PERFORMANCE TEST REPORT
for the
LOW TEMPERATURE ENHANCED VOLATILIZATION SYSTEM

at the

CLAREMONT POLYCHEMICAL SUPERFUND SITE
OLD BETHPAGE, NEW YORK

PREPARED FOR:

USACE
New York District

PREPARED BY:

DOW ENVIRONMENTAL

October 1996

Table of Contents

List of Appendices

List of Tables

Claremont Polychemical Company Superfund Site

LTEV System Performance Test Results

1.0 EXECUTIVE SUMMARY

On September 26, 1996, Dow Environmental, Inc. (DEI) conducted a performance test of the Low Temperature Enhanced Volatilization (LTEV) system. The performance test consisted of three one-hour test trials at operating temperatures of 400-500°F. The performance test was conducted prior to full-scale implementation of LTEV operations to:

- Demonstrate that the treatment unit can meet the specified soil treatment criteria of 200 μg/kg;
- Demonstrate that the unit will be operated in a manner that is protective of human health and the environment; and
- Establish operational performance criteria to ensure compliance with performance levels.

During the performance test, the LTEV system was well below the contract required soil clean-up level. The measured concentration of tetrachloroethylene (PCE) was below the analytical detection limit of 5 μg/kg in treated soils from all three test runs performed. The level of PCE measured in the scrubber water effluent was also below the detection limit of 5 μg/liter.

The air monitoring results indicate that the LTEV system performs within the New York State and national regulatory limits. All emissions levels and maximum modeled ambient concentrations of PCE, HCl, NO_x, SO_2, and CO are in compliance with levels well below the applicable regulatory standards. The short-term maximum ambient concentration of PCE based on the dispersion modeling results is less than 1 percent of the New York State standard. The destruction and removal efficiency (DRE) for PCE was calculated to be greater than 99.9%, on average, and 99.99% for individual measurements of PCE in the exhaust stream based on an approach of using the caustic consumption in the scrubber to estimate the incoming PCE. Using an analysis of chloride in the scrubber effluent to estimate the incoming PCE, the DRE calculations range from 98.1 to 99.7 percent. [Note: The low DRE estimate is

from the test run showing the most variability (i.e., 4 orders of magnitude) in PCE.] Due to an extremely wide variation in measured concentrations of PCE in the incoming soils, in some instances the DRE was not calculable to the 99.99%. In summary, the LTEV has shown it can meet the required performance criteria and has shown that it can properly remediate the soils at the Claremont Polychemical Superfund Site in a manner that is protective of human health and the environment.

2.0 INTRODUCTION

Approximately 3,900 cubic yards of soil will be excavated and treated at the Claremont Polychemical Superfund Site using low temperature thermal desorption for removal of tetrachloroethylene (PCE). The excavated soils will be treated according to the requirements of the Land Disposal Restrictions (40 CFR Part 268) under RCRA.

In the low temperature enhanced volatilization (LTEV) system designed to remove and control emissions of PCE, soil is thermally treated to desorb the organic constituents. The desorption process is operated between 400° and 500°F. The off gases from the desorption unit are sent to a baghouse to remove the fine particulate matter entrained in the gas stream. The PCE removed from the soil and source material is then catalytically converted to carbon dioxide, water, and hydrogen chloride gases. The gas stream is scrubbed using water to remove the hydrogen chloride and produce a very dilute acid stream. The resulting acid stream is neutralized with sodium hydroxide solution to produce sodium chloride that is dissolved in the scrubber effluent.

Prior to full-scale implementation of LTEV operations, a complete system performance evaluation was conducted to:

- Demonstrate that the treatment unit can meet the specified soil treatment criteria of 200 μg/kg;
- Demonstrate that the unit will be operated in a manner that is protective of human health and the environment; and
- Establish operational performance criteria to ensure compliance with performance levels.

A performance test of the LTEV system was conducted by Dow Environmental, Inc. (DEI) on September 26, 1996. The performance test consisted of three one-hour test trials at desorber operating temperatures of 400-500°F. This report documents the test procedures and results from the LTEV system performance test.

3.0 PROCESS DESCRIPTION

The LTEV system utilizes a non-contact, counter-current, low-temperature, enhanced volatilization process which first volatilizes target organic contaminants from the soil into the air within the system. The airborne contaminants are then catalytically oxidized in a specially designed low-temperature, catalytic oxidation system used for treatment of chlorinated organics.

The feed material is initially screened to remove large material (i.e., greater than 2 inches) from the contaminated soil waste stream. The thermal desorption system consists of a feed hopper, a contaminated soil feed conveyor, a weigh conveyor with a continuous sensing weigh scale, a rotary drum equipped with a gas-fired low-NO_x burner, and a propane vaporizer. Desorption of the organic constituents in the waste feed is achieved in the counter-current designed rotary drum, which is equipped with a 10 MMBtu/hr low-NO_x burner fueled with propane.

The exhaust gases from the desorption unit go to a baghouse designed to remove particulates greater than 5 microns in size. Processed/desorbed soils are ejected into a discharge moisturizing auger. The moisturizing auger is used to mix processed soils with baghouse fines, to cool processed soil, to control dust, and remoisturize the soil for enhanced compaction when backfilling. The collected baghouse fines are transferred via a closed auger system to the discharge moisturizing auger where they are mixed and rehydrated with the processed soil.

The exhaust gas stream from the baghouse is split into two streams passing through identical treatment equipment. The stream is first preheated in a cross exchanger, and then mixed with combustion gases from a catalyst preheater prior to entering the catalytic reactor. The catalyst preheater gas burner has a maximum firing rate of 3 MMBtu/hr and is operated using propane fuel. The catalytic reactor units were designed to achieve greater than 99.99 percent destruction efficiency for PCE, based on the gas flow rates and operating conditions of the units.

The gas stream from the catalytic oxidation units enter a multi-stage quench and then enter a packed bed, counter-current absorption column for removal of HCl from the oxidizer

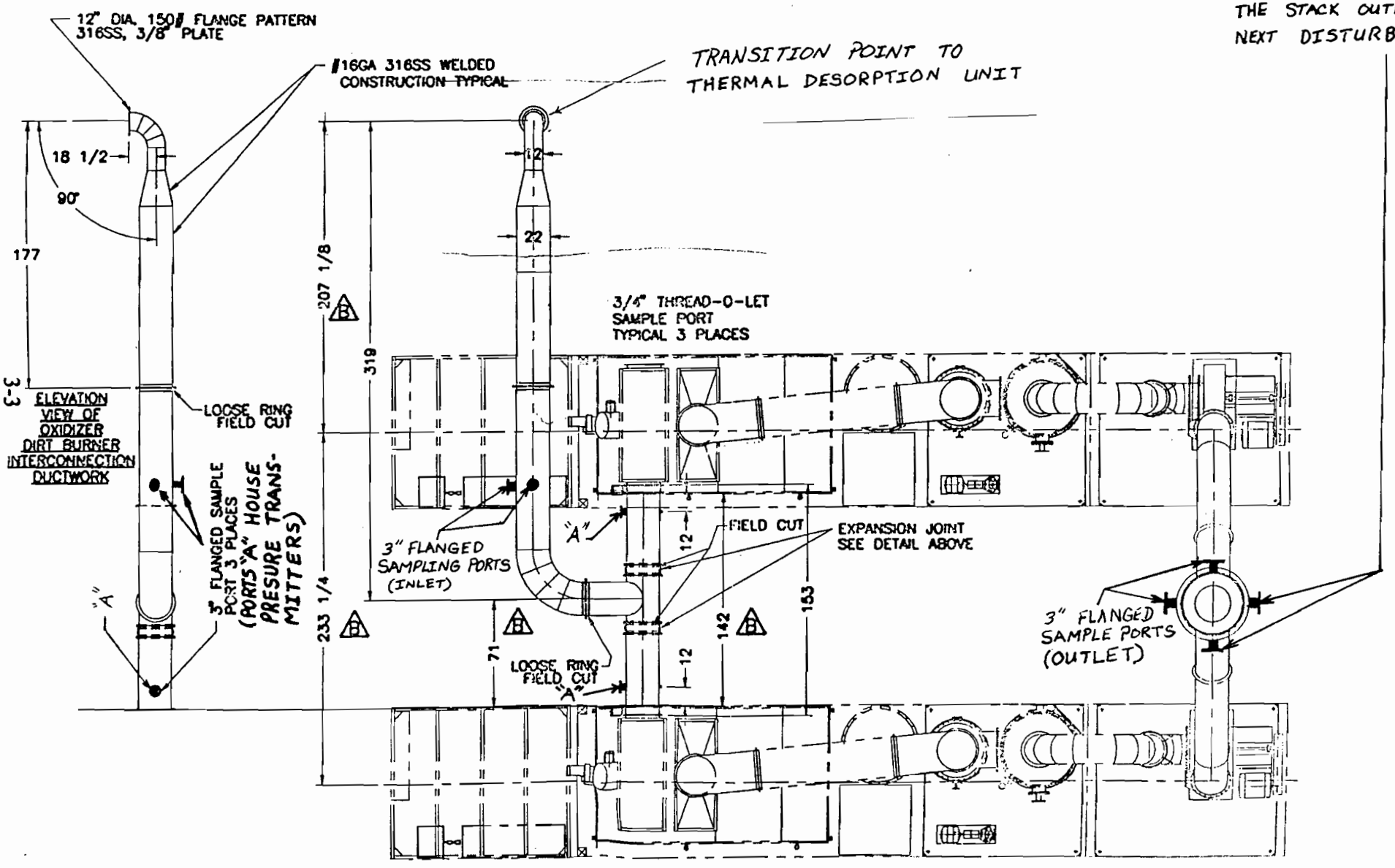
exhaust. The pH in the scrubber sump is maintained at a near neutral condition by the automatic addition of NaOH solution, as needed.

Figure 3-1 provides an illustration of the LTEV system, with the sampling locations identified. The sampling ports for the air emissions monitoring are located a) in the combined vent stream before it is split to the catalytic oxidizer units; and b) downstream of the scrubber, in the combined exhaust vent stream to the atmosphere. The inlet sampling port was located in the duct that extended from the desorption trailer to the catalytic oxidation trailers, prior to the split in the duct feeding each of the catalytic oxidizers. The port was located in the 22 inch diameter duct which was of sufficient length to allow the optimum number of traverse points. The duct allowed at least a 44 inch distance from the nearest downstream disturbance and 8 duct diameters from the nearest upstream disturbance. Two sampling locations at a 90° angle were used. The 24 inch diameter exhaust stack allowed a total of 12 sampling points for the velocity traverse measurements.

SAMPLE PORT LOCATION

Figure 3-1. Sample Port Locations

* NOTE
INLET AND
OUTLET SAMPLE PORTS ARE 6(+) DIAMETERS FROM LAST FLOW DISTURBANCE AND 2(+) DIAMETERS FROM THE STACK OUTLET, OR NEXT DISTURBANCE.



4.0 SAMPLING AND ANALYTICAL PROCEDURES

4.1 Air Emissions Monitoring Procedures

PCE was measured at both the inlet to the catalytic oxidation units and at the exhaust to the atmosphere, downstream of the scrubbers, to determine the control efficiency of the LTEV system. Several methods were used to measure PCE at the inlet and outlet locations. At the inlet to the catalytic oxidation units where PCE concentrations are relatively high, Summa canisters were used in accordance with EPA Method TO-14. In addition, field gas chromotography (GC) was used in accordance with EPA Method 18, collecting both instantaneous readings throughout each test run and an integrated bag sample over the entire run period. At the vent stream to the atmosphere, PCE was measured using both the volatile organics sampling train (VOST) in accordance with SW-846 Method 0030 and Summa canisters using Method TO-14. Three sets of samples using both Method TO-14 and Method 0030 were collected during each one-hour test run.

For HCl, three 60-minute runs were conducted using Method 26A. The sampling point for HCl was the vent stream to the atmosphere in order to compare the measured emissions levels with the levels shown in the permit to construct. For particulate matter, three 60 minute runs were conducted for each test condition using a Method 5 sampling train.

For SO_X, a maximum emissions rate was determined using fuel analysis by ASTM Method D3246 after fuel tank loading and prior to the test period. NO_X, CO, THC, CO_2, SO_2, and O_2 were continuously monitored during each of the test runs. EPA Method 1 procedures were used to determine the number and location of sampling traverse points required for each sample location, and EPA Method 2 was used to perform volumetric flow rate determinations. In addition, the average moisture content of the source gas was measured using the EPA Method 4 procedures or collected as part of the Method 26A sampling train. An overview of each sampling method is provided below.

SW-846 Method 0030—The volatile organic sampling train (VOST) Method 0030 found in SW-846 was used to sample for PCE in the exhaust stream. This method utilizes Tenax and Tenax/Charcoal traps to absorb volatile organic compounds (bp $<$ 100°C) from the sample stream. After sampling, the Tenax traps are sent to a laboratory for analysis using thermal desorption purge-and-trap by gas chromatography/mass spectrometry (Method 5040).

In accordance with the method, three runs were conducted for a single test condition. Based on the predicted concentrations of PCE in the exhaust stream, the sampling time per run for Method 0030 was approximately 10 minutes with a sampling rate of around 0.5 l/min (approximately 5 times the detection limit of the method).

EPA Method 26A—HCl was measured using Method 26A in the exhaust stream to the atmosphere. Method 26A is an isokinetic procedure to absorb gaseous hydrogen halides and halogens in alkaline or acidic solutions. Method 5 type impingers are used for collecting the HCl sample. The isokinetic method is used when water droplets are present, such as after a scrubber, where it is necessary to account for the bias of the halides in the scrubber water. Samples are recovered in the field and sent to a laboratory for ion chromatography analysis.

EPA Method 1—The number and location of sampling traverse points necessary for isokinetic sampling were determined according to EPA Method 1 protocol. EPA Method 1 parameters are based upon the length of duct separating the sampling ports from the closest downstream and upstream flow disturbances. The minimum number of traverse points for a circular duct less than 24 inches is 4 (8 total sampling points). Traverse point locations are determined for each sample port depending on the distances to duct disturbances. Method 1 procedures were implemented at the inlet to the catalytic oxidation units and at the exhaust stream to the atmosphere.

EPA Method 2—Volumetric flow rate was measured according to EPA Method 2. A Type K thermocouple and S-type pilot tube was used to measure flue gas temperature and velocity, respectively. Method 2 procedures were implemented at the inlet to the catalytic oxidation units and at the exhaust stream to the atmosphere.

EPA Method 4—The average moisture content of the sample gas was determined using EPA Method 4. Before sampling, the initial weight of the impingers was recorded. When sampling was completed, the final weights of the impingers were recorded, and the weight gain calculated. The weight gain and the volume of gas sampled were used to calculate the average moisture content (percent) of the sample gas.

EPA Method 5—Particulate matter was sampled isokinetically from the exhaust and collected on a glass fiber filter. The particulate mass, which includes any material that

condenses at or above the filtration temperature, was determined gravimetrically after removal of uncombined water.

Continuous Emissions Monitoring—CEM systems which meet EPA performance specifications were used for continuous monitoring of NO_x, CO, CO_2, THC, SO_2, and O_2. The CEMS configuration is comprised of four sub-systems, including:

- Sample gas extraction and transfer equipment;
- Conditioned sample gas analysis instrumentation (NO_x, CO, CO_2, SO_2, and O_2);
- Unconditioned sample gas analysis instrumentation (THC); and
- Calibration and QA standards delivery equipment.

The sample gas conditioning equipment is used to remove particulates, moisture, and other condensibles from the sample gas stream prior to measurement via a series of glass condensers/chillers.

Measurement of O_2 and CO_2 was conducted according to the specifications of EPA Method 3A ("Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources"). For O_2 analysis, an Amtek LS instrument was used. For CO_2, a Servomex 1400 instrument was used.

Measurement of NO_X was conducted according to the specifications of EPA Method 7E ("Determination of Nitrogen Oxides Emissions from Stationary Sources"). The NO_X analysis instrument was a TECO Model 42 analyzer.

Measurement of CO was conducted according to the specifications of EPA Method 10 ("Determination of Carbon Monoxide Emissions from Stationary Sources"). The CO analysis instrument was a TECO Model 48 analyzer.

Measurement of THC was made on a wet basis from an unconditioned sample gas stream according to the specifications of EPA Method 25A ("Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer"). The THC analysis instrument was a JUM VE-7 analyzer.

Measurement of SO_2 was made according to the specifications of EPA Method 6C using a continuous analyzer. Since the level of SO2 was expected to be below the detection limit of the instrument (on the order of 1 ppm), sulfur analysis of the fuel was also conducted.

4.2 Waste Feed/Residuals Testing Procedures

During the performance test, multiple grab samples of the incoming waste soil were taken during each testing period. All soil pretreatment grab samples were collected from the cold feed belt. Samples were analyzed at an off-site laboratory using EPA Method 8260 to determine the concentration of PCE and identify other volatile organic constituents present. For each test, one grab sample of treated soil was collected approximately 5 to 8 minutes after a grab sample of waste feed material was obtained. Since soil residence time in the desorption chamber is about 4 to 8 minutes, with a residence time of 1 to 2 minutes in the discharge auger, this approach is the most likely to result in sampling of the same soils before and after treatment. Post-treatment grab samples were collected at the exit of the moisturizing auger in a stainless steel container and held until the soil was cool enough to be safely placed in sample containers by sampling personnel (approximately 1-2 minutes).

PCE in the waste feed and in the treated soils was monitored during the performance test to establish that the performance criteria of 200 μg/kg of PCE was achieved. VOCs and PCE in scrubber blowdown were monitored to establish that the catalyst is performing properly and to demonstrate that contaminants are not being collected in the quench and scrubber.

4.3 Test Matrix

The constituents that were monitored, the sampling/analytical methods used, and the number of test runs performed during the performance test are shown in the test matrix, presented as Table 4-1.

The performance test consisted of three test trials each approximately 1 hour long designated 1 through 3 while each test trial consisted of three sub-trials of about 10 to 20 minutes each for canister and volatile organic sampling train (VOST) sampling designated .1 through .3 as demonstrated in Table 4-2.

Table 4-1. Claremont Polychemical Superfund Site LTEV Performance Test Matrix

Description		Frequency of Sampling/Monitoring	Off Site Testing	Parameters	Test Method
Waste Feed		*1 Grab Sample every 5 min. over 1 Hr. Test Run	1 Grab Sample every 5 min. over 1 Hr. Test Run	PCE	Method 8260
		Continuous Monitoring @ Contrl Panel		Waste Feed Rate	LTEV Continuous Weight Belt
Air Emissions		Continuous Emissions (CEMs)	None	THC	Method 25A
				O_2	Method 3A
				CO_2	Method 3A
				CO	Method 10
				NO_x	Method 7E
				SO_2	Method 6C
		1 Sample/Test Run (samples colled\cted from stack)	1 Sample/Test Run	Moisture	Method 4
				Volume/Velocity	Methods 1, 2
				HCl	Method 26A
				PM	Method 5
		3 Samples/Test Run *(samples collected from stack)*	3 Samples Test Run	PCE	Method 0030 Method TO-14
		3 Samples/Test Run *(samples collected from inlet to catalytic oxidizer)*	3 Samples/Test Run		Method TO-14 Method 18
Residuals	Treated Soils	*1 Grab Sample per 1 Hr. Test Run taken from moisturizing auger outlet	1 Grab Sample per Test Run *(i.e., 3 Samples per Test Condition)*	PCE	Method 8260
	Scrubber Blowdown	*1 Grab Sample per 1 Hr. Test Run	1 Grab Sample per Test Run *(i.e., 3 Samples per Test Condition)*	PCE	Method 8260

Table 4-2. Performance Test Sampling Plan

Performance Test								
Test Run 1			Test Run 2			Test Run 3		
Sub-Trial 1.1	Sub-Trial 1.2	Sub-Trial 1.3	Sub-Trial 2.1	Sub-Trial 2.2	Sub-Trial 2.3	Sub-Trial 3.1	Sub-Trial 3.2	Sub-Trial 3.3

5.0 PERFORMANCE TEST RESULTS

This section presents the test results from the September 26, 1996 performance test of the LTEV system. To summarize the results, the LTEV system was demonstrated to achieve the required soil clean-up level at the low temperature operating conditions (i.e., 400-500°F). The measured levels of PCE were below the detection limits in the treated soil and the scrubber effluent. Measured levels of PCE, PM, HCl, NO_x, SO_2, THC, and CO in the exhaust (air) stream were also very low and well below the applicable regulatory guidelines. The calculated destruction and removal efficiency (DRE) for the LTEV system was calculated to be greater than 99.9 percent, on average, and 99.99 percent for individual measurements of PCE in the exhaust stream based on an approach of using the caustic consumption in the scrubber to estimate the incoming PCE. Using an analysis of chloride in the scrubber effluent to estimate the incoming PCE, the DRE calculations range from 98.1 to 99.7 percent. [Note: The low DRE estimate is from the test run showing the most variability (i.e., 4 orders of magnitude) in PCE.] A detailed discussion of the test results is presented in the following sections. Supporting data are included in Appendices E-N. An overall comparison of the predicted results based on design calculations to the actual results measured during the performance test are presented in Table 5-1.

Table 5-1. Comparison of Predicted Versus Actual Emissions from LTEV System

Compound	Predicted Emissions, lb/hr[a]	Actual Emissions, lb/hr[b]
Tetrachloroethylene	4.43×10^{-5}	5.4×10^{-3}
Hydrogen Chloride	2.14×10^{-4}	3.4×10^{-3}
Nitrogen Dioxide	0.553	0.64
Sulfur Dioxide	0.07	0.01

[a] Predicted emissions based on design calculations prior to system operation.
[b] Actual emissions based on average measurements conducted during performance test.

5.1 Waste Feed/Residuals Test Results

Soil samples taken of the incoming waste soil and the treated soil were analyzed for PCE concentration. Table 5-2 presents a summary of the measured concentrations of PCE in the incoming and treated soils. As shown, the variability of PCE measured in the incoming waste soil was very high. Measured concentrations of PCE in the incoming soil grab samples ranged from 1.2 to 68,000 μg/kg. In the treated soil, the measured levels of PCE were below the detection limit of 5 μg/kg for all three test runs. The PCE analytical detection limit at 5 μg/kg is well below the required clean-up level of 200 μg/kg. In addition, the level of PCE measured in the scrubber water effluent was below the analytical detection limit of 5 μg/liter. This detection limit of PCE in water is below the regulatory goal of 5 μg/liter as specified in the NYSDEC Revised TAGM 4046 for groundwater.

Table 5-2. PCE Concentrations Measured in Waste Feed/Residuals

Run No.	PCE Conc. In Waste Soil, μg/kg			PCE Conc. In. Treated Soil, μg/kg	PCE Conc. In Scurbber
	Max.	Min.	Avg.		
1	12,000	1.4	1,745	<5	<5
2	68,000	1.2	7,264	<5	<5
3	9,900	2.7	2,580	<5	<5

The soil samples were also analyzed for other chlorinated and non-chlorinated constituents per EPA Method 8260. The analytical results indicate that only PCE was present at levels above the analytical detection limits. No other chlorinated (or non-chlorinated) compounds were detected in the soil samples.

5.2 Air Emissions Monitoring Results

Measured levels of PCE, PM (particulate matter), HCl, NO_x, SO_2, and CO in the exhaust (vent) stream were well within regulatory requirements as supported by the data that follows. Table 5-3 presents the stack testing results for oxides of nitrogen (NO_x), sulfur dioxide (SO_2), carbon monoxide (CO), total hydrocarbons (THC), particulate matter (PM),

hydrogen chloride (HCl), and PCE. The measured emissions are compared against the applicable reporting thresholds for non-attainment areas (6 NYCRR Part 202) and the emissions limitation for PM in the State of New York (6 NYCRR Part 212).

Table 5-3. Summary of Air Monitoring Results

Compound	Run 1	Run 2	Run 3	Average	Criteria
NO_x, lb/hr	0.70	0.80	0.42	0.64 (0.14 tons/yr)	25 tons/yr[a]
SO_2, lb/hr[g]	0.0073	0.00818	0.0131	0.0095 (0.002 tons/yr)	100 tons/yr[a]
CO, lb/hr	0.29	0.24	0.14	0.22 (0.05 tons/yr)	100 tons/yr[a]
HCl, lb/hr	0.0037	0.0036	0.0030	0.0034[d] (99.96%)	99% removal effic.[e]
THC, lb/hr (as CH_4)	0.81	0.45	0.28	0.51 (0.11 tons/yr)	25 tons/yr[a]
PM, grains/dscf[f]	0.0051	0.0025	0.0033	0.0036	0.05 grains/dscf
Avg. PCE, lb/hr	0.0027	0.0101	0.0034	0.0054	[c]

[a]Based on reporting threshold for non-attainment areas (6 NYCRR Part 202).
[b]Emissions limitation (6 NYCRR Part 212).
[c]No emission limitation, ambient air standard presented in Table 5-4.
[d]represents 99.96% removal efficiency (see HCl discussion below).
[e]6 NYCRR Part 373-2.15 requires 99% control efficiency for HCl emissions levels above 4 lb/hr. (This control requirement is not applicable to the LTEV system since emissions are substantially lower than 4 lb/hr.)
[f]The PM results presented are based on the performance test conducted on August 27-29.
[g]Based on fuel analyses.

Based on a dispersion modeling analysis using the average measured emissions rates, the maximum concentrations are well below the New York ambient air quality standards and the National Ambient Air Quality Standards (NAAQS) for each compound. A detailed discussion of the dispersion modeling results are included in Appendix A. Table 5-4 presents the results of the analysis along with a comparison between the maximum modeled concentrations and the applicable ambient level regulatory guidelines. As shown, the maximum concentrations of all compounds are well below the applicable ambient standard,

with the short-term maximum concentration of PCE at less than 1 percent of the short-term guideline as specified in NY Air Guide 1.

Table 5-4. LTEV Dispersion Modeling Results

Pollutant	Averaging Period	Short-Term Guideline Concentration ($\mu g/m^3$)	Annual Guideline Concentration ($\mu g/m^3$)	New York Ambient Air Standard ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)	Maximum Concentration ($\mu g/m^3$)	Percent of Standard
Perchloroethylene	1-hour	81,000				0.5	<0.01
	Annual		7.5×10^{-2}			4.7×10^{-2}	62.1
HCl	1-hour	150				0.3	0.2
	Annual		7			2.9×10^{-2}	0.4
NO_2	Annual			170		5.5	3.3
	Annual				100	5.5	5.5
CO	1-hour				40,000	19.0	0.05
	8-hour				10,000	13.3	0.1
PM	24-hour				150	5.4	3.6
	Annual				50	1.4	2.8

A discussion of the performance testing results for each constituent measured follows.

