	Cl-37 Std Mineral Oil	Acid/ Base/ NaCl	Silica Date: 10/19/94 Init: SK	Alumina Date: 11/19/94 Init: SK JGA	Carbon Date: Init:	10/20/94 JGA Rec Std	Glassware Set	Comments
1	M. Blank	✓		N		B- A-	Hex Lot #: 940224	Hex Lot #: 940224	Toluene Lot #: N/A	10ul	L16	
2	SPIKE	✓ X				B- A-	Humidity: 34%	60% Batch #: 315	75% Batch #:	10ul	L17	
3	9410061 20A	✓				B- A-		Humidity: 33%	50% Batch #:	10ul	L18	
4	9410061 20B	✓				B- A-			Hexane Lot #:	10ul	L19	
5	9410061 20D MS	✓ X				B- A-			Humidity:	10ul	L20	
6	9410061 20D MSD	✓ X				B- A-				10ul	L21	
7						B- A-						
8						B- A-						
9						B- A-						
10						B- A-						
11						B- A-						
12						B- A-						
13						B- A-						

10/20 - both fractions combined in transfer JGA

Extract Solvents:
Toluene Lot # 940743
Hexane Lot #
Methylene Chloride Lot #

Acid Base:
Sulfuric Acid Lot #
Base Batch #
NaCl Batch #

Silica:
Basic Batch # 107
Neutral Batch # 84
Acid Batch # 108

Internal Std
Cl-37 Std
Recovery Std CA3-112 10ul
Tridecane Q5305PF 10ul
Peer Review/Date

Native
Others
Filter Lot

C-700 (3/94)

10/17/94 EXPLANATION: There was more than 1/2 particulate in sample originally extracted in methz. on 10/13/94 - SAve, solvent xfer to soxhlet extractor to check for

Huntingdon

INSTRUMENT RUN LOG

Instrument: 70-VSE 9-26-94

Operator	File Name	Sample ID	Method No.	Injection Vol. (µL)	Comments
MCH/MSK ✓	V40926A	CPM (121192)	8240/1613	1µl	A=4376
MCH ✓	V40926B	CS-1 (09-26-94)	↓	1µl	Rinse @ 310°C
↓ ✓	V40926C	CS-2 (092694)	↓	1µl	Minimal Lin (C4)
↓ ✓	V40926D	CS-3 (092694)	↓	1µl	
SEM ✓	V40926E	CS-4 (092694)	↓	1µl	
↓ ✓	V40926F	CS-5 (092694)	↓	1µl	
↓ ✓	V40926G	CPM (121192)	↓	1µl	A=5712
↓ ✓	V40926H	Spike (40204) [redacted]	1613	1µl	
↓ –	V40926I	Blank (40203) [redacted]	1613	1µl	4 Rinses tridecane at 320°C
↓ ✓	V40926J	Blank (40203) [redacted]	1613 ↓	1µl	
MCH ✓	V40926K	40109 [redacted]	1613	1µl	
↓ ✓	V40926L	SOLVENT BLANK	NA	1µl	Rinse @ 320°C
↓ ✓	V40926M	40156 [redacted]	1613	1µl	
↓ ✓	V40926N	40157 [redacted]	↓	1µl	
↓ ✓	V40926O	40158 [redacted]	↓	1µl	
↓ ✓	V40926P	40159 [redacted]	↓	1µl	
↓ ✓	V40926Q	40160 [redacted]	↓	1µl	
				MCH	

MAINTENANCE/COMMENTS:

C-706 (2/94)

Peer Review/Date Swt 9/30/94

Huntingdon

Client names have been blacked out on notebook pages to preserve client confidentiality.

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INSTRUMENT RUN LOG

Instrument: 70-VSE 10/20/94 Cont. + 10/21/94

Operator	File Name	Sample ID	Method No.	Injection Vol. (µL)	Comments
Mett	V41020T	41450 [redacted]	8290	1 µl	2 rinses 315°C
	V41020U	41457 [redacted]		1 µl	
	V41020V	41739 [redacted]		(0.5) 1 µl	RT shifts
CVS	V41020W	41739 [redacted]		(0.3) 1 µl	" "
	~~V41020~~				3 rinses, tridecane 250°C
Jm	V41021A	CS-3 (092694)		1 µL	9:23
Jm	V41021B	CPM (121192)		1 µl	
	V41021C	42745 - MS SWL		1 µl	
	V41021D	42745 - MSD SWL		1 µl	
	V41021E	43046 - Spike SWL		1 µl	
	V41021F	43045 - Blank SWL		1 µl	3 rinses, tridecane 315°C
	V41021G	42742 SWL		1 µl	G3-LM
CVS	V41021H	42742 SWL		(0.5) 1 µl	
McH	V41021I	42743 SWL	8290	(0.5) 1 µl	(0.5 µl injection) mett
	V41021J	32727 [redacted]		1 µl	Fish
	V41021K	32726 [redacted]		1 µl	fish
	V41021L	CS-3 (092694)		1 µl	4 rinses 315°C
	V41021M	CS-3 (092694)		1 µl	2 rinses 315°C NOT NEEDED mett

MAINTENANCE/COMMENTS:

SWL are tetra-hexa only.

Peer Review/Date SWH 10/24/94

APPENDIX B

Huntingdon

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*******************************
*TWIN CITY TESTING CORPORATION*
*METHOD 8290 ANALYSIS RESULTS *
*******************************
 Client....SWL
```

Client's Sample ID.....9410061-20A PD-2
TCT Sample ID.....42742
Analysis Date.....10/21/94 17:19
Filename.....V41021H
Injected By.....CVS
Total Amount Extracted... 1.01 L
% Moisture.....NA %
ICAL Date.....9/26/94
CCAL Filename.....V41021A
Method Blank ID.....BLANK-43045
Extraction Date.....10/13/94

NATIVE ISOMERS	CONC. ng/L	LOD ng/L
2378-TCDF	0.020 *	-----
TOTAL TCDF	0.110	-----
2378-TCDD	ND	0.0065
TOTAL TCDD	ND	-----
12378-PeCDF	0.016	-----
23478-PeCDF	ND	0.0096
TOTAL PeCDF	0.040	-----
12378-PeCDD	ND	0.0250
TOTAL PeCDD	ND	-----
123478-HxCDF	ND	0.0100
123678-HxCDF	ND	0.0180
234678-HxCDF	ND	0.0230
123789-HxCDF	ND	0.0150
TOTAL HxCDF	ND	-----
123478-HxCDD	ND	0.0150
123678-HxCDD	ND	0.0150
123789-HxCDD	ND	0.0180
TOTAL HxCDD	ND	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	54
2378-TCDD-13C....	2.00	58
12378-PeCDF-13C..	2.00	47
23478-PeCDF-13C..	2.00	57
12378-PeCDD-13C..	2.00	59
123478-HxCDF-13C.	2.00	54
123678-HxCDF-13C.	2.00	30
234678-HxCDF-13C.	2.00	48
123789-HxCDF-13C.	2.00	60
123478-HxCDD-13C.	2.00	55
123678-HxCDD-13C.	2.00	57

RECOVERY STANDARDS		
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD = Limit of Detection
ND = Not Detected
NA = Not Applicable

TCT Invoice Number....4411 05-10430

Huntingdon

```
*******************************
*TWIN CITY TESTING CORPORATION*
*METHOD 8290 ANALYSIS RESULTS *
*******************************
 Client....SWL
```

Client's Sample ID.....9410061-20B PD-2 DUP
TCT Sample ID.....42743
Analysis Date.....10/21/94 18:34
Filename.....V41021I
Injected By.....MCH
Total Amount Extracted... 0.99 L
% Moisture.....NA %
ICAL Date.....9/26/94
CCAL Filename.....V41021A
Method Blank ID.....BLANK-43045
Extraction Date.....10/13/94

NATIVE ISOMERS	CONC. ng/L	LOD ng/L
2378-TCDF	ND	0.0045
TOTAL TCDF	ND	-----
2378-TCDD	ND	0.0031
TOTAL TCDD	ND	-----
12378-PeCDF	ND	0.0041
23478-PeCDF	ND	0.0082
TOTAL PeCDF	ND	-----
12378-PeCDD	ND	0.0056
TOTAL PeCDD	ND	-----
123478-HxCDF	ND	0.0031
123678-HxCDF	ND	0.0120
234678-HxCDF	ND	0.0110
123789-HxCDF	ND	0.0110
TOTAL HxCDF	ND	-----
123478-HxCDD	ND	0.0067
123678-HxCDD	ND	0.0069
123789-HxCDD	ND	0.0130
TOTAL HxCDD	ND	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	68
2378-TCDD-13C....	2.00	72
12378-PeCDF-13C..	2.00	66
23478-PeCDF-13C..	2.00	69
12378-PeCDD-13C..	2.00	70
123478-HxCDF-13C.	2.00	71
123678-HxCDF-13C.	2.00	40
234678-HxCDF-13C.	2.00	69
123789-HxCDF-13C.	2.00	76
123478-HxCDD-13C.	2.00	79
123678-HxCDD-13C.	2.00	68

RECOVERY STANDARDS		
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD = Limit of Detection
ND = Not Detected
NA = Not Applicable

TCT Invoice Number....4411 05-10430

APPENDIX C

Huntingdon

```
*******************************
*TWIN CITY TESTING CORPORATION*
*METHOD 8290 ANALYSIS RESULTS *
*******************************
 Client....SWL
```

TCT Sample ID.....BLANK-43045
Analysis Date.....10/21/94 15:09
Filename.....V41021F
Injected By.....JMM
Total Amount Extracted... 1.00 L
% Moisture.....NA %
ICAL Date.....9/26/94
CCAL Filename.....V41021A
Method Blank ID.....NA
Extraction Date.....10/13/94

NATIVE ISOMERS	CONC. ng/L	LOD ng/L
2378-TCDF	ND	0.0017
TOTAL TCDF	ND	-----
2378-TCDD	ND	0.0012
TOTAL TCDD	ND	-----
12378-PeCDF	ND	0.0018
23478-PeCDF	ND	0.0014
TOTAL PeCDF	ND	-----
12378-PeCDD	ND	0.0029
TOTAL PeCDD	ND	-----
123478-HxCDF	ND	0.0019
123678-HxCDF	ND	0.0021
234678-HxCDF	0.0040	-----
123789-HxCDF	ND	0.0026
TOTAL HxCDF	0.0040	-----
123478-HxCDD	ND	0.0012
123678-HxCDD	ND	0.0021
123789-HxCDD	ND	0.0026
TOTAL HxCDD	ND	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	71
2378-TCDD-13C....	2.00	72
12378-PeCDF-13C..	2.00	84
23478-PeCDF-13C..	2.00	93
12378-PeCDD-13C..	2.00	87
123478-HxCDF-13C.	2.00	81
123678-HxCDF-13C.	2.00	78
234678-HxCDF-13C.	2.00	94
123789-HxCDF-13C.	2.00	97
123478-HxCDD-13C.	2.00	92
123678-HxCDD-13C.	2.00	83
RECOVERY STANDARDS		
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD = Limit of Detection
ND = Not Detected
NA = Not Applicable

TCT Invoice Number....4411 05-10430

Huntingdon

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*****************************
*TWIN CITY TESTING CORPORATION*
*   PCDD/PCDF SPIKE RESULTS   *
*****************************
     Client....SWL
```

TCT Sample ID.....SPIKE-43046
Analysis Date.....10/21/94 13:43
Filename.....V41021E
Sample Injected By.....JMM
Total Amount Extracted..... 1.00 L
% Moisture.....NA
ICAL Date.....9/26/94
CCAL Filename.....V41021A
Method Blank ID.....BLANK-43045
Extraction Date.....10/13/94

NATIVE ISOMERS	Qs (ng)	Qm (ng)	% REC	INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF	0.20	0.21	104	2378-TCDF-13C....	2.00	66
				2378-TCDD-13C....	2.00	68
				12378-PeCDF-13C..	2.00	86
2378-TCDD	0.20	0.20	98	23478-PeCDF-13C..	2.00	92
				12378-PeCDD-13C..	2.00	82
				123478-HxCDF-13C.	2.00	81
12378-PeCDF	1.00	0.96	96	123678-HxCDF-13C.	2.00	79
23478-PeCDF	1.00	1.02	102	234678-HxCDF-13C.	2.00	95
				123789-HxCDF-13C.	2.00	102
				123478-HxCDD-13C.	2.00	80
12378-PeCDD	1.00	1.05	105	123678-HxCDD-13C.	2.00	77
123478-HxCDF	1.00	1.01	101	RECOVERY STANDARDS		
123678-HxCDF	1.00	1.03	103			
234678-HxCDF	1.00	1.03	103			
123789-HxCDF	1.00	1.04	104	1234-TCDD-13C....	2.00	NA
				123789-HxCDD-13C.	2.00	NA
123478-HxCDD	1.00	0.97	97			
123678-HxCDD	1.00	1.04	104			
123789-HxCDD	1.00	1.20	120			

Qs = Quantity Spiked
Qm = Quantity Measured
REC = Recovery (Expressed as Percent)
NA = Not Applicable

TCT Invoice Number....4411 05-10430

Huntingdon

****
TWIN CITY TESTING CORPORATION
* PCDD/PCDF SPIKE RESULTS *
****
Client....SWL

Client's Sample ID.....9410061-20D-MS PD-2 MS
TCT Sample ID.....42745-MS
Analysis Date.....10/21/94 11:24
Filename.....V41021C
Sample Injected By.....JMM
Total Amount Extracted..... 0.48 L
% Moisture.....NA
ICAL Date.....9/26/94
CCAL Filename.....V41021A
Method Blank ID.....BLANK-43045
Extraction Date.....10/13/94

NATIVE ISOMERS	Qs (ng)	Qm (ng)	% REC	INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF	0.20	0.19	94	2378-TCDF-13C....	2.00	54
				2378-TCDD-13C....	2.00	57
				12378-PeCDF-13C..	2.00	36
2378-TCDD	0.20	0.18	89	23478-PeCDF-13C..	2.00	58
				12378-PeCDD-13C..	2.00	63
				123478-HxCDF-13C.	2.00	61
12378-PeCDF	1.00	1.11	111	123678-HxCDF-13C.	2.00	33
23478-PeCDF	1.00	0.98	98	234678-HxCDF-13C.	2.00	51
				123789-HxCDF-13C.	2.00	59
				123478-HxCDD-13C.	2.00	55
12378-PeCDD	1.00	0.98	98	123678-HxCDD-13C.	2.00	55
123478-HxCDF	1.00	0.94	94	RECOVERY STANDARDS		
123678-HxCDF	1.00	1.00	100			
234678-HxCDF	1.00	0.99	99			
123789-HxCDF	1.00	1.02	102	1234-TCDD-13C....	2.00	NA
				123789-HxCDD-13C.	2.00	NA
123478-HxCDD	1.00	0.92	92			
123678-HxCDD	1.00	1.01	101			
123789-HxCDD	1.00	1.06	106			

Qs = Quantity Spiked
Qm = Quantity Measured
REC = Recovery (Expressed as Percent)
NA = Not Applicable

TCT Invoice Number....4411 05-10430

Huntingdon

```
*******************************
*TWIN CITY TESTING CORPORATION*
*   PCDD/PCDF SPIKE RESULTS   *
*******************************
     Client....SWL
```

Client's Sample ID.....9410061-20D-MSD PD-2 MSD
TCT Sample ID.....42745-MSD
Analysis Date.....10/21/94 12:44
Filename.....V41021D
Sample Injected By.....JMM
Total Amount Extracted..... 0.48 L
% Moisture.....NA
ICAL Date.....9/26/94
CCAL Filename.....V41021A
Method Blank ID.....BLANK-43045
Extraction Date.....10/13/94

NATIVE ISOMERS	Qs (ng)	Qm (ng)	% REC	INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF	0.20	0.23	116	2378-TCDF-13C....	2.00	66
				2378-TCDD-13C....	2.00	62
				12378-PeCDF-13C..	2.00	79
2378-TCDD	0.20	0.23	117	23478-PeCDF-13C..	2.00	70
				12378-PeCDD-13C..	2.00	66
				123478-HxCDF-13C.	2.00	62
12378-PeCDF	1.00	1.06	106	123678-HxCDF-13C.	2.00	38
23478-PeCDF	1.00	1.17	117	234678-HxCDF-13C.	2.00	61
				123789-HxCDF-13C.	2.00	74
				123478-HxCDD-13C.	2.00	62
12378-PeCDD	1.00	1.13	113	123678-HxCDD-13C.	2.00	65
123478-HxCDF	1.00	1.13	113	RECOVERY STANDARDS		
123678-HxCDF	1.00	1.07	107			
234678-HxCDF	1.00	1.18	118			
123789-HxCDF	1.00	1.16	116	1234-TCDD-13C....	2.00	NA
				123789-HxCDD-13C.	2.00	NA
123478-HxCDD	1.00	1.03	103			
123678-HxCDD	1.00	1.11	111			
123789-HxCDD	1.00	1.11	111			

Qs = Quantity Spiked
Qm = Quantity Measured
REC = Recovery (Expressed as Percent)
NA = Not Applicable

TCT Invoice Number....4411 05-10430

Huntingdon

```
*******************************
*TWIN CITY TESTING CORPORATION*
* PCDF/PCDD ANALYSIS RESULTS  *
*******************************
      Client....SWL
```

MS/MSD RECOVERY RELATIVE PERCENT DIFFERENCE (RPD) RESULTS

MS ID.....9410061-20D-MS
MS Filename.....V41021C
MSD ID.....9410061-20D-MSD
MSD Filename.....V41021D

COMPOUND	MS REC,%	MSD REC,%	RPD,%
2378-TCDF	94	116	21.0
2378-TCDD	89	117	27.2
12378-PeCDF	111	106	4.6
23478-PeCDF	98	117	17.7
12378-PeCDD	98	113	14.2
123478-HxCDF	94	113	18.4
123678-HxCDF	100	107	6.8
234678-HxCDF	99	118	17.5
123789-HxCDF	102	116	12.8
123478-HxCDD	92	103	11.3
123678-HxCDD	101	111	9.4
123789-HxCDD	106	111	4.6

MS = Matrix Spike
MSD = Matrix Spike Duplicate
REC = Percent Recovered
RPD = The difference between the two values divided by the average.
NA = Not Applicable

TCT Invoice Number....4411 05-10430

TABLE 5A
PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

Initial Calibration Date: 26-SEP-94

Instrument ID: 70VSE GC Column ID: db5

CS1 Data Filename: V40926B

CS2 Data Filename: V40926C

CS3 Data Filename: V40926D

CS4 Data Filename: V40926E

CS5 Data Filename: V40926F

	RELATIVE RESPONSE (RR)					MEAN RR	Cv (%RSD)
NATIVE ANALYTES	CS1	CS2	CS3	CS4	CS5		
2,3,7,8-TCDD	0.9758	0.9199	0.8784	0.8886	0.9182	0.9162	4.1
1,2,3,7,8-PeCDD	0.8146	0.8145	0.7965	0.7653	0.8178	0.8017	2.7
1,2,3,4,7,8-HxCDD	1.0734	0.9355	1.0143	0.9158	0.9643	0.9807	6.5
1,2,3,6,7,8-HxCDD	0.8013	0.8024	0.7664	0.8021	0.8331	0.8010	2.9
1,2,3,7,8,9-HxCDD	0.8819	0.7992	0.8558	0.7931	0.8926	0.8445	5.5
1,2,3,4,6,7,8-HpCDD	1.0369	1.0536	1.0517	1.0173	1.0362	1.0391	1.4
OCDD	1.1357	1.1121	1.1471	1.1044	1.1930	1.1384	3.1
2,3,7,8-TCDF	1.0940	1.0955	1.0892	1.0398	1.0242	1.0685	3.2
1,2,3,7,8-PeCDF	0.9046	0.8979	0.9336	0.9322	0.9667	0.9270	3.0
2,3,4,7,8-PeCDF	0.9848	0.9953	1.0265	1.0198	1.0593	1.0171	2.9
1,2,3,4,7,8-HxCDF	1.2843	1.3181	1.3964	1.3385	1.3451	1.3365	3.1
1,2,3,6,7,8-HxCDF	1.3143	1.2517	1.2492	1.4056	1.2062	1.2854	6.0
1,2,3,7,8,9-HxCDF	1.3894	1.2889	1.3553	1.3595	1.2861	1.3358	3.4
2,3,4,6,7,8-HxCDF	1.2772	1.1689	1.2294	1.1642	1.2299	1.2139	3.9
1,2,3,4,6,7,8-HpCDF	1.4375	1.3789	1.3724	1.4140	1.3927	1.3991	1.9
1,2,3,4,7,8,9-HpCDF	1.4127	1.3739	1.3735	1.3848	1.3636	1.3817	1.4
OCDF	1.2357	1.1890	1.2048	1.1084	1.2426	1.1961	4.5

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TABLE 5B
PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

Initial Calibration Date: 26-SEP-94

Instrument ID: 70VSE GC Column ID: db5

CS1 Data Filename: V40926B

CS2 Data Filename: V40926C

CS3 Data Filename: V40926D

CS4 Data Filename: V40926E

CS5 Data Filename: V40926F

	RELATIVE RESPONSE (RR)					MEAN RR	Cv (%RSD)
	CS1	CS2	CS3	CS4	CS5		
LABELED COMPOUNDS							
13C-2,3,7,8-TCDD	0.9511	0.8080	0.8929	0.9494	0.9829	0.9169	7.5
13C-1,2,3,7,8-PeCDD	0.6564	0.6992	0.5830	0.7284	0.7861	0.6906	11
13C-1,2,3,4,7,8-HxCDD	0.8904	0.8691	0.8192	0.9521	0.8972	0.8856	5.4
13C-1,2,3,6,7,8-HxCDD	1.1324	1.3039	1.2215	1.1909	1.1202	1.1938	6.2
13C-1,2,3,4,6,7,8-HpCDD	0.8743	0.5622	0.6954	0.9224	0.8515	0.7811	19
13C-OCDD	0.6323	0.4022	0.3754	0.5748	0.5507	0.5071	22
13C-2,3,7,8-TCDF	1.1286	1.1370	1.1088	1.2746	1.2737	1.1846	7.0
13C-1,2,3,7,8-PeCDF	1.0632	1.0863	0.9458	1.1568	1.1884	1.0881	8.7
13C-2,3,4,7,8-PeCDF	0.9430	0.9151	0.8365	1.0229	1.0741	0.9583	9.7
13C-1,2,3,4,7,8-HxCDF	1.1074	1.1715	1.0755	1.1741	1.0865	1.1230	4.2
13C-1,2,3,6,7,8-HxCDF	1.1473	1.4004	1.3339	1.1781	1.2741	1.2667	8.3
13C-1,2,3,7,8,9-HxCDF	0.8766	0.7724	0.7702	0.8298	0.8264	0.8151	5.5
13C-2,3,4,6,7,8-HxCDF	1.1038	1.2175	1.0993	1.2098	1.0301	1.1321	7.1
13C-1,2,3,4,6,7,8-HpCDF	0.9040	0.7909	0.8116	1.0094	0.9111	0.8854	9.9
13C-1,2,3,4,7,8,9-HpCDF	0.7629	0.5934	0.5092	0.7458	0.7000	0.6623	16
CLEANUP STANDARD							
37Cl-2,3,7,8-TCDD	0.9764	0.7803	0.9444	0.9696	0.9955	0.9333	9.4

TABLE 6A
PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

Initial Calibration Date: 26-SEP-94

Instrument ID: 70VSE GC Column ID: db5

CS1 Data Filename: V40926B

CS2 Data Filename: V40926C

CS3 Data Filename: V40926D

CS4 Data Filename: V40926E

CS5 Data Filename: V40926F

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUNDANCE RATIO CS1	CS2	CS3	CS4	CS5	QC LIMITS (2)
2,3,7,8-TCDD	M/M+2	0.69	0.71	0.79	0.82	0.78	0.65-0.89
1,2,3,7,8-PeCDD	M+2/M+4	1.63	1.49	1.61	1.65	1.53	1.32-1.78
1,2,3,4,7,8-HxCDD	M+2/M+4	1.27	1.28	1.33	1.24	1.25	1.05-1.43
1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.18	1.15	1.29	1.27	1.05-1.43
1,2,3,7,8,9-HxCDD	M+2/M+4	1.29	1.18	1.22	1.25	1.25	1.05-1.43
1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.97	0.94	1.06	1.01	1.06	0.88-1.20
OCDD	M+2/M+4	0.91	0.91	0.86	0.91	0.91	0.76-1.02
2,3,7,8-TCDF	M/M+2	0.86	0.76	0.76	0.76	0.78	0.65-0.89
1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.57	1.55	1.62	1.58	1.32-1.78
2,3,4,7,8-PeCDF	M+2/M+4	1.65	1.60	1.56	1.60	1.58	1.32-1.78
1,2,3,4,7,8-HxCDF	M+2/M+4	1.24	1.29	1.26	1.23	1.25	1.05-1.43
1,2,3,6,7,8-HxCDF	M+2/M+4	1.27	1.25	1.25	1.22	1.24	1.05-1.43
1,2,3,7,8,9-HxCDF	M+2/M+4	1.25	1.33	1.25	1.23	1.24	1.05-1.43
2,3,4,6,7,8-HxCDF	M+2/M+4	1.22	1.26	1.28	1.23	1.27	1.05-1.43
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.01	1.07	1.02	1.01	1.06	0.88-1.20
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.05	0.98	1.08	1.00	1.06	0.88-1.20
OCDF	M+2/M+4	0.88	0.84	0.87	0.85	0.84	0.76-1.02

TABLE 6B
PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

Initial Calibration Date: 26-SEP-94

Instrument ID: 70VSE GC Column ID: db5

CS1 Data Filename: V40926B

CS2 Data Filename: V40926C

CS3 Data Filename: V40926D

CS4 Data Filename: V40926E

CS5 Data Filename: V40926F

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUNDANCE RATIO CS1	CS2	CS3	CS4	CS5	QC LIMITS (2)
13C-2,3,7,8-TCDD	M/M+2	0.77	0.77	0.78	0.78	0.79	0.65-0.89
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.51	1.54	1.55	1.62	1.55	1.32-1.78
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.21	1.17	1.30	1.26	1.23	1.05-1.43
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.21	1.21	1.30	1.27	1.24	1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.00	1.02	0.97	1.03	1.03	0.88-1.20
13C-OCDD	M+2/M+4	0.96	0.89	0.97	0.89	0.95	0.76-1.02
13C-2,3,7,8-TCDF	M+2/M+4	0.75	0.81	0.78	0.81	0.80	0.65-0.89
13C-1,2,3,7,8-PeCDF	M/M+2	1.62	1.61	1.61	1.66	1.55	1.32-1.78
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.61	1.67	1.62	1.62	1.54	1.32-1.78
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.57	0.56	0.55	0.58	0.54	0.43-0.59
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.56	0.55	0.54	0.56	0.54	0.43-0.59
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.56	0.56	0.54	0.57	0.54	0.43-0.59
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.58	0.54	0.54	0.54	0.54	0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.48	0.47	0.48	0.45	0.46	0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.47	0.44	0.48	0.45	0.46	0.37-0.51

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FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION - METHOD 8290

26 Smt 10/24/94 TE

Initial Calibration Date: 9/~~29~~/94

Instrument ID: 70VSE GC Column ID: db5

VER Data Filename: V41021A Analysis Date: 21-OCT-94 Time: 09:23

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	CONC. FOUND	CONC. RANGE (ng/mL)
2,3,7,8-TCDD	M/M+2	0.82	0.65-0.89	9.54	8.0 - 12
1,2,3,7,8-PeCDD	M+2/M+4	1.59	1.32-1.78	47.30	40 - 60
1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	52.44	40 - 60
1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	46.84	40 - 60
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	49.71	40 - 60
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.10	0.88-1.20	46.51	40 - 60
OCDD	M+2/M+4	0.91	0.76-1.02	102.78	80 - 120
2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	9.86	8.0 - 12
1,2,3,7,8-PeCDF	M+2/M+4	1.62	1.32-1.78	50.61	40 - 60
2,3,4,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	50.02	40 - 60
1,2,3,4,7,8-HxCDF	M+2/M+4	1.28	1.05-1.43	54.39	40 - 60
1,2,3,6,7,8-HxCDF	M+2/M+4	1.16	1.05-1.43	57.21	40 - 60
1,2,3,7,8,9-HxCDF	M+2/M+4	1.24	1.05-1.43	54.00	40 - 60
2,3,4,6,7,8-HxCDF	M+2/M+4	1.20	1.05-1.43	53.84	40 - 60
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.01	0.88-1.20	52.54	40 - 60
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.01	0.88-1.20	47.00	40 - 60
OCDF	M+2/M+4	0.93	0.76-1.02	91.17	80 - 120

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FORM 4B

PCDD/PCDF CALIBRATION VERIFICATION - METHOD 8290

Initial Calibration Date: 9/~~29~~ 26/94 Sum 10/24/94 TC

Instrument ID: 70VSE GC Column ID: db5

VER Data Filename: V41021A Analysis Date: 21-OCT-94 Time: 09:23

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	CONC. FOUND	CONC. RANGE (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.77	0.65-0.89	77.27	70 - 130
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.64	1.32-1.78	99.02	70 - 130
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	92.98	70 - 130
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	100.73	70 - 130
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	0.98	0.88-1.20	111.70	70 - 130
13C-OCDD	M+2/M+4	0.95	0.76-1.02	206.83	140 - 260
13C-2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	100.11	70 - 130
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.60	1.32-1.78	92.76	70 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.60	1.32-1.78	96.68	70 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.58	0.43-0.59	80.15	70 - 130
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.56	0.43-0.59	74.61	70 - 130
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.58	0.43-0.59	82.78	70 - 130
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.58	0.43-0.59	84.21	70 - 130
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.43	0.37-0.51	86.90	70 - 130
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.43	0.37-0.51	94.05	70 - 130
CLEANUP STANDARD					
37Cl-2,3,7,8-TCDD				7.87	7.0 - 13

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FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION - METHOD 8290

Initial Calibration Date: 9/~~29~~ 26/94 Sw 10/24/94 TC

Instrument ID: 70VSE GC Column ID: db5

VER Data Filename: V410211 Analysis Date: 21-OCT-94 Time: 22:10

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	CONC. FOUND	CONC. RANGE (ng/mL)
2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	11.18	8.0 - 12
1,2,3,7,8-PeCDD	M+2/M+4	1.58	1.32-1.78	53.19	40 - 60
1,2,3,4,7,8-HxCDD	M+2/M+4	1.36	1.05-1.43	50.02	40 - 60
1,2,3,6,7,8-HxCDD	M+2/M+4	1.38	1.05-1.43	56.54	40 - 60
1,2,3,7,8,9-HxCDD	M+2/M+4	1.32	1.05-1.43	58.70	40 - 60
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	50.24	40 - 60
OCDD	M+2/M+4	0.95	0.76-1.02	114.06	80 - 120
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	11.31	8.0 - 12
1,2,3,7,8-PeCDF	M+2/M+4	1.61	1.32-1.78	59.20	40 - 60
2,3,4,7,8-PeCDF	M+2/M+4	1.61	1.32-1.78	59.84	40 - 60
1,2,3,4,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	50.40	40 - 60
1,2,3,6,7,8-HxCDF	M+2/M+4	1.28	1.05-1.43	57.37	40 - 60
1,2,3,7,8,9-HxCDF	M+2/M+4	1.24	1.05-1.43	53.79	40 - 60
2,3,4,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	55.44	40 - 60
1,2,3,4,6,7,8-HpCDF	M+2/M+4	0.97	0.88-1.20	59.08	40 - 60
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.01	0.88-1.20	52.72	40 - 60
OCDF	M+2/M+4	0.87	0.76-1.02	118.85	80 - 120

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FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION - METHOD 8290

Initial Calibration Date: 9/~~29~~ 26/94 Sum 10/24/94 RE

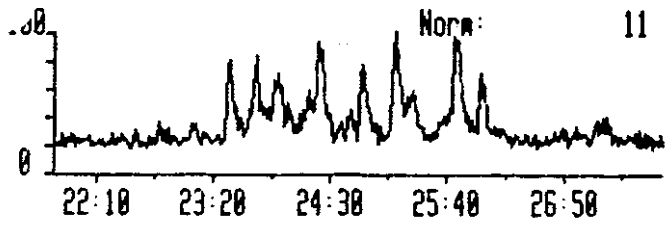
Instrument ID: 70VSE GC Column ID: db5

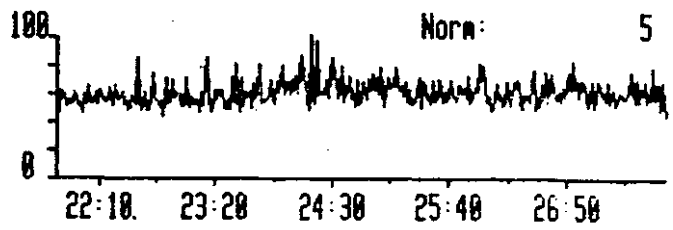
VER Data Filename: V410211 Analysis Date: 21-OCT-94 Time: 22:10

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	CONC. FOUND	CONC. RANGE (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.83	0.65-0.89	70.85	70 - 130
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.58	1.32-1.78	92.95	70 - 130
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.33	1.05-1.43	97.10	70 - 130
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.33	1.05-1.43	78.59	70 - 130
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	90.13	70 - 130
13C-OCDD	M+2/M+4	0.97	0.76-1.02	170.09	140 - 260
13C-2,3,7,8-TCDF	M/M+2	0.76	0.65-0.89	114.79	70 - 130
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.60	1.32-1.78	128.93	70 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.60	1.32-1.78	102.03	70 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.56	0.43-0.59	107.12	70 - 130
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.58	0.43-0.59	119.13	70 - 130
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.59	0.43-0.59	103.98	70 - 130
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.58	0.43-0.59	108.32	70 - 130
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.50	0.37-0.51	91.54	70 - 130
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.49	0.37-0.51	94.36	70 - 130
CLEANUP STANDARD					
37Cl-2,3,7,8-TCDD				7.71	7.0 - 13

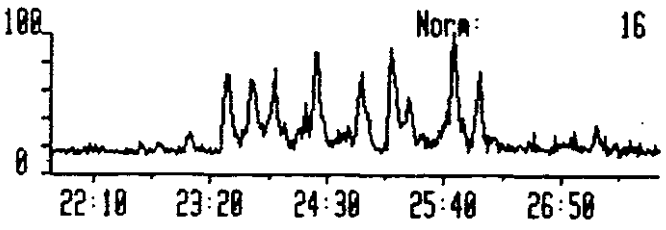
APPENDIX D

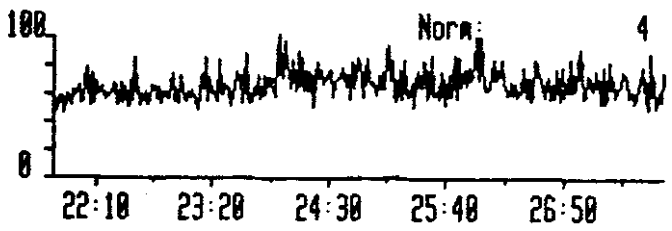
V41021H 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 303.9016 Sample 1 Injection 1 Group 1 Mass 319.8965
Text:TCT42742 9410061-20A Text:TCT42742 9410061-20A



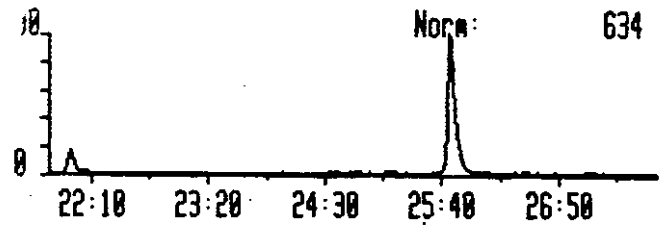


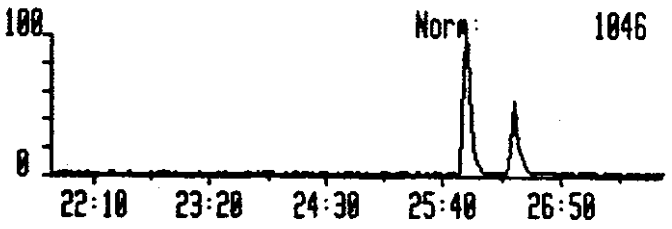
V41021H 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 305.8987 Sample 1 Injection 1 Group 1 Mass 321.8936
Text:TCT42742 9410061-20A Text:TCT42742 9410061-20A



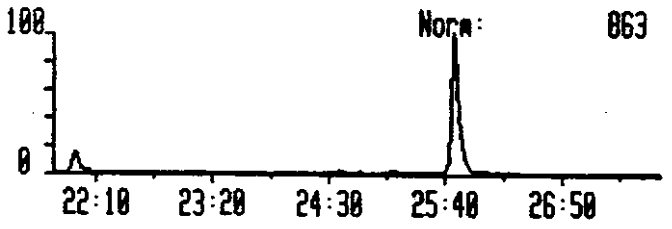


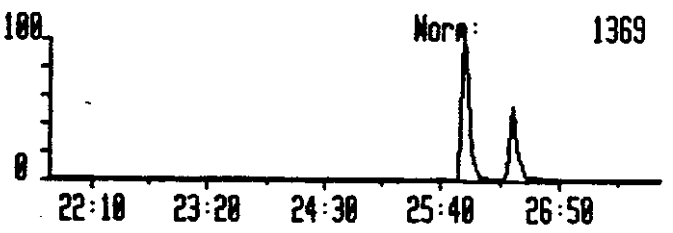
V41021H 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 315.9418 Sample 1 Injection 1 Group 1 Mass 331.9367
Text:TCT42742 9410061-20A Text:TCT42742 9410061-20A



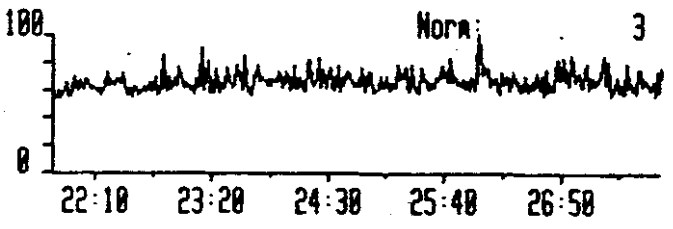


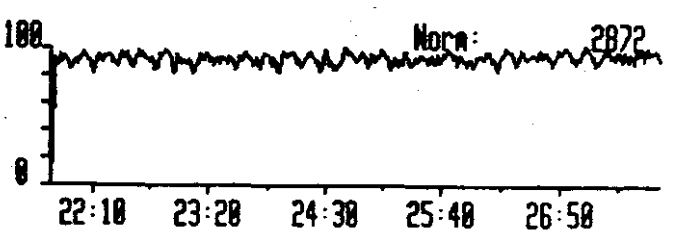
V41021H 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 317.9389 Sample 1 Injection 1 Group 1 Mass 333.9338
Text:TCT42742 9410061-20A Text:TCT42742 9410061-20A



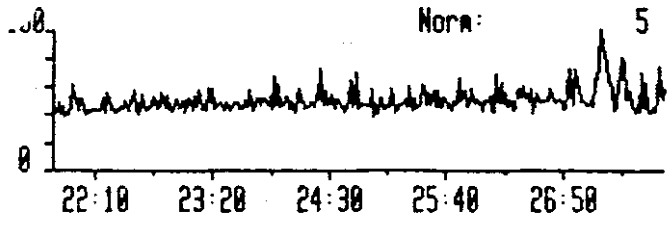


V41021H 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 375.8367 Sample 1 Injection 1 Group 1 Mass 318.9793
Text:TCT42742 9410061-20A Text:TCT42742 9410061-20A

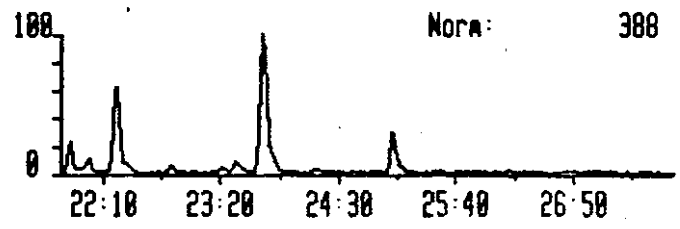




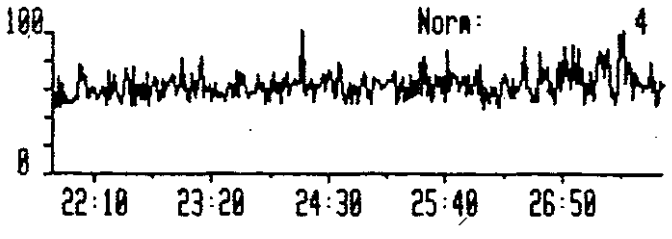
V41021H 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 339.8597
Text:TCT42742 9410061-20A



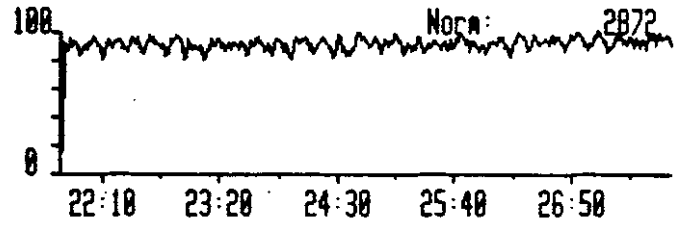
[illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 327.8847
Text:TCT42742 9410061-20A



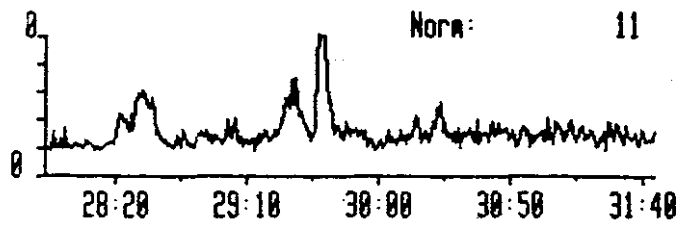
V41021H 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 341.8567
Text:TCT42742 9410061-20A

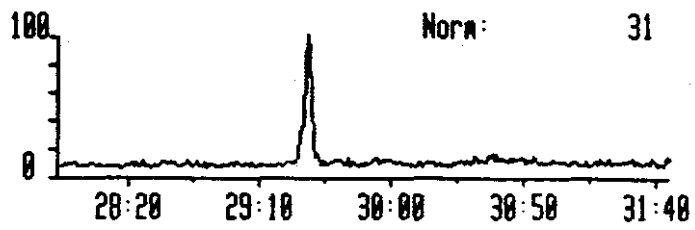


[illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 318.9793
Text:TCT42742 9410061-20A

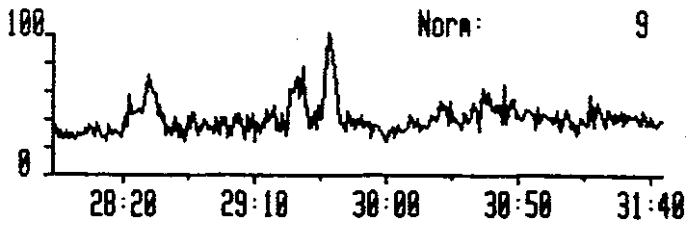


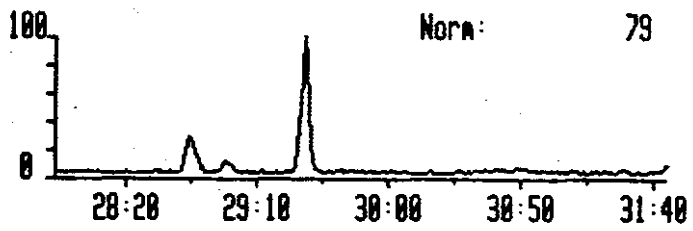
V41021H 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 339.8597 Sample 1 Injection 1 Group 2 Mass 355.8546
Text:TCT42742 9410061-20A Text:TCT42742 9410061-20A



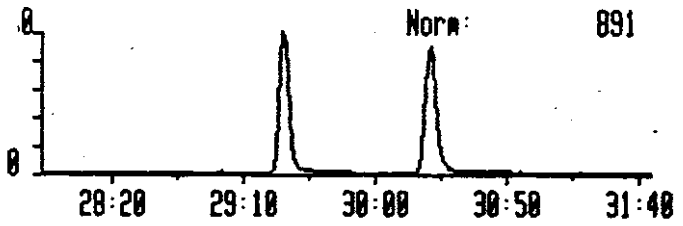


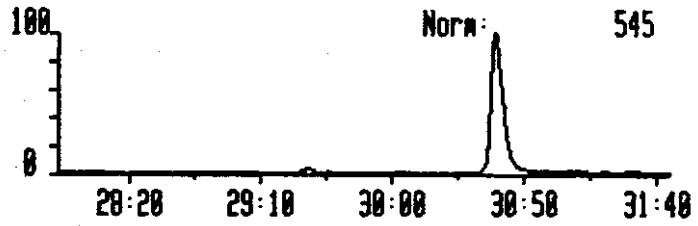
V41021H 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 341.8567 Sample 1 Injection 1 Group 2 Mass 357.8517
Text:TCT42742 9410061-20A Text:TCT42742 9410061-20A



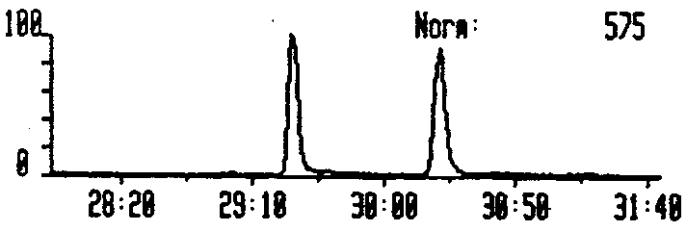


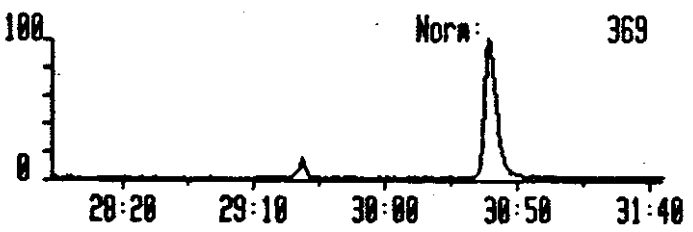
V41021H 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 351.8999 Sample 1 Injection 1 Group 2 Mass 367.8948
Text:TCT42742 9410061-20A Text:TCT42742 9410061-20A



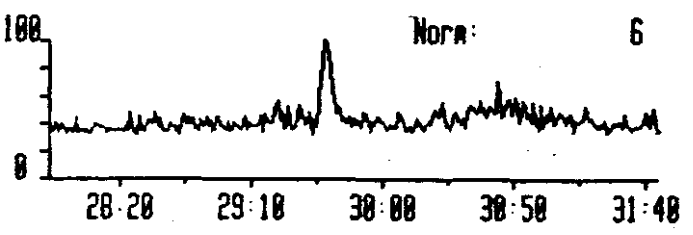


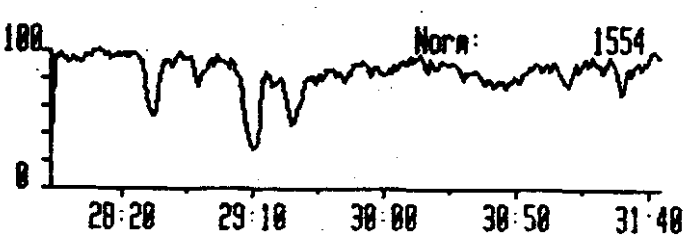
V41021H 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 353.8969 Sample 1 Injection 1 Group 2 Mass 369.8918
Text:TCT42742 9410061-20A Text:TCT42742 9410061-20A



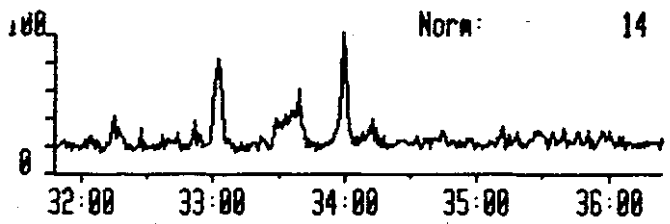


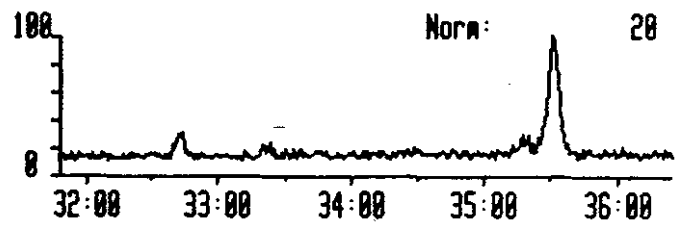
V41021H 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 409.7974 Sample 1 Injection 1 Group 2 Mass 354.9792
Text:TCT42742 9410061-20A Text:TCT42742 9410061-20A



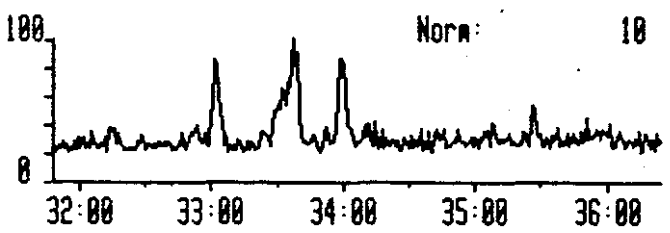


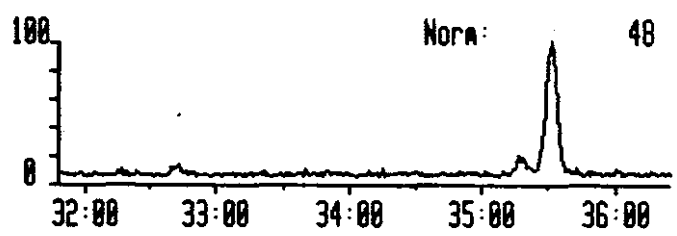
V41021H 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 373.8207 Sample 1 Injection 1 Group 3 Mass 389.8156
Text:TCT42742 9410061-20A Text:TCT42742 9410061-20A



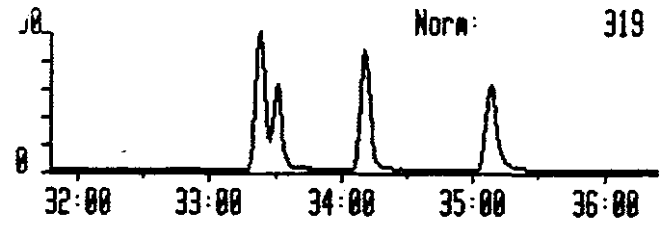


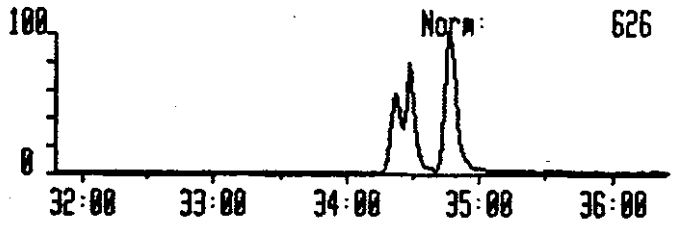
V41021H 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 375.8178 Sample 1 Injection 1 Group 3 Mass 391.8127
Text:TCT42742 9410061-20A Text:TCT42742 9410061-20A



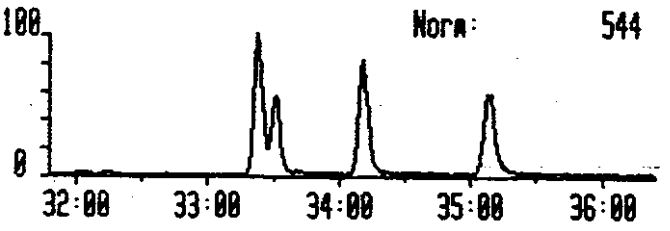


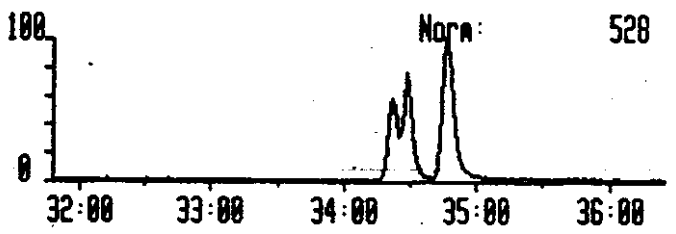
V41021H 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 383.8642 Sample 1 Injection 1 Group 3 Mass 401.8558
Text:TCT42742 9410061-20A Text:TCT42742 9410061-20A



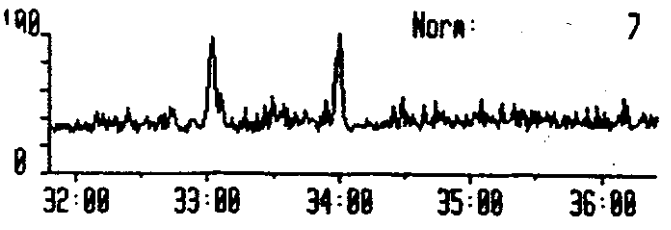


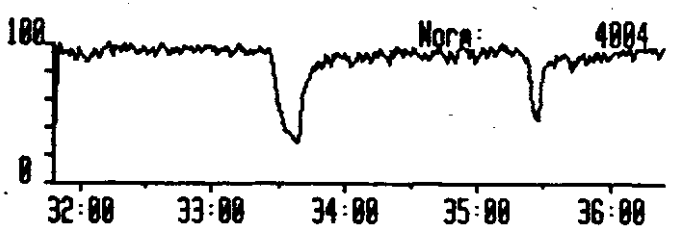
V41021H 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 385.8609 Sample 1 Injection 1 Group 3 Mass 403.8529
Text:TCT42742 9410061-20A Text:TCT42742 9410061-20A



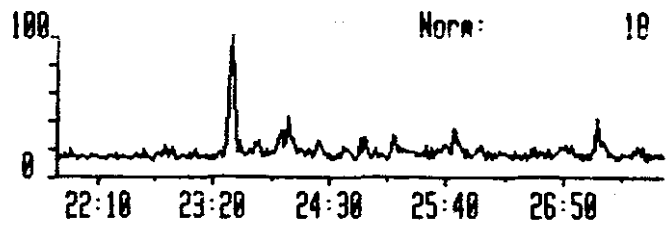


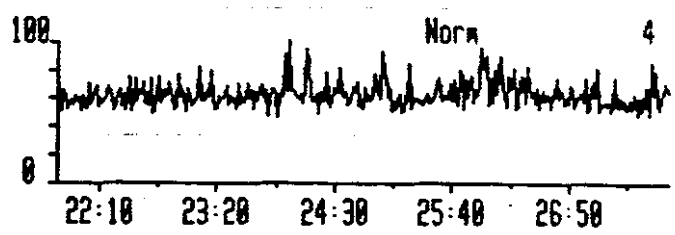
V41021H 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 445.7555 Sample 1 Injection 1 Group 3 Mass 380.9761
Text:TCT42742 9410061-20A Text:TCT42742 9410061-20A



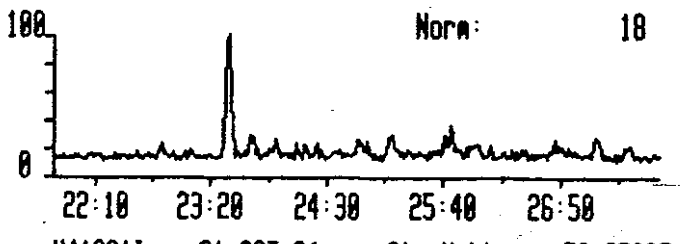


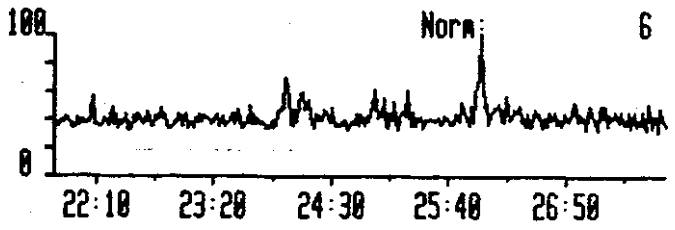
V41021I 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 303.9816 Sample 1 Injection 1 Group 1 Mass 319.8965
Text:TCT42743 9410061-20B Text:TCT42743 9410061-20B



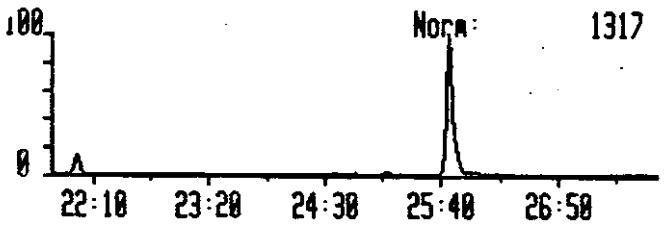


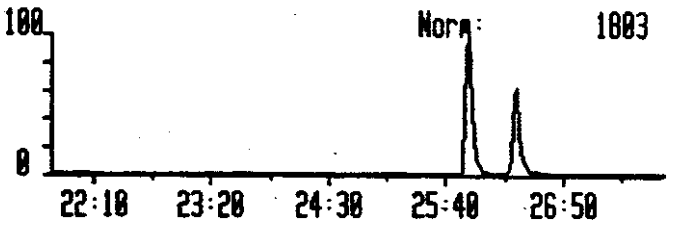
V41021I 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 305.8987 Sample 1 Injection 1 Group 1 Mass 321.8936
Text:TCT42743 9410061-20B Text:TCT42743 9410061-20B



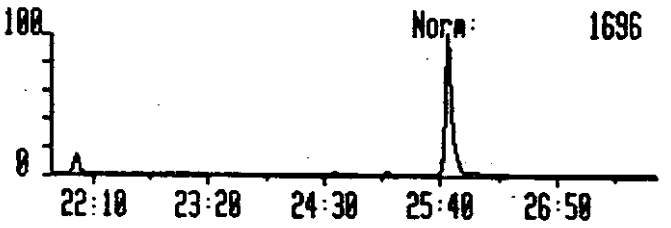


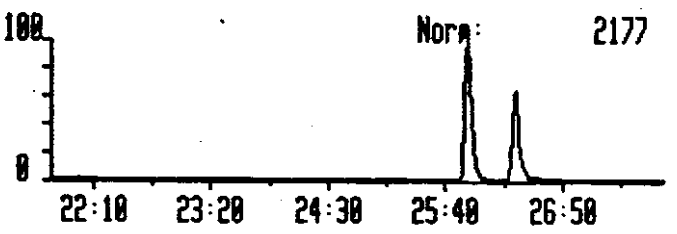
V41021I 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 315.9418 Sample 1 Injection 1 Group 1 Mass 331.9367
Text:TCT42743 9410061-20B Text:TCT42743 9410061-20B



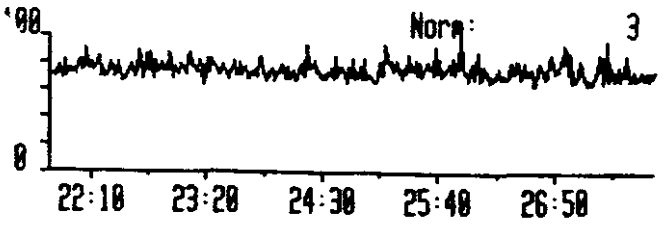


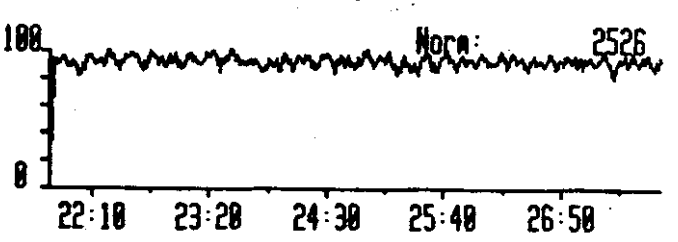
V41021I 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 317.9389 Sample 1 Injection 1 Group 1 Mass 333.9338
Text:TCT42743 9410061-20B Text:TCT42743 9410061-20B



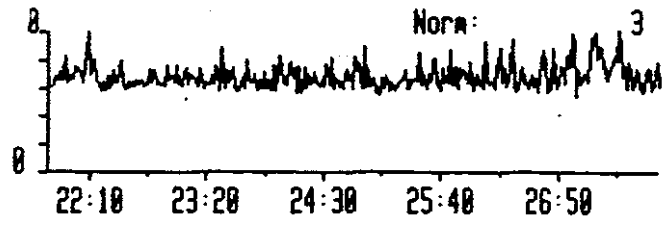


V41021I 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 375.8367 Sample 1 Injection 1 Group 1 Mass 318.9793
Text:TCT42743 9410061-20B Text:TCT42743 9410061-20B

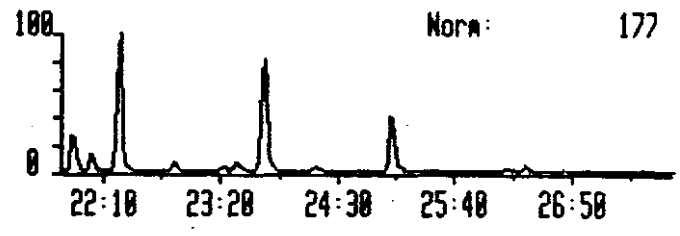




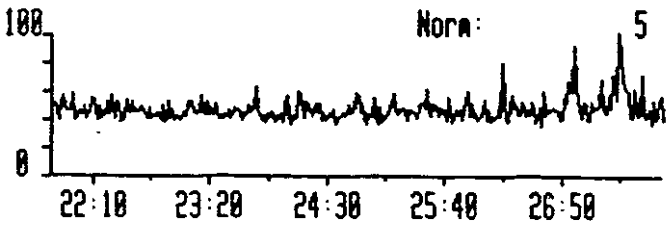
V41021I 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted]
Sample 1 Injection 1 Group 1 Mass 339.8597
Text:TCT42743 9410061-20B



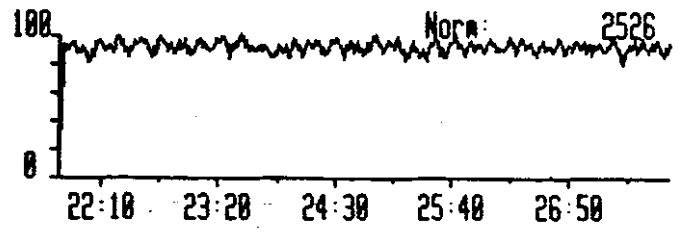
[redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 327.8847
Text:TCT42743 9410061-20B