PCE—PCE concentration in the exhaust was measured using two alternate methods, Method TO-14 (canisters) and SW-846 Method 0030 (VOST). Based on the sampling protocol, the VOST measurements were determined to more accurately represent the PCE concentrations in the exhaust stream since VOST is the more accurate method for low levels of VOCs. Average PCE stack emissions ranged from 0.01 to 0.0027 lb/hr based on the SW-846 Method 0030 (VOST) results.

PCE concentrations at the inlet, upstream of the catalytic oxidizers, were measured using Method TO-14 (canisters), direct GC analyses, and integrated bag samples which were analyzed by GC immediately after they were collected. Based on the variability of the measured concentrations of PCE in the incoming soil, the methods used to measure PCE at the inlet likely do not represent a true average concentration over the entire run period. Direct measurements of PCE in the grab samples of incoming soil and the inlet air stream to the catalytic oxidizers were not considered representative of the actual average PCE concentration due to the range of variation in PCE concentration. Based on this large variability in incoming

PCE concentrations and the intermittent nature of the inlet sampling of the soil and air stream upstream of the catalytic oxidation units, DEI proposes that the chloride ion concentration in the scrubber effluent should be used to estimate the average inlet mass flow rate of PCE. The Cl^- represents a more accurate estimate of the actual inlet concentration of PCE because it reflects the total amount of HCl produced from the catalytic oxidation of PCE that was neutralized in the scrubber. The soils analytical data supports the assumption that all of the HCl neutralized in the scrubber was generated from the oxidation of PCE alone, since no other chlorinated compounds were identified in the incoming soil.

Table 5-5 presents a comparison between the alternate methods used to measure PCE at the inlet to the catalytic oxidation units and at the exhaust to the atmosphere. These results have been converted to lbs/hr of PCE so that comparisons can be made in equivalent units.

Table 5-5. Summary of Analytical Results for PCE

Test Run	PCE In, lb/hr[c]						PCE Out, lb/hr[d]	
	Soil Analyses	Canisters	Average GC[a]	Integrated GC[b]	Caustic Usage	Cl^- Analyses[e]	VOST	Canisters
1.1		0.3587					0.00072	0.0021
1.2		0.0777					0.00672	0.00958
1.3		0.0554					0.00168	0.00311
1 (Avg.)	0.0466	0.1639	0.8169	0.1482	11.823	0.696	0.00273	0.00493
2.1		0.1147					0.00178	0.03984
2.2		0.0900					0.02712	0.03078
2.3		0.6690					0.01018	0.00217
2 (Avg.)	0.2179	0.2678	0.3295	2.7500	8.873	0.521	0.01010	0.02427
3.1		0.0502					0.00043	0.00678
3.2		0.0365					0.001799	0.00786
3.3		0.6756					0.007715	--
3 (Avg.)	0.0805	0.2541	0.2828	--	5.911	1.189	0.003417	0.00732
Average	0.1150	0.2286	0.4764	1.4491	8.869	0.8	0.00542	0.01217

[a] Average of individual GC measurements taken during run period.
[b] Integrated bag sample collected over entire run period.
[c] Inlet sampling location was at the inlet to the catalytic oxidation units for all measurements except the inlet soils, which was sampled at the cold feed belt or loader bucket.
[d] Outlet sampling location was at the exhaust stack to the atmosphere.
[e] Chloride analyses of the scrubber effluent.

DEI believes that the excessive variability in PCE feed concentrations and the nature of the sampling in the inlet is responsible for the inconsistency in results between the methods.

HCl—HCl was measured in the exhaust stream using EPA Method 26A during each of the three test runs. Based on the analytical results, HCl was emitted at an average rate of 0.0034 lbs/hr over the three run test period. Based on the material balance calculations presented in Appendix C, the average HCl entering the scrubber was 7.810 lbs/hr for the performance test. The average HCl at the inlet to the scrubber (7.810 lbs/hr, based on caustic usage) minus the average HCl measured in the exhaust (0.0034 lbs/hr), yields an average removal of 7.8066 lbs/hr which demonstrates a greater than 99.95% removal efficiency [(7.81 - 0.0034) / 7.81 = 0.9996]. The HCl analytical results and the sample volumes are shown in Table 5-6. The example calculation for converting to units of lb/hr are shown in Appendix B.

Table 5-6. HCl Sampling/Analytical Results

Run No.	Meter Volume, dscf	HCl Catch, mg	HCl Emissions, lb/hr
1	32.74	0.16	0.0037
2	32.10	0.16	0.0036
3	33.87	0.14	0.0030
		Average	0.0034

NO_x, SO_2, CO, THC Results—Levels of NO_x, SO_2, THC, and CO emissions from the LTEV system were very low.

EPA Method 7E was used to measure NO_x emissions from the exhaust of the LTEV system. NO_x emissions ranged from 0.42 to 0.80 lb/hr over the three test runs. With the average NO_x emission of 0.64 lbs/hr, NO_x emissions over the life of the job (i.e., approximately 430 operating hours) would be less than 0.14 ton for the year. This level is well below the 25 ton/year reporting threshold level. Furthermore, the modeled maximum ambient concentrations of NO_x from the LTEV are less than 10 percent of the New York and national ambient air standard limitations.

Sulfur dioxide emissions from the LTEV system exhaust stream were measured using EPA Method 6C and by fuel analyses. Because of the very low levels of sulfur in the propane fuel, the measured levels of SO_2 were below the detection limit (i.e., on the order of 1 ppm for SO_2) of the continuous analyzer. Although the average of the SO_2 analyzer readings was greater than 1 ppm, the inherent drift in the instrument from negative to positive readings indicates that the actual concentration of SO_2 was below the threshold for the analyzer. Fuel analyses for sulfur compounds confirms that the levels are low and indicates that the estimated average concentration of SO_2 in the exhaust stream is only 0.17 ppmvd.

CO emissions ranged from 0.14 to 0.29 lb/hr over the three test runs. With average CO emissions of 0.22 lbs/hr, CO emissions over the life of the job (i.e., approximately 430 operating hours) would be less than 0.05 ton for the year. This level is well below the 100 ton/year reporting threshold level appearing in 6 NYCRR Part 202. Furthermore, the maximum ambient concentration of CO from the LTEV system is less than 1 percent of the NAAQS.

THC emissions from the LTEV system exhaust stream were measured using EPA Method 10. The average emissions ranged from 0.28 to 0.81 lb/hr over the three test runs, with an overall average of 0.51 lb/hr. Measured THC concentrations averaged 29 ppmvw. Concentrations of propane were measured in the exhaust stream using EPA Method 18. The average level of propane from runs 2 and 3 was 5.9 ppmvw or approximately 20 percent of the THC emissions. (Note: The propane and methane analyses from run 1 were inconsistent and not included in the averages.) Methane emissions were higher (methane is an intermediate in the combustion of propane), with an average of 26 ppmvw.

Particulate Matter—An EPA Method 5 sampling train was used to measure the emissions of particulate matter (PM) from the LTEV system. The PM filters from the performance test conducted on September 26 cannot be located. (Note: The analytical laboratory has not located the samples, which were reportedly shipped in the same package as the VOST samples.) Due to similar operating conditions, the results from the low temperature test conducted on August 27-29 were used. Particulate results from August 27-29 ranged from 0.003 to 0.005 grains/dscf, with an overall average of 0.004 grains/dscf. This level is well below the NYSDEC Part 212 compliance limit of 0.050 grains/dscf. The PM filter weights and the sample volumes are shown in Table 5-7. The example calculation for converting to units of grains/dscf are shown in Appendix B.

Table 5-7. Particulate Matter Sampling/Analytical Results

Run No.	Meter Volume, dscf	Particulate Catch, mg	Particulate Emissions, grains/dscf
1	30.48	10.1	0.0051
2	34.84	5.6	0.0025
3	35.90	7.7	0.0033
		Average	0.0036

5.3 Destruction and Removal Efficiency (DRE) Results

As previously mentioned, the variability in inlet PCE concentration in the incoming soil was very high. Measured concentrations of PCE in the incoming soil grab samples ranged from 1.2 to 68,000 μg/kg. Direct measurements of PCE in the grab samples of incoming soil and the inlet air stream to the catalytic oxidizers were not considered representative of the actual average PCE concentration due to the range of variation in PCE concentration. Based on this large variability in incoming PCE concentrations and the intermittent nature of the inlet sampling of the soil and the air stream upstream of the catalytic oxidizers, DEI proposes that either the caustic consumption in the HCl scrubber, the chloride analysis of the scrubber effluent, or the sodium analysis of the scrubber effluent should be used to estimate average inlet airstream PCE concentration. These three quantities represent a more accurate estimate of the actual inlet concentration of PCE because they reflect the total amount of HCl produced by the catalytic oxidation of PCE that was neutralized in the scrubber. The soils analytical results indicate that all of the HCl present was generated from the oxidation of PCE, since no other chlorinated compounds were present in the soil. Of the three, the chloride concentration in the effluent is the only one to provide a "primary" measurement of the chlorine present; both the caustic usage and sodium concentrations provide "secondary" measurements. Additionally, due to the measurement process used to determine caustic usage, these values exhibit the lowest accuracy of the three methods. As a result, the effluent chloride concentration is likely to provide the most accurate information concerning the inlet concentrations of PCE.

5.3.1 DRE Based on Caustic Usage

Caustic usage was measured using an accurate manual measurement of the tank level before and after each run period. The caustic flow rates were not measured using a metering pump due to the very low flow rates involved. An accurate physical measurement of the tank level was considered the most accurate method for assessing the caustic usage. The NaOH solution used in the LTEV scrubber was within the 25% NaOH by weight specification from the vendor within an accuracy of around ± 2 percent. The calculations of the quantity of HCl neutralized account for the pH of the scrubber effluent. The pH meter is accurate to within the following guidelines:

- Sensitivity is 0.05 of 1 pH, as calibrated;
- Stability of 0.05 of 1 pH per 24 hours, which is not cumulative; and
- Repeatability of 0.05 of 1 pH or better, as calibrated.

The pH meter is calibrated during equipment setup using standard pH solutions. It is highly unlikely that the ground water used in the scrubber contained any buffering agents to influence the pH; even if some buffering agents were present, the amount required to adversely impact the pH readings would have to be extremely high, which is improbable.

Agreement between the measured NaOH usage and salinity of the scrubber effluent are shown in the mass balance calculations presented in Appendix C. A comparison between the Na^+, Cl^-, and NaOH results is discussed in Section 5.5 below.

The original anticipated average destruction and removal efficiency (DRE) for the LTEV system was estimated to be greater than 99.99 percent. However, based on the data collected, the average DRE was found to be less than expected. The estimated DRE at Claremont was found to be 99.94%, on average, based on the caustic consumption to estimate incoming PCE. Because of the inconsistent levels of PCE in the soils processed during testing, it was not possible to maintain a consistent concentration of contaminants in the waste vapor stream for monitoring purposes. Regardless, comparisons of individual exhaust gas (VOST) data to incoming PCE data based on caustic usage indicate that the DRE was sometimes in excess of 99.99% as originally anticipated. These data are presented in Table 5-8.

Table 5-8 presents the results of the DRE calculations for the LTEV system based on caustic consumption to estimate incoming PCE. As shown, both individual VOST runs and the three run average for each of the three test periods were used to calculate the overall DRE of the LTEV system. Based on the initial individual VOST run performed during each test period, the calculated DRE ranges from 99.98 to 99.994 percent. Based on an average VOST result for each of the three testing periods (i.e., the three VOST runs performed during each test period were averaged), the calculated DRE ranges between 99.89 to 99.98 percent, with an overall average of 99.94 percent.

Table 5-8. DRE Estimates for LTEV System Based on Caustic Usage

Run No.	PCE In (NaOH Balance)				PCE Out (VOST)				Calc. DRE, %
	NaOH Usage, in^3/hr	Scrubber pH	Equiv. HCl, moles/hr	Estim. PCE, lb/hr	PCE, μg	Sample Vol., dsl	Exhaust Flow, dscfm	Estim. PCE, lb/hr	
1.1	970	7.25	0.285	11.82	0.105	3.08	5698	0.00073	99.994
2.1	728	7.15	0.214	8.87	0.77	8.84	5474	0.00178	99.98
3.1	485	7.2	0.143	5.91	0.086	4.05	5450	0.00043	99.993
X.1 (Avg)				8.87	0.320	5.32		0.00098	99.99
1 (Avg)	970	7.25	0.285	11.82	0.407	3.177	5698	0.00273	99.98
2 (Avg)	728	7.15	0.214	8.87	2.901	5.883	5474	0.0101	99.89
3 (Avg)	485	7.2	0.143	5.91	0.748	4.467	5450	0.00342	99.94
Average		7.2		8.87	1.352	4.509		0.0054	99.94

An overall material balance was used to calculate the incoming PCE levels. The calculation is based on the assumption that the HCl neutralized in the scrubber is generated from the oxidation of PCE in the catalytic oxidation units. Since the scrubber operating data indicates that the scrubber effluent had an average pH of 7.2, the caustic used in the scrubber to neutralize HCl was calculated for each testing period. The caustic used during testing was 25% by weight based on the vendor specification. By measuring the total caustic used during each of the testing periods and the scrubber effluent pH, the equivalent moles of HCl neutralized and the total moles of PCE oxidized were calculated. An example of these calculations for the overall run average is shown in Appendix C.

5.3.2 DRE Based on Chloride Analyses

An alternate approach based on the chloride analyses of the scrubber effluent was also used to calculate the DRE from the LTEV system. Chloride analyses were performed for the clean feed water to the scrubber and from the scrubber effluent for each test run. The quantity of chlorine from the oxidation of PCE was calculated as the difference between the chloride analysis of the scrubber effluent and the incoming water. An example calculation of the estimated PCE at the inlet to the catalytic oxidation units based on chloride analyses is presented in Appendix C. Table 5-9 presents a summary of the DRE calculations based on the chloride analyses of the scrubber effluent to estimate incoming PCE. As shown, the calculated DRE ranges from 99.4 to 99.9% for individual test trials, and from 96.7 to 99.5% based on the overall run averages. The DRE calculations are greater than 99% for all test runs, with the exception of Run 2. For Run 2, the variability of measured inlet concentrations of PCE in the incoming soil was the highest, ranging from 1.2 to 68,000 μg/kg. Due to the extremely high variability in inlet concentrations of PCE, the results from Run 2 are inconclusive.

Table 5-9. DRE Estimates for the LTEV System Based on Chloride Analyses

	PCE In (Cl^- Balance)			PCE Out (VOST)				
	Cl^- Concentration, ug/l							
Run No.	Incoming Water	Scrubber Effluent	Estim. PCE, lb/hr	PCE, μg	Sample Vol., dsl	Exhaust Flow, dscfm	Estim. PCE, lb/hr	Calc. DRE, %
1.1	40,000	96,000	0.696	0.105	3.08	5698	0.00073	99.895
2.1	40,000	95,000	0.521	0.77	8.84	5474	0.00178	99.658
3.1	40,000	170,000	1.189	0.086	4.05	5450	0.00043	99.964
X.1 (Avg)			0.8	0.320	5.32	5540	0.00098	99.88
1 (Avg)	40,000	96,000	0.696	0.407	3.177	5698	0.00273	99.608
2 (Avg)	40,000	95,000	0.521	2.901	5.883	5474	0.0101	98.061
3 (Avg)	40,000	170,000	1.189	0.748	4.467	5450	0.00342	99.712
Average			0.8	1.352	4.509	5540	0.0054	99.35

5.3.3 DRE Based on Sodium Analyses

Similar to the chloride case, DREs can be calculated using the sodium concentration of the scrubber effluent. The DREs in this case are 99.86%, 99.48%, and 99.84% for Runs 1, 2, and 3, respectively, with an overall average of 99.72%

5.4 LTEV Operating Summary

A number of operating parameters, including treated soil waste feed rate, discharge temperature, catalyst inlet temperature, catalyst exit temperature, drum draft, and scrubber water conductivity were continuously monitored during testing. These are the primary operational parameters that will be monitored during the extended operation of the LTEV system to maintain efficient operation. A summary of the operating conditions monitored during the performance testing is provided in Table 5-10. The performance test operating log with the maintenance information is included in Appendix D. The only maintenance that occurred during the performance test was replacement of a torn continuous weigh feed belt.

During the testing period, the unit operated at a maximum rate of 15.8 tons/hr and an average of 14.7 tons/hr soil feed. The soil exhaust temperature averaged 433 °F and catalyst inlet temperature averaged 770 °F for Unit 4 and 775 °F for Unit 5. The pH of the Unit 4 scrubber was maintained at 7.1 while Unit 5 averaged pH 7.3. Individual runs are outlined in Table 5-10. The average exhaust gas flow rate through the stack was 5,540 dscfm, with an average moisture content of 21.4%.

Table 5-10. LTEV Operating Log Summary

Operating Parameter	Run 1 10:15-11:15	Run 2 13:20-14:20	Run 3 15:45-17:48[a]	Average
Cold Feed Meter, hrs.[b]	1	5	8	
Total Treated Soil, tons	13	67.5	109.6	
Feed Rate, tph				
Maximum	13.9	15.8	15.6	
Average	13.4	15.0	15.6	14.7
Avg. Soil Exit Temp., °F	451	424	423	433
Drum Draft, in. w.c.	0.06	0.08	0.08	0.07
Avg. Catalyst Inlet Temp, °F				
Unit 4	755	761	795	770
Unit 5	759	774	792	775
Avg. Catalyst Exit Temp, °F				
Unit 4	756	761	795	771
Unit 5	759	774	792	775
Avg. Scrubber pH				
Unit 4	7.1	7.1	7.1	7.1
Unit 5	7.4	7.2	7.3	7.3
Avg. Scrubber Conductivity, mili S				
Unit 4	6.8	5.9	7.8	6.6
Unit 5	3.0	2.8	3.3	3.0

[a] LTEV shut-down from 16:07 - 17:13.

[b] The cold feed meter is a Hobbs style meter, powered by the material feed electrical circuit. The cold feed meter operates only when feed is conveyed to the thermal desorption unit.

5.5 Mass Balance Results

Mass balance calculations are presented in Appendix C, which show the calculated incoming PCE based on caustic usage rate; the propane usage and corresponding combustion air balance; and the incoming soil, water, and caustic feed rates. The combustion reaction of propane accounts for consumption of O_2 and generation of CO_2 and water. The oxidation reaction of PCE accounts for generation of HCl, which is neutralized by NaOH in the scrubber. The excess NaOH in the scrubber effluent, as measured by the pH of the effluent, has been accounted for in the incoming HCl estimation. Typically, there are no naturally occuring buffering agents in groundwater. For the conclusions from the NaOH balance to be

impacted by the presence of buffering agents, concentrations would have to be unrealistically high.

Table 5-11 presents the results of the mass balance. The LTEV incoming streams include the soil, propane fuel, combustion air, and scrubber water/caustic streams, as shown by the light shaded columns in Table 5-11. The total estimated/measured mass flow rate of these combined incoming streams is 64,324 lb/hr. The LTEV outlet streams include the treated soil, the scrubber water effluent, and the air exhaust. The total estimated/measured mass flow rate of these combined outlet streams is 64,224 lb/hr. The agreement between the inlet and outlet mass balance is very good, with the less than 1 percent difference likely due to measurement error.

The salinity of the scrubber effluent was used to calculate the moles of Na^+ and Cl^-. Theoretically, the moles of Cl^-, Na^+, and NaOH should agree. The results are as follows:

- Estimated moles of Cl^- based on analytical data: 0.020 lb-mol Cl^-/hr
- Estimated moles of Na^+ from NaOH based on analytical data: 0.050 lb-mol Na^+/hr
- Estimated moles of NaOH based on usage rate: 0.214 lb-mol NaOH/hr

As indicated above, there was some variation between the Na^+ and Cl^- analytical results. Detailed equations used to generate the mass balance are included in Appendix C.

Table 5-11. Mass Balance for LTEV System

Component (Avg. lb/hr)	Inlet to Desorber			Inlet to Catalytic Oxidizer	Inlet to Scrubber		Treated Soil Out	Scrubber Effluent	Exhaust
	Soil	Propane[a]	Air[a]		Air	Water			
PCE	0.8[d]	--	--	0.8	0.005	--	--[c]	--[c]	0.005
Propane	--	361	--	--[b]	0.29	--	--	--	0.29
O_2	--	--	6,056	4,744	4,744	--		--	4,744
N_2	--	--	19,934	19,934	19,934	--		--	19,934
H_2O	2,117	--	193	2,900	2,900	6,254	--[b]	4,923	4,231
THC	--	--	--	--	--	--	--	--	0.58
SO_2	--	--	--	0.0095	0.0095	--	--	--	0.0095
CO_2	--	--	--	988	988	--		--	988
NaOH	--	--	--	--	--	8.6		--	--
Na^+	--	--	--	--	--	--	--	2.5	--
Cl^-	--	--	--	--	--	--	--	0.7	--
HCl	--	--	--	--	7.8	--		--	0.003
Soil	29,400	--	--	--	--	--	29,400	--	--
TOTAL, lb/hr	31,518	361	26,183	28,567	28,574	6,263	29,400	4,926	29,898

[a] Total for LTEV system -- not measured separately for desorber and catalytic oxidizer.
[b] Not measured.
[c] Below detection limit.
[d] Based on chloride analyses of scrubber effluent.
Note: light shaded columns indicate inlet streams; dark shaded columns indicate outlet streams.

6.0 QUALITY ASSURANCE/QUALITY CONTROL

Quality Control/Quality Assurance (QA/QC) procedures were followed during the Claremont Polychemical Superfund Site Performance test to ensure a high quality data product. Quality control and quality assurance can be defined as followed:

- Quality Control. The overall system of activities whose purpose is to provide a quality product or service. "Quality" as used in this context refers to achieving a certain degree of precision, accuracy, and completeness for each data measurement. QC procedures are targeted at maintaining a quality product but in themselves are not assessments of the degree of quality achieved.

- Quality Assurance. A system of activities resulting in parameters that indicate the effectiveness of quality control system.

The following section will discuss data quality.

6.1 Overview

Stringent measures were followed to ensure emissions data of acceptable quality. Reference method QA/QC procedures were followed as well as additional steps to verify data quality. Section 6.2 discusses CEM data quality as it pertains to O_2, CO_2, NO_x, CO, and THC data. Section 6.3 discusses manual sampling quality assurance and Section 6.4 presents the analytical quality assurance.

6.2 CEM QA/QC

A summary of the CEM quality control acceptance criteria is shown in Table 6-1.

6.2.1 Daily Calibrations and Drift Checks

The analyzers were calibrated daily with a zero gas (generally ultra high purity nitrogen or air), and a high-range span gas. The zero and high level gases will bracket the expected flue gas concentrations. An initial calibration was performed prior to the onset of testing by either directing the calibration gas through the entire sampling system (introduced at the sample probe) or directly to the analyzer. The calibration drift is determined either at the end of the test day, or at the beginning of the next test day. Drift is determined by comparing

Table 6-1. Summary of CEM QC Acceptance Criteria and Results

Quality Control Check	Frequency	Acceptance Criteria	Rsults Summary
Zero and Span Calibration Drift (CD)	Daily	CD <3.0% of full scale	No Exceedances
Calibration Error (CE)	Once before and after each test run	CE < 2% of full scale	No Exceedances
Leak Check	1/Sample location	O_2 < 0.3% V (w/0_2 gas)	
Response Time	1/Sample location	Measure response time (no criteria)	
Sample Bias	1/Sample location	< 5% of full scale	No Exceedances

the final instrument responses with the responses from the initial calibration for both zero and span gases.

6.2.2 Calibration Error Checks

After initial calibration, a mid-scale gas standard was challenged to the analyzer to determine the degree of calibration error. The gas is passed through the analyzer and the observed response is compared to the actual concentration. The allowable deviation is less than $\pm 2\%$ of the instrument full scale for O_2, CO_2, NO_x, CO, SO_2, and 5% of actual concentration for THC, as shown in Table 6-2.

6.2.3 System Bias Checks

Sample bias induced by the sampling system was also measured. Bias was determined by comparing instrument response of a gas standard introduced directly to the analyzer to the response to the same gas passed through the entire sampling system. The acceptance criteria for bias is less than 5% of full scale, as shown in Table 6-2.

Table 6-2. Claremont Polychemical CEM Calibration Data Emissions Test 9/26/96

		Bottle	Direct Reading		Bias Test 1 post		Bias Test 2 post		Bias Test 3 post	
O2	high	20.8	20.9	0.48%						
	mid	12.1	12.2	0.82%	20.8	-0.48%	20.8	0.00%	20.8	0.00%
	zero	2.0	2.0	0.00%	2.0	0.00%	2.0	0.0	2.0	0.0
CO2	high	18.6	18.3	-1.64%						
	mid	5.1	5.1	0.00%	18.1	-1.09%	18.3	1.10%	18.7	2.19%
	zero	0.0	0	0	0	0	0	0	0	0
CO	high	64.2	64.7	0.77%						
	mid	37.1	36.8	-0.82%						
	mid	4.1	3.8	-7.89%	64.3	-0.62%	64.8	0.78%	64.6	-0.31%
	zero	0.0	1.9	1.9%	0.0	-1.9%	0.0	0	0.0	0%
NOx	high	90	91.4	1.53%						
	mid	49.6	49.7	0.20%	92.1	0.77%	92.7	0.65%	89.8	-3.13%
	zero	0.0	0.4		0.4	0.00%	0.5	0.3	0.3	-0.20%
THC	high	9.0	8.9	-1.12%						
	mid	5.1	4.9	-4.08%						
	mid	3.0	3.1	3.23%	9.0	1.12%	9.8	8.89%	9.8	0.0%
	zero	0.0	0.0	0	0.0	0	0	0	0.0	0
SO2	high	448	448.2	0.04%						
	mid	8.5	10.7	20.56%	10.6	-0.93%	11.7	10.38%	*11.7*	0%
	zero	0	-0.2	0	0	0%	-1.2	0	1.2	0%

6.2.4 Response Time

Response times for the analyzers were determined. A zero gas is introduced to the sampling system at the probe and after the instrument has stabilized, then stack gas is introduced. The amount of time it takes from when the gas is introduced to the probe to when the analyzer has reached a stable gas value is considered the response time. This time is considered the upscale response time. It is also useful to measure the down-scale response time by measuring the time it takes for the instrument to stabilize from a span gas reading down to the stack gas value.

6.2.5 System Leak Checks

Although not required by the reference method, it is advisable to conduct a leak check on the sampling system prior to any testing. This can be accomplished in a number of ways. One effective procedure requires the use of an oxygen analyzer. A zero oxygen gas (i.e., N_2 or 0.2% O_2) is introduced at the probe and passed through the entire sampling system. The resulting O_2 level is observed at the oxygen analyzer. Typically, levels less than 0.3% by volume (for 0%V O_2) are acceptable.

6.3 Manual Methods QA/QC

Manual emissions sampling methods were conducted during the Claremont Polychemical Superfund Site test program. Extensive sampling and analytical QA/QC procedures were incorporated into these test methods as summarized below.

SW846 Method 0030 Quality Control Procedures. Quality control procedures found in Method 0030 and analytical Method 5041 were followed for the samples collected using the VOST technique. Triplicate samples and a field blank were collected from the site. Laboratory blanks and method spikes were also analyzed. All procedures specified in the method were followed.

EPA Method 26A. Quality control procedures found in Method 26 were followed for sample preparation and collection, field recovery, and laboratory analysis. Triplicate samples and a field blank were collected from the field. Laboratory blanks were also analyzed.

Calibration of the balance used to determine the mass collected in the the filter, the impinger solution and rinses was checked with NIST weights before and after each weighing session.

EPA Method 18. Volatile organic compounds were determined by GC and GC/MS analysis of gaseous samples from a Tedlar bag or canister. The QC procedure included calibration checks and duplicate sample analyses. Calibration of the on-site GC was performed the morning of September 26, 1996 prior to testing. Two Tedlar bag calibration samples were manufactured, the first bag containing a concentration of 19.7 ppmv PCE and the second 7.1 ppmv PCE. The bag standards were injected twice and the GC calibrated using the retention times and responses from these runs. Duplicates of the calibration samples and the 19.7 ppmv calibration bag error were all within the specified limits for both the pre- and post-test calibrations. The 7.1 ppmv calibration bag provided a higher response than the criteria allowed. The results for this calibration bag averaged 10.4 ppmv. The on-site GC was used as a screening device to determine the applicability of using SW-846 Method 0030 (VOST) at the inlet. The concentrations of PCE at the inlet, as indicated by the GC, indicated that the gas stream concentrations were too high to effectively use VOST at the inlet to the thermal oxidizers.

Other Manual Methods. Quality control procedures for EPA Methods 1, 2, 3A, and 4 included calibration of the flow measurement apparatus and leak checks of the sampling equipment. All procedures specified in the methods were followed.

6.3.1 Manual Methods Discussion Overview

In regards to manual sample collection QA, it is important to review the component measurements which make up final pollutant concentration and emission rate determinations. Generally speaking, the following equations apply:

$$C_p = \frac{M_p}{V_{stp}} \times K \qquad (1)$$

where:

Cp = Concentration of pollutant in the gas phase (ppm);
M_p = Mass of Pollutant collected in the sample train (ug);
V_{stp} = Gas sample volume corrected to STP (dscf); and
K = Units correction coefficient.

$$ER_p = C_p \times Q_{stp} \times K \quad (2)$$

where:

ER_p = Emission Rate of the pollutant (lbs/hr); and
Q_{stp} = Gas volumetric flow (dscfm).

Basically, the quality of M_p collected is affected by sample recovery lab procedures (train preparation and sample recovery) and overall analytical performance. Quality indicators are field blank results, and a variety of analytical QA parameters. Quality V_{stp} determinations are indicated by the sample train leak check results, gas meter temperature and pressure measurements, and meter calibration coefficients. Quality flow rate measurements, Q_{stp}, are maintained by following reference method QC procedures, such as successful pitot tube leak checks and pluggage checks, manometer inspection (zeroing and leveling), controlling pitot tube pitch and yaw angles, maintaining accurate stack gas temperature and pressure measurements, and verifying accurate duct diameter measurements. These and other data quality indicators will be discussed in the following sections.

6.3.2 Gas Meter Volume

QA procedures for all tests followed guidelines listed in the reference method. VOST meter volumes were determined by a small meter box containing a gas meter, meter temperature and pressure indicators, flow rate rotameter, vacuum gage, flow controls and all necessary sample collection connection hardware. Leak checks were performed by plugging the end of the sample probe and verifying the absence of flow by observing the rotameter and gas meters. Only after successful completion of the pre-test leak check was a sample run conducted. As can be seen on the field data sheets, all sample trains had successful pre- and final-test leak checks.

Method 26A samples were collected using full size meter boxes and sample trains. The leak check criteria is that the post test rate be < 0.02 cfm or 4% of the sample rate, whichever is less. As shown on the field data sheets located in the appendices, all sample runs met the leak check criteria.

As shown in Table 6-3, all meter boxes are fully calibrated against a meter which itself has been calibrated against a primary standard (i.e., a respirometer) to determine a full calibration factor, or Y. Upon completion of the test program, all meter calibration coefficients are verified by comparing a post-test calibration coefficient with the Y. The post-test value must be within 5% of the Y. If it is not, the value which creates the worse case emissions scenario is used. A minimum of 30 dry standard cubic feet was collected for each run as instructed in the sampling methodology. An isokinetic sampling check was calculated for each test run performed. It was found to be within the required criteria of $100 \pm 10\%$. Post test meter box calibrations were also within the required limits of 1.00 ± 0.02 and the post test calibration factor agreed within $\pm$ 5% of the pretest calibration factor. For the Claremont Polychemical Superfund Site test program, all meters met the test method criteria.

6.3.3 Volumetric Flow—Pitot Tube Flow Measurements

Volumetric flow rates were determined using EPA Method 2 which calls for pitot tube velocity pressure measurements. S-type pitots were used along with red gauge oil No. 2-filled inclined manometers. All pitot tube systems were leak checked, leveled, and zeroed before the tests, resulting in high quality velocity pressure measurements. Along with gas flow, the gas moisture content was also determined using EPA Method 4 incorporated into Method 26A. O_2 and CO_2 content were measured using the CEMS by EPA Method 3A for calculating dry gas molecular weight. There were no indications of poor data quality for the flow measurements.

6.4 Analytical QA/QC for Manual Methods

Analytical QA/QC procedures that were implemented during sample analysis are discussed in the following sections. Procedures include calibration checks and blanks as indicators of analytical accuracy, replicate analyses of samples and sample aliquots as indicators of precision, and analyses of matrix spikes to demonstrate that the analyses were free from interferences. All analytical data is shown in the Appendices.

Table 6-3. Flue Gas Manual Sampling Meter Volume Quality Control Acceptance Criteria

Measurement Parameter	QC Criteria	Control Limits	Corrective Action
Gas sample volume	Reference DGM[a] Calibration	Calibrated every six months against EPA standard	--
Gas sample volume	Sample DGM Calibration	Calibrate every six months against the Reference DGM. Calibration Factor Limits = 1.00 ± .02	Adjust the dry gas meter and recalibrate
Gas sample volume	Sample DGM Post-test calibration	Post-test calibration factor agree ±5% of pre-test factor	Adjust sample volumes using the that gives smallest volume
Gas sample volume	Final leak rate (after each port)	≤ 0.02 acfm or 4% of sampling rate, whichever is less	Invalidate run or adjust sample volume

[a]DGM = Dry gas meter.

The following samples were submitted to off-site laboratories for analyses:

Method 26A	HCl	Radian/Austin Laboratories
Method 5	PM	Triangle Laboratories
Method TO-14	PCE/VOC	Radian/Austin Laboratories, Lancaster Laboratories
Method 0030	PCE	Triangle Laboratories., Air Quality Laboratories
Fuel Propane		Southern Petroleum Laboratories

The following sections summarize the QA results from those analyses.

Method 26 HCl Samples. HCl analyses were performed by Triangle Laboratories in RTP, NC. Triangle analytical data met quality control guidelines outlined in the testing plan. Chloride was not detected in the laboratory blank. A matrix spike and duplicate were analyzed. Both of these were within the QC limits. The recovery for the matrix spike and duplicate were both 101%. Seven calibration points were used giving a correlation coefficient of 0.99946.

VOST Samples for PCE. PCE analyses were performed by Triangle Laboratories in RTP, NC and Air Quality Laboratories in RTP, NC. The analytical data met quality control guidelines outlined in the testing plan. Five calibrations points were used for tetrachloroethene with standard deviations from the response factors of less than 0.0148 and a relative standard deviation of less than 6.0%.

Field blanks for the VOST PCE testing all showed values of less than the detection limits for the compounds. Breakthrough was not found in any of the sample sets submitted for analysis. An oddity did occur in test run 1.2, the second set of tubes that was taken for the first testing set of VOST PCE testing. The back half tenax/charcoal tube showed a higher level of PCE (0.813 μg or 46 ppb) than the front tube which displayed essentially none.

PCE and C_1-C_3. The canister samples were analyzed by Radian International and Lancaster Laboratories. Radian canister sample analyses met the quality control standards necessary to validate the data. Four calibration points were used for the GC calibration. The relative standard deviation (RSD) was 12.2% with a correlation factor of 1.000. The Method blank showed a non detect for a measured concentration at a detection limit of 0.0062 ppbv. The spiked sample recovery averaged 131%. The spiked concentration was 1.23 ppbv and the resulting measured concentrations were 1.57 and 1.64 ppbv. Duplicates on sample CL-LTEV-11-AI-094 for PCE were 11.2 and 11.2 ppbv.

Three calibration points were used for ethane and propane and four points used for methane. The RSD was 4.8% for methane, 8.04% for ethane, and 10.8% for propane. Methane had a correlation factor of 0.999 while ethane and propane both had correlation factors of 1.000. The laboratory blanks showed a non-detect at a detection limit of 0.0214 ppmv. The spike recovery for methane was also within the acceptable criteria, with spike recoveries of 128% and 119%. The methane lab duplicates on sample CL-LTEV-11-AI-094 gave concentrations of 6.43 ppmv and 6.55 ppmv.

6.5 Sample Tracking and Documentation Procedures

Sample handling procedures, including labeling, preserving, storing, and shipping, were conducted in such a manner as to ensure the integrity of the samples and to provide a link between the analytical results and the conditions they represent. Accurate documentation of field sampling procedures, sampling and process data, and sample collection and handling

records was maintained throughout the project. All sampling data, including sample times, locations, identification codes, and other pertinent and specific sample or process information was recorded in the bound field logbook as indicated in the Performance Test Plan.

A master logbook was kept for tracking and identifying samples collected during field activities. Information on sample volumes, sampling duration, process conditions, and notes or comments was entered by hand in this logbook.

Each sample was given a unique log number containing five fields which will identify the site, method, run number, and sample replicate or spike sample designation. Samples sent from the field to a laboratory for analysis were accompanied by a chain of custody form. This form accompanied the samples until their final disposition.

Samples collected for PCE and HCl analysis were transported to the laboratory via overnight express courier for next day delivery.

Results of Dispersion Modeling Analysis for LTEV System

A dispersion modeling analysis for the low temperature enhanced volatilization (LTEV) system located at the Claremont Polychemical Corporation facility in Old Bethpage, N.Y has been completed. The results of this modeling analysis indicate that the maximum concentrations are well below the New York standards and the National Ambient Air Quality Standards (NAAQS) for the pollutants emitted from the LTEV system.

The average emission rates recorded during stack testing of the LTEV were modeled using the SCREEN3 (version 96043) model. The following table presents the stack parameters and the tested emission rates used in the model. The stack parameters were obtained from the *Application for Permit to Construct or Certificate to Operate* for the proposed LTEV system.

Stack Height (ft)	Exit Temperature (°F)	Exit Velocity (ft/sec)	Stack Diameter (ft)	Emission Rates (lb/hr)				
				Perchloroethylene	Hydrogen Chloride	NO_x	CO	PM
40	157	46.3	2	5.4×10^{-3}	3.4×10^{-3}	6.4×10^{-1}	2.2×10^{-1}	1.6×10^{-1}

Building downwash influences were incorporated into the model using building dimensions estimated from the Huntington, N.Y., 7.5 minute, U.S. Geographical Survey topographic map. The height of the building and the stack location was ascertained from Frank McConnell. Because terrain heights exceed the proposed stack height within 3-km of the stack, terrain heights were use in the analysis.

The SCREEN3 model was used to calculate an hourly maximum unit (1 gram/second) concentration for simple terrain receptors and a 24-hour maximum unit concentration for complex terrain. The hourly simple terrain concentration was converted to a 24-hour concentration using a factor of 0.4 for comparison to the complex terrain maximum. This factor is recommended in the *SCREEN3 Model User's Guide* (1995). The simple terrain concentration was greater than the complex terrain concentration; therefore, the simple terrain concentration was used in determining the maximum pollutant specific concentrations.

Maximum modeled concentrations of perchloroethylene and hydrogen chloride (HCl) were compared to New York's short-term guideline concentrations and annual guideline concentrations. NO_2 maximum concentrations were compared with both the New York ambient air standards and NAAQS. CO and PM maximum concentrations were compared with the NAAQS, which are equivalent to the New York guideline concentrations. The following table presents the maximum concentrations, applicable standards, and percent of standards for all the pollutants emitted from the LTEV system.

Conversion factors used to convert the maximum hourly concentrations were 0.9 for the 3-hour, 0.4 for the 24-hour, and 0.1 for the annual averaging periods. The 24-hour and annual conversion factors are recommended in the *SCREEN3 Model User's Guide*, while the 3-hour factor is equivalent to North Carolina's factor. These factors were used because there are none recommended in the *DRAFT New York Air Guide-1: Guidelines for the Control of Toxic Ambient Air Contaminants (1991).*

Pollutant	Averaging Period	Short-Term Guideline Concentration ($\mu g/m^3$)	Annual Guideline Concentration ($\mu g/m^3$)	New York Ambient Air Standard ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)	Maximum Concentration ($\mu g/m^3$)	Percent of Standard
Perchloroethylene	1-hour	81,000				0.5	<0.01
	Annual		7.5×10^{-2}			4.7×10^{-2}	62.1
HCl	1-hour	150				0.3	0.2
	Annual		7			2.9×10^{-2}	0.4
NO_2	Annual			170		5.5	3.3
	Annual				100	5.5	5.5
CO	1-hour				40,000	19.0	0.05
	8-hour				10,000	13.3	0.1
PM	24-hour				150	5.4	3.6
	Annual				50	1.4	2.8

To convert

mg / dscf to lb/hr: (Mg/dscf) * (exhaust flow, dscfm) * (60 min/hr) / 10^3 mg/g) / (454g / lb)

mg/dscf to grain/dscf: (mg/dscf) / (10^3 mg/g) / (454 g/lb) * (7000 grain/lb)

ppmvw to lb/hr: (ppmvw/10^6) * (exhaust flow dscfm) * (60 min/hr) * (mw) / (385 ft^3/lb-mol) / ((1 - frac. H2O)

ppmvd to lb/hr: (ppmvd/10^6) * (exhaust flow dscfm) * (60 min/hr) * (mw) / (385 ft^3/lb-mol)

Stack Gas Flow

Absolute Gas Temperature:	T_{st} =	$T_s + 460°$
Absolute Gas Pressure:	P_s =	$P_{ar} + P_g/13.6$
Standard Gas Flow Rate:	Q_s =	$Q_s (528°R/T_{st}) (P_s/29.92)$
Dry Standard Gas Flow Rate:	Q_{sd} =	$Q_s (528°R/T_{st}) (P_s/29.92)(100 - \%H_2O)/100)$

Gas velocity (Qs) = 85.49 * pitot coefficient * (average $\sqrt{\Delta P}$) * (average $\sqrt{}$ (stack temp°R/(stack pressure * Molecular weight of gas stream)) * 60 * stack area ft^2

Particulate Calculations

A_n	=	Cross-sectional area of nozzle, m^2 (ft^2);
B_{ws}	=	Water vapor in the gas stream, proportion by volume;
c_s	=	Concentration of particulate matter in stack gas, dry basis, corrected to standard conditions, g/dscm (g/dscf);
m_a	=	Mass of residue of acetone after evaporation, mg;
m_n	=	Total amount of particulate matter collected, mg;
M_w	=	Molecular weight of water, 18.0 g/g-mole (18.0 lb/lb-mole);
P_{bar}	=	Barometric pressure at the sampling site, mm Hg (in. Hg);

P_s	=	Absolute stack gas pressure, mm Hg (in. Hg);
P_{std}	=	Standard absolute pressure, 760 mm Hg (29.92 in. Hg);
R	=	Ideal gas constant, 0.06236 [(mm Hg) (m^3)]/[(°K) (g-mole)] {21.85 [(in.Hg) (ft^3)]/[(°R)(lb-mole)]};
T_m	=	Absolute average DGM temperature, °K (°R);
T_s	=	Absolute average stack gas temperature, °K (°R);
T_{std}	=	Standard absolute temperature, 293°K (528°R);
V_{lc}	=	Total volume liquid collected in impingers and silica gel, ml;
V_m	=	Volume of gas sample as measured by dry gas meter, dcm (dcf);
$V_{m(std)}$	=	Volume of gas sample measured by the dry gas meter, corrected to standard conditions, dscm (dscf);
v_s	=	stack gas velocity using data obtained from Method 5, m/sec (ft/sec);
W_a	=	Weight of residue in acetone wash, mg;
Y	=	Dry gas meter calibration factor;
ΔH	=	Average pressure differential across the orifice meter, mm H_2O (in. H_2O);
ρ_a	=	Density of acetone, mg/ml;
ρ_w	=	Density of water, 0.9982 g/ml (0.002201 lb/ml);
θ	=	Total sampling time, min;

Dry Gas Volume

$$= K_1 \, V_m \, Y \, \frac{P_{par} + (\Delta H/13.6)}{T_m}$$

where:

K_1 = 0.3858 °K/mm Hg for metric units,
= 17.64 °R/in. Hg for English units.

Volume of Water Vapor

$$V_{w(std)} = V_{1c} \, \frac{p_w \, R \, T_{std}}{M_w \, P_{std}} = K_2 \, V_{1c}$$

where:

K_2 = 0.001333 m^3/ml for metric units,
= 0.04707 ft^3/ml for English units.

Moisture Content

$$B_{ws} = \frac{V_{w(std)}}{V_{m(std)} + V_{w(std)}}$$

Particulate Concentration

$$c_s = 0.001 \, m_n / V_{m(std)}$$

MASS BALANCE CALCULATIONS

O_2/N_2 Balance

O_2 Out (Exhaust):

- Avg. Exhaust rate = 5,540 dscfm
- Avg. O_2 in exhaust = 17.17 vol %

$$\frac{5540\ ft^3\ dry\ /\ .1717\ mol\ O_2\ /\ \ mol\ exh\ \ /\ 32\ lb\ \ O_2\ /\ 60\ min}{min\ \ /\ \ mol\ exh\ \ /\ 385\ ft^3\ exh\ /\ mol\ O_2\ /\ \ hr} = 4743.7\ lb/hr$$

O_2 Consumed in Combustion:

$C_3H_8 + 5O_2 \rightarrow 4\ H_2O + 3\ CO_2$

- 85 gal/hr propane avg. (850 gal in 10 hr)
- 31.75 lb/ft^3 propane density (liquid @ 17°C)

C_3H_8: $\dfrac{85\ gal\ /\ 31.75\ lb\ /\ 35.3145\ ft^3}{hr\ \ /\ \ ft^3\ \ \ \ /\ 264.17\ gal}$ = (360.8 lb C_3H_8/hr) / (44 lb/lb mol)

= 8.2 lb mol/hr

O_2: $\dfrac{8.2\ mol\ C_3H_8\ \ /\ 5\ mol\ O_2\ \ /\ 32\ lb}{hr\ \ \ \ \ /\ mol\ C_3H_8\ \ /\ lb\ mol\ O_2}$ = 1312 lb O_2/hr

Total O_2 in Incoming Air:

4743.7 lb/hr + 1312 lb/hr = 6056 lb/hr / 32 lb/mol

= 189.2 lb mol O_2/hr

Total N_2 in Incoming Air:

$$\frac{189.2\ mol\ O_2\ /\ 79\ mol\ N_2\ /\ 28\ lb\ N_2}{hr\ \ \ \ \ /\ 21\ mol\ O_2\ /\ mol\ N_2} = 19{,}934\ lb\ N_2/hr$$

Water Balance

Water Usage in Scrubber (Scrubber Effluent):

- Run 1 Water Usage: 870.94 gal.
- Run 2 Water Usage: 568.7 gal.
- Run 3 Water Usage: 534.73 gal.
- 658 gal/hr avg.

$$\frac{658.12 \text{ gal} / 7.48 \text{ lb}}{\text{hr} \quad / \text{gal}} = 4923 \text{ lb } H_2O/\text{hr}$$

Water Generated in Combustion:

$$\frac{8.2 \text{ mol } C_3H_8 / 4 \text{ mol } H_2O / 18 \text{ lb}}{\text{hr} \quad / \text{mol } C_3H_8 / \text{ mol } H_2O} = 590.4 \text{ lb } H_2O/\text{hr}$$

Moisture in Incoming Air:

- Avg Air Temp = 66°F
- Avg Dew Pt = 50°F = 10°C
- Avg Barometic Press = 30.36 in Hg * 760 mm Hg / (29.921 in Hg)

= 771.18 mm Hg

$p_{H2O} = y_{H2O} \; P = p_{H2O,vp} \; (T_{dp}) = p_{vp} \; (10°C) = 9.2$ mm Hg

9.2 mm Hg = y_{H2O} (771.18 mm Hg)

$y_{H2O} = 0.0119$

Moles $H_2O = 0.0119$ (Moles Air) = 0.0119 (189.2 mol O_2/hr + 711.9 mol N_2/hr)

= (10.7 lb-mol H_2O/hr) * 18 lb/mol = 193.0 lb H_2O/hr

Moisture in Incoming Soil:

- 7.2 % by wt. moisture in soil

$$\frac{14.7 \text{ ton} / 2000 \text{ lb} / .072 \text{ lb } H_2O}{\text{hr} \quad / \text{ ton} \quad / \text{ lb soil}} = 2116.8 \text{ lb } H_2O/\text{hr}$$

Water at Inlet to Catalytic Oxidation Unit:

Incoming Air + Incoming Soil + Generated in Combustion

193 lb/hr + 2,117 lb/hr + 590 lb/hr = 2,900 lb/hr

Water in Exhaust Stream:

- 21.4 Vol % H_2O measured in exhaust

$$\frac{5540 \text{ dscf}}{\text{min}} \Big/ \frac{\text{mol wet}}{(1-0.214) \text{ mol dry}} \Big/ \frac{\text{mol exh}}{385 \text{ ft}^3} \Big/ \frac{0.214 \text{ mol } H_2O}{\text{mol exh}} \Big/ \frac{18 \text{ lb } H_2O}{\text{mol}} \Big/ \frac{60 \text{ min}}{\text{hr}} = 4231 \text{ lb } H_2O/\text{hr}$$

Water in Scrubber Feed (Water In):

Water in Feed = Scrubber Water Out + (Water in Exhaust - Water at Inlet to Catalytic)

= (4,923 lb/hr) + (4,231 lb/hr - 2,900 lb/hr)

= 6,254 lb/hr

CO_2 Balance

CO_2 in Exhaust (measured):

- CO_2 in exhaust (measured): 2.6% by vol. CO_2

$$\frac{5540 \text{ dscf}}{\text{min}} \Big/ \frac{\text{mol exh}}{385 \text{ ft}^3} \Big/ \frac{.026 \text{ mol } CO_2}{\text{mol exh}} \Big/ \frac{60 \text{ min}}{\text{hr}} \Big/ \frac{44 \text{ lb } CO_2}{\text{mol}} = 987.7 \text{ lb/hr}$$

CO_2 in Exhaust (calculated from propane combustion):

$$\frac{8.2 \text{ mol } C_3H_8}{\text{hr}} \Big/ \frac{3 \text{ mol } CO_2}{\text{mol } C_3H_8} \Big/ \frac{44 \text{ lb } CO_2}{\text{mol}} = 1082 \text{ lb/hr}$$

HCl/PCE Balance Based on NaOH Consumption

- Caustic Solution Consumption: Avg: 727.7 in^3/hr = 3.15 gal/hr
  - Run 1: 970 in^3/hr
  - Run 2: 728 in^3/hr
  - Run 3: 485 in^3/hr
- Caustic Solution Density: 81.3 lb/ft^3 (25 wt. % NaOH solution)
- Average Scrubber Effluent pH: 7.2
- Average Water Flow Rate: 658 gal/hr
- Scrubber Hold Volume: 405 gal.