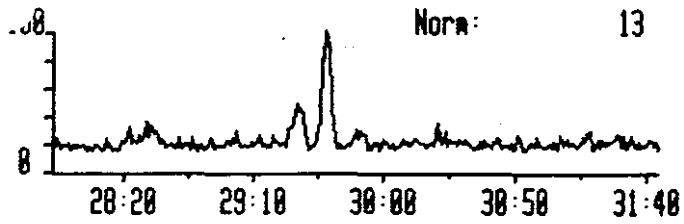
V41021I 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted]
Sample 1 Injection 1 Group 1 Mass 341.8567
Text:TCT42743 9410061-20B

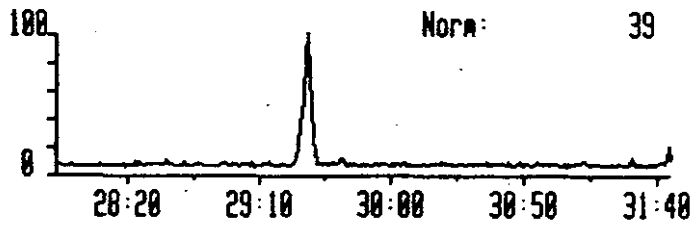


[redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 318.9793
Text:TCT42743 9410061-20B

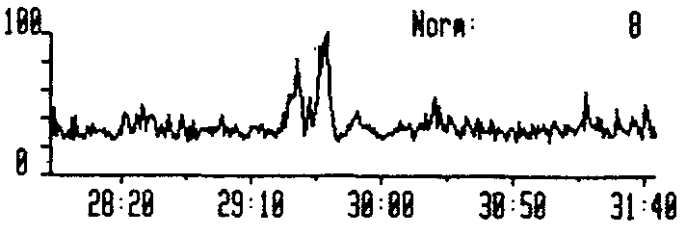


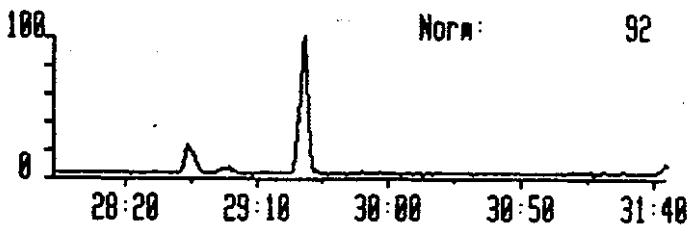
V41021I 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 339.8597 Sample 1 Injection 1 Group 2 Mass 355.8546
Text:TCT42743 9410061-20B Text:TCT42743 9410061-20B



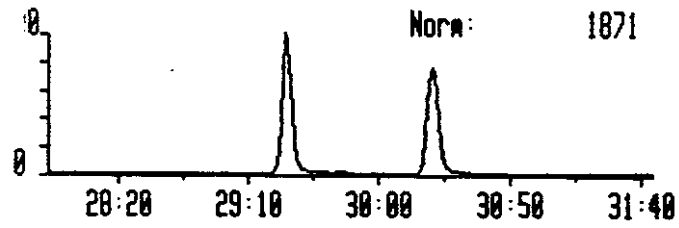


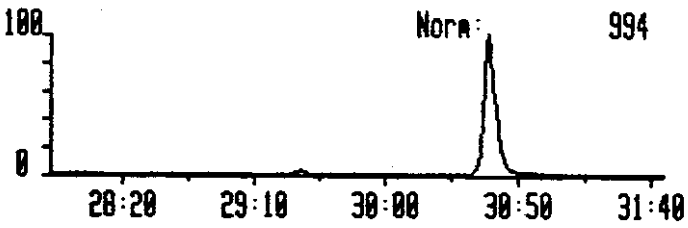
V41021I 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 341.8567 Sample 1 Injection 1 Group 2 Mass 357.8517
Text:TCT42743 9410061-20B Text:TCT42743 9410061-20B



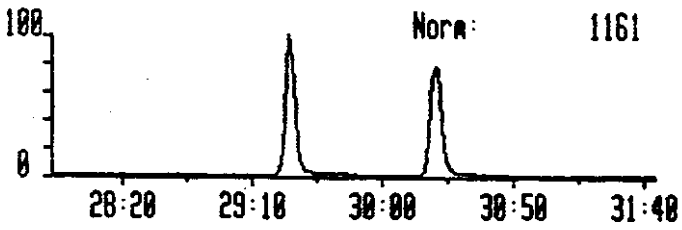


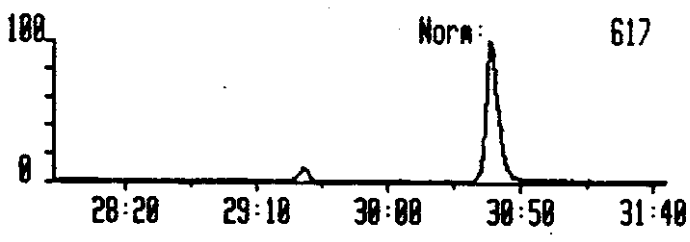
V41021I 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 351.8999 Sample 1 Injection 1 Group 2 Mass 367.8948
Text:TCT42743 9410061-20B Text:TCT42743 9410061-20B



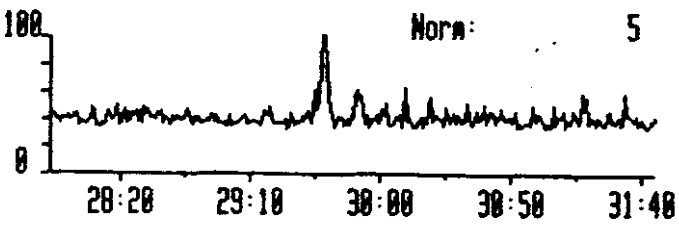


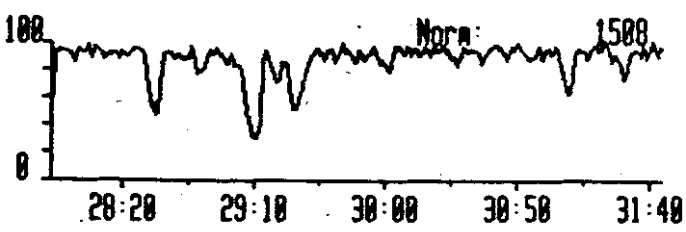
V41021I 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 353.8969 Sample 1 Injection 1 Group 2 Mass 369.8918
Text:TCT42743 9410061-20B Text:TCT42743 9410061-20B



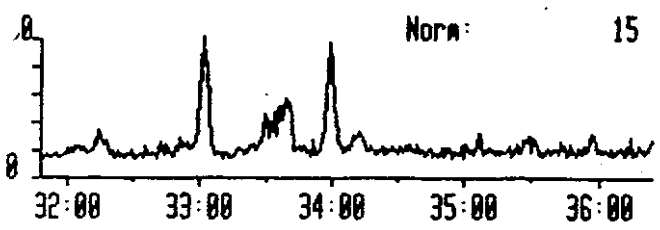


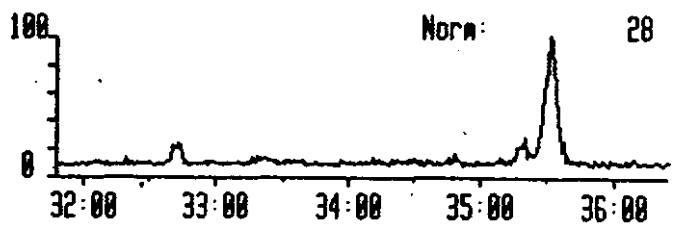
V41021I 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 409.7974 Sample 1 Injection 1 Group 2 Mass 354.9792
Text:TCT42743 9410061-20B Text:TCT42743 9410061-20B



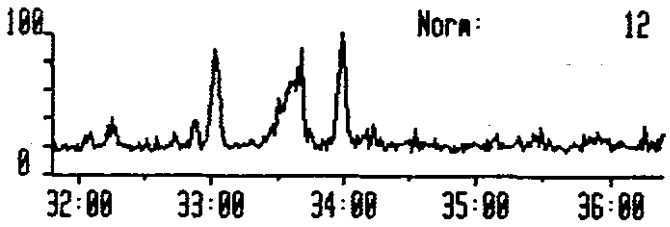


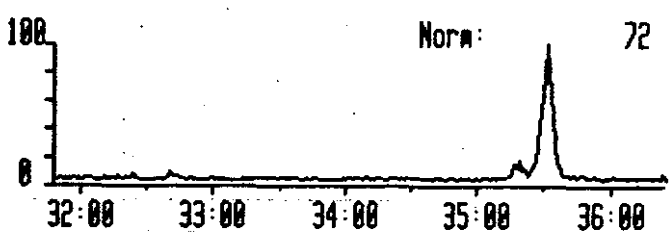
V41021I 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 373.8207 Sample 1 Injection 1 Group 3 Mass 389.8156
Text:TCT42743 9410061-20B Text:TCT42743 9410061-20B



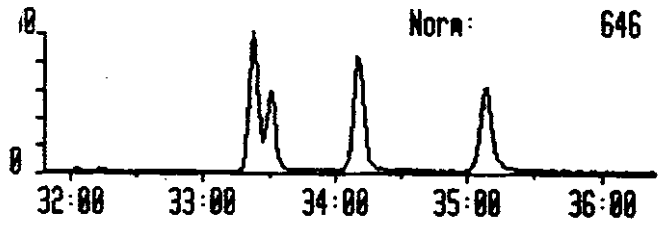


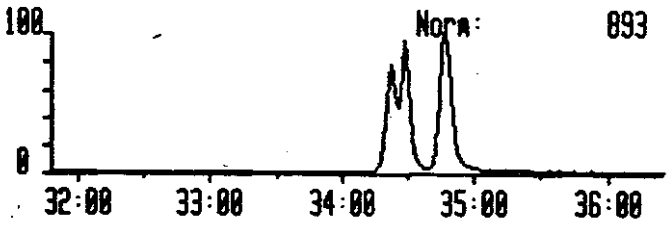
V41021I 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 375.8178 Sample 1 Injection 1 Group 3 Mass 391.8127
Text:TCT42743 9410061-20B Text:TCT42743 9410061-20B



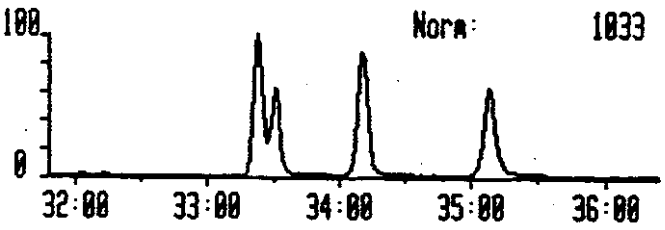


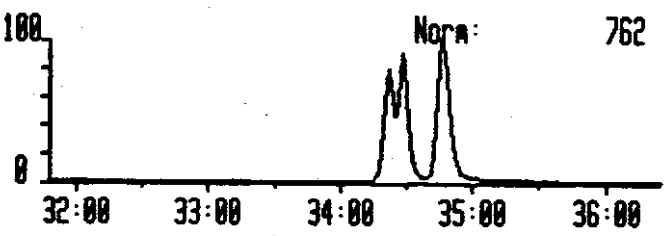
V41021I 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 383.8642 Sample 1 Injection 1 Group 3 Mass 401.8558
Text:TCT42743 9410061-20B Text:TCT42743 9410061-20B



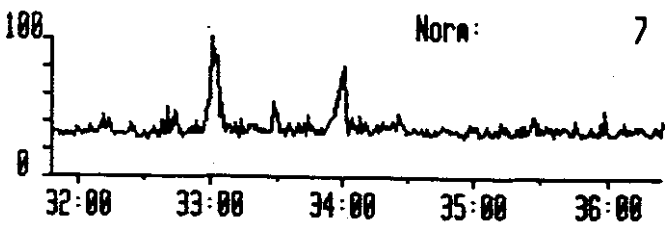


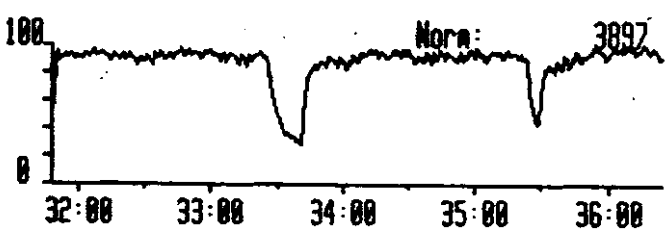
V41021I 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 385.8609 Sample 1 Injection 1 Group 3 Mass 403.8529
Text:TCT42743 9410061-20B Text:TCT42743 9410061-20B





V41021I 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 445.7555 Sample 1 Injection 1 Group 3 Mass 380.9761
Text:TCT42743 9410061-20B Text:TCT42743 9410061-20B





PCDD/PCDF ANALYSES--EPA METHOD 8290

Sample ID (TCT #)	42742
Client	SWL
Client's Sample ID	941006I-20A
TCT Invoice Number	4411 95-10430
Data Recorded By	Smt
Analysis Date	10/21/94 Time 17:19
Sample Injected By	CVS
Filename	V41021H
Total Amount Extracted	1.01 L
Reported Conc. Units	ng/L
% Moisture (or NA)	NA
ICAL Date	9/26/94
CCAL Filename	V41021A
Method Blank ID	BLANK-43045
Extraction Date	10/13/94
TEFs (87 or 89)	–
Confirm (1 or 0)	–

Standard Levels, nanograms		
2378-TCDF*	2.0	
2378-TCDD*	2.0	
12378-PeCDF*	2.0	
23478-PeCDF*	2.0	
12378-PeCDD*	2.0	
123478-HxCDF*	2.0	
123678-HxCDF*	2.0	
234678-HxCDF*	2.0	
123789-HxCDF*	2.0	
123478-HxCDD*	2.0	
123678-HxCDD*	2.0	
1234678-HpCDF*	2.0	
1234789-HpCDF*	2.0	
1234678-HpCDD*	2.0	
OCDD*	4.0	
2378-TCDD-37Cl4	0.2	
1234-TCDD*	2.0	
123789-HxCDD*	2.0	

Tetra-Furans:		RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
2378-TCDF*		25:45	3120	4226	634	863		
2378-TCDF		25:45	33	46				
Other TCDF	1.	23:28	26	38				
	2.	23:47	~~19~~	~~34~~				R
	3.	23:59	20	30				
	4.	24:24	32	46				
	5.	24:30	~~24~~	~~39~~				R
	6.	25:10	36	50				
	7.	25:20	19	27				
	8.	26:00	21	29				
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							

Tetra-Dioxins:								
1234-TCDD*		25:53	4925	6491	xxx	xxx		
2378-TCDD*		26:21	2631	3448	541	700		
2378-TCDD-37Cl4			ND	xxx	xxx	xxx		
2378-TCDD					0.98	0.52		
Other TCDD	1.							
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

FILENAME: V41021H

		RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
Other TCDD	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							
Penta-Furans:								
12378-PeCDF*		28:26	3510	2270	882	569		
23478-PeCDF*		30:22	3757	2458	791	513		
12378-PeCDF		29:29	25	17				
23478-PeCDF					2.9/2.5	1.4		
Other PeCDF	1.	28:31	42	29				
	2.	29:38	~~36~~	~~22~~				E
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							
Penta-Dioxins:								
12378-PeCDD*		30:39	2817	1852	545	369		
12378-PeCDD					1.7	2.0		
Other PeCDD	1.	29:27	~~91~~	~~258~~				R
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

FILENAME: V410214

Hexa-Furans:		RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
123478-HxCDF*		33:24	1381	2356	319	544	0.59	
123678-HxCDF*		33:31	862	1453	202	307	0.59	LM
234678-HxCDF*		34:10	1224	2146	278	441	0.57	
123789-HxCDF*		35:08	1115	1881	198	312	0.59	
123478-HxCDF					1.2	1.2		
123678-HxCDF					2.7/2.5	3.1/2.5		I
234678-HxCDF					2.4	1.6		
123789-HxCDF					0.67	1.4		
Other HxCDF	1.	33:02	~~72~~	~~22~~				E
	2.	33:39	~~44~~	~~56~~				R
	3.	33:59	~~38~~	~~29~~				E
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							

Hexa-Dioxins:								
123478-HxCDD*		34:21	1615	1372	362	305		
123678-HxCDD*		34:28	2343	1836	491	402		
123789-HxCDD*		34:45	3416	2746	xxx	xxx		
123478-HxCDD					0.87	1.1		
123678-HxCDD					1.1	1.0		
123789-HxCDD					1.2	1.1		
Other HxCDD	1.	35:30	~~90~~	~~340~~				R
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							

Hepta-Furans:								
1234678-HpCDF*								
1234789-HpCDF*								
1234678-HpCDF								
1234789-HpCDF								
Other HpCDF	1.							
	2.							

Hepta-Dioxins:								
1234678-HpCDD*								
1234678-HpCDD								
Other HpCDD	1.							

OCDD*							
OCDF							
OCDD							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

PCDD/PCDF ANALYSES--EPA METHOD 8290

Sample ID (TCT #)	42743
Client	SWL
Client's Sample ID	9410061-20B
TCT Invoice Number	4411 95-10430
Data Recorded By	SWL
Analysis Date	10/21/94 Time 18:34
Sample Injected By	MCH
Filename	V41021I
Total Amount Extracted	0.99L
Reported Conc. Units	ng/L
% Moisture (or NA)	NA
ICAL Date	9/26/94
CCAL Filename	V41021A
Method Blank ID	BLANK-43045
Extraction Date	10/13/94
TEFs (87 or 89)	—
Confirm (1 or 0)	—

Standard Levels, nanograms		
2378-TCDF*	2.0	
2378-TCDD*	2.0	
12378-PeCDF*	2.0	
23478-PeCDF*	2.0	
12378-PeCDD*	2.0	
123478-HxCDF*	2.0	
123678-HxCDF*	2.0	
234678-HxCDF*	2.0	
123789-HxCDF*	2.0	
123478-HxCDD*	2.0	
123678-HxCDD*	2.0	
1234678-HpCDF*	2.0	
1234789-HpCDF*	2.0	
1234678-HpCDD*	2.0	
OCDD*	4.0	
2378-TCDD-37Cl4	0.2	
1234-TCDD*	2.0	
123789-HxCDD*	2.0	

Tetra-Furans:		RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
2378-TCDF*		25:45	5847	7676	1317	1696		
2378-TCDF		25:45	~~11~~	~~8.2~~	3.2/2.5	3.9/2.5		R
Other TCDF	1.	23:29	~~51~~	~~54~~				R
	2.	27:11	~~18~~	~~18~~				R
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							

Tetra-Dioxins:								
1234-TCDD*		25:53	7578	9310	xxx	xxx		
2378-TCDD*		26:21	4931	6210	1105	1370		
2378-TCDD-37Cl4			ND	xxx	xxx	xxx		
2378-TCDD					0.73	0.65		
Other TCDD	1.							
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

FILENAME: V4102I

		RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
Other TCDD	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							
Penta-Furans:								
12378-PeCDF*		29:25	7356	4690	1861	1153		
23478-PeCDF*		30:21	6792	4357	1414	883		
12378-PeCDF		29:27	~~20~~	~~19~~	3.9/2.5	1.8/2.5		R
23478-PeCDF					1.9	1.9		
Other PeCDF	1.	29:39	~~40~~	~~26~~				E
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							
Penta-Dioxins:								
12378-PeCDD*		30:39	4973	3212	994	617		
12378-PeCDD					0.66	0.78		
Other PeCDD	1.	29:28	~~124~~	~~313~~				R
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

FILENAME: V41021I

Hexa-Furans:		RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
123478-HxCDF*		33:23	2803	4772	646	1033	0.58	
123678-HxCDF*		33:30	1705	3068	379	628	0.56	
234678-HxCDF*		34:10	2656	4697	532	907	0.56	
123789-HxCDF*		35:08	2155	3677	395	628	0.59	
123478-HxCDF					0.71	0.68		
123678-HxCDF					4.1/2.5	3.8/2.5		I
234678-HxCDF					2.1	1.8		
123789-HxCDF					1.8	1.1		
Other HxCDF	1.	32:14	~~11.5~~	~~7.5~~				R
	2.	33:01	~~45~~	~~32~~				E
	3.	33:39	~~48~~	~~63~~				R
	4.	33:59	~~46~~	~~40~~				E
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							

Hexa-Dioxins:								
123478-HxCDD*		34:21	3405	3193	685	596		
123678-HxCDD*		34:28	4199	3433	837	689		
123789-HxCDD*		34:45	5129	4314	xxx	xxx		
123478-HxCDD					0.67	1.0		
123678-HxCDD					0.96	0.70		
123789-HxCDD					1.7	1.1		
Other HxCDD	1.	32:42	~~19~~	~~13~~				R
	2.	35:17	~~17~~	~~39~~				R
	3.	35:31	~~144~~	~~347~~				R
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							

Hepta-Furans:								
1234678-HpCDF*								
1234789-HpCDF*								
1234678-HpCDF								
1234789-HpCDF								
Other HpCDF	1.							
	2.							

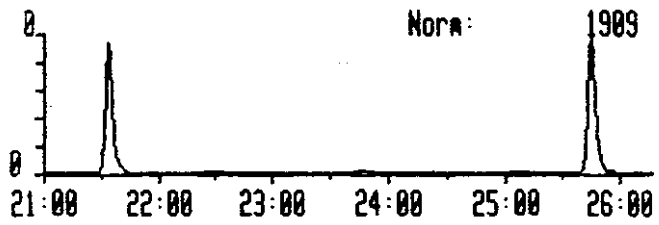
Hepta-Dioxins:								
1234678-HpCDD*								
1234678-HpCDD								
Other HpCDD	1.							

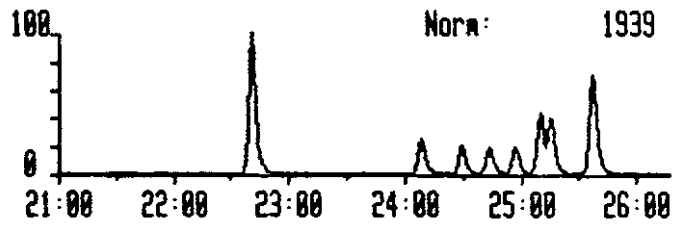
OCDD*							
OCDF							
OCDD							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

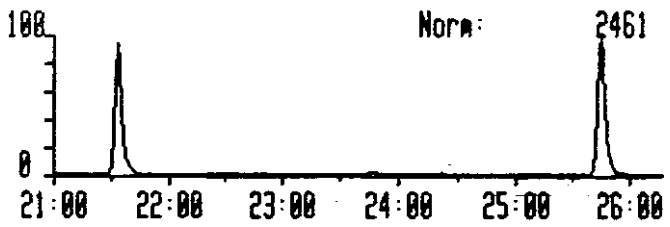
APPENDIX E

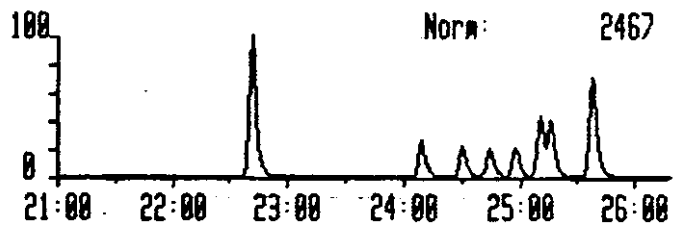
V40926A 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 303.9816 Sample 1 Injection 1 Group 1 Mass 319.8965
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



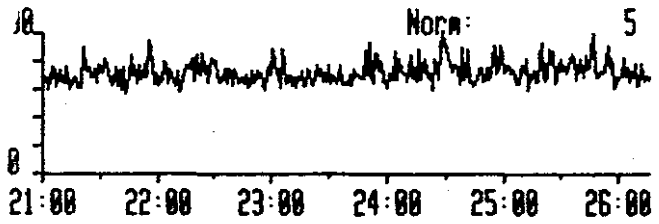


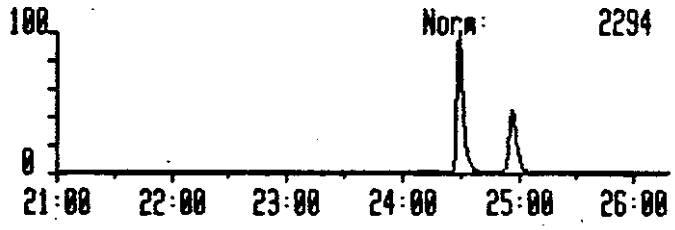
V40926A 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 305.8987 Sample 1 Injection 1 Group 1 Mass 321.8936
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



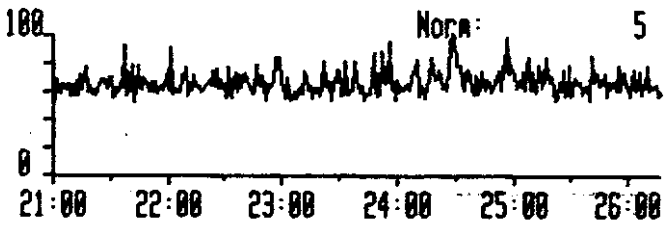


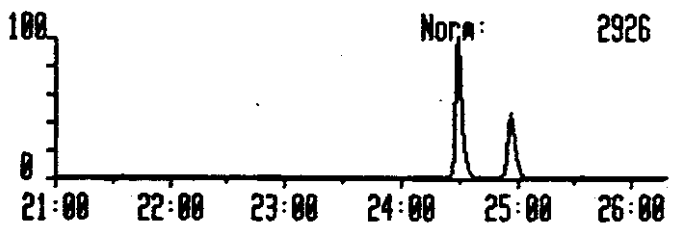
V40926A 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 315.9418 Sample 1 Injection 1 Group 1 Mass 331.9367
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



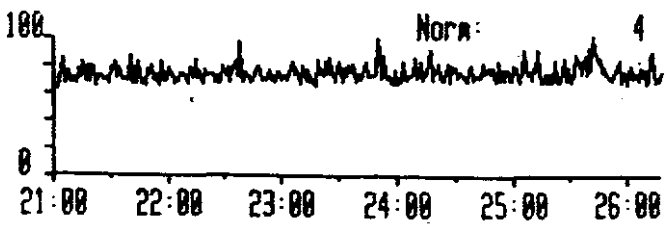


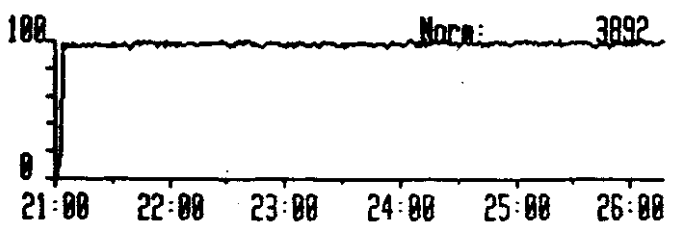
V40926A 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 317.9389 Sample 1 Injection 1 Group 1 Mass 333.9338
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



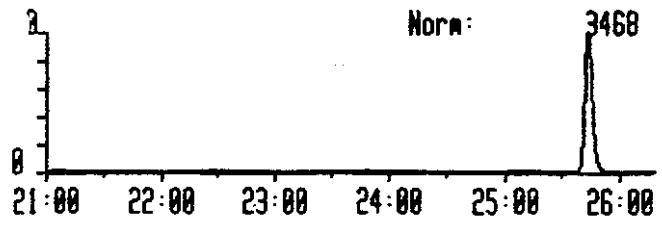


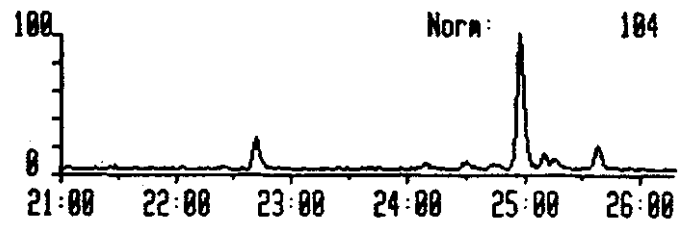
V40926A 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 375.8367 Sample 1 Injection 1 Group 1 Mass 318.9793
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



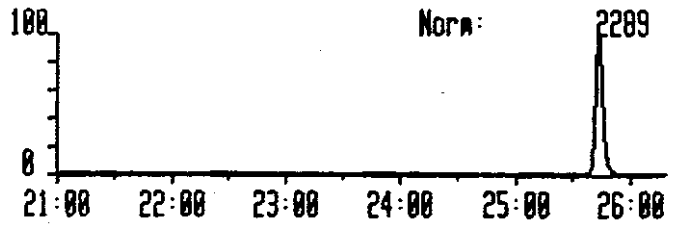


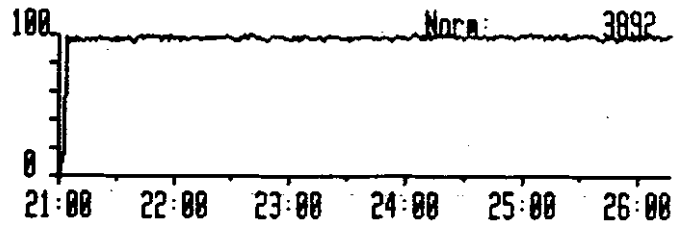
V40926A 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 339.8597 Sample 1 Injection 1 Group 1 Mass 327.8847
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



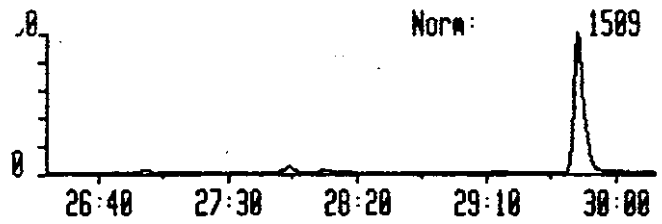


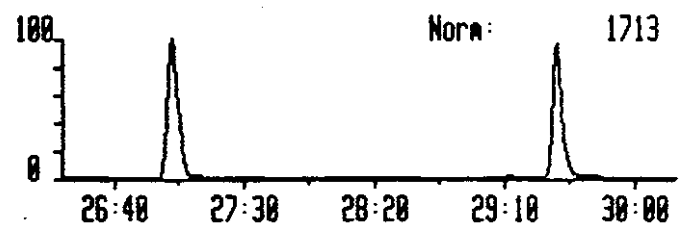
V40926A 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 341.8567 Sample 1 Injection 1 Group 1 Mass 318.9793
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



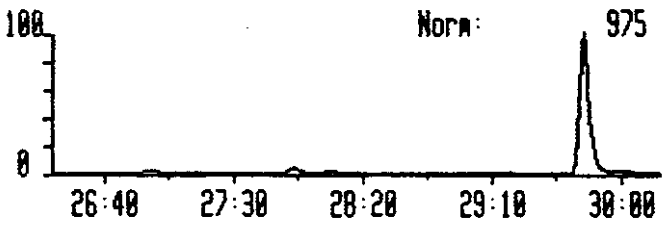


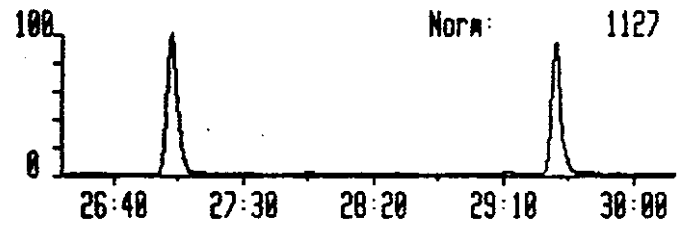
V40926A 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 339.8597 Sample 1 Injection 1 Group 2 Mass 355.8546
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



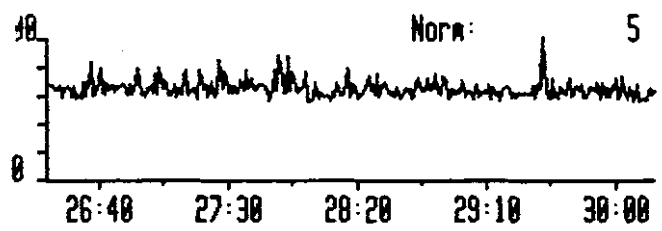


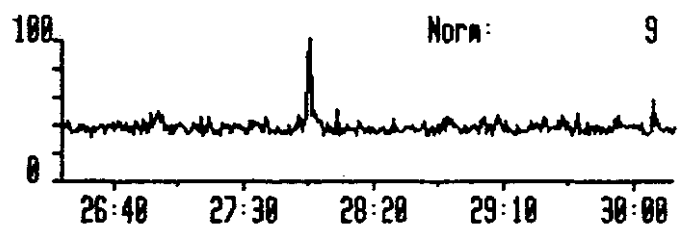
V40926A 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 341.8567 Sample 1 Injection 1 Group 2 Mass 357.8517
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



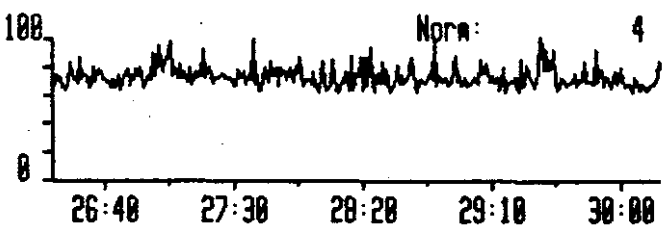


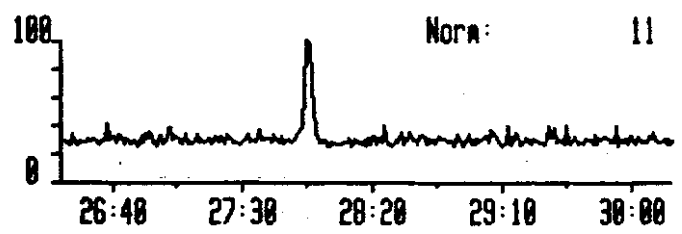
V40926A 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 351.8999 Sample 1 Injection 1 Group 2 Mass 367.8948
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



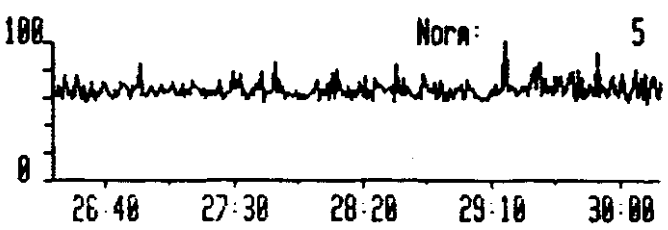


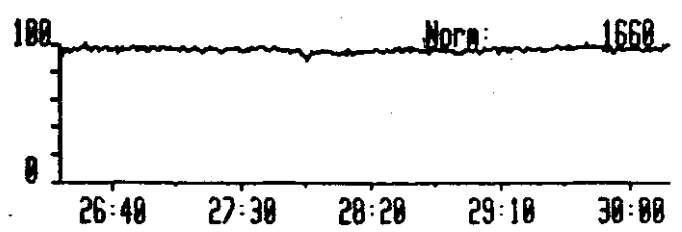
V40926A 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 353.8969 Sample 1 Injection 1 Group 2 Mass 369.8918
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



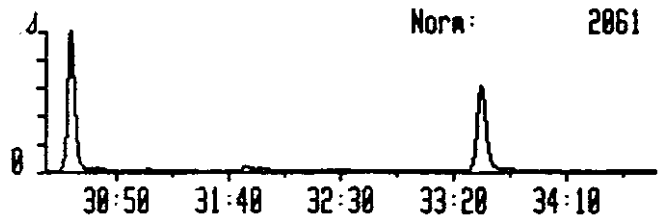


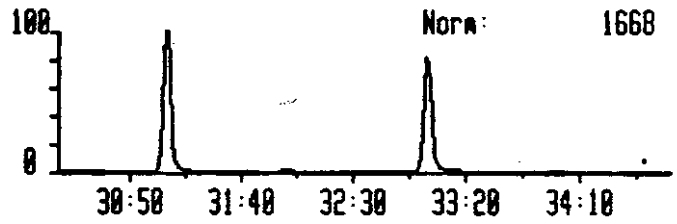
V40926A 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 409.7974 Sample 1 Injection 1 Group 2 Mass 354.9792
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



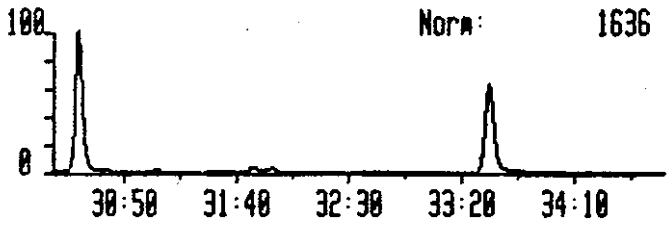


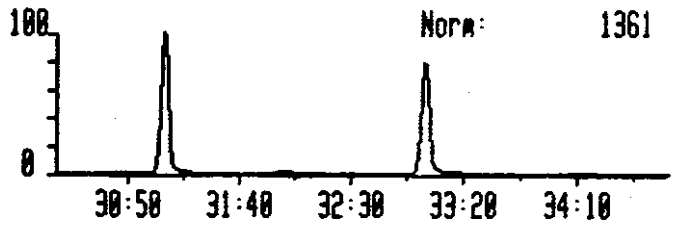
V40926A 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 373.8207 Sample 1 Injection 1 Group 3 Mass 389.8156
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



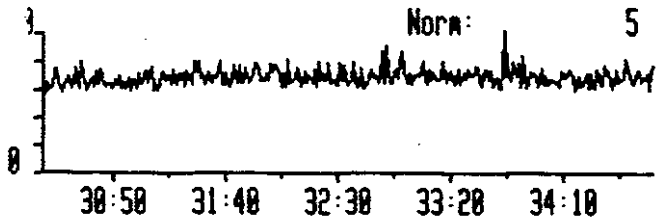


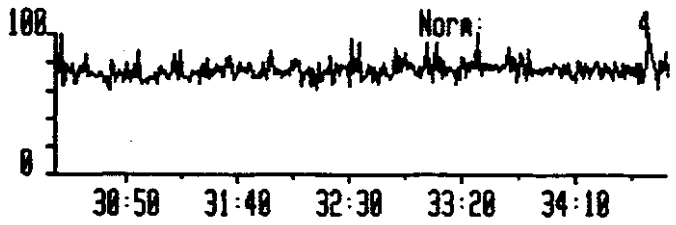
V40926A 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 375.8178 Sample 1 Injection 1 Group 3 Mass 391.8127
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



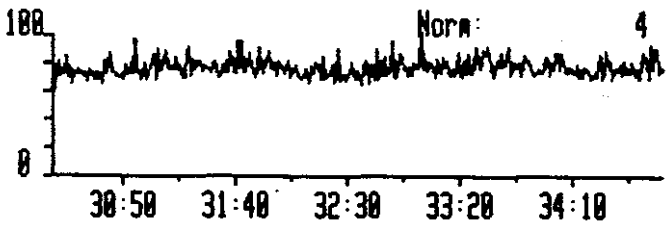


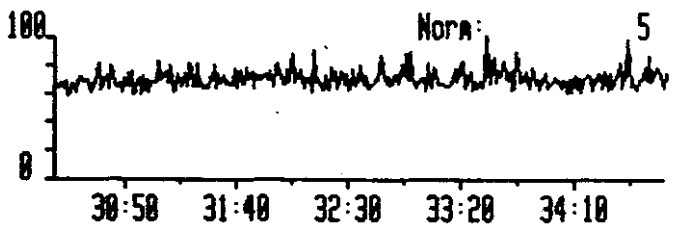
V40926A 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 383.8642 Sample 1 Injection 1 Group 3 Mass 401.8558
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



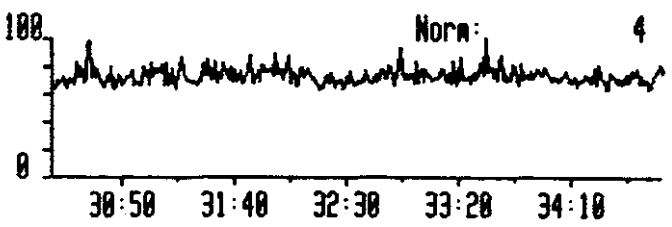


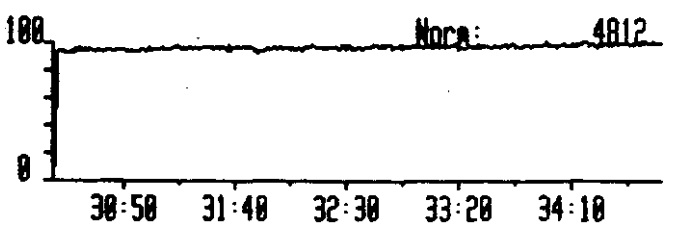
V40926A 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 385.8609 Sample 1 Injection 1 Group 3 Mass 403.8529
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



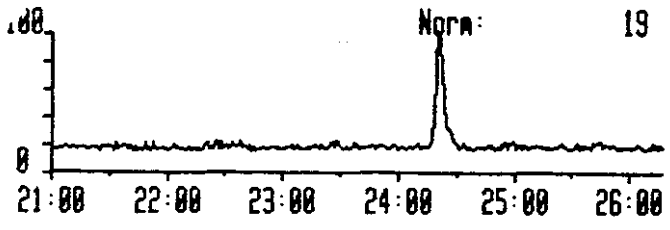


V40926A 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 445.7555 Sample 1 Injection 1 Group 3 Mass 380.9761
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)

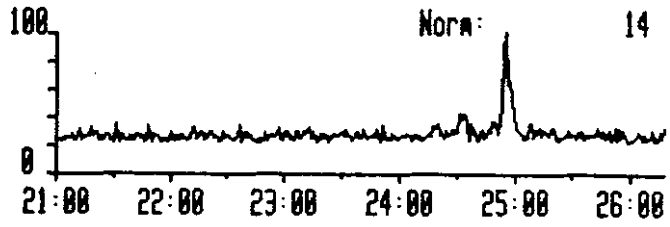




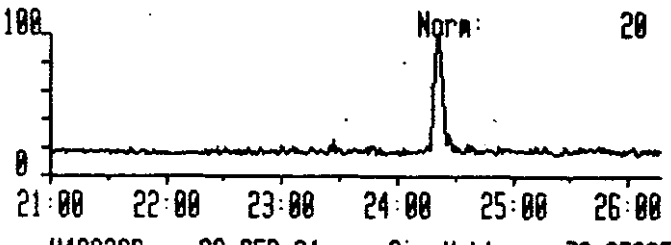
V40926B 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 303.9816
Text:CS-1 (092694)



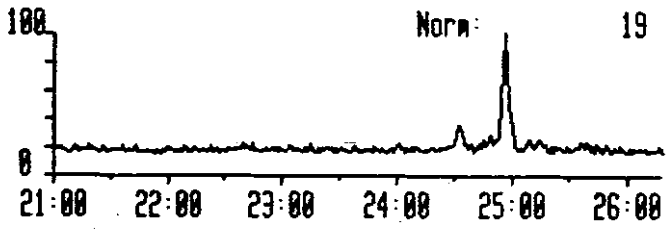
[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 319.8965
Text:CS-1 (092694)



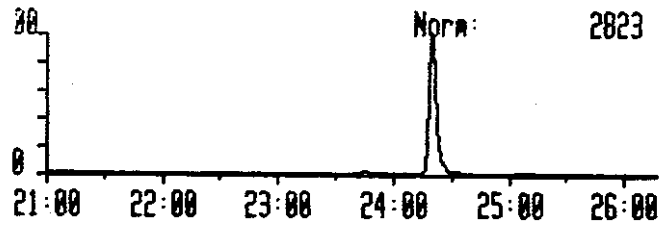
V40926B 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 305.8987
Text:CS-1 (092694)



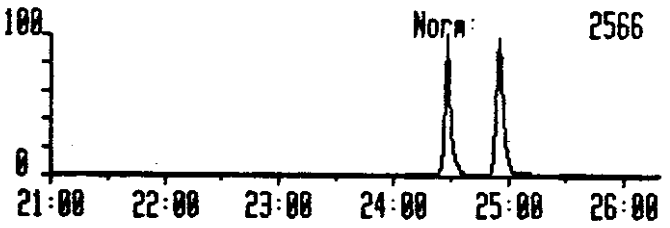
[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 321.8936
Text:CS-1 (092694)



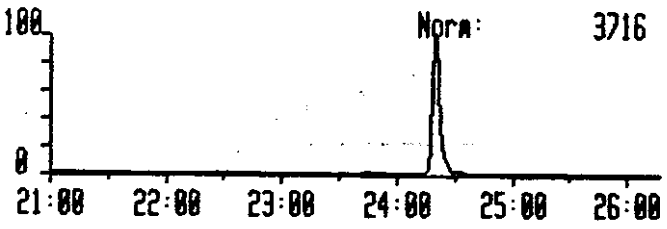
V40926B 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 315.9418
Text:CS-1 (092694)



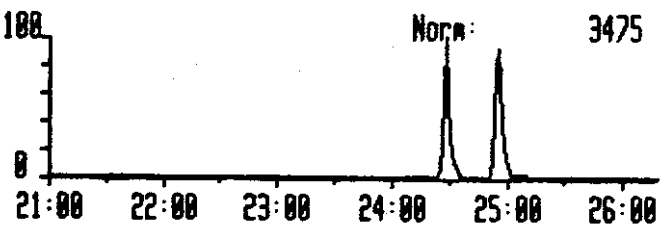
[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 331.9367
Text:CS-1 (092694)



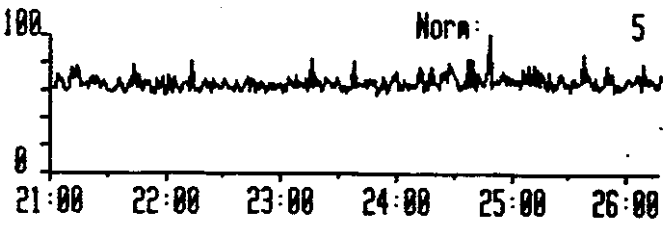
V40926B 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 317.9389
Text:CS-1 (092694)



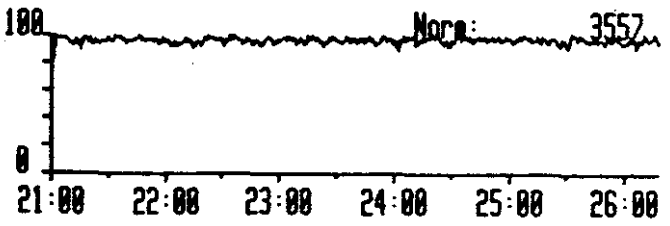
[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 333.9338
Text:CS-1 (092694)



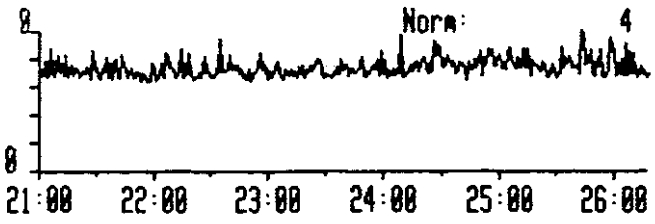
V40926B 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 375.8367
Text:CS-1 (092694)



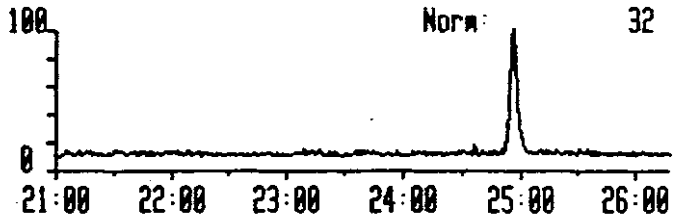
[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 318.9793
Text:CS-1 (092694)



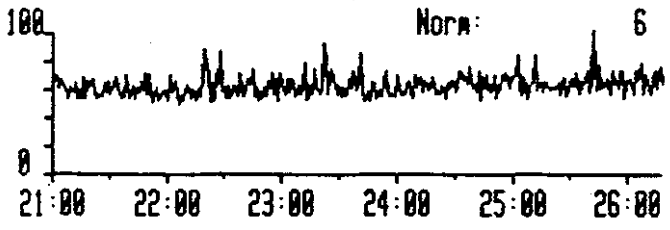
V40926B 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 339.8597
Text:CS-1 (092694)



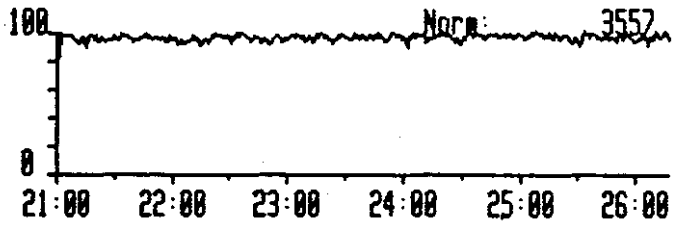
[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 327.8847
Text:CS-1 (092694)



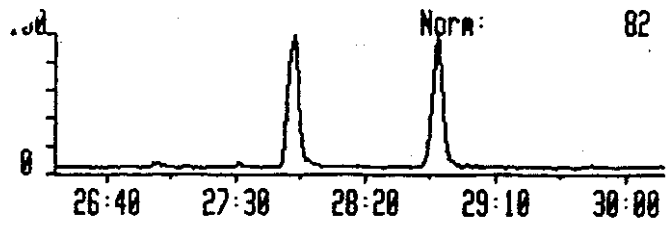
V40926B 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 341.8567
Text:CS-1 (092694)

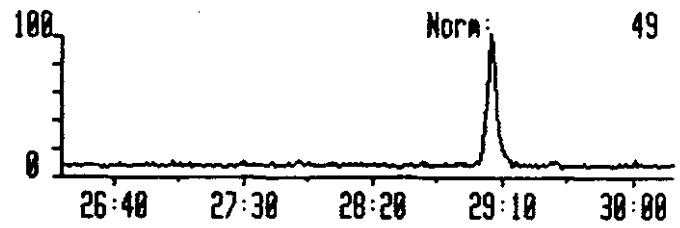


[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 318.9793
Text:CS-1 (092694)

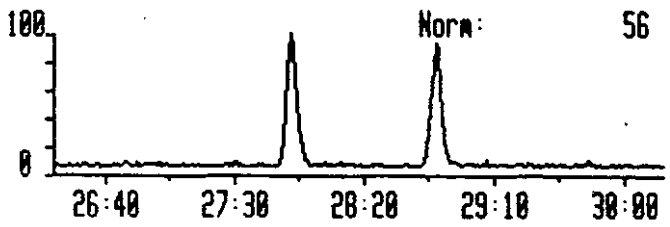


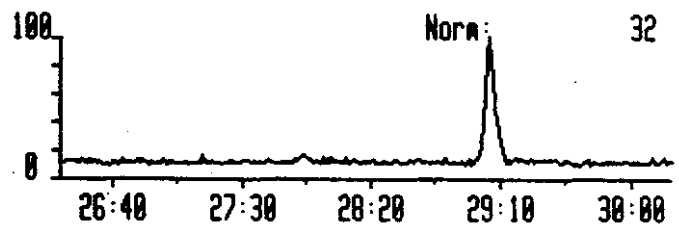
V40926B 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 339.8597 Sample 1 Injection 1 Group 2 Mass 355.8546
Text:CS-1 (092694) Text:CS-1 (092694)



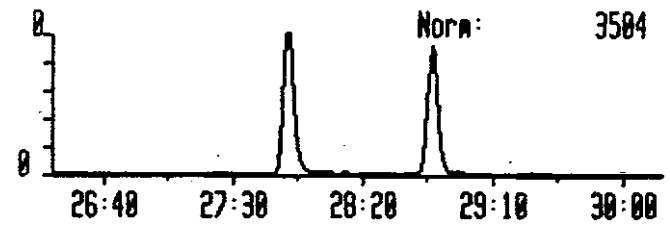


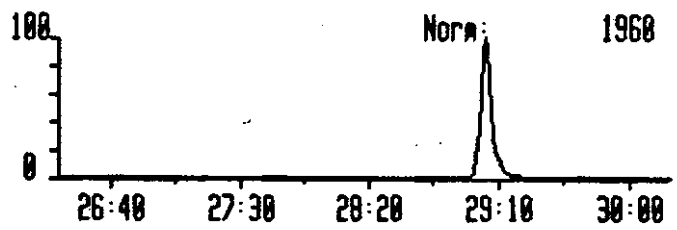
V40926B 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 341.8567 Sample 1 Injection 1 Group 2 Mass 357.8517
Text:CS-1 (092694) Text:CS-1 (092694)



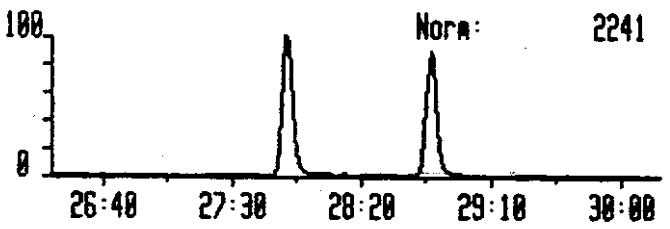


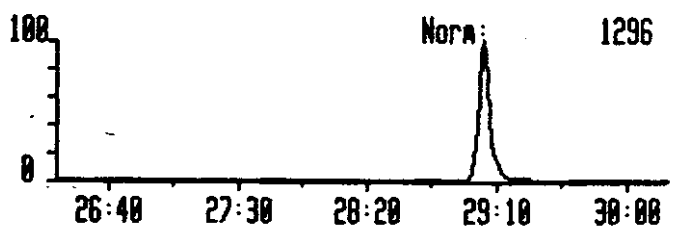
V40926B 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 351.8999 Sample 1 Injection 1 Group 2 Mass 367.8948
Text:CS-1 (092694) Text:CS-1 (092694)



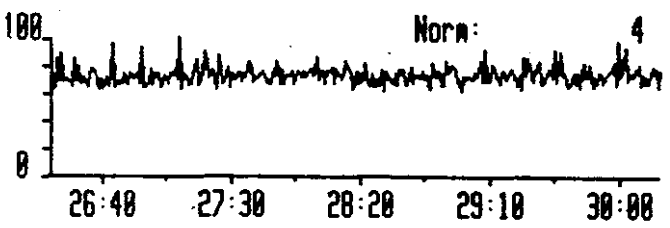


V40926B 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 353.8969 Sample 1 Injection 1 Group 2 Mass 369.8918
Text:CS-1 (092694) Text:CS-1 (092694)

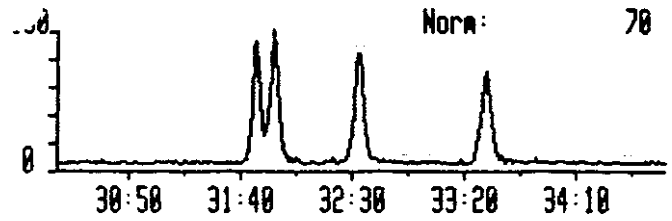


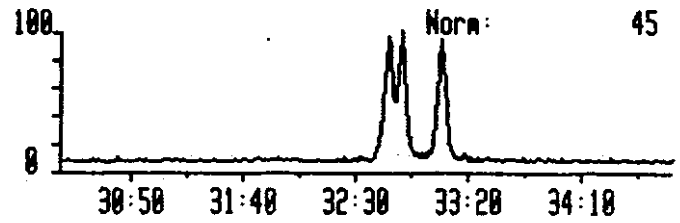


V40926B 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 409.7974 Sample 1 Injection 1 Group 2 Mass 354.9792
Text:CS-1 (092694) Text:CS-1 (092694)

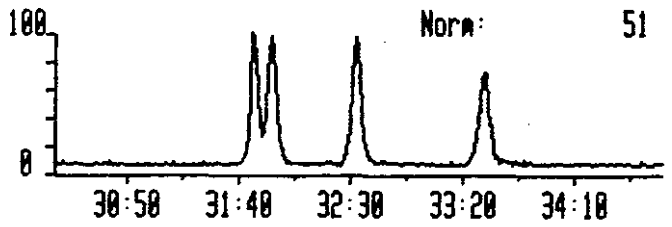


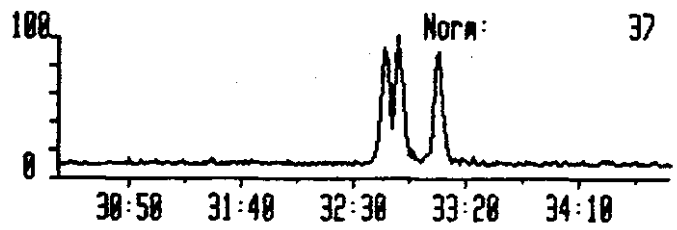
V40926B 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 373.8207 Sample 1 Injection 1 Group 3 Mass 389.8156
Text:CS-1 (092694) Text:CS-1 (092694)



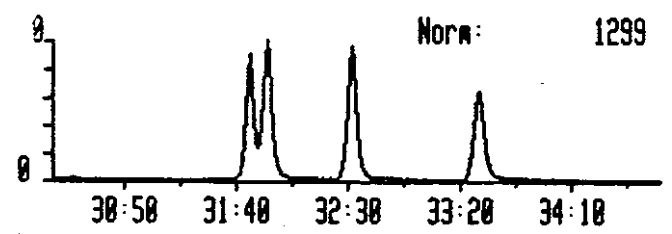


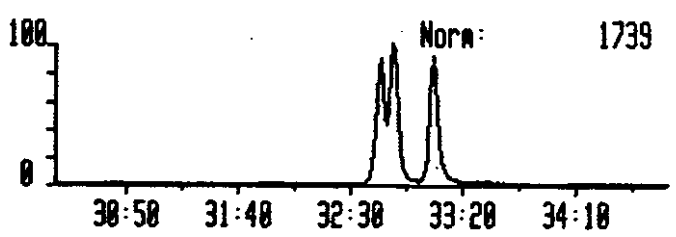
V40926B 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 375.8178 Sample 1 Injection 1 Group 3 Mass 391.8127
Text:CS-1 (092694) Text:CS-1 (092694)



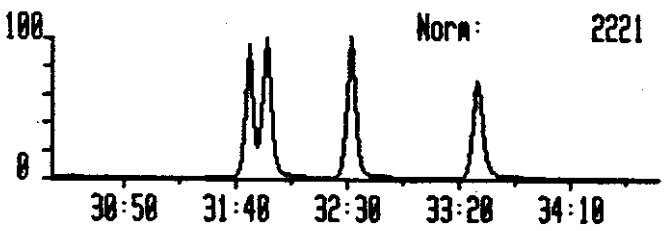


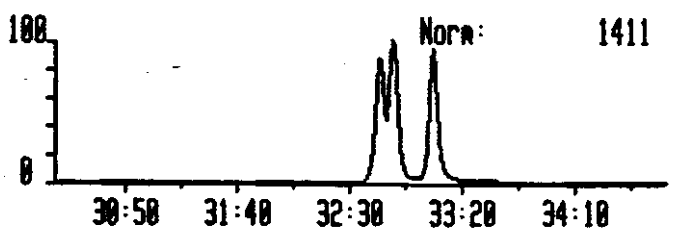
V40926B 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 383.8642 Sample 1 Injection 1 Group 3 Mass 401.8558
Text:CS-1 (092694) Text:CS-1 (092694)



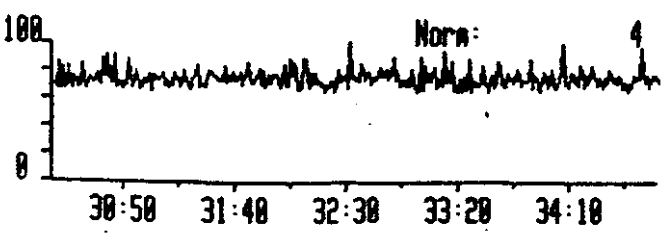


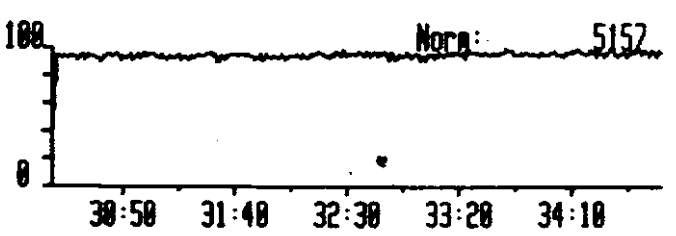
V40926B 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 385.8609 Sample 1 Injection 1 Group 3 Mass 403.8529
Text:CS-1 (092694) Text:CS-1 (092694)



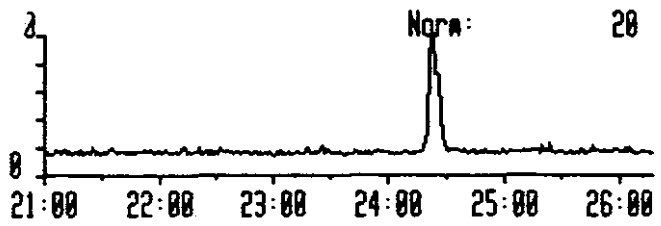


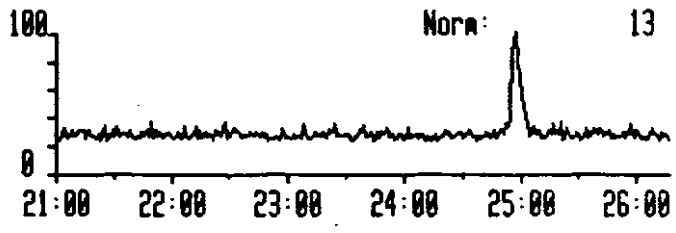
V40926B 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 445.7555 Sample 1 Injection 1 Group 3 Mass 380.9761
Text:CS-1 (092694) Text:CS-1 (092694)



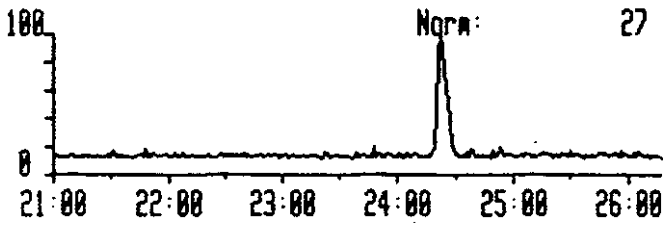


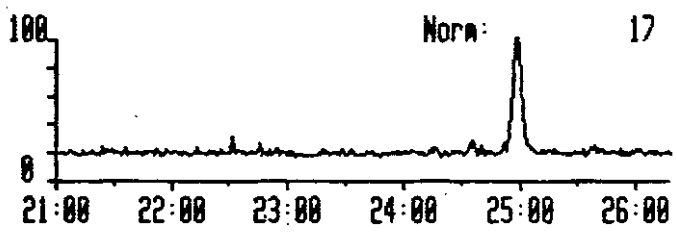
V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 303.9016 Sample 1 Injection 1 Group 1 Mass 319.8965
Text:CS-2 (092694) Text:CS-2 (092694)



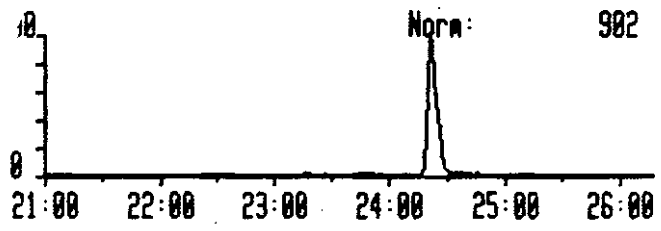


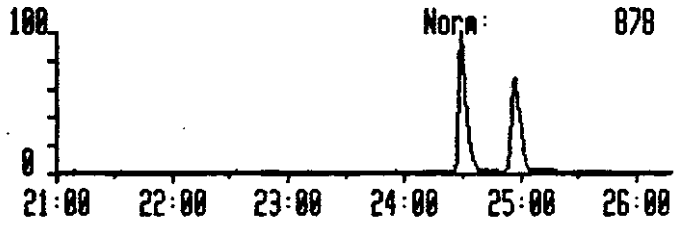
V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 305.8987 Sample 1 Injection 1 Group 1 Mass 321.8936
Text:CS-2 (092694) Text:CS-2 (092694)



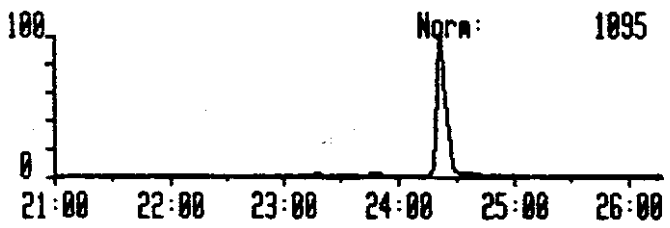


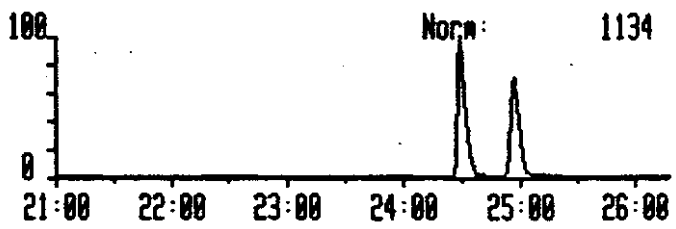
V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 315.9418 Sample 1 Injection 1 Group 1 Mass 331.9367
Text:CS-2 (092694) Text:CS-2 (092694)



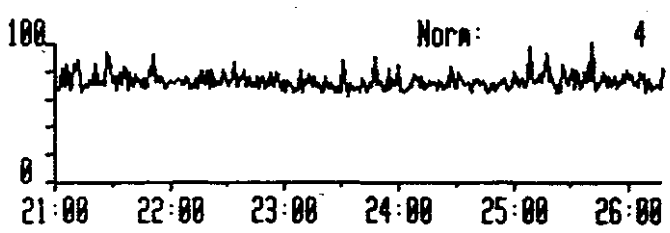


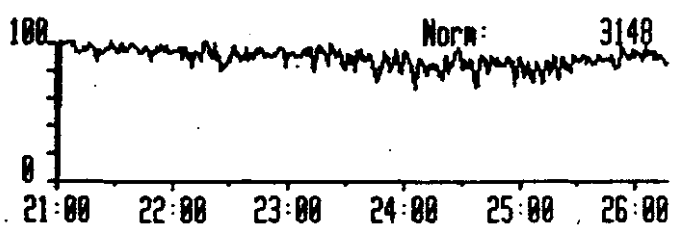
V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 317.9389 Sample 1 Injection 1 Group 1 Mass 333.9338
Text:CS-2 (092694) Text:CS-2 (092694)



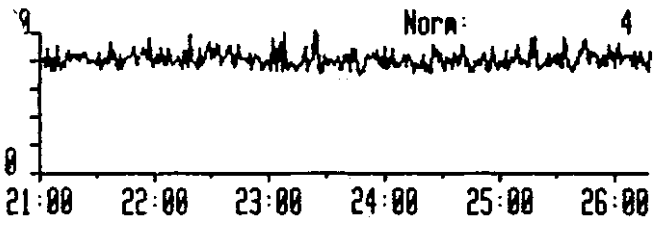


V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 375.8367 Sample 1 Injection 1 Group 1 Mass 318.9793
Text:CS-2 (092694) Text:CS-2 (092694)

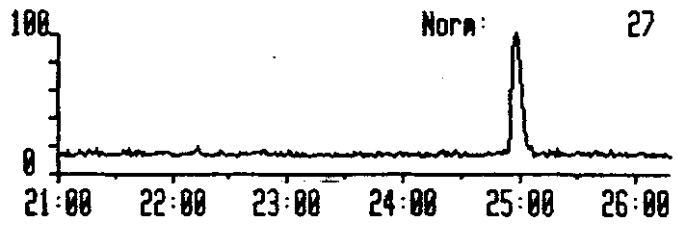




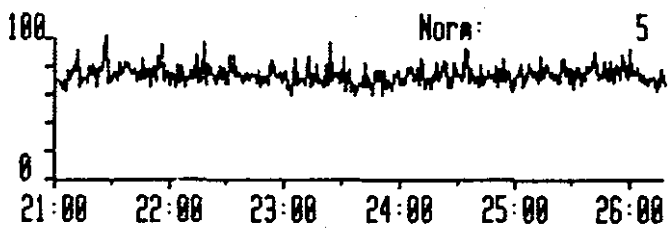
V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 339.8597
Text:CS-2 (092694)



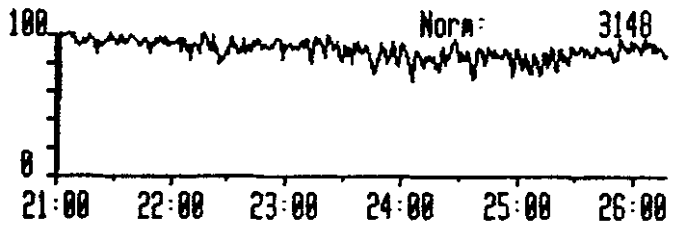
V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 327.8847
Text:CS-2 (092694)



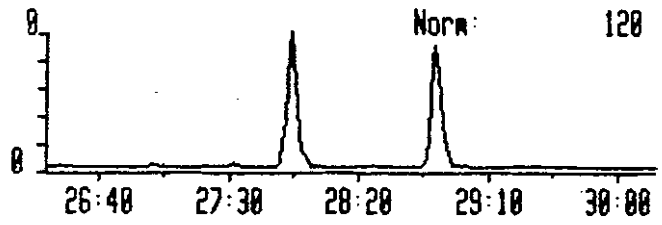
V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 341.8567
Text:CS-2 (092694)

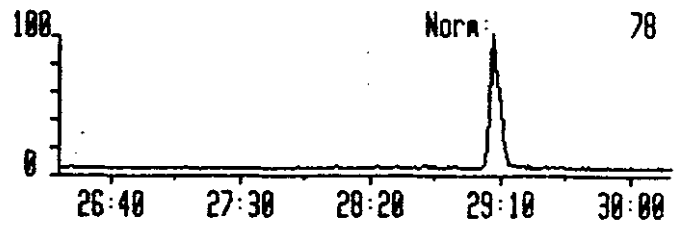


V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 318.9793
Text:CS-2 (092694)

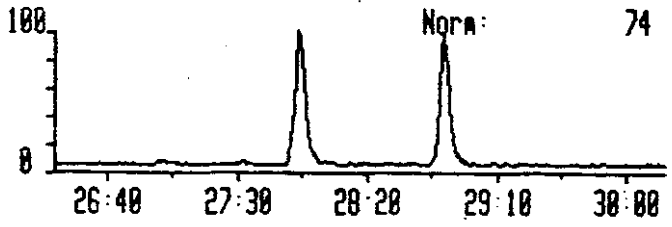


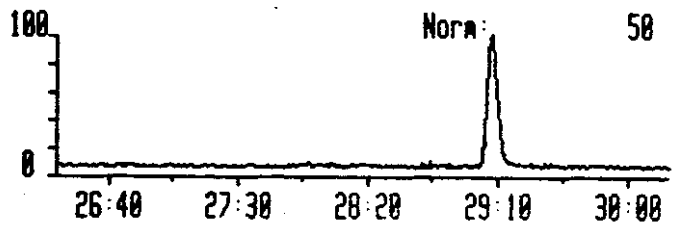
V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 339.8597 Sample 1 Injection 1 Group 2 Mass 355.8546
Text:CS-2 (092694) Text:CS-2 (092694)



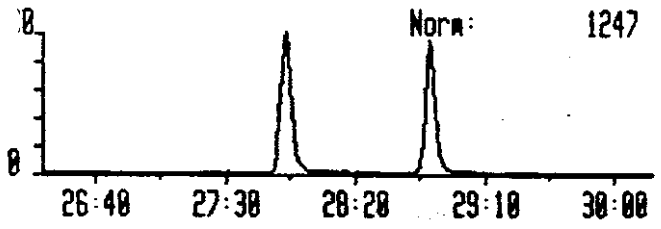


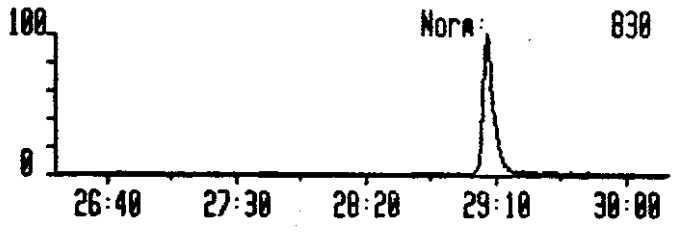
V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 341.8567 Sample 1 Injection 1 Group 2 Mass 357.8517
Text:CS-2 (092694) Text:CS-2 (092694)



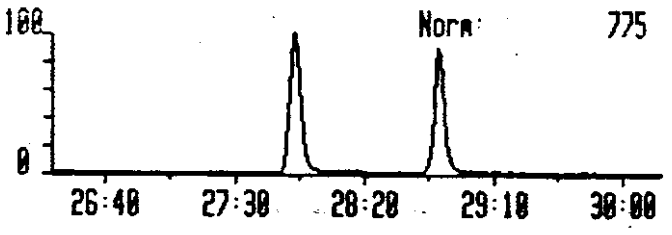


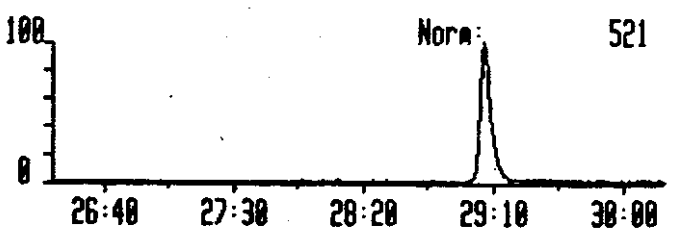
V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 351.8999 Sample 1 Injection 1 Group 2 Mass 367.8948
Text:CS-2 (092694) Text:CS-2 (092694)



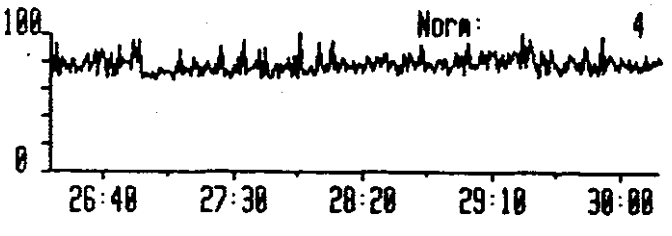


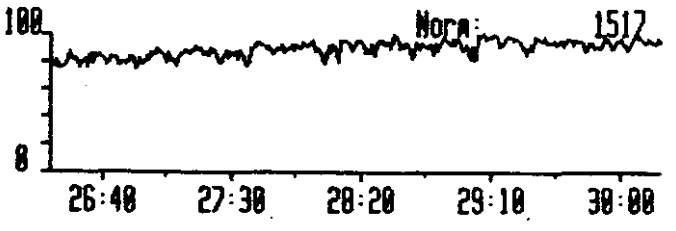
V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 353.8969 Sample 1 Injection 1 Group 2 Mass 369.8918
Text:CS-2 (092694) Text:CS-2 (092694)



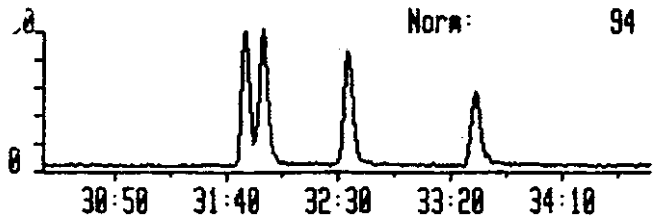


V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 409.7974 Sample 1 Injection 1 Group 2 Mass 354.9792
Text:CS-2 (092694) Text:CS-2 (092694)

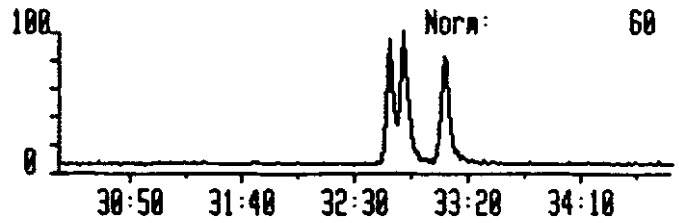




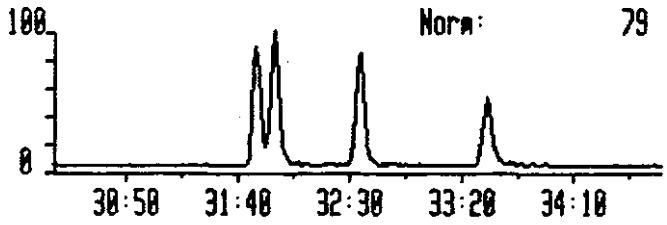
V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 373.8207
Text:CS-2 (092694)



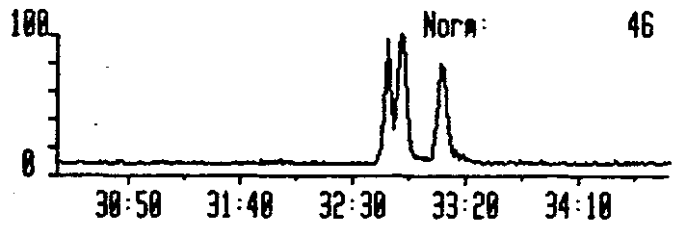
V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 389.8156
Text:CS-2 (092694)



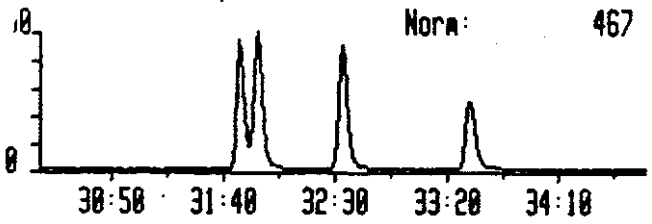
V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 375.8178
Text:CS-2 (092694)



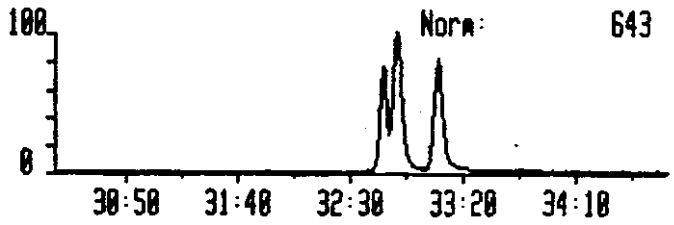
V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 391.8127
Text:CS-2 (092694)



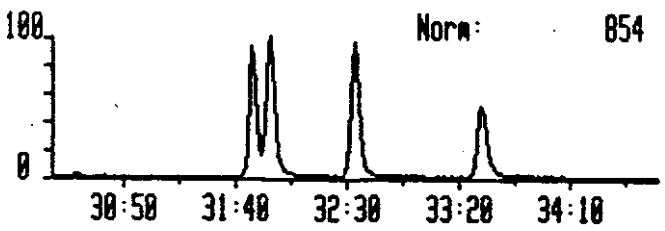
V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 383.8642
Text:CS-2 (092694)



V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 401.8558
Text:CS-2 (092694)



V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 385.8609
Text:CS-2 (092694)



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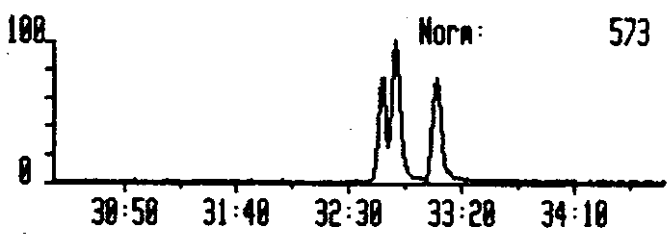
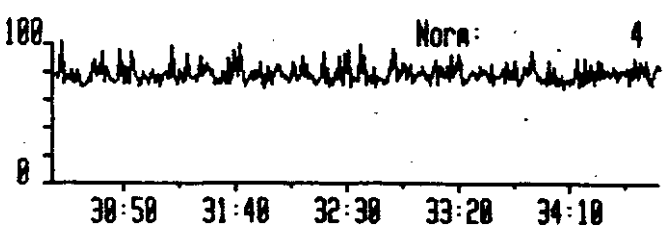
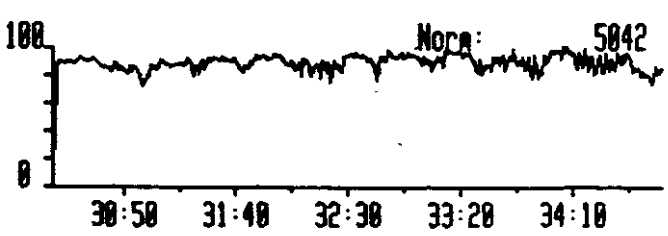
Sample 1 Injection 1 Group 3 Mass 403.8529
Text:CS-2 (092694)



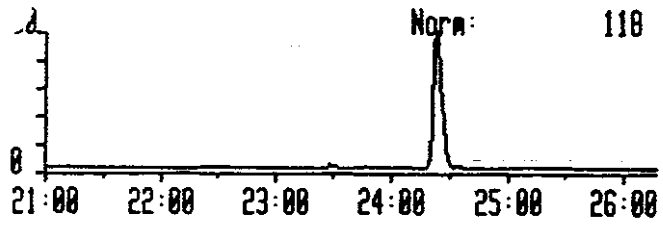
V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 445.7555
Text:CS-2 (092694)

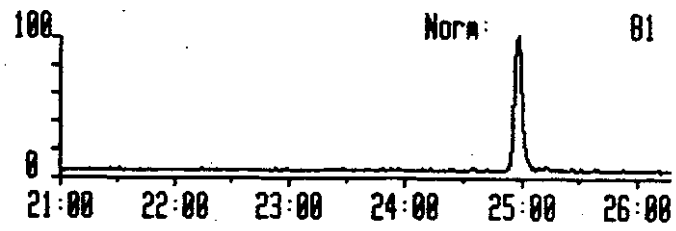


V40926C 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 388.9761
Text:CS-2 (092694)

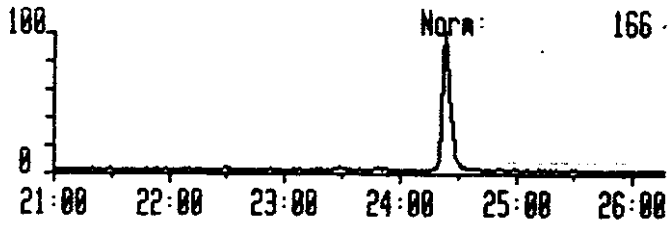


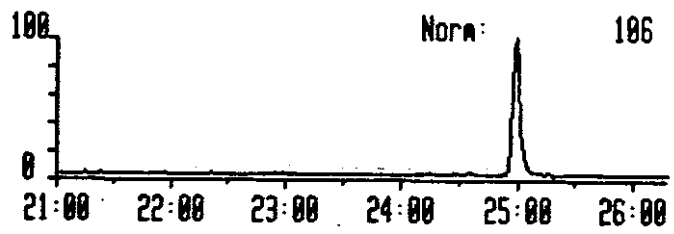
V40926D 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 303.9816 Sample 1 Injection 1 Group 1 Mass 319.8965
Text:CS-3 (092694) Text:CS-3 (092694)



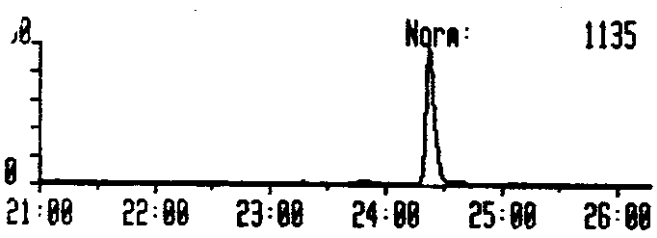


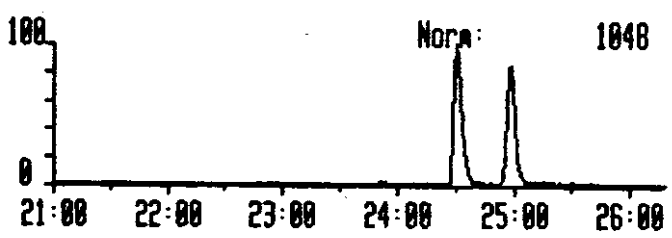
V40926D 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 305.8987 Sample 1 Injection 1 Group 1 Mass 321.8936
Text:CS-3 (092694) Text:CS-3 (092694)



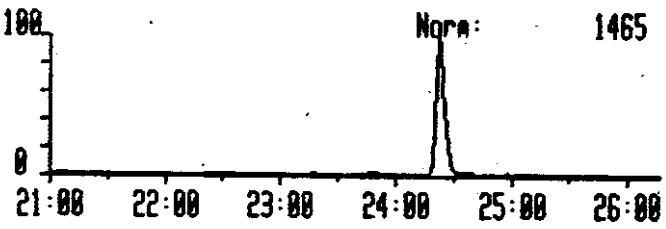


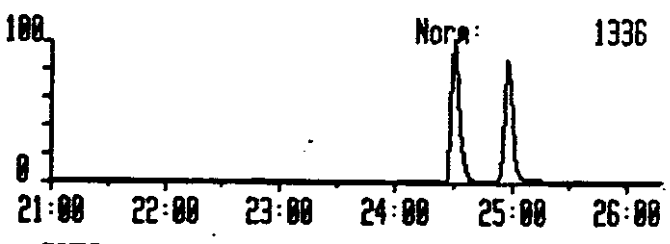
V40926D 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 315.9418 Sample 1 Injection 1 Group 1 Mass 331.9367
Text:CS-3 (092694) Text:CS-3 (092694)



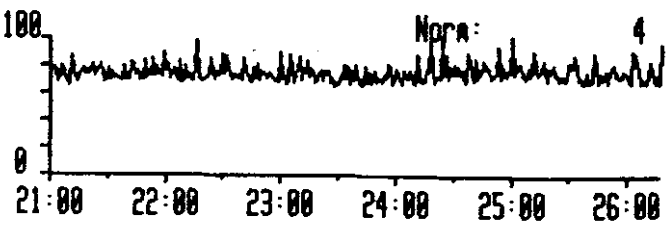


V40926D 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 317.9389 Sample 1 Injection 1 Group 1 Mass 333.9338
Text:CS-3 (092694) Text:CS-3 (092694)

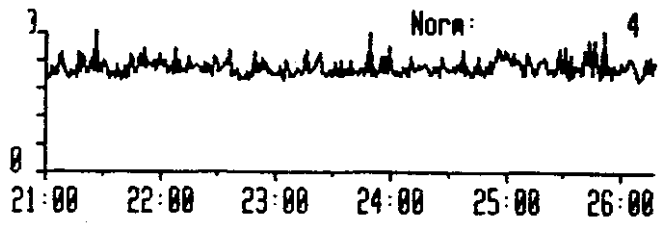




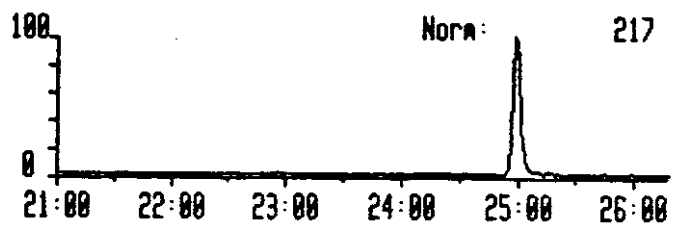
V40926D 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 375.8367 Sample 1 Injection 1 Group 1 Mass 318.9793
Text:CS-3 (092694) Text:CS-3 (092694)



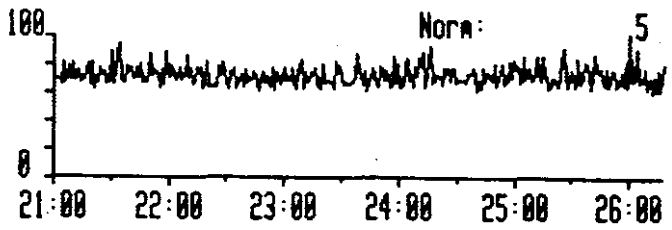
V40926D 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 339.8597
Text:CS-3 (092694)



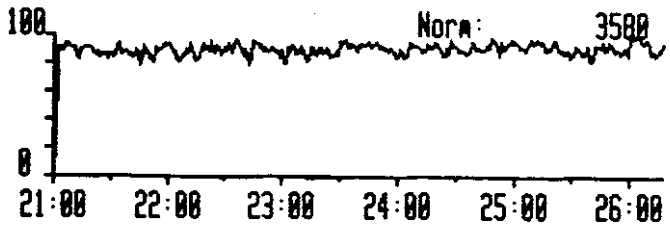
[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 327.8847
Text:CS-3 (092694)



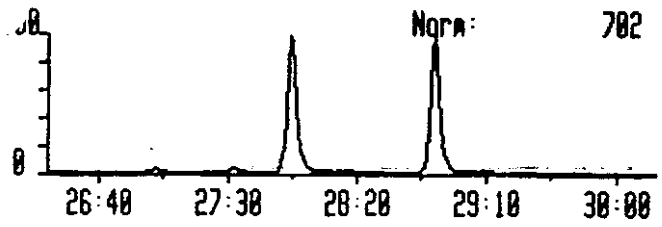
V40926D 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 341.8567
Text:CS-3 (092694)



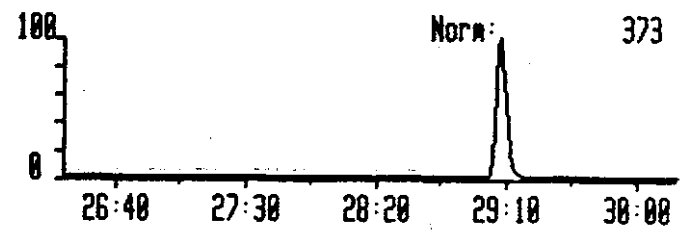
[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 318.9793
Text:CS-3 (092694)



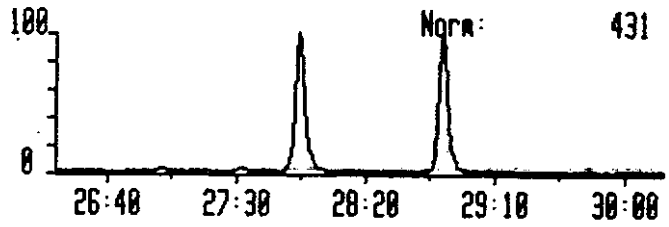
V40926D 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 2 Mass 339.8597
Text:CS-3 (092694)



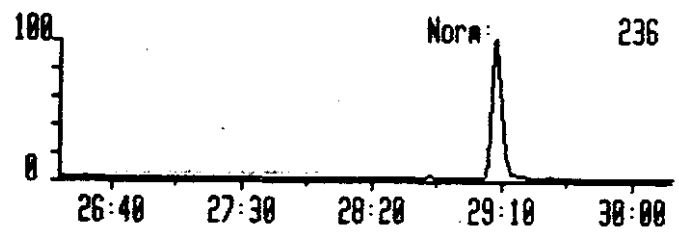
[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 355.8546
Text:CS-3 (092694)



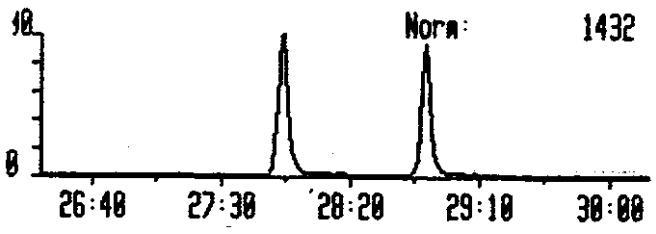
V40926D 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 2 Mass 341.8567
Text:CS-3 (092694)



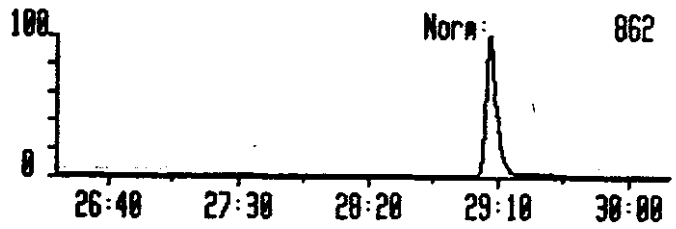
[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 357.8517
Text:CS-3 (092694)



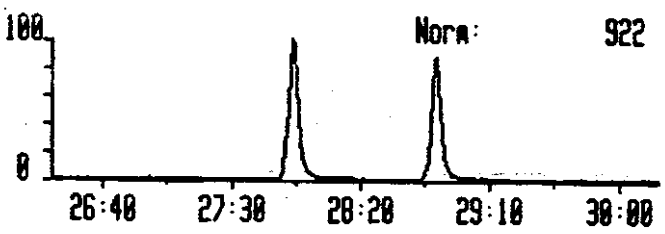
V40926D 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 2 Mass 351.8999
Text:CS-3 (092694)



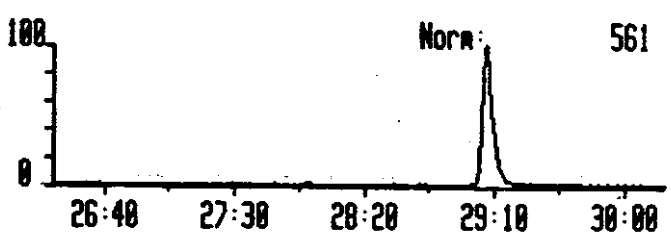
[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 367.8948
Text:CS-3 (092694)



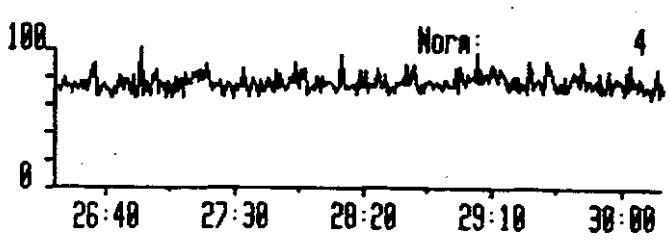
V40926D 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 2 Mass 353.8969
Text:CS-3 (092694)



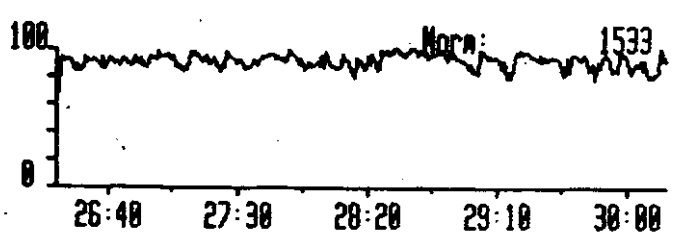
[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 369.8918
Text:CS-3 (092694)



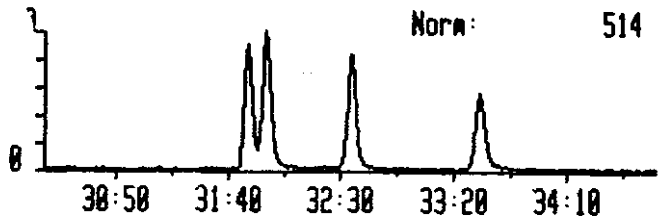
V40926D 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 2 Mass 409.7974
Text:CS-3 (092694)

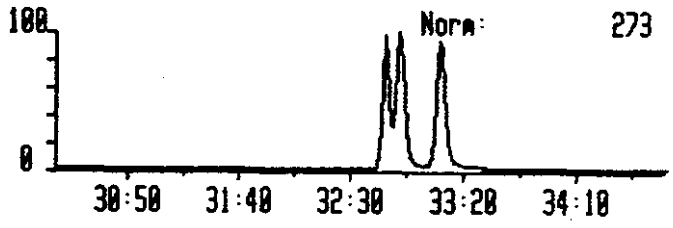


[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 354.9792
Text:CS-3 (092694)

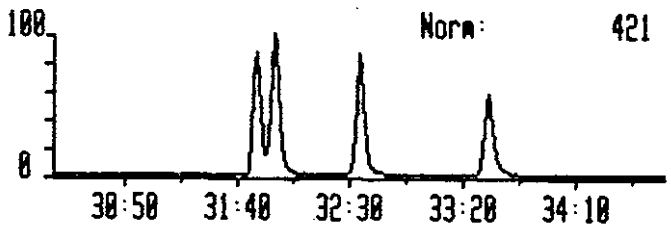


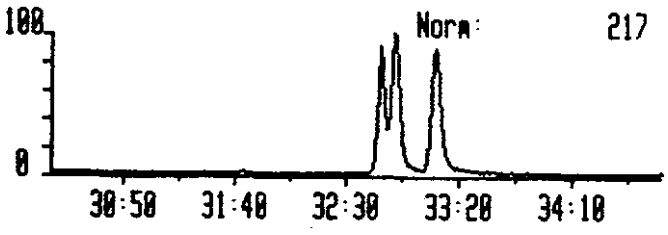
V40926D 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 373.8207 Sample 1 Injection 1 Group 3 Mass 389.8156
Text:CS-3 (092694) Text:CS-3 (092694)



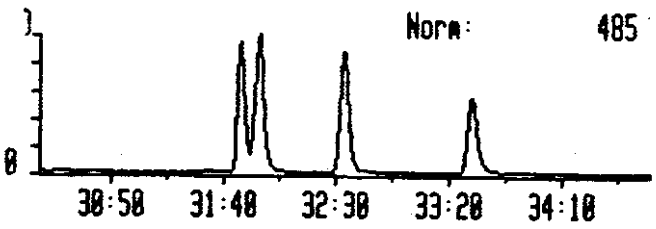


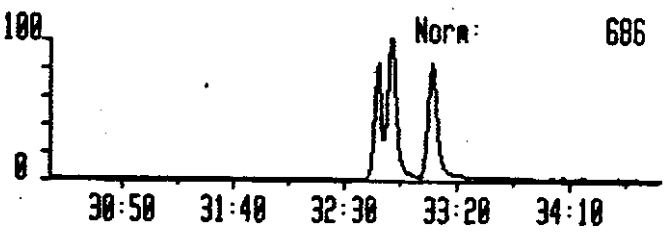
V40926D 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 375.8178 Sample 1 Injection 1 Group 3 Mass 391.8127
Text:CS-3 (092694) Text:CS-3 (092694)



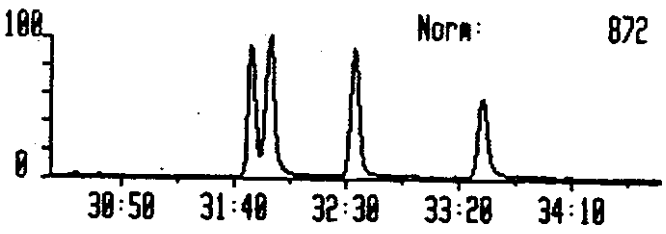


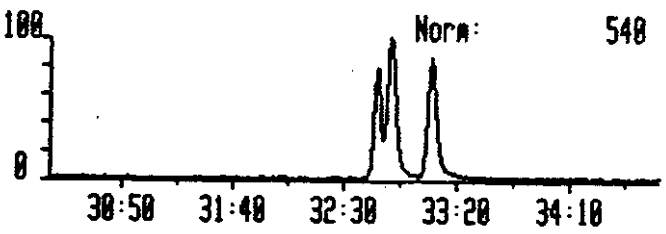
V40926D 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 383.8642 Sample 1 Injection 1 Group 3 Mass 401.8558
Text:CS-3 (092694) Text:CS-3 (092694)



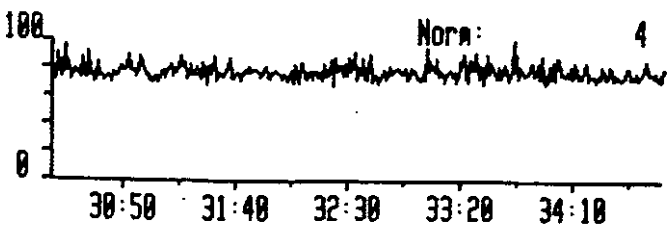


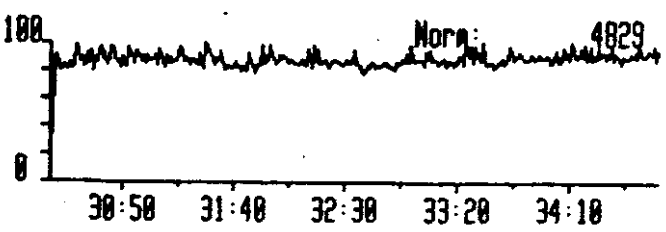
V40926D 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 385.8609 Sample 1 Injection 1 Group 3 Mass 403.8529
Text:CS-3 (092694) Text:CS-3 (092694)



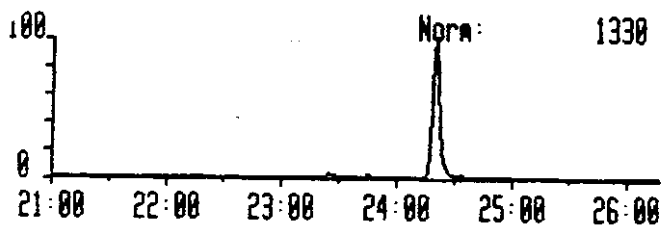


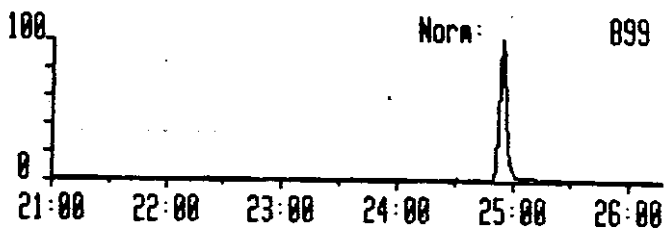
V40926D 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 445.7555 Sample 1 Injection 1 Group 3 Mass 380.9761
Text:CS-3 (092694) Text:CS-3 (092694)



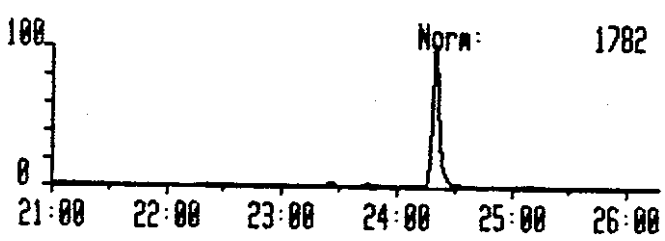


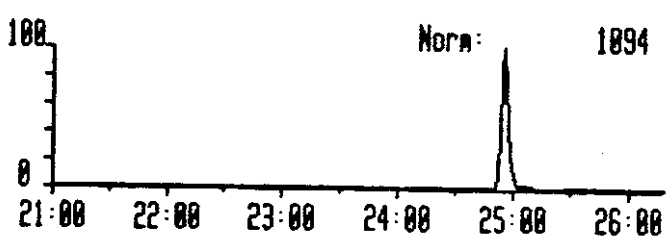
V40926E 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 303.9016 Sample 1 Injection 1 Group 1 Mass 319.8965
Text:CS-4 (092694) Text:CS-4 (092694)





V40926E 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 305.8987 Sample 1 Injection 1 Group 1 Mass 321.8936
Text:CS-4 (092694) Text:CS-4 (092694)





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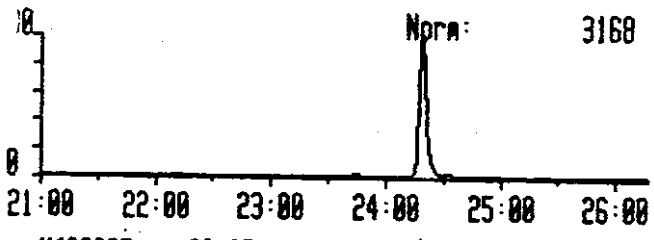
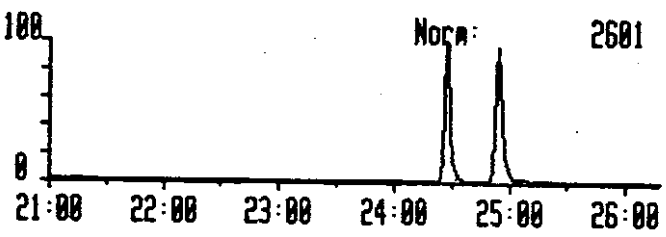
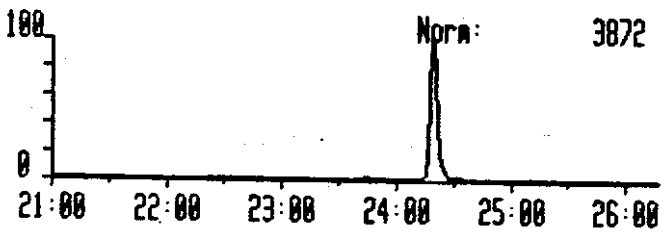
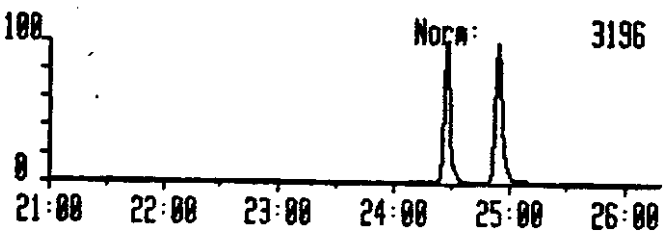
Sample 1 Injection 1 Group 1 Mass 315.9418 Sample 1 Injection 1 Group 1 Mass 331.9367
Text:CS-4 (092694) Text:CS-4 (092694)



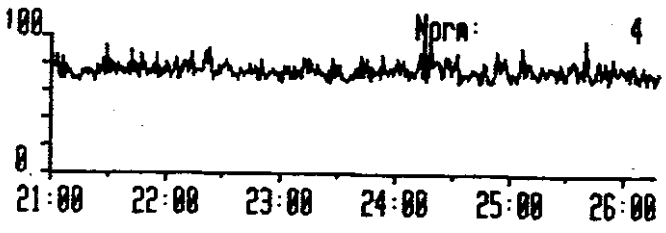


V40926E 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 317.9389 Sample 1 Injection 1 Group 1 Mass 333.9338
Text:CS-4 (092694) Text:CS-4 (092694)

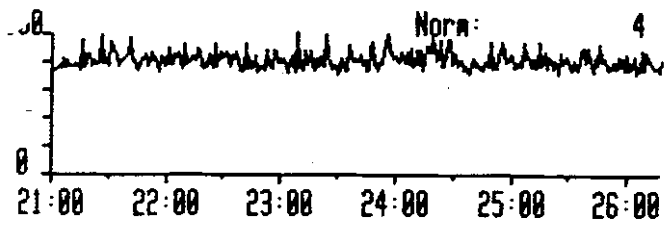




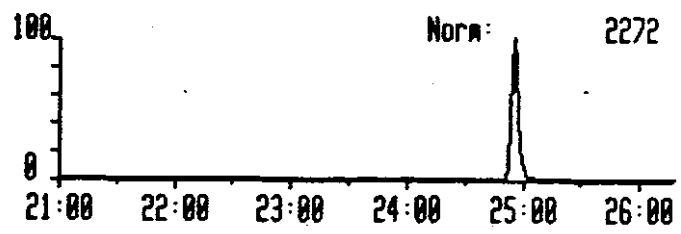
V40926E 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 375.8367 Sample 1 Injection 1 Group 1 Mass 318.9793
Text:CS-4 (092694) Text:CS-4 (092694)



V40926E 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 339.8597
Text:CS-4 (092694)



[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 327.8847
Text:CS-4 (092694)



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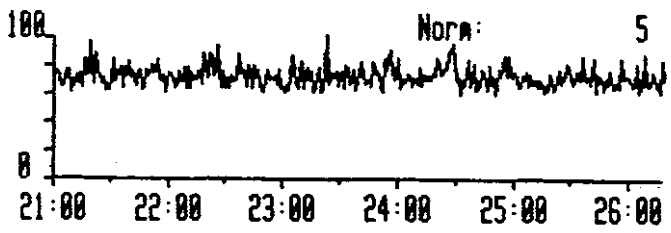
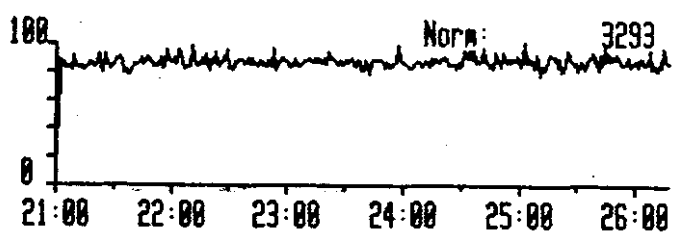
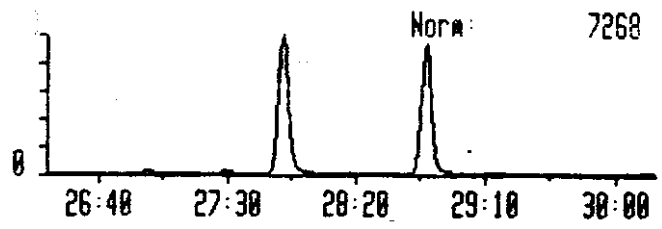
Sample 1 Injection 1 Group 1 Mass 341.8567
Text:CS-4 (092694)

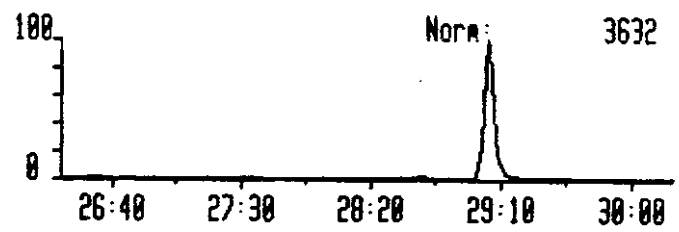


[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 318.9793
Text:CS-4 (092694)

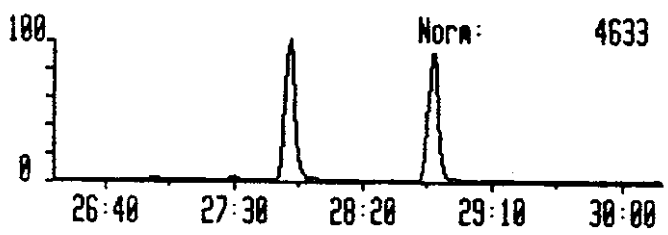


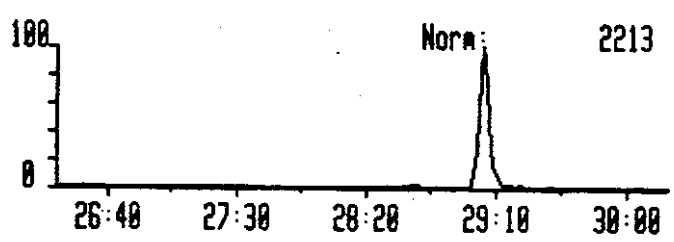
V40926E 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 339.8597 Sample 1 Injection 1 Group 2 Mass 355.8546
Text:CS-4 (092694) Text:CS-4 (092694)



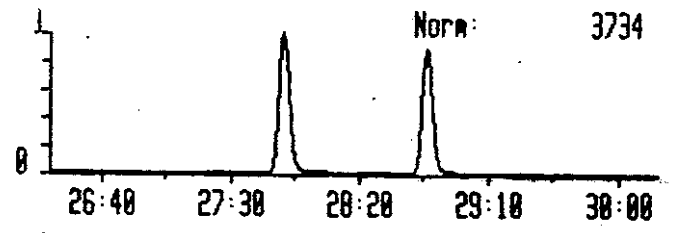


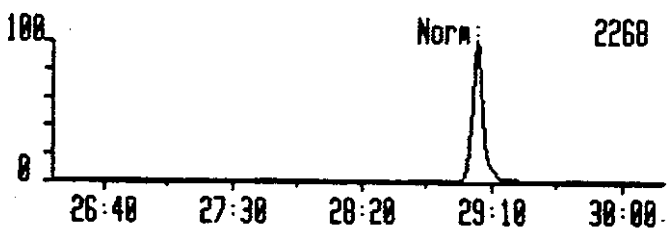
V40926E 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 341.8567 Sample 1 Injection 1 Group 2 Mass 357.8517
Text:CS-4 (092694) Text:CS-4 (092694)



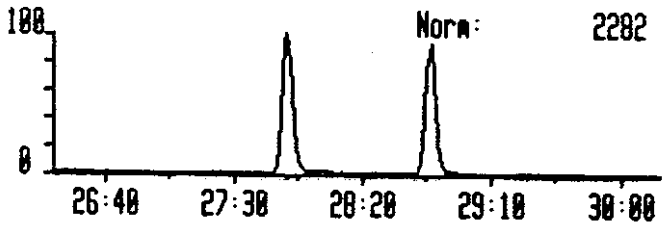


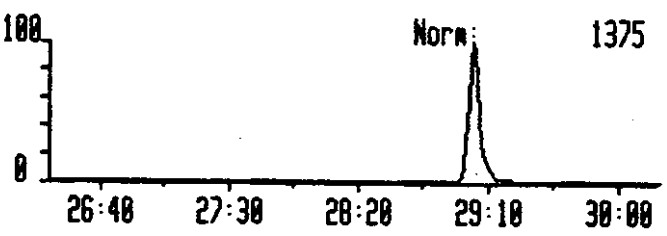
V40926E 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 351.8999 Sample 1 Injection 1 Group 2 Mass 367.8948
Text:CS-4 (092694) Text:CS-4 (092694)



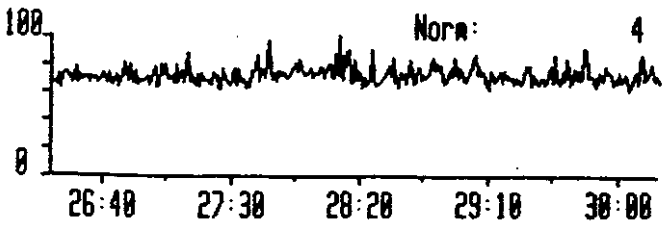


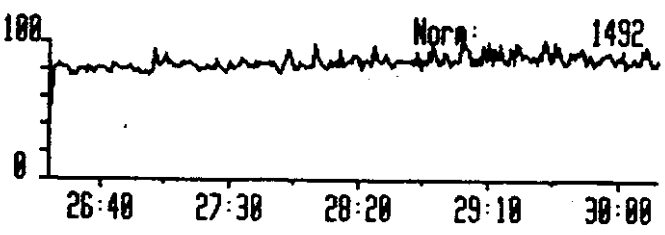
V40926E 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 353.8969 Sample 1 Injection 1 Group 2 Mass 369.8918
Text:CS-4 (092694) Text:CS-4 (092694)



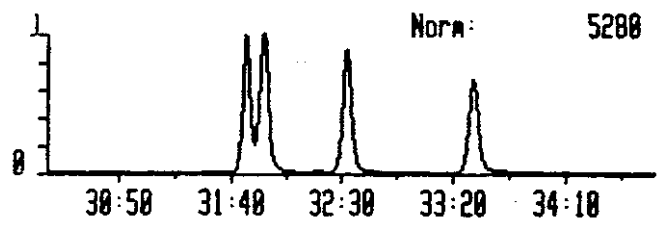


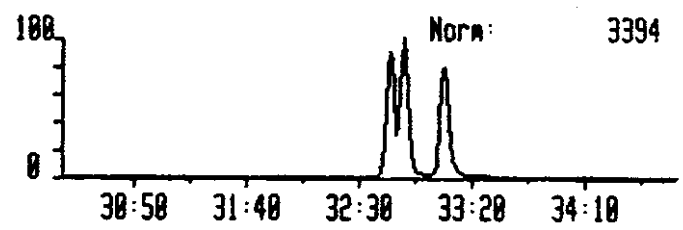
V40926E 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 409.7974 Sample 1 Injection 1 Group 2 Mass 354.9792
Text:CS-4 (092694) Text:CS-4 (092694)



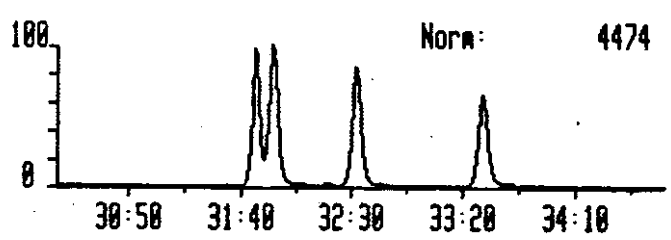


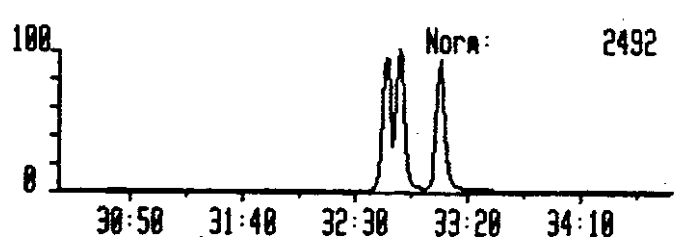
V40926E 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 373.8207 Sample 1 Injection 1 Group 3 Mass 389.8156
Text:CS-4 (092694) Text:CS-4 (092694)



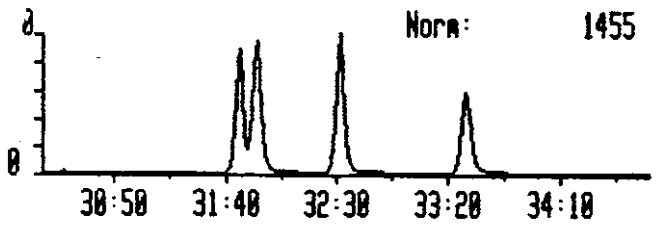


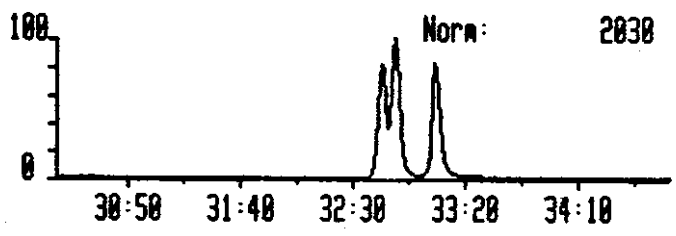
V40926E 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 375.8178 Sample 1 Injection 1 Group 3 Mass 391.8127
Text:CS-4 (092694) Text:CS-4 (092694)



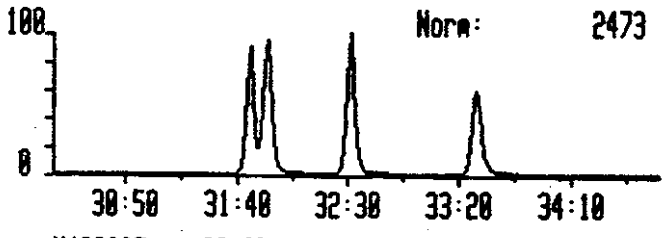


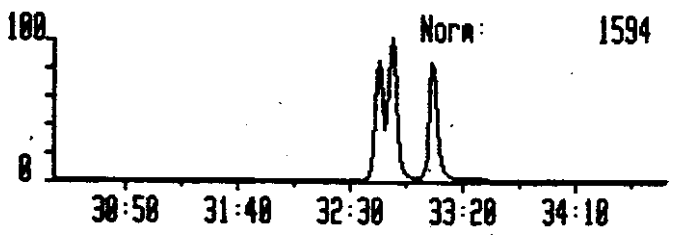
V40926E 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 383.8642 Sample 1 Injection 1 Group 3 Mass 401.8558
Text:CS-4 (092694) Text:CS-4 (092694)



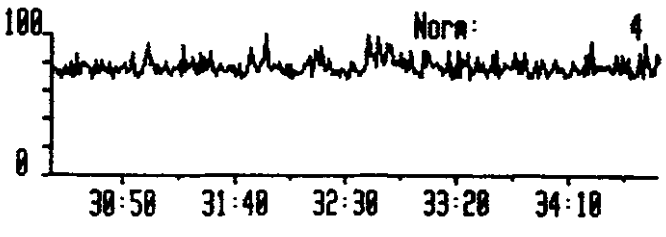


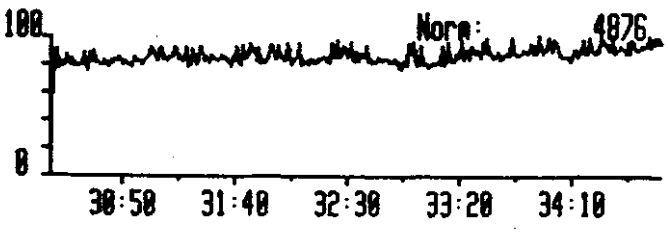
V40926E 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 385.8609 Sample 1 Injection 1 Group 3 Mass 403.8529
Text:CS-4 (092694) Text:CS-4 (092694)



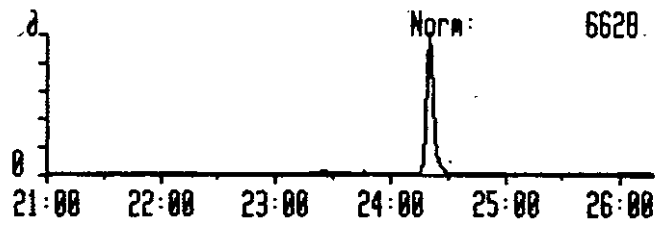


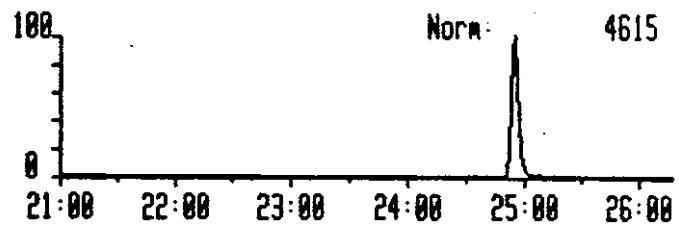
V40926E 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 445.7555 Sample 1 Injection 1 Group 3 Mass 380.9761
Text:CS-4 (092694) Text:CS-4 (092694)



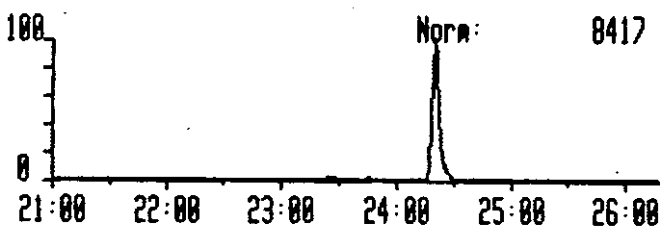


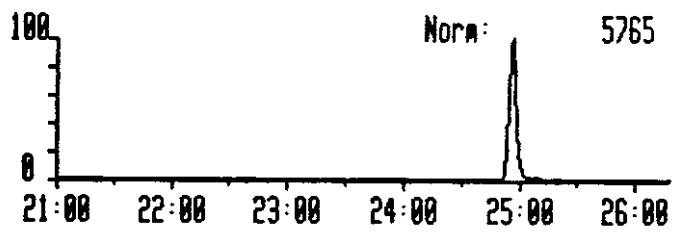
V40926F 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 303.9016 Sample 1 Injection 1 Group 1 Mass 319.8965
Text:CS-5 (092694) Text:CS-5 (092694)



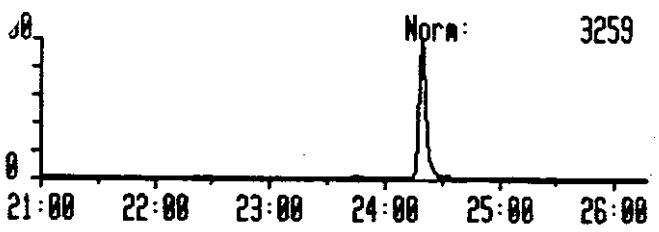


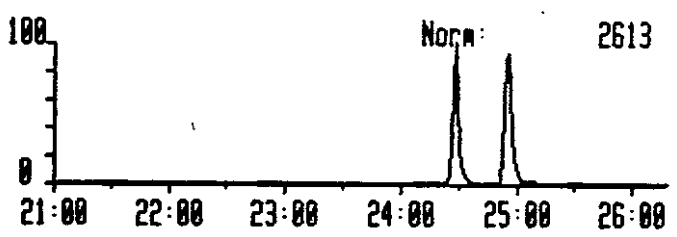
V40926F 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 305.8987 Sample 1 Injection 1 Group 1 Mass 321.8936
Text:CS-5 (092694) Text:CS-5 (092694)



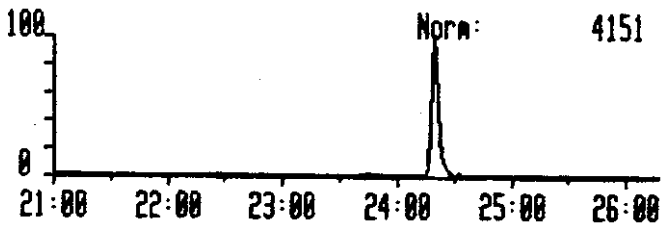


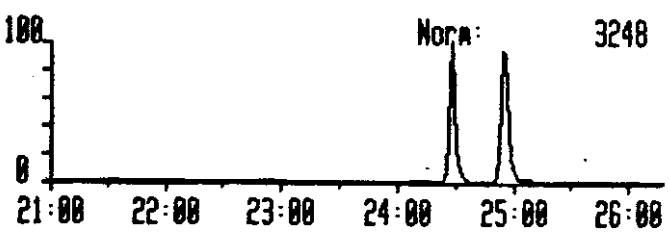
V40926F 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 315.9418 Sample 1 Injection 1 Group 1 Mass 331.9367
Text:CS-5 (092694) Text:CS-5 (092694)