Excess Moles NaOH in Scrubber Effluent:

pH = 14.0 - pOH = 7.2

pOH = - log[OH^-] = 14 - 7.2 = 6.8

[OH^-] = 1.58 x 10^{-7} g-mol/liter

(1.58 x 10^{-7} g-mol/liter) / (454 g-mol/lb-mol) * (658 + 405 + 3.15 gal/hr) * (3.785 l/gal)

= 1.4 x 10^{-6} lb-mol NaOH/hr

Total Incoming Moles NaOH:

(727.7 in^3/hr) / (12 in/ft)^3 * (81.3 lb/ft^3) * (0.25 lb NaOH/lb soln)

= (8.56 lb NaOH/hr) / (40 lb/lb-mol) = 0.214 lb-mol NaOH/hr

Moles NaOH Used to Neutralize HCl:

Total Incoming Moles NaOH - Excess Moles NaOH

= 0.214 - 1.4 x 10^{-6} = 0.214 lb-mol NaOH/hr

Moles HCl Generated:

Moles HCl Generated = Moles NaOH Used to Neutralize HCl

= 0.214 lb-mol HCl/hr

Pounds HCl Generated = (0.214 lb-mol HCl/hr) * (36.5 lb HCl/lb-mol HCl)

= 7.81 lb HCl/hr

Equivalent Moles PCE Oxidized:

Equivalent Moles PCE Oxidized = Moles HCl Generated / (4 moles HCl/mole PCE)

= (0.214 lb-mol HCl/hr) / 4

= 0.0535 lb-mol PCE/hr * (165.8 lb PCE/mol PCE)

= 8.87 lb PCE/hr

Na^+/Cl^- Balance

Moles Na^+ Measured in Scrubber Effluent:

- Run 1: 230,000 μg/l Na in 870.94 gal. effluent
- Run 2: 290,000 μg/l Na in 568.7 gal. effluent
- Run 3: 330,000 μg/l Na in 534.73 gal. effluent
- Average: 283,333 μg/l Na in 658 gal. effluent
- Na in fresh water: 27,000 μg/l
- Scrubber Hold Volume: 405 gal.
- Caustic is 19.4 wt % Na_2O

Moles Na = (283,333 - 27,000 μg/l) * (658 gal./hr + 405 gal.) * (3.785 l/gal) / (454 g/lb) / (10^6 μg/g)
= 2.27 lb Na/hr / (23 lb Na/lb-mol Na)
= 0.099 lb-mol Na/hr

Moles Na from NaOH:

Basis: 1 gal caustic solution

NaOH: (1 gal) (81.3 lb/ft^3) (0.25 lb NaOH/lb soln) / (7.48 gal/ft^3) (40 lb NaOH/mole)
= 0.068 lb-mol NaOH/gal

Na_2O: (1 gal) (81.3 lb/ft^3) (0.194 lb Na_2O/lb soln) / (7.48 gal/ft^3) (62 lb/mol)
= 0.034 lb-mol Na_2O/gal

Total moles Na/gal = (0.068) + (2 mol Na/mol Na_2O) (0.034)
= 0.136 mol Na/gal

Fraction Na from NaOH = 0.068/0.136 = 0.5

Total moles Na from NaOH = (0.099 lb-mol Na/hr) (0.5)
= 0.050 mol Na/hr from NaOH

Moles Cl^- Measured in Scrubber Effluent:

- Run 1: 96,000 μg/l Cl in 870.94 gal. effluent
- Run 2: 95,000 μg/l Cl in 568.7 gal. effluent
- Run 3: 170,000 μg/l Cl in 534.73 gal. effluent
- Average: 120,333 μg/l in 658 gal. effluent
- Cl in fresh water: 40,000 μg/l

Moles Cl = (120,333 - 40,000 μg/l) * (658 gal./hr + 405 gal.) * (3.785 l/gal) / (454 g/lb) / (10^6 μg/g)
= 0.71 lb Cl/hr / (35.5 lb Cl/lb-mol Cl)
= 0.02 lb-mol Cl/hr

PCE/HCl Balance Based on Cl Analyses

Moles PCE In:

Moles PCE = Moles Cl^- / (4 moles Cl^-/mole PCE)

= (0.02 moles Cl^-/hr) / 4

= (0.005 moles PCE/hr) * (165.8 lb PCE/mole)

= 0.831 lb PCE/hr

Moles HCl In:

Moles HCl = Moles PCE * (4 moles HCl/mole PCE)

= (0.005 mol PCE/hr) * 4

= 0.02 lb-mol HCl/hr

THC/Propane in Exhaust

THC Calculation:

- THC concentrations measured (calibrated as CH_4): Average: 32.7 ppmvw
  Run 1: 46.3 ppmvw
  Run 2: 28.9 ppmvw
  Run 3: 22.9 ppmvw
- Average exhaust flow rate: 5,540 dscfm
- Average moisture content: 21.4 vol. %

(32.7 ppmvw) / (10^6 lb-mol exh.) * (5,540 dscfm) / (385 scf/lb-mol) /

(1-0.214 mol dry exh./mol wet exh.) * (16 lb CH_4/lb-mol CH_4) * (60 min/hr) = 0.58 lb/hr

Propane Calculation:

- Propane concentrations measured: Average: 5.9 ppmvw
  Run 2: 3.3 ppmvw
  Run 3: 8.5 ppmvw
- Average exhaust flow rate: 5,540 dscfm
- Average moisture content: 21.4 vol. %

(5.9 ppmvw) / (10^6 lb-mol exh.) * (5,540 dscfm) / (385 scf/lb-mol) /

(1-0.214 mol dry exh./mol wet exh.) * (44 lb C_3H_8/lb-mol C_3H_8) * (60 min/hr) = 0.29 lb/hr

(1-0.214 mol dry exh./mol wet exh.) * (44 lb C_3H_8/lb-mol C_3H_8) * (60 min/hr) = 0.29 lb/hr

SO_2 in Exhaust

- Sulfur from fuel analyses: Average: 18.2 ppm COS
  Run 1: 13.9798 ppm COS
  Run 2: 15.5808 ppm COS
  Run 3: 25.0461 ppm COS
- Average propane usage rate: 85 gal/hr = 8.2 lb-mol/hr (see calculation above)

(18.2 mol COS/10^6 mol C_3H_8) * (8.2 mol C_3H_8/hr) = 0.000149 lb-mol COS/hr

(0.000149 lb-mol COS/hr) * (1 mol SO_2/mol COS) * (64 lb/lb-mol SO_2) = 0.00954 lb SO_2/hr

Test Burn

Date:	9-27-96	Job Number:	6044	Shift:	—	Superv. Oper.:	
Stop Time(Belt):	9.1	Stop Hr. Meter:		Unit Number:	#s 3, 4 & 5 LTEVS	Operators:	RY, KS, MT
Start Time(Belt):	0.0	Start Hr. Meter:	619.2	Job Tons:	123.491		
Ttl. Hours(Belt):	9.1	Ttl. Genset Hrs:		Daily Tons:			

	Thermal Desorption Unit No. 3								Chlorocat APC Train													
Time	Cold Feed Hr. Meter	Estim. Remain LPG (%Vol.)	Total Soil Treated (Tons)	Feed Rate (tph)	Soils Exit Temp. (deg F)	Bag Hs Inlet Temp. (deg F)	Burner ~~Blower~~ (% Open)	Drum Draft (Inches WC)	Catalyst Inlet Temp (deg F) Unit 4	Catalyst Inlet Temp (deg F) Unit 5	Catalyst Outlet Temp (deg F) Unit 4	Catalyst Outlet Temp (deg F) Unit 5	Quench Temp (deg F) Unit 4	Quench Temp (deg F) Unit 5	Scrubber Sump/Blowdown Conc. (mili S) Unit 4	Scrubber Sump/Blowdown Conc. (mili S) Unit 5	Scrubber Sump/Blowdown pH Unit 4	Scrubber Sump/Blowdown pH Unit 5	Differential Pres Catalyst Bed Unit 4	Differential Pres Catalyst Bed Unit 5	SCFM Air Flow Scrubber Unit 4	SCFM Air Flow Scrubber Unit 5
0915	01.0		13.0	13.0	451	301	70	.06	754	765	799	789	153	167	7.8	2.5	7.20	7.04	2.5	2.5	1957	1955
1015	2.0	83.5	25.8	12.8	504	324	70	.05	757	758	811	798	151	160	7.5	3.1	7.12	7.28	2.5	2.5	1964	2086
1115	3.0		39.7	13.9	439	307	70	.06	754	760	802	787	152	170	6.1	2.9	7.09	7.44	2.6	2.6	2146	2214
1215	4.0	77	53.3	13.6	474	306	70	.06	755	767	794	788	151	172	5.5	2.1	7.01	7.08	2.6	2.6	2241	2203
1315	5.0	77	67.5	14.2	424	302	70	.08	753	764	792	786	152	170	5.7	2.8	7.14	7.24	2.6	2.6	2200	2288
1415	6.0	76	80.4	15.8	419	297	65	.08	769	783	782	781	151	168	6.1	2.8	7.14	7.19	2.6	2.6	2333	2264
1515	7.0	76	95.2	15.6	450	305	65	.05	767	780	796	789	152	164	6.9	2.4	7.12	7.03	2.6	2.6	2012	2026
1700	8.0	76	109.6	14.4	423	291	65	.08	795	792	807	794	148	161	7.9	3.3	7.13	7.31	2.6	2.6	2031	1680
1800	9.0	75	122.7		412	297	72	.06	755	785	821	807	152	172	8.9	2.6	7.07	7.13	2.6	2.6	1939	1648

Comments: 0500 ON site - 0545 Start warming up - 0705 Units were warmed up But lost more Soil on
unit #5 0810 Start Processing - 0905 to making burner adjustments on TD)
DOWN 45 min for WEIGHSCALE Belt REPLACEMENT Stop processing @ 1810 End of Test.

Claremont Superfund Site

Dow Environmental Inc.

Scrubber Water Chart

Date	Time	Measurement from top of Tank Center Depth @ Start	Center Dept @ Finish	Run Number	Volume Calculation
9/26/96	10:11/11:35	3.91'	4.31'	1	RUN = 870.94 gal. TOTAL=9385.28 gal.
9/26/96	13:18/14.34	4.58'	4.83'	2	RUN = 568.70 gal TOTAL = 11270.03 gal
9/26/96	15:43/18:04	5.11'	5.33'	3	RUN = 534.73 gal TOTAL = 12956.06
				Avg	658.12 gal

CALCULATION WORKSHEET

CLIENT:	FILE NO.:	BY:	PAGE OF
SUBJECT:		CHECKED BY:	DATE:

RUN 1

RUN 0.40' x 7.8' x 37.32 = 116.42 cf x 1728
= 201,187.58 ÷ 231 = 870.99 gal

TOTAL 4.31 x 7.8 x 37.32 = 1254.62 x 1728
= 2,167989.86 ÷ 231 = 9385.24 gal

RUN 2

RUN 0.25 x 7.8' x 39.99' = 76.02 x 1728
= 131361.47 ÷ 231 = 568.70 gal

TOTAL 4.83 x 7.8 x 3999 = 1506.58 cf x 1728
= 2603,375.87 ÷ 231 = 11270.03 gal

RUN 3

RUN 0.22 x 7.8' x 41.66' = 71.48 cf x 1728
= 123522.35 ÷ 231 = 534.73 gal

TOTAL 5.33 x 7.8 x 41.66 = 1731.97 x 1728
= 2,992,849.07 ÷ 231 = 12956.06 gal

Claremont Superfund Site

Dow Environmental Inc.

Propane Tank Measurements

Date	Time	% Propane @ Start	Temperature	Pressure	% Propane @ Finish	Run Number	% Propane Total
9-26-96	10:13	Left 82 Right 85 > 83.5%	17°C	100	Left 70 Right 84 > 77% (12:00)	1	
	13:21	Left 70 Right 84 > 77%	17°C	106	Left 70 Right 84 > 77% (14:30)	2	
	15:43	Left 69 Right 83 > 76%	18°C	110	Left 68 Right 82 > 75% (1804)	3	

Total Propane Use

Date	Total Time	% Propane @ Start			% Propane @ Finish		Ave Propane Use
9-26-96		85%	.85(8500gal)= 7225 gal		75%	.75(8500gal)= 6375 gal	850 gal/10hrs 85 gal/hr

Legend

(XXXX) Elapsed Time

Initial Readings

@ Time 06:50

Level 85%

Temp 17°C

PSI 100

Claremont Superfund Site

Dow Environmental Inc.

Caustic Use Chart

Date	Time	Measurement from top of Tank: Center Depth @ Start		Center Dept @ Finish	Run Number	Volume Calculation L x W x H
9-26-96	10:14	13.625"	Tank #1	13.625" (Time End 1205)	1	46.75" x 41.5" x
		13.0"	Tank #2	13.5"	1	
	13:23	13.625"	Tank #1	14.0" (1435)	2	
		13.5"	Tank #2	13.5"	2	
	15:47	14.0"	Tank #1	14.0" (1907)	3	
		13.75"	Tank #2	13.75"	3	
					Change in Tank 1 — .375	
					Change in Tank 2 — .75	

Initial Readings
@ 06:45
Tank 1 13 5/8"
Tank 2 13.0"

- Initial readings during runs were taken from Top of Tank down to Top of Caustic (6" Opening)
- Liquid currently in Tanks - measurements taken from bottom of Tank up to Top of Caustic (END of 3 runs)

Tank 1 — 44.5"
Tank 2 - 44.25

RADIAN INTERNATIONAL LLC

CALCULATION SHEET

CALC. NO. _____

SIGNATURE _____ DATE _____ CHECKED _____ DATE _____

PROJECT _____ JOB NO. _____

SUBJECT _____ SHEET _____ OF _____ SHEETS

Caustic Usage

Run 1	0.5"	970 in^3
Run 2	0.375"	728 in^3
Run 3	0.25"	485 in^3

96.09.26
1 of 4

Sample Location	Sample Number (Primary Lab)	QC Sample Number (Primary Lab)	Associated Trip Blank (Primary Lab)	Associated Rinsate Blank (Primary Lab)	Sample Number (QA Lab)	Associated Trip Blank (QA Lab)	Associated Rinsate Blank (QA Lab)	Analysis
LTEV-Soil Feed Hopper	CL-LTEV-03-S-009		CL-LTEV-03-WA-014	CL-LTEV-03-WA-012				SW8260A
"	CL-LTEV-03-S-010		"	"				"
"	CL-LTEV-03-S-011	CL-LTEV-03-S-012	"	"	CL-LTEV-03-S-013	CL-LTEV-03-WA-015	CL-LTEV-03-WA-013	"
"	CL-LTEV-03-S-014		"	"				"
"	CL-LTEV-03-S-015		"	"				"
"	CL-LTEV-03-S-016		"	"				"
"	CL-LTEV-03-S-017		"	"				"
LTEV-Dust Sled	CL-LTEV-05-S-009		"	"				"
LTEV-Soil Feed Hopper	CL-LTEV-03-S-018		"	"				"
"	CL-LTEV-03-S-019		"	"				"
"	CL-LTEV-03-S-020	CL-LTEV-03-S-021	"	"	CL-LTEV-03-S-022	"	"	"
"	CL-LTEV-03-S-023		"	"				"
"	CL-LTEV-03-S-024		"	"				"
"	CL-LTEV-03-S-025		"	"				"
"	CL-LTEV-03-S-026		"	"				"

Note: This table is to be completed in the field and maintained as part of the field sample log book based upon the actual samples taken.

Sample Location	Sample Number (Primary Lab)	QC Sample Number (Primary Lab)	Associated Trip Blank (Primary Lab)	Associated Rinsate Blank (Primary Lab)	Sample Number (QA Lab)	Associated Trip Blank (QA Lab)	Associated Rinsate Blank (QA Lab)	Analysis
LTEV-Soil Feed Hopper	CL-LTEV-03-S-027		"	"				SW8260A
LTEV-Scrubber Blowdown	CL-LTEV-03-WA-017		"					"
"	CL-LTEV-03-WA-018		"					"
"	CL-LTEV-03-WA-019		"					"
LTEV-Water Supply Tank	CL-LTEV-03-WA-020							SW6010A
"	CL-LTEV-03-WA-025							E325.2
LTEV-Scrubber Blowdown	CL-LTEV-03-WA-021							SW6010A
"	CL-LTEV-03-WA-022							"
"	CL-LTEV-03-WA-023							"
"	CL-LTEV-03-WA-024							E325.2
"	CL-LTEV-03-WA-026							"
"	CL-LTEV-03-WA-027							"
LTEV-Soil Feed Hopper	CL-LTEV-03-S-028		CL-LTEV-03-S-016	"				SW8260A
"	CL-LTEV-03-S-029		"	"				"
"	CL-LTEV-03-S-030		"	"				"

Note: This table is to be completed in the field and maintained as part of the field sample log book based upon the actual samples taken.

Sample Location	Sample Number (Primary Lab)	QC Sample Number (Primary Lab)	Associated Trip Blank (Primary Lab)	Associated Rinsate Blank (Primary Lab)	Sample Number (QA Lab)	Associated Trip Blank (QA Lab)	Associated Rinsate Blank (QA Lab)	Analysis
LTEV-Soil Feed Hopper	CL-LTEV-03-S-031		"	"				SW8260A
"	CL-LTEV-03-S-032		"	"				"
LTEV-Dust Shed	CL-LTEV-05-S-010		"	"				"
LTEV-Soil Feed Hopper	CL-LTEV-03-S-033		"	"				"
"	CL-LTEV-03-S-036	CL-LTEV-03-S-034	"	"	CL-LTEV-03-S-035	"	"	"
"	CL-LTEV-03-S-037		"	"				"
"	CL-LTEV-03-S-038		"	"				"
"	CL-LTEV-03-S-039		"	"				"
"	CL-LTEV-03-S-040		"	"				"
"	CL-LTEV-03-S-041		"	"				"
"	CL-LTEV-03-S-042		"	"				"
"	CL-LTEV-03-S-043		"	"				"
"	CL-LTEV-03-S-044		"	"				"
"	CL-LTEV-03-S-045	CL-LTEV-03-S-046	"	"	CL-LTEV-03-S-047	"	"	"
"	CL-LTEV-03-S-048		"	"				"

Note: This table is to be completed in the field and maintained as part of the field sample log book based upon the actual samples taken.

96.09.26
4 of 4

Sample Location	Sample Number (Primary Lab)	QC Sample Number (Primary Lab)	Associated Trip Blank (Primary Lab)	Associated Rinsate Blank (Primary Lab)	Sample Number (QA Lab)	Associated Trip Blank (QA Lab)	Associated Rinsate Blank (QA Lab)	Analysis
LTEV-Soil Feed Hopper	CL-LTEV-03-S-049		"	"				SW8260A
LTEV-Dust Shed	CL-LTEV-05-S-011		"	"				"
LTEV-Soil Feed Hopper	CL-LTEV-03-S-050		"	"				"
"	CL-LTEV-03-S-051		"	"				"
"	CL-LTEV-03-S-052		"	"				"
"	CL-LTEV-03-S-053		"	"				"
"	CL-LTEV-03-S-054		"	"				"
"	CL-LTEV-03-S-055		"	"				"
Bin 6-Treated Soil	CL-LTEV-06-S-008		"	"				"

Note: This table is to be completed in the field and maintained as part of the field sample log book based upon the actual samples taken.

NEI/GTEL
ENVIRONMENTAL LABORATORIES, INC.

Northeast Region
Meadowbrook Industrial Park
Milford, NH 03055
(603) 672-4835
(603) 673-8105 (FAX)

October 10, 1996

John Munson
Dow Environmental, Inc.
501 Winding Road.
Old Bethpage, NY 11804

RE: GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY

Dear John Munson:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 09/27/96 under Chain-of-Custody Number(s) 64038,64336,64039.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This Analytical report shall not be reproduced except in full.

GTEL is certified by the State of New York under Lab ID #10599.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Richard Ravenelle for

Susan C. Uhler
Laboratory Director

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

CONFORMANCE/NONCONFORMANCE SUMMARY

(X = Requirements Met * = See Comments NA = Not Applicable)

#	Conformance Item	VOA GC/MS	VOA GC	SV GC/MS	SV GC	METALS	WET CHEM
1	GC/MS Tune	X	NA	--	NA	NA	NA
2	Initial Calibration	X	--	--	--	X	X
3	Continuing Calibration	X	--	--	--	X	X
4	Surrogate Recovery	X	--	--	--	NA	NA
5	Holding Time	X	--	--	--	X	X
6	Method Accuracy	X	--	--	--	*	*
7	Method Precision	X	--	--	--	X	X
8	Blank	X	--	--	--	X	X

9 Comments:

Method 6010 in Water:

Sample M6090414-06. Sample anomaly. Not appropriate for evaluation. Matrix Spike and Matrix Spike Duplicate 090414-06, Sodium. Due to sample > spike. Supporting data batch laboratory control sample(s) demonstrate(s) accuracy (% Recovery). RPD of Matrix Spike and Matrix Spike Duplicate based on concentrations 0.85% demonstrate precision (% RPD or % RSD).

Sample M6090414-11. Sample anomaly. Not appropriate for evaluation. Matrix Spike and Matrix Spike Duplicate 090414-11, Sodium. Due to sample > spike. Supporting data batch laboratory control sample(s) demonstrate(s) accuracy (% Rec).

Method 325.2 in Water:

Sample M6090414-07. Sample anomaly. Not appropriate for evaluation. Matrix Spike and Matrix Spike Duplicate 090414 > calibrated range, Chloride. Supporting data batch laboratory control sample(s) demonstrate(s) accuracy (% Recovery).

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044 Method: EPA 8260
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY Matrix: Solids

	GTEL Sample Number	M6090414-23	M6090414-26	--	--
	Client ID	CLLTEV03S019	CLLTEV03S023	--	--
	Date Sampled	09/26/96	09/26/96	--	--
	Date Analyzed	10/08/96	10/08/96	--	--
	Dilution Factor	1.00	1.00	--	--
		Soil In-Run 1 00:40	Soil In-Run 1 00:50		
Analyte	Reporting Limit	Units	Concentration:Dry Weight		
Dichlorodifluoromethane	1.2	mg/kg	1.2 U	1.2 U	--	--
Chloromethane	1.2	mg/kg	1.2 U	1.2 U	--	--
Vinyl chloride	0.62	mg/kg	0.62 U	0.62 U	--	--
Bromomethane	1.2	mg/kg	1.2 U	1.2 U	--	--
Chloroethane	1.2	mg/kg	1.2 U	1.2 U	--	--
Trichlorofluoromethane	0.62	mg/kg	0.62 U	0.62 U	--	--
1,1-Dichloroethene	0.62	mg/kg	0.62 U	0.62 U	--	--
Methylene chloride	0.62	mg/kg	0.62 U	**0.18 J**	--	--
trans-1,2-Dichloroethene	0.62	mg/kg	0.62 U	0.62 U	--	--
1,1-Dichloroethane	0.62	mg/kg	0.62 U	0.62 U	--	--
2,2-Dichloropropane	0.62	mg/kg	0.62 U	0.62 U	--	--
cis-1,2-Dichloroethene	0.62	mg/kg	0.62 U	0.62 U	--	--
Chloroform	0.62	mg/kg	0.62 U	0.62 U	--	--
Bromochloromethane	0.62	mg/kg	0.62 U	0.62 U	--	--
1,1,1-Trichloroethane	0.62	mg/kg	0.62 U	0.62 U	--	--
1,1-Dichloropropene	0.62	mg/kg	0.62 U	0.62 U	--	--
Carbon tetrachloride	0.62	mg/kg	0.62 U	0.62 U	--	--
Benzene	0.62	mg/kg	0.62 U	0.62 U	--	--
1,2-Dichloroethane	0.62	mg/kg	0.62 U	0.62 U	--	--
Trichloroethene	0.62	mg/kg	0.62 U	0.62 U	--	--
1,2-Dichloropropane	0.62	mg/kg	0.62 U	0.62 U	--	--
Bromodichloromethane	0.62	mg/kg	0.62 U	0.62 U	--	--
Dibromomethane	0.62	mg/kg	0.62 U	0.62 U	--	--
Toluene	0.62	mg/kg	0.62 U	0.62 U	--	--
1,1,2-Trichloroethane	0.62	mg/kg	0.62 U	0.62 U	--	--
1,2-Dibromoethane	0.62	mg/kg	0.62 U	0.62 U	--	--
Tetrachloroethene	0.62	mg/kg	**5.5**	**3.1**	--	--
1,3-Dichloropropane	0.62	mg/kg	0.62 U	0.62 U	--	--
Dibromochloromethane	0.62	mg/kg	0.62 U	0.62 U	--	--
Chlorobenzene	0.62	mg/kg	0.62 U	0.62 U	--	--
Ethylbenzene	0.62	mg/kg	0.62 U	0.62 U	--	--
1,1,1,2-Tetrachloroethane	0.62	mg/kg	0.62 U	0.62 U	--	--
Xylenes (total)	0.62	mg/kg	0.62 U	0.62 U	--	--
1,3-Dichlorobenzene	0.62	mg/kg	0.62 U	0.62 U	--	--
Styrene	0.62	mg/kg	0.62 U	0.62 U	--	--
1,4-Dichlorobenzene	0.62	mg/kg	0.62 U	0.62 U	--	--
Bromoform	0.62	mg/kg	0.62 U	0.62 U	--	--
1,2-Dichlorobenzene	0.62	mg/kg	0.62 U	0.62 U	--	--
Isopropylbenzene	0.62	mg/kg	0.62 U	0.62 U	--	--

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY

Method: EPA 8260
Matrix: Solids

GTEL Sample Number	M6090414-23	M6090414-26	--	--
Client ID	CLLTEV03S019	CLLTEV03S023	--	--
Date Sampled	09/26/96	09/26/96	--	--
Date Analyzed	10/08/96	10/08/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:Dry Weight			
1,1,2,2-Tetrachloroethane	0.62	mg/kg	0.62 U	0.62 U	--	--
Bromobenzene	0.62	mg/kg	0.62 U	0.62 U	--	--
1,2,3-Trichloropropane	0.62	mg/kg	0.62 U	0.62 U	--	--
n-Propylbenzene	0.62	mg/kg	0.62 U	0.62 U	--	--
2-Chlorotoluene	0.62	mg/kg	0.62 U	0.62 U	--	--
1,3,5-Trimethylbenzene	0.62	mg/kg	0.62 U	0.62 U	--	--
4-Chlorotoluene	0.62	mg/kg	0.62 U	0.62 U	--	--
tert-Butylbenzene	0.62	mg/kg	0.62 U	0.62 U	--	--
1,2,4-Trimethylbenzene	0.62	mg/kg	0.62 U	0.62 U	--	--
sec-Butylbenzene	0.62	mg/kg	0.62 U	0.62 U	--	--
p-Isopropyltoluene	0.62	mg/kg	0.62 U	0.62 U	--	--
n-Butylbenzene	0.62	mg/kg	0.62 U	0.62 U	--	--
1,2-Dibromo-3-chloropropane	0.62	mg/kg	0.62 U	0.62 U	--	--
?,4-Trichlorobenzene	0.62	mg/kg	0.62 U	0.62 U	--	--
xachlorobutadiene	0.62	mg/kg	0.62 U	0.62 U	--	--
Naphthalene	0.62	mg/kg	0.62 U	0.62 U	--	--
1,2,3-Trichlorobenzene	0.62	mg/kg	0.62 U	0.62 U	--	--
cis-1,3-Dichloropropene	0.62	mg/kg	0.62 U	0.62 U	--	--
trans-1,3-Dichloropropene	0.62	mg/kg	0.62 U	0.62 U	--	--
Percent Solids	--	%	95.3	81.1	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. Analyte list modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected at or above the reporting limit indicated.

"B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination; The data user is warned to take appropriate action. "J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated.