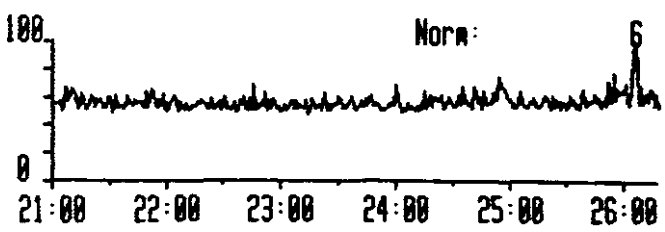


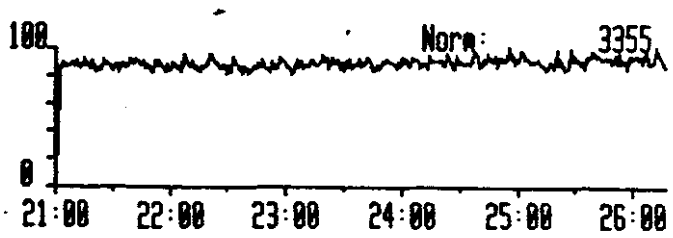
V40926F 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 317.9389 Sample 1 Injection 1 Group 1 Mass 333.9338
Text:CS-5 (092694) Text:CS-5 (092694)



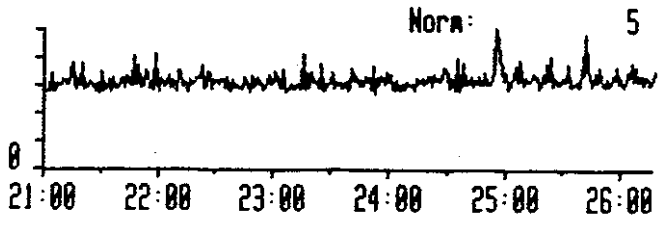


V40926F 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 375.8367 Sample 1 Injection 1 Group 1 Mass 318.9793
Text:CS-5 (092694) Text:CS-5 (092694)

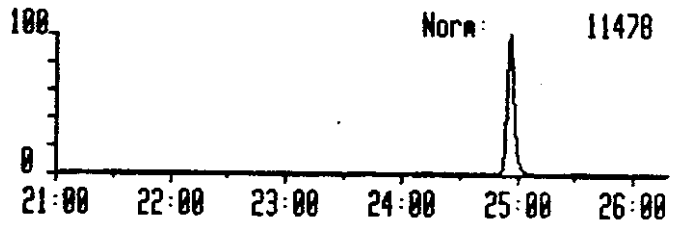




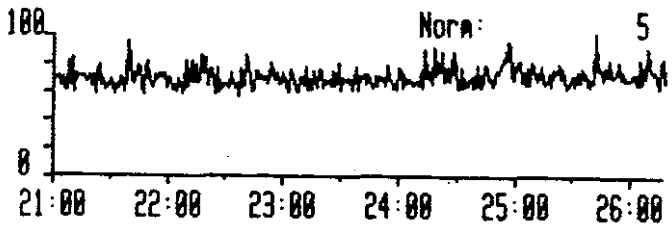
V40926F 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted]
Sample 1 Injection 1 Group 1 Mass 339.8597
Text:CS-5 (092694)



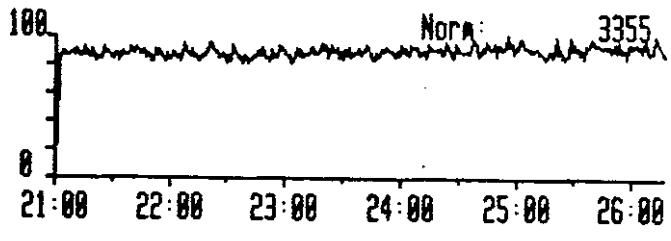
[redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 327.8847
Text:CS-5 (092694)



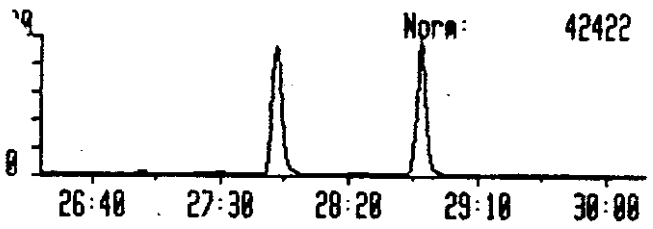
V40926F 26-SEP-94 Sir:Voltage 70-250SE Sys: [redacted]
Sample 1 Injection 1 Group 1 Mass 341.8567
Text:CS-5 (092694)



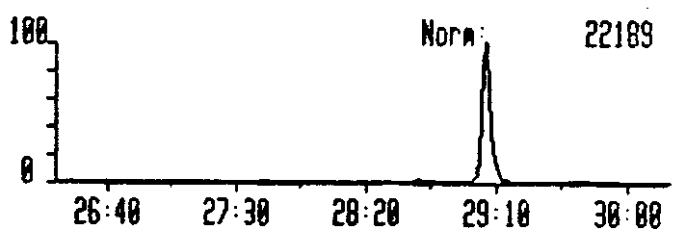
[redacted] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 318.9793
Text:CS-5 (092694)



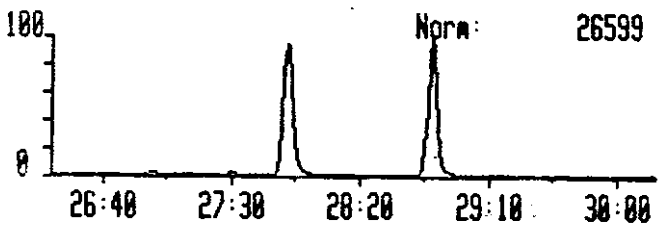
V40926F 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 2 Mass 339.8597
Text:CS-5 (092694)



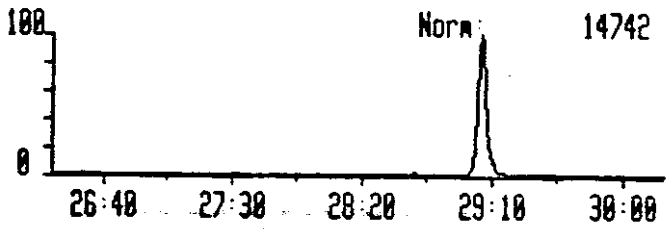
[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 355.8546
Text:CS-5 (092694)



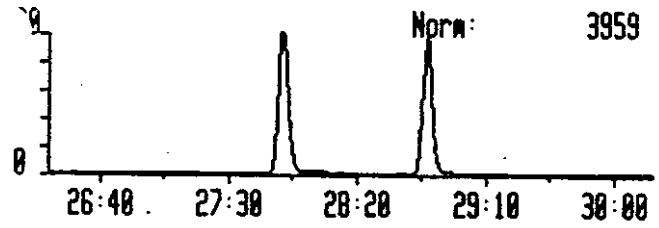
V40926F 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 2 Mass 341.8567
Text:CS-5 (092694)



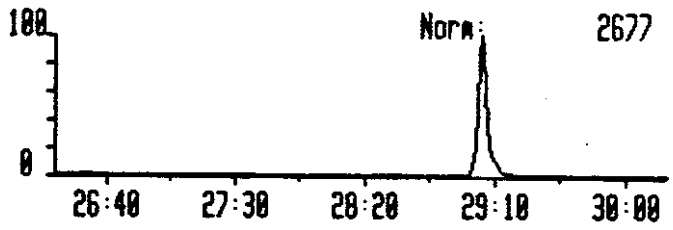
[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 357.8517
Text:CS-5 (092694)



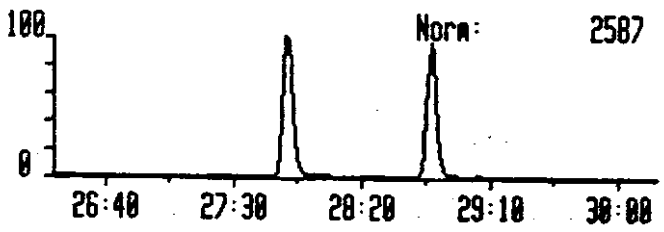
V40926F 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 2 Mass 351.8999
Text:CS-5 (092694)



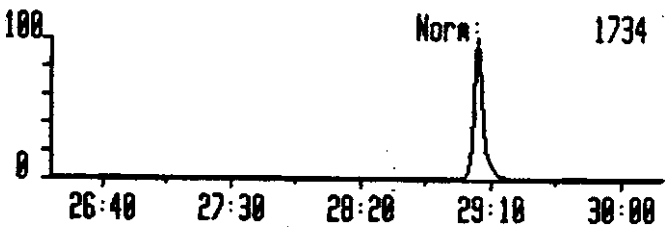
[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 367.8948
Text:CS-5 (092694)



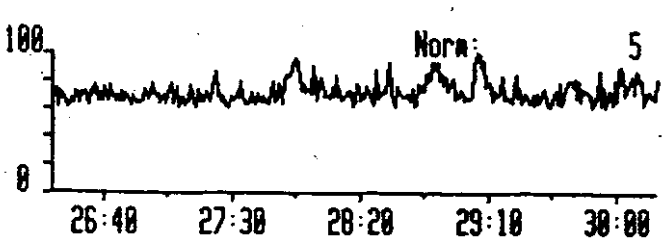
V40926F 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 2 Mass 353.8969
Text:CS-5 (092694)



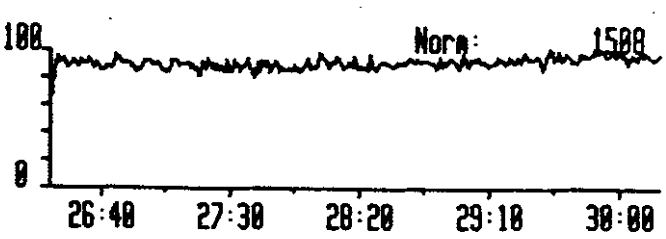
[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 369.8918
Text:CS-5 (092694)



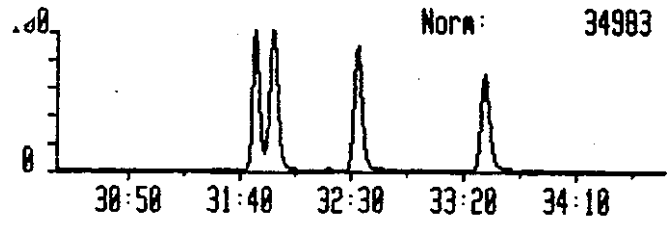
V40926F 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 2 Mass 409.7974
Text:CS-5 (092694)

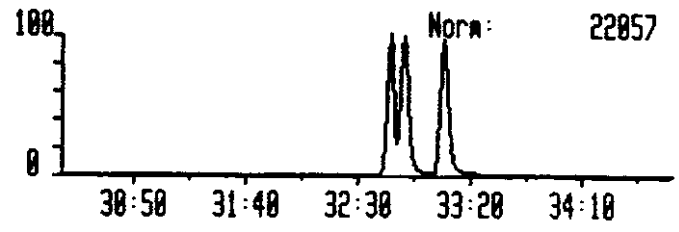


[illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 354.9792
Text:CS-5 (092694)

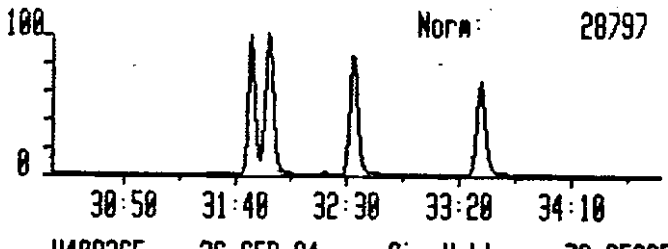


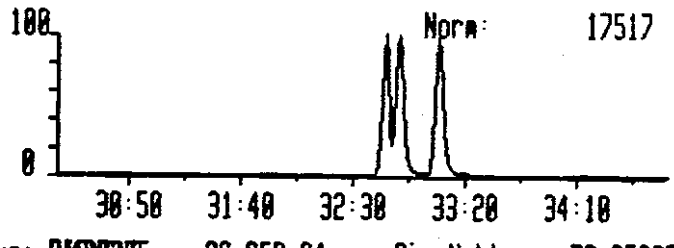
V40926F 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 373.8207 Sample 1 Injection 1 Group 3 Mass 389.8156
Text:CS-5 (092694) Text:CS-5 (092694)



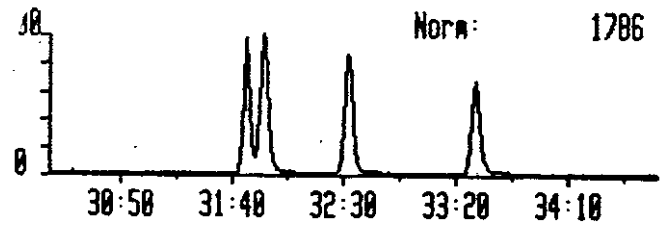


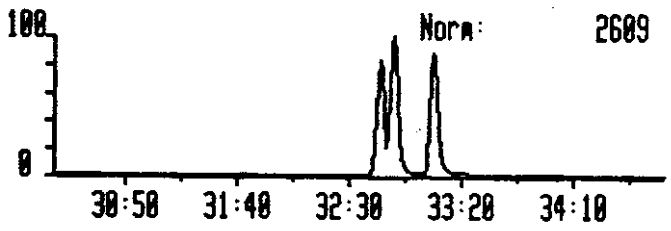
V40926F 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 375.8178 Sample 1 Injection 1 Group 3 Mass 391.8127
Text:CS-5 (092694) Text:CS-5 (092694)



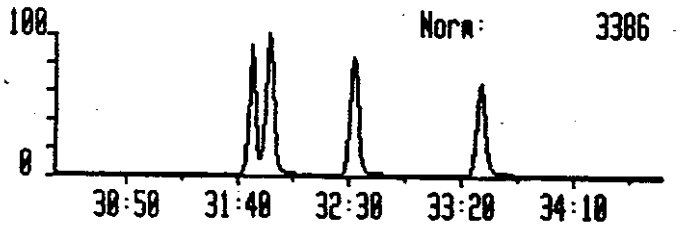


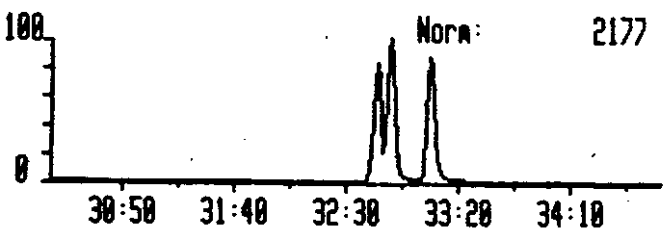
V40926F 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 383.8642 Sample 1 Injection 1 Group 3 Mass 401.8558
Text:CS-5 (092694) Text:CS-5 (092694)



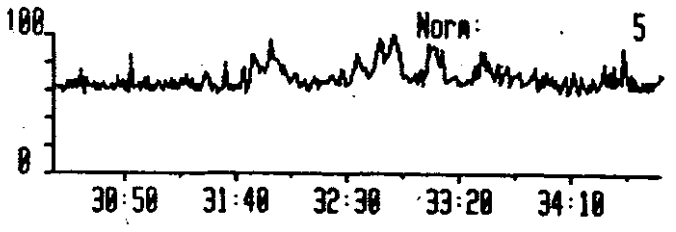


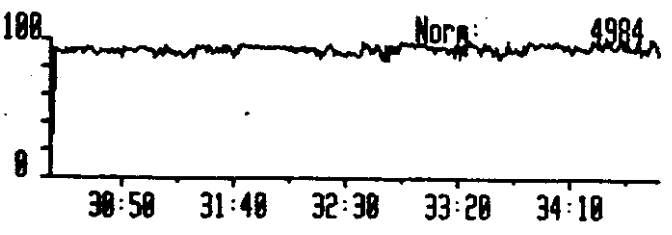
V40926F 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 385.8609 Sample 1 Injection 1 Group 3 Mass 403.8529
Text:CS-5 (092694) Text:CS-5 (092694)



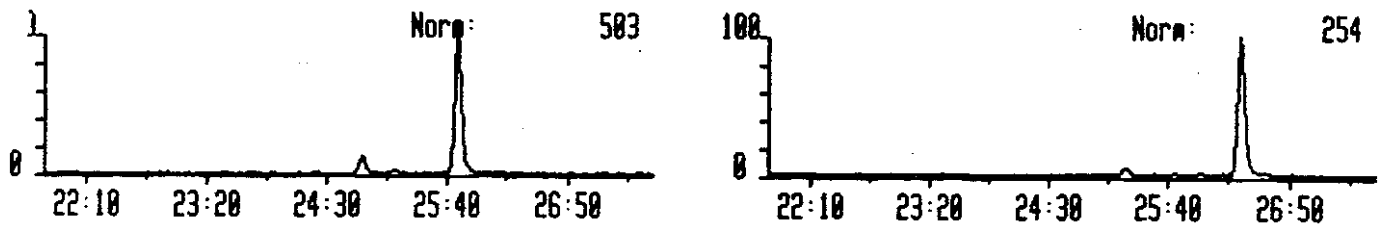


V40926F 26-SEP-94 Sir:Voltage 70-250SE Sys: [illegible] 26-SEP-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 445.7555 Sample 1 Injection 1 Group 3 Mass 300.9761
Text:CS-5 (092694) Text:CS-5 (092694)

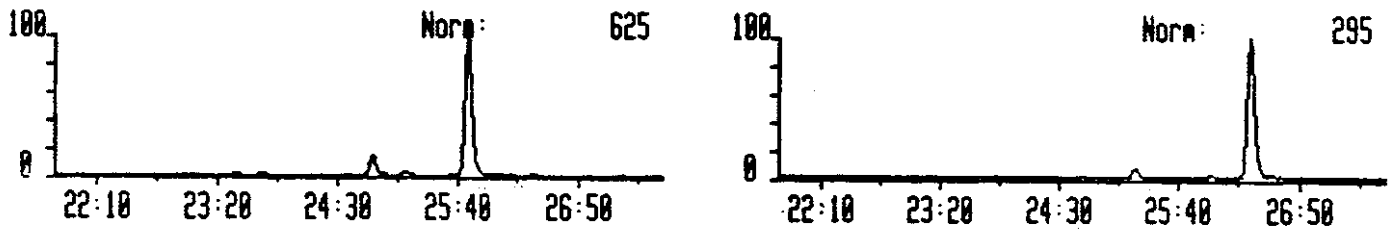




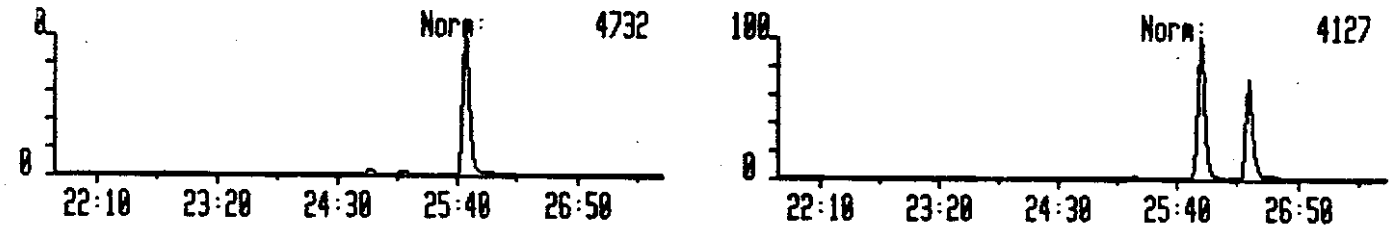
V41021A 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 303.9016 Sample 1 Injection 1 Group 1 Mass 319.8965
Text:CS-3 (092694) Text:CS-3 (092694)



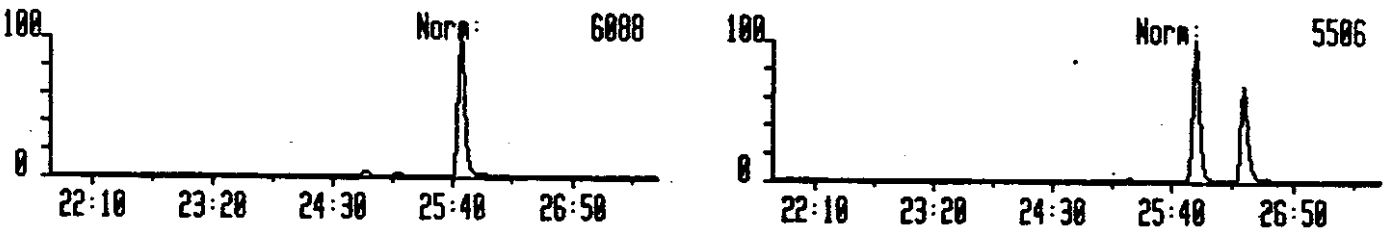
V41021A 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 305.8987 Sample 1 Injection 1 Group 1 Mass 321.8936
Text:CS-3 (092694) Text:CS-3 (092694)



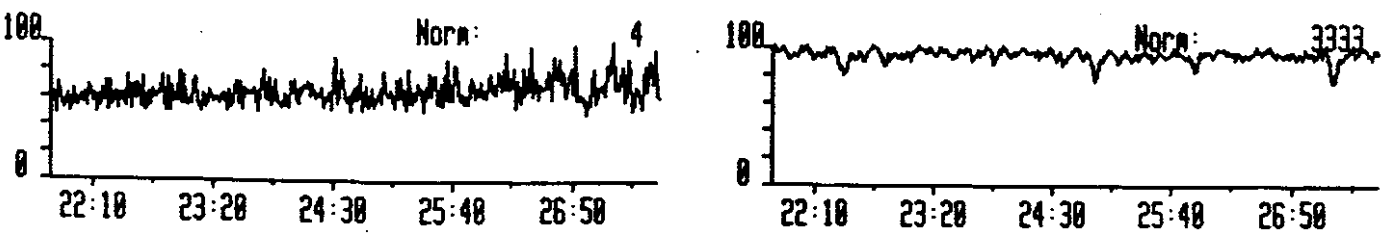
V41021A 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 315.9418 Sample 1 Injection 1 Group 1 Mass 331.9367
Text:CS-3 (092694) Text:CS-3 (092694)



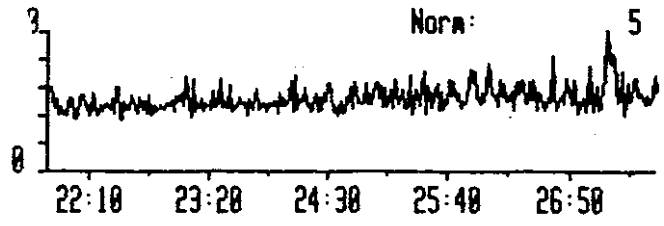
V41021A 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 317.9389 Sample 1 Injection 1 Group 1 Mass 333.9338
Text:CS-3 (092694) Text:CS-3 (092694)

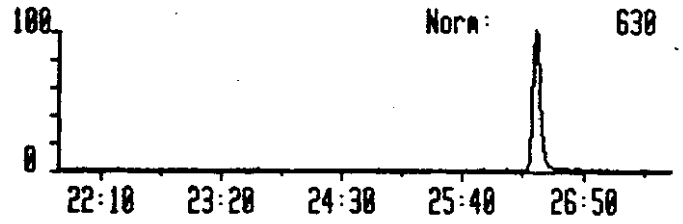


V41021A 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 375.8367 Sample 1 Injection 1 Group 1 Mass 318.9793
Text:CS-3 (092694) Text:CS-3 (092694)

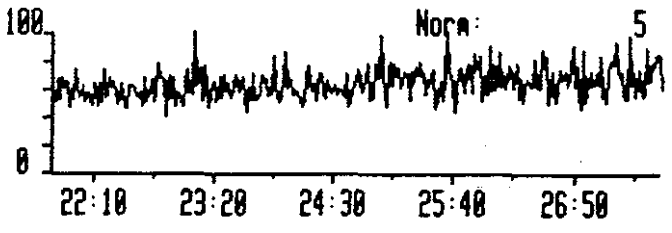


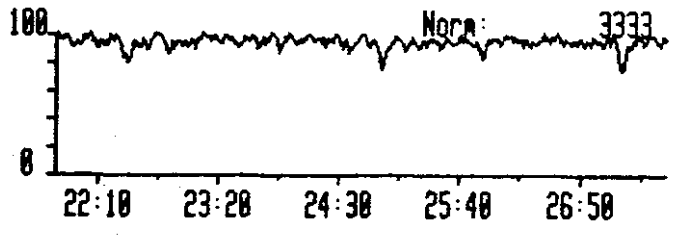
V41021A 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 339.8597 Sample 1 Injection 1 Group 1 Mass 327.8847
Text:CS-3 (092694) Text:CS-3 (092694)



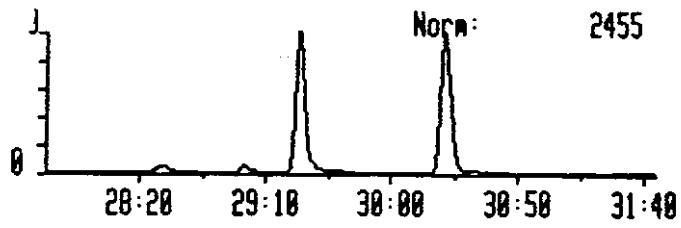


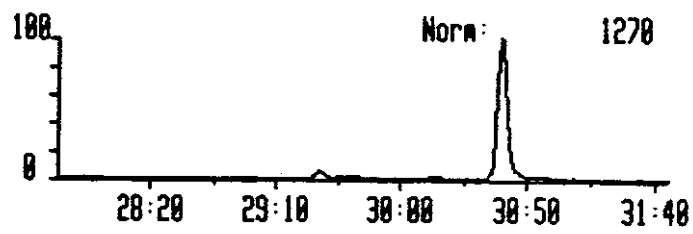
V41021A 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 341.8567 Sample 1 Injection 1 Group 1 Mass 318.9793
Text:CS-3 (092694) Text:CS-3 (092694)



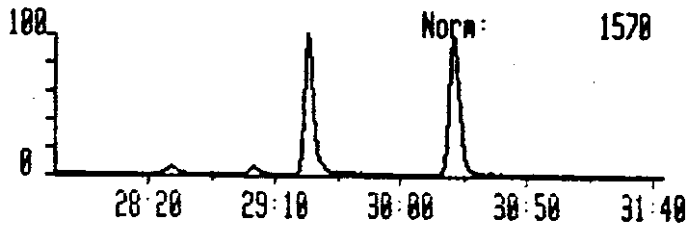


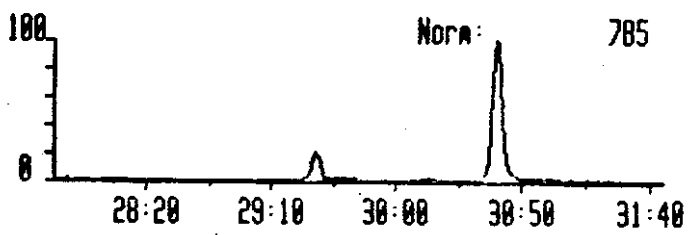
V41021A 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 339.8597 Sample 1 Injection 1 Group 2 Mass 355.8546
Text:CS-3 (092694) Text:CS-3 (092694)



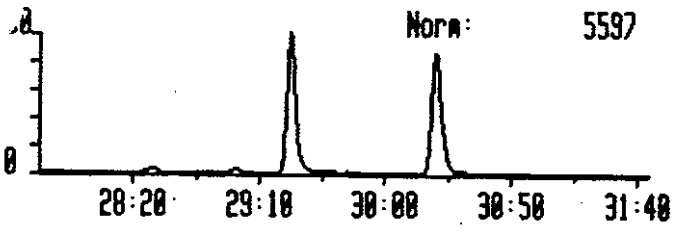


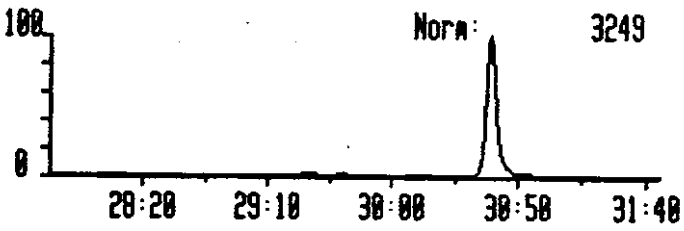
V41021A 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 341.8567 Sample 1 Injection 1 Group 2 Mass 357.8517
Text:CS-3 (092694) Text:CS-3 (092694)



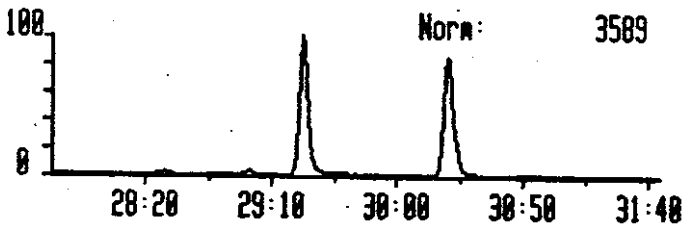


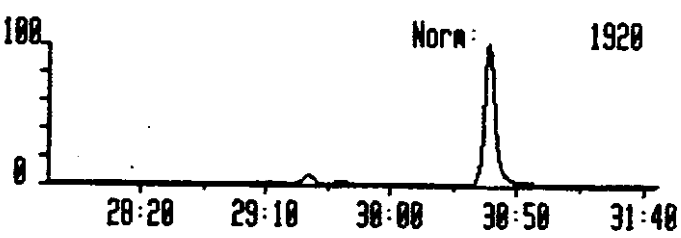
V41021A 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 351.8999 Sample 1 Injection 1 Group 2 Mass 367.8948
Text:CS-3 (092694) Text:CS-3 (092694)



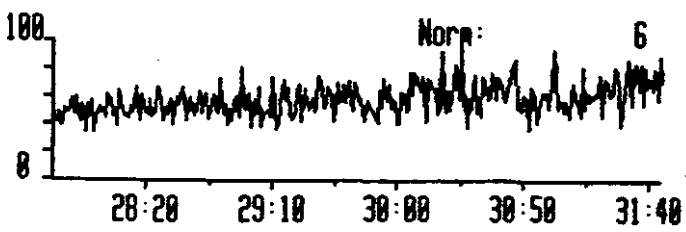


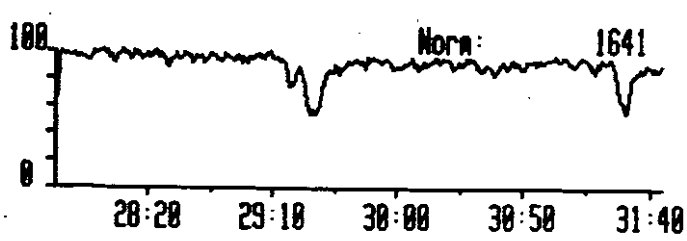
V41021A 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 353.8969 Sample 1 Injection 1 Group 2 Mass 369.8918
Text:CS-3 (092694) Text:CS-3 (092694)



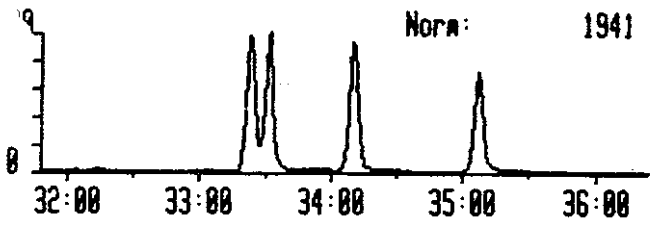


V41021A 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 409.7974 Sample 1 Injection 1 Group 2 Mass 354.9792
Text:CS-3 (092694) Text:CS-3 (092694)

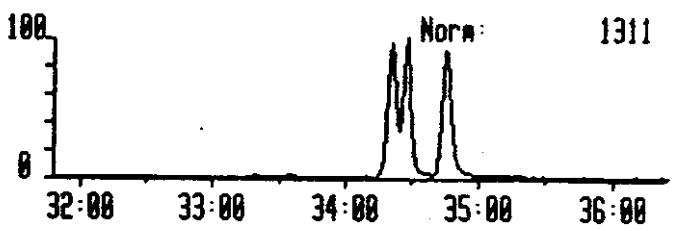




V41021A 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted]
Sample 1 Injection 1 Group 3 Mass 373.8207
Text:CS-3 (092694)



[redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 389.8156
Text:CS-3 (092694)



V41021A 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted]
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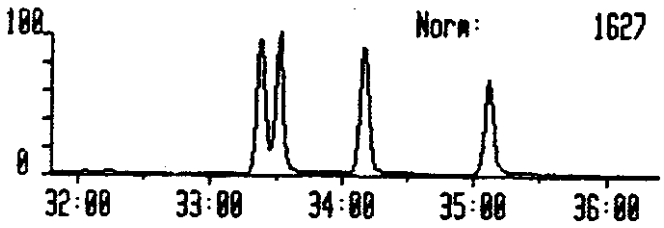
Text:CS-3 (092694)



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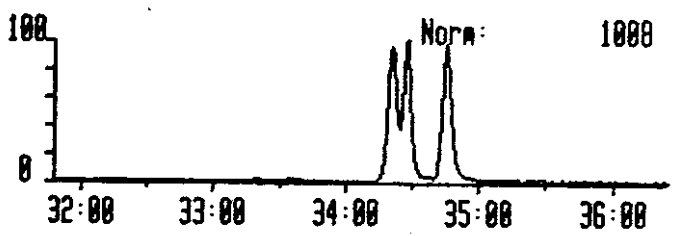
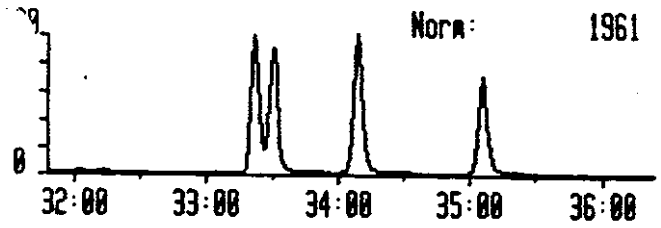
Sample 1 Injection 1 Group 3 Mass 391.8127
Text:CS-3 (092694)



V41021A 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted]
Sample 1 Injection 1 Group 3 Mass 383.8642
Text:CS-3 (092694)



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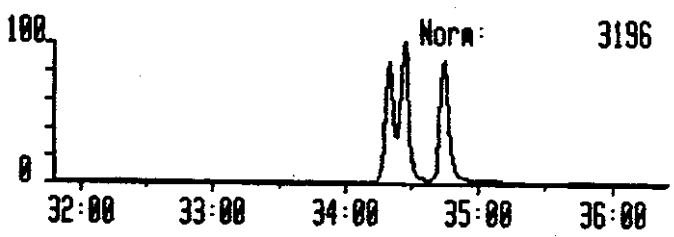
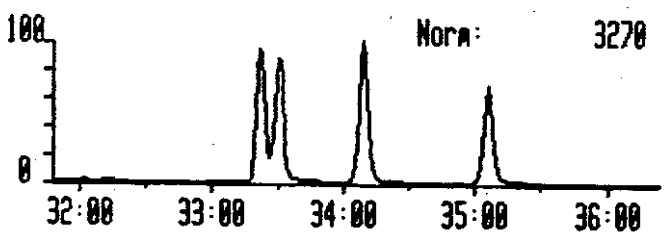
Sample 1 Injection 1 Group 3 Mass 401.8558
Text:CS-3 (092694)



V41021A 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted]
Sample 1 Injection 1 Group 3 Mass 385.8609
Text:CS-3 (092694)



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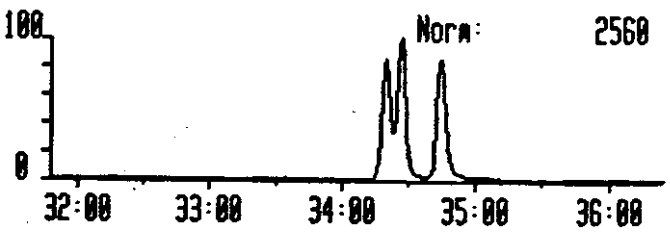
Sample 1 Injection 1 Group 3 Mass 403.8529
Text:CS-3 (092694)



V41021A 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted]
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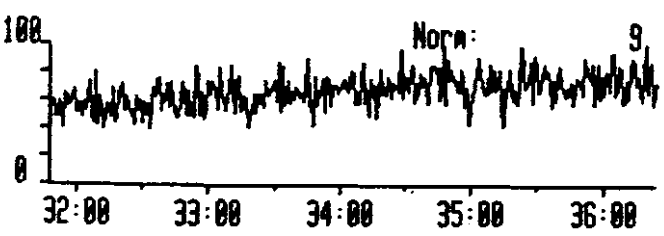
Text:CS-3 (092694)



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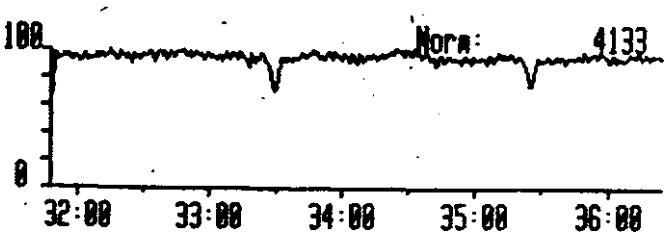
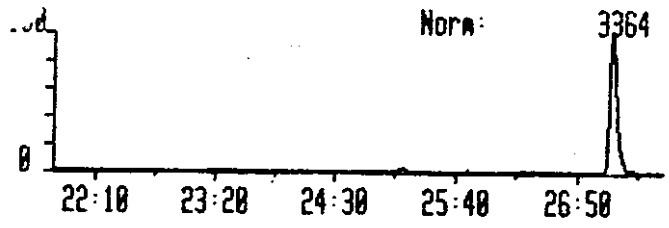
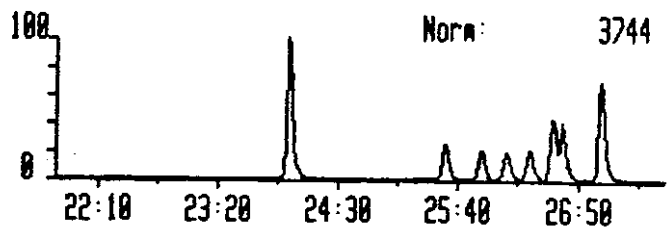
Sample 1 Injection 1 Group 3 Mass 300.9761
Text:CS-3 (092694)

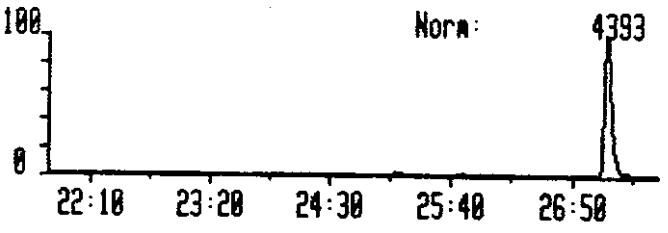


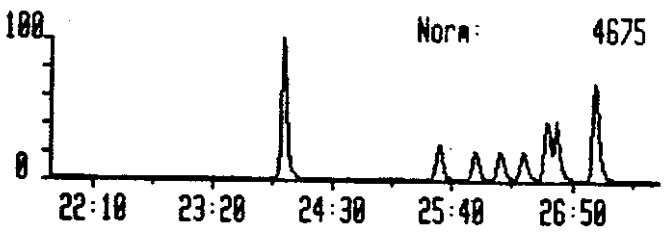
V41021B 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 303.9816 Sample 1 Injection 1 Group 1 Mass 319.8965
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)





V41021B 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 305.8987 Sample 1 Injection 1 Group 1 Mass 321.8936
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)





V41021B 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 315.9418 Sample 1 Injection 1 Group 1 Mass 331.9367
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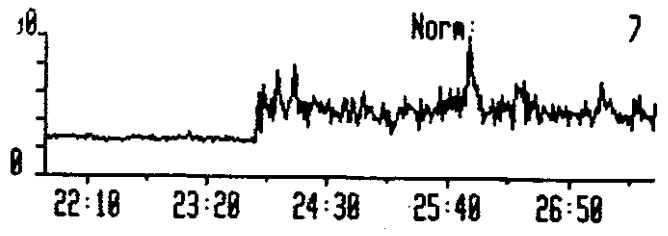
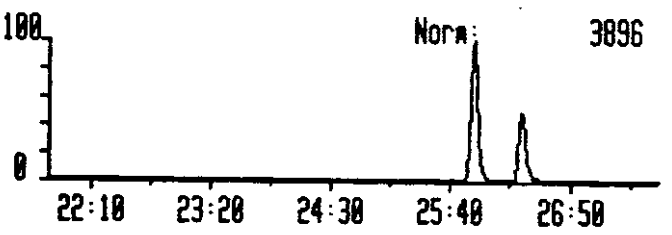
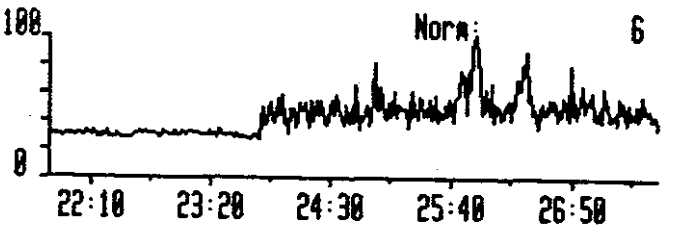
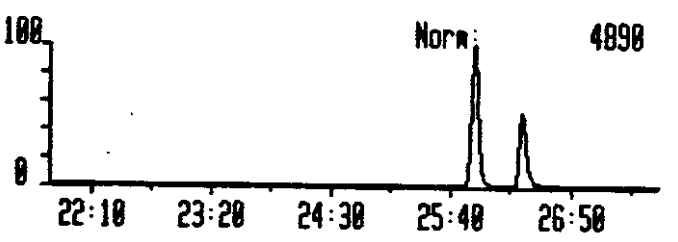


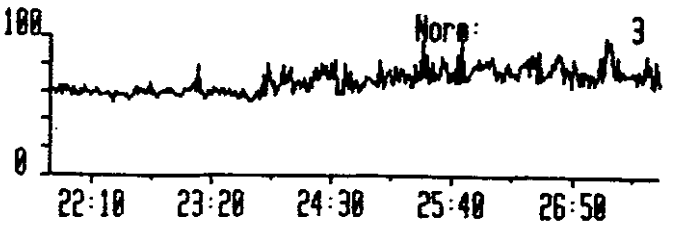


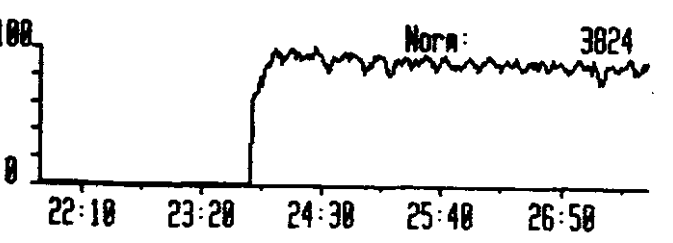
V41021B 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 317.9389 Sample 1 Injection 1 Group 1 Mass 333.9338
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



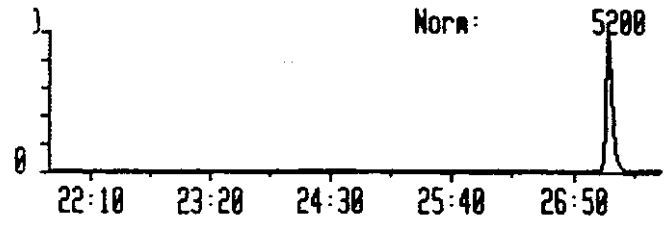


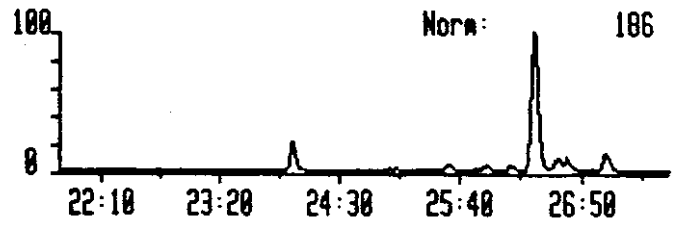
V41021B 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 375.8367 Sample 1 Injection 1 Group 1 Mass 318.9793
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



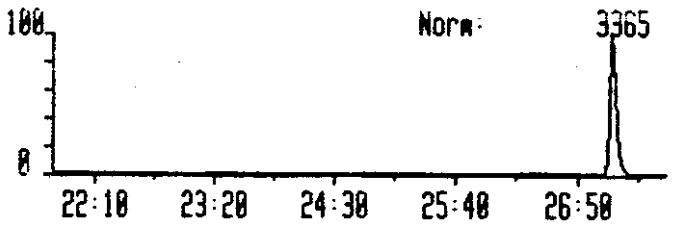


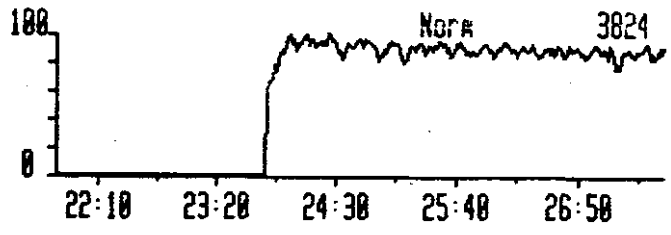
V41021B 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 339.8597 Sample 1 Injection 1 Group 1 Mass 327.8847
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



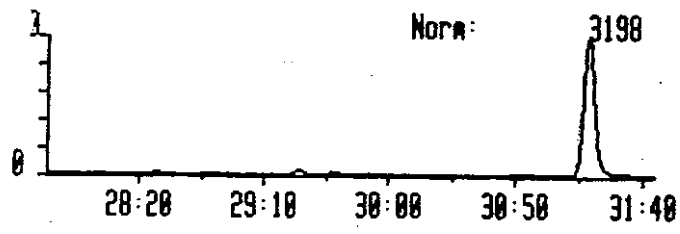


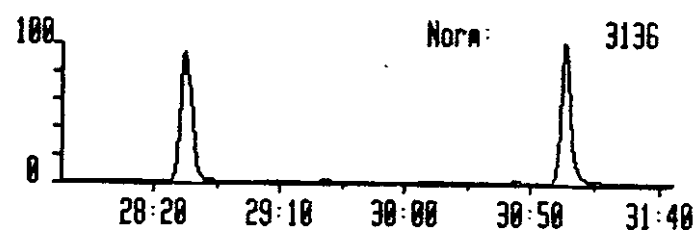
V41021B 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 341.8567 Sample 1 Injection 1 Group 1 Mass 318.9793
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



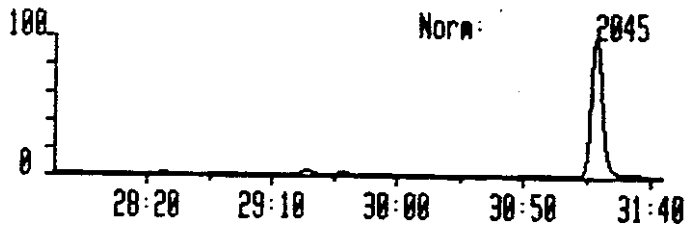


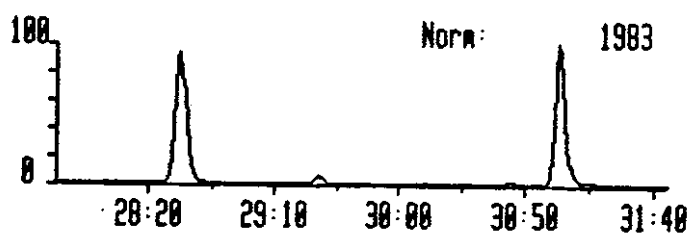
V41021B 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 339.8597 Sample 1 Injection 1 Group 2 Mass 355.8546
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



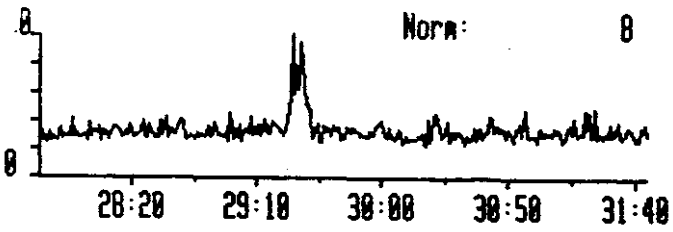


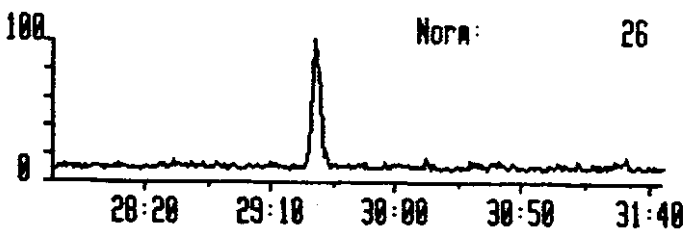
V41021B 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 341.8567 Sample 1 Injection 1 Group 2 Mass 357.8517
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



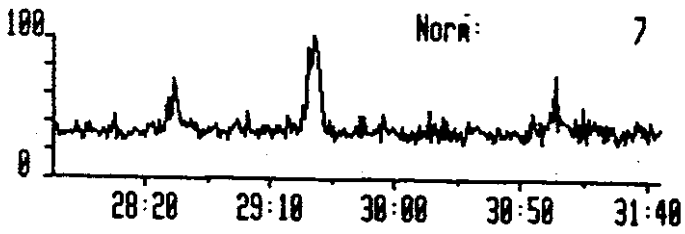


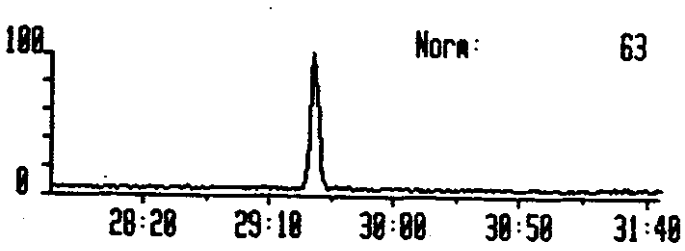
V41021B 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 351.8999 Sample 1 Injection 1 Group 2 Mass 367.8948
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



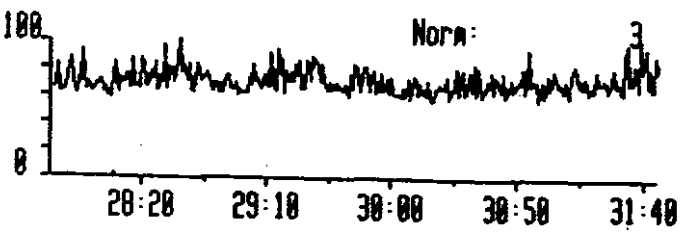


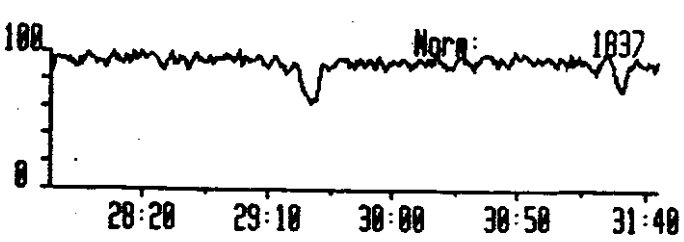
V41021B 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 353.8969 Sample 1 Injection 1 Group 2 Mass 369.8918
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)



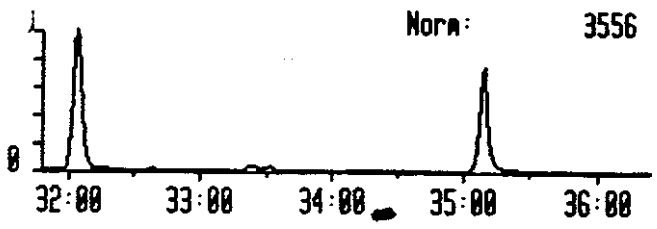


V41021B 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 409.7974 Sample 1 Injection 1 Group 2 Mass 354.9792
Text:COLUMN PERFORMANCE MIX (121192) Text:COLUMN PERFORMANCE MIX (121192)

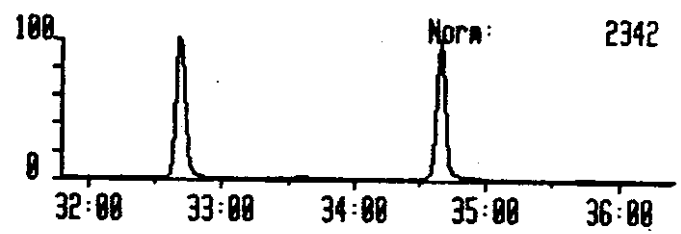




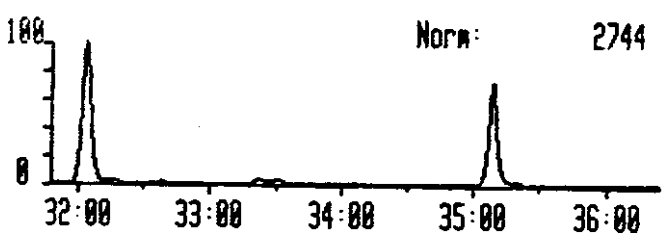
V41021B 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted]
Sample 1 Injection 1 Group 3 Mass 373.8207
Text:COLUMN PERFORMANCE MIX (121192)



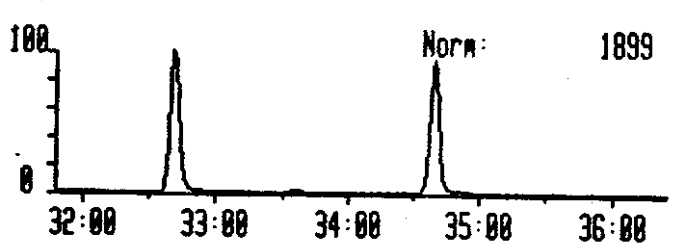
[redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 389.8156
Text:COLUMN PERFORMANCE MIX (121192)



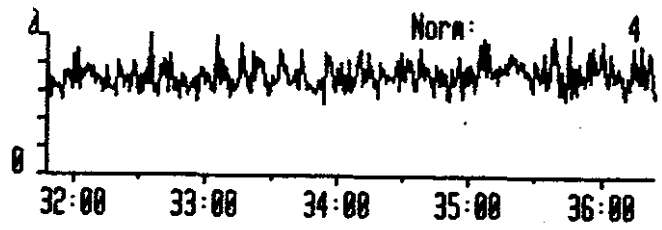
V41021B 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted]
Sample 1 Injection 1 Group 3 Mass 375.8170
Text:COLUMN PERFORMANCE MIX (121192)



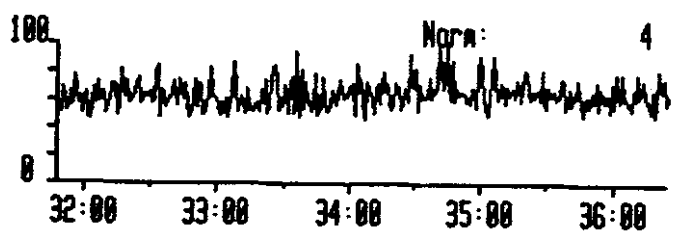
[redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 391.8127
Text:COLUMN PERFORMANCE MIX (121192)



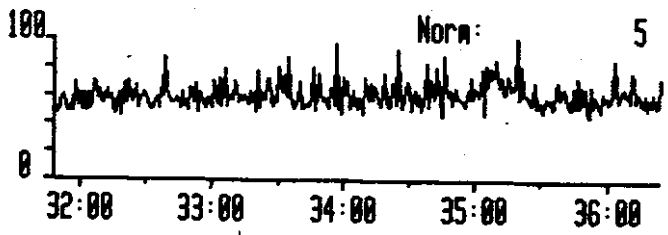
V41021B 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted]
Sample 1 Injection 1 Group 3 Mass 383.8642
Text:COLUMN PERFORMANCE MIX (121192)



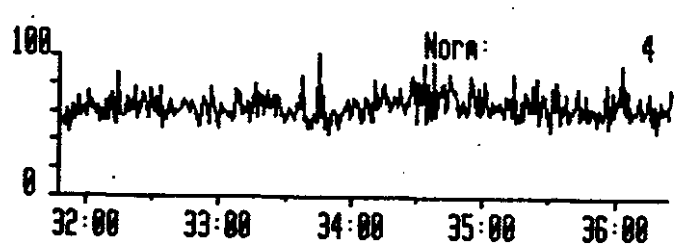
[redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 401.8558
Text:COLUMN PERFORMANCE MIX (121192)



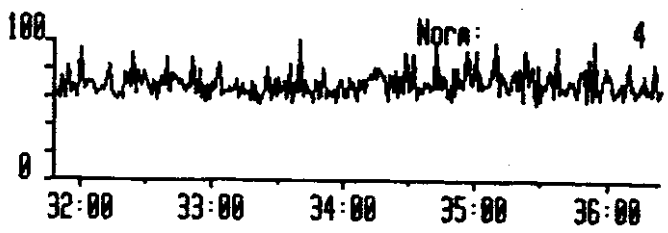
V41021B 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted]
Sample 1 Injection 1 Group 3 Mass 385.8609
Text:COLUMN PERFORMANCE MIX (121192)



[redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 403.8529
Text:COLUMN PERFORMANCE MIX (121192)



V41021B 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted]
Sample 1 Injection 1 Group 3 Mass 445.7555
Text:COLUMN PERFORMANCE MIX (121192)



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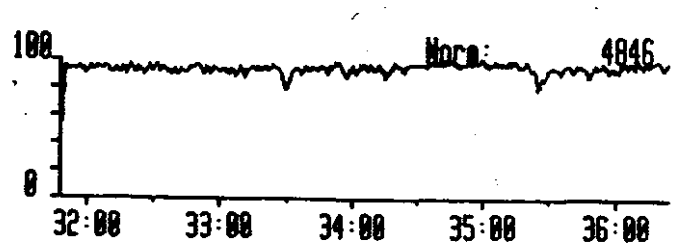
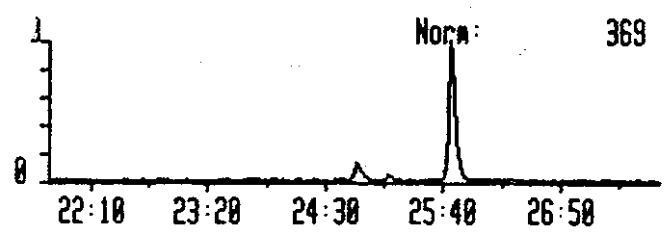
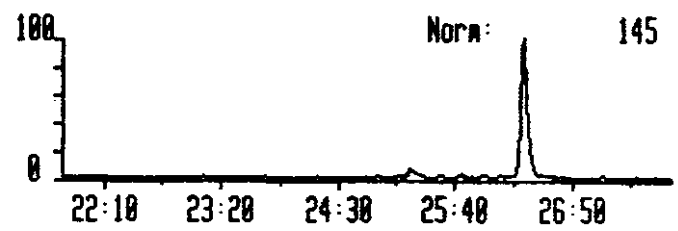
Sample 1 Injection 1 Group 3 Mass 388.9761
Text:COLUMN PERFORMANCE MIX (121192)

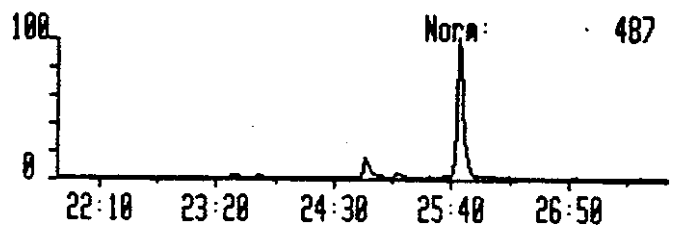


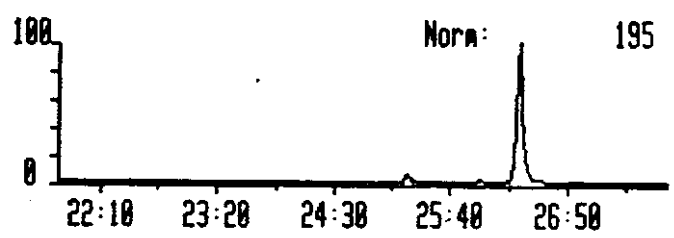
V41021L 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 303.9016 Sample 1 Injection 1 Group 1 Mass 319.8965
Text:CS-3 (092694) Text:CS-3 (092694)



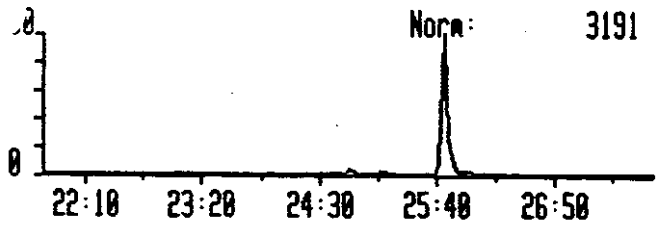


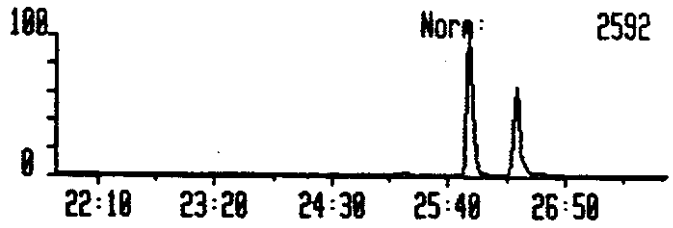
V41021L 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 305.8987 Sample 1 Injection 1 Group 1 Mass 321.8936
Text:CS-3 (092694) Text:CS-3 (092694)



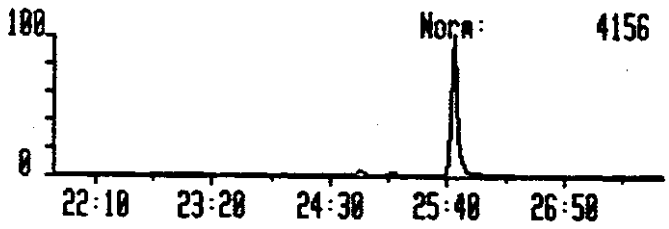


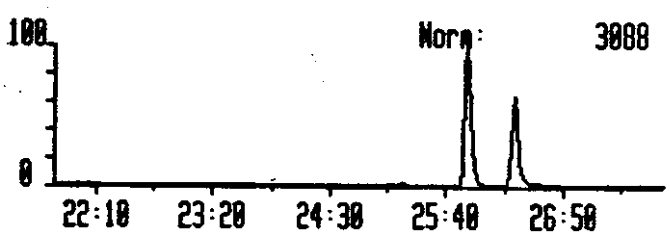
V41021L 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 315.9418 Sample 1 Injection 1 Group 1 Mass 331.9367
Text:CS-3 (092694) Text:CS-3 (092694)