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8521::D4
DATE AND TIME OF ANALYSIS = 10/08/96 12:45
SAMPLE NAME = BS093096MB@
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	5.91	50.00	76-114	70-121 (S3)	94.6
Toluene-d8(TOL)	6.17	50.00	88-110	81-117 (S1)	98.8
Bromofluorobenzene(BFB)	6.04	50.00	86-115	74-121 (S2)	96.6

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8506::D4
DATE AND TIME OF ANALYSIS = 10/08/96 2:21
SAMPLE NAME = 090414-23
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSD1
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	5.48	50.00	76-114	70-121 (S3)	90.6
Toluene-d8(TOL)	5.94	50.00	88-110	81-117 (S1)	98.1
Bromofluorobenzene(BFB)	5.85	50.00	86-115	74-121 (S2)	96.6

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8507::D4
DATE AND TIME OF ANALYSIS = 10/08/96 3:04
SAMPLE NAME = 090414-26
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	5.99	50.00	76-114	70-121 (S3)	90.7
Toluene-d8(TOL)	6.48	50.00	88-110	81-117 (S1)	98.2
Bromofluorobenzene(BFB)	6.38	50.00	86-115	74-121 (S2)	96.7

[@TEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8524::D4
DATE AND TIME OF ANALYSIS = 10/08/96 14:47
SAMPLE NAME = MS090414-14
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	5.61	50.00	76-114	70-121 (S3)	89.0
Toluene-d8(TOL)	6.36	50.00	88-110	81-117 (S1)	101.0
Bromofluorobenzene(BFB)	6.10	50.00	86-115	74-121 (S2)	96.9

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8525::D4
DATE AND TIME OF ANALYSIS = 10/08/96 15:27
SAMPLE NAME = MD090414-14
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	5.63	50.00	76-114	70-121 (S3)	90.7
Toluene-d8(TOL)	6.31	50.00	88-110	81-117 (S1)	101.9
Bromofluoro-benzene(BFB)	6.10	50.00	86-115	74-121 (S2)	98.4

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8527::D4
DATE AND TIME OF ANALYSIS = 10/08/96 16:44
SAMPLE NAME = LS0930968
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	5.86	50.00	76-114	70-121 (S3)	93.7
Toluene-d8(TOL)	6.46	50.00	88-110	81-117 (S1)	103.3
Bromofluorobenzene(BFB)	6.13	50.00	86-115	74-121 (S2)	98.1

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MD) SUMMARY
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)

Volatile Organics in Soil
Modified EPA Method 8240/8260
[MEDIUM LEVEL]

Sample Spiked: 090414-14
Date of Analysis: 10-08-96

Client ID: Batch QC
Solution ID: M96MS0292B
Batch #: 093096MB

Compound	Spike Added (mg/kg)	Sample Conc. (mg/kg)	MS Conc. (mg/kg)	MS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	6.28	< 0.62	5.52	87.9	59-172
Trichloroethene	6.28	< 0.62	5.25	83.6	62-137
Benzene	6.28	< 0.62	6.33	101	66-142
Toluene	6.28	< 0.62	6.76	108	59-139
Chlorobenzene	6.28	< 0.62	6.40	101.9	60-133

Compound	MD Spike Added (mg/kg)	MD Conc. (mg/kg)	MD,% Percent Recovery	% RPD	Acceptability limits, a	
					% Recovery	% RPD
1,1-Dichloroethene	6.22	5.27	85	3.6	59-172	22
Trichloroethene	6.22	4.94	79	5.1	62-137	24
Benzene	6.22	5.92	95	5.7	66-142	21
Toluene	6.22	6.54	105	2.3	59-139	21
Chlorobenzene	6.22	6.11	98	3.6	60-133	21

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

%RPD based on concentration rather than % recovery due to high native concentrations of analyte.

LABORATORY CONTROL SAMPLE (LCS) , PERCENT RECOVERY REPORT

Volatile Organics in Soil
GC/MS VOA
[MEDIUM LEVEL]

Sample Spiked: LS093096B
Date of Analysis: 10-08-96

Client ID: Batch QC
Solution ID: M96MS0292B
Batch #: 093096MB

Compound	Spike Added (mg/kg)	Sample Conc. (mg/kg)	LCS Conc. (mg/kg)	LCS% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	6.25	< 0.62	4.84	77.4	59-172
Trichloroethene	6.25	< 0.62	4.60	73.6	62-137
Benzene	6.25	< 0.62	5.76	92.2	66-142
Toluene	6.25	< 0.62	6.03	96.5	59-139
Chlorobenzene	6.25	< 0.62	5.67	90.7	60-133

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

METHOD BLANK RESULTS
Aromatic Volatile Organics in Soil
EPA Method 8260[a]

	GTEL Blank ID	BS093096B
	Date Analyzed	10/08/96
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg
Dichlorodifluoromethane	1.2	1.2 U
Chloromethane	1.2	1.2 U
Vinyl Chloride	0.62	0.62 U
Bromomethane	1.2	1.2 U
Chloroethane	1.2	1.2 U
Trichlorodifluoromethane	0.62	0.62 U
1,1-Dichloroethene	0.62	0.62 U
Methylene Chloride	0.62	0.62 U
trans-1,2-Dichloroethene	0.62	0.62 U
1,1-Dichloroethane	0.6 2	0.62 U
2,2-Dichloropropane	0.62	0.62 U
cis-1,2-Dichloroethene	0.62	0.62 U
Chloroform	0.62	0.62 U
Bromodichloromethane	0.62	0.62 U
1,1,1-Trichloroethane	0.62	0.62 U
1,1-Dichloropropane	0.62	0.62 U
Carbon Tetrachloride	0.62	0.62 U
Benzene	0.62	0.62 U
1,2-Dichloroethane	0.62	0.62 U
Trichloroethene	0.62	0.62 U
1,2-Dichloropropane	0.62	0.62 U
Bromochloromethane	0.62	0.62 U
Dibromochloromethane	0.62	0.62 U
cis-1,3-Dichloropropene	0.62	0.62 U
Toluene	0.62	0.62 U
trans-1,3-Dichloropropene	0.62	0.62 U
1,1,2-Trichloroethane	0.62	0.62 U
1,2-Dibromomethane	0.62	0.62 U
Tetrachloroethene	0.62	0.62U
1,3-Dichloropropane	0.62	0.62 U

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

METHOD BLANK RESULTS
Aromatic Volatile Organics in Soil
EPA Method 8260[a]

	GTEL Blank ID	BS093096B
	Date Analyzed	10/08/96
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg
Dilbromochloromethane	0.6	0.6 U
Chlorobenzene	0.6	0.6 U
Ethylbenzene	0.6	0.6 U
1,1,2,2-Tetrachloroethane	0.6	0.6 U
Xylenes (total)	0.6	0.6 U
1,3-Dichlorobenzene	0.6	0.6 U
Styrene	0.6	0.6 U
1,4-Dichlorobenzene	0.6	0.6 U
Bromoform	0.6	0.6 U
1,2-Dichlorobenzene	0.6	0.6 U
Isopropylbenzene	0.6	0.6 U
1,1,2,2-Tetrachloroethane	0.6	0.6 U
Bromobenzene	0.6	0.6 U
1,2,3-Trichloropropane	0.6	0.6 U
n-Propylbenzene	0.6	0.6 U
2-Chlorotoluene	0.6	0.6 U
1,3,5-Trimethylbenzene	0.6	0.6 U
4-Chlorotoluene	0.6	0.6 U
tert-Butylbenzene	0.6	0.6 U
1,2,4-Trimethylbenzene	0.6	0.6 U
sec-Butylbenzene	0.6	0.6 U
p-Isopropyltoluene	0.6	0.6 U
n-Butylbenzene	0.6	0.6 U
1,2-Dibromo-3-chloropropane	0.6	0.6 U
1,2,4-Trichlorobenzene	0.6	0.6 U
Hexachlorobutadiene	0.6	0.6 U
Naphthalene	0.6	0.6 U
1,2,3-Trichlorobenzene	0.6	0.6 U
cis-1,3-Dichloropropene	0.6	0.6 U
trans-1,3-Dichloropropene	0.6	6 U

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

METHOD BLANK RESULTS
Aromatic Volatile Organics in Soil
EPA Method 8260[a]

a Federal Register, Vol. 49, October 26, 1984. Method modified to include additional compounds.

b Data Flag Definitions

U Indicates compound was analyzed for but not detected.

J Indicates an estimated value. This flag is used when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the quantitation limit, but greater than zero, or when reporting an estimated concentration for a tentatively identified compound.

c Total 1,2-dichloroethene is the sum of the cis- and trans- isomers.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY

Method: EPA 8260
Matrix: Low Soil

	GTEL Sample Number	M6090414-14	M6090414-17	M6090414-19	M6090414-28
	Client ID	CLLTEV03S010	CLLTEV03S017	CLLTEV03S015	CLLTEV03S025
	Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
	Date Analyzed	10/04/96	10/04/96	10/04/96	10/04/96
	Dilution Factor	1.00	1.00	1.00	1.00
		Soil In - Run 1 00:05	Soil In - Run 1 00:30	Soil In - Run 1 00:20	Soil In - Run 1 01:00
Analyte	Reporting Limit / Units	Concentration:Dry Weight			
Dichlorodifluoromethane	10. ug/kg	10. U	10. U	10. U	10. U
Chloromethane	10. ug/kg	10. U	10. U	10. U	10. U
Vinyl chloride	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	10. ug/kg	10. U	10. U	10. U	10. U
Chloroethane	10. ug/kg	10. U	10. U	10. U	10. U
Trichlorofluoromethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
2,2-Dichloropropane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Bromochloromethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloropropene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1.0 ug/kg	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Dibromomethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 ug/kg	31.	4.9 J	1.4 J	17.
1,3-Dichloropropane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1,2-Tetrachloroethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY

Method: EPA 8260
Matrix: Low Soil

	GTEL Sample Number	M6090414-14	M6090414-17	M6090414-19	M6090414-28
	Client ID	CLLTEV03S010	CLLTEV03S017	CLLTEV03S015	CLLTEV03S025
	Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
	Date Analyzed	10/04/96	10/04/96	10/04/96	10/04/96
	Dilution Factor	1.00	1.00	1.00	1.00
Analyte	Reporting Limit	Units	Concentration:Dry Weight			
1,1,2,2-Tetrachloroethane	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Bromobenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
n-Propylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorotoluene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
tert-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
sec-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
p-Isopropyltoluene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
n-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Percent Solids	--	%	96.1	96.1	95.9	80.3

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. "U" indicates that the analyte was analyzed for but not detected. "J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated. "B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination; The data user is warned to take appropriate action.

ANALYTICAL RESULTS
Volatile Organics

TEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY

Method: EPA 8260
Matrix: Low Soil

GTEL Sample Number	M6090414-30	--	--	--
Client ID	CLLTEV03S027	--	--	--
Date Sampled	09/26/96	--	--	--
Date Analyzed	10/05/96	--	--	--
Dilution Factor	5.00	--	--	--

Soil In-
Run 2 00:05

Analyte	Reporting Limit	Units	Concentration:Dry Weight			
Dichlorodifluoromethane	10.	ug/kg	50. U	--	--	--
Chloromethane	10.	ug/kg	50. U	--	--	--
Vinyl chloride	5.0	ug/kg	25. U	--	--	--
Bromomethane	10.	ug/kg	50. U	--	--	--
Chloroethane	10.	ug/kg	50. U	--	--	--
Trichlorofluoromethane	5.0	ug/kg	25. U	--	--	--
1,1-Dichloroethene	5.0	ug/kg	25. U	--	--	--
Methylene chloride	5.0	ug/kg	25. U	--	--	--
trans-1,2-Dichloroethene	5.0	ug/kg	25. U	--	--	--
1,1-Dichloroethane	5.0	ug/kg	25. U	--	--	--
2,2-Dichloropropane	5.0	ug/kg	25. U	--	--	--
cis-1,2-Dichloroethene	5.0	ug/kg	25. U	--	--	--
Chloroform	5.0	ug/kg	25. U	--	--	--
omochloromethane	5.0	ug/kg	25. U	--	--	--
1,1,1-Trichloroethane	5.0	ug/kg	25. U	--	--	--
1,1-Dichloropropene	5.0	ug/kg	25. U	--	--	--
Carbon tetrachloride	5.0	ug/kg	25. U	--	--	--
Benzene	1.0	ug/kg	5.0 U	--	--	--
1,2-Dichloroethane	5.0	ug/kg	25. U	--	--	--
Trichloroethene	5.0	ug/kg	25. U	--	--	--
1,2-Dichloropropane	5.0	ug/kg	25. U	--	--	--
Bromodichloromethane	5.0	ug/kg	25. U	--	--	--
Dibromomethane	5.0	ug/kg	25. U	--	--	--
Toluene	5.0	ug/kg	25. U	--	--	--
1,1,2-Trichloroethane	5.0	ug/kg	25. U	--	--	--
1,2-Dibromoethane	5.0	ug/kg	25. U	--	--	--
Tetrachloroethene	5.0	ug/kg	560	--	--	--
1,3-Dichloropropane	5.0	ug/kg	25. U	--	--	--
Dibromochloromethane	5.0	ug/kg	25. U	--	--	--
Chlorobenzene	5.0	ug/kg	25. U	--	--	--
Ethylbenzene	5.0	ug/kg	25. U	--	--	--
1,1,1,2-Tetrachloroethane	5.0	ug/kg	25. U	--	--	--
Xylenes (total)	5.0	ug/kg	25. U	--	--	--
1,3-Dichlorobenzene	5.0	ug/kg	25. U	--	--	--
Styrene	5.0	ug/kg	25. U	--	--	--
1,4-Dichlorobenzene	5.0	ug/kg	25. U	--	--	--
Bromoform	5.0	ug/kg	25. U	--	--	--
1,2-Dichlorobenzene	5.0	ug/kg	25. U	--	--	--
Isopropylbenzene	5.0	ug/kg	25. U	--	--	--

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY

Method: EPA 8260
Matrix: Low Soil

GTEL Sample Number	M6090414-30	--	--	--
Client ID	CLLTEV03S027	--	--	--
Date Sampled	09/26/96	--	--	--
Date Analyzed	10/05/96	--	--	--
Dilution Factor	5.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:Dry Weight			
1,1,2,2-Tetrachloroethane	5.0	ug/kg	25. U	--	--	--
Bromobenzene	5.0	ug/kg	25. U	--	--	--
1,2,3-Trichloropropane	5.0	ug/kg	25. U	--	--	--
n-Propylbenzene	5.0	ug/kg	25. U	--	--	--
2-Chlorotoluene	5.0	ug/kg	25. U	--	--	--
1,3,5-Trimethylbenzene	5.0	ug/kg	25. U	--	--	--
4-Chlorotoluene	5.0	ug/kg	25. U	--	--	--
tert-Butylbenzene	5.0	ug/kg	25. U	--	--	--
1,2,4-Trimethylbenzene	5.0	ug/kg	25. U	--	--	--
sec-Butylbenzene	5.0	ug/kg	25. U	--	--	--
p-Isopropyltoluene	5.0	ug/kg	25. U	--	--	--
n-Butylbenzene	5.0	ug/kg	25. U	--	--	--
1,2-Dibromo-3-chloropropane	5.0	ug/kg	25. U	--	--	--
1,2,4-Trichlorobenzene	5.0	ug/kg	25. U	--	--	--
Hexachlorobutadiene	5.0	ug/kg	25. U	--	--	--
Naphthalene	5.0	ug/kg	25. U	--	--	--
1,2,3-Trichlorobenzene	5.0	ug/kg	25. U	--	--	--
cis-1,3-Dichloropropene	5.0	ug/kg	25. U	--	--	--
trans-1,3-Dichloropropene	5.0	ug/kg	25. U	--	--	--
Percent Solids	--	%	78.8	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. "U" indicates that the analyte was analyzed for but not detected. "J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated. "B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination; The data user is warned to take appropriate action.

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8457::D4
DATE AND TIME OF ANALYSIS = 10/04/96 17:56
SAMPLE NAME = BL100496A
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	46.44	50.00	76-114	70-121 (S3)	92.9
Toluene-d8(TOL)	48.90	50.00	88-110	81-117 (S1)	97.8
Bromofluorobenzene(BFB)	47.79	50.00	86-115	74-121 (S2)	95.6

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8458::D4
DATE AND TIME OF ANALYSIS = 10/04/96 18:38
SAMPLE NAME = 090414-14
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	41.42	50.00	76-114	70-121 (S3)	82.8
Toluene-d8(TOL)	49.54	50.00	88-110	81-117 (S1)	99.1
Bromofluorobenzene(BFB)	48.72	50.00	86-115	74-121 (S2)	97.4

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8459::D4
DATE AND TIME OF ANALYSIS = 10/04/96 19:19
SAMPLE NAME = 090414-17
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	50.97	50.00	76-114	70-121 (S3)	101.9
Toluene-d8(TOL)	48.26	50.00	88-110	81-117 (S1)	96.5
Bromofluorobenzene(BFB)	47.53	50.00	86-115	74-121 (S2)	95.1

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8460::D4
DATE AND TIME OF ANALYSIS = 10/04/96 20:00
SAMPLE NAME = 090414-19
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	47.05	50.00	76-114	70-121 (S3)	94.1
Toluene-d8(TOL)	49.61	50.00	88-110	81-117 (S1)	99.2
Bromofluoro-benzene(BFB)	47.70	50.00	86-115	74-121 (S2)	95.4

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8461::D4
DATE AND TIME OF ANALYSIS = 10/04/96 20:42
SAMPLE NAME = 090414-28
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	39.39	50.00	76-114	70-121 (S3)	78.8
Toluene-d8(TOL)	49.02	50.00	88-110	81-117 (S1)	98.0
Bromofluorobenzene(BFB)	48.12	50.00	86-115	74-121 (S2)	96.2

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8466::D4
DATE AND TIME OF ANALYSIS = 10/05/96 0:07
SAMPLE NAME = 090414-30 [5]
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	218.07	50.00	76-114	70-121 (S3)	87.2
Toluene-d8(TOL)	248.51	50.00	88-110	81-117 (S1)	99.4
Bromofluorobenzene(BFB)	237.32	50.00	86-115	74-121 (S2)	94.9

[GTEL MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8470::D4
DATE AND TIME OF ANALYSIS = 10/05/96 2:48
SAMPLE NAME = MS090414-14
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	44.54	50.0	76-114	70-121 (S3)	89.1
Toluene-d8(TOL)	49.89	50.0	88-110	81-117 (S1)	99.8
Bromofluorobenzene(BFB)	51.19	50.0	86-115	74-121 (S2)	102.4

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8471::D4
DATE AND TIME OF ANALYSIS = 10/05/96 3:26
SAMPLE NAME = MD090414-14
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	44.39	50.00	76-114	70-121 (S3)	88.8
Toluene-d8(TOL)	49.91	50.00	88-110	81-117 (S1)	99.8
Bromofluorobenzene(BFB)	50.53	50.00	86-115	74-121 (S2)	101.1

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8472::D4
DATE AND TIME OF ANALYSIS = 10/05/96 4:03
SAMPLE NAME = LL100496IB
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	43.81	50.00	76-114	70-121 (S3)	87.6
Toluene-d8(TOL)	49.58	50.00	88-110	81-117 (S1)	99.2
Bromofluorobenzene(BFB)	50.72	50.00	86-115	74-121 (S2)	101.4

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MD) SUMMARY
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)

Volatile Organics in Soil
GC/MS VOA
[LOW LEVEL]

Sample Spiked: 090414-14
Date of Analysis: 10/05/96

Client ID: Batch QC
Solution ID: M96MS0136
Batch #: 090496LA

Compound	Spike Added (ug/kg)	Sample Conc. (ug/kg)	MS Conc. (ug/kg)	MS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	25.0	< 5.00	22.61	90.4	59-172
Trichloroethene	25.0	< 5.00	26.41	105.6	62-137
Benzene	25.0	< 5.00	28.27	113.1	66-142
Toluene	25.0	< 5.00	26.09	104.4	59-139
Chlorobenzene	25.0	< 5.00	26.74	107.0	60-133

Compound	Spike Added (ug/kg)	MD Conc. (ug/kg)	MD,% Percent Recovery	% RPD	Acceptability limits, a	
					% Recovery	% RPD
1,1-Dichloroethene	25.0	27.03	108.1	17.81	59-172	22
Trichloroethene	25.0	26.35	105.4	0.23	62-137	24
Benzene	25.0	27.12	108.5	4.15	66-142	21
Toluene	25.0	25.98	103.9	0.42	59-139	21
Chlorobenzene	25.0	27.26	109.0	1.93	60-133	21

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

**** %RPD based on concentration rather than % recovery due to high native concentrations of analyte.**

Volatile Organics in Soil
GC/MS VOA
[LOW LEVEL]

Sample Spiked: LL100496IB
Date of Analysis: 10/05/96

Client ID: Batch QC
Solution ID: M96MS0136
Batch #: 100496LA

Compound	Spike Added (ug/kg)	Sample Conc. (ug/kg)	LCS Conc. (ug/kg)	LCS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	25.0	< 5.00	26.33	105.3	59-172
Trichloroethene	25.0	< 5.00	26.19	104.8	62-137
Benzene	25.0	< 5.00	29.43	117.7	66-142
Toluene	25.0	< 5.00	26.71	106.8	59-139
Chlorobenzene	25.0	< 5.00	26.96	117.2	60-133

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

**** %RPD based on concentration rather than % recovery due to high native concentrations of analyte.**

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

	GTEL File ID	BL100496LA
	Date Analyzed	10/04/96
Analyte	Reporting Limit ug/kg[b]	Concentration, ug/kg[b]
Dichlorodifluoromethane	10	10 U
Chloromethane	10	10 U
Vinyl Chloride	5.0	5.0 U
Bromoethane	10	10 U
Chloroethane	10	10 U
Trichlorofluoromethane	5.0	5.0 U
1,1-Dichloroethene	5.0	5.0 U
Methylene Chloride	5.0	5.0 U
trans-1,2-Dichloroethene	5.0	5.0 U
1,1-Dichloroethane	5.0	5.0 U
2,2-Dichloropropane	5.0	5.0 U
cis-1,2-Dichloroethene	5.0	5.0 U
Chloroform	5.0	5.0 U
Bromochloromethane	5.0	5.0 U
1,1,1-Trichloroethane	5.0	5.0 U
1,1-Dichloropropene	5.0	5.0 U
Carbon Tetrachloride	5.0	5.0 U
Benzene	1.0	1.0 U
1,2-Dichloroethane	5.0	5.0 U
Trichloroethene	5.0	5.0 U
1,2-Dichloropropane	5.0	5.0 U
Bromodichloromethane	5.0	5.0 U
Dibromomethane	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
Toluene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U
1,1,2-Trichloroethane	5.0	5.0 U
1,2-Dibromoethane	5.0	5.0 U
Tetrachloroethene	5.0	5.0 U
1,3-Dichloropropane	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

	GTEL File ID	BL100496LA
	Date Analyzed	10/04/96
Analyte	Reporting Limit, ug/kg	Concentration, ug/kg[b]
Dibromochloromethane	5.0	5.0 U
Chlorobenzene	5.0	5.0 U
Ethylbenzene	5.0	5.0 U
1,1,1,2-Tetrachloroethane	5.0	5.0 U
Xylenes (total)	5.0	5.0 U
1,3-Dichlorobenzene	5.0	5.0 U
Styrene	5.0	5.0 U
1,4-Dichlorobenzene	5.0	5.0 U
Bromoform	5.0	5.0 U
1,2-Dichlorobenzene	5.0	5.0 U
Isopropylbenzene	5.0	5.0 U
1,1,2,2-Tetrachloroethane	5.0	5.0 U
Bromobenzene	5.0	5.0 U
1,2,3-Trichloropropane	5.0	5.0 U
n-Propylbenzene	5.0	5.0 U
2-Chlorotoluene	5.0	5.0 U
1,3,5-Trimethylbenzene	5.0	5.0 U
4-Chlorotoluene	5.0	5.0 U
tert-Butylbenzene	5.0	5.0 U
1,2,4-Trimethylbenzene	5.0	5.0 U
sec-Butylbenzene	5.0	5.0 U
p-Isopropyltoluene	5.0	5.0 U
n-Butylbenzene	5.0	5.0 U
1,2-Dibromo-3-chloropropane	5.0	5.0 U
1,2,4-Trichlorobenzene	5.0	5.0 U
Hexachlorobutadiene	5.0	5.0 U
Naphthalene	5.0	5.0 U
1,2,3-Trichlorobenzene	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

a "Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, Table 3, US EPA November 1990; sample preparation by purge and trap. Method modified to include additional compounds.

b Data Flag Definitions

U Indicates compound was analyzed for but not detected.

J Indicates an estimated value. This flag is used when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the quantitation limit, but greater than zero, or when reporting an estimated concentration for a tentatively identified compound.

Narrative Summary

Login Number: M6090414
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY Date of Report: Oct 10, 1996

Footnotes and Comments

Symbol keys (may appear beside values)

* - Indicates the analyte has been qualified in the narrative section of the report.
d - Indicates the analyte was reported from a dilution other than that indicated on the report page.
B - Organic Analyses - Indicates the analyte is found in the associated blank as well as in the sample.
B - Inorganic Analyses - Indicates an estimated value below the EPA Contract Required Detection Limit.
G - Indicates an estimated surrogate recovery due to dilutions.
J - Indicates an estimated value below the reporting limit.
U - Indicates the analyte was analyzed for but not detected.
NA - Matrix Spike Results - Not Applicable, since the Sample Conc. exceeded four times the Spike Added.
NA - Matrix Spike Duplicate RPD Results - Not Applicable, since the Sample Conc. exceeded four times the Spike Added.
NA - Serial Dilution RPD Results - Not Applicable, since the Sample Conc. was less than five times the CLP Contract Required Detection Limit.