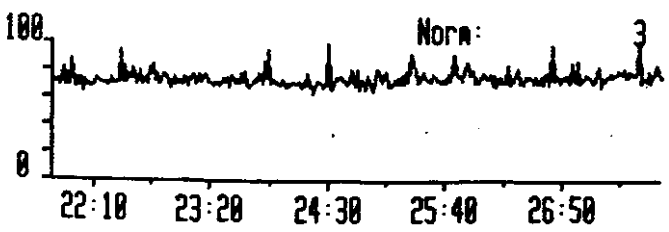


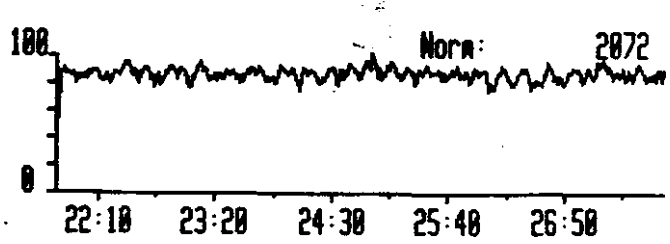
V41021L 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 317.9389 Sample 1 Injection 1 Group 1 Mass 333.9338
Text:CS-3 (092694) Text:CS-3 (092694)



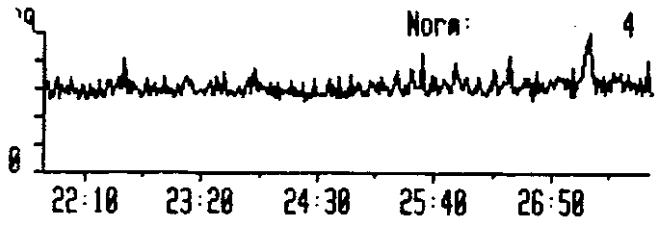


V41021L 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 375.8367 Sample 1 Injection 1 Group 1 Mass 318.9793
Text:CS-3 (092694) Text:CS-3 (092694)

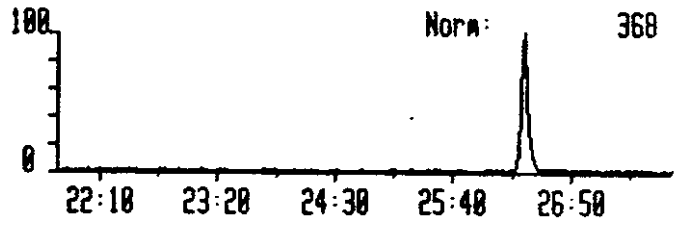




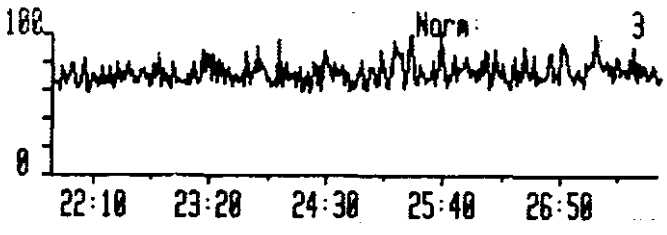
V41021L 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted]
Sample 1 Injection 1 Group 1 Mass 339.8597
Text:CS-3 (092694)



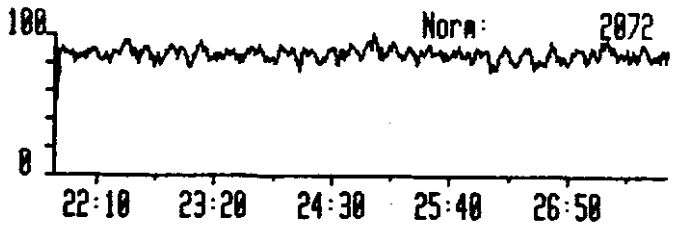
[redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: OI
Sample 1 Injection 1 Group 1 Mass 327.8847
Text:CS-3 (092694)



V41021L 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted]
Sample 1 Injection 1 Group 1 Mass 341.8567
Text:CS-3 (092694)



[redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: OI
Sample 1 Injection 1 Group 1 Mass 318.9793
Text:CS-3 (092694)



Run #1 Filename V40926B Acquired: 26-SEP-94 17:10:14

Processed: 27-Sep-94 08:06:14 Comments:

	Typ	Name	RT	Resp	Resp	RA	
1	Unk	2,3,7,8-TCDF	24:20	67.9	79.1	0.86	y
2	Unk	1,2,3,7,8-PeCDF	27:52	352	221	1.59	y
3	Unk	2,3,4,7,8-PeCDF	28:47	344	209	1.65	y
4	Unk	1,2,3,4,7,8-HxCDF	31:47	262	211	1.24	y
5	Unk	1,2,3,6,7,8-HxCDF	31:54	280	221	1.27	y
6	Unk	2,3,4,6,7,8-HxCDF	32:32	257	211	1.22	y
7	Unk	1,2,3,7,8,9-HxCDF	33:29	225	180	1.25	y
8	Unk	1,2,3,4,6,7,8-HpCDF	35:09	217	215	1.01	y
9	Unk	1,2,3,4,7,8,9-HpCDF	36:60	183	175	1.05	y
10	Unk	OCDF	39:56	243	276	0.88	y
11	Unk	2,3,7,8-TCDD	24:56	45.0	65.5	0.69	y
12	Unk	1,2,3,7,8-PeCDD	29:05	197	121	1.63	y
13	Unk	1,2,3,4,7,8-HxCDD	32:43	178	140	1.27	y
14	Unk	1,2,3,6,7,8-HxCDD	32:49	167	135	1.23	y
15	Unk	1,2,3,7,8,9-HxCDD	33:07	167	130	1.29	y
16	Unk	1,2,3,4,6,7,8-HpCDD	36:25	149	153	0.97	y
17	Unk	OCDD	39:45	227	250	0.91	y
18	IS/RT	13C-2,3,7,8-TCDF	24:20	11500	15400	0.75	y
19	IS	13C-1,2,3,7,8-PeCDF	27:51	15700	9660	1.62	y
20	IS	13C-2,3,4,7,8-PeCDF	28:47	13900	8590	1.61	y
21	IS	13C-1,2,3,4,7,8-HxCDF	31:45	5360	9370	0.57	y
22	IS	13C-1,2,3,6,7,8-HxCDF	31:53	5500	9750	0.56	y
23	IS	13C-2,3,4,6,7,8-HxCDF	32:31	5400	9280	0.58	y
24	IS	13C-1,2,3,7,8,9-HxCDF	33:28	4200	7460	0.56	y
25	IS	13C-1,2,3,4,6,7,8-HpCDF	35:09	3870	8150	0.48	y
26	IS	13C-1,2,3,4,7,8,9-HpCDF	36:59	3240	6900	0.47	y
27	IS	13C-2,3,7,8-TCDD	24:54	9870	12800	0.77	y
28	IS	13C-1,2,3,7,8-PeCDD	29:04	9400	6230	1.51	y
29	IS	13C-1,2,3,4,7,8-HxCDD	32:42	6480	5360	1.21	y
30	IS	13C-1,2,3,6,7,8-HxCDD	32:48	8260	6800	1.21	y
31	IS	13C-1,2,3,4,6,7,8-HpCDD	36:24	5820	5800	1.00	y
32	IS	13C-OCDD	39:44	8220	8590	0.96	y
33	RS	13C-1,2,3,4-TCDD	24:27	10400	13400	0.77	y
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	33:06	7290	6010	1.21	y
35	C/Up	37Cl-2,3,7,8-TCDD	24:55	116			

Run #2 Filename V40926C Acquired: 26-SEP-94 17:10:24

Processed: 27-Sep-94 08:06:21 Comments:

	Typ	Name	RT	Resp	Resp	RA	
1	Unk	2,3,7,8-TCDF	24:22	94.6	125	0.76	y
2	Unk	1,2,3,7,8-PeCDF	27:54	525	334	1.57	y
3	Unk	2,3,4,7,8-PeCDF	28:50	494	309	1.60	y
4	Unk	1,2,3,4,7,8-HxCDF	31:48	357	277	1.29	y
5	Unk	1,2,3,6,7,8-HxCDF	31:56	400	319	1.25	y
6	Unk	2,3,4,6,7,8-HxCDF	32:34	325	259	1.26	y
7	Unk	1,2,3,7,8,9-HxCDF	33:31	233	175	1.33	y
8	Unk	1,2,3,4,6,7,8-HpCDF	35:11	232	216	1.07	y
9	Unk	1,2,3,4,7,8,9-HpCDF	37:01	166	169	0.98	y
10	Unk	OCDF	39:58	179	214	0.84	y
11	Unk	2,3,7,8-TCDD	24:57	54.2	76.8	0.71	y
12	Unk	1,2,3,7,8-PeCDD	29:07	300	201	1.49	y
13	Unk	1,2,3,4,7,8-HxCDD	32:44	187	146	1.28	y
14	Unk	1,2,3,6,7,8-HxCDD	32:50	232	197	1.18	y
15	Unk	1,2,3,7,8,9-HxCDD	33:08	193	164	1.18	y
16	Unk	1,2,3,4,6,7,8-HpCDD	36:26	118	125	0.94	y
17	Unk	OCDD	39:47	175	192	0.91	y
18	IS/RT	13C-2,3,7,8-TCDF	24:21	4490	5520	0.81	y
19	IS	13C-1,2,3,7,8-PeCDF	27:53	5900	3670	1.61	y
20	IS	13C-2,3,4,7,8-PeCDF	28:48	5040	3020	1.67	y
21	IS	13C-1,2,3,4,7,8-HxCDF	31:47	1720	3090	0.56	y
22	IS	13C-1,2,3,6,7,8-HxCDF	31:55	2050	3700	0.55	y
23	IS	13C-2,3,4,6,7,8-HxCDF	32:33	1750	3250	0.54	y
24	IS	13C-1,2,3,7,8,9-HxCDF	33:30	1140	2030	0.56	y
25	IS	13C-1,2,3,4,6,7,8-HpCDF	35:10	1030	2210	0.47	y
26	IS	13C-1,2,3,4,7,8,9-HpCDF	37:00	742	1690	0.44	y
27	IS	13C-2,3,7,8-TCDD	24:56	3100	4020	0.77	y
28	IS	13C-1,2,3,7,8-PeCDD	29:06	3730	2430	1.54	y
29	IS	13C-1,2,3,4,7,8-HxCDD	32:44	1920	1640	1.17	y
30	IS	13C-1,2,3,6,7,8-HxCDD	32:49	2930	2420	1.21	y
31	IS	13C-1,2,3,4,6,7,8-HpCDD	36:25	1160	1140	1.02	y
32	IS	13C-OCDD	39:46	1550	1750	0.89	y
33	RS	13C-1,2,3,4-TCDD	24:29	3800	5010	0.76	y
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	33:08	2270	1840	1.23	y
35	C/Up	37Cl-2,3,7,8-TCDD	24:57	137			

Run #3 Filename V40926D Acquired: 26-SEP-94 17:10:37

Processed: 27-Sep-94 08:06:29 Comments:

	Typ	Name	RT	Resp	Resp	RA	
1	Unk	2,3,7,8-TCDF	24:23	571	749	0.76	y
2	Unk	1,2,3,7,8-PeCDF	27:54	2930	1900	1.55	y
3	Unk	2,3,4,7,8-PeCDF	28:50	2860	1830	1.56	y
4	Unk	1,2,3,4,7,8-HxCDF	31:48	1900	1500	1.26	y
5	Unk	1,2,3,6,7,8-HxCDF	31:56	2100	1680	1.25	y
6	Unk	2,3,4,6,7,8-HxCDF	32:35	1720	1340	1.28	y
7	Unk	1,2,3,7,8,9-HxCDF	33:31	1310	1050	1.25	y
8	Unk	1,2,3,4,6,7,8-HpCDF	35:11	1270	1250	1.02	y
9	Unk	1,2,3,4,7,8,9-HpCDF	37:01	822	762	1.08	y
10	Unk	OCDF	39:58	954	1090	0.87	y
11	Unk	2,3,7,8-TCDD	24:58	379	478	0.79	y
12	Unk	1,2,3,7,8-PeCDD	29:07	1560	973	1.61	y
13	Unk	1,2,3,4,7,8-HxCDD	32:44	1070	807	1.33	y
14	Unk	1,2,3,6,7,8-HxCDD	32:51	1140	985	1.15	y
15	Unk	1,2,3,7,8,9-HxCDD	33:08	1090	892	1.22	y
16	Unk	1,2,3,4,6,7,8-HpCDD	36:26	853	803	1.06	y
17	Unk	OCDD	39:46	900	1050	0.86	y
18	IS/RT	13C-2,3,7,8-TCDF	24:22	5310	6800	0.78	y
19	IS	13C-1,2,3,7,8-PeCDF	27:53	6370	3960	1.61	y
20	IS	13C-2,3,4,7,8-PeCDF	28:49	5650	3490	1.62	y
21	IS	13C-1,2,3,4,7,8-HxCDF	31:47	1730	3140	0.55	y
22	IS	13C-1,2,3,6,7,8-HxCDF	31:55	2110	3930	0.54	y
23	IS	13C-2,3,4,6,7,8-HxCDF	32:33	1760	3220	0.54	y
24	IS	13C-1,2,3,7,8,9-HxCDF	33:30	1220	2260	0.54	y
25	IS	13C-1,2,3,4,6,7,8-HpCDF	35:10	1200	2480	0.48	y
26	IS	13C-1,2,3,4,7,8,9-HpCDF	37:00	744	1560	0.48	y
27	IS	13C-2,3,7,8-TCDD	24:57	4290	5470	0.78	y
28	IS	13C-1,2,3,7,8-PeCDD	29:06	3870	2500	1.55	y
29	IS	13C-1,2,3,4,7,8-HxCDD	32:44	2100	1610	1.30	y
30	IS	13C-1,2,3,6,7,8-HxCDD	32:49	3120	2410	1.30	y
31	IS	13C-1,2,3,4,6,7,8-HpCDD	36:25	1550	1600	0.97	y
32	IS	13C-OCDD	39:45	1670	1730	0.97	y
33	RS	13C-1,2,3,4-TCDD	24:30	4780	6150	0.78	y
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	33:08	2540	1990	1.28	y
35	C/Up	37Cl-2,3,7,8-TCDD	24:58	1030			

Run #4 Filename V40926E Acquired: 26-SEP-94 17:10:47

Processed: 27-Sep-94 08:06:37 Comments:

	Typ	Name	RT	Resp	Resp	RA	
1	Unk	2,3,7,8-TCDF	24:20	5230	6860	0.76	y
2	Unk	1,2,3,7,8-PeCDF	27:51	30400	18800	1.62	y
3	Unk	2,3,4,7,8-PeCDF	28:47	29300	18300	1.60	y
4	Unk	1,2,3,4,7,8-HxCDF	31:46	22800	18500	1.23	y
5	Unk	1,2,3,6,7,8-HxCDF	31:54	23900	19500	1.22	y
6	Unk	2,3,4,6,7,8-HxCDF	32:32	20400	16600	1.23	y
7	Unk	1,2,3,7,8,9-HxCDF	33:28	16300	13300	1.23	y
8	Unk	1,2,3,4,6,7,8-HpCDF	35:09	18800	18600	1.01	y
9	Unk	1,2,3,4,7,8,9-HpCDF	36:60	13500	13600	1.00	y
10	Unk	OCDF	39:56	15400	18000	0.85	y
11	Unk	2,3,7,8-TCDD	24:54	3470	4230	0.82	y
12	Unk	1,2,3,7,8-PeCDD	29:04	15800	9600	1.65	y
13	Unk	1,2,3,4,7,8-HxCDD	32:42	12700	10200	1.24	y
14	Unk	1,2,3,6,7,8-HxCDD	32:49	14100	11000	1.29	y
15	Unk	1,2,3,7,8,9-HxCDD	33:07	12400	9930	1.25	y
16	Unk	1,2,3,4,6,7,8-HpCDD	36:25	12400	12200	1.01	y
17	Unk	OCDD	39:45	15900	17500	0.91	y
18	IS/RT	13C-2,3,7,8-TCDF	24:19	13000	16100	0.81	y
19	IS	13C-1,2,3,7,8-PeCDF	27:50	16500	9920	1.66	y
20	IS	13C-2,3,4,7,8-PeCDF	28:47	14400	8900	1.62	y
21	IS	13C-1,2,3,4,7,8-HxCDF	31:45	5690	9730	0.58	y
22	IS	13C-1,2,3,6,7,8-HxCDF	31:45	5570	9900	0.56	y
23	IS	13C-2,3,4,6,7,8-HxCDF	32:31	5590	10300	0.54	y
24	IS	13C-1,2,3,7,8,9-HxCDF	33:28	3970	6920	0.57	y
25	IS	13C-1,2,3,4,6,7,8-HpCDF	35:08	4100	9150	0.45	y
26	IS	13C-1,2,3,4,7,8,9-HpCDF	36:59	3060	6730	0.45	y
27	IS	13C-2,3,7,8-TCDD	24:53	9490	12200	0.78	y
28	IS	13C-1,2,3,7,8-PeCDD	29:03	10300	6330	1.62	y
29	IS	13C-1,2,3,4,7,8-HxCDD	32:41	6960	5540	1.26	y
30	IS	13C-1,2,3,6,7,8-HxCDD	32:48	8760	6880	1.27	y
31	IS	13C-1,2,3,4,6,7,8-HpCDD	36:24	6150	5960	1.03	y
32	IS	13C-OCDD	39:44	7100	7990	0.89	y
33	RS	13C-1,2,3,4-TCDD	24:26	10100	12700	0.80	y
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	33:06	7340	5790	1.27	y
35	C/Up	37Cl-2,3,7,8-TCDD	24:54	8850			

Run #5 Filename V40926F Acquired: 26-SEP-94 17:32:46

Processed: 27-Sep-94 08:06:46 Comments:

	Typ	Name	RT	Resp	Resp	RA	
1	Unk	2,3,7,8-TCDF	24:20	26100	33400	0.78	y
2	Unk	1,2,3,7,8-PeCDF	27:52	161000	101000	1.58	y
3	Unk	2,3,4,7,8-PeCDF	28:47	159000	100000	1.58	y
4	Unk	1,2,3,4,7,8-HxCDF	31:47	135000	109000	1.25	y
5	Unk	1,2,3,6,7,8-HxCDF	31:55	142000	114000	1.24	y
6	Unk	2,3,4,6,7,8-HxCDF	32:33	118000	93400	1.27	y
7	Unk	1,2,3,7,8,9-HxCDF	33:29	98200	79400	1.24	y
8	Unk	1,2,3,4,6,7,8-HpCDF	35:09	109000	103000	1.06	y
9	Unk	1,2,3,4,7,8,9-HpCDF	37:00	82200	77300	1.06	y
10	Unk	OCDF	39:56	104000	124000	0.84	y
11	Unk	2,3,7,8-TCDD	24:55	18000	23200	0.78	y
12	Unk	1,2,3,7,8-PeCDD	29:05	88800	57900	1.53	y
13	Unk	1,2,3,4,7,8-HxCDD	32:43	80400	64100	1.25	y
14	Unk	1,2,3,6,7,8-HxCDD	32:49	87300	68600	1.27	y
15	Unk	1,2,3,7,8,9-HxCDD	33:07	83700	66700	1.25	y
16	Unk	1,2,3,4,6,7,8-HpCDD	36:25	75800	71600	1.06	y
17	Unk	OCDD	39:45	105000	115000	0.91	y
18	IS/RT	13C-2,3,7,8-TCDF	24:19	12900	16200	0.80	y
19	IS	13C-1,2,3,7,8-PeCDF	27:51	16500	10600	1.55	y
20	IS	13C-2,3,4,7,8-PeCDF	28:47	14900	9630	1.54	y
21	IS	13C-1,2,3,4,7,8-HxCDF	31:46	6330	11800	0.54	y
22	IS	13C-1,2,3,6,7,8-HxCDF	31:53	7440	13800	0.54	y
23	IS	13C-2,3,4,6,7,8-HxCDF	32:32	6050	11200	0.54	y
24	IS	13C-1,2,3,7,8,9-HxCDF	33:28	4850	8960	0.54	y
25	IS	13C-1,2,3,4,6,7,8-HpCDF	35:09	4770	10400	0.46	y
26	IS	13C-1,2,3,4,7,8,9-HpCDF	36:60	3660	8040	0.46	y
27	IS	13C-2,3,7,8-TCDD	24:54	9930	12500	0.79	y
28	IS	13C-1,2,3,7,8-PeCDD	29:04	10900	7050	1.55	y
29	IS	13C-1,2,3,4,7,8-HxCDD	32:42	8260	6730	1.23	y
30	IS	13C-1,2,3,6,7,8-HxCDD	32:49	10400	8340	1.24	y
31	IS	13C-1,2,3,4,6,7,8-HpCDD	36:24	7220	7010	1.03	y
32	IS	13C-OCDD	39:45	8990	9420	0.95	y
33	RS	13C-1,2,3,4-TCDD	24:26	10100	12700	0.79	y
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	33:06	9250	7450	1.24	y
35	C/Up	37Cl-2,3,7,8-TCDD	24:55	45400			

Run #6 Filename V41021A Acquired: 21-OCT-94

Processed: 22-Oct-94 13:45:54 Comments:

	Typ	Name	RT	Resp	Resp	RA	
1	Unk	2,3,7,8-TCDF	25:46	2040	2560	0.80	y
2	Unk	1,2,3,7,8-PeCDF	29:23	10800	6660	1.62	y
3	Unk	2,3,4,7,8-PeCDF	30:21	10700	6710	1.59	y
4	Unk	1,2,3,4,7,8-HxCDF	33:23	8400	6540	1.28	y
5	Unk	1,2,3,6,7,8-HxCDF	33:31	8530	7330	1.16	y
6	Unk	2,3,4,6,7,8-HxCDF	34:09	7760	6460	1.20	y
7	Unk	1,2,3,7,8,9-HxCDF	35:07	6140	4970	1.24	y
8	Unk	1,2,3,4,6,7,8-HpCDF	36:48	6500	6410	1.01	y
9	Unk	1,2,3,4,7,8,9-HpCDF	38:40	4640	4590	1.01	y
10	Unk	OCDF	41:39	6300	6750	0.93	y
11	Unk	2,3,7,8-TCDD	26:21	1030	1260	0.82	y
12	Unk	1,2,3,7,8-PeCDD	30:38	5870	3690	1.59	y
13	Unk	1,2,3,4,7,8-HxCDD	34:20	5320	4340	1.23	y
14	Unk	1,2,3,6,7,8-HxCDD	34:27	5730	4570	1.26	y
15	Unk	1,2,3,7,8,9-HxCDD	34:45	5350	4360	1.23	y
16	Unk	1,2,3,4,6,7,8-HpCDD	38:05	5050	4570	1.10	y
17	Unk	OCDD	41:28	6650	7350	0.91	y
18	IS/RT	13C-2,3,7,8-TCDF	25:45	19100	24600	0.78	y
19	IS	13C-1,2,3,7,8-PeCDF	29:22	22900	14300	1.60	y
20	IS	13C-2,3,4,7,8-PeCDF	30:19	21000	13100	1.60	y
21	IS	13C-1,2,3,4,7,8-HxCDF	33:22	7540	13000	0.58	y
22	IS	13C-1,2,3,6,7,8-HxCDF	33:30	7730	13800	0.56	y
23	IS	13C-2,3,4,6,7,8-HxCDF	34:09	7960	13800	0.58	y
24	IS	13C-1,2,3,7,8,9-HxCDF	35:06	5670	9730	0.58	y
25	IS	13C-1,2,3,4,6,7,8-HpCDF	36:48	5260	12300	0.43	y
26	IS	13C-1,2,3,4,7,8,9-HpCDF	38:40	4250	9970	0.43	y
27	IS	13C-2,3,7,8-TCDD	26:20	11400	14700	0.77	y
28	IS	13C-1,2,3,7,8-PeCDD	30:38	15600	9560	1.64	y
29	IS	13C-1,2,3,4,7,8-HxCDD	34:19	10500	8340	1.25	y
30	IS	13C-1,2,3,6,7,8-HxCDD	34:26	15300	12100	1.26	y
31	IS	13C-1,2,3,4,6,7,8-HpCDD	38:04	9830	10100	0.98	y
32	IS	13C-OCDD	41:27	11700	12300	0.95	y
33	RS	13C-1,2,3,4-TCDD	25:52	16100	20800	0.77	y
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	34:44	12800	10100	1.27	y
35	C/Up	37Cl-2,3,7,8-TCDD	26:21	2710			

Run #6 Filename V410211 Acquired: 21-OCT-94 22:10

Processed: 22-Oct-94 12:57:11 Comments:

	Typ	Name	RT	Resp	Resp	RA
1	Unk	2,3,7,8-TCDF	25:45	1600	2080	0.77 y
2	Unk	1,2,3,7,8-PeCDF	29:22	10600	6600	1.61 y
3	Unk	2,3,4,7,8-PeCDF	30:20	8210	5110	1.61 y
4	Unk	1,2,3,4,7,8-HxCDF	33:23	5920	4770	1.24 y
5	Unk	1,2,3,6,7,8-HxCDF	33:31	8250	6430	1.28 y
6	Unk	2,3,4,6,7,8-HxCDF	34:10	6080	4810	1.26 y
7	Unk	1,2,3,7,8,9-HxCDF	35:07	4440	3590	1.24 y
8	Unk	1,2,3,4,6,7,8-HpCDF	36:49	4350	4490	0.97 y
9	Unk	1,2,3,4,7,8,9-HpCDF	38:40	3020	2980	1.01 y
10	Unk	OCDF	41:40	3760	4330	0.87 y
11	Unk	2,3,7,8-TCDD	26:21	650	839	0.78 y
12	Unk	1,2,3,7,8-PeCDD	30:39	3750	2370	1.58 y
13	Unk	1,2,3,4,7,8-HxCDD	34:20	3210	2360	1.36 y
14	Unk	1,2,3,6,7,8-HxCDD	34:27	3250	2350	1.38 y
15	Unk	1,2,3,7,8,9-HxCDD	34:45	3350	2530	1.32 y
16	Unk	1,2,3,4,6,7,8-HpCDD	38:05	2470	2380	1.03 y
17	Unk	OCDD	41:28	3590	3790	0.95 y
18	IS/RT	13C-2,3,7,8-TCDF	25:44	13100	17300	0.76 y
19	IS	13C-1,2,3,7,8-PeCDF	29:22	19300	12100	1.60 y
20	IS	13C-2,3,4,7,8-PeCDF	30:20	13500	8430	1.60 y
21	IS	13C-1,2,3,4,7,8-HxCDF	33:22	5720	10200	0.56 y
22	IS	13C-1,2,3,6,7,8-HxCDF	33:30	7270	12600	0.58 y
23	IS	13C-2,3,4,6,7,8-HxCDF	34:09	5910	10300	0.58 y
24	IS	13C-1,2,3,7,8,9-HxCDF	35:06	4130	7050	0.59 y
25	IS	13C-1,2,3,4,6,7,8-HpCDF	36:48	3550	7150	0.50 y
26	IS	13C-1,2,3,4,7,8,9-HpCDF	38:40	2720	5520	0.49 y
27	IS	13C-2,3,7,8-TCDD	26:20	6580	7960	0.83 y
28	IS	13C-1,2,3,7,8-PeCDD	30:38	8800	5570	1.58 y
29	IS	13C-1,2,3,4,7,8-HxCDD	34:19	6470	4880	1.33 y
30	IS	13C-1,2,3,6,7,8-HxCDD	34:26	7070	5310	1.33 y
31	IS	13C-1,2,3,4,6,7,8-HpCDD	38:04	4770	4520	1.06 y
32	IS	13C-OCDD	41:27	5620	5760	0.97 y
33	RS	13C-1,2,3,4-TCDD	25:51	10200	12200	0.83 y
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	34:44	7520	5670	1.33 y
35	C/Up	37Cl-2,3,7,8-TCDD	26:21	1610		

Huntingdon

APPENDIX F

V41021F 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 303.9016 Sample 1 Injection 1 Group 1 Mass 319.8965
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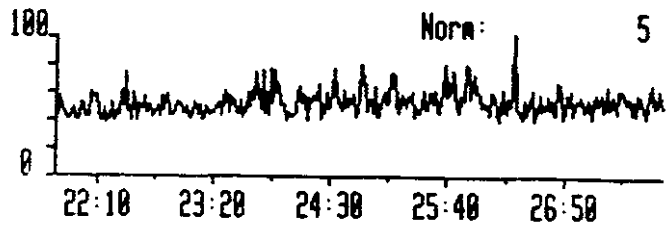

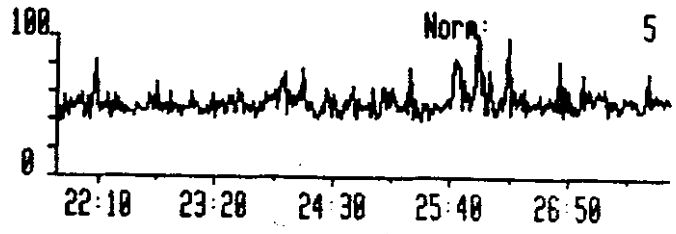

V41021F 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 305.8987 Sample 1 Injection 1 Group 1 Mass 321.8936
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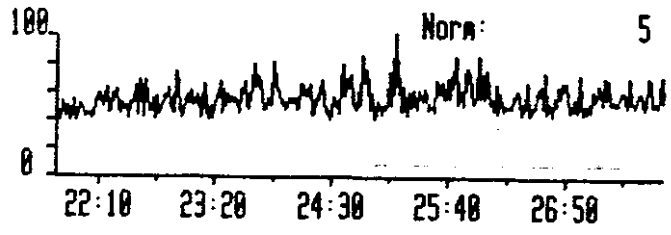

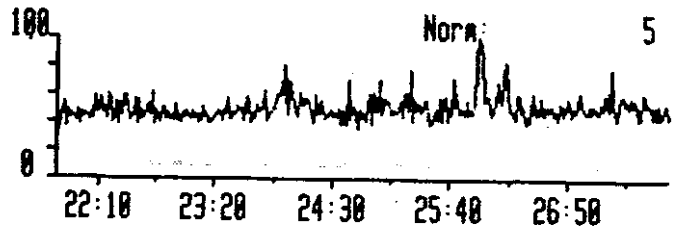

V41021F 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 315.9418 Sample 1 Injection 1 Group 1 Mass 331.9367
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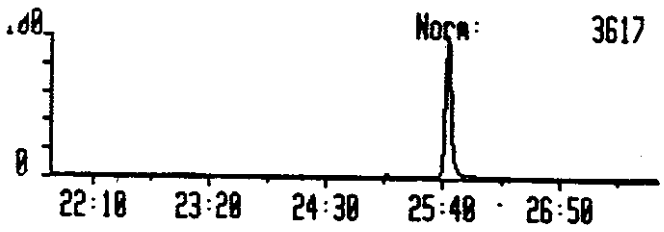
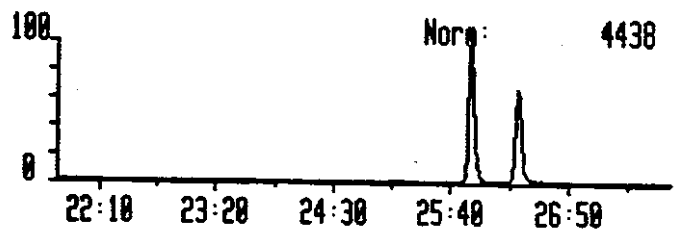
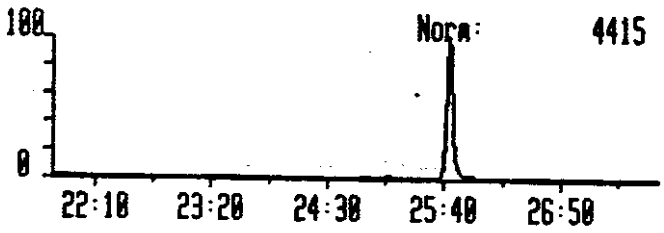
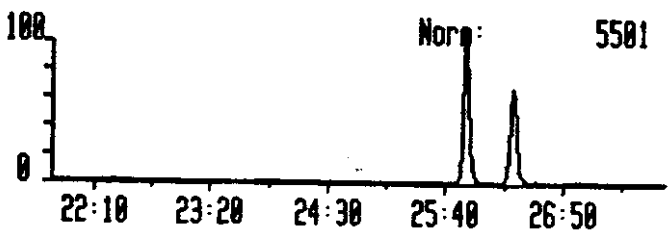


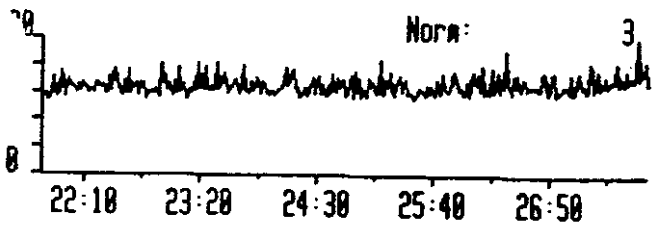


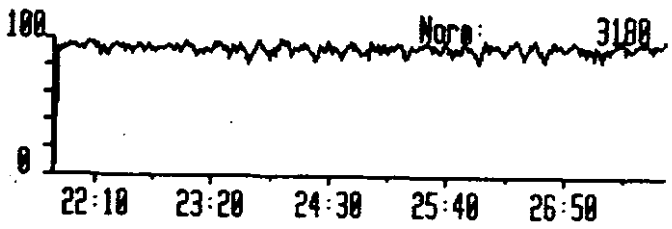
V41021F 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 317.9389 Sample 1 Injection 1 Group 1 Mass 333.9338
Text:BLANK-43045 Text:BLANK-43045



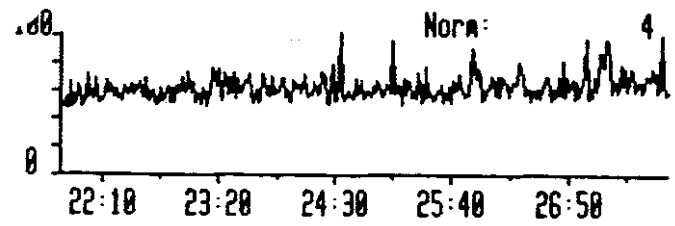


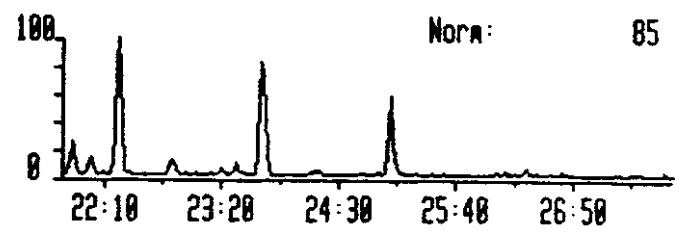
V41021F 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 375.8367 Sample 1 Injection 1 Group 1 Mass 318.9793
Text:BLANK-43045 Text:BLANK-43045



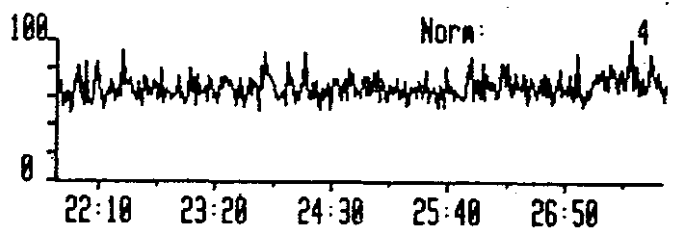


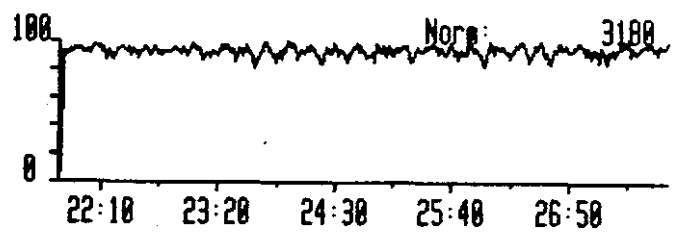
V41021F 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 339.8597 Sample 1 Injection 1 Group 1 Mass 327.8847
Text:BLANK-43045 Text:BLANK-43045



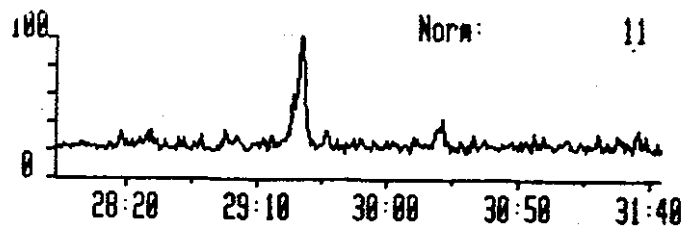


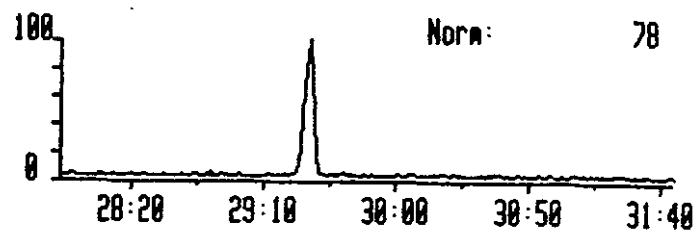
V41021F 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 341.8567 Sample 1 Injection 1 Group 1 Mass 318.9793
Text:BLANK-43045 Text:BLANK-43045





V41021F 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 339.8597 Sample 1 Injection 1 Group 2 Mass 355.8546
Text:BLANK-43045 Text:BLANK-43045





V41021F 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 341.8567 Sample 1 Injection 1 Group 2 Mass 357.8517
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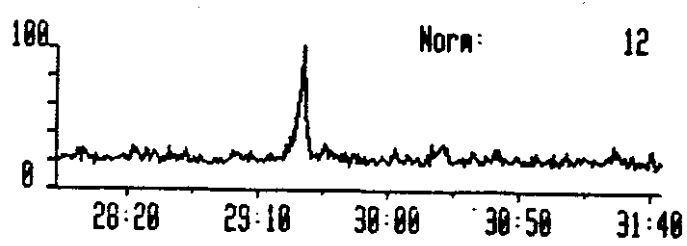

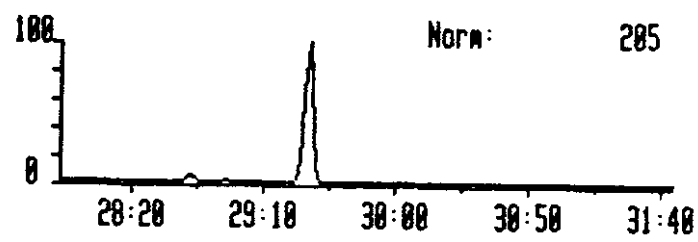

V41021F 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir Voltage 70-250SE Sys DI
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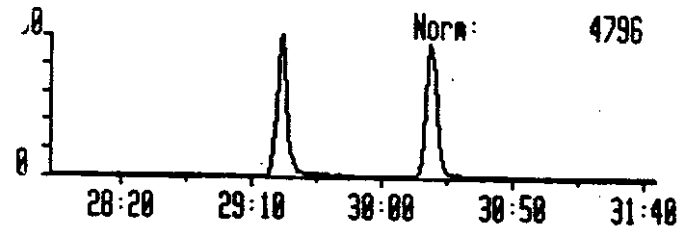

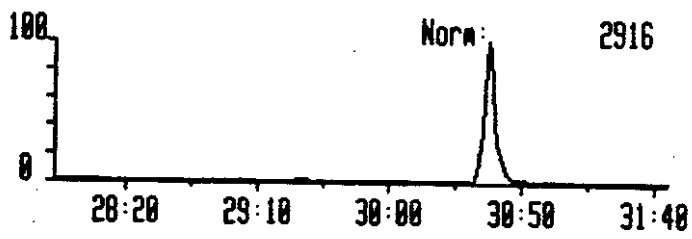

V41021F 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 353.8969 Sample 1 Injection 1 Group 2 Mass 369.8918
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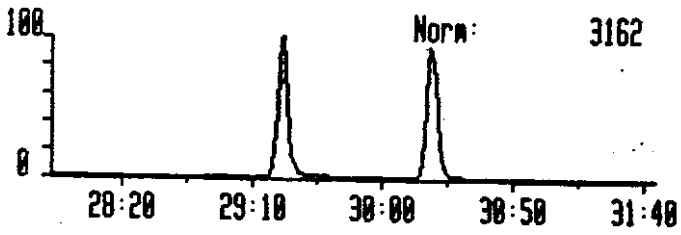

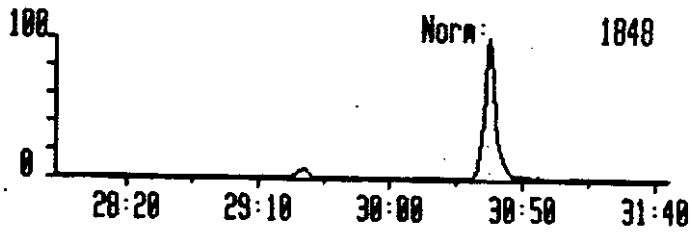

V41021F 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 409.7974 Sample 1 Injection 1 Group 2 Mass 354.9792
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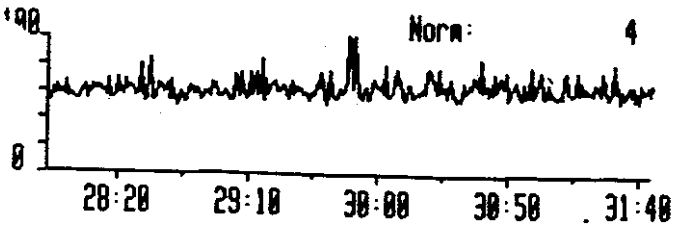
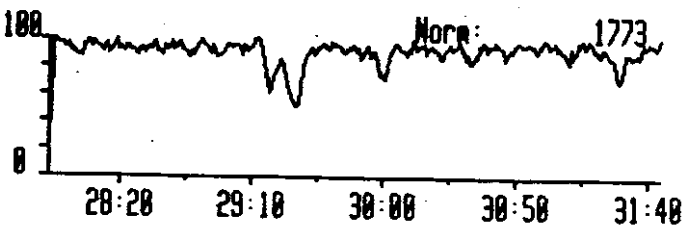
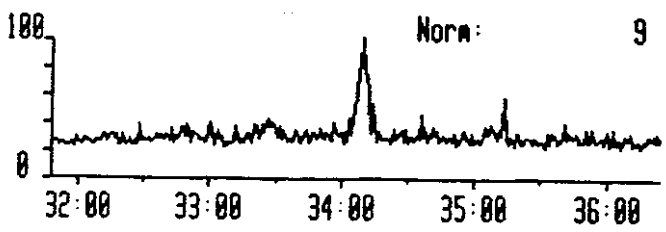
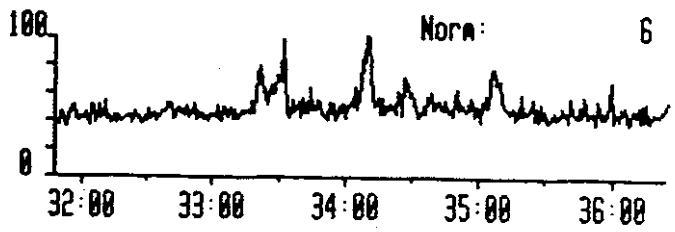




V41021F 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 3 Mass 373.8207
Text:BLANK-43045



[illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 389.8156
Text:BLANK-43045



V41021F 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible]
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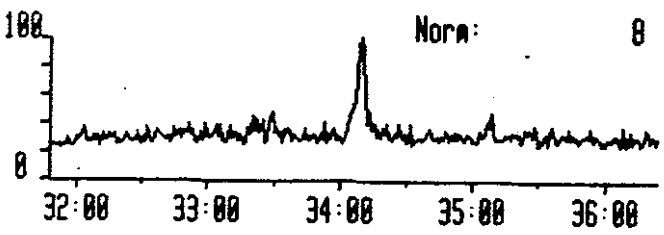

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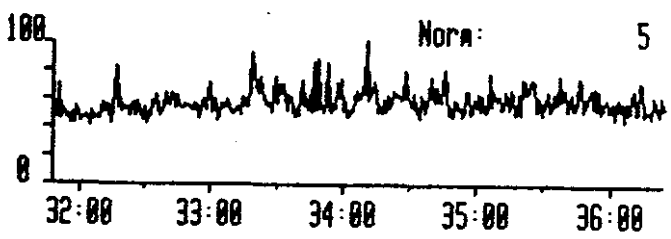

V41021F 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible]
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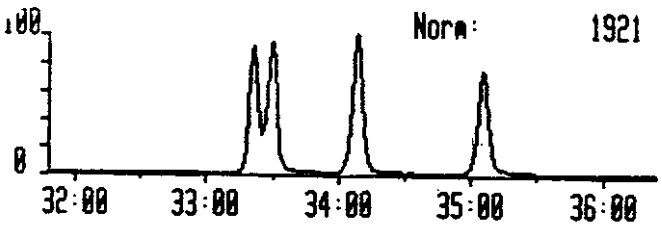
Text:BLANK-43045



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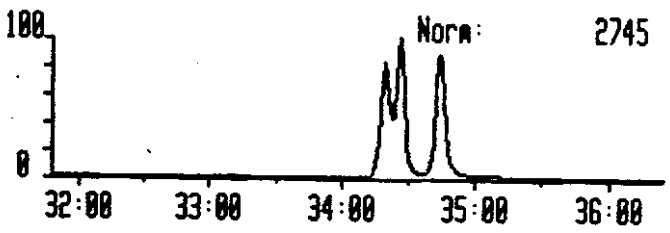
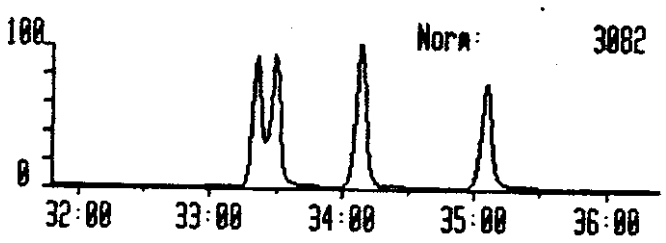
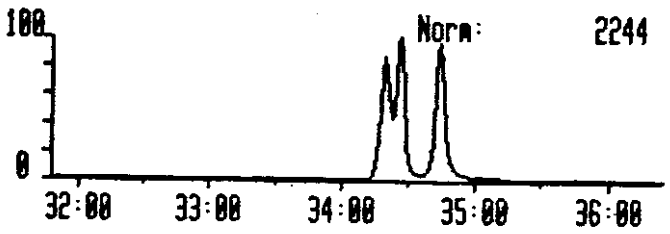
Sample 1 Injection 1 Group 3 Mass 401.8558
Text:BLANK-43045



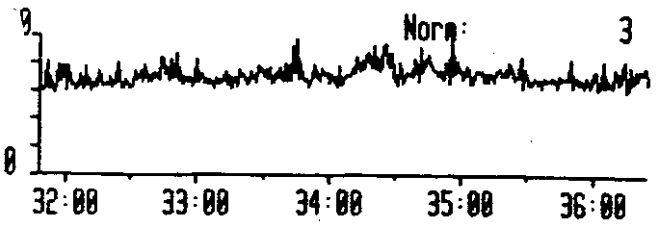
V41021F 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 3 Mass 385.8609
Text:BLANK-43045



[illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 403.8529
Text:BLANK-43045



V41021F 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 3 Mass 445.7555
Text:BLANK-43045



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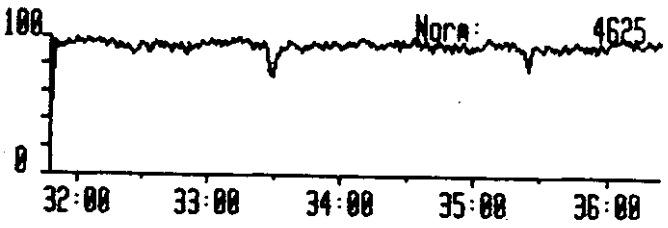
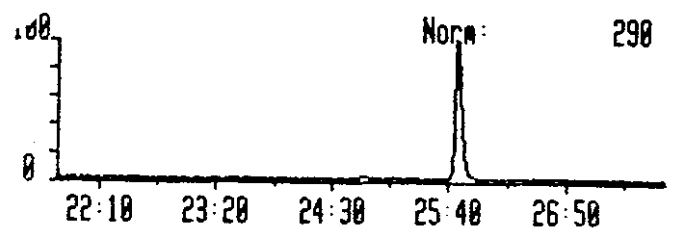
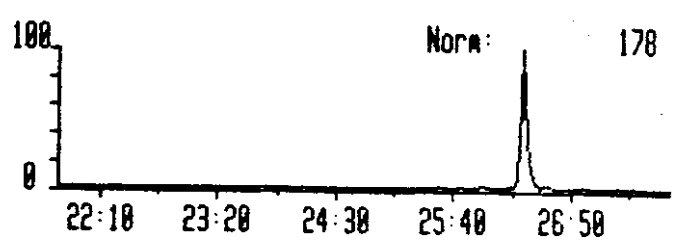
Text:BLANK-43045

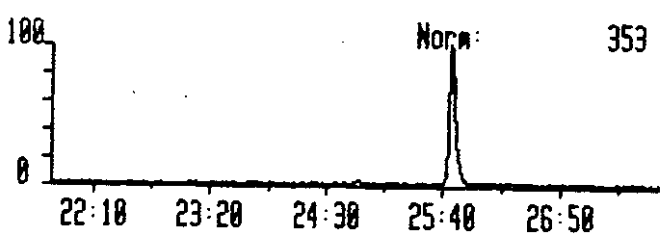


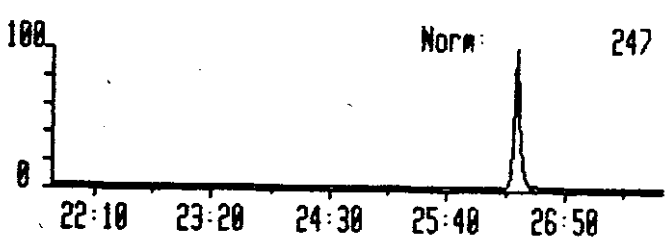
V41021E 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 303.9016 Sample 1 Injection 1 Group 1 Mass 319.8965
Text:SPIKE-43046 Text:SPIKE-43046



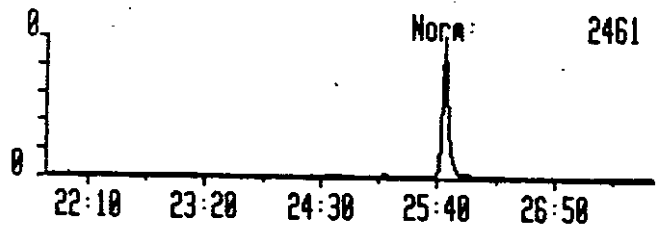


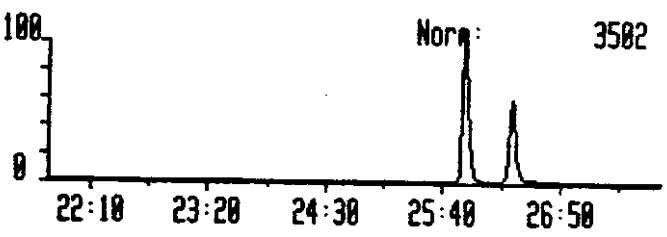
V41021E 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 305.8987 Sample 1 Injection 1 Group 1 Mass 321.8936
Text:SPIKE-43046 Text:SPIKE-43046



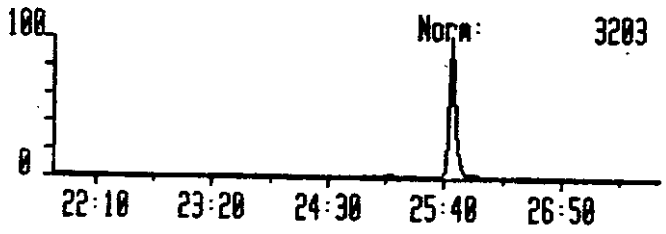


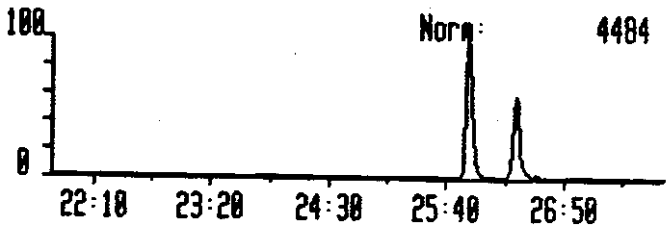
V41021E 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 315.9418 Sample 1 Injection 1 Group 1 Mass 331.9367
Text:SPIKE-43046 Text:SPIKE-43046



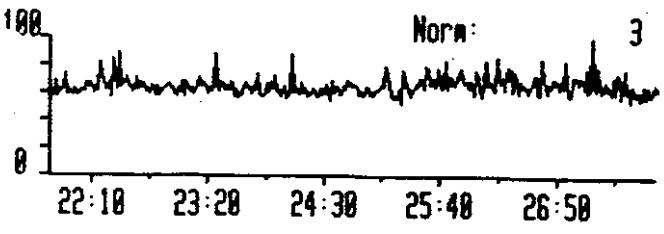


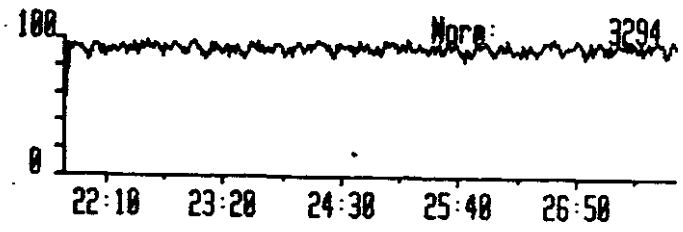
V41021E 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 317.9389 Sample 1 Injection 1 Group 1 Mass 333.9338
Text:SPIKE-43046 Text:SPIKE-43046



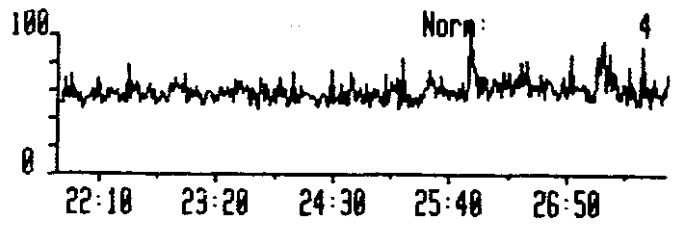


V41021E 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 375.8367 Sample 1 Injection 1 Group 1 Mass 318.9793
Text:SPIKE-43046 Text:SPIKE-43046

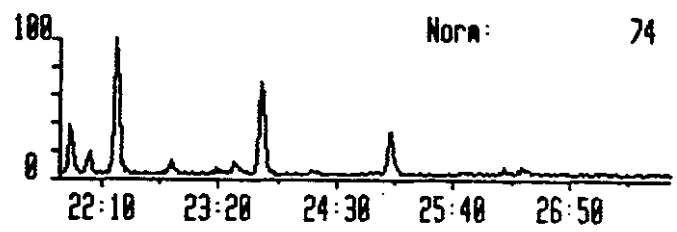




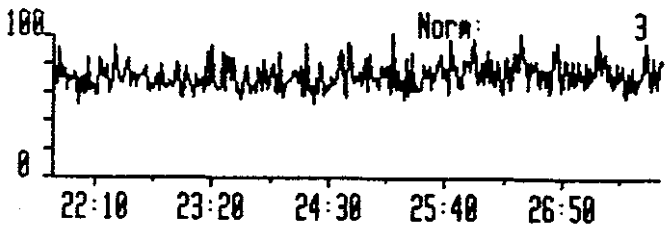
V41021E 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 339.8597
Text:SPIKE-43046



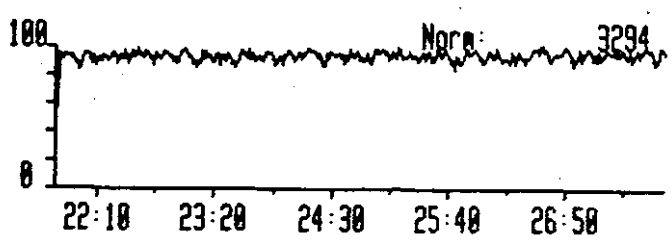
[illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 327.8847
Text:SPIKE-43046



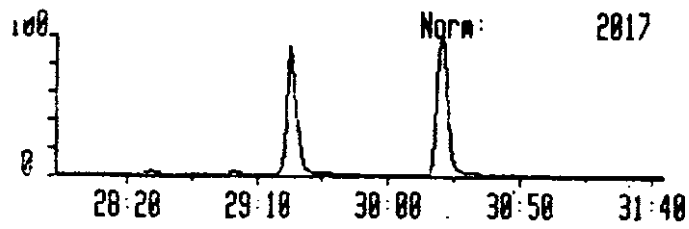
V41021E 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 341.8567
Text:SPIKE-43046

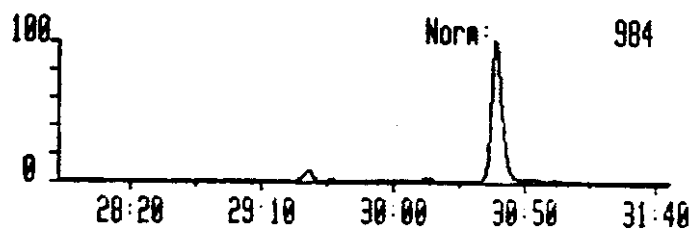


[illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 318.9793
Text:SPIKE-43046

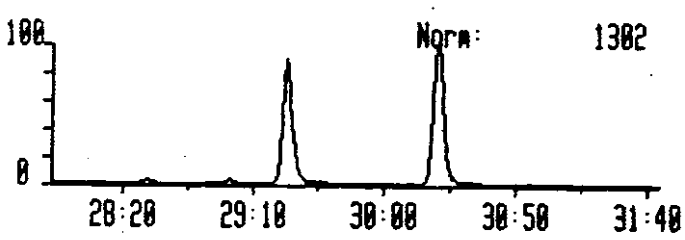


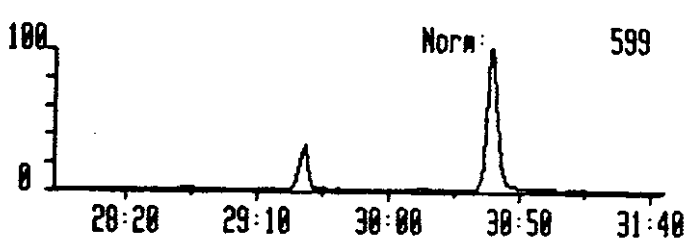
V41021E 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 339.8597 Sample 1 Injection 1 Group 2 Mass 355.8546
Text:SPIKE-43046 Text:SPIKE-43046



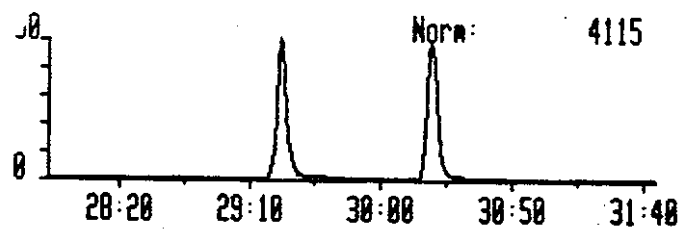


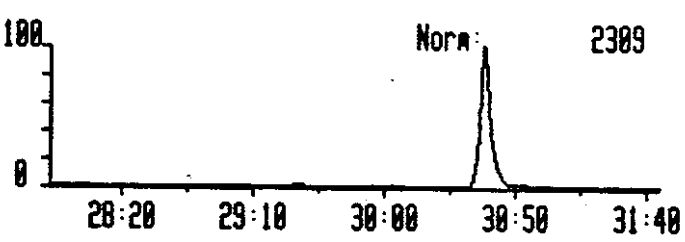
V41021E 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 341.8567 Sample 1 Injection 1 Group 2 Mass 357.8517
Text:SPIKE-43046 Text:SPIKE-43046



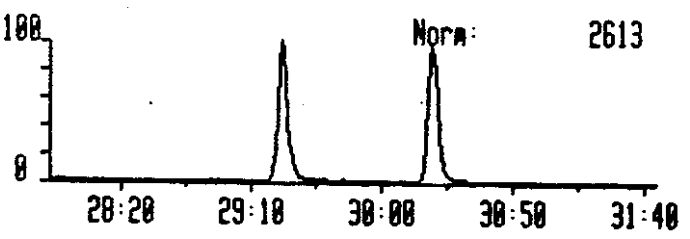


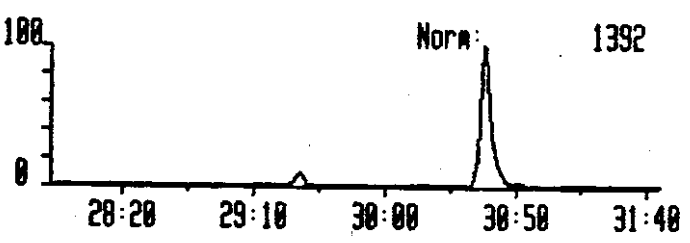
V41021E 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 351.8999 Sample 1 Injection 1 Group 2 Mass 367.8948
Text:SPIKE-43046 Text:SPIKE-43046



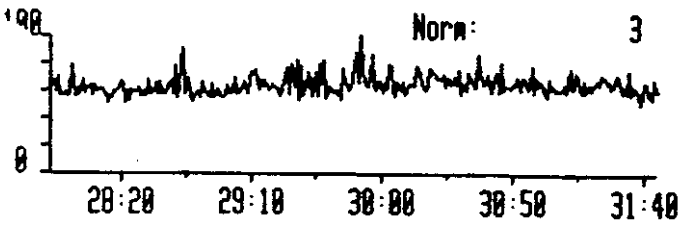


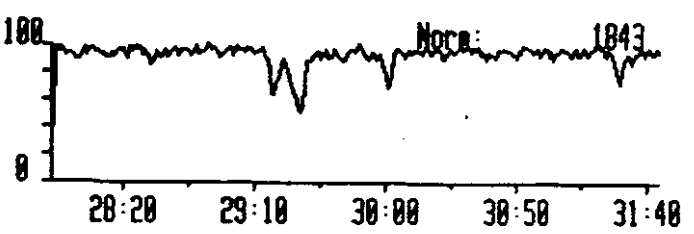
V41021E 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 353.8969 Sample 1 Injection 1 Group 2 Mass 369.8918
Text:SPIKE-43046 Text:SPIKE-43046



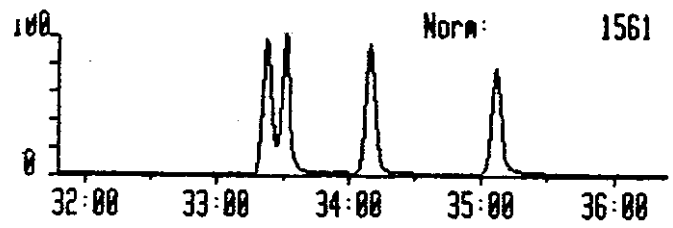


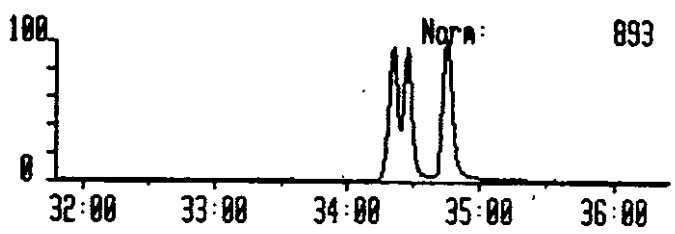
V41021E 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 409.7974 Sample 1 Injection 1 Group 2 Mass 354.9792
Text:SPIKE-43046 Text:SPIKE-43046



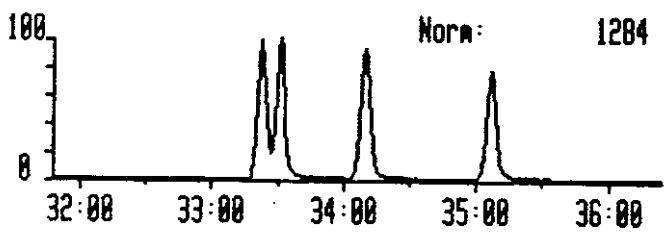


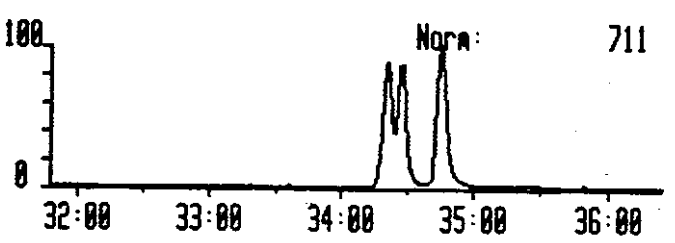
V41021E 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 373.8207 Sample 1 Injection 1 Group 3 Mass 389.8156
Text:SPIKE-43046 Text:SPIKE-43046



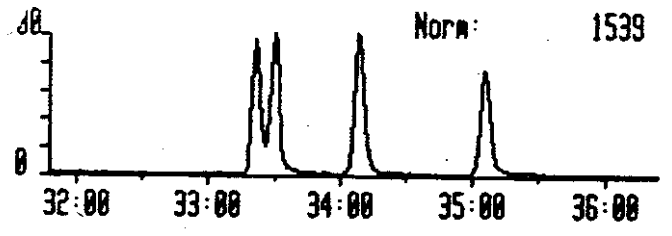


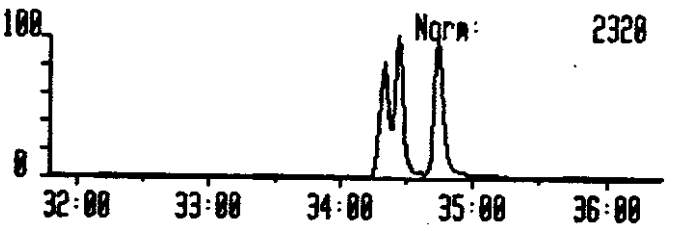
V41021E 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 375.8178 Sample 1 Injection 1 Group 3 Mass 391.8127
Text:SPIKE-43046 Text:SPIKE-43046



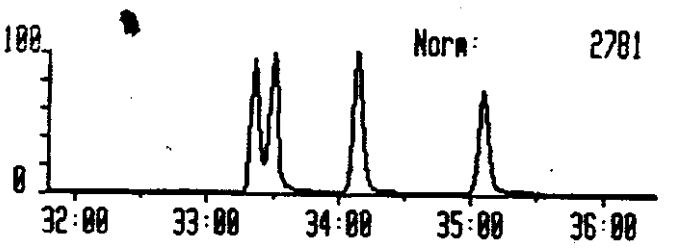


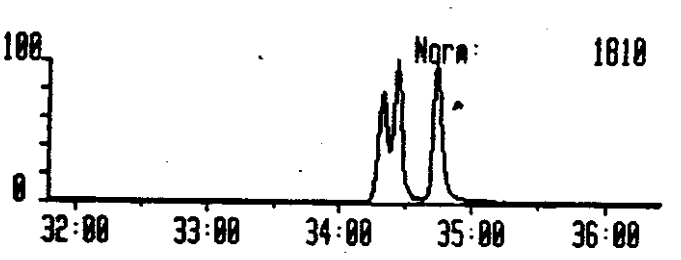
V41021E 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 383.8642 Sample 1 Injection 1 Group 3 Mass 401.8558
Text:SPIKE-43046 Text:SPIKE-43046



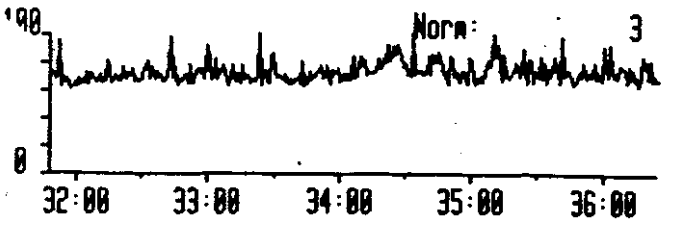


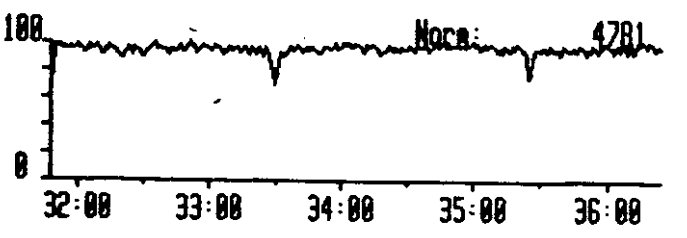
V41021E 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 385.8609 Sample 1 Injection 1 Group 3 Mass 403.8529
Text:SPIKE-43046 Text:SPIKE-43046



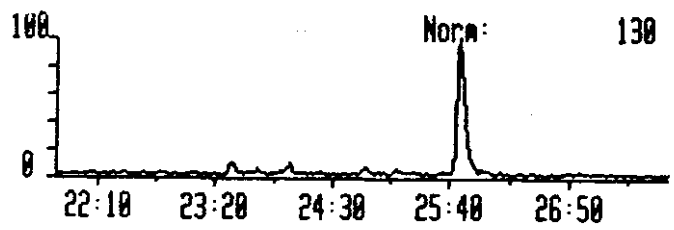


V41021E 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 445.7555 Sample 1 Injection 1 Group 3 Mass 300.9761
Text:SPIKE-43046 Text:SPIKE-43046

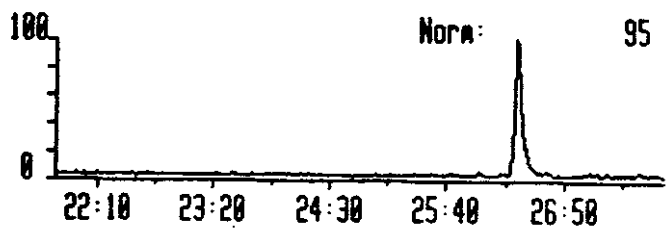




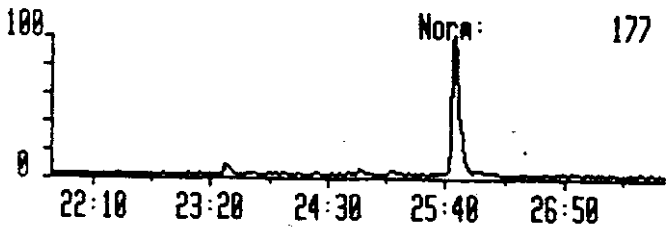
V41021C 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 303.9016
Text:TCT42745-MS 9410061-20D-MS



[illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 319.8965
Text:TCT42745-MS 9410061-20D-MS



V41021C 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 305.8987
Text:TCT42745-MS 9410061-20D-MS



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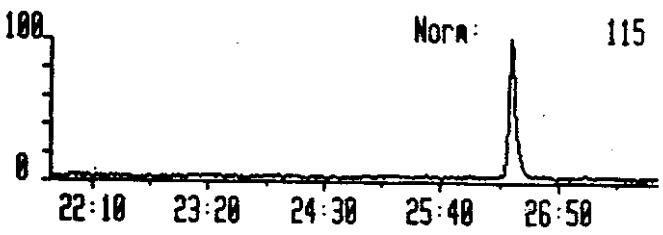
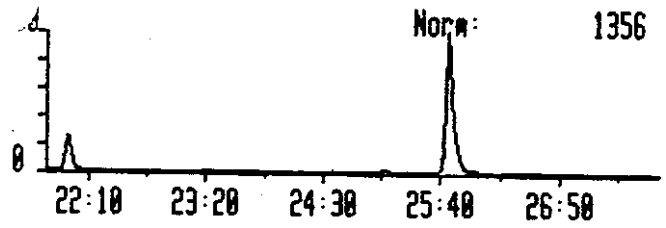
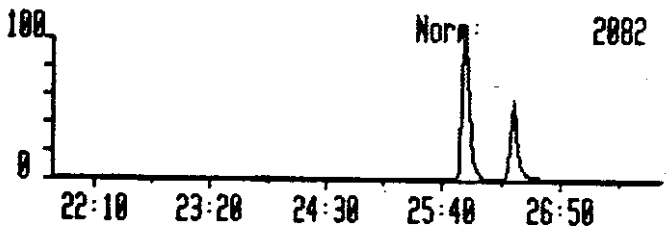
Sample 1 Injection 1 Group 1 Mass 321.8936
Text:TCT42745-MS 9410061-20D-MS



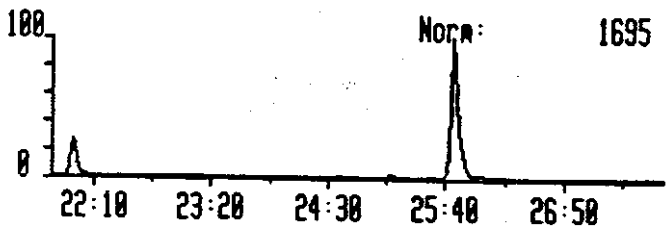
V41021C 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 315.9418
Text:TCT42745-MS 9410061-20D-MS



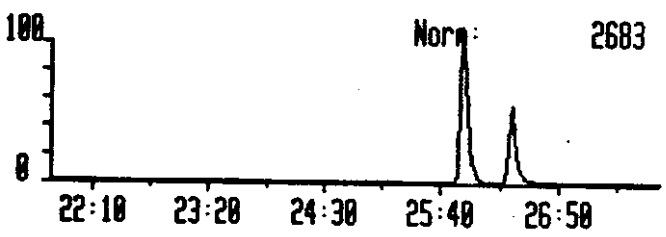
[illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 331.9367
Text:TCT42745-MS 9410061-20D-MS



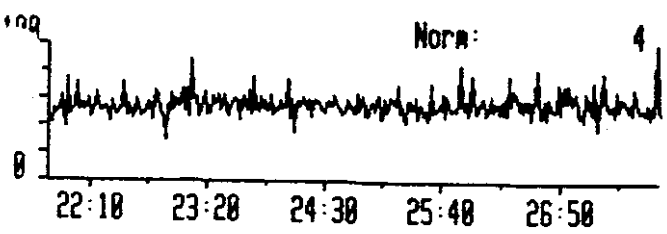
V41021C 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 317.9389
Text:TCT42745-MS 9410061-20D-MS



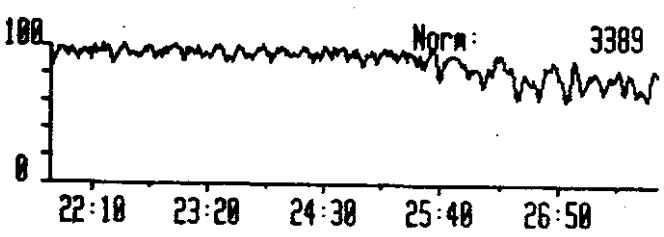
[illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 333.9338
Text:TCT42745-MS 9410061-20D-MS



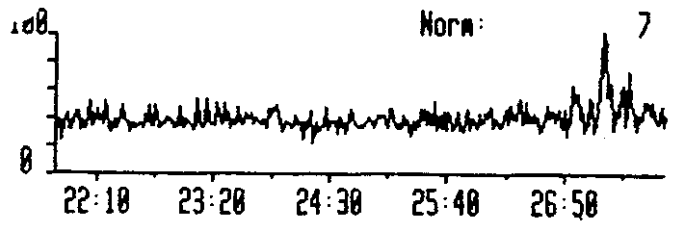
V41021C 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 375.8367
Text:TCT42745-MS 9410061-20D-MS



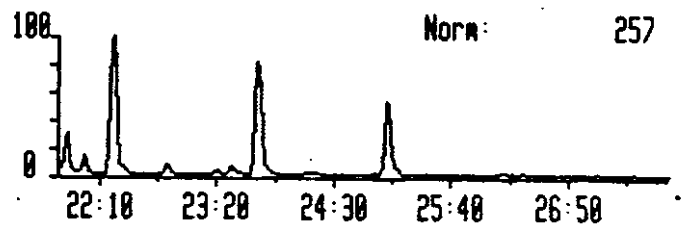
[illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 318.9793
Text:TCT42745-MS 9410061-20D-MS



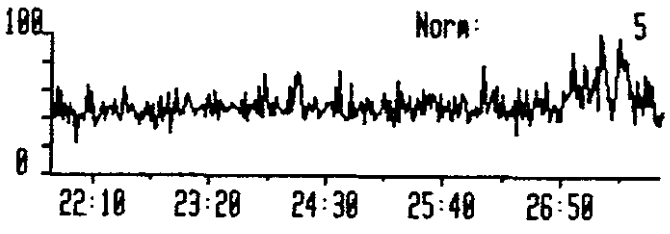
V41021C 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 339.8597
Text:TCT42745-MS 9410061-20D-MS



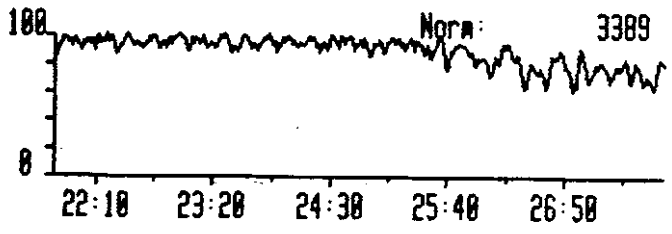
[illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 327.8847
Text:TCT42745-MS 9410061-20D-MS



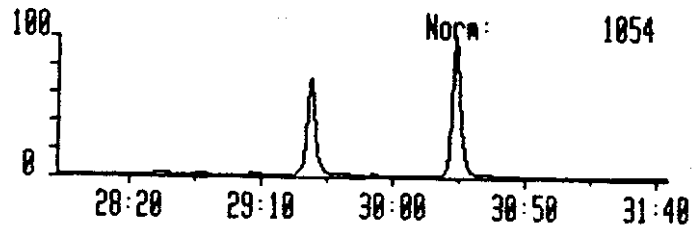
V41021C 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible]
Sample 1 Injection 1 Group 1 Mass 341.8567
Text:TCT42745-MS 9410061-20D-MS

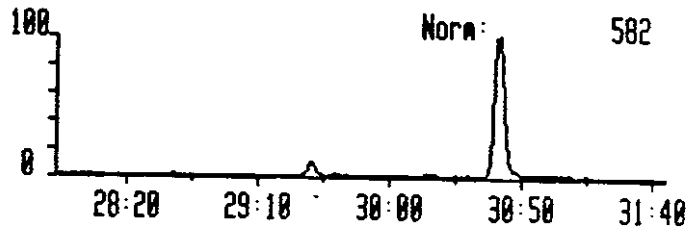


[illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 318.9793
Text:TCT42745-MS 9410061-20D-MS

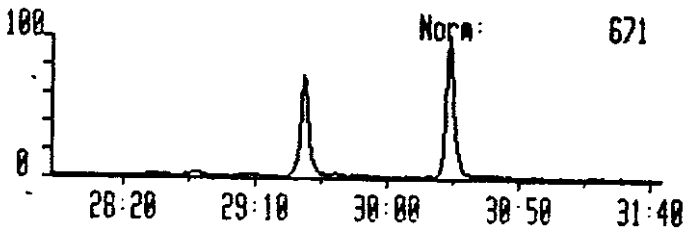


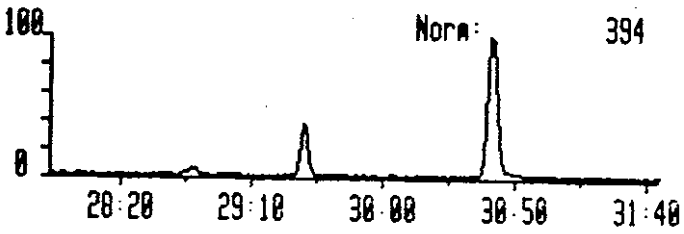
V41021C 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 339.8597 Sample 1 Injection 1 Group 2 Mass 355.8546
Text:TCT42745-MS 9410061-20D-MS Text:TCT42745-MS 9410061-20D-MS



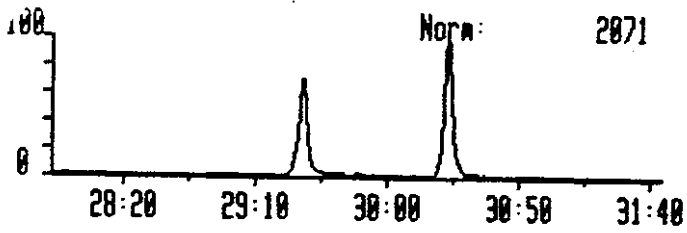


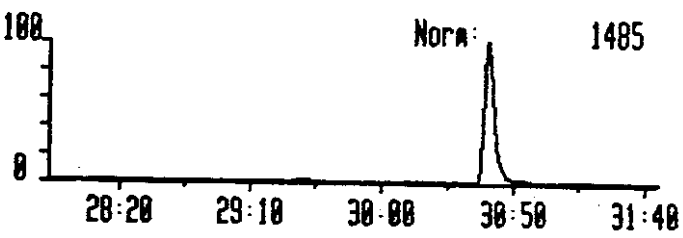
V41021C 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 341.8567 Sample 1 Injection 1 Group 2 Mass 357.8517
Text:TCT42745-MS 9410061-20D-MS Text:TCT42745-MS 9410061-20D-MS



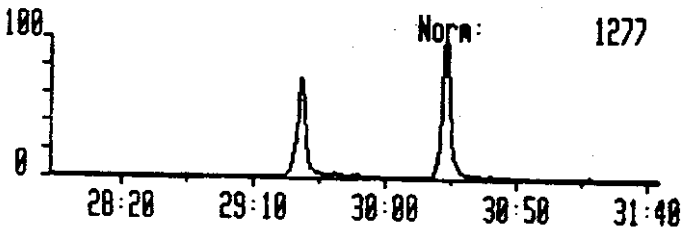


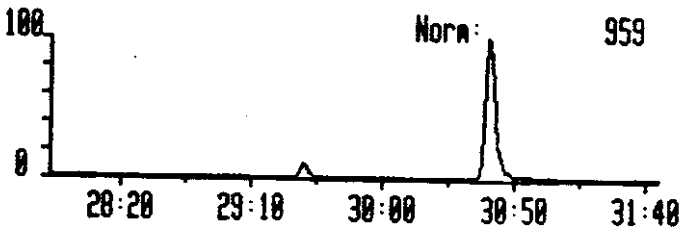
V41021C 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 351.8999 Sample 1 Injection 1 Group 2 Mass 367.8948
Text:TCT42745-MS 9410061-20D-MS Text:TCT42745-MS 9410061-20D-MS



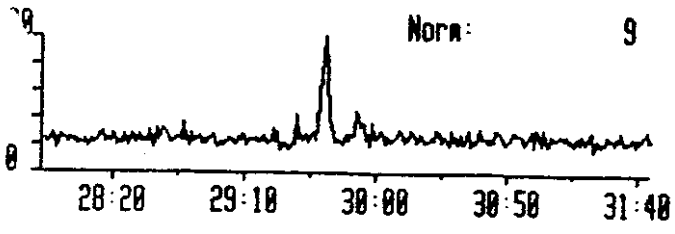


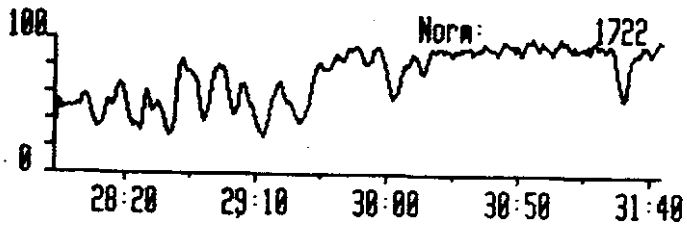
V41021C 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 353.8969 Sample 1 Injection 1 Group 2 Mass 369.8918
Text:TCT42745-MS 9410061-20D-MS Text:TCT42745-MS 9410061-20D-MS



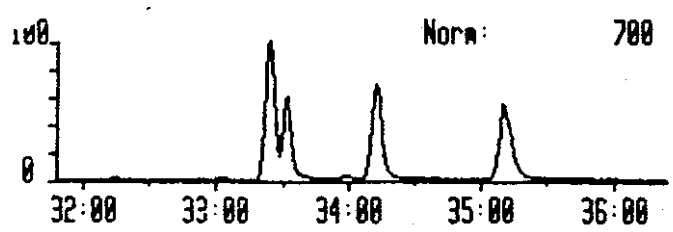


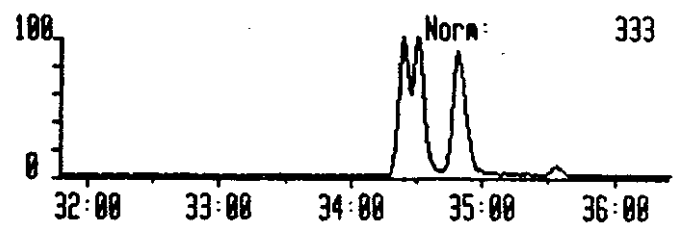
V41021C 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 409.7974 Sample 1 Injection 1 Group 2 Mass 354.9792
Text:TCT42745-MS 9410061-20D-MS Text:TCT42745-MS 9410061-20D-MS



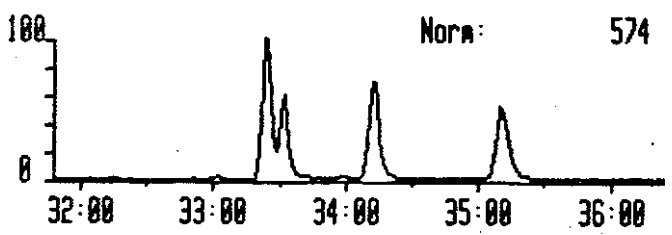


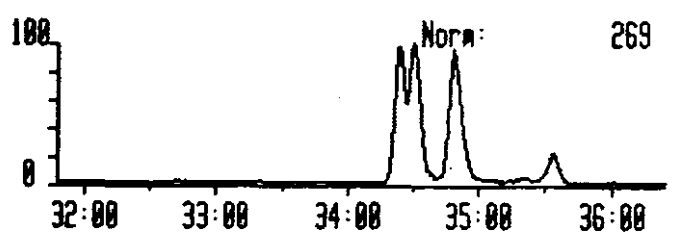
V41021C 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 373.8207 Sample 1 Injection 1 Group 3 Mass 389.8156
Text:TCT42745-MS 9410061-20D-MS Text:TCT42745-MS 9410061-20D-MS



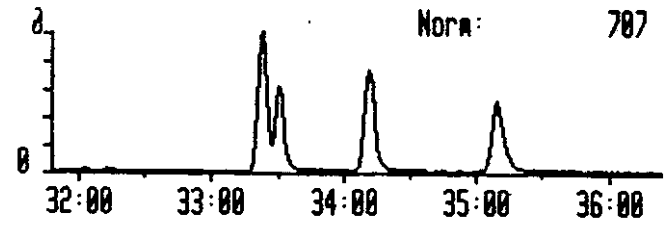


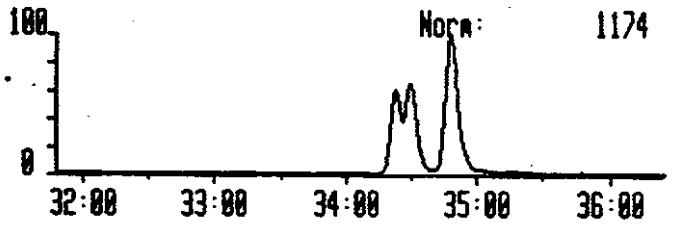
V41021C 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 375.8178 Sample 1 Injection 1 Group 3 Mass 391.8127
Text:TCT42745-MS 9410061-20D-MS Text:TCT42745-MS 9410061-20D-MS



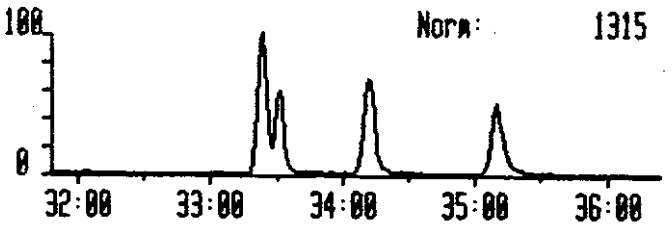


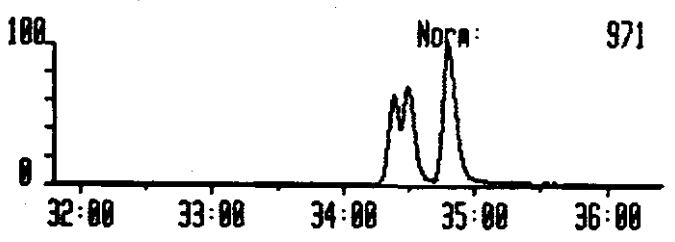
V41021C 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 383.8642 Sample 1 Injection 1 Group 3 Mass 401.8558
Text:TCT42745-MS 9410061-20D-MS Text:TCT42745-MS 9410061-20D-MS



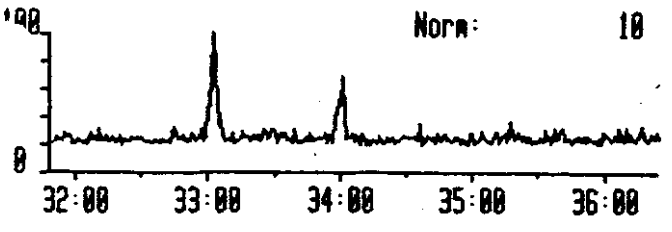


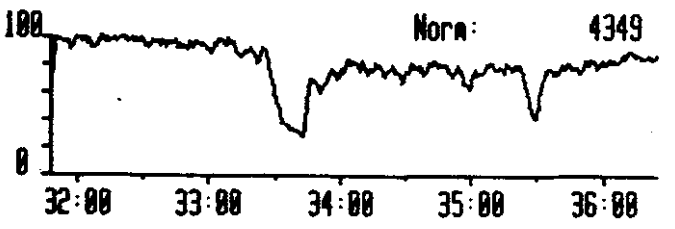
V41021C 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 385.8609 Sample 1 Injection 1 Group 3 Mass 403.8529
Text:TCT42745-MS 9410061-20D-MS Text:TCT42745-MS 9410061-20D-MS



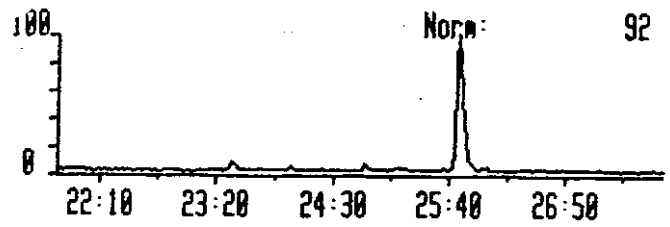


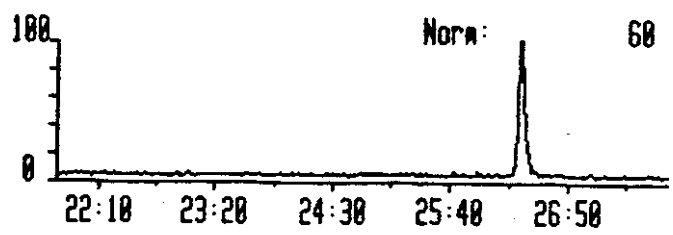
V41021C 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 445.7555 Sample 1 Injection 1 Group 3 Mass 380.9761
Text:TCT42745-MS 9410061-20D-MS Text:TCT42745-MS 9410061-20D-MS



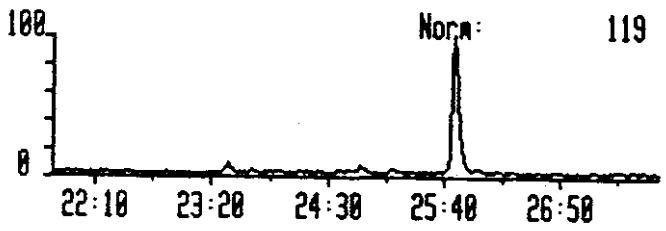


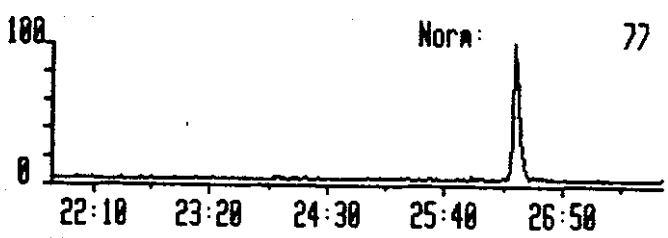
V41021D 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 303.9016 Sample 1 Injection 1 Group 1 Mass 319.8965
Text:TCT42745-MSD 9410061-20D-MSD Text:TCT42745-MSD 9410061-20D-MSD



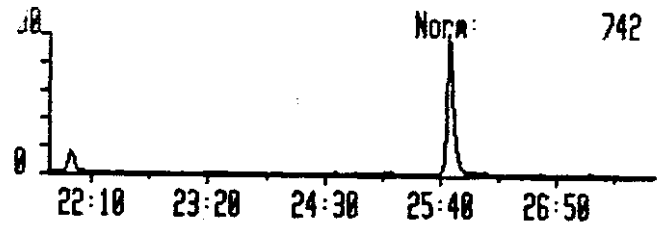


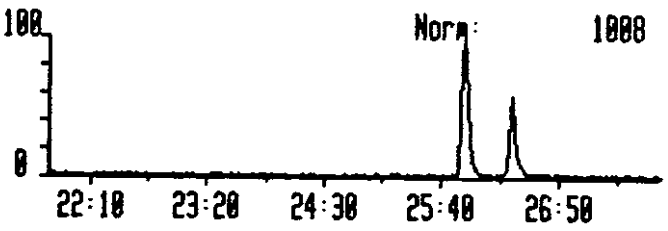
V41021D 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 305.8987 Sample 1 Injection 1 Group 1 Mass 321.8936
Text:TCT42745-MSD 9410061-20D-MSD Text:TCT42745-MSD 9410061-20D-MSD



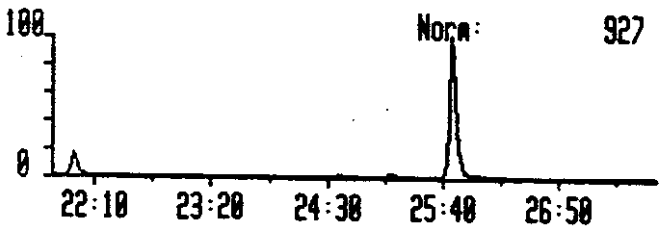


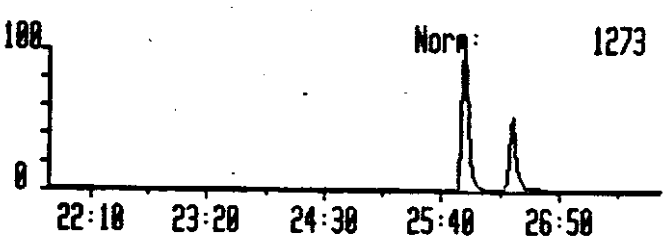
V41021D 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 315.9418 Sample 1 Injection 1 Group 1 Mass 331.9367
Text:TCT42745-MSD 9410061-20D-MSD Text:TCT42745-MSD 9410061-20D-MSD



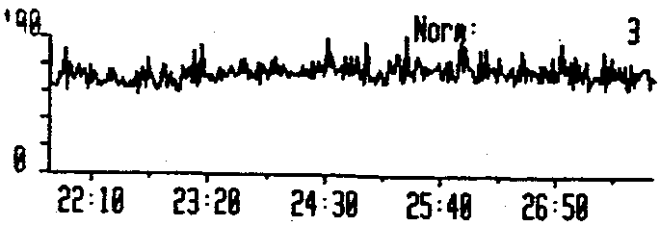


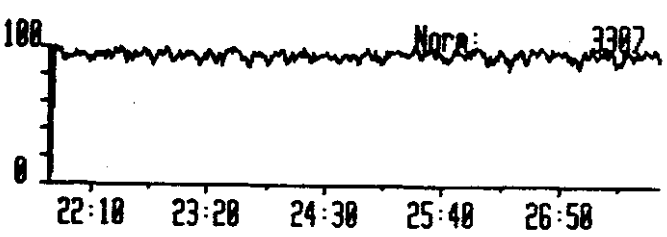
V41021D 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 317.9389 Sample 1 Injection 1 Group 1 Mass 333.9338
Text:TCT42745-MSD 9410061-20D-MSD Text:TCT42745-MSD 9410061-20D-MSD



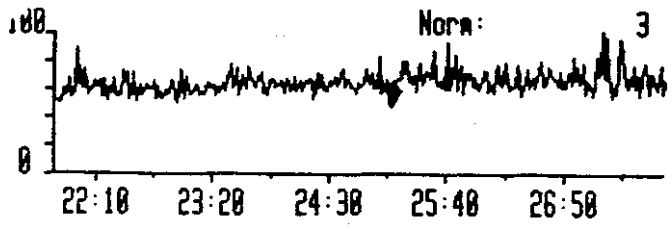


V41021D 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 375.8367 Sample 1 Injection 1 Group 1 Mass 318.9793
Text:TCT42745-MSD 9410061-20D-MSD Text:TCT42745-MSD 9410061-20D-MSD

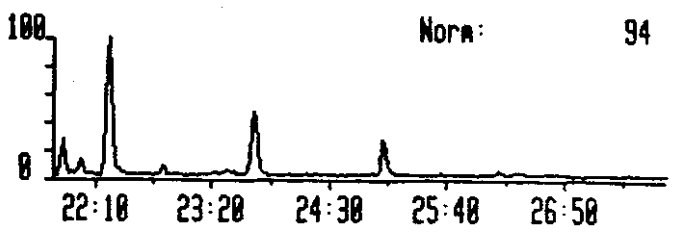




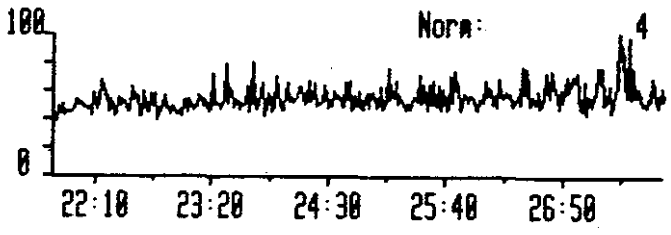
V41021D 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted]
Sample 1 Injection 1 Group 1 Mass 339.8597
Text:TCT42745-MSD 9410061-20D-MSD



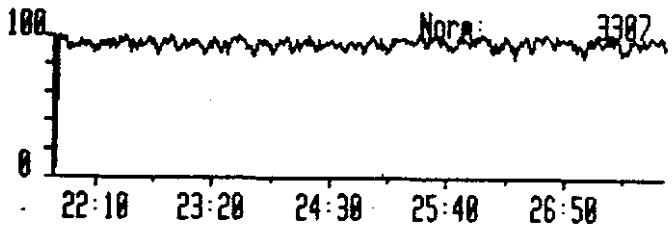
[redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 327.8847
Text:TCT42745-MSD 9410061-20D-MSD



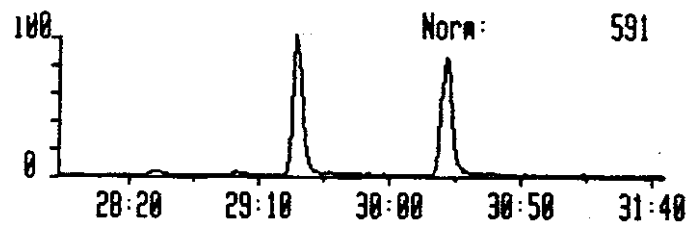
V41021D 21-OCT-94 Sir:Voltage 70-250SE Sys: [redacted]
Sample 1 Injection 1 Group 1 Mass 341.8567
Text:TCT42745-MSD 9410061-20D-MSD

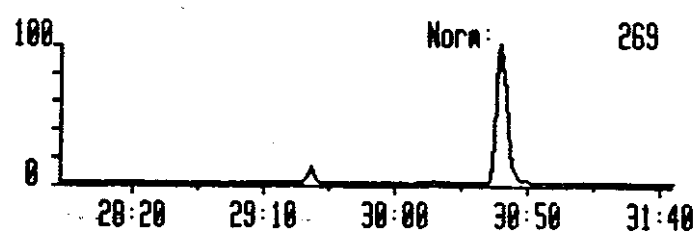


[redacted] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 1 Mass 318.9793
Text:TCT42745-MSD 9410061-20D-MSD

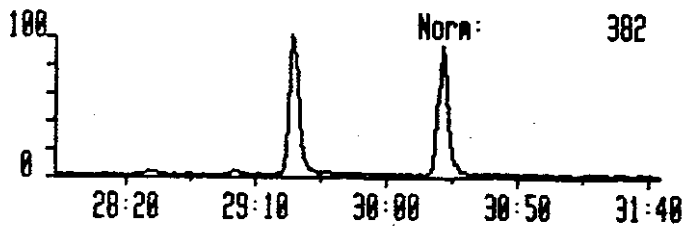


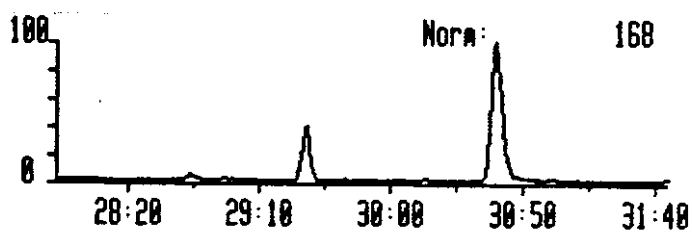
V41021D 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 339.8597 Sample 1 Injection 1 Group 2 Mass 355.8546
Text:TCT42745-MSD 9410061-20D-MSD Text:TCT42745-MSD 9410061-20D-MSD



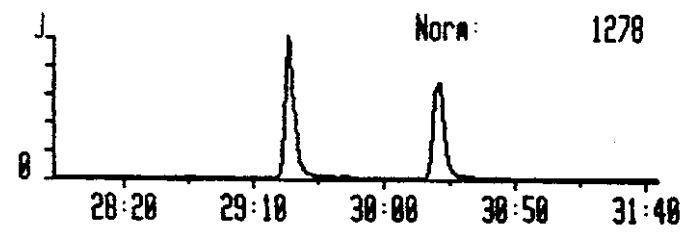


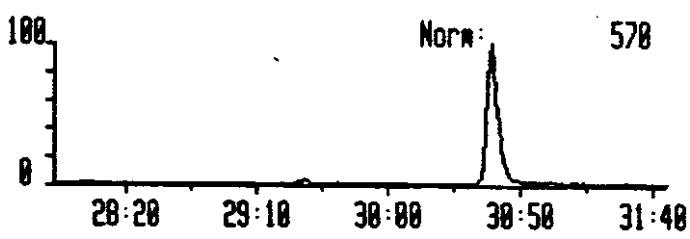
V41021D 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 341.8567 Sample 1 Injection 1 Group 2 Mass 357.8517
Text:TCT42745-MSD 9410061-20D-MSD Text:TCT42745-MSD 9410061-20D-MSD



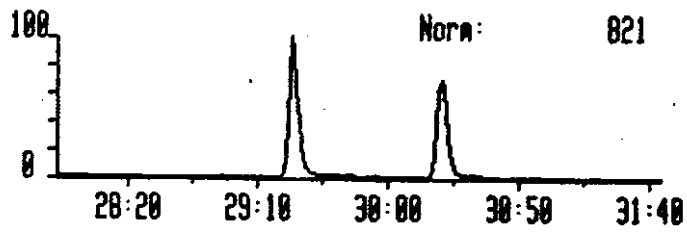


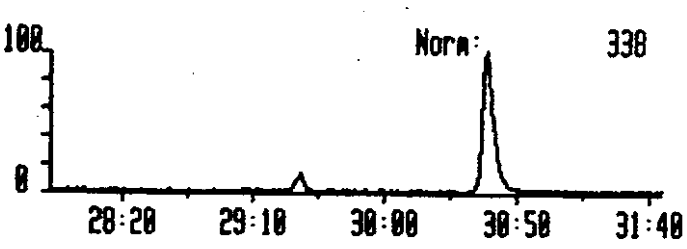
V41021D 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 351.8999 Sample 1 Injection 1 Group 2 Mass 367.8948
Text:TCT42745-MSD 9410061-20D-MSD Text:TCT42745-MSD 9410061-20D-MSD



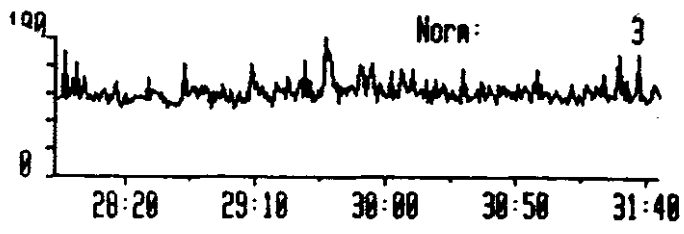


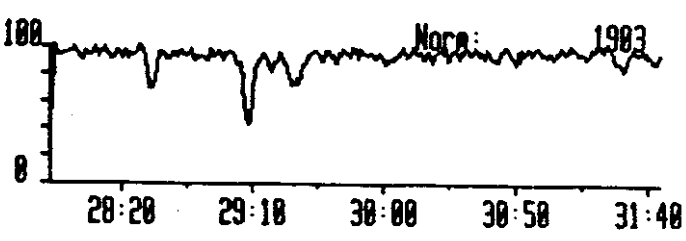
V41021D 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 353.8969 Sample 1 Injection 1 Group 2 Mass 369.8918
Text:TCT42745-MSD 9410061-20D-MSD Text:TCT42745-MSD 9410061-20D-MSD



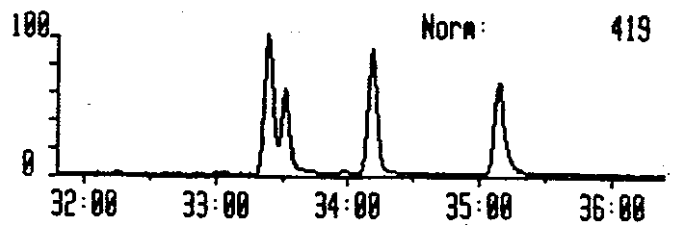


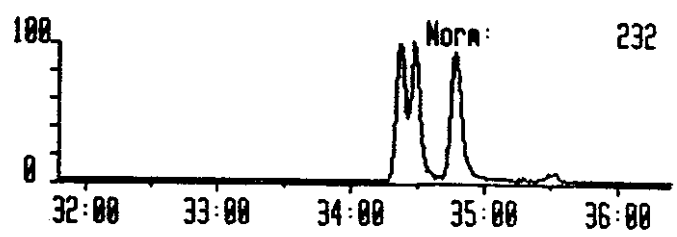
V41021D 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 2 Mass 409.7974 Sample 1 Injection 1 Group 2 Mass 354.9792
Text:TCT42745-MSD 9410061-20D-MSD Text:TCT42745-MSD 9410061-20D-MSD



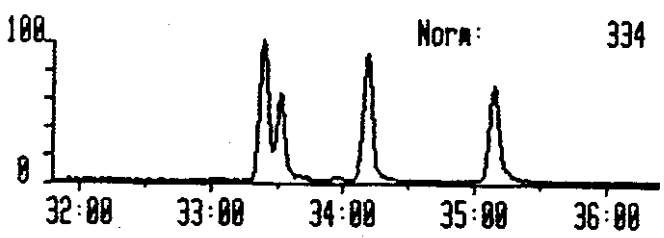


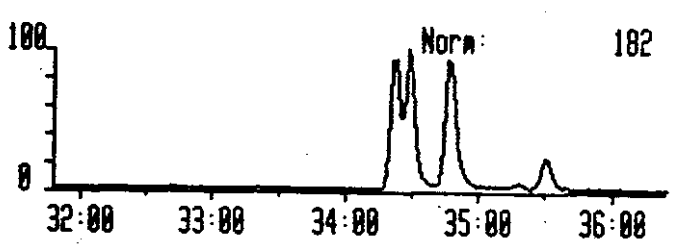
V41021D 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 373.8207 Sample 1 Injection 1 Group 3 Mass 389.8156
Text:TCT42745-MSD 9410061-20D-MSD Text:TCT42745-MSD 9410061-20D-MSD



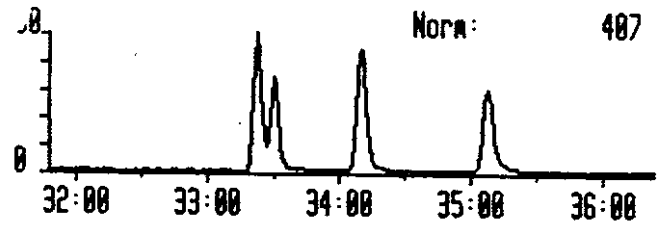


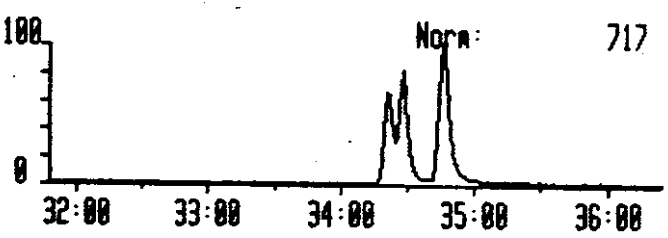
V41021D 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 375.8178 Sample 1 Injection 1 Group 3 Mass 391.8127
Text:TCT42745-MSD 9410061-20D-MSD Text:TCT42745-MSD 9410061-20D-MSD



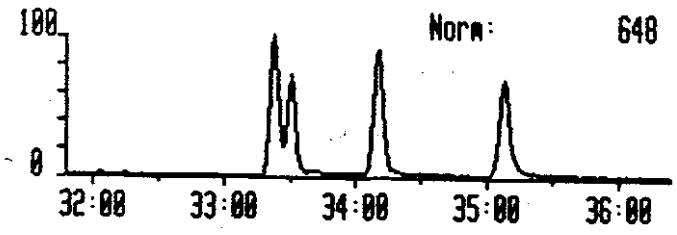


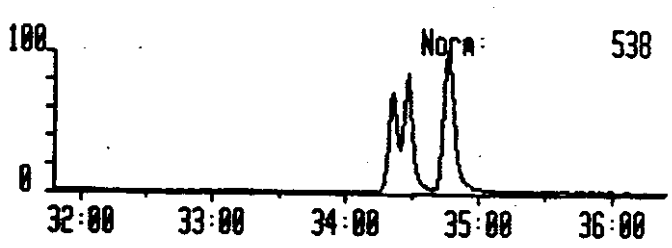
V41021D 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 383.8642 Sample 1 Injection 1 Group 3 Mass 401.8558
Text:TCT42745-MSD 9410061-20D-MSD Text:TCT42745-MSD 9410061-20D-MSD



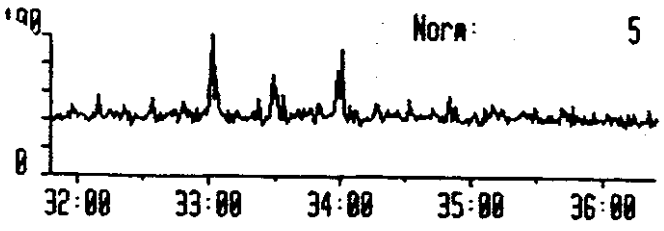


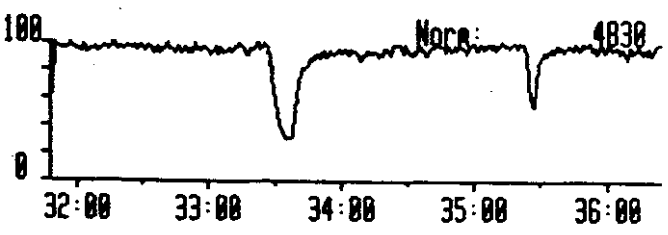
V41021D 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 385.8609 Sample 1 Injection 1 Group 3 Mass 403.8529
Text:TCT42745-MSD 9410061-20D-MSD Text:TCT42745-MSD 9410061-20D-MSD





V41021D 21-OCT-94 Sir:Voltage 70-250SE Sys: [illegible] 21-OCT-94 Sir:Voltage 70-250SE Sys: DI
Sample 1 Injection 1 Group 3 Mass 445.7555 Sample 1 Injection 1 Group 3 Mass 380.9761
Text:TCT42745-MSD 9410061-20D-MSD Text:TCT42745-MSD 9410061-20D-MSD





PCDD/PCDF ANALYSES--EPA METHOD 8290

Sample ID (TCT #)	BLANK - 43045
Client	SWL
Client's Sample ID	
TCT Invoice Number	4411 95-10430
Data Recorded By	SWH
Analysis Date	10/21/94 Time 15:09
Sample Injected By	JMM
Filename	V41021F
Total Amount Extracted	1L
Reported Conc. Units	ng/L
% Moisture (or NA)	NA
ICAL Date	9/26/94
CCAL Filename	V41021A
Method Blank ID	NA
Extraction Date	10/13/94
TEFs (87 or 89)	—
Confirm (1 or 0)	—

Standard Levels, nanograms		
2378-TCDF*	2.0	
2378-TCDD*	2.0	
12378-PeCDF*	2.0	
23478-PeCDF*	2.0	
12378-PeCDD*	2.0	
123478-HxCDF*	2.0	
123678-HxCDF*	2.0	
234678-HxCDF*	2.0	
123789-HxCDF*	2.0	
123478-HxCDD*	2.0	
123678-HxCDD*	2.0	
1234678-HpCDF*	2.0	
1234789-HpCDF*	2.0	
1234678-HpCDD*	2.0	
OCDD*	4.0	
2378-TCDD-37Cl4	0.2	
1234-TCDD*	2.0	
123789-HxCDD*	2.0	

Tetra-Furans:		RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
2378-TCDF*		25:43	14769	18209	3617	4415		
2378-TCDF					1.5	1.5		
Other TCDF	1.							
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							

Tetra-Dioxins:								
1234-TCDD*		25:52	17245	21731	xxx	xxx		
2378-TCDD*		26:20	11354	14221	2928	3641		
2378-TCDD-37Cl4			ND	xxx	xxx	xxx		
2378-TCDD					0.65	0.84		
Other TCDD	1.	25:57	~~13~~	~~13~~				R
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

FILENAME: V41021F

		RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
Other TCDD	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							
Penta-Furans:								
12378-PeCDF*		29:22	21486	14234	4773	3146		
23478-PeCDF*		30:19	21150	13745	4511	2934		
12378-PeCDF					0.83	1.75		
23478-PeCDF					1.4	0.78		
Other PeCDF	1.	29:26	~~34~~	~~30~~				R
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							
Penta-Dioxins:								
12378-PeCDD*		30:38	14189	9190	2516	1848		
12378-PeCDD					1.0	1.2		
Other PeCDD	1.	29:27	~~392~~	~~734~~				R
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

FILENAME: V41021F

Hexa-Furans:	RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
123478-HxCDF*	33:22	7742	13346	1725	2775	0.58	
123678-HxCDF*	37:31	8512	14419	1787	2788	0.59	
234678-HxCDF*	34:09	9075	15577	1907	3057	0.58	
123789-HxCDF*	35:05	6787	11522	1407	2232	0.59	
123478-HxCDF				1.03	1.24		
123678-HxCDF				1.15	1.35		
234678-HxCDF	34:09	33	27				
123789-HxCDF				0.98	1.57		
Other HxCDF 1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

Hexa-Dioxins:							
123478-HxCDD*	34:19	10204	8693	2218	1896		
123678-HxCDD*	38:26	12591	10471	2705	2206		
123789-HxCDD*	34:44	12445	10725	xxx	xxx		
123478-HxCDD				0.47	0.56		
123678-HxCDD				1.3	0.38		
123789-HxCDD				0.48	1.4		
Other HxCDD 1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

Hepta-Furans:							
1234678-HpCDF*							
1234789-HpCDF*							
1234678-HpCDF							
1234789-HpCDF							
Other HpCDF 1.							
2.							

Hepta-Dioxins:							
1234678-HpCDD*							
1234678-HpCDD							
Other HpCDD 1.							

OCDD*							
OCDF							
OCDD							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

PCDD/PCDF ANALYSES--EPA METHOD 8290

Sample ID (TCT #)	43046 - Spike
Client	SWL
Client's Sample ID	
TCT Invoice Number	4411 95-10430
Data Recorded By	Qm
Analysis Date	10.21.94 Time 13:43
Sample Injected By	Qm
Filename	V41021E
Total Amount Extracted	1 L
Reported Conc. Units	ng/L
% Moisture (or NA)	NA
ICAL Date	V41021A
CCAL Filename	9.26.94
Method Blank ID	Blank - 43045
Extraction Date	10.13.94
TEFs (87 or 89)	—
Confirm (1 or 0)	—

Standard Levels, nanograms		
2378-TCDF*	2.0	
2378-TCDD*	2.0	
12378-PeCDF*	2.0	
23478-PeCDF*	2.0	
12378-PeCDD*	2.0	
123478-HxCDF*	2.0	
123678-HxCDF*	2.0	
234678-HxCDF*	2.0	
123789-HxCDF*	2.0	
123478-HxCDD*	2.0	
123678-HxCDD*	2.0	
1234678-HpCDF*	2.0	
1234789-HpCDF*	2.0	
1234678-HpCDD*	2.0	
OCDD*	4.0	
2378-TCDD-37Cl4	0.2	
1234-TCDD*	2.0	
123789-HxCDD*	2.0	

Tetra-Furans:		RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
2378-TCDF*		25:45	10300	14226				
2378-TCDF		25:45	1241	1490				
Other TCDF	1.							
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							

Tetra-Dioxins:								
1234-TCDD*		25:52	13757	17433	xxx	xxx		
2378-TCDD*		26:21	8575	10863				
2378-TCDD-37Cl4		ND		xxx	xxx	xxx		
2378-TCDD		26:21	757	983				
Other TCDD	1.							
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

FILENAME: V 41021 E

		RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
Other TCDD	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							
Penta-Furans:								
12378-PeCDF*		29:22	17984	11293				LM
23478-PeCDF*		30:20	17056	10579				
12378-PeCDF		29:23	7847	5141				LM
23478-PeCDF		30:21	8733	5551				
Other PeCDF	1.							
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							
Penta-Dioxins:								
12378-PeCDD*		30:39	11087	6670				
12378-PeCDD		30:38	4599	2846				
Other PeCDD	1.							
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

FILENAME: V41021 E

Hexa-Furans:	RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
123478-HxCDF*	33:22	6231	10802			0.58	
123678-HxCDF*	33:30	6873	11734			0.59	LM
234678-HxCDF*	34:08	7231	12800			0.56	
123789-HxCDF*	35:05	5672	9820			0.58	
123478-HxCDF	33:23	6292	5221				
123678-HxCDF	33:31	6814	5539				LM
234678-HxCDF	34:10	6794	5703				
123789-HxCDF	35:07	5901	4810				
Other HxCDF 1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

Hexa-Dioxins:							
123478-HxCDD*	34:20	7453	5805				
123678-HxCDD*	34:26	9741	~~[illegible]~~				
123789-HxCDD*	34:44	10451	8225	xxx	xxx		
123478-HxCDD	34:21	3685	2608				
123678-HxCDD	34:26	3999	3144				
123789-HxCDD	34:45	4307	3409				
Other HxCDD 1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

Hepta-Furans:							
1234678-HpCDF*							
1234789-HpCDF*							
1234678-HpCDF							
1234789-HpCDF							
Other HpCDF 1.							
2.							

Hepta-Dioxins:							
1234678-HpCDD*							
1234678-HpCDD							
Other HpCDD 1.							

OCDD*							
OCDF							
OCDD							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

PCDD/PCDF ANALYSES--EPA METHOD 8290

Sample ID (TCT #)	42745 - MS
Client	SWL
Client's Sample ID	940061-200-MS
TCT Invoice Number	441 95-10430
Data Recorded By	Jm
Analysis Date	10-21-94 Time 11:24
Sample Injected By	Jm
Filename	V4021C
Total Amount Extracted	0.481 L
Reported Conc. Units	ng/L
% Moisture (or NA)	NA
ICAL Date	9-26-94
CCAL Filename	V4021A
Method Blank ID	Blank - 43045
Extraction Date	10-13-94
TEFs (87 or 89)	—
Confirm (1 or 0)	—

Standard Levels, nanograms		
2378-TCDF*	2.0	
2378-TCDD*	2.0	
12378-PeCDF*	2.0	
23478-PeCDF*	2.0	
12378-PeCDD*	2.0	
123478-HxCDF*	2.0	
123678-HxCDF*	2.0	
234678-HxCDF*	2.0	
123789-HxCDF*	2.0	
123478-HxCDD*	2.0	
123678-HxCDD*	2.0	
1234678-HpCDF*	2.0	
1234789-HpCDF*	2.0	
1234678-HpCDD*	2.0	
OCDD*	4.0	
2378-TCDD-37Cl4	0.2	
1234-TCDD*	2.0	
123789-HxCDD*	2.0	

Tetra-Furans:		RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
2378-TCDF*		25:45	6594	~~658~~ 8300				LM Sout TC 10/21/94
2378-TCDF		25:46	658	843				
Other TCDF	1.							
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							

Tetra-Dioxins:								
1234-TCDD*		25:53	10242	13132	xxx	xxx		LM
2378-TCDD*		26:21	5322	6938				LM
2378-TCDD-37Cl4		ND		xxx	xxx	xxx		
2378-TCDD		26:22	462	534				LM
Other TCDD	1.							
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

FILENAME: V 4102IC

		RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
Other TCDD	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							
Penta-Furans:								
12378-PeCDF*		29:29	5646	3457				LM
23478-PeCDF*		30:23	8012	4982				
12378-PeCDF		29:30	2856	1820				LM
23478-PeCDF		30:24	4004	2489				
Other PeCDF	1.							
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							
Penta-Dioxins:								
12378-PeCDD*		30:40	6099	3995				
12378-PeCDD		30:42	2390	1584				
Other PeCDD	1.							
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

FILENAME: V 41021C

Hexa-Furans:	RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
123478-HxCDF*	33:24	3235	5886			0.55	
123678-HxCDF*	33:31	2068	3609			0.57	LM
234678-HxCDF*	34:12	2785	4983			0.56	
123789-HxCDF*	35:10	2302	4162			0.55	
123478-HxCDF	33:25	3169	2535				
123678-HxCDF	33:32	2013	1626				LM
234678-HxCDF	34:12	2544	2127				
123789-HxCDF	35:10	2443	1941				
Other HxCDF 1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

Hexa-Dioxins:							
123478-HxCDD*	34:22	3535	3029				
123678-HxCDD*	34:30	4735	4057				
123789-HxCDD*	34:48	7305	6103	xxx	xxx		
123478-HxCDD	34:23	1620	1336				
123678-HxCDD	34:31	1958	1587				
123789-HxCDD	34:48	1906	1542				
Other HxCDD 1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

Hepta-Furans:							
1234678-HpCDF*							
1234789-HpCDF*							
1234678-HpCDF							
1234789-HpCDF							
Other HpCDF 1.							
2.							

Hepta-Dioxins:							
1234678-HpCDD*							
1234678-HpCDD							
Other HpCDD 1.							