Inorganics

Method: EPA 6010A
"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 2.
Digestion is Method Specific.
M6090414-11:

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY

Method: EPA 8260
Matrix: Solids

	GTEL Sample Number	M6090414-18	M6090414-22	M6090414-24	M6090414-25
	Client ID	CLLTEV03S014	CLLTEV03S018	CLLTEV03S020	CLLTEV03S021
	Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
	Date Analyzed	10/02/96	10/02/96	10/02/96	10/02/96
	Dilution Factor	1.00	1.00	1.00	1.00
		Soil In - Run 1 00:15	Soil In - Run 1 00:35	Soil In - Run 1 00:45	Soil In - Run 1 00:45
Analyte	Reporting Limit / Units	Concentration: Dry Weight		Dup of 021	Dup of 020
Dichlorodifluoromethane	1.2 mg/kg	1.3 U	1.6 U	1.3 U	1.4 U
Chloromethane	1.2 mg/kg	1.3 U	1.6 U	1.3 U	1.4 U
Vinyl chloride	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Bromomethane	1.2 mg/kg	1.3 U	1.6 U	1.3 U	1.4 U
Chloroethane	1.2 mg/kg	1.3 U	1.6 U	1.3 U	1.4 U
Trichlorofluoromethane	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
1,1-Dichloroethene	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Methylene chloride	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
trans-1,2-Dichloroethene	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
1,1-Dichloroethane	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
2,2-Dichloropropane	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
cis-1,2-Dichloroethene	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Chloroform	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Bromochloromethane	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
1,1,1-Trichloroethane	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
1,1-Dichloropropene	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Carbon tetrachloride	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Benzene	0.6 mg/kg	0.1 J	0.3 J	0.6 U	0.7 U
1,2-Dichloroethane	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Trichloroethene	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
1,2-Dichloropropane	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Bromodichloromethane	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Dibromomethane	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Toluene	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
1,1,2-Trichloroethane	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
1,2-Dibromoethane	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Tetrachloroethene	0.6 mg/kg	0.9	5.3	7.1	12.
1,3-Dichloropropane	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Dibromochloromethane	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Chlorobenzene	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Ethylbenzene	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
1,1,1,2-Tetrachloroethane	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Xylenes (total)	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
1,3-Dichlorobenzene	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Styrene	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
1,4-Dichlorobenzene	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Bromoform	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
1,2-Dichlorobenzene	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Isopropylbenzene	0.6 mg/kg	0.7 U	0.8 U	0.6 U	0.7 U

ANALYTICAL RESULTS
Volatile Organics

^TEL Client ID: 966044044
ɔgin Number: M6090414
Project ID (number): 6044 Method: EPA 8260
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY Matrix: Solids

GTEL Sample Number	M6090414-18	M6090414-22	M6090414-24	M6090414-25
Client ID	CLLTEV03S014	CLLTEV03S018	CLLTEV03S020	CLLTEV03S021
Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
Date Analyzed	10/02/96	10/02/96	10/02/96	10/02/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:Dry Weight			
1,1,2,2-Tetrachloroethane	0.6	mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Bromobenzene	0.6	mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
1,2,3-Trichloropropane	0.6	mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
n-Propylbenzene	0.6	mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
2-Chlorotoluene	0.6	mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
1,3,5-Trimethylbenzene	0.6	mg/kg	0.5 J	0.8 U	0.6 U	0.7 U
4-Chlorotoluene	0.6	mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
tert-Butylbenzene	0.6	mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
1,2,4-Trimethylbenzene	0.6	mg/kg	0.2 J	0.8 U	0.6 U	0.7 U
sec-Butylbenzene	0.6	mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
p-Isopropyltoluene	0.6	mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
n-Butylbenzene	0.6	mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
1,2-Dibromo-3-chloropropane	0.6	mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
1,2,4-Trichlorobenzene	0.6	mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Hexachlorobutadiene	0.6	mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Naphthalene	0.6	mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
1,2,3-Trichlorobenzene	0.6	mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
cis-1,3-Dichloropropene	0.6	mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
trans-1,3-Dichloropropene	0.6	mg/kg	0.7 U	0.8 U	0.6 U	0.7 U
Percent Solids	--	%	95.0	77.2	95.5	83.1

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods". SW-846, Third Edition including promulgated Update 1. Analyte list modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected at or above the reporting limit indicated.

"B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination; The data user is warned to take appropriate action. "J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY

Method: EPA 8260
Matrix: Solids

GTEL Sample Number	M6090414-29	--	--	--
Client ID	CLLTEV03S026	--	--	--
Date Sampled	09/26/96	--	--	--
Date Analyzed	10/02/96	--	--	--
Dilution Factor	1.00	--	--	--

Soil Lin - Run 2 00:00

Analyte	Reporting Limit	Units	Concentration:Dry Weight			
Dichlorodifluoromethane	1.2	mg/kg	1.3 U	--	--	--
Chloromethane	1.2	mg/kg	1.3 U	--	--	--
Vinyl chloride	0.6	mg/kg	0.7 U	--	--	--
Bromomethane	1.2	mg/kg	1.3 U	--	--	--
Chloroethane	1.2	mg/kg	1.3 U	--	--	--
Trichlorofluoromethane	0.6	mg/kg	0.7 U	--	--	--
1,1-Dichloroethene	0.6	mg/kg	0.7 U	--	--	--
Methylene chloride	0.6	mg/kg	0.7 U	--	--	--
trans-1,2-Dichloroethene	0.6	mg/kg	0.7 U	--	--	--
1,1-Dichloroethane	0.6	mg/kg	0.7 U	--	--	--
2,2-Dichloropropane	0.6	mg/kg	0.7 U	--	--	--
cis-1,2-Dichloroethene	0.6	mg/kg	0.7 U	--	--	--
Chloroform	0.6	mg/kg	0.7 U	--	--	--
Bromochloromethane	0.6	mg/kg	0.7 U	--	--	--
1,1,1-Trichloroethane	0.6	mg/kg	0.7 U	--	--	--
1,1-Dichloropropene	0.6	mg/kg	0.7 U	--	--	--
Carbon tetrachloride	0.6	mg/kg	0.7 U	--	--	--
Benzene	0.6	mg/kg	0.7 U	--	--	--
1,2-Dichloroethane	0.6	mg/kg	0.7 U	--	--	--
Trichloroethene	0.6	mg/kg	0.7 U	--	--	--
1,2-Dichloropropane	0.6	mg/kg	0.7 U	--	--	--
Bromodichloromethane	0.6	mg/kg	0.7 U	--	--	--
Dibromomethane	0.6	mg/kg	0.7 U	--	--	--
Toluene	0.6	mg/kg	0.7 U	--	--	--
1,1,2-Trichloroethane	0.6	mg/kg	0.7 U	--	--	--
1,2-Dibromoethane	0.6	mg/kg	0.7 U	--	--	--
Tetrachloroethene	0.6	mg/kg	0.6 J	--	--	--
1,3-Dichloropropane	0.6	mg/kg	0.7 U	--	--	--
Dibromochloromethane	0.6	mg/kg	0.7 U	--	--	--
Chlorobenzene	0.6	mg/kg	0.7 U	--	--	--
Ethylbenzene	0.6	mg/kg	0.7 U	--	--	--
1,1,1,2-Tetrachloroethane	0.6	mg/kg	0.7 U	--	--	--
Xylenes (total)	0.6	mg/kg	0.7 U	--	--	--
1,3-Dichlorobenzene	0.6	mg/kg	0.7 U	--	--	--
Styrene	0.6	mg/kg	0.7 U	--	--	--
1,4-Dichlorobenzene	0.6	mg/kg	0.7 U	--	--	--
Bromoform	0.6	mg/kg	0.7 U	--	--	--
1,2-Dichlorobenzene	0.6	mg/kg	0.7 U	--	--	--
Isopropylbenzene	0.6	mg/kg	0.7 U	--	--	--

ANALYTICAL RESULTS
Volatile Organics

TEL Client ID: 966044044
ogin Number: M6090414
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY

Method: EPA 8260
Matrix: Solids

GTEL Sample Number	M6090414-29	--	--	--
Client ID	CLLTEV03S026	--	--	--
Date Sampled	09/26/96	--	--	--
Date Analyzed	10/02/96	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:Dry Weight			
1,1,2,2-Tetrachloroethane	0.6	mg/kg	0.7 U	--	--	--
Bromobenzene	0.6	mg/kg	0.7 U	--	--	--
1,2,3-Trichloropropane	0.6	mg/kg	0.7 U	--	--	--
n-Propylbenzene	0.6	mg/kg	0.7 U	--	--	--
2-Chlorotoluene	0.6	mg/kg	0.7 U	--	--	--
1,3,5-Trimethylbenzene	0.6	mg/kg	0.7 U	--	--	--
4-Chlorotoluene	0.6	mg/kg	0.7 U	--	--	--
tert-Butylbenzene	0.6	mg/kg	0.7 U	--	--	--
1,2,4-Trimethylbenzene	0.6	mg/kg	0.7 U	--	--	--
sec-Butylbenzene	0.6	mg/kg	0.7 U	--	--	--
p-Isopropyltoluene	0.6	mg/kg	0.7 U	--	--	--
n-Butylbenzene	0.6	mg/kg	0.7 U	--	--	--
1,2-Dibromo-3-chloropropane	0.6	mg/kg	0.7 U	--	--	--
2,4-Trichlorobenzene	0.6	mg/kg	0.7 U	--	--	--
exachlorobutadiene	0.6	mg/kg	0.7 U	--	--	--
Naphthalene	0.6	mg/kg	0.7 U	--	--	--
1,2,3-Trichlorobenzene	0.6	mg/kg	0.7 U	--	--	--
cis-1,3-Dichloropropene	0.6	mg/kg	0.7 U	--	--	--
trans-1,3-Dichloropropene	0.6	mg/kg	0.7 U	--	--	--
Percent Solids	--	%	91.5	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. Analyte list modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected at or above the reporting limit indicated.

"B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination: The data user is warned to take appropriate action. "J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated.

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

SURROGATE RECOVERY SUMMARY
Method: EPA 8260
Matrix: Soil

GTEL No.	Percent Recovery, %			
	S1 (TOL)	S2 (BFB)	S3 (DCE)	TOTAL OUT
BS092896	99.5	99.11	101.22	0
MS090414-24	99.43	100.04	98.25	0
MD090414-24	99.21	101.11	99.60	0
LS092896	98.54	100.20	101.11	0
M6090414-18	99.38	99.96	100.38	0
M6090414-24	100.02	97.04	89.97	0
M6090414-22	99.36	99.14	99.99	0
M6090414-25	98.21	98.05	100.63	0
M6090414-29	97.84	99.24	101.66	0

Surrogates			Amount Spiked, ug/L	Recovery Limits[a]
S1	TOL	Toluene-d8	50	81-117
S2	BFB	Bromofluorobenzene	50	74-121
S3	DCE	1,2-Dichloroethane-d4	50	70-121

* Indicates values outside of acceptability limits.

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP) guidelines.

D Diluted out. % Recovery is not calculated when surrogate compound(s) are diluted out.

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MD) SUMMARY
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)

Volatile Organics in Soil
GC/MS VOA
[MEDIUM LEVEL]

Sample Spiked: 090414-24
Date of Analysis: 10/02/96

Client ID: Batch QC
Solution ID: B96MS0292
Batch #: 092896MA

Compound	Spike Added (mg/kg)	Sample Conc. (mg/kg)	MS Conc. (mg/kg)	MS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	5.95	< 0.62	5.99	100.6	59-172
Trichloroethene	5.95	< 0.62	5.13	86.2	62-137
Benzene	5.95	< 0.62	5.58	93.7	66-142
Toluene	5.95	< 0.62	5.69	95.6	59-139
Chlorobenzene	5.95	< 0.62	5.65	94.9	60-133

Compound	MD Spike Added (mg/kg)	MD Conc. (mg/kg)	MD,% Percent Recovery	% RPD	Acceptability limits, a	
					% Recovery	% RPD
1,1-Dichloroethene	6.02	5.96	98.9	1.70	59-172	22
Trichloroethene	6.02	5.07	84.2	2.37	62-137	24
Benzene	6.02	6.01	99.8	6.22	66-142	21
Toluene	6.02	5.78	95.9	0.37	59-139	21
Chlorobenzene	6.02	5.61	93.1	1.91	60-133	21

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

**** %RPD based on concentration rather than % recovery due to high native concentrations of analyte.**

LABORATORY CONTROL SAMPLE (LCS) , PERCENT RECOVERY REPORT

Volatile Organics in Soil
GC/MS VOA
[MEDIUM LEVEL]

Sample Spiked: LS092896
Date of Analysis: 10/02/96

Client ID: Batch QC
Solution ID: M96MS0292
Batch #: 092896MA

Compound	Spike Added (mg/kg)	Sample Conc. (mg/kg)	LCS Conc. (mg/kg)	LCS% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	6.25	< 0.62	6.47	103.5	59-172
Trichloroethene	6.25	< 0.62	5.31	85.0	62-137
Benzene	6.25	< 0.62	5.90	94.4	66-142
Toluene	6.25	< 0.62	5.87	93.9	59-139
Chlorobenzene	6.25	< 0.62	5.88	94.1	60-133

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

METHOD BLANK RESULTS
Aromatic Volatile Organics in Soil
EPA Method 8260[a]

	GTEL Blank ID	BS092896A
	Date Analyzed	10/02/96
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg
Dichlorodifluoromethane	1.2	1.2 U
Chloromethane	1.2	1.2 U
Vinyl Chloride	0.6	0.6 U
Bromomethane	1.2	1.2 U
Chloroethane	1.2	1.2 U
Trichlorodifluoromethane	0.6	0.6 U
1,1-Dichloroethene	0.6	0.6 U
Methylene Chloride	0.6	0.6 U
trans-1,2-Dichloroethene	0.6	0.6 U
1,1-Dichloroethane	0.6	0.6 U
2,2-Dichloropropane	0.6	0.6 U
cis-1,2-Dichloroethene	0.6	0.6 U
Chloroform	0.6	0.6 U
Bromodichloromethane	0.6	0.6 U
1,1,1-Trichloroethane	0.6	0.6 U
1,1-Dichloropropane	0.6	0.6 U
Carbon Tetrachloride	0.6	0.6 U
Benzene	0.6	0.6 U
1,2-Dichloroethane	0.6	0.6 U
Trichloroethene	0.6	0.6 U
1,2-Dichloropropane	0.6	0.6 U
Bromochloromethane	0.6	0.6 U
Dibromochloromethane	0.6	0.6 U
cis-1,3-Dichloropropene	0.6	0.6 U
Toluene	0.6	0.6 U
trans-1,3-Dichloropropene	0.6	0.6 U
1,1,2-Trichloroethane	0.6	0.6 U
1,2-Dibromomethane	0.6	0.6 U
Tetrachloroethene	0.6	0.6 U
1,3-Dichloropropane	0.6	0.6 U

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

METHOD BLANK RESULTS
Aromatic Volatile Organics in Soil
EPA Method 8260[a]

	GTEL Blank ID	BS092896A
	Date Analyzed	10/02/96
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg
Dilbromochloromethane	0.6	0.6 U
Chlorobenzene	0.6	0.6 U
Ethylbenzene	0.6	0.6 U
1,1,2,2-Tetrachloroethane	0.6	0.6 U
Xylenes (total)	0.6	0.6 U
1,3-Dichlorobenzene	0.6	0.6 U
Styrene	0.6	0.6 U
1,4-Dichlorobenzene	0.6	0.6 U
Bromoform	0.6	0.6 U
1,2-Dichlorobenzene	0.6	0.6 U
Isopropylbenzene	0.6	0.6 U
1,1,2,2-Tetrachloroethane	0.6	0.6 U
Bromobenzene	0.6	0.6 U
1,2,3-Trichloropropane	0.6	0.6 U
n-Propylbenzene	0.6	0.6 U
2-Chlorotoluene	0.6	0.6 U
1,3,5-Trimethylbenzene	0.6	0.6 U
4-Chlorotoluene	0.6	0.6 U
tert-Butylbenzene	0.6	0.6 U
1,2,4-Trimethylbenzene	0.6	0.6 U
sec-Butylbenzene	0.6	0.6 U
p-Isopropyltoluene	0.6	0.6 U
n-Butylbenzene	0.6	0.6 U
1,2-Dibromo-3-chloropropane	0.6	0.6 U
1,2,4-Trichlorobenzene	0.6	0.6 U
Hexachlorobutadiene	0.6	0.6 U
Naphthalene	0.6	0.6 U
1,2,3-Trichlorobenzene	0.6	0.6 U
cis-1,3-Dichloropropene	0.6	0.6 U
trans-1,3-Dichloropropene	0.6	6 U

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

METHOD BLANK RESULTS
Aromatic Volatile Organics in Soil
EPA Method 8260[a]

a Federal Register, Vol. 49, October 26, 1984. Method modified to include additional compounds.

b Data Flag Definitions

U Indicates compound was analyzed for but not detected.

J Indicates an estimated value. This flag is used when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the quantitation limit, but greater than zero, or when reporting an estimated concentration for a tentatively identified compound.

c Total 1,2-dichloroethene is the sum of the cis- and trans- isomers.

ANALYTICAL RESULTS
Volatile Organics

TEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY

Method: EPA 8260
Matrix: Low Soil

	GTEL Sample Number	M6090414-10	M6090414-13	M6090414-15	M6090414-16
	Client ID	CLLTEV05WA010	CLLTEV03S009	CLLTEV03S011	CLLTEV03S012
	Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
	Date Analyzed	10/01/96	10/01/96	10/01/96	10/02/96
	Dilution Factor	1.00	2.00	5.00	1.00
		Soil Out - Run 2	Soil In - Run 1 00:00	Soil In - Run 1 00:10	Soil In - Run 1 00:10
Analyte	Reporting Limit / Units	Concentration: Dry Weight		Dup of 012	Dup of 011
Dichlorodifluoromethane	10. ug/kg	10. U	20. U	50. U	10. U
Chloromethane	10. ug/kg	10. U	20. U	50. U	10. U
Vinyl chloride	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Bromomethane	10. ug/kg	10. U	20. U	50. U	10. U
Chloroethane	10. ug/kg	10. U	20. U	50. U	10. U
Trichlorofluoromethane	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
1,1-Dichloroethene	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Methylene chloride	5.0 ug/kg	5.0 U	10. U	2.2 J	5.0 U
trans-1,2-Dichloroethene	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
1,1-Dichloroethane	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
2,2-Dichloropropane	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
cis-1,2-Dichloroethene	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Chloroform	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Bromochloromethane	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
1,1,1-Trichloroethane	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
1,1-Dichloropropene	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Carbon tetrachloride	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Benzene	1.0 ug/kg	1.0 U	2.0 U	5.0 U	1.0 U
1,2-Dichloroethane	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Trichloroethene	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
1,2-Dichloropropane	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Bromodichloromethane	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Dibromomethane	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Toluene	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
1,1,2-Trichloroethane	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
1,2-Dibromoethane	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Tetrachloroethene	5.0 ug/kg	5.0 U	320	120	110
1,3-Dichloropropane	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Dibromochloromethane	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Chlorobenzene	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Ethylbenzene	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
1,1,1,2-Tetrachloroethane	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Xylenes (total)	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
1,3-Dichlorobenzene	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Styrene	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
1,4-Dichlorobenzene	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Bromoform	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
1,2-Dichlorobenzene	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U
Isopropylbenzene	5.0 ug/kg	5.0 U	10. U	25. U	5.0 U

ANALYTICAL RESULTS
Volatile Organics

TEL Client ID: 966044044
ogin Number: M6090414
Project ID (number): 6044 Method: EPA 8260
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY Matrix: Low Soil

GTEL Sample Number	M6090414-10	M6090414-13	M6090414-15	M6090414-16
Client ID	CLLTEV05WA010	CLLTEV03S009	CLLTEV03S011	CLLTEV03S012
Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
Date Analyzed	10/01/96	10/01/96	10/01/96	10/02/96
Dilution Factor	1.00	2.00	5.00	1.00

Analyte	Reporting Limit	Units	Concentration:Dry Weight			
1,1,2,2-Tetrachloroethane	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
Bromobenzene	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
1,2,3-Trichloropropane	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
n-Propylbenzene	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
2-Chlorotoluene	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
1,3,5-Trimethylbenzene	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
4-Chlorotoluene	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
tert-Butylbenzene	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
1,2,4-Trimethylbenzene	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
sec-Butylbenzene	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
p-Isopropyltoluene	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
n-Butylbenzene	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
1,2-Dibromo-3-chloropropane	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
1,2,4-Trichlorobenzene	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
Hexachlorobutadiene	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
Naphthalene	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
1,2,3-Trichlorobenzene	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
cis-1,3-Dichloropropene	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
trans-1,3-Dichloropropene	5.0	ug/kg	5.0 U	10. U	25. U	5.0 U
Percent Solids	--	%	81.7	80.6	84.4	79.7

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. "U" indicates that the analyte was analyzed for but not detected. "J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated. "B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination; The data user is warned to take appropriate action.

M6090414-15:

Sample diluted due to non-target interference.

ANALYTICAL RESULTS
Volatile Organics

TEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY

Method: EPA 8260
Matrix: Low Soil

	GTEL Sample Number	M6090414-20	M6090414-21	M6090414-27	--
	Client ID	CLLTEV03S016	CLLTEV05S009	CLLTEV03S024	--
	Date Sampled	09/26/96	09/26/96	09/26/96	--
	Date Analyzed	10/02/96	10/02/96	10/02/96	--
	Dilution Factor	2.00	1.00	5.00	--
		Soil In-Run 1 00:25	Soil Out-Run 1	Soil In-Run 1 00:55	
Analyte	Reporting Limit	Units	Concentration:Dry Weight			
Dichlorodifluoromethane	10.	ug/kg	20. U	10. U	50. U	--
Chloromethane	10.	ug/kg	20. U	10. U	50. U	--
Vinyl chloride	5.0	ug/kg	10. U	5.0 U	25. U	--
Bromomethane	10.	ug/kg	20. U	10. U	50. U	--
Chloroethane	10.	ug/kg	20. U	10. U	50. U	--
Trichlorofluoromethane	5.0	ug/kg	10. U	5.0 U	25. U	--
1,1-Dichloroethene	5.0	ug/kg	10. U	5.0 U	25. U	--
Methylene chloride	5.0	ug/kg	10. U	5.0 U	25. U	--
trans-1,2-Dichloroethene	5.0	ug/kg	10. U	5.0 U	25. U	--
1,1-Dichloroethane	5.0	ug/kg	10. U	5.0 U	25. U	--
2,2-Dichloropropane	5.0	ug/kg	10. U	5.0 U	25. U	--
cis-1,2-Dichloroethene	5.0	ug/kg	10. U	5.0 U	25. U	--
Chloroform	5.0	ug/kg	10. U	5.0 U	25. U	--
Bromochloromethane	5.0	ug/kg	10. U	5.0 U	25. U	--
1,1,1-Trichloroethane	5.0	ug/kg	10. U	5.0 U	25. U	--
1,1-Dichloropropene	5.0	ug/kg	10. U	5.0 U	25. U	--
Carbon tetrachloride	5.0	ug/kg	10. U	5.0 U	25. U	--
Benzene	1.0	ug/kg	2.0 U	1.0 U	5.0 U	--
1,2-Dichloroethane	5.0	ug/kg	10. U	5.0 U	25. U	--
Trichloroethene	5.0	ug/kg	10. U	5.0 U	25. U	--
1,2-Dichloropropane	5.0	ug/kg	10. U	5.0 U	25. U	--
Bromodichloromethane	5.0	ug/kg	10. U	5.0 U	25. U	--
Dibromomethane	5.0	ug/kg	10. U	5.0 U	25. U	--
Toluene	5.0	ug/kg	10. U	5.0 U	25. U	--
1,1,2-Trichloroethane	5.0	ug/kg	10. U	5.0 U	25. U	--
1,2-Dibromoethane	5.0	ug/kg	10. U	5.0 U	25. U	--
Tetrachloroethene	5.0	ug/kg	23.	5.0 U	270	--
1,3-Dichloropropane	5.0	ug/kg	10. U	5.0 U	25. U	--
Dibromochloromethane	5.0	ug/kg	10. U	5.0 U	25. U	--
Chlorobenzene	5.0	ug/kg	10. U	5.0 U	25. U	--
Ethylbenzene	5.0	ug/kg	10. U	5.0 U	25. U	--
1,1,1,2-Tetrachloroethane	5.0	ug/kg	10. U	5.0 U	25. U	--
Xylenes (total)	5.0	ug/kg	10. U	5.0 U	25. U	--
1,3-Dichlorobenzene	5.0	ug/kg	10. U	5.0 U	25. U	--
Styrene	5.0	ug/kg	10. U	5.0 U	25. U	--
1,4-Dichlorobenzene	5.0	ug/kg	10. U	5.0 U	25. U	--
Bromoform	5.0	ug/kg	10. U	5.0 U	25. U	--
1,2-Dichlorobenzene	5.0	ug/kg	10. U	5.0 U	25. U	--
Isopropylbenzene	5.0	ug/kg	10. U	5.0 U	25. U	--

ANALYTICAL RESULTS
Volatile Organics

TEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044 Method: EPA 8260
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY Matrix: Low Soil

	GTEL Sample Number	M6090414-20	M6090414-21	M6090414-27	--
	Client ID	CLLTEV03S016	CLLTEV05S009	CLLTEV03S024	--
	Date Sampled	09/26/96	09/26/96	09/26/96	--
	Date Analyzed	10/02/96	10/02/96	10/02/96	--
	Dilution Factor	2.00	1.00	5.00	--
Analyte	Reporting Limit	Units	Concentration:Dry Weight			
1,1,2,2-Tetrachloroethane	5.0	ug/kg	10. U	5.0 U	25. U	--
Bromobenzene	5.0	ug/kg	10. U	5.0 U	25. U	--
1,2,3-Trichloropropane	5.0	ug/kg	10. U	5.0 U	25. U	--
n-Propylbenzene	5.0	ug/kg	10. U	5.0 U	25. U	--
2-Chlorotoluene	5.0	ug/kg	10. U	5.0 U	25. U	--
1,3,5-Trimethylbenzene	5.0	ug/kg	10. U	5.0 U	25. U	--
4-Chlorotoluene	5.0	ug/kg	10. U	5.0 U	25. U	--
tert-Butylbenzene	5.0	ug/kg	10. U	5.0 U	25. U	--
1,2,4-Trimethylbenzene	5.0	ug/kg	10. U	5.0 U	25. U	--
sec-Butylbenzene	5.0	ug/kg	10. U	5.0 U	25. U	--
p-Isopropyltoluene	5.0	ug/kg	10. U	5.0 U	25. U	--
n-Butylbenzene	5.0	ug/kg	10. U	5.0 U	25. U	--
1,2-Dibromo-3-chloropropane	5.0	ug/kg	10. U	5.0 U	25. U	--
1,2,4-Trichlorobenzene	5.0	ug/kg	10. U	5.0 U	25. U	--
Hexachlorobutadiene	5.0	ug/kg	10. U	5.0 U	25. U	--
Naphthalene	5.0	ug/kg	10. U	5.0 U	6.5 J	--
1,2,3-Trichlorobenzene	5.0	ug/kg	10. U	5.0 U	25. U	--
cis-1,3-Dichloropropene	5.0	ug/kg	10. U	5.0 U	25. U	--
trans-1,3-Dichloropropene	5.0	ug/kg	10. U	5.0 U	25. U	--
Percent Solids	--	%	95.3	88.5	96.0	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. "U" indicates that the analyte was analyzed for but not detected. "J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated. "B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination; The data user is warned to take appropriate action.