OCDD*							
OCDF							
OCDD							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

PCDD/PCDF ANALYSES--EPA METHOD 8290

Sample ID (TCT #)	42745 - MSD
Client	SWL
Client's Sample ID	9410061 - 200 - MSD
TCT Invoice Number	4411 - 95-10430
Data Recorded By	Jm
Analysis Date	10-21-94 Time 12:44
Sample Injected By	Jm
Filename	V41021D
Total Amount Extracted	0.481 L
Reported Conc. Units	ng/L
% Moisture (or NA)	NA
ICAL Date	9-26-94
CCAL Filename	V41021A
Method Blank ID	Blank - 43045
Extraction Date	10-13-94
TEFs (87 or 89)	—
Confirm (1 or 0)	—

Standard Levels, nanograms		
2378-TCDF*	2.0	
2378-TCDD*	2.0	
12378-PeCDF*	2.0	
23478-PeCDF*	2.0	
12378-PeCDD*	2.0	
123478-HxCDF*	2.0	
123678-HxCDF*	2.0	
234678-HxCDF*	2.0	
123789-HxCDF*	2.0	
123478-HxCDD*	2.0	
123678-HxCDD*	2.0	
1234678-HpCDF*	2.0	
1234789-HpCDF*	2.0	
1234678-HpCDD*	2.0	
OCDD*	4.0	
2378-TCDD-37Cl4	0.2	
1234-TCDD*	2.0	
123789-HxCDD*	2.0	

Tetra-Furans:		RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
2378-TCDF*		25:45	3253	4146				
2378-TCDF		25:46	396	522				
Other TCDF	1.							
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							

Tetra-Dioxins:								
1234-TCDD*		25:53	4188	5320	xxx	xxx		
2378-TCDD*		26:21	2418	2996				
2378-TCDD-37Cl4		ND		xxx	xxx	xxx		
2378-TCDD		26:22	264	316				
Other TCDD	1.							
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

FILENAME: V410210

		RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
Other TCDD	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							
Penta-Furans:								
12378-PeCDF*		29:24	4994	3138				LM
23478-PeCDF*		30:21	3932	2470				
12378-PeCDF		29:25	2403	1577				LM
23478-PeCDF		30:21	2313	1507				
Other PeCDF	1.							
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							
	15.							
	16.							
	17.							
	18.							
	19.							
	20.							
Penta-Dioxins:								
12378-PeCDD*		30:39	2723	1641				
12378-PeCDD		30:40	1215	762				
Other PeCDD	1.							
	2.							
	3.							
	4.							
	5.							
	6.							
	7.							
	8.							
	9.							
	10.							
	11.							
	12.							
	13.							
	14.							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

FILENAME: V 41021 D

Hexa-Furans:	RT	AREA 1	AREA 2	HEIGHT 1	HEIGHT 2	RATIO	CODE
123478-HxCDF*	33:23	1601	2765			0.58	
123678-HxCDF*	33:30	~~1159~~ 1089	1945			~~0.60~~ 0.56	LM ~~R~~
234678-HxCDF*	34:11	~~1741~~ 1568	2770			~~0.63~~ 0.57	~~R~~
123789-HxCDF*	35:08	1384	2373			0.58	
123478-HxCDF	33:24	1838	1473				
123678-HxCDF	33:31	1136	944				LM
234678-HxCDF	34:12	1695	1423				
123789-HxCDF	35:08	1580	1332				
Other HxCDF 1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

SWK 10/21 CE

Hexa-Dioxins:							
123478-HxCDD*	34:21	1933	1517				
123678-HxCDD*	34:27	2749	2140				
123789-HxCDD*	34:46	3520	2736	xxx	xxx		
123478-HxCDD	34:21	974	765				
123678-HxCDD	34:28	1205	966				
123789-HxCDD	34:47	1088	866				
Other HxCDD 1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

Hepta-Furans:							
1234678-HpCDF*							
1234789-HpCDF*							
1234678-HpCDF							
1234789-HpCDF							
Other HpCDF 1.							
2.							

Hepta-Dioxins:							
1234678-HpCDD*							
1234678-HpCDD							
Other HpCDD 1.							

OCDD*							
OCDF							
OCDD							

Codes: E=PCDPE; I=Interference; LM=Lock Mass Suppression; R=Incorrect Ratio; S=Saturated Signal; *=Labeled Isotope

Huntingdon

Engir ing and Science for a Safer Environment

222 CAVALCADE * P.O. BOX 8768, HOUSTON,TEXAS 77249 * 713 692-9151

RECEIVED
DEC 08 1994

Client DSM ENVIRONMENTAL SERVICES
1830 S. KIRKWOOD, SUITE 201A
HOUSTON, TX 77077

Attn: JOE RAFFERTY

Client No. 2623100
Report No. 94-10-061
Report Date 12/06/94 10:18

Project CORCO WORKPLAN ADDENDUM

Date Sampled 09/29/94 10/05/94

Sampled By DSM-GERARDO GARCIA

Sample Type SOIL AND GROUNDWATER SAMPLES

Transported by FEDERAL EXPRESS

P.O. # 1019-02-01

Date Received 10/07/94

LOCATION: CORCO PETROCHEMICAL COMPLEX, PONCE, PUERTO RICO
NOTE: DETECTION LIMITS SHOWN ARE CLP CONTRACTED DETECTION LIMITS, NOT INSTRUMENT DETECTION LIMITS.

Lab No.	Sample Identification
94-10-061-01	PD-2A
94-10-061-02	PD-2B
94-10-061-03	EL-1-A
94-10-061-04	EL-1-B
94-10-061-05	DUP #1
94-10-061-06	DUP #2
94-10-061-07	EI-1
94-10-061-08	EI-2
94-10-061-09	EI-3
94-10-061-10	EI-4
94-10-061-11	PD-2
94-10-061-12	PD-2
94-10-061-13	PD-2
94-10-061-14	PD-2
94-10-061-15	PD-2
94-10-061-16	PD-2
94-10-061-17	PD-2
94-10-061-18	PD-2 (DISSOLVED)
94-10-061-19	TRIP BLANK - VOLATILES
94-10-061-20	PD-2

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Reviewed By

HUNTINGDON

CHRIS BARRY

Sample: 01A PD-2A Collected: 09/29/94 04:15

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
ALUMINUM	SW-846 6010	6280	mg/kg	48.7	11/21/94	JP
ANTIMONY	SW-846 7041	<14.6	mg/kg	14.6	11/22/94	JA
ARSENIC	SW-846 7060	5.91	mg/kg	2.44	11/19/94	JA
BARIUM	SW-846 6010	33.5	mg/kg	48.72	11/21/94	JP
BERYLLIUM	SW-846 6010	<1.00	mg/kg	1.00	11/21/94	JP
CADMIUM	SW-846 6010	<1.00	mg/kg	1.00	11/21/94	JP
CALCIUM	SW-846 6010	233,000	mg/kg	1220	11/23/94	JP
CHROMIUM	SW-846 6010	33.0	mg/kg	4.87	11/21/94	JP
COBALT	SW-846 6010	<2.4	mg/kg	2.4	11/21/94	JP
COPPER	SW-846 6010	8.43	mg/kg	6.10	11/21/94	JP
IRON	SW-846 6010	9210	mg/kg	24.4	11/23/94	JP
LEAD	SW-846 7421	<0.40	mg/kg	0.40	12/05/94	JA
MAGNESIUM	SW-846 6010	3690	mg/kg	1220	11/21/94	JP
MANGANESE	SW-846 6010	167	mg/kg	7.3	11/21/94	JP
MERCURY	SW-846 7471	<0.122	mg/kg	0.122	11/21/94	JP
NICKEL	SW-846 6010	29.2	mg/kg	19.5	11/21/94	JP
POTASSIUM	SW-846 6010	<97.6	mg/kg	97.6	11/21/94	JP
SELENIUM	SW-846 7740	<1.22	mg/kg	1.22	11/19/94	JA
SILVER	SW-846 7760	<1.00	mg/kg	1.00	11/21/94	JP
SODIUM	SW-846 6010	2020	mg/kg	1220	11/21/94	JP
THALLIUM	SW-846 7841	<2.44	mg/kg	2.44	11/21/94	JA
TIN	SW-846 6010	<24.4	mg/kg	24.4	11/04/94	GLM
VANADIUM	SW-846 6010	53.0	mg/kg	24.4	11/21/94	JP
ZINC	SW-846 6010	52.4	mg/kg	5.74	11/21/94	JP

Sample: 02A PD-2B Collected: 09/29/94 04:17

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
ALUMINUM	SW-846 6010	8280	mg/kg	52.9	11/21/94	JP
ANTIMONY	SW-846 7041	<15.9	mg/kg	15.9	11/22/94	JA
ARSENIC	SW-846 7060	2.73	mg/kg	2.64	11/19/94	JA
BARIUM	SW-846 6010	69.1	mg/kg	52.9	11/21/94	JP
BERYLLIUM	SW-846 6010	<1.00	mg/kg	1.00	11/21/94	JP
CADMIUM	SW-846 6010	4.24	mg/kg	2.64	11/21/94	JP
CALCIUM	SW-846 6010	268,000	mg/kg	1322	11/21/94	JP
CHROMIUM	SW-846 6010	27.3	mg/kg	5.28	11/21/94	JP
COBALT	SW-846 6010	23.7	mg/kg	26.43	11/21/94	JP
COPPER	SW-846 6010	11.3	mg/kg	13.22	11/21/94	JP
EPA 3050 DIGEST	SW 846-3050	11/01/94	DATE		11/02/94	AR
IRON	SW-846 6010	13,600	mg/kg	26.4	11/21/94	JP
LEAD - SOLID SAMPLE	SW-846 7420	13.2	mg/kg	0.79	11/28/94	JA

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
MAGNESIUM	SW-846 6010	5240	mg/kg	1322	11/21/94	JP
MANGANESE	SW-846 6010	226	mg/kg	7.93	11/21/94	JP
MERCURY	SW-846 7471	<0.132	mg/kg	0.132	11/21/94	JP
NICKEL	SW-846 6010	35,300	mg/kg	21.14	11/21/94	JP
POTASSIUM	SW-846 6010	1620	mg/kg	1322	11/21/94	JP
SELENIUM	SW-846 7740	<1.32	mg/kg	1.32	11/19/94	JA
SILVER	SW-846 7760	6.54	mg/kg	5.3	11/21/94	JP
SODIUM	SW-846 6010	2450	mg/kg	1322	11/21/94	JP
THALLIUM	SW-846 7841	<2.64	mg/kg	2.64	11/21/94	JA
TIN	SW-846 6010	<26.4	mg/kg	26.4	11/04/94	GLM
VANADIUM	SW-846 6010	53.3	mg/kg	26.4	11/21/94	JP
ZINC	SW-846 6010	26.0	mg/kg	10.6	12/21/94	JP

Sample: 03A EL-1-A Collected: 09/30/94 09:20

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
ALUMINUM	SW-846 6010	36,500	mg/kg	50.6	11/21/94	JP
ANTIMONY	SW-846 7041	<15.2	mg/kg	15.2	11/22/94	JA
ARSENIC	SW-846 7060	<2.53	mg/kg	2.53	11/19/94	JA
BARIUM	SW-846 6010	163	mg/kg	50.6	11/21/94	JP
BERYLLIUM	SW-846 6010	1.25	mg/kg	1.27	11/21/94	JP
CADMIUM	SW-846 6010	<1.0	mg/kg	1.00	11/21/94	JP
CALCIUM	SW-846 6010	16,400	mg/kg	1265	11/21/94	JP
CHROMIUM	SW-846 6010	77.6	mg/kg	5.06	11/21/94	JP
COBALT	SW-846 6010	32.2	mg/kg	25.31	11/21/94	JP
COPPER	SW-846 6010	76.1	mg/kg	12.65	11/21/94	JP
EPA 3050 DIGEST	SW 846-3050	11/01/94	DATE		11/02/94	AR
IRON	SW-846 6010	50,900	mg/kg	25.3	11/21/94	JP
LEAD	SW-846 7421	3.29	mg/kg	0.50	12/05/94	JA
MAGNESIUM	SW-846 6010	13,900	mg/kg	1265	11/21/94	JP
MANGANESE	SW-846 6010	1745	mg/kg	7.60	11/29/94	JP
MERCURY	SW-846 7471	<0.127	mg/kg	0.127	11/21/94	JP
NICKEL	SW-846 6010	38.4	mg/kg	20.24	11/21/94	JP
POTASSIUM	SW-846 6010	1800	mg/kg	1265	11/21/94	JP
SELENIUM	SW-846 7740	<1.27	mg/kg	1.27	11/19/94	JA
SILVER	SW-846 7760	<2.00	mg/kg	2.00	11/21/94	JP
SODIUM	SW-846 6010	478	mg/kg	1265	11/21/94	JP
THALLIUM	SW-846 7841	<2.53	mg/kg	2.53	11/21/94	JA
TIN	SW-846 6010	<25.3	mg/kg	25.3	11/04/94	GLM
VANADIUM	SW-846 6010	178	mg/kg	25.3	11/21/94	JP
ZINC	SW-846 6010	86.4	mg/kg	10.12	11/21/94	JP

Sample: 04A EL-1-B Collected: 09/30/94 09:40

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
ALUMINUM	SW-846 6010	33,100	mg/kg	50.1	11/21/94	JP
ANTIMONY	SW-846 7041	<15.0	mg/kg	15.0	11/22/94	JA
ARSENIC	SW-846 7060	<2.50	mg/kg	2.50	11/19/94	JA
BARIUM	SW-846 6010	160	mg/kg	50.1	11/21/94	JP
BERYLLIUM	SW-846 6010	1.20	mg/kg	1.25	11/21/94	JP
CADMIUM	SW-846 6010	<1.0	mg/kg	1.00	11/21/94	JP
CALCIUM	SW-846 6010	48,800	mg/kg	1252	11/21/94	JP
CHROMIUM	SW-846 6010	70.9	mg/kg	5.01	11/21/94	JP
COBALT	SW-846 6010	26.7	mg/kg	25.04	11/21/94	JP
COPPER	SW-846 6010	65.0	mg/kg	12.5	11/21/94	JP
EPA 3050 DIGEST	SW 846-3050	11/01/94	DATE		11/02/94	AR
IRON	SW-846 6010	48,100	mg/kg	25.0	11/23/94	JP
LEAD	SW-846 7421	2.64	mg/kg	0.50	12/05/94	JA
MAGNESIUM	SW-846 6010	16,200	mg/kg	1252	11/21/94	JP
MANGANESE	SW-846 6010	181.3	mg/kg	7.51	11/29/94	JP
MERCURY	SW-846 7471	<0.125	mg/kg	0.125	11/21/94	JP
NICKEL	SW-846 6010	33.7	mg/kg	20	11/21/94	JP
POTASSIUM	SW-846 6010	<100	mg/kg	100	11/21/94	JP
SELENIUM	SW-846 7740	<1.25	mg/kg	1.25	11/19/94	JA
SILVER	SW-846 7760	<2.00	mg/kg	2.00	11/21/94	JP
SODIUM	SW-846 6010	1020	mg/kg	1252	11/21/94	JP
THALLIUM	SW-846 7841	<2.50	mg/kg	2.50	11/21/94	JA
TIN	SW-846 6010	<25.04	mg/kg	25.04	11/04/94	GLM
VANADIUM	SW-846 6010	177	mg/kg	25.04	11/21/94	JP
ZINC	SW-846 6010	84.8	mg/kg	10	11/21/94	JP

Sample: 05A DUP #1 Collected: 09/30/94 09:42

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
ALUMINUM	SW-846 6010	31,700	mg/kg	50.0	11/21/94	JP
ANTIMONY	SW-846 7041	<15.0	mg/kg	15	11/22/94	JA
ARSENIC	SW-846 7060	<2.50	mg/kg	2.50	11/19/94	JA
BARIUM	SW-846 6010	130	mg/kg	2.5	11/21/94	JP
BERYLLIUM	SW-846 6010	1.17	mg/kg	1.25	11/21/94	JP
CADMIUM	SW-846 6010	<1.00	mg/kg	1.00	11/21/94	JP
CALCIUM	SW-846 6010	56,000	mg/kg	1247	11/21/94	JP
CHROMIUM	SW-846 6010	68.4	mg/kg	5.0	11/21/94	JP
COBALT	SW-846 6010	27.0	mg/kg	25.0	11/21/94	JP
COPPER	SW-846 6010	63.3	mg/kg	12.5	11/21/94	JP
EPA 3050 DIGEST	SW 846-3050	11/01/94	DATE		11/02/94	AR
IRON	SW-846 6010	43,800	mg/kg	25	11/23/94	JP

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
LEAD	SW-846 7421	2.33	mg/kg	0.50		
MAGNESIUM	SW-846 6010	14,900	mg/kg	1247	11/21/94	JP
MANGANESE	SW-846 6010	180.2	mg/kg	7.48	11/29/94	JP
MERCURY	SW-846 7471	<0.125	mg/kg	0.125	11/21/94	JP
NICKEL	SW-846 6010	31.8	mg/kg	20	11/21/94	JP
POTASSIUM	SW-846 6010	<99.6	mg/kg	99.6	11/21/94	JP
SELENIUM	SW-846 7740	<1.25	mg/kg	1.25	11/19/94	JA
SILVER	SW-846 7760	<1.00	mg/kg	1.00	11/21/94	JP
SODIUM	SW-846 6010	999	mg/kg	1247	11/21/94	JP
THALLIUM	SW-846 7841	<2.50	mg/kg	2.50	11/21/94	JA
TIN	SW-846 6010	<25	mg/kg	25.0	11/04/94	GLM
VANADIUM	SW-846 6010	168	mg/kg	25.0	11/21/94	JP
ZINC	SW-846 6010	71.1	mg/kg	10	11/21/94	JP

Sample: 06A DUP #2 Collected: 09/30/94 09:45

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
ALUMINUM	SW-846 6010	33,000	mg/kg	50.2	11/21/94	JP
ANTIMONY	SW-846 7041	<15.1	mg/kg	15.1	11/22/94	JA
ARSENIC	SW-846 7060	<2.51	mg/kg	2.51	11/19/94	JA
BARIUM	SW-846 6010	157	mg/kg	50.2	11/21/94	JP
BERYLLIUM	SW-846 6010	1.25	mg/kg	1.26	11/21/94	JP
CADMIUM	SW-846 6010	<1.00	mg/kg	1.00	11/21/94	JP
CALCIUM	SW-846 6010	50,200	mg/kg	1255	11/21/94	JP
CHROMIUM	SW-846 6010	72.4	mg/kg	5.02	11/21/94	JP
COBALT	SW-846 6010	28.1	mg/kg	25.1	11/21/94	JP
COPPER	SW-846 6010	64.7	mg/kg	12.54	11/21/94	JP
EPA 3050 DIGEST	SW 846-3050	11/01/94	DATE		11/02/94	AR
IRON	SW-846 6010	46,400	mg/kg	25.1	11/23/94	JP
LEAD	SW-846 7421	2.36	mg/kg	0.50	12/05/94	JA
MAGNESIUM	SW-846 6010	16,300	mg/kg	1255	11/21/94	JP
MANGANESE	SW-846 6010	304.6	mg/kg	7.52	11/29/94	JP
MERCURY	SW-846 7471	<0.125	mg/kg	0.125	11/21/94	JP
NICKEL	SW-846 6010	33.9	mg/kg	20	11/21/94	JP
POTASSIUM	SW-846 6010	<100	mg/kg	100	11/21/94	JP
SELENIUM	SW-846 7740	<1.26	mg/kg	1.26	11/19/94	JA
SILVER	SW-846 7760	<2.00	mg/kg	2.00	11/21/94	JP
SODIUM	SW-846 6010	1010	mg/kg	1255	11/21/94	JP
THALLIUM	SW-846 7841	<2.51	mg/kg	2.51	11/21/94	JA
TIN	SW-846 6010	<25.1	mg/kg	25.1	11/04/94	GLM
VANADIUM	SW-846 6010	183	mg/kg	25.1	11/21/94	JP
ZINC	SW-846 6010	74.3	mg/kg	10	11/21/94	JP

TEST RESULTS BY SAMPLE

Sample: 07A EI-1 Collected: 10/04/94 13:30

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
TOT.PET. HYDROCARBONS	EPA 418.1	3500	mg/kg	5.0	10/10/94	DA

Sample: 08A EI-2 Collected: 10/04/94 14:02

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
TOT.PET. HYDROCARBONS	EPA 418.1	1550	mg/kg	5.0	10/10/94	DA

Sample: 09A EI-3 Collected: 10/04/94 14:20

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
TOT.PET. HYDROCARBONS	EPA 418.1	1700	mg/kg	5.0	10/10/94	DA

Sample: 10A EI-4 Collected: 10/04/94 14:35

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
TOT.PET. HYDROCARBONS	EPA 418.1	4640	mg/kg	5.0	10/10/94	DA

Sample: 11A PD-2 Collected: 10/05/94 15:15

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
VOLATILE ORGANICS - WATER	EPA 624/8240	ENCLOSURE	DATE		10/12/94	DBD

Sample: 11B PD-2 / DUP Collected: 10/05/94 15:20

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
VOLATILE ORGANICS - WATER	EPA 624/8240	ENCLOSURE	DATE		10/12/94	DBD

Sample: 11C PD-2 / MS Collected: 10/05/94 15:30

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
VOLATILE ORGANICS - WATER	EPA 624/8240	ENCLOSURE	DATE		10/12/94	DBD

Sample: 11D PD-2 / MSD Collected: 10/05/94 15:35

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
VOLATILE ORGANICS - WATER	EPA 624/8240	ENCLOSURE	DATE		10/12/94	DBD

Sample: 12A PD-2 Collected: 10/05/94 15:55

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
B/N,ACID - WATER - GC/MS	EPA 625/8270	ENCLOSURE	DATE		10/12/94	RKW
BASE/NEUTRAL,ACID EXTRACT	EPA 625/8270	10/11/94	DATE		10/11/94	CAM

Sample: 12B PD-2 / DUP Collected: 10/05/94 15:51

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
B/N,ACID - WATER - GC/MS	EPA 625/8270	ENCLOSURE	DATE		10/12/94	RKW
BASE/NEUTRAL,ACID EXTRACT	EPA 625/8270	10/11/94	DATE		10/11/94	CAM

Sample: 12C PD-2 / MS Collected: 10/05/94 15:47

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
B/N,ACID - WATER - GC/MS	EPA 625/8270	ENCLOSURE	DATE		10/12/94	RKW
BASE/NEUTRAL,ACID EXTRACT	EPA 625/8270	10/11/94	DATE		10/11/94	CAM

Sample: 12D PD-2 / MSD Collected: 10/05/94 15:44

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
B/N,ACID - WATER - GC/MS	EPA 625/8270	ENCLOSURE	DATE		10/12/94	RKW
BASE/NEUTRAL,ACID EXTRACT	EPA 625/8270	10/11/94	DATE		10/11/94	CAM

Sample: 13A PD-2 Collected: 10/05/94 16:08

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
ALUMINUM	EPA 200.7	740,000	ug/L	200	11/23/94	JP
ANTIMONY	EPA 204.2	<60	ug/L	60	11/21/94	JA
ARSENIC	EPA 206.2	<10.0	ug/L	10.0	11/19/94	JA
BARIUM	EPA 200.7	2240	ug/L	200	11/21/94	JP
BERYLLIUM	EPA 200.7	26.9	ug/L	10	11/21/94	JP
CADMIUM	EPA 200.7	178	ug/L	10	11/21/94	JP
CALCIUM	EPA 200.7	6,140,000	ug/L	5000	11/23/94	JP
CHROMIUM	EPA 200.7	2140	ug/L	20	11/21/94	JP
COBALT	EPA 200.7	982	ug/L	100	11/21/94	JP
COPPER	EPA 200.7	2620	ug/L	50	11/21/94	JP
IRON	EPA 200.7	1,180,000	ug/L	100	11/23/94	JP
LEAD	EPA 239.1	<100	ug/L	3	11/28/94	JA
MAGNESIUM	EPA 200.7	835,000	ug/L	5000	11/21/94	JP
MANGANESE	EPA 200.7	21,170	ug/L	30	11/29/94	JP
MERCURY	EPA 245.1	<0.2	ug/L	0.2	11/13/94	JA
NICKEL	EPA 200.7	1200	ug/L	80	11/21/94	JP
POTASSIUM	EPA 200.7	133,000	ug/L	5000	11/21/94	JP
SELENIUM	EPA 270.2	<5	ug/L	5	11/19/94	JA
SILVER	EPA 200.7	<6.0	ug/L	6.0	11/21/94	JP
SODIUM	EPA 200.7	734,000	ug/L	5000	11/21/94	JP
THALLIUM	EPA 279.2	<10	ug/L	10	11/21/94	JA
TIN	EPA 200.7	210	ug/L	100	11/04/94	GLM
VANADIUM	EPA 200.7	2980	ug/L	100	11/21/94	JP
ZINC	EPA 200.7	3250	ug/L	40	11/21/94	JP

Sample: 13B PD-2 / DUP Collected: 10/05/94 16:45

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
ALUMINUM	EPA 200.7	733,000	ug/L	200	11/23/94	JP
ANTIMONY	EPA 204.2	<60	ug/L	60	11/21/94	JA
ARSENIC	EPA 206.2	<10.0	ug/L	10.0	11/19/94	JA
BARIUM	EPA 200.7	2510	ug/L	200	11/21/94	JP

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
BERYLLIUM	EPA 200.7	23.6	ug/L	5	11/21/94	JP
CADMIUM	EPA 200.7	174	ug/L	10	11/21/94	JP
CALCIUM	EPA 200.7	6,010,000	ug/L	5000	11/23/94	JP
CHROMIUM	EPA 200.7	2000	ug/L	20	11/21/94	JP
COBALT	EPA 200.7	975	ug/L	100	11/21/94	JP
COPPER	EPA 200.7	2720	ug/L	50	11/21/94	JP
IRON	EPA 200.7	1,200,000	ug/L	100	11/23/94	JP
LEAD	EPA 239.1	164	ug/L	3	11/28/94	JA
MAGNESIUM	EPA 200.7	862,000	ug/L	5000	11/21/94	JP
MANGANESE	EPA 200.7	27,060	ug/L	30	11/29/94	JP
MERCURY	EPA 245.1	<0.2	ug/L	0.2	11/13/94	JA
NICKEL	EPA 200.7	1190	ug/L	80	11/21/94	JP
POTASSIUM	EPA 200.7	137,000	ug/L	5000	11/21/94	JP
SELENIUM	EPA 270.2	<5	ug/L	5	11/19/94	JA
SILVER	EPA 200.7	<6.0	ug/L	6.0	11/21/94	JP
SODIUM	EPA 200.7	768,000	ug/L	5000	11/21/94	JP
THALLIUM	EPA 279.2	<10	ug/L	10	11/21/94	JA
TIN	EPA 200.7	<100	ug/L	100	11/04/94	GLM
VANADIUM	EPA 200.7	2360	ug/L	100	11/21/94	JP
ZINC	EPA 200.7	3290	ug/L	40	11/21/94	JP

Sample: 13C PD-2 / MS Collected: 10/05/94 16:02

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
ALUMINUM	EPA 200.7	64,200	ug/L	200	11/21/94	JP
ANTIMONY	EPA 204.2	<60	ug/L	60	11/21/94	JA
ARSENIC	EPA 206.2	<10.0	ug/L	10.0	11/19/94	JA
BARIUM	EPA 200.7	190	ug/L	200	11/21/94	JP
BERYLLIUM	EPA 200.7	14.1	ug/L	5	11/21/94	JP
CADMIUM	EPA 200.7	31.2	ug/L	10	11/21/94	JP
CALCIUM	EPA 200.7	2,580,000	ug/L	5000	11/23/94	JP
CHROMIUM	EPA 200.7	170	ug/L	20	11/21/94	JP
COBALT	EPA 200.7	288	ug/L	100	11/21/94	JP
COPPER	EPA 200.7	256	ug/L	50	11/21/94	JP
IRON	EPA 200.7	147,000	ug/L	100	11/23/94	JP
LEAD	EPA 239.1	<100	ug/L	3	11/28/94	JA
MAGNESIUM	EPA 200.7	177,000	ug/L	5000	11/21/94	JP
MANGANESE	EPA 200.7	9562	ug/L	30	11/29/94	JP
MERCURY	EPA 245.1	5.0	ug/L	0.2	11/13/94	JA
NICKEL	EPA 200.7	288	ug/L	80	11/21/94	JP
POTASSIUM	EPA 200.7	23,500	ug/L	5000	11/21/94	JP
SELENIUM	EPA 270.2	<5	ug/L	5	11/19/94	JA
SILVER	EPA 200.7	<6.0	ug/L	6.0	11/21/94	JP
SODIUM	EPA 200.7	215,000	ug/L	5000	11/21/94	JP

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
THALLIUM	EPA 279.2	<10	ug/L	10	11/21/94	JA
TIN	EPA 200.7	<100	ug/L	100	11/04/94	GLM
VANADIUM	EPA 200.7	671	ug/L	100	11/21/94	JP
ZINC	EPA 200.7	641	ug/L	40	11/21/94	JP

Sample: 13D PD-2 / MSD Collected: 10/05/94 16:04

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
ALUMINUM	EPA 200.7	48,100	ug/L	200	11/23/94	JP
ANTIMONY	EPA 204.2	<60	ug/L	60	11/21/94	JA
ARSENIC	EPA 206.2	<10.0	ug/L	10.0	11/19/94	JA
BARIUM	EPA 200.7	4470	ug/L	200	11/21/94	JP
BERYLLIUM	EPA 200.7	32.3	ug/L	5	11/21/94	JP
CADMIUM	EPA 200.7	68.3	ug/L	10	11/21/94	JP
CALCIUM	EPA 200.7	2,550,000	ug/L	5000	11/23/94	JP
CHROMIUM	EPA 200.7	350	ug/L	20	11/21/94	JP
COBALT	EPA 200.7	622	ug/L	100	11/21/94	JP
COPPER	EPA 200.7	558	ug/L	50	11/21/94	JP
IRON	EPA 200.7	143,000	ug/L	100	11/23/94	JP
LEAD	EPA 239.1	<100	ug/L	3	11/28/94	JA
MAGNESIUM	EPA 200.7	409,000	ug/L	5000	11/21/94	JP
MANGANESE	EPA 200.7	9485	ug/L	30	11/29/94	JP
MERCURY	EPA 245.1	95.0	ug/L	0.2	11/13/94	JA
NICKEL	EPA 200.7	630	ug/L	80	11/21/94	JP
POTASSIUM	EPA 200.7	59,300	ug/L	5000	11/21/94	JP
SELENIUM	EPA 270.2	<5	ug/L	5	11/19/94	JA
SILVER	EPA 200.7	<6.0	ug/L	6.0	11/21/94	JP
SODIUM	EPA 200.7	544,000	ug/L	5000	11/21/94	JP
THALLIUM	EPA 279.2	<10	ug/L	10	11/21/94	JA
TIN	EPA 200.7	<100	ug/L	100	11/04/94	GLM
VANADIUM	EPA 200.7	1440	ug/L	100	11/21/94	JP
ZINC	EPA 200.7	1400	ug/L	40	11/21/94	JP

Sample: 14A PD-2 Collected: 10/05/94 16:30

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
CYANIDE AMENABLE	EPA 335.1	<0.01	mg/L	0.01	11/02/94	JD

TEST RESULTS BY SAMPLE

Sample: 14B PD-2 / DUP Collected: 10/05/94 16:30

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
CYANIDE AMENABLE	EPA 335.1	<0.01	mg/L	0.01	11/02/94	JD

Sample: 14C PD-2 / MS Collected: 10/05/94 16:25

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
CYANIDE AMENABLE	EPA 335.1	0.24	mg/L	0.01	11/02/94	JD

Sample: 14D PD-2 / MSD Collected: 10/05/94 16:32

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
CYANIDE AMENABLE	EPA 335.1	0.26	mg/L	0.01	11/02/94	JD

Sample: 15A PD-2 Collected: 10/05/94 16:35

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
SULFIDE	EPA 376.1	<0.4	mg/L	0.4	10/14/94	LN

Sample: 15B PD-2 / DUP Collected: 10/05/94 16:35

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
SULFIDE	EPA 376.1	<0.4	mg/L	0.4	10/14/94	LN

Sample: 15C PD-2 / MS Collected: 10/05/94 16:39

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
SULFIDE	EPA 376.1	<0.4	mg/L	0.4	10/14/94	LN

Sample: 15D PD-2 / MSD Collected: 10/05/94 16:42

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
SULFIDE	EPA 376.1	<0.4	mg/L	0.4	10/14/94	LN

Sample: 17A PD-2 Collected: 10/05/94 17:59

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
HERBICIDES	SW846 8150	ENCLOSURE	SPECIFY		10/21/94	JH

Sample: 17B PD-2 / DUP Collected: 10/05/94 17:59

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
HERBICIDES	SW846 8150	ENCLOSURE	SPECIFY		10/21/94	JH

Sample: 17C PD-2 / MS Collected: 10/05/94 18:00

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
HERBICIDES	SW846 8150	ENCLOSURE	SPECIFY		10/21/94	JH

Sample: 17D PD-2 / MSD Collected: 10/05/94 18:03

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
HERBICIDES	SW846 8150	ENCLOSURE	SPECIFY		10/21/94	JH

Sample: 18A PD-2 (DISSOLVED) Collected: 10/05/94 23:16

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
DISSOLVED ALUMINUM	EPA 200.7	<70	ug/L	200	11/21/94	JP
DISSOLVED ANTIMONY	EPA 204.2	<60	ug/L	60	11/21/94	JA
DISSOLVED ARSENIC	EPA 206.2	<10	ug/L	10	11/19/94	JA
DISSOLVED BARIUM	EPA 200.7	1140	ug/L	200	11/21/94	JP

TEST RESULTS BY SAMPLE

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
DISSOLVED BERYLLIUM	EPA 200.7	<5.0	ug/L	5.0	11/21/94	JP
DISSOLVED CADMIUM	EPA 200.7	<5.0	ug/L	5.0	11/21/94	JP
DISSOLVED CALCIUM	EPA 200.7	337,000	ug/L	5000	11/21/94	JP
DISSOLVED CHROMIUM	EPA 200.7	<10	ug/L	10	11/21/94	JP
DISSOLVED COBALT	EPA 200.7	<10	ug/L	10	11/21/94	JP
DISSOLVED COPPER	EPA 200.7	<6.0	mg/L	6.0	11/21/94	JP
DISSOLVED IRON	EPA 200.7	73.2	ug/L	100	11/21/94	JP
DISSOLVED LEAD	EPA 239.2	<2.0	ug/L	2.0	12/05/94	JA
DISSOLVED MAGNESIUM	EPA 200.7	120,000	ug/L	5000	11/21/94	JP
DISSOLVED MANGANESE	EPA 200.7	416	ug/L	30	11/21/94	JP
DISSOLVED MERCURY	EPA 245.1	<0.2	ug/L	0.2	11/13/94	JA
DISSOLVED NICKEL	EPA 200.7	<20	ug/L	20	11/21/94	JP
DISSOLVED POTASSIUM	EPA 200.7	38,700	ug/L	5000	11/21/94	JP
DISSOLVED SELENIUM	EPA 270.2	<5	ug/L	5	11/19/94	JA
DISSOLVED SILVER	EPA 200.7	<6.0	ug/L	6.0	11/21/94	JP
DISSOLVED SODIUM	EPA 200.7	868,000	ug/L	5000	11/21/94	JP
DISSOLVED THALLIUM	EPA 279.2	<10	ug/L	10	11/21/94	JA
DISSOLVED TIN	EPA 200.7	<100	ug/L	100	11/04/94	GLM
DISSOLVED VANADIUM	EPA 200.7	<10	ug/L	10	11/21/94	JP
DISSOLVED ZINC	EPA 200.7	96.4	ug/L	40	11/21/94	JP

Sample: 18B PD-2 / DUP (DISSOLVED) Collected: 10/05/94 23:10

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
DISSOLVED ALUMINUM	EPA 200.7	<70	ug/L	200	11/21/94	JP
DISSOLVED ANTIMONY	EPA 204.2	<60	ug/L	60	11/21/94	JA
DISSOLVED ARSENIC	EPA 206.2	<10	ug/L	10	11/19/94	JA
DISSOLVED BARIUM	EPA 200.7	1120	ug/L	200	11/21/94	JP
DISSOLVED BERYLLIUM	EPA 200.7	<5	ug/L	5.0	11/21/94	JP
DISSOLVED CADMIUM	EPA 200.7	<5.0	ug/L	5.0	11/21/94	JP
DISSOLVED CALCIUM	EPA 200.7	342,000	ug/L	5000	11/21/94	JP
DISSOLVED CHROMIUM	EPA 200.7	<10	ug/L	10	11/21/94	JP
DISSOLVED COBALT	EPA 200.7	<10	ug/L	10	11/21/94	JP
DISSOLVED COPPER	EPA 200.7	<6.0	ug/L	6.0	11/21/94	JP
DISSOLVED IRON	EPA 200.7	93.6	ug/L	100	11/21/94	JP
DISSOLVED LEAD	EPA 239.2	<2.0	ug/L	2.0	12/05/94	JA
DISSOLVED MAGNESIUM	EPA 200.7	122,000	ug/L	5000	11/21/94	JP
DISSOLVED MANGANESE	EPA 200.7	416	ug/L	30	11/21/94	JP
DISSOLVED MERCURY	EPA 245.1	<0.2	ug/L	0.2	11/13/94	JA
DISSOLVED NICKEL	EPA 200.7	<20	ug/L	20	11/21/94	JP
DISSOLVED POTASSIUM	EPA 200.7	37,600	ug/L	5000	11/21/94	JP
DISSOLVED SELENIUM	EPA 270.2	<5	ug/L	5	11/19/94	JA
DISSOLVED SILVER	EPA 200.7	<6.0	ug/L	6.0	11/21/94	JP
DISSOLVED SODIUM	EPA 200.7	869,000	ug/L	5000	11/21/94	JP

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
DISSOLVED THALLIUM	EPA 279.2	<10	ug/L	10	11/21/94	JA
DISSOLVED TIN	EPA 200.7	<100	ug/L	100	11/04/94	GLM
DISSOLVED VANADIUM	EPA 200.7	<10	ug/L	10	11/21/94	JP
DISSOLVED ZINC	EPA 200.7	94.9	ug/L	40	11/21/94	JP

Sample: 18C PD-2 / MS (DISSOLVED) Collected: 10/05/94 23:13

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
DISSOLVED ALUMINUM	EPA 200.7	1990	ug/L	200	11/21/94	JP
DISSOLVED ANTIMONY	EPA 204.2	84	ug/L	60	11/21/94	JA
DISSOLVED ARSENIC	EPA 206.2	35	ug/L	10	11/19/94	JA
DISSOLVED BARIUM	EPA 200.7	3050	ug/L	200	11/21/94	JA
DISSOLVED BERYLLIUM	EPA 200.7	50.5	ug/L	5	11/21/94	JP
DISSOLVED CADMIUM	EPA 200.7	47.6	ug/L	10	11/21/94	JP
DISSOLVED CALCIUM	EPA 200.7	342,000	ug/L	5000	11/21/94	JP
DISSOLVED CHROMIUM	EPA 200.7	202	ug/L	20	11/21/94	JP
DISSOLVED COBALT	EPA 200.7	497	ug/L	100	11/21/94	JP
DISSOLVED COPPER	EPA 200.7	249	ug/L	50	11/21/94	JP
DISSOLVED IRON	EPA 200.7	1260	ug/L	100	11/21/94	JP
DISSOLVED LEAD	EPA 239.2	18.90	ug/L	2.0	12/05/94	JA
DISSOLVED MAGNESIUM	EPA 200.7	120,000	ug/L	5000	11/21/94	JP
DISSOLVED MANGANESE	EPA 200.7	908	ug/L	30	11/21/94	JP
DISSOLVED MERCURY	EPA 245.1	0.3	ug/L	0.2	11/13/94	JA
DISSOLVED NICKEL	EPA 200.7	510	ug/L	80	11/21/94	JP
DISSOLVED POTASSIUM	EPA 200.7	38,400	ug/L	5000	11/21/94	JP
DISSOLVED SELENIUM	EPA 270.2	<5	ug/L	5	11/19/94	JA
DISSOLVED SILVER	EPA 200.7	54.0	ug/L	20	11/21/94	JP
DISSOLVED SODIUM	EPA 200.7	865,000	ug/L	5000	11/21/94	JP
DISSOLVED THALLIUM	EPA 279.2	35	ug/L	10	11/21/94	JA
DISSOLVED TIN	EPA 200.7	1540	ug/L	100	11/04/94	GLM
DISSOLVED VANADIUM	EPA 200.7	520	ug/L	100	11/21/94	JP
DISSOLVED ZINC	EPA 200.7	566	ug/L	40	11/21/94	JP

Sample: 18D PD-2 / MSD (DISSOLVED) Collected: 10/05/94 23:20

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
DISSOLVED ALUMINUM	EPA 200.7	2010	ug/L	200	11/21/94	JP
DISSOLVED ANTIMONY	EPA 204.2	87	ug/L	60	11/21/94	JA
DISSOLVED ARSENIC	EPA 206.2	35	ug/L	10	11/19/94	JA
DISSOLVED BARIUM	EPA 200.7	3120	ug/L	200	11/21/94	JA
DISSOLVED BERYLLIUM	EPA 200.7	51.1	ug/L	5	11/21/94	JP

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
DISSOLVED CADMIUM	EPA 200.7	52.0	ug/L	10	11/21/94	JP
DISSOLVED CALCIUM	EPA 200.7	345,000	ug/L	5000	11/21/94	JP
DISSOLVED CHROMIUM	EPA 200.7	199	ug/L	20	11/21/94	JP
DISSOLVED COBALT	EPA 200.7	498	ug/L	100	11/21/94	JP
DISSOLVED COPPER	EPA 200.7	248	ug/L	50	11/21/94	JP
DISSOLVED IRON	EPA 200.7	1040	ug/L	100	11/21/94	JP
DISSOLVED LEAD	EPA 239.2	17.99	ug/L	2.0	12/05/94	JA
DISSOLVED MAGNESIUM	EPA 200.7	121,000	ug/L	5000	11/21/94	JP
DISSOLVED MANGANESE	EPA 200.7	913	ug/L	30	11/21/94	JP
DISSOLVED MERCURY	EPA 245.1	9.6	ug/L	0.2	12/13/94	JA
DISSOLVED NICKEL	EPA 200.7	505	ug/L	80	11/21/94	JP
DISSOLVED POTASSIUM	EPA 200.7	38,800	ug/L	5000	11/21/94	JP
DISSOLVED SELENIUM	EPA 270.2	<5	ug/L	5	11/19/94	JA
DISSOLVED SILVER	EPA 200.7	49.4	ug/L	20	11/21/94	JP
DISSOLVED SODIUM	EPA 200.7	876,000	ug/L	5000	11/21/94	JP
DISSOLVED THALLIUM	EPA 279.2	38	ug/L	10	11/21/94	JA
DISSOLVED TIN	EPA 200.7	1540	ug/L	100	11/04/94	GLM
DISSOLVED VANADIUM	EPA 200.7	525	ug/L	100	11/21/94	JP
DISSOLVED ZINC	EPA 200.7	565	ug/L	40	11/21/94	JP

Sample: 19A TRIP BLANK - VOLATILES Collected:

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
VOLATILE ORGANICS - WATER	EPA 624/8240	ENCLOSURE	DATE		10/14/94	DBD

Sample: 20A PD-2 Collected:

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
2,3,7,8-TCDD SCREEN	EPA 625	ENCLOSURE	ug/L		10/21/94	TCT

Sample: 20B PD-2 / DUP Collected:

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
2,3,7,8-TCDD SCREEN	EPA 625	ENCLOSURE	ug/L		10/21/94	TCT

Sample: 20C PD-2 / MS Collected:

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
2,3,7,8-TCDD SCREEN	EPA 625	ENCLOSURE	ug/L		10/21/94	TCT

Sample: 20D PD-2 / MSD Collected:

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
2,3,7,8-TCDD SCREEN	EPA 625	ENCLOSURE	ug/L		10/21/94	TCT

TEST RESULTS BY SAMPLE

ample Description: PD-2 Lab No: 16A
Test Description: PRIORITY POLL PEST - WATER Method: EPA 608 Test Code: PST_PW
Collected: 10/05/94 17:50

PARAMETER	RESULT	LIMIT
A-BHC	<0.40	0.40
B-BHC	<0.40	0.40
D-BHC	<0.40	0.40
G-BHC	<0.40	0.40
Aldrin	<0.40	0.40
Chlordane	<2.0	2.0
4,4'-DDD	<0.80	0.80
4,4'-DDE	<0.80	0.80
4,4'-DDT	<0.80	0.80
Dieldrin	<0.80	0.80
Endosulfan I	<0.80	0.80
Endosulfan II	<0.80	0.80
Endosulfan Sulfate	<0.80	0.80
Endrin	<0.80	0.80
Endrin Aldehyde	<0.80	0.80
Endrin Ketone	<0.80	0.80
Heptachlor	<0.40	0.40
Heptachlor Epoxide	<0.40	0.40
Methoxychlor	<4.0	4.0
Toxaphene	<10.0	10.0
PCB-1016	<20.0	20.0
PCB-1221	<20.0	20.0
PCB-1232	<20.0	20.0
PCB-1242	<20.0	20.0
PCB-1248	<20.0	20.0
PCB-1254	<20.0	20.0
PCB-1260	<20.0	20.0

SURROGATE	%RECOVERY	LIMITS
Tetrachloro-m-xylene	50.0 Q	-
Decachlorbiphenyl	49.1 Q	-

Notes and Definitions for this Report:

EXTRACTED 10/11/94
DATE RUN 11/02/94 14:58:41
ANALYST JH
CONC FACTOR 0.20
UNITS Ug/L

TEST RESULTS BY SAMPLE

ple Description: PD-2 / DUP Lab No: 16B
Test Description: PRIORITY POLL PEST - WATER Method: EPA 608 Test Code: PST_PW
Collected: 10/05/94 17:52

PARAMETER	RESULT	LIMIT
A-BHC	<0.40	0.40
B-BHC	<0.40	0.40
D-BHC	<0.40	0.40
G-BHC	<0.40	0.40
Aldrin	<0.40	0.40
Chlordane	<2.0	2.0
4,4'-DDD	<0.80	0.80
4,4'-DDE	<0.80	0.80
4,4'-DDT	<0.80	0.80
Dieldrin	<0.80	0.80
Endosulfan I	<0.80	0.80
Endosulfan II	<0.80	0.80
Endosulfan Sulfate	<0.80	0.80
Endrin	<0.80	0.80
Endrin Aldehyde	<0.80	0.80
Endrin Ketone	<0.80	0.80
Heptachlor	<0.40	0.40
Heptachlor Epoxide	<0.40	0.40
Methoxychlor	<4.0	4.0
Toxaphene	<10.0	10.0
PCB-1016	<20.0	20.0
PCB-1221	<20.0	20.0
PCB-1232	<20.0	20.0
PCB-1242	<20.0	20.0
PCB-1248	<20.0	20.0
PCB-1254	<20.0	20.0
PCB-1260	<20.0	20.0

SURROGATE	%RECOVERY	LIMITS
Tetrachloro-m-xylene	40.0 Q	-
Decachlorbiphenyl	56.5 Q	-

Notes and Definitions for this Report:

EXTRACTED 10/11/94
DATE RUN 11/02/94 15:46:16
ANALYST JH
CONC FACTOR 0.20
UNITS Ug/L

12/06/94 10:18

TEST RESULTS BY SAMPLE

Client: DSM ENVIRONMENTAL SERVICES

ample Description: PD-2 / MS Lab No: 16C

Test Description: PRIORITY POLL PEST - WATER Method: EPA 608 Test Code: PST_PW

Collected: 10/05/94 17:53

PARAMETER	RESULT	LIMIT
A-BHC	<0.40	0.40
B-BHC	<0.40	0.40
D-BHC	<0.40	0.40
G-BHC	<0.40	0.40
Aldrin	<0.40	0.40
Chlordane	<2.0	2.0
4,4'-DDD	<0.80	0.80
4,4'-DDE	<0.80	0.80
4,4'-DDT	<0.80	0.80
Dieldrin	<0.80	0.80
Endosulfan I	<0.80	0.80
Endosulfan II	<0.80	0.80
Endosulfan Sulfate	<0.80	0.80
Endrin	<0.80	0.80
Endrin Aldehyde	<0.80	0.80
Endrin Ketone	<0.80	0.80
Heptachlor	<0.40	0.40
Heptachlor Epoxide	<0.40	0.40
Methoxychlor	<4.0	4.0
Toxaphene	<10.0	10.0
PCB-1016	<20.0	20.0
PCB-1221	<20.0	20.0
PCB-1232	<20.0	20.0
PCB-1242	<20.0	20.0
PCB-1248	<20.0	20.0
PCB-1254	<20.0	20.0
PCB-1260	<20.0	20.0

SURROGATE	%RECOVERY	LIMITS
Tetrachloro-m-xylene	31.4 Q	-
Decachlorbiphenyl	39.0 Q	-

Notes and Definitions for this Report:

EXTRACTED 10/11/94

DATE RUN 11/02/94 16:33:53

ANALYST JH

CONC FACTOR 0.20

UNITS Ug/L

12/06/94 10:18 TEST RESULTS BY SAMPLE

Client: DSM ENVIRONMENTAL SERVICES

ample Description: PD-2 / MSD Lab No: 16D

Test Description: PRIORITY POLL PEST - WATER Method: EPA 608 Test Code: PST_PW

Collected: 10/05/94 17:57

PARAMETER	RESULT	LIMIT
A-BHC	<0.40	0.40
B-BHC	<0.40	0.40
D-BHC	<0.40	0.40
G-BHC	<0.40	0.40
Aldrin	<0.40	0.40
Chlordane	<2.0	2.0
4,4'-DDD	<0.80	0.80
4,4'-DDE	<0.80	0.80
4,4'-DDT	<0.80	0.80
Dieldrin	<0.80	0.80
Endosulfan I	<0.80	0.80
Endosulfan II	<0.80	0.80
Endosulfan Sulfate	<0.80	0.80
Endrin	<0.80	0.80
Endrin Aldehyde	<0.80	0.80
Endrin Ketone	<0.80	0.80
Heptachlor	<0.40	0.40
Heptachlor Epoxide	<0.40	0.40
Methoxychlor	<4.0	4.0
Toxaphene	<10.0	10.0
PCB-1016	<20.0	20.0
PCB-1221	<20.0	20.0
PCB-1232	<20.0	20.0
PCB-1242	<20.0	20.0
PCB-1248	<20.0	20.0
PCB-1254	<20.0	20.0
PCB-1260	<20.0	20.0

SURROGATE	%RECOVERY	LIMITS
Tetrachloro-m-xylene	44.1 Q	-
Decachlorbiphenyl	42.7 Q	-

Notes and Definitions for this Report:

EXTRACTED 10/11/94

DATE RUN 11/02/94 17:21:29

ANALYST JH

CONC FACTOR 0.20

UNITS Ug/L

HUNTINGDON

Client: DSM Env.

Sample I.D.: PD-2 DUP

File No.:

Report No.: 9410061-17B

Report Date: 11/4/94

APPENDIX IX HERBICIDES

Matrix: water

PARAMETERS	CONCENTRATION mg/l
2,4,5-T	<0.005
2,4-D	<0.025
2,4,5-TP Silvex	<0.005

% Surrogate Recovery:

2,4 Dichlorophenylacetic acid methyl ester = 32.0%

Method: EPA SW846

Herbicides - 8150

HUNTINGDON

Client: DSM Env.

Sample I.D.: PD-2

File No.:

Report No.: 9410061-17A

Report Date: 11/4/94

APPENDIX IX HERBICIDES

Matrix: water

PARAMETERS	CONCENTRATION mg/l
2,4,5-T	<0.005
2,4-D	<0.025
2,4,5-TP Silvex	<0.005

% Surrogate Recovery:

2,4 Dichlorophenylacetic acid methyl ester = 37.5%

Method: EPA SW846

Herbicides - 8150

VOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX GROUNDWATER MONITORING LIST

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORKP
SAS NO WORKPLAN AD REPORTED 11/08/94 09:47 CUSTOMER DSM ENV

FILE NAME I101201 SAMPLE ID PD-2 LEVEL LOW
TYPE EPA LAB SAMP ID 9410061-11A MATRIX WATER
INST FINN ANALYZED 10/12/94 17:42 UNITS ug/l

CODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
C010	74-87-3	Chloromethane		10.0	U
C015	74-83-9	Bromomethane		10.0	U
C020	75-01-4	Vinyl Chloride		10.0	U
C025	75-00-3	Chloroethane		10.0	U
C030	75-09-2	Methylene Chloride		5.00	U
C031	75-69-4	Trichlorofluoromethane		5.00	U
C032	75-71-8	Dichlorodifluoromethane		5.00	U
C035	67-64-1	Acetone		50.0	U
C040	75-15-0	Carbon Disulfide		5.00	U
C045	75-35-4	1,1-Dichloroethene		5.00	U
C0[illegible]	75-34-3	1,1-Dichloroethane		5.00	U
C05[illegible]	156-60-5	trans-1,2-Dichloroethene		5.00	U
C060	67-66-3	Chloroform		5.00	U
C065	107-06-2	1,2-Dichloroethane		5.00	U
C110	78-93-3	Methylethyl ketone (MEK)		50.0	U
C115	71-55-6	1,1,1-Trichloroethane		5.00	U
C120	56-23-5	Carbon Tetrachloride		5.00	U
C122	123-91-1	1,4-Dioxane		200	U
C125	108-05-4	Vinyl Acetate		10.0	U
C130	75-27-4	Bromodichloromethane		5.00	U
C140	78-87-5	1,2-Dichloropropane		5.00	U
C143	10061-01-5	cis-1,3-Dichloropropene		5.00	U
C147	106-93-4	Ethylene Dibromide		5.00	U
C148	74-95-3	Dibromomethane		5.00	U
C150	79-01-6	Trichloroethene		5.00	U
C155	124-48-1	Dibromochloromethane		5.00	U
C160	79-00-5	1,1,2-Trichloroethane		5.00	U
C165	71-43-2	Benzene		5.00	U
C172	10061-02-6	trans-1,3-Dichloropropene		5.00	U
C180	75-25-2	Bromoform		5.00	U
C205	108-10-1	4-Methyl-2-Pentanone		10.0	U
C210	591-78-6	2-Hexanone		10.0	U
C220	127-18-4	Tetrachloroethene		5.00	U
C225	79-34-5	1,1,2,2-Tetrachloroethane		5.00	U
C230	108-88-3	Toluene		5.00	U
C2[illegible]	108-90-7	Chlorobenzene		5.00	U
C2[illegible]	100-41-4	Ethylbenzene		5.00	U
C245	100-42-5	Styrene		5.00	U
C250	1330-20-7	Xylene (total)		5.00	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX GROUNDWATER MONITORING LIST

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORKP
SAS NO WORKPLAN AD REPORTED 11/08/94 09:47 CUSTOMER DSM ENV

CODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
C254	74-88-4	Iodomethane		10.0	U
C259	107-05-1	Allyl Chloride		10.0	U
C263	107-02-8	Acrolein		100	U
C264	107-13-1	Acrylonitrile		10.0	U
C267	110-57-6	Trans-1,4-Dichloro-2-Butene		5.00	U
C275	75-05-8	Acetonitrile		100	U
C276	96-12-8	1,2-Dibromo-3-Chloropropane		5.00	U
C278	96-18-4	1,2,3-Trichloropropane		5.00	U
C279	630-20-6	1,1,1,2-Tetrachloroethane		5.00	U
C282	78-83-1	Isobutyl Acohol		100	U
C283	126-99-8	Chloroprene		5.00	U
C285	107-12-0	Propionitrile		20.0	U
C287	126-98-7	Methacrylonitrile		20.0	U
C288	80-62-6	Methyl Methacrylate		5.00	U
C289	97-63-2	Ethyl Methacrylate		5.00	U
C291	76-01-7	Pentachloroethane		5.00	U

No and summary data for this report.

U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

VOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX GROUNDWATER MONITORING LIST

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORKP
SAS NO WORKPLAN AD REPORTED 10/27/94 13:31 CUSTOMER DSM ENV

FILE NAME I101202 SAMPLE ID PD-2 DUP LEVEL LOW
TYPE EPA LAB SAMP ID 9410061-11B MATRIX WATER
INST FINN ANALYZED 10/12/94 18:10 UNITS ug/l

CODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
C010	74-87-3	Chloromethane		10.0	U
C015	74-83-9	Bromomethane		10.0	U
C020	75-01-4	Vinyl Chloride		10.0	U
C025	75-00-3	Chloroethane		10.0	U
C030	75-09-2	Methylene Chloride		5.00	U
C031	75-69-4	Trichlorofluoromethane		5.00	U
C032	75-71-8	Dichlorodifluoromethane		5.00	U
C035	67-64-1	Acetone		50.0	U
C040	75-15-0	Carbon Disulfide		5.00	U
C045	75-35-4	1,1-Dichloroethene		5.00	U
C0[illegible]	75-34-3	1,1-Dichloroethane		5.00	U
C053	156-60-5	trans-1,2-Dichloroethene		5.00	U
C060	67-66-3	Chloroform		5.00	U
C065	107-06-2	1,2-Dichloroethane		5.00	U
C110	78-93-3	Methylethyl ketone (MEK)		50.0	U
C115	71-55-6	1,1,1-Trichloroethane		5.00	U
C120	56-23-5	Carbon Tetrachloride		5.00	U
C122	123-91-1	1,4-Dioxane		200	U
C125	108-05-4	Vinyl Acetate		10.0	U
C130	75-27-4	Bromodichloromethane		5.00	U
C140	78-87-5	1,2-Dichloropropane		5.00	U
C143	10061-01-5	cis-1,3-Dichloropropene		5.00	U
C147	106-93-4	Ethylene Dibromide		5.00	U
C148	74-95-3	Dibromomethane		5.00	U
C150	79-01-6	Trichloroethene		5.00	U
C155	124-48-1	Dibromochloromethane		5.00	U
C160	79-00-5	1,1,2-Trichloroethane		5.00	U
C165	71-43-2	Benzene		5.00	U
C172	10061-02-6	trans-1,3-Dichloropropene		5.00	U
C180	75-25-2	Bromoform		5.00	U
C205	108-10-1	4-Methyl-2-Pentanone		10.0	U
C210	591-78-6	2-Hexanone		10.0	U
C220	127-18-4	Tetrachloroethene		5.00	U
C225	79-34-5	1,1,2,2-Tetrachloroethane		5.00	U
C230	108-88-3	Toluene		5.00	U
C2[illegible]	108-90-7	Chlorobenzene		5.00	U
C24[illegible]	100-41-4	Ethylbenzene		5.00	U
C245	100-42-5	Styrene		5.00	U
C250	1330-20-7	Xylene (total)		5.00	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX GROUNDWATER MONITORING LIST

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORKP
SAS NO WORKPLAN AD REPORTED 10/27/94 13:31 CUSTOMER DSM ENV

CODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
C254	74-88-4	Iodomethane		5.00	U
C259	107-05-1	Allyl Chloride		5.00	U
C263	107-02-8	Acrolein		50.0	U
C264	107-13-1	Acrylonitrile		10.0	U
C267	110-57-6	Trans-1,4-Dichloro-2-Butene		5.00	U
C275	75-05-8	Acetonitrile		100	U
C276	96-12-8	1,2-Dibromo-3-Chloropropane		5.00	U
C278	96-18-4	1,2,3-Trichloropropane		5.00	U
C279	630-20-6	1,1,1,2-Tetrachloroethane		5.00	U
C282	78-83-1	Isobutyl Acohol		100	U
C283	126-99-8	Chloroprene		5.00	U
C285	107-12-0	Propionitrile		20.0	U
C287	126-98-7	Methacrylonitrile		20.0	U
C288	80-62-6	Methyl Methacrylate		5.00	U
C289	97-63-2	Ethyl Methacrylate		5.00	U
C291	76-01-7	Pentachloroethane		5.00	U

No and summary data for this report.

U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

VOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX GROUNDWATER MONITORING LIST

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORKP
SAS NO WORKPLAN AD REPORTED 10/27/94 13:31 CUSTOMER DSM ENV

FILE NAME I101203 SAMPLE ID PD-2 MS LEVEL LOW
TYPE MS LAB SAMP ID 9410061-11C MATRIX WATER
INST FINN ANALYZED 10/12/94 18:48 UNITS ug/l

CODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
C010	74-87-3	Chloromethane		10.0	U
C015	74-83-9	Bromomethane		10.0	U
C020	75-01-4	Vinyl Chloride		10.0	U
C025	75-00-3	Chloroethane		10.0	U
C030	75-09-2	Methylene Chloride		5.00	U
C031	75-69-4	Trichlorofluoromethane		5.00	U
C032	75-71-8	Dichlorodifluoromethane		5.00	U
C035	67-64-1	Acetone		50.0	U
C040	75-15-0	Carbon Disulfide		5.00	U
C045	75-35-4	1,1-Dichloroethene		46.2	
C0[illegible]	75-34-3	1,1-Dichloroethane		5.00	U
C053	156-60-5	trans-1,2-Dichloroethene		5.00	U
C060	67-66-3	Chloroform		5.00	U
C065	107-06-2	1,2-Dichloroethane		5.00	U
C110	78-93-3	Methylethyl ketone (MEK)		50.0	U
C115	71-55-6	1,1,1-Trichloroethane		5.00	U
C120	56-23-5	Carbon Tetrachloride		5.00	U
C122	123-91-1	1,4-Dioxane		200	U
C125	108-05-4	Vinyl Acetate		10.0	U
C130	75-27-4	Bromodichloromethane		5.00	U
C140	78-87-5	1,2-Dichloropropane		5.00	U
C143	10061-01-5	cis-1,3-Dichloropropene		5.00	U
C147	106-93-4	Ethylene Dibromide		5.00	U
C148	74-95-3	Dibromomethane		5.00	U
C150	79-01-6	Trichloroethene		49.0	
C155	124-48-1	Dibromochloromethane		5.00	U
C160	79-00-5	1,1,2-Trichloroethane		5.00	U
C165	71-43-2	Benzene		54.5	
C172	10061-02-6	trans-1,3-Dichloropropene		5.00	U
C180	75-25-2	Bromoform		5.00	U
C205	108-10-1	4-Methyl-2-Pentanone		10.0	U
C210	591-78-6	2-Hexanone		10.0	U
C220	127-18-4	Tetrachloroethene		5.00	U
C225	79-34-5	1,1,2,2-Tetrachloroethane		5.00	U
C230	108-88-3	Toluene		61.1	
C2[illegible]	108-90-7	Chlorobenzene		52.8	
C24[illegible]	100-41-4	Ethylbenzene		5.00	U
C245	100-42-5	Styrene		5.00	U
C250	1330-20-7	Xylene (total)		5.00	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX GROUNDWATER MONITORING LIST

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORKP
SAS NO WORKPLAN AD REPORTED 10/27/94 13:31 CUSTOMER DSM ENV

CODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
C254	74-88-4	Iodomethane		5.00	U
C259	107-05-1	Allyl Chloride		5.00	U
C263	107-02-8	Acrolein		50.0	U
C264	107-13-1	Acrylonitrile		10.0	U
C267	110-57-6	Trans-1,4-Dichloro-2-Butene		5.00	U
C275	75-05-8	Acetonitrile		100	U
C276	96-12-8	1,2-Dibromo-3-Chloropropane		5.00	U
C278	96-18-4	1,2,3-Trichloropropane		5.00	U
C279	630-20-6	1,1,1,2-Tetrachloroethane		5.00	U
C282	78-83-1	Isobutyl Acohol		100	U
C283	126-99-8	Chloroprene		5.00	U
C285	107-12-0	Propionitrile		20.0	U
C287	126-98-7	Methacrylonitrile		20.0	U
C288	80-62-6	Methyl Methacrylate		5.00	U
C289	97-63-2	Ethyl Methacrylate		5.00	U
C291	76-01-7	Pentachloroethane		5.00	U

Not and summary data for this report.

U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

VOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX GROUNDWATER MONITORING LIST

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORKP
SAS NO WORKPLAN AD REPORTED 10/27/94 13:32 CUSTOMER DSM ENV

FILE NAME I101204 SAMPLE ID PD-2 MSD LEVEL LOW
TYPE MSD LAB SAMP ID 9410061-11D MATRIX WATER
INST FINN ANALYZED 10/12/94 19:24 UNITS ug/l

CODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
C010	74-87-3	Chloromethane		10.0	U
C015	74-83-9	Bromomethane		10.0	U
C020	75-01-4	Vinyl Chloride		10.0	U
C025	75-00-3	Chloroethane		10.0	U
C030	75-09-2	Methylene Chloride		5.00	U
C031	75-69-4	Trichlorofluoromethane		5.00	U
C032	75-71-8	Dichlorodifluoromethane		5.00	U
C035	67-64-1	Acetone		50.0	U
C040	75-15-0	Carbon Disulfide		5.00	U
C045	75-35-4	1,1-Dichloroethene		47.0	
C0[illegible]	75-34-3	1,1-Dichloroethane		5.00	U
C053	156-60-5	trans-1,2-Dichloroethene		5.00	U
C060	67-66-3	Chloroform		5.00	U
C065	107-06-2	1,2-Dichloroethane		5.00	U
C110	78-93-3	Methylethyl ketone (MEK)		50.0	U
C115	71-55-6	1,1,1-Trichloroethane		5.00	U
C120	56-23-5	Carbon Tetrachloride		5.00	U
C122	123-91-1	1,4-Dioxane		200	U
C125	108-05-4	Vinyl Acetate		10.0	U
C130	75-27-4	Bromodichloromethane		5.00	U
C140	78-87-5	1,2-Dichloropropane		5.00	U
C143	10061-01-5	cis-1,3-Dichloropropene		5.00	U
C147	106-93-4	Ethylene Dibromide		5.00	U
C148	74-95-3	Dibromomethane		5.00	U
C150	79-01-6	Trichloroethene		49.1	
C155	124-48-1	Dibromochloromethane		5.00	U
C160	79-00-5	1,1,2-Trichloroethane		5.00	U
C165	71-43-2	Benzene		56.0	
C172	10061-02-6	trans-1,3-Dichloropropene		5.00	U
C180	75-25-2	Bromoform		5.00	U
C205	108-10-1	4-Methyl-2-Pentanone		10.0	U
C210	591-78-6	2-Hexanone		10.0	U
C220	127-18-4	Tetrachloroethene		5.00	U
C225	79-34-5	1,1,2,2-Tetrachloroethane		5.00	U
C230	108-88-3	Toluene		61.3	
C2[illegible]	108-90-7	Chlorobenzene		54.6	
C24[illegible]	100-41-4	Ethylbenzene		5.00	U
C245	100-42-5	Styrene		5.00	U
C250	1330-20-7	Xylene (total)		5.00	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX GROUNDWATER MONITORING LIST

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORKP
SAS NO WORKPLAN AD REPORTED 10/27/94 13:32 CUSTOMER DSM ENV

CODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
C254	74-88-4	Iodomethane		5.00	U
C259	107-05-1	Allyl Chloride		5.00	U
C263	107-02-8	Acrolein		50.0	U
C264	107-13-1	Acrylonitrile		10.0	U
C267	110-57-6	Trans-1,4-Dichloro-2-Butene		5.00	U
C275	75-05-8	Acetonitrile		100	U
C276	96-12-8	1,2-Dibromo-3-Chloropropane		5.00	U
C278	96-18-4	1,2,3-Trichloropropane		5.00	U
C279	630-20-6	1,1,1,2-Tetrachloroethane		5.00	U
C282	78-83-1	Isobutyl Acohol		100	U
C283	126-99-8	Chloroprene		5.00	U
C285	107-12-0	Propionitrile		20.0	U
C287	126-98-7	Methacrylonitrile		20.0	U
C288	80-62-6	Methyl Methacrylate		5.00	U
C289	97-63-2	Ethyl Methacrylate		5.00	U
C291	76-01-7	Pentachloroethane		5.00	U

Not and summary data for this report.

U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

VOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX GROUNDWATER MONITORING LIST

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORKP
SAS NO WORKPLAN AD REPORTED 10/27/94 13:34 CUSTOMER DSM ENV

FILE NAME I101205 SAMPLE ID TRIP BLANK LEVEL LOW
TYPE EPA LAB SAMP ID 9410061-19A MATRIX WATER
INST FINN ANALYZED 10/12/94 20:00 UNITS ug/l

CODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
C010	74-87-3	Chloromethane		10.0	U
C015	74-83-9	Bromomethane		10.0	U
C020	75-01-4	Vinyl Chloride		10.0	U
C025	75-00-3	Chloroethane		10.0	U
C030	75-09-2	Methylene Chloride		23.2	
C031	75-69-4	Trichlorofluoromethane		5.00	U
C032	75-71-8	Dichlorodifluoromethane		5.00	U
C035	67-64-1	Acetone		50.0	U
C040	75-15-0	Carbon Disulfide		5.00	U
C045	75-35-4	1,1-Dichloroethene		5.00	U
C0[illegible]	75-34-3	1,1-Dichloroethane		5.00	U
C053	156-60-5	trans-1,2-Dichloroethene		5.00	U
C060	67-66-3	Chloroform		5.00	U
C065	107-06-2	1,2-Dichloroethane		5.00	U
C110	78-93-3	Methylethyl ketone (MEK)		50.0	U
C115	71-55-6	1,1,1-Trichloroethane		5.00	U
C120	56-23-5	Carbon Tetrachloride		5.00	U
C122	123-91-1	1,4-Dioxane		200	U
C125	108-05-4	Vinyl Acetate		10.0	U
C130	75-27-4	Bromodichloromethane		5.00	U
C140	78-87-5	1,2-Dichloropropane		5.00	U
C143	10061-01-5	cis-1,3-Dichloropropene		5.00	U
C147	106-93-4	Ethylene Dibromide		5.00	U
C148	74-95-3	Dibromomethane		5.00	U
C150	79-01-6	Trichloroethene		5.00	U
C155	124-48-1	Dibromochloromethane		5.00	U
C160	79-00-5	1,1,2-Trichloroethane		5.00	U
C165	71-43-2	Benzene		5.00	U
C172	10061-02-6	trans-1,3-Dichloropropene		5.00	U
C180	75-25-2	Bromoform		5.00	U
C205	108-10-1	4-Methyl-2-Pentanone		10.0	U
C210	591-78-6	2-Hexanone		10.0	U
C220	127-18-4	Tetrachloroethene		5.00	U
C225	79-34-5	1,1,2,2-Tetrachloroethane		5.00	U
C230	108-88-3	Toluene		5.00	U
C2[illegible]	108-90-7	Chlorobenzene		5.00	U
C24[illegible]	100-41-4	Ethylbenzene		5.00	U
C245	100-42-5	Styrene		5.00	U
C250	1330-20-7	Xylene (total)		5.00	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX GROUNDWATER MONITORING LIST

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORKP
SAS NO WORKPLAN AD REPORTED 10/27/94 13:34 CUSTOMER DSM ENV

CODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
C254	74-88-4	Iodomethane		5.00	U
C259	107-05-1	Allyl Chloride		5.00	U
C263	107-02-8	Acrolein		50.0	U
C264	107-13-1	Acrylonitrile		10.0	U
C267	110-57-6	Trans-1,4-Dichloro-2-Butene		5.00	U
C275	75-05-8	Acetonitrile		100	U
C276	96-12-8	1,2-Dibromo-3-Chloropropane		5.00	U
C278	96-18-4	1,2,3-Trichloropropane		5.00	U
C279	630-20-6	1,1,1,2-Tetrachloroethane		5.00	U
C282	78-83-1	Isobutyl Acohol		100	U
C283	126-99-8	Chloroprene		5.00	U
C285	107-12-0	Propionitrile		20.0	U
C287	126-98-7	Methacrylonitrile		20.0	U
C288	80-62-6	Methyl Methacrylate		5.00	U
C289	97-63-2	Ethyl Methacrylate		5.00	U
C291	76-01-7	Pentachloroethane		5.00	U

No ; and summary data for this report.

U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX COMPOUNDS

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORK
LAB NO REPORTED 10/13/94 13:15 CUSTOMER DSM ENV

FILE NAME X1012001 SAMPLE ID FD-2 LEVEL LOW
TYPE EPA LAB SAMP ID 9410061-12A MATRIX WATER
INST FINN ANALYZED 10/12/94 18:05 UNITS ug/L

CDE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
310	62-75-9	N-Nitrosodimethylamine		10.0	U
315	108-95-2	Phenol		10.0	U
320	62-53-3	Aniline		10.0	U
322	110-86-1	Pyridine		10.0	U
325	111-44-4	bis(2-Chloroethyl)Ether		10.0	U
330	95-57-8	2-Chlorophenol		10.0	U
335	541-73-1	1,3-Dichlorobenzene		10.0	U
340	106-46-7	1,4-Dichlorobenzene		10.0	U
345	100-51-6	Benzyl Alcohol		10.0	U
350	95-50-1	1,2-Dichlorobenzene		10.0	U
355	95-48-7	2-Methylphenol		10.0	U
360	39638-32-9	bis(2-Chloroisopropyl)Ether		10.0	U
365	106-44-5	4-Methylphenol		10.0	U
370	621-64-7	N-Nitroso-Di-n-Propylamine		10.0	U
375	67-72-1	Hexachloroethane		10.0	U
410	98-95-3	Nitrobenzene		10.0	U
415	78-59-1	Isophorone		10.0	U
420	88-75-5	2-Nitrophenol		10.0	U
425	105-67-9	2,4-Dimethylphenol		10.0	U
435	111-91-1	bis(2-Chloroethoxy)Methane		10.0	U
440	120-83-2	2,4-Dichlorophenol		10.0	U
445	120-82-1	1,2,4-Trichlorobenzene		10.0	U
450	91-20-3	Naphthalene		10.0	U
455	106-47-8	4-Chloroaniline		10.0	U
460	87-68-3	Hexachlorobutadiene		10.0	U
465	59-50-7	4-Chloro-3-Methylphenol		10.0	U
470	91-57-6	2-Methylnaphthalene		10.0	U
510	77-47-4	Hexachlorocyclopentadiene		10.0	U
515	88-06-2	2,4,6-Trichlorophenol		10.0	U
520	95-95-4	2,4,5-Trichlorophenol		10.0	U
525	91-58-7	2-Chloronaphthalene		10.0	U
530	88-74-4	2-Nitroaniline		50.0	U
535	131-11-3	Dimethylphthalate		10.0	U
540	208-96-8	Acenaphthylene		10.0	U
543	606-20-2	2,6-Dinitrotoluene		10.0	U
545	99-09-2	3-Nitroaniline		50.0	U
550	83-32-9	Acenaphthene		10.0	U
555	51-28-5	2,4-Dinitrophenol		50.0	U
560	100-02-7	4-Nitrophenol		50.0	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX COMPOUNDS

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORK
SAS NO REPORTED 10/13/94 13:15 CUSTOMER DSM ENV

CODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
565	132-64-9	Dibenzofuran		10.0	U
570	121-14-2	2,4-Dinitrotoluene		10.0	U
580	84-66-2	Diethylphthalate		10.0	U
585	7005-72-3	4-Chlorophenyl-phenylether		10.0	U
590	86-73-7	Fluorene		10.0	U
595	100-01-6	4-Nitroaniline		50.0	U
610	534-52-1	4,6-Dinitro-2-Methylphenol		20.0	U
615	86-30-6	N-Nitrosodiphenylamine (1)		10.0	U
625	101-55-3	4-Bromophenyl-phenylether		10.0	U
630	118-74-1	Hexachlorobenzene		10.0	U
635	87-86-5	Pentachlorophenol		25.0	U
640	85-01-8	Phenanthrene		10.0	U
645	120-12-7	Anthracene		10.0	U
650	84-74-2	Di-n-Butylphthalate		10.0	U
655	206-44-0	Fluoranthene		10.0	U
658	87-65-0	2,6-Dichlorophenol		10.0	U
660	58-90-2	2,3,4,6-Tetrachlorophenol		10.0	U
662	88-85-7	Dinoseb		10.0	U
664	70-30-4	Hexachlorophene		20.0	U
666	10595-95-6	N-Nitrosomehtylethylamine		10.0	U
668	55-18-5	N-Nitrosodiethylamine		10.0	U
670	59-89-2	N-Nitrosomorpholine		10.0	U
672	930-55-2	N-Nitrosopyrrolidine		10.0	U
674	100-75-4	N-Nitrosopiperdine		10.0	U
676	924-16-3	N-Nitroso-di-n-butylamine		10.0	U
678	126-68-1	O,O,O-Triethylphosphorothioat		10.0	U
680	297-97-2	Thionazin		10.0	U
682	3689-24-5	Tetraethyldithiopyrophosphate		10.0	U
684	298-02-2	Phorate		10.0	U
686	60-51-5	Dimethoate		10.0	U
688	298-04-4	Disulfoton		10.0	U
690	298-00-0	Methyl Parathion		10.0	U
692	56-38-2	Parathion		10.0	U
694	52-85-7	Famphur		20.0	U
696	95-53-4	o-Toluidine		10.0	U
698	122-09-8	a,a-Dimethylphenethylamine		10.0	U
700	106-50-3	p-Phenylenediamine		50.0	U
702	91-59-8	2-Naphthylamine		10.0	U
704	134-32-7	1-Naphthylamine		10.0	U
706	99-55-8	5-Nitro-o-toluidine		10.0	U
712	62-44-2	Phenacetin		10.0	U
715	129-00-0	Pyrene		10.0	U
718	92-67-1	4-Aminobiphenyl		10.0	U
720	85-68-7	Butylbenzylphthalate		10.0	U
722	60-11-7	p-Dimethylaminoazobenzene		10.0	U
725	91-94-1	3,3'-Dichlorobenzidine		20.0	U
728	119-93-7	3,3-Dimethylbenzidine		10.0	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX COMPOUNDS

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORK
AS NO REPORTED 10/13/94 13:15 CUSTOMER DSM ENV

ODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
730	56-55-3	Benzo(a)Anthracene		10.0	U
732	53-96-3	2-Acetylaminofluroene		10.0	U
738	66-27-3	Methylmethanesulfonate		10.0	U
740	218-01-9	Chrysene		10.0	U
742	62-50-0	Ethylmethanesulfonate		10.0	U
745	117-81-7	bis(2-Ethylhexyl)Phthalate		10.0	U
748	98-86-2	Acetophenone		10.0	U
750	120-58-1	Isosafrole		10.0	U
752	94-59-7	Safrole		10.0	U
754	130-15-4	1,4-Napthoquinone		10.0	U
756	99-65-0	m-Dinitrobenzene		10.0	U
760	117-84-0	Di-n-Octyl Phthalate		10.0	U
762	99-35-4	1,3,5-Trinitrobenzene		50.0	U
765	205-99-2	Benzo(b)Fluoranthene		10.0	U
768	82-68-8	Pentachloronitrobenzene		50.0	U
770	207-08-9	Benzo(k)Fluoranthene		10.0	U
772	57-97-6	7,12-Dimethylbenz(a)anthracen		10.0	U
775	50-32-8	Benzo(a)Pyrene		10.0	U
778	56-49-5	3-Methylcholanthrene		10.0	U
780	193-39-5	Indeno(1,2,3-cd)Pyrene		10.0	U
781	109-06-8	2-Picoline		10.0	U
782	56-57-5	4-Nitroquinoline-1-oxide		100	U
784	91-80-5	Methapyrilene		100	U
785	53-70-3	Dibenz(a,h)Anthracene		10.0	U
786	2303-16-4	Diallate (cis or trans)		10.0	U
788	2303-16-4	Diallate (trans or cis)		10.0	U
790	191-24-2	Benzo(g,h,i)Perylene		10.0	U
792	23950-58-5	Pronamide		10.0	U
794	465-73-6	Isodrin		10.0	U
796	140-57-8	Aramite (1)		10.0	U
798	140-57-8	Aramite (2)		10.0	U
800	510-15-6	Chlorobenzilate		10.0	U
802	143-50-0	Kepone		50.0	U
804	70-30-4	Hexachloropropene		10.0	U
806	95-94-3	1,2,4,5-Tetrachlorobenzene		10.0	U
808	608-93-5	Pentachlorobenzene		10.0	U

otes and summary data for this report.

U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX COMPOUNDS

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORK
SAS NO REPORTED 10/13/94 13:17 CUSTOMER DSM ENV

FILE NAME X1012002 SAMPLE ID PD-2 DUP LEVEL LOW
TYPE EPA LAB SAMP ID 9410061-12B MATRIX WATER
INST FINN ANALYZED 10/12/94 19:01 UNITS ug/L

CODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
310	62-75-9	N-Nitrosodimethylamine		10.0	U
315	108-95-2	Phenol		10.0	U
320	62-53-3	Aniline		10.0	U
322	110-86-1	Pyridine		10.0	U
325	111-44-4	bis(2-Chloroethyl)Ether		10.0	U
330	95-57-8	2-Chlorophenol		10.0	U
335	541-73-1	1,3-Dichlorobenzene		10.0	U
340	106-46-7	1,4-Dichlorobenzene		10.0	U
345	100-51-6	Benzyl Alcohol		10.0	U
350	95-50-1	1,2-Dichlorobenzene		10.0	U
355	95-48-7	2-Methylphenol		10.0	U
360	39638-32-9	bis(2-Chloroisopropyl)Ether		10.0	U
365	106-44-5	4-Methylphenol		10.0	U
370	621-64-7	N-Nitroso-Di-n-Propylamine		10.0	U
375	67-72-1	Hexachloroethane		10.0	U
410	98-95-3	Nitrobenzene		10.0	U
415	78-59-1	Isophorone		10.0	U
420	88-75-5	2-Nitrophenol		10.0	U
425	105-67-9	2,4-Dimethylphenol		10.0	U
435	111-91-1	bis(2-Chloroethoxy)Methane		10.0	U
440	120-83-2	2,4-Dichlorophenol		10.0	U
445	120-82-1	1,2,4-Trichlorobenzene		10.0	U
450	91-20-3	Naphthalene		10.0	U
455	106-47-8	4-Chloroaniline		10.0	U
460	87-68-3	Hexachlorobutadiene		10.0	U
465	59-50-7	4-Chloro-3-Methylphenol		10.0	U
470	91-57-6	2-Methylnaphthalene		10.0	U
510	77-47-4	Hexachlorocyclopentadiene		10.0	U
515	88-06-2	2,4,6-Trichlorophenol		10.0	U
520	95-95-4	2,4,5-Trichlorophenol		10.0	U
525	91-58-7	2-Chloronaphthalene		10.0	U
530	88-74-4	2-Nitroaniline		50.0	U
535	131-11-3	Dimethylphthalate		10.0	U
540	208-96-8	Acenaphthylene		10.0	U
543	606-20-2	2,6-Dinitrotoluene		10.0	U
545	99-09-2	3-Nitroaniline		50.0	U
550	83-32-9	Acenaphthene		10.0	U
555	51-28-5	2,4-Dinitrophenol		50.0	U
560	100-02-7	4-Nitrophenol		50.0	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX COMPOUNDS

SE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORK
SAS NO REPORTED 10/13/94 13:17 CUSTOMER DSM ENV

ODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
565	132-64-9	Dibenzofuran		10.0	U
570	121-14-2	2,4-Dinitrotoluene		10.0	U
580	84-66-2	Diethylphthalate		10.0	U
585	7005-72-3	4-Chlorophenyl-phenylether		10.0	U
590	86-73-7	Fluorene		10.0	U
595	100-01-6	4-Nitroaniline		50.0	U
610	534-52-1	4,6-Dinitro-2-Methylphenol		20.0	U
615	86-30-6	N-Nitrosodiphenylamine (1)		10.0	U
625	101-55-3	4-Bromophenyl-phenylether		10.0	U
630	118-74-1	Hexachlorobenzene		10.0	U
635	87-86-5	Pentachlorophenol		25.0	U
640	85-01-8	Phenanthrene		10.0	U
645	120-12-7	Anthracene		10.0	U
650	84-74-2	Di-n-Butylphthalate		10.0	U
655	206-44-0	Fluoranthene		10.0	U
658	87-65-0	2,6-Dichlorophenol		10.0	U
660	58-90-2	2,3,4,6-Tetrachlorophenol		10.0	U
662	88-85-7	Dinoseb		10.0	U
664	70-30-4	Hexachlorophene		20.0	U
666	10595-95-6	N-Nitrosomehtylethylamine		10.0	U
668	55-18-5	N-Nitrosodiethylamine		10.0	U
670	59-89-2	N-Nitrosomorpholine		10.0	U
672	930-55-2	N-Nitrosopyrrolidine		10.0	U
674	100-75-4	N-Nitrosopiperdine		10.0	U
676	924-16-3	N-Nitroso-di-n-butylamine		10.0	U
678	126-68-1	O,O,O-Triethylphosphorothioat		10.0	U
680	297-97-2	Thionazin		10.0	U
682	3689-24-5	Tetraethyldithiopyrophosphate		10.0	U
684	298-02-2	Phorate		10.0	U
686	60-51-5	Dimethoate		10.0	U
688	298-04-4	Disulfoton		10.0	U
690	298-00-0	Methyl Parathion		10.0	U
692	56-38-2	Parathion		10.0	U
694	52-85-7	Famphur		20.0	U
696	95-53-4	o-Toluidine		10.0	U
698	122-09-8	a,a-Dimethylphenethylamine		10.0	U
700	106-50-3	p-Phenylenediamine		50.0	U
702	91-59-8	2-Naphthylamine		10.0	U
704	134-32-7	1-Naphthylamine		10.0	U
706	99-55-8	5-Nitro-o-toluidine		10.0	U
712	62-44-2	Phenacetin		10.0	U
715	129-00-0	Pyrene		10.0	U
718	92-67-1	4-Aminobiphenyl		10.0	U
720	85-68-7	Butylbenzylphthalate		10.0	U
722	60-11-7	p-Dimethylaminoazobenzene		10.0	U
725	91-94-1	3,3'-Dichlorobenzidine		20.0	U
728	119-93-7	3,3-Dimethylbenzidine		10.0	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX COMPOUNDS

SE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORK
SAS NO REPORTED 10/13/94 13:17 CUSTOMER DSM ENV

DE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
730	56-55-3	Benzo(a)Anthracene		10.0	U
732	53-96-3	2-Acetylaminofluroene		10.0	U
738	66-27-3	Methylmethanesulfonate		10.0	U
740	218-01-9	Chrysene		10.0	U
742	62-50-0	Ethylmethanesulfonate		10.0	U
745	117-81-7	bis(2-Ethylhexyl)Phthalate		10.0	U
748	98-86-2	Acetophenone		10.0	U
750	120-58-1	Isosafrole		10.0	U
752	94-59-7	Safrole		10.0	U
754	130-15-4	1,4-Napthoquinone		10.0	U
756	99-65-0	m-Dinitrobenzene		10.0	U
760	117-84-0	Di-n-Octyl Phthalate		10.0	U
762	99-35-4	1,3,5-Trinitrobenzene		50.0	U
765	205-99-2	Benzo(b)Fluoranthene		10.0	U
768	82-68-8	Pentachloronitrobenzene		50.0	U
770	207-08-9	Benzo(k)Fluoranthene		10.0	U
772	57-97-6	7,12-Dimethylbenz(a)anthracen		10.0	U
775	50-32-8	Benzo(a)Pyrene		10.0	U
778	56-49-5	3-Methylcholanthrene		10.0	U
780	193-39-5	Indeno(1,2,3-cd)Pyrene		10.0	U
781	109-06-8	2-Picoline		10.0	U
782	56-57-5	4-Nitroquinoline-1-oxide		100	U
784	91-80-5	Methapyrilene		100	U
785	53-70-3	Dibenz(a,h)Anthracene		10.0	U
786	2303-16-4	Diallate (cis or trans)		10.0	U
788	2303-16-4	Diallate (trans or cis)		10.0	U
790	191-24-2	Benzo(g,h,i)Perylene		10.0	U
792	23950-58-5	Pronamide		10.0	U
794	465-73-6	Isodrin		10.0	U
796	140-57-8	Aramite (1)		10.0	U
798	140-57-8	Aramite (2)		10.0	U
800	510-15-6	Chlorobenzilate		10.0	U
802	143-50-0	Kepone		50.0	U
804	70-30-4	Hexachloropropene		10.0	U
806	95-94-3	1,2,4,5-Tetrachlorobenzene		10.0	U
808	608-93-5	Pentachlorobenzene		10.0	U

otes and summary data for this report.

U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX COMPOUNDS

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORK
SAS NO REPORTED 10/13/94 13:20 CUSTOMER DSM ENV

FILE NAME X1012003 SAMPLE ID PD-2 MS LEVEL LOW
TYPE MS LAB SAMP ID 9410061-12C MATRIX WATER
INST FINN ANALYZED 10/12/94 19:56 UNITS ug/L

CODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
310	62-75-9	N-Nitrosodimethylamine		10.0	U
315	108-95-2	Phenol		60.6	
320	62-53-3	Aniline		10.0	U
322	110-86-1	Pyridine		10.0	U
325	111-44-4	bis(2-Chloroethyl)Ether		10.0	U
330	95-57-8	2-Chlorophenol		123	
335	541-73-1	1,3-Dichlorobenzene		10.0	U
340	106-46-7	1,4-Dichlorobenzene		39.2	
345	100-51-6	Benzyl Alcohol		10.0	U
350	95-50-1	1,2-Dichlorobenzene		10.0	U
355	95-48-7	2-Methylphenol		10.0	U
360	39638-32-9	bis(2-Chloroisopropyl)Ether		10.0	U
365	106-44-5	4-Methylphenol		10.0	U
370	621-64-7	N-Nitroso-Di-n-Propylamine		59.0	
375	67-72-1	Hexachloroethane		10.0	U
410	98-95-3	Nitrobenzene		10.0	U
415	78-59-1	Isophorone		10.0	U
420	88-75-5	2-Nitrophenol		10.0	U
425	105-67-9	2,4-Dimethylphenol		10.0	U
435	111-91-1	bis(2-Chloroethoxy)Methane		10.0	U
440	120-83-2	2,4-Dichlorophenol		10.0	U
445	120-82-1	1,2,4-Trichlorobenzene		42.8	
450	91-20-3	Naphthalene		10.0	U
455	106-47-8	4-Chloroaniline		10.0	U
460	87-68-3	Hexachlorobutadiene		10.0	U
465	59-50-7	4-Chloro-3-Methylphenol		135	
470	91-57-6	2-Methylnaphthalene		10.0	U
510	77-47-4	Hexachlorocyclopentadiene		10.0	U
515	88-06-2	2,4,6-Trichlorophenol		10.0	U
520	95-95-4	2,4,5-Trichlorophenol		10.0	U
525	91-58-7	2-Chloronaphthalene		10.0	U
530	88-74-4	2-Nitroaniline		50.0	U
535	131-11-3	Dimethylphthalate		10.0	U
540	208-96-8	Acenaphthylene		10.0	U
543	606-20-2	2,6-Dinitrotoluene		10.0	U
545	99-09-2	3-Nitroaniline		50.0	U
550	83-32-9	Acenaphthene		45.2	
555	51-28-5	2,4-Dinitrophenol		50.0	U
560	100-02-7	4-Nitrophenol		63.8	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX COMPOUNDS

'SE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORK
GAS NO REPORTED 10/13/94 13:20 CUSTOMER DSM ENV

ODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
565	132-64-9	Dibenzofuran		10.0	U
570	121-14-2	2,4-Dinitrotoluene		44.6	
580	84-66-2	Diethylphthalate		10.0	U
585	7005-72-3	4-Chlorophenyl-phenylether		10.0	U
590	86-73-7	Fluorene		10.0	U
595	100-01-6	4-Nitroaniline		50.0	U
610	534-52-1	4,6-Dinitro-2-Methylphenol		20.0	U
615	86-30-6	N-Nitrosodiphenylamine (1)		10.0	U
625	101-55-3	4-Bromophenyl-phenylether		10.0	U
630	118-74-1	Hexachlorobenzene		10.0	U
635	87-86-5	Pentachlorophenol		77.4	
640	85-01-8	Phenanthrene		10.0	U
645	120-12-7	Anthracene		10.0	U
650	84-74-2	Di-n-Butylphthalate		10.0	U
655	206-44-0	Fluoranthene		10.0	U
658	87-65-0	2,6-Dichlorophenol		10.0	U
660	58-90-2	2,3,4,6-Tetrachlorophenol		10.0	U
662	88-85-7	Dinoseb		10.0	U
664	70-30-4	Hexachlorophene		20.0	U
666	10595-95-6	N-Nitrosomehtylethylamine		10.0	U
668	55-18-5	N-Nitrosodiethylamine		10.0	U
670	59-89-2	N-Nitrosomorpholine		10.0	U
672	930-55-2	N-Nitrosopyrrolidine		10.0	U
674	100-75-4	N-Nitrosopiperdine		10.0	U
676	924-16-3	N-Nitroso-di-n-butylamine		10.0	U
678	126-68-1	O,O,O-Triethylphosphorothioat		10.0	U
680	297-97-2	Thionazin		10.0	U
682	3689-24-5	Tetraethyldithiopyrophosphate		10.0	U
684	298-02-2	Phorate		10.0	U
686	60-51-5	Dimethoate		10.0	U
688	298-04-4	Disulfoton		10.0	U
690	298-00-0	Methyl Parathion		10.0	U
692	56-38-2	Parathion		10.0	U
694	52-85-7	Famphur		20.0	U
696	95-53-4	o-Toluidine		10.0	U
698	122-09-8	a,a-Dimethylphenethylamine		10.0	U
700	106-50-3	p-Phenylenediamine		50.0	U
702	91-59-8	2-Naphthylamine		10.0	U
704	134-32-7	1-Naphthylamine		10.0	U
706	99-55-8	5-Nitro-o-toluidine		10.0	U
712	62-44-2	Phenacetin		10.0	U
715	129-00-0	Pyrene		24.6	
718	92-67-1	4-Aminobiphenyl		10.0	U
720	85-68-7	Butylbenzylphthalate		10.0	U
722	60-11-7	p-Dimethylaminoazobenzene		10.0	U
725	91-94-1	3,3'-Dichlorobenzidine		20.0	U
728	119-93-7	3,3-Dimethylbenzidine		10.0	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX COMPOUNDS

'ASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORK
3AS NO _____ REPORTED 10/13/94 13:20 CUSTOMER DSM ENV

:ODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
:730	56-55-3	Benzo(a)Anthracene		10.0	U
:732	53-96-3	2-Acetylaminofluroene		10.0	U
:738	66-27-3	Methylmethanesulfonate		10.0	U
:740	218-01-9	Chrysene		10.0	U
:742	62-50-0	Ethylmethanesulfonate		10.0	U
:745	117-81-7	bis(2-Ethylhexyl)Phthalate		10.0	U
:748	98-86-2	Acetophenone		10.0	U
:750	120-58-1	Isosafrole		10.0	U
:752	94-59-7	Safrole		10.0	U
:754	130-15-4	1,4-Napthoquinone		10.0	U
:756	99-65-0	m-Dinitrobenzene		10.0	U
:760	117-84-0	Di-n-Octyl Phthalate		10.0	U
:762	99-35-4	1,3,5-Trinitrobenzene		50.0	U
:765	205-99-2	Benzo(b)Fluoranthene		10.0	U
:768	82-68-8	Pentachloronitrobenzene		50.0	U
:770	207-08-9	Benzo(k)Fluoranthene		10.0	U
:772	57-97-6	7,12-Dimethylbenz(a)anthracen		10.0	U
:775	50-32-8	Benzo(a)Pyrene		10.0	U
:778	56-49-5	3-Methylcholanthrene		10.0	U
:780	193-39-5	Indeno(1,2,3-cd)Pyrene		10.0	U
:781	109-06-8	2-Picoline		10.0	U
:782	56-57-5	4-Nitroquinoline-1-oxide		100	U
:784	91-80-5	Methapyrilene		100	U
:785	53-70-3	Dibenz(a,h)Anthracene		10.0	U
:786	2303-16-4	Diallate (cis or trans)		10.0	U
:788	2303-16-4	Diallate (trans or cis)		10.0	U
:790	191-24-2	Benzo(g,h,i)Perylene		10.0	U
:792	23950-58-5	Pronamide		10.0	U
:794	465-73-6	Isodrin		10.0	U
:796	140-57-8	Aramite (1)		10.0	U
:798	140-57-8	Aramite (2)		10.0	U
:800	510-15-6	Chlorobenzilate		10.0	U
:802	143-50-0	Kepone		50.0	U
:804	70-30-4	Hexachloropropene		10.0	U
:806	95-94-3	1,2,4,5-Tetrachlorobenzene		10.0	U
:808	608-93-5	Pentachlorobenzene		10.0	U

lotes and summary data for this report.

U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX COMPOUNDS

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORK
SAS NO REPORTED 10/13/94 13:22 CUSTOMER DSM ENV

FILE NAME X1012004 SAMPLE ID PD-2 MSD LEVEL LOW
TYPE MSD LAB SAMP ID 9410061-12D MATRIX WATER
INST FINN ANALYZED 10/12/94 20:53 UNITS ug/L

ODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
310	62-75-9	N-Nitrosodimethylamine		10.0	U
315	108-95-2	Phenol		57.2	
320	62-53-3	Aniline		10.0	U
322	110-86-1	Pyridine		10.0	U
325	111-44-4	bis(2-Chloroethyl)Ether		10.0	U
330	95-57-8	2-Chlorophenol		114	
335	541-73-1	1,3-Dichlorobenzene		10.0	U
340	106-46-7	1,4-Dichlorobenzene		52.0	
345	100-51-6	Benzyl Alcohol		10.0	U
350	95-50-1	1,2-Dichlorobenzene		10.0	U
355	95-48-7	2-Methylphenol		10.0	U
360	39638-32-9	bis(2-Chloroisopropyl)Ether		10.0	U
365	106-44-5	4-Methylphenol		10.0	U
370	621-64-7	N-Nitroso-Di-n-Propylamine		72.0	
375	67-72-1	Hexachloroethane		10.0	U
410	98-95-3	Nitrobenzene		10.0	U
415	78-59-1	Isophorone		10.0	U
420	88-75-5	2-Nitrophenol		10.0	U
425	105-67-9	2,4-Dimethylphenol		10.0	U
435	111-91-1	bis(2-Chloroethoxy)Methane		10.0	U
440	120-83-2	2,4-Dichlorophenol		10.0	U
445	120-82-1	1,2,4-Trichlorobenzene		51.0	
450	91-20-3	Naphthalene		10.0	U
455	106-47-8	4-Chloroaniline		10.0	U
460	87-68-3	Hexachlorobutadiene		10.0	U
465	59-50-7	4-Chloro-3-Methylphenol		130	
470	91-57-6	2-Methylnaphthalene		10.0	U
510	77-47-4	Hexachlorocyclopentadiene		10.0	U
515	88-06-2	2,4,6-Trichlorophenol		10.0	U
520	95-95-4	2,4,5-Trichlorophenol		10.0	U
525	91-58-7	2-Chloronaphthalene		10.0	U
530	88-74-4	2-Nitroaniline		50.0	U
535	131-11-3	Dimethylphthalate		10.0	U
540	208-96-8	Acenaphthylene		10.0	U
543	606-20-2	2,6-Dinitrotoluene		10.0	U
545	99-09-2	3-Nitroaniline		50.0	U
550	83-32-9	Acenaphthene		47.4	
555	51-28-5	2,4-Dinitrophenol		50.0	U
560	100-02-7	4-Nitrophenol		52.4	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX COMPOUNDS

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORK
SAS NO REPORTED 10/13/94 13:22 CUSTOMER DSM ENV

ODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
565	132-64-9	Dibenzofuran		10.0	U
570	121-14-2	2,4-Dinitrotoluene		54.6	
580	84-66-2	Diethylphthalate		10.0	U
585	7005-72-3	4-Chlorophenyl-phenylether		10.0	U
590	86-73-7	Fluorene		10.0	U
595	100-01-6	4-Nitroaniline		50.0	U
610	534-52-1	4,6-Dinitro-2-Methylphenol		20.0	U
615	86-30-6	N-Nitrosodiphenylamine (1)		10.0	U
625	101-55-3	4-Bromophenyl-phenylether		10.0	U
630	118-74-1	Hexachlorobenzene		10.0	U
635	87-86-5	Pentachlorophenol		88.6	
640	85-01-8	Phenanthrene		10.0	U
645	120-12-7	Anthracene		10.0	U
650	84-74-2	Di-n-Butylphthalate		10.0	U
655	206-44-0	Fluoranthene		10.0	U
658	87-65-0	2,6-Dichlorophenol		10.0	U
660	58-90-2	2,3,4,6-Tetrachlorophenol		10.0	U
662	88-85-7	Dinoseb		10.0	U
664	70-30-4	Hexachlorophene		20.0	U
666	10595-95-6	N-Nitrosomehtylethylamine		10.0	U
668	55-18-5	N-Nitrosodiethylamine		10.0	U
670	59-89-2	N-Nitrosomorpholine		10.0	U
672	930-55-2	N-Nitrosopyrrolidine		10.0	U
674	100-75-4	N-Nitrosopiperdine		10.0	U
676	924-16-3	N-Nitroso-di-n-butylamine		10.0	U
678	126-68-1	O,O,O-Triethylphosphorothioat		10.0	U
680	297-97-2	Thionazin		10.0	U
682	3689-24-5	Tetraethyldithiopyrophosphate		10.0	U
684	298-02-2	Phorate		10.0	U
686	60-51-5	Dimethoate		10.0	U
688	298-04-4	Disulfoton		10.0	U
690	298-00-0	Methyl Parathion		10.0	U
692	56-38-2	Parathion		10.0	U
694	52-85-7	Famphur		20.0	U
696	95-53-4	o-Toluidine		10.0	U
698	122-09-8	a,a-Dimethylphenethylamine		10.0	U
700	106-50-3	p-Phenylenediamine		50.0	U
702	91-59-8	2-Naphthylamine		10.0	U
704	134-32-7	1-Naphthylamine		10.0	U
706	99-55-8	5-Nitro-o-toluidine		10.0	U
712	62-44-2	Phenacetin		10.0	U
715	129-00-0	Pyrene		14.2	
718	92-67-1	4-Aminobiphenyl		10.0	U
720	85-68-7	Butylbenzylphthalate		10.0	U
722	60-11-7	p-Dimethylaminoazobenzene		10.0	U
725	91-94-1	3,3'-Dichlorobenzidine		20.0	U
728	119-93-7	3,3-Dimethylbenzidine		10.0	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
APPENDIX IX COMPOUNDS

CASE NO 410061 LABORATORY SwL - Houston CONTRACT CORCO WORK
SAS NO REPORTED 10/13/94 13:22 CUSTOMER DSM ENV

CODE	CAS NO	COMPOUND	TYPES	CONC	FLAGS
730	56-55-3	Benzo(a)Anthracene		10.0	U
732	53-96-3	2-Acetylaminofluroene		10.0	U
738	66-27-3	Methylmethanesulfonate		10.0	U
740	218-01-9	Chrysene		10.0	U
742	62-50-0	Ethylmethanesulfonate		10.0	U
745	117-81-7	bis(2-Ethylhexyl)Phthalate		10.0	U
748	98-86-2	Acetophenone		10.0	U
750	120-58-1	Isosafrole		10.0	U
752	94-59-7	Safrole		10.0	U
754	130-15-4	1,4-Napthoquinone		10.0	U
756	99-65-0	m-Dinitrobenzene		10.0	U
760	117-84-0	Di-n-Octyl Phthalate		10.0	U
762	99-35-4	1,3,5-Trinitrobenzene		50.0	U
765	205-99-2	Benzo(b)Fluoranthene		10.0	U
768	82-68-8	Pentachloronitrobenzene		50.0	U
770	207-08-9	Benzo(k)Fluoranthene		10.0	U
772	57-97-6	7,12-Dimethylbenz(a)anthracen		10.0	U
775	50-32-8	Benzo(a)Pyrene		10.0	U
778	56-49-5	3-Methylcholanthrene		10.0	U
780	193-39-5	Indeno(1,2,3-cd)Pyrene		10.0	U
781	109-06-8	2-Picoline		10.0	U
782	56-57-5	4-Nitroquinoline-1-oxide		100	U
784	91-80-5	Methapyrilene		100	U
785	53-70-3	Dibenz(a,h)Anthracene		10.0	U
786	2303-16-4	Diallate (cis or trans)		10.0	U
788	2303-16-4	Diallate (trans or cis)		10.0	U
790	191-24-2	Benzo(g,h,i)Perylene		10.0	U
792	23950-58-5	Pronamide		10.0	U
794	465-73-6	Isodrin		10.0	U
796	140-57-8	Aramite (1)		10.0	U
798	140-57-8	Aramite (2)		10.0	U
800	510-15-6	Chlorobenzilate		10.0	U
802	143-50-0	Kepone		50.0	U
804	70-30-4	Hexachloropropene		10.0	U
806	95-94-3	1,2,4,5-Tetrachlorobenzene		10.0	U
808	608-93-5	Pentachlorobenzene		10.0	U

otes and summary data for this report.

U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

393078

Analysis Request and Chain of Custody Record

Page 1 of 5

SWL SOUTHWESTERN LABORATORIES

- ☒ **HOUSTON EAS** 222 CAVALCADE ST., HOUSTON, TEXAS 77009 (713) 692-9151
- ☐ **DALLAS EAS** 2575 LONE STAR DR., DALLAS, TEXAS 75212 (214) 631-2700
- ☐ **MIDLAND EAS** 1703 WEST INDUSTRIAL, MIDLAND, TEXAS 79701 (915) 683-3349

Project no.: 1019-02

Client/Project: DSM / CorCo / SAMPLING WORKPLAN ADDENDUM PROJECT

Lab ID No.	Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
1	PD-2A	9-30-94 4:15	X		Glass 500mL	Soil	ice	Appendix IX metals	
2	PD-2B	9-30-94 4:12	X		Glass 500mL	Soil	ice	Appendix IX metals	
3	EL-1-A	9-30-94 9:20	X		Glass 500mL	Soil	ice	Appendix IX metals	
5	Dup#1	9-30-94 9:42		X	Glass 500mL	Soil	ice	Appendix IX metals	
6	Dup #2	9-30-94 9:45		X	Glass 500mL	Soil	ice	Appendix IX metals	
4	EL-1-B	9-30-94 9:40		X	Glass 500mL	Soil	ice	Appendix IX metals	
7	EI-1	10-4-94 13:30	X		Glass 100mL	Soil	ice	Total Petroleum Hydrocarbon	
8	EI-2	10-4-94 14:02	X		Glass 100mL	Soil	ice	Total Petroleum Hydrocarbon	
9	EI-3	10-4-94 14:20	X		Glass 100mL	Soil	ice	Total Petroleum Hydrocarbon	
10	EI-4	10-4-94 14:35	X		Glass 100mL	Soil	ice	Total Petroleum Hydrocarbon	

Samplers: (Print)	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	COC Seal No.
Gerardo H. Garcia	Gerardo H. Garcia	10-6-94 15:15			None
Affiliation	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	REC'D. ON ICE Yes ✓ No ___
DSM	Relinquished by: (Signature)	Date: Time:	Received by Laboratory: (Signature) Cheri Fuller	Date: 10/7/94 Time: 0930	Intact: N/A

Results by _____

Rush Charges Authorized: Yes ___ No X

REMARKS:

Data Results To:
1.
2.

Laboratory No. 94-10-061

See attached memo.

393078

Analysis Request and Chain of Custody Record

Page 2 of 5

SWL SOUTHWESTERN LABORATORIES

☒ **HOUSTON EAS** 222 CAVALCADE ST., HOUSTON, TEXAS 77009 (713) 692-9151
☐ **DALLAS EAS** 2575 LONE STAR DR., DALLAS, TEXAS 75212 (214) 631-2700
☐ **MIDLAND EAS** 1703 WEST INDUSTRIAL, MIDLAND, TEXAS 79701 (915) 683-3349

Project no. 1019-02

Client/Project DSM/Conoco / SAMPLING WORKPLAN ADDENDUM PROJECT

Lab ID No.	Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
11A	PD-2	10/5/94 15:15	X		(40ml) Glass	Groundwater	Ice HCl	Volatiles	
11B	PD-2	10/5/94 15:20	X		(40ml Glass)	Groundwater	Ice HCl	Volatiles	
11C	PD-2	10/5/94 15:30	X		(40ml Glass)	Groundwater	Ice HCl	MS/MSD Volatiles	
11C	PD-2	10/5/94 15:33	X		(40ml Glass)	Groundwater	Ice HCl	MS/MSD Volatiles	
11D	PD-2	10/5/94 15:35	X		(40ml Glass)	Groundwater	Ice HCl	MS/MSD Volatiles	
11D	PD-2	10/5/94 15:37	X		(40ml Glass)	Groundwater	Ice HCl	MS/MSD Volatiles	
12D	PD-2	10/5/94 15:44	X		1 liter Glass	Groundwater	Ice	SV, OP Pest-MS/MSD	
12C	PD-2	10/5/94 15:47	X		1 liter Glass	Groundwater	Ice	SV, OP Pest-MS/MSD	
12B	PD-2	10/5/94 15:51	X		1 liter Glass	Groundwater	Ice	Dup MSD/ Semi-Volatiles OP-Pesticides	
12A	PD-2	10/5/94 15:55	X		1 liter Glass	Groundwater	Ice	Semi-Vols, OP-Pest.	

Samplers: (Print) Gerardo H. Garcia

Affiliation DSM

Relinquished by: (Signature) Gerardo Garcia — Date: 10-6-94 Time: 15:15

Relinquished by: (Signature) — Date: Time:

Relinquished by: (Signature) — Date: Time:

Received by: (Signature) — Date: Time:

Received by: (Signature) — Date: Time:

Received by Laboratory: (Signature) Anne Fuller — Date: 10/7/94 Time: 0930

COC Seal No. None

REC'D. ON ICE Yes ✓ No ____

Intact: N/A

Laboratory No. 94-10-061

Results by ____

Rush Charges Authorized Yes ____ No X

REMARKS:

Data Results To:
1.
2.

393078

Analysis Request and Chain of Custody Record

Page 3 of 5

SWL SOUTHWESTERN LABORATORIES

☒ **HOUSTON EAS** 222 CAVALCADE ST., HOUSTON, TEXAS 77009 (713) 692-9151
☐ **DALLAS EAS** 2575 LONE STAR DR., DALLAS, TEXAS 75212 (214) 631-2700
☐ **MIDLAND EAS** 1703 WEST INDUSTRIAL, MIDLAND, TEXAS 79701 (915) 683-3349

DSM

Project no. 1019-02

Client/Project ~~DSM~~ / SAMPLING WORKPLAN ADDENDUM PROJECT

Lab ID No.	Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
3C	PD-2	10/5/94 16:02	X		1 Liter Plastic	Groundwater	HNO3 ice	Metals-MS/MSD	
3D	PD-2	10/5/94 16:04	X		1 Liter Plastic	Groundwater	HNO3 ice	Metals-MS/MSD	
3A	PD-2	10/5/94 16:08	X		1 Liter Plastic	Groundwater	HNO3 ice	Cd, Zn, V, CR, Co, Cu, Pb, Hg, Se, As, Ti, Sn	
14C	PD-2	10/5/94 16:25	X		1 Liter Plastic	Groundwater	NaOH ice	Cyanide-MS/MSD	
14A B	PD-2	10/5/94 16:30	X		1 Liter Plastic	Groundwater	NaOH ice	Cyanide-Amenable	split for dup into pint plastic
14D	PD-2	10/5/94 16:32	X		1 Liter Plastic	Groundwater	NaOH ice	Cyanide-MS/MSD	
15A B	PD-2	10/5/94 16:35	X		1 Liter Plastic	Groundwater	NaOH ice 2c Acetate	Sulfide	split for dup into pint plastic
15C	PD-2	10/5/94 16:39	X		1 Liter Plastic	Groundwater	NaOH ice 2c Acetate	Sulfide-MS/MSD	
15D	PD-2	10/5/94 16:42	X		1 Liter Plastic	Groundwater	NaOH ice 2c Acetate	Sulfide-MS/MSD	
13B	PD-2	10/5/94 16:45	X		1 Liter Glass	Groundwater	HNO3 ice	MSD Metals PD-2 Dup	

Samplers: (Print)	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	COC Seal No.
Gerardo H. Garcia	Gerardo H. Garcia	10-6-94 15:15			None
Affiliation	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	REC'D. ON ICE Yes ✓ No ___
DSM			Received by Laboratory: (Signature) Chris Miller	Date: 10/7/94 Time: 0930	Intact: N/A
Results by ___	REMARKS:		Data Results To: 1.		Laboratory No.
Rush Charges Authorized Yes ___ No X			2.		94-10-061

393078

Analysis Request and Chain of Custody Record Page 4 of 6 85

SWL SOUTHWESTERN LABORATORIES

☒ **HOUSTON EAS** 222 CAVALCADE ST., HOUSTON, TEXAS 77009 (713) 692-9151
☐ **DALLAS EAS** 2575 LONE STAR DR., DALLAS, TEXAS 75212 (214) 631-2700
☐ **MIDLAND EAS** 1703 WEST INDUSTRIAL, MIDLAND, TEXAS 79701 (915) 683-3349

Project no. 1019-02

Client/Project DSM/ Carco Sampling Work plan Addendum Project

Lab ID No.	Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
16A	PD-2	10/5/94 17:50	X		1 Liter Glass	Groundwater	Ice	Pest	
16B	PD-2	10/5/94 17:52	X		1 Liter Glass	Groundwater	Ice	Pest-MS/MSD	
17A B	PD-2	10/5/94 16:59	X		1 Liter Glass	Groundwater	Ice	Herbs	split for dup into qt. amber
16C	PD-2	10/5/94 17:53	X		1 Liter Glass	Groundwater	Ice	Pest-MS/MSD	
16D	PD-2	10/5/94 17:57	X		1 Liter Glass	Groundwater	Ice	PD-2 Dup/MSD pesticides	
17C	PD-2	10/5/94 18:00	X		1 Liter Glass	Groundwater	Ice	Herbs-MS/MSD	
17D	PD-2	10/5/94 18:03	X		1 Liter Glass	Groundwater	Ice	Herbs-MS/MSD	
20A	PD-2	10/5/94 18:08	X		1 Liter Glass	Groundwater	Ice	Dioxins & Furans	
20C	PD-2	10/5/94 18:09	X		1 Liter Glass	Groundwater	Ice	Dioxins & Furans-MS/MSD	
20D	PD-2	10/5/94 18:11	X		1 Liter Glass	Groundwater	Ice	Dioxins & Furans-MS/MSD	

Samplers: (Print)	Relinquished by: (Signature)	Date:	Received by: (Signature)	Date:	COC Seal No.
Gerardo H. Garcia	Gerardo H. Garcia	10-6-94 Time: 15:15		Time:	None
Affiliation	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	REC'D. ON ICE Yes ✓ No ___
DSM	Relinquished by: (Signature)	Date: Time:	Received by Laboratory: (Signature) Chelle Fuller	Date: 10/7/94 Time: 0930	Intact: N/A
Results by ___ Rush Charges Authorized Yes ___ No X	REMARKS:		Data Results To: 1. 2.		Laboratory No. 94-10-061

393078

Analysis Request and Chain of Custody Record

SWL SOUTHWESTERN LABORATORIES

☒ **HOUSTON EAS** 222 CAVALCADE ST., HOUSTON, TEXAS 77009 (713) 692-9151
☐ **DALLAS EAS** 2575 LONE STAR DR., DALLAS, TEXAS 75212 (214) 631-2700
☐ **MIDLAND EAS** 1703 WEST INDUSTRIAL, MIDLAND, TEXAS 79701 (915) 683-3349

Project no.: 1019-02

Client/Project: DSM / CORCO / Sampling Workplan Addendum Project

Lab ID No.	Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
20B	PD-2	10/5/94 18:14	X		1 Liter Glass	Groundwater	Ice	PD-20up/MSD/Dioxins & Furans	
18B	PD-2	10/5/94 23:10	X		1 Liter Glass	Groundwater	HNO3 Ice	* PD-20up/Dissolved Metals	
18C	PD-2	10/5/94 23:13	X		1 Liter Glass	Groundwater	HNO3 Ice	* MS/Dissolved Metals	
18A	PD-2	10/5/94 23:16	X		1 Liter Glass	Groundwater	HNO3 Ice	* PD-2/Dissolved Metals	
18D	PD-2	10/5/94 23:20	X		1 Liter Glass	Groundwater	HNO3 Ice	* MSD/Dissolved Metals	
19A	Trip Blank				40ml Glass	Water	Ice	VOCs	only one trip blank received.
	Trip Blank				40ml Glass	Water	Ice	VOCs	Found in bottom of cooler. Not packed w/ other blank.

Samplers: (Print)	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	COC Seal No.
Gerardo Garcia	10-6-94 15:15				None
Affiliation: DSM	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	REC'D. ON ICE Yes ___ No ___
	Relinquished by: (Signature)	Date: Time:	Received by Laboratory: (Signature) [illegible]	Date: 10/7/94 Time: 0930	Intact: N/A

Results by _____

Rush Charges Authorized Yes ___ No X

REMARKS: * Please filter (45micron) & preserve these samples

Data Results To: 1. 2.

Laboratory No. 94-10-061

VARIANCE MEMO
SAMPLE LOG–IN

SAMPLE(S) 14, 15, 17 DATE 10-7-94
PROJECT DSM / Corco
FILED BY CF LAB NO. 94-10-061

VARIANCE (Check applicable item(s):

✓ Insufficient sample sent for proper analysis; received approx. 1000 ml, split in 2
____ Sample bottle received broken and/or cap not intact
____ Samples received without paperwork; paperwork received without samples.
____ Samples received without proper refrigeration, when it has been deemed necessary. Temp. at receipt: ____
____ Illegible sample numbers or label missing from bottle.
____ Numbers on sample not the same as numbers on paperwork
____ Incomplete instructions received with sample(s) i.e., no request for analysis, no chain of custody, incomplete billing instructions, no due date, etc.
____ Samples received in improper container or lacking preservation.
____ Physical characteristics different than those on sampling sheets; Describe: ____
____ Rush samples on hold because of incomplete paperwork
____ Other (specify) ____

CORRECTIVE ACTION TAKEN

Tod Heverly Person Contacted
____ Client informed verbally
____ Client informed by memo/letter
✓ Samples processed as is
____ Samples preserved by lab
____ Client will resample and resubmit

✓ Phone 10/5/94
____ Samples processed for information only and noted on report
____ Samples processed with higher detection limits accepted
____ Samples rejected

ROUTING

TITLE	DATE	INITIALS	CORRECTED?	
Sample Coordinator:	10-7-94	CF	Yes	
QA/QC Officer:				
mments:				

\EASVANL\VARIANCE

Huntingdon

****
TWIN CITY TESTING CORPORATION
*METHOD 8290 ANALYSIS RESULTS *
****
Client....SWL

Client's Sample ID.....9410061-20A PD-2
TCT Sample ID.....42742
Analysis Date.....10/21/94 17:19
Filename.....V41021H
Injected By.....CVS
Total Amount Extracted... 1.01 L
% Moisture.....NA %
ICAL Date.....9/26/94
CCAL Filename.....V41021A
Method Blank ID.....BLANK-43045
Extraction Date.....10/13/94

NATIVE ISOMERS	CONC. ng/L	LOD ng/L
2378-TCDF	0.020 *	-----
TOTAL TCDF	0.110	-----
2378-TCDD	ND	0.0065
TOTAL TCDD	ND	-----
12378-PeCDF	0.016	-----
23478-PeCDF	ND	0.0096
TOTAL PeCDF	0.040	-----
12378-PeCDD	ND	0.0250
TOTAL PeCDD	ND	-----
123478-HxCDF	ND	0.0100
123678-HxCDF	ND	0.0180
234678-HxCDF	ND	0.0230
123789-HxCDF	ND	0.0150
TOTAL HxCDF	ND	-----
123478-HxCDD	ND	0.0150
123678-HxCDD	ND	0.0150
123789-HxCDD	ND	0.0180
TOTAL HxCDD	ND	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	54
2378-TCDD-13C....	2.00	58
12378-PeCDF-13C..	2.00	47
23478-PeCDF-13C..	2.00	57
12378-PeCDD-13C..	2.00	59
123478-HxCDF-13C.	2.00	54
123678-HxCDF-13C.	2.00	30
234678-HxCDF-13C.	2.00	48
123789-HxCDF-13C.	2.00	60
123478-HxCDD-13C.	2.00	55
123678-HxCDD-13C.	2.00	57
RECOVERY STANDARDS		
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD = Limit of Detection
ND = Not Detected
NA = Not Applicable

TCT Invoice Number....4411 05-10430

Huntingdon

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*******************************
*TWIN CITY TESTING CORPORATION*
*METHOD 8290 ANALYSIS RESULTS *
*******************************
 Client....SWL
```

Client's Sample ID.....9410061-20B PD-2 DUP
TCT Sample ID.....42743
Analysis Date.....10/21/94 18:34
Filename.....V41021I
Injected By.....MCH
Total Amount Extracted... 0.99 L
% Moisture.....NA %
ICAL Date.....9/26/94
CCAL Filename.....V41021A
Method Blank ID.....BLANK-43045
Extraction Date.....10/13/94

NATIVE ISOMERS	CONC. ng/L	LOD ng/L
2378-TCDF	ND	0.0045
TOTAL TCDF	ND	-----
2378-TCDD	ND	0.0031
TOTAL TCDD	ND	-----
12378-PeCDF	ND	0.0041
23478-PeCDF	ND	0.0082
TOTAL PeCDF	ND	-----
12378-PeCDD	ND	0.0056
TOTAL PeCDD	ND	-----
123478-HxCDF	ND	0.0031
123678-HxCDF	ND	0.0120
234678-HxCDF	ND	0.0110
123789-HxCDF	ND	0.0110
TOTAL HxCDF	ND	-----
123478-HxCDD	ND	0.0067
123678-HxCDD	ND	0.0069
123789-HxCDD	ND	0.0130
TOTAL HxCDD	ND	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	68
2378-TCDD-13C....	2.00	72
12378-PeCDF-13C..	2.00	66
23478-PeCDF-13C..	2.00	69
12378-PeCDD-13C..	2.00	70
123478-HxCDF-13C.	2.00	71
123678-HxCDF-13C.	2.00	40
234678-HxCDF-13C.	2.00	69
123789-HxCDF-13C.	2.00	76
123478-HxCDD-13C.	2.00	79
123678-HxCDD-13C.	2.00	68
RECOVERY STANDARDS		
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD = Limit of Detection
ND = Not Detected
NA = Not Applicable

TCT Invoice Number....4411 05-10430

Huntingdon

****
TWIN CITY TESTING CORPORATION
* PCDD/PCDF SPIKE RESULTS *
****
Client....SWL

Client's Sample ID.....9410061-20D-MS PD-2 MS
TCT Sample ID.....42745-MS
Analysis Date.....10/21/94 11:24
Filename.....V41021C
Sample Injected By.....JMM
Total Amount Extracted..... 0.48 L
% Moisture.....NA
ICAL Date.....9/26/94
CCAL Filename.....V41021A
Method Blank ID.....BLANK-43045
Extraction Date.....10/13/94

NATIVE ISOMERS	Qs (ng)	Qm (ng)	% REC
2378-TCDF	0.20	0.19	94
2378-TCDD	0.20	0.18	89
12378-PeCDF	1.00	1.11	111
23478-PeCDF	1.00	0.98	98
12378-PeCDD	1.00	0.98	98
123478-HxCDF	1.00	0.94	94
123678-HxCDF	1.00	1.00	100
234678-HxCDF	1.00	0.99	99
123789-HxCDF	1.00	1.02	102
123478-HxCDD	1.00	0.92	92
123678-HxCDD	1.00	1.01	101
123789-HxCDD	1.00	1.06	106

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	54
2378-TCDD-13C....	2.00	57
12378-PeCDF-13C..	2.00	36
23478-PeCDF-13C..	2.00	58
12378-PeCDD-13C..	2.00	63
123478-HxCDF-13C.	2.00	61
123678-HxCDF-13C.	2.00	33
234678-HxCDF-13C.	2.00	51
123789-HxCDF-13C.	2.00	59
123478-HxCDD-13C.	2.00	55
123678-HxCDD-13C.	2.00	55
RECOVERY STANDARDS		
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA

Qs = Quantity Spiked
Qm = Quantity Measured
REC = Recovery (Expressed as Percent)
NA = Not Applicable

TCT Invoice Number....4411 05-10430

Huntingdon

****
TWIN CITY TESTING CORPORATION
* PCDD/PCDF SPIKE RESULTS *
****
Client....SWL

Client's Sample ID.....9410061-20D-MSD PD-2 MSD
TCT Sample ID.....42745-MSD
Analysis Date.....10/21/94 12:44
Filename.....V41021D
Sample Injected By.....JMM
Total Amount Extracted..... 0.48 L
% Moisture.....NA
ICAL Date.....9/26/94
CCAL Filename.....V41021A
Method Blank ID.....BLANK-43045
Extraction Date.....10/13/94

NATIVE ISOMERS	Qs (ng)	Qm (ng)	% REC
2378-TCDF	0.20	0.23	116
2378-TCDD	0.20	0.23	117
12378-PeCDF	1.00	1.06	106
23478-PeCDF	1.00	1.17	117
12378-PeCDD	1.00	1.13	113
123478-HxCDF	1.00	1.13	113
123678-HxCDF	1.00	1.07	107
234678-HxCDF	1.00	1.18	118
123789-HxCDF	1.00	1.16	116
123478-HxCDD	1.00	1.03	103
123678-HxCDD	1.00	1.11	111
123789-HxCDD	1.00	1.11	111

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	66
2378-TCDD-13C....	2.00	62
12378-PeCDF-13C..	2.00	79
23478-PeCDF-13C..	2.00	70
12378-PeCDD-13C..	2.00	66
123478-HxCDF-13C.	2.00	62
123678-HxCDF-13C.	2.00	38
234678-HxCDF-13C.	2.00	61
123789-HxCDF-13C.	2.00	74
123478-HxCDD-13C.	2.00	62
123678-HxCDD-13C.	2.00	65

RECOVERY STANDARDS		
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA

Qs = Quantity Spiked
Qm = Quantity Measured
REC = Recovery (Expressed as Percent)
NA = Not Applicable

TCT Invoice Number....4411 05-10430