M6090414-20:

Sample diluted due to non-target interference.

M6090414-27:

Sample diluted due to non-target interference.

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8383::D4
DATE AND TIME OF ANALYSIS = 10/01/96 20:07
SAMPLE NAME = BL100196LA
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	46.83	50.00	76-114	70-121 (S3)	93.7
Toluene-d8(TOL)	48.78	50.00	88-110	81-117 (S1)	97.6
Bromofluoro-benzene(BFB)	48.39	50.00	86-115	74-121 (S2)	96.8

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8385::D4
DATE AND TIME OF ANALYSIS = 10/01/96 21:25
SAMPLE NAME = MS090414-10
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	50.83	50.00	76-114	70-121 (S3)	101.7
Toluene-d8(TOL)	47.58	50.00	88-110	81-117 (S1)	95.2
Bromofluorobenzene(BFB)	50.21	50.00	86-115	74-121 (S2)	100.4

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8386::D4
DATE AND TIME OF ANALYSIS = 10/01/96 22:05
SAMPLE NAME = MD090414-10
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	47.18	50.00	76-114	70-121 (S3)	94.4
Toluene-d8(TOL)	48.17	50.00	88-110	81-117 (S1)	96.3
Bromofluorobenzene(BFB)	50.12	50.00	86-115	74-121 (S2)	100.2

[GTEL MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8393::D4
DATE AND TIME OF ANALYSIS = 10/02/96 2:45
SAMPLE NAME = LL100196A
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSD1
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	52.12	50.0	76-114	70-121 (S3)	104.2
Toluene-d8(TOL)	48.59	50.0	88-110	81-117 (S1)	97.2
Bromofluorobenzene(BFB)	50.83	50.0	86-115	74-121 (S2)	101.7

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8384::D4
DATE AND TIME OF ANALYSIS = 10/01/96 20:46
SAMPLE NAME = 090414-10
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	52.70	50.00	76-114	70-121 (S3)	105.4
Toluene-d8(TOL)	46.99	50.00	88-110	81-117 (S1)	94.0
Br fluoro-benzene(BFB)	48.24	50.00	86-115	74-121 (S2)	96.5

✓

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8387::D4
DATE AND TIME OF ANALYSIS = 10/01/96 22:44
SAMPLE NAME = 090414-13 [2]
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	93.95	50.00	76-114	70-121 (S3)	94.0
Toluene-d8(TOL)	93.04	50.00	88-110	81-117 (S1)	93.0
Bro -fluoro- ber. ne(BFB)	96.10	50.00	86-115	74-121 (S2)	96.1

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8388::D4
DATE AND TIME OF ANALYSIS = 10/01/96 23:23
SAMPLE NAME = 090414-15 [5]
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	240.55	50.00	76-114	70-121 (S3)	96.2
Toluene-d8(TOL)	228.15	50.00	88-110	81-117 (S1)	91.3
P mofluoro- ene(BFB)	241.26	50.00	86-115	74-121 (S2)	96.5

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8389::D4
DATE AND TIME OF ANALYSIS = 10/02/96 0:02
SAMPLE NAME = 090414-16
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	47.82	50.00	76-114	70-121 (S3)	95.6
Toluene-d8(TOL)	46.37	50.00	88-110	81-117 (S1)	92.7
Bromofluorobenzene(BFB)	47.62	50.00	86-115	74-121 (S2)	95.2

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I2390::D4
DATE AND TIME OF ANALYSIS = 10/02/96 0:41
SAMPLE NAME = 090414-20 [2]
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSD1
OPERATOR = VANGIE

URROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
,2-Dichloro-thane-d4(DCE)	104.74	50.00	76-114	70-121 (S3)	104.7
oluene-d8(TOL)	94.06	50.00	88-110	81-117 (S1)	94.1
romofluoro-e e(BFB)	95.89	50.00	86-115	74-121 (S2)	95.9

[6TEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8391::D4
DATE AND TIME OF ANALYSIS = 10/02/96 1:21
SAMPLE NAME = 090414-21
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	47.82	50.00	76-114	70-121 (S3)	95.6
Toluene-d8(TOL)	48.06	50.00	88-110	81-117 (S1)	96.1
Br(fluoro-benzene(BFB)	48.90	50.00	86-115	74-121 (S2)	97.8

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8392::D4
DATE AND TIME OF ANALYSIS = 10/02/96 2:03
SAMPLE NAME = 090414-27 [5]
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	236.13	50.00	76-114	70-121 (S3)	94.5
Toluene-d8(TOL)	250.33	50.00	88-110	81-117 (S1)	100.1
Bromofluorobenzene(BFB)	242.58	50.00	86-115	74-121 (S2)	97.0

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MD) SUMMARY
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)

Volatile Organics in Soil
GC/MS VOA
[LOW LEVEL]

Sample Spiked: 090414-10
Date of Analysis: 10/01/96

Client ID: Batch QC
Solution ID: M96IV0136
Batch #: 100196LA

Compound	Spike Added (ug/kg)	Sample Conc. (ug/kg)	MS Conc. (ug/kg)	MS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	20.0	< 5.00	20.64	103.2	59-172
Trichloroethene	20.0	< 5.00	20.37	101.9	62-137
Benzene	20.0	< 5.00	21.10	105.5	66-142
Toluene	20.0	< 5.00	20.73	103.7	59-139
Chlorobenzene	20.0	< 5.00	21.00	105.0	60-133

Compound	Spike Added (ug/kg)	MD Conc. (ug/kg)	MD,% Percent Recovery	% RPD	Acceptability limits, a	
					% Recovery	% RPD
1,1-Dichloroethene	20.0	20.78	103.9	0.68	59-172	22
Trichloroethene	20.0	20.34	101.7	0.15	62-137	24
Benzene	20.0	21.85	109.3	3.49	66-142	21
Toluene	20.0	20.94	104.7	1.01	59-139	21
Chlorobenzene	20.0	20.87	104.4	0.62	60-133	21

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

**** %RPD based on concentration rather than % recovery due to high native concentrations of analyte.**

LABORATORY CONTROL SAMPLE (LCS)
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)

Volatile Organics in Soil
GC/MS VOA
[LOW LEVEL]

Sample Spiked: LL100196A
Date of Analysis: 10/02/96

Client ID: Batch QC
Solution ID: M96IV0136
Batch #: 100196LA

Compound	Spike Added (ug/kg)	Sample Conc. (ug/kg)	LCS Conc. (ug/kg)	LCS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	20.0	< 5.00	25.88	129.4	59-172
Trichloroethene	20.0	< 5.00	20.07	100.4	62-137
Benzene	20.0	< 5.00	24.15	120.8	66-142
Toluene	20.0	< 5.00	21.60	108.0	59-139
Chlorobenzene	20.0	< 5.00	21.58	107.9	60-133

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

**** %RPD based on concentration rather than % recovery due to high native concentrations of analyte.**

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

	GTEL File ID	BL100196LA
	Date Analyzed	10/01/96
Analyte	Reporting Limit, ug/kg	Concentration, ug/kg[b]
Dibromochloromethane	5.0	5.0 U
Chlorobenzene	5.0	5.0 U
Ethylbenzene	5.0	5.0 U
1,1,1,2-Tetrachloroethane	5.0	5.0 U
Xylenes (total)	5.0	5.0 U
1,3-Dichlorobenzene	5.0	5.0 U
Styrene	5.0	5.0 U
1,4-Dichlorobenzene	5.0	5.0 U
Bromoform	5.0	5.0 U
1,2-Dichlorobenzene	5.0	5.0 U
Isopropylbenzene	5.0	5.0 U
1,1,2,2-Tetrachloroethane	5.0	5.0 U
Bromobenzene	5.0	5.0 U
1,2,3-Trichloropropane	5.0	5.0 U
n-Propylbenzene	5.0	5.0 U
2-Chlorotoluene	5.0	5.0 U
1,3,5-Trimethylbenzene	5.0	5.0 U
4-Chlorotoluene	5.0	5.0 U
tert-Butylbenzene	5.0	5.0 U
1,2,4-Trimethylbenzene	5.0	5.0 U
sec-Butylbenzene	5.0	5.0 U
p-Isopropyltoluene	5.0	5.0 U
n-Butylbenzene	5.0	5.0 U
1,2-Dibromo-3-chloropropane	5.0	5.0 U
1,2,4-Trichlorobenzene	5.0	5.0 U
Hexachlorobutadiene	5.0	5.0 U
Naphthalene	5.0	5.0 U
1,2,3-Trichlorobenzene	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

	GTEL File ID	BL100196LA
	Date Analyzed	10/01/96
Analyte	Reporting Limit ug/kg[b]	Concentration, ug/kg[b]
Dichlorodifluoromethane	10	10 U
Chloromethane	10	10 U
Vinyl Chloride	5.0	5.0 U
Bromoethane	10	10 U
Chloroethane	10	10 U
Trichlorofluoromethane	5.0	5.0 U
1,1-Dichloroethene	5.0	5.0 U
Methylene Chloride	5.0	5.0 U
trans-1,2-Dichloroethene	5.0	5.0 U
1,1-Dichloroethane	5.0	5.0 U
2,2-Dichloropropane	5.0	5.0 U
cis-1,2-Dichloroethene	5.0	5.0 U
Chloroform	5.0	5.0 U
Bromochloromethane	5.0	5.0 U
1,1,1-Trichloroethane	5.0	5.0 U
1,1-Dichloropropene	5.0	5.0 U
Carbon Tetrachloride	5.0	5.0 U
Benzene	1.0	5.0 U
1,2-Dichloroethane	5.0	5.0 U
Trichloroethene	5.0	5.0 U
1,2-Dichloropropane	5.0	5.0 U
Bromodichloromethane	5.0	5.0 U
Dibromomethane	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
Toluene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U
1,1,2-Trichloroethane	5.0	5.0 U
1,2-Dibromoethane	5.0	5.0 U
Tetrachloroethene	5.0	5.0 U
1,3-Dichloropropane	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

a "Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, Table 3, US EPA November 1990; sample preparation by purge and trap. Method modified to include additional compounds.

b Data Flag Definitions

U Indicates compound was analyzed for but not detected.

J Indicates an estimated value. This flag is used when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the quantitation limit, but greater than zero, or when reporting an estimated concentration for a tentatively identified compound.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Batch Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Low Soil

	GTEL Sample Number	M6090429-18	M6090429-21	M6090429-22	M6090429-25
	Client ID	CLLTEV03S042	CLLTEV03S045	CLLTEV03S046	CLLTEV03S050
	Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
	Date Analyzed	10/09/96	10/08/96	10/09/96	10/09/96
	Dilution Factor	1.00	1.00	1.00	1.00
		Soil In - Run 3 00:05	Soil In - Run 3 00:20 Dup of 046	Soil In - Run 3 00:20 Dup of 045	Soil In - Run 3 00:35
Analyte	Reporting Limit / Units	Concentration: Dry Weight			
Dichlorodifluoromethane	10. ug/kg	10. U	10. U	10. U	10. U
Chloromethane	10. ug/kg	10. U	10. U	10. U	10. U
Vinyl chloride	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	10. ug/kg	10. U	10. U	10. U	10. U
Chloroethane	10. ug/kg	10. U	10. U	10. U	10. U
Trichlorofluoromethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5.0 ug/kg	2.5 J	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
2,2-Dichloropropane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Bromochloromethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloropropene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1.0 ug/kg	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Dibromomethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 ug/kg	100	2.7 J	99.	16.
1,3-Dichloropropane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1,2-Tetrachloroethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	5.0 U

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Low Soil

	GTEL Sample Number	M6090429-18	M6090429-21	M6090429-22	M6090429-25
	Client ID	CLLTEV03S042	CLLTEV03S045	CLLTEV03S046	CLLTEV03S050
	Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
	Date Analyzed	10/09/96	10/08/96	10/09/96	10/09/96
	Dilution Factor	1.00	1.00	1.00	1.00
Analyte	Reporting Limit	Units	Concentration:Dry Weight			
1,1,2,2-Tetrachloroethane	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Bromobenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
n-Propylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorotoluene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
tert-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
sec-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
p-Isopropyltoluene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
n-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
Percent Solids	--	%	77.7	95.7	80.0	94.8

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. "U" indicates that the analyte was analyzed for but not detected. "J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated. "B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination; The data user is warned to take appropriate action.

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >J9A41::D2
DATE AND TIME OF ANALYSIS = 10/08/96 23:10
SAMPLE NAME = BL100896JB
MISC. INFO = ...
METHOD = M8260
INSTRUMENT = MSDJ
OPERATOR = VANCIE SUPER GRP

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	47.49	50.00	76-114	70-121 (S3)	95.0
Toluene-d8(TOL)	50.34	50.00	88-110	81-117 (S1)	100.7
Bromofluorobenzene(BFB)	46.68	50.00	86-115	74-121 (S2)	93.4

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >J9046::D2
DATE AND TIME OF ANALYSIS = 10/09/96 2:29
SAMPLE NAME = 090429-18
MISC. INFO = ...
METHOD = M8260
INSTRUMENT = MSDJ
OPERATOR = VANGIE SUPER GRP

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	47.36	50.00	76-114	70-121 (S3)	94.7
Toluene-d8(TOL)	50.50	50.00	88-110	81-117 (S1)	101.0
Bromofluoro-benzene(BFB)	45.51	50.00	86-115	74-121 (S2)	91.0

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >J9042::D2
DATE AND TIME OF ANALYSIS = 10/08/96 23:49
SAMPLE NAME = 090429-21
MISC. INFO = ...
METHOD = M8260
INSTRUMENT = MSDJ
OPERATOR = VANGIE SUPER GRP

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	49.14	50.00	76-114	70-121 (S3)	98.3
Toluene-d8(TOL)	50.98	50.00	88-110	81-117 (S1)	102.0
Bromofluoro-benzene(BFB)	45.97	50.00	86-115	74-121 (S2)	91.9

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >J9047::D2
DATE AND TIME OF ANALYSIS = 10/09/96 3:09
SAMPLE NAME = 090429-22
MISC. INFO = ...
METHOD = M8260
INSTRUMENT = MSDJ
OPERATOR = VANGIE SUPER GRP

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	46.89	50.00	76-114	70-121 (S3)	93.7
Toluene-d8(TOL)	50.86	50.00	88-110	81-117 (S1)	101.7
Bromofluoro-benzene(BFB)	46.36	50.00	86-115	74-121 (S2)	92.7

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >J9048::D2
DATE AND TIME OF ANALYSIS = 10/09/96 3:44
SAMPLE NAME = 090429-25
MISC. INFO = ...
METHOD = M8260
INSTRUMENT = MSDJ
OPERATOR = VANGIE SUPER GRP

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	49.08	50.00	76-114	70-121 (S3)	98.2
Toluene-d8(TOL)	50.78	50.00	88-110	81-117 (S1)	101.6
Bromofluorobenzene(BFB)	46.58	50.00	86-115	74-121 (S2)	93.2

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >J9043::D2
DATE AND TIME OF ANALYSIS = 10/09/96 0:28
SAMPLE NAME = ms090429-21
MISC. INFO = ...
METHOD = M8260
INSTRUMENT = MSDJ
OPERATOR = VANGIE SUPER GRP

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	50.29	50.00	76-114	70-121 (S3)	100.6
Toluene-d8(TOL)	50.91	50.00	88-110	81-117 (S1)	101.8
Bromofluorobenzene(BFB)	48.73	50.00	86-115	74-121 (S2)	97.5

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >J9044::D2
DATE AND TIME OF ANALYSIS = 10/09/96 1:07
SAMPLE NAME = md090429-21
MISC. INFO = ...
METHOD = M8260
INSTRUMENT = MSDJ
OPERATOR = VANGIE SUPER GRP

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	50.81	50.00	76-114	70-121 (S3)	101.6
Toluene-d8(TOL)	50.56	50.00	88-110	81-117 (S1)	101.1
Bromofluorobenzene(BFB)	48.90	50.00	86-115	74-121 (S2)	97.8

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >J9045::D2
DATE AND TIME OF ANALYSIS = 10/09/96 1:46
SAMPLE NAME = 11100896jb
MISC. INFO = ...
METHOD = M8260
INSTRUMENT = MSDJ
OPERATOR = VANGIE SUPER GRP

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	49.47	50.00	76-114	70-121 (S3)	98.9
Toluene-d8(TOL)	51.73	50.00	88-110	81-117 (S1)	103.5
Bromofluorobenzene(BFB)	48.55	50.00	86-115	74-121 (S2)	97.1

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MD) SUMMARY
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)

Volatile Organics in Soil
GC/MS VOA
[LOW LEVEL]

Sample Spiked: 090429-21
Date of Analysis: 10/09/96

Client ID: Batch QC
Solution ID: M96MS0136
Batch #: 100896JA

Compound	Spike Added (ug/kg)	Sample Conc. (ug/kg)	MS Conc. (ug/kg)	MS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	20.0	< 5.00	19.04	95.2	59-172
Trichloroethene	20.0	< 5.00	19.39	97.0	62-137
Benzene	20.0	< 5.00	19.23	96.2	66-142
Toluene	20.0	< 5.00	19.35	96.8	59-139
Chlorobenzene	20.0	< 5.00	19.42	97.1	60-133

Compound	Spike Added (ug/kg)	MD Conc. (ug/kg)	MD,% Percent Recovery	% RPD	Acceptability limits, a	
					% Recovery	% RPD
1,1-Dichloroethene	20.0	19.75	98.8	3.66	59-172	22
Trichloroethene	20.0	19.84	99.2	2.29	62-137	24
Benzene	20.0	19.34	96.7	0.57	66-142	21
Toluene	20.0	19.38	96.9	0.15	59-139	21
Chlorobenzene	20.0	18.98	94.9	2.29	60-133	21

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

**** %RPD based on concentration rather than % recovery due to high native concentrations of analyte.**

LABORATORY CONTROL SAMPLE (LCS)
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)

Volatile Organics in Soil
GC/MS VOA
[LOW LEVEL]

Sample Spiked: LL100896JB
Date of Analysis: 10/09/96

Client ID: Batch QC
Solution ID: M96MS0136
Batch #: 100896JA

Compound	Spike Added (ug/kg)	Sample Conc. (ug/kg)	LCS Conc. (ug/kg)	LCS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	20.0	< 5.00	19.41	97.1	59-172
Trichloroethene	20.0	< 5.00	18.92	94.6	62-137
Benzene	20.0	< 5.00	19.56	97.8	66-142
Toluene	20.0	<5.00	19.60	98.0	59-139
Chlorobenzene	20.0	< 5.00	19.16	95.8	60-133

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

**** %RPD based on concentration rather than % recovery due to high native concentrations of analyte.**

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

	GTEL File ID	BL100896JB
	Date Analyzed	10/08/96
Analyte	Reporting Limit ug/kg[b]	Concentration, ug/kg[b]
Dichlorodifluoromethane	10	10 U
Chloromethane	10	10 U
Vinyl Chloride	5.0	5.0 U
Bromoethane	10	10 U
Chloroethane	10	10 U
Trichlorofluoromethane	5.0	5.0 U
1,1-Dichloroethene	5.0	5.0 U
Methylene Chloride	5.0	5.0 U
trans-1,2-Dichloroethene	5.0	5.0 U
1,1-Dichloroethane	5.0	5.0 U
2,2-Dichloropropane	5.0	5.0 U
cis-1,2-Dichloroethene	5.0	5.0 U
Chloroform	5.0	5.0 U
Bromochloromethane	5.0	5.0 U
1,1,1-Trichloroethane	5.0	5.0 U
1,1-Dichloropropene	5.0	5.0 U
Carbon Tetrachloride	5.0	5.0 U
Benzene	1.0	1.0 U
1,2-Dichloroethane	5.0	5.0 U
Trichloroethene	5.0	5.0 U
1,2-Dichloropropane	5.0	5.0 U
Bromodichloromethane	5.0	5.0 U
Dibromomethane	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
Toluene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U
1,1,2-Trichloroethane	5.0	5.0 U
1,2-Dibromoethane	5.0	5.0 U
Tetrachloroethene	5.0	5.0 U
1,3-Dichloropropane	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

	GTEL File ID	BL100896JB
	Date Analyzed	10/08/96
Analyte	Reporting Limit, ug/kg	Concentration, ug/kg[b]
Dibromochloromethane	5.0	5.0 U
Chlorobenzene	5.0	5.0 U
Ethylbenzene	5.0	5.0 U
1,1,1,2-Tetrachloroethane	5.0	5.0 U
Xylenes (total)	5.0	5.0 U
1,3-Dichlorobenzene	5.0	5.0 U
Styrene	5.0	5.0 U
1,4-Dichlorobenzene	5.0	5.0 U
Bromoform	5.0	5.0 U
1,2-Dichlorobenzene	5.0	5.0 U
Isopropylbenzene	5.0	5.0 U
1,1,2,2-Tetrachloroethane	5.0	5.0 U
Bromobenzene	5.0	5.0 U
1,2,3-Trichloropropane	5.0	5.0 U
n-Propylbenzene	5.0	5.0 U
2-Chlorotoluene	5.0	5.0 U
1,3,5-Trimethylbenzene	5.0	5.0 U
4-Chlorotoluene	5.0	5.0 U
tert-Butylbenzene	5.0	5.0 U
1,2,4-Trimethylbenzene	5.0	5.0 U
sec-Butylbenzene	5.0	5.0 U
p-Isopropyltoluene	5.0	5.0 U
n-Butylbenzene	5.0	5.0 U
1,2-Dibromo-3-chloropropane	5.0	5.0 U
1,2,4-Trichlorobenzene	5.0	5.0 U
Hexachlorobutadiene	5.0	5.0 U
Naphthalene	5.0	5.0 U
1,2,3-Trichlorobenzene	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

a "Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, Table 3, US EPA November 1990; sample preparation by purge and trap. Method modified to include additional compounds.

b Data Flag Definitions

U Indicates compound was analyzed for but not detected.

J Indicates an estimated value. This flag is used when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the quantitation limit, but greater than zero, or when reporting an estimated concentration for a tentatively identified compound.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Low Soil

	GTEL Sample Number	M6090429-09	M6090429-11	--	--
	Client ID	CLLTEV03S032	CLLTEV03S034	--	--
	Date Sampled	09/26/96	09/26/96	--	--
	Date Analyzed	10/04/96	10/04/96	--	--
	Dilution Factor	1.00	1.00	--	--

Soil In- Run 2 00:30

Soil In- Run 2 00:40 Dup of 036

Analyte	Reporting Limit	Units	Concentration:Dry Weight			
Dichlorodifluoromethane	10.	ug/kg	10. U	10. U	--	--
Chloromethane	10.	ug/kg	10. U	10. U	--	--
Vinyl chloride	5.0	ug/kg	5.0 U	5.0 U	--	--
Bromomethane	10.	ug/kg	10. U	10. U	--	--
Chloroethane	10.	ug/kg	10. U	10. U	--	--
Trichlorofluoromethane	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1-Dichloroethene	5.0	ug/kg	5.0 U	5.0 U	--	--
Methylene chloride	5.0	ug/kg	5.0 U	5.0 U	--	--
trans-1,2-Dichloroethene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1-Dichloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
2,2-Dichloropropane	5.0	ug/kg	5.0 U	5.0 U	--	--
cis-1,2-Dichloroethene	5.0	ug/kg	5.0 U	5.0 U	--	--
Chloroform	5.0	ug/kg	5.0 U	5.0 U	--	--
Bromochloromethane	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1,1-Trichloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1-Dichloropropene	5.0	ug/kg	5.0 U	5.0 U	--	--
Carbon tetrachloride	5.0	ug/kg	5.0 U	5.0 U	--	--
Benzene	1.0	ug/kg	1.0 U	1.0 U	--	--
1,2-Dichloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Trichloroethene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2-Dichloropropane	5.0	ug/kg	5.0 U	5.0 U	--	--
Bromodichloromethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Dibromomethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Toluene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1,2-Trichloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2-Dibromoethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Tetrachloroethene	5.0	ug/kg	1.2 J	12.	--	--
1,3-Dichloropropane	5.0	ug/kg	5.0 U	5.0 U	--	--
Dibromochloromethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Chlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
Ethylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1,1,2-Tetrachloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Xylenes (total)	5.0	ug/kg	5.0 U	5.0 U	--	--
1,3-Dichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
Styrene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,4-Dichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
Bromoform	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2-Dichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
Isopropylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--

ANALYTICAL RESULTS
Volatile Organics

TEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Low Soil

GTEL Sample Number	M6090429-09	M6090429-11	--	--
Client ID	CLLTEV03S032	CLLTEV03S034	--	--
Date Sampled	09/26/96	09/26/96	--	--
Date Analyzed	10/04/96	10/04/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:Dry Weight			
1,1,2,2-Tetrachloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Bromobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2,3-Trichloropropane	5.0	ug/kg	5.0 U	5.0 U	--	--
n-Propylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
2-Chlorotoluene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,3,5-Trimethylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
4-Chlorotoluene	5.0	ug/kg	5.0 U	5.0 U	--	--
tert-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2,4-Trimethylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
sec-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
p-Isopropyltoluene	5.0	ug/kg	5.0 U	5.0 U	--	--
n-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2-Dibromo-3-chloropropane	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2,4-Trichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
Hexachlorobutadiene	5.0	ug/kg	5.0 U	5.0 U	--	--
Naphthalene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2,3-Trichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
cis-1,3-Dichloropropene	5.0	ug/kg	5.0 U	5.0 U	--	--
trans-1,3-Dichloropropene	5.0	ug/kg	5.0 U	5.0 U	--	--
Percent Solids	--	%	95.1	95.4	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. "U" indicates that the analyte was analyzed for but not detected. "J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated. "B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination: The data user is warned to take appropriate action.

[GTEL MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8457::D4
DATE AND TIME OF ANALYSIS = 10/04/96 17:56
SAMPLE NAME = BL100496A
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	46.44	50.00	76-114	70-121 (S3)	92.9
Toluene-d8(TOL)	48.90	50.00	88-110	81-117 (S1)	97.8
Bromofluorobenzene(BFB)	47.79	50.00	86-115	74-121 (S2)	95.6

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8463::D4
DATE AND TIME OF ANALYSIS = 10/04/96 22:04
SAMPLE NAME = 090429-09
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	40.29	50.00	76-114	70-121 (S3)	80.6
Toluene-d8(TOL)	48.85	50.00	88-110	81-117 (S1)	97.7
Bromofluorobenzene(BFB)	48.46	50.00	86-115	74-121 (S2)	96.9

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8464::D4
DATE AND TIME OF ANALYSIS = 10/04/96 22:45
SAMPLE NAME = 090429-11
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	41.45	50.00	76-114	70-121 (S3)	82.9
Toluene-d8(TOL)	50.25	50.00	88-110	81-117 (S1)	100.5
Bromofluorobenzene(BFB)	47.46	50.00	86-115	74-121 (S2)	94.9

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8470::D4
DATE AND TIME OF ANALYSIS = 10/05/96 2:48
SAMPLE NAME = MS090414-14
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	44.54	50.00	76-114	70-121 (S3)	89.1
Toluene-d8(TOL)	49.89	50.00	88-110	81-117 (S1)	99.8
Bromofluorobenzene(BFB)	51.19	50.00	86-115	74-121 (S2)	102.4

[GTEL MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8471::D4
DATE AND TIME OF ANALYSIS = 10/05/96 3:26
SAMPLE NAME = MD090414-14
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	44.39	50.00	76-114	70-121 (S3)	88.8
Toluene-d8(TOL)	49.91	50.00	88-110	81-117 (S1)	99.8
Bromofluorobenzene(BFB)	50.53	50.00	86-115	74-121 (S2)	101.1

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8472::D4
DATE AND TIME OF ANALYSIS = 10/05/96 4:03
SAMPLE NAME = LL100496IB
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	43.81	50.00	76-114	70-121 (S3)	87.6
Toluene-d8(TOL)	49.58	50.00	88-110	81-117 (S1)	99.2
Bromofluoro-benzene(BFB)	50.72	50.00	86-115	74-121 (S2)	101.4

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MD) SUMMARY
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)

Volatile Organics in Soil
GC/MS VOA
[LOW LEVEL]

Sample Spiked: 090414-14
Date of Analysis: 10/05/96

Client ID: Batch QC
Solution ID: M96MS0136
Batch #: 090496LA

Compound	Spike Added (ug/kg)	Sample Conc (ug/kg)	MS Conc. (ug/kg)	MS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	25.0	< 5.00	22.61	90.4	59-172
Trichloroethene	25.0	< 5.00	26.41	105.6	62-137
Benzene	25.0	< 5.00	28.27	113.1	66-142
Toluene	25.0	< 5.00	26.09	104.4	59-139
Chlorobenzene	25.0	< 5.00	26.74	107.0	60-133

Compound	Spike Added (ug/kg)	MD Conc. (ug/kg)	MD,% Percent Recovery	% RPD	Acceptability limits, a	
					% Recovery	% RPD
1,1-Dichloroethene	25.0	27.03	108.1	17.81	59-172	22
Trichloroethene	25.0	26.35	105.4	0.23	62-137	24
Benzene	25.0	27.12	108.5	4.15	66-142	21
Toluene	25.0	25.98	103.9	0.42	59-139	21
Chlorobenzene	25.0	27.26	109.0	1.93	60-133	21

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

**** %RPD based on concentration rather than % recovery due to high native concentrations of analyte.**

Volatile Organics in Soil
GC/MS VOA
[LOW LEVEL]

Sample Spiked: LL100496IB
Date of Analysis: 10/05/96

Client ID: Batch QC
Solution ID: M96MS0136
Batch #: 100496LA

Compound	Spike Added (ug/kg)	Sample Conc. (ug/kg)	LCS Conc. (ug/kg)	LCS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	25.0	< 5.00	26.33	105.3	59-172
Trichloroethene	25.0	< 5.00	26.19	104.8	62-137
Benzene	25.0	< 5.00	29.43	117.7	66-142
Toluene	25.0	< 5.00	26.71	106.8	59-139
Chlorobenzene	25.0	< 5.00	26.96	117.2	60-133

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

**** %RPD based on concentration rather than % recovery due to high native concentrations of analyte.**

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

	GTEL File ID	BL100496A
	Date Analyzed	10/04/96
Analyte	Reporting Limit ug/kg[b]	Concentration, ug/kg[b]
Dichlorodifluoromethane	10	10 U
Chloromethane	10	10 U
Vinyl Chloride	5.0	5.0 U
Bromoethane	10	10 U
Chloroethane	10	10 U
Trichlorofluoromethane	5.0	5.0 U
1,1-Dichloroethene	5.0	5.0 U
Methylene Chloride	5.0	5.0 U
trans-1,2-Dichloroethene	5.0	5.0 U
1,1-Dichloroethane	5.0	5.0 U
2,2-Dichloropropane	5.0	5.0 U
cis-1,2-Dichloroethene	5.0	5.0 U
Chloroform	5.0	5.0 U
Bromochloromethane	5.0	5.0 U
1,1,1-Trichloroethane	5.0	5.0 U
1,1-Dichloropropene	5.0	5.0 U
Carbon Tetrachloride	5.0	5.0 U
Benzene	1.0	1.0 U
1,2-Dichloroethane	5.0	5.0 U
Trichloroethene	5.0	5.0 U
1,2-Dichloropropane	5.0	5.0 U
Bromodichloromethane	5.0	5.0 U
Dibromomethane	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
Toluene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U
1,1,2-Trichloroethane	5.0	5.0 U
1,2-Dibromoethane	5.0	5.0 U
Tetrachloroethene	5.0	5.0 U
1,3-Dichloropropane	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

	GTEL File ID	BL100496A
	Date Analyzed	10/04/96
Analyte	Reporting Limit, ug/kg	Concentration, ug/kg[b]
Dibromochloromethane	5.0	5.0 U
Chlorobenzene	5.0	5.0 U
Ethylbenzene	5.0	5.0 U
1,1,1,2-Tetrachloroethane	5.0	5.0 U
Xylenes (total)	5.0	5.0 U
1,3-Dichlorobenzene	5.0	5.0 U
Styrene	5.0	5.0 U
1,4-Dichlorobenzene	5.0	5.0 U
Bromoform	5.0	5.0 U
1,2-Dichlorobenzene	5.0	5.0 U
Isopropylbenzene	5.0	5.0 U
1,1,2,2-Tetrachloroethane	5.0	5.0 U
Bromobenzene	5.0	5.0 U
1,2,3-Trichloropropane	5.0	5.0 U
n-Propylbenzene	5.0	5.0 U
2-Chlorotoluene	5.0	5.0 U
1,3,5-Trimethylbenzene	5.0	5.0 U
4-Chlorotoluene	5.0	5.0 U
tert-Butylbenzene	5.0	5.0 U
1,2,4-Trimethylbenzene	5.0	5.0 U
sec-Butylbenzene	5.0	5.0 U
p-Isopropyltoluene	5.0	5.0 U
n-Butylbenzene	5.0	5.0 U
1,2-Dibromo-3-chloropropane	5.0	5.0 U
1,2,4-Trichlorobenzene	5.0	5.0 U
Hexachlorobutadiene	5.0	5.0 U
Naphthalene	5.0	5.0 U
1,2,3-Trichlorobenzene	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

a "Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, Table 3, US EPA November 1990; sample preparation by purge and trap. Method modified to include additional compounds.

b Data Flag Definitions

U Indicates compound was analyzed for but not detected.

J Indicates an estimated value. This flag is used when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the quantitation limit, but greater than zero, or when reporting an estimated concentration for a tentatively identified compound.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044 Method: EPA 8260
Project ID (name): Claremont Polychemical Superfund Site Matrix: Low Soil

GTEL Sample Number	M6090429-10	M6090429-12	--	--
Client ID	CLLTEV03S033	CLLTEV03S036	--	--
Date Sampled	09/26/96	09/26/96	--	--
Date Analyzed	10/08/96	10/08/96	--	--
Dilution Factor	1.00	1.00	--	--

So.1 In - Run 2 00:35

Soil In - Run 2 00:40 Dup of 034

Analyte	Reporting Limit	Units	Concentration:Dry Weight			
Dichlorodifluoromethane	10.	ug/kg	10. U	10. U	--	--
Chloromethane	10.	ug/kg	10. U	10. U	--	--
Vinyl chloride	5.0	ug/kg	5.0 U	5.0 U	--	--
Bromomethane	10.	ug/kg	10. U	10. U	--	--
Chloroethane	10.	ug/kg	10. U	10. U	--	--
Trichlorofluoromethane	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1-Dichloroethene	5.0	ug/kg	5.0 U	5.0 U	--	--
Methylene chloride	5.0	ug/kg	5.0 U	5.0 U	--	--
trans-1,2-Dichloroethene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1-Dichloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
2,2-Dichloropropane	5.0	ug/kg	5.0 U	5.0 U	--	--
cis-1,2-Dichloroethene	5.0	ug/kg	5.0 U	5.0 U	--	--
Chloroform	5.0	ug/kg	5.0 U	5.0 U	--	--
Bromochloromethane	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1,1-Trichloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1-Dichloropropene	5.0	ug/kg	5.0 U	5.0 U	--	--
Carbon tetrachloride	5.0	ug/kg	5.0 U	5.0 U	--	--
Benzene	1.0	ug/kg	1.0 U	1.0 U	--	--
1,2-Dichloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Trichloroethene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2-Dichloropropane	5.0	ug/kg	5.0 U	5.0 U	--	--
Bromodichloromethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Dibromomethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Toluene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1,2-Trichloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2-Dibromoethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Tetrachloroethene	5.0	ug/kg	6.7	11.	--	--
1,3-Dichloropropane	5.0	ug/kg	5.0 U	5.0 U	--	--
Dibromochloromethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Chlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
Ethylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1,1,2-Tetrachloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Xylenes (total)	5.0	ug/kg	5.0 U	5.0 U	--	--
1,3-Dichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
Styrene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,4-Dichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
Bromoform	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2-Dichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
Isopropylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Job Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Low Soil

GTEL Sample Number	M6090429-10	M6090429-12	--	--
Client ID	CLLTEV03S033	CLLTEV03S036	--	--
Date Sampled	09/26/96	09/26/96	--	--
Date Analyzed	10/08/96	10/08/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:Dry Weight			
1,1,2,2-Tetrachloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Bromobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2,3-Trichloropropane	5.0	ug/kg	5.0 U	5.0 U	--	--
n-Propylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
2-Chlorotoluene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,3,5-Trimethylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
4-Chlorotoluene	5.0	ug/kg	5.0 U	5.0 U	--	--
tert-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2,4-Trimethylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
sec-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
p-Isopropyltoluene	5.0	ug/kg	5.0 U	5.0 U	--	--
n-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2-Dibromo-3-chloropropane	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2,4-Trichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
Hexachlorobutadiene	5.0	ug/kg	5.0 U	5.0 U	--	--
Naphthalene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2,3-Trichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
cis-1,3-Dichloropropene	5.0	ug/kg	5.0 U	5.0 U	--	--
trans-1,3-Dichloropropene	5.0	ug/kg	5.0 U	5.0 U	--	--
Percent Solids	--	%	94.0	95.3	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" SW-846, Third Edition including promulgated Update 1. "U" indicates that the analyte was analyzed for but not detected. "J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated. "B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination; The data user is warned to take appropriate action.

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8531::D6
DATE AND TIME OF ANALYSIS = 10/08/96 19:41
SAMPLE NAME = BL100896A
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

URROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
,2-Dichloro-thane-d4(DCE)	42.59	50.00	76-114	70-121 (S3)	85.2
oluene-d8(TOL)	53.63	50.00	88-110	81-117 (S1)	107.3
r fluoro-e ne(BFB)	44.17	50.00	86-115	74-121 (S2)	88.3

[@TEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8533::D6
DATE AND TIME OF ANALYSIS = 10/08/96 21:00
SAMPLE NAME = 090429-10 R1
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	46.77	50.00	76-114	70-121 (S3)	93.5
Toluene-d8(TOL)	48.64	50.00	88-110	81-117 (S1)	97.3
Bromofluorobenzene(BFB)	48.75	50.00	86-115	74-121 (S2)	97.5

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8532::D6
DATE AND TIME OF ANALYSIS = 10/08/96 20:20
SAMPLE NAME = 090429-12 R1
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	49.86	50.00	76-114	70-121 (S3)	99.7
Toluene-d8(TOL)	48.50	50.00	88-110	81-117 (S1)	97.0
Bromofluorobenzene(BFB)	42.11	50.00	86-115	74-121 (S2)	84.2

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8544::D6
DATE AND TIME OF ANALYSIS = 10/09/96 4:14
SAMPLE NAME = MS100016-04
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	41.73	50.00	76-114	70-121 (S3)	83.5
Toluene-d8(TOL)	46.16	50.00	88-110	81-117 (S1)	92.3
Bromofluorobenzene(BFB)	51.27	50.00	86-115	74-121 (S2)	102.5

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8545::D6
DATE AND TIME OF ANALYSIS = 10/09/96 4:52
SAMPLE NAME = MD100016-04
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	48.28	50.00	76-114	70-121 (S3)	96.6
Toluene-d8(TOL)	47.27	50.00	88-110	81-117 (S1)	94.5
Bromofluorobenzene(BFB)	52.38	50.00	86-115	74-121 (S2)	104.8

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8546::D6
DATE AND TIME OF ANALYSIS = 10/09/96 5:30
SAMPLE NAME = LL100896A
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	46.56	50.00	76-114	70-121 (S3)	93.1
Toluene-d8(TOL)	47.09	50.00	88-110	81-117 (S1)	94.2
Bromofluoro-benzene(BFB)	52.44	50.00	86-115	74-121 (S2)	104.9

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MD) SUMMARY
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)

Volatile Organics in Soil
Modified EPA Method 8240/8260
[LOW LEVEL]

Sample Spiked: 100016-04
Date of Analysis: 10-09-96

Client ID: Batch QC
Solution ID: B96MS0136
Batch #: 100896LA

Compound	Spike Added (ug/kg)	Sample Conc. (ug/kg)	MS Conc. (ug/kg)	MS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	20.0	<5.00	18.75	93.8	59-172
Trichloroethene	20.0	< 5.00	21.10	105.5	62-137
Benzene	20.0	< 5.00	19.90	99.5	66-142
Toluene	20.0	< 5.00	21.26	106.3	59-139
Chlorobenzene	20.0	< 5.00	23.56	117.8	60-133

Compound	Spike Added (ug/kg)	MD Conc. (ug/kg)	MD,% Percent Recovery	% RPD	Acceptability limits, a	
					% Recovery	% RPD
1,1-Dichloroethene	20.0	17.98	89.9	4.19	59-172	22
Trichloroethene	20.0	21.50	107.5	1.88	62-137	24
Benzene	20.0	24.17	120.9	19.38	66-142	21
Toluene	20.0	21.24	106.2	0.1	59-139	21
Chlorobenzene	20.0	23.88	119.4	1.35	60-133	21

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

**** %RPD based on concentration rather than % recovery due to high native concentrations of analyte.**

LABORATORY CONTROL SAMPLE (LCS)

Volatile Organics in Soil
Modified EPA Method 8240/8260
[LOW LEVEL]

Sample Spiked: LL100896A
Date of Analysis: 10-09-96

Client ID: Batch QC
Solution ID: M96MS0136
Batch #: 100896LA

Compound	Spike Added (ug/kg)	Sample Conc. (ug/kg)	LCS Conc. (ug/kg)	LCS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	20.0	< 5.00	20.82	104.1	59-172
Trichloroethene	20.0	< 5.00	21.68	108.4	62-137
Benzene	20.0	< 5.00	24.46	122.3	66-142
Toluene	20.0	< 5.00	21.61	108.1	59-139
Chlorobenzene	20.0	< 5.00	24.18	120.9	60-133

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Non-conformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

	GTEL File ID	BL100896A
	Date Analyzed	10/08/96
Analyte	Reporting Limit ug/kg[b]	Concentration, ug/kg[b]
Dichlorodifluoromethane	10	10 U
Chloromethane	10	10 U
Vinyl Chloride	5.0	5.0 U
Bromoethane	10	10 U
Chloroethane	10	10 U
Trichlorofluoromethane	5.0	5.0 U
1,1-Dichloroethene	5.0	5.0 U
Methylene Chloride	5.0	5.0 U
trans-1,2-Dichloroethene	5.0	5.0 U
1,1-Dichloroethane	5.0	5.0 U
2,2-Dichloropropane	5.0	5.0 U
cis-1,2-Dichloroethene	5.0	5.0 U
Chloroform	5.0	5.0 U
Bromochloromethane	5.0	5.0 U
1,1,1-Trichloroethane	5.0	5.0 U
1,1-Dichloropropene	5.0	5.0 U
Carbon Tetrachloride	5.0	5.0 U
Benzene	1.0	1.0 U
1,2-Dichloroethane	5.0	5.0 U
Trichloroethene	5.0	5.0 U
1,2-Dichloropropane	5.0	5.0 U
Bromodichloromethane	5.0	5.0 U
Dibromomethane	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
Toluene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U
1,1,2-Trichloroethane	5.0	5.0 U
1,2-Dibromoethane	5.0	5.0 U
Tetrachloroethene	5.0	5.0 U
1,3-Dichloropropane	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

	GTEL File ID	BL100896A
	Date Analyzed	10/08/96
Analyte	Reporting Limit, ug/kg	Concentration, ug/kg[b]
Dibromochloromethane	5.0	5.0 U
Chlorobenzene	5.0	5.0 U
Ethylbenzene	5.0	5.0 U
1,1,1,2-Tetrachloroethane	5.0	5.0 U
Xylenes (total)	5.0	5.0 U
1,3-Dichlorobenzene	5.0	5.0 U
Styrene	5.0	5.0 U
1,4-Dichlorobenzene	5.0	5.0 U
Bromoform	5.0	5.0 U
1,2-Dichlorobenzene	5.0	5.0 U
Isopropylbenzene	5.0	5.0 U
1,1,2,2-Tetrachloroethane	5.0	5.0 U
Bromobenzene	5.0	5.0 U
1,2,3-Trichloropropane	5.0	5.0 U
n-Propylbenzene	5.0	5.0 U
2-Chlorotoluene	5.0	5.0 U
1,3,5-Trimethylbenzene	5.0	5.0 U
4-Chlorotoluene	5.0	5.0 U
tert-Butylbenzene	5.0	5.0 U
1,2,4-Trimethylbenzene	5.0	5.0 U
sec-Butylbenzene	5.0	5.0 U
p-Isopropyltoluene	5.0	5.0 U
n-Butylbenzene	5.0	5.0 U
1,2-Dibromo-3-chloropropane	5.0	5.0 U
1,2,4-Trichlorobenzene	5.0	5.0 U
Hexachlorobutadiene	5.0	5.0 U
Naphthalene	5.0	5.0 U
1,2,3-Trichlorobenzene	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

a "Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, Table 3, US EPA November 1990; sample preparation by purge and trap. Method modified to include additional compounds.

b Data Flag Definitions

U Indicates compound was analyzed for but not detected.

J Indicates an estimated value. This flag is used when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the quantitation limit, but greater than zero, or when reporting an estimated concentration for a tentatively identified compound.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Run Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Low Soil

GTEL Sample Number	M6090429-19	M6090429-28	--	--
Client ID	CLLTEV03S043	CLLTEV05S011	--	--
Date Sampled	09/26/96	09/26/96	--	--
Date Analyzed	10/07/96	10/07/96	--	--
Dilution Factor	1.00	1.00	--	--
	Soil In - Run 3 00'10	Soil Out - Run 3		

Analyte	Reporting Limit	Units	Concentration:Dry Weight			
Dichlorodifluoromethane	10.	ug/kg	10. U	10. U	--	--
Chloromethane	10.	ug/kg	10. U	10. U	--	--
Vinyl chloride	5.0	ug/kg	5.0 U	5.0 U	--	--
Bromomethane	10.	ug/kg	10. U	10. U	--	--
Chloroethane	10.	ug/kg	10. U	10. U	--	--
Trichlorofluoromethane	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1-Dichloroethene	5.0	ug/kg	5.0 U	5.0 U	--	--
Methylene chloride	5.0	ug/kg	5.0 U	5.0 U	--	--
trans-1,2-Dichloroethene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1-Dichloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
2,2-Dichloropropane	5.0	ug/kg	5.0 U	5.0 U	--	--
cis-1,2-Dichloroethene	5.0	ug/kg	5.0 U	5.0 U	--	--
Chloroform	5.0	ug/kg	5.0 U	5.0 U	--	--
Bromochloromethane	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1,1-Trichloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1-Dichloropropene	5.0	ug/kg	5.0 U	5.0 U	--	--
Carbon tetrachloride	5.0	ug/kg	5.0 U	5.0 U	--	--
Benzene	1.0	ug/kg	1.0 U	1.0 U	--	--
1,2-Dichloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Trichloroethene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2-Dichloropropane	5.0	ug/kg	5.0 U	5.0 U	--	--
Bromodichloromethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Dibromomethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Toluene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1,2-Trichloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2-Dibromoethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Tetrachloroethene	5.0	ug/kg	8.0	5.0 U	--	--
1,3-Dichloropropane	5.0	ug/kg	5.0 U	5.0 U	--	--
Dibromochloromethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Chlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
Ethylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,1,1,2-Tetrachloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Xylenes (total)	5.0	ug/kg	5.0 U	5.0 U	--	--
1,3-Dichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
Styrene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,4-Dichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
Bromoform	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2-Dichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
Isopropylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Job Number: M6090429
Project ID (number): 6044 Method: EPA 8260
Project ID (name): Claremont Polychemical Superfund Site Matrix: Low Soil

GTEL Sample Number	M6090429-19	M6090429-28	--	--
Client ID	CLLTEV03S043	CLLTEV05S011	--	--
Date Sampled	09/26/96	09/26/96	--	--
Date Analyzed	10/07/96	10/07/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:Dry Weight			
1,1,2,2-Tetrachloroethane	5.0	ug/kg	5.0 U	5.0 U	--	--
Bromobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2,3-Trichloropropane	5.0	ug/kg	5.0 U	5.0 U	--	--
n-Propylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
2-Chlorotoluene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,3,5-Trimethylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
4-Chlorotoluene	5.0	ug/kg	5.0 U	5.0 U	--	--
tert-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2,4-Trimethylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
sec-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
p-Isopropyltoluene	5.0	ug/kg	5.0 U	5.0 U	--	--
n-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2-Dibromo-3-chloropropane	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2,4-Trichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
Hexachlorobutadiene	5.0	ug/kg	5.0 U	5.0 U	--	--
Naphthalene	5.0	ug/kg	5.0 U	5.0 U	--	--
1,2,3-Trichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	--	--
cis-1,3-Dichloropropene	5.0	ug/kg	5.0 U	5.0 U	--	--
trans-1,3-Dichloropropene	5.0	ug/kg	5.0 U	5.0 U	--	--
Percent Solids	--	%	95.9	77.7	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. "U" indicates that the analyte was analyzed for but not detected. "J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated. "B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination; The data user is warned to take appropriate action.

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MD) SUMMARY
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)

Volatile Organics in Soil
Modified EPA Method 8240/8260
[LOW LEVEL]

Sample Spiked: 090429-21
Date of Analysis: 10-07-96

Client ID: Batch QC
Solution ID: B96MS0136
Batch #: 100796LA

Compound	Spike Added (ug/kg)	Sample Conc. (ug/kg)	MS Conc. (ug/kg)	MS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	20.0	<5.00	18.61	93.1	59-172
Trichloroethene	20.0	< 5.00	20.07	100.4	62-137
Benzene	20.0	< 5.00	26.04	130.2	66-142
Toluene	20.0	< 5.00	21.28	106.4	59-139
Chlorobenzene	20.0	< 5.00	21.93	109.7	60-133

Compound	Spike Added (ug/kg)	MD Conc. (ug/kg)	MD,% Percent Recovery	% RPD	Acceptability limits, a	
					% Recovery	% RPD
1,1-Dichloroethene	20.0	21.66	108.3	15.15	59-172	22
Trichloroethene	20.0	20.01	100.1	0.30	62-137	24
Benzene	20.0	25.79	129.0	0.96	66-142	21
Toluene	20.0	20.73	103.7	2.6	59-139	21
Chlorobenzene	20.0	22.29	111.5	1.63	60-133	21

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

**** %RPD based on concentration rather than % recovery due to high native concentrations of analyte.**

LABORATORY CONTROL SAMPLE (LCS)

Volatile Organics in Soil
Modified EPA Method 8240/8260
[LOW LEVEL]

Sample Spiked: LL100796A
Date of Analysis: 10-07-96

Client ID: Batch QC
Solution ID: M96MS0136
Batch #: 100796LA

Compound	Spike Added (ug/kg)	Sample Conc. (ug/kg)	LCS Conc. (ug/kg)	LCS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	20.0	< 5.00	22.62	113.1	59-172
Trichloroethene	20.0	< 5.00	20.48	102.4	62-137
Benzene	20.0	< 5.00	25.72	128.6	66-142
Toluene	20.0	< 5.00	22.37	111.9	59-139
Chlorobenzene	20.0	< 5.00	22.20	111.0	60-133

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

[@TEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8490::D4
DATE AND TIME OF ANALYSIS = 10/07/96 15:52
SAMPLE NAME = BL100796IA
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	56.31	50.00	76-114	70-121 (S3)	112.6
Toluene-d8(TOL)	49.70	50.00	88-110	81-117 (S1)	99.4
Bromofluorobenzene(BFB)	48.84	50.00	86-115	74-121 (S2)	97.7

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >18498::D4
DATE AND TIME OF ANALYSIS = 10/07/96 21:06
SAMPLE NAME = MS100429-21
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	59.83	50.00	76-114	70-121 (S3)	119.7
Toluene-d8(TOL)	49.46	50.00	88-110	81-117 (S1)	98.9
Bromofluorobenzene(BFB)	52.56	50.00	86-115	74-121 (S2)	105.1

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8499::D4
DATE AND TIME OF ANALYSIS = 10/07/96 21:44
SAMPLE NAME = MD100429-21
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	59.47	50.00	76-114	70-121 (S3)	118.9
Toluene-d8(TOL)	47.83	50.00	88-110	81-117 (S1)	95.7
Bromofluoro-benzene(BFB)	52.90	50.00	86-115	74-121 (S2)	105.8

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8500::D4
DATE AND TIME OF ANALYSIS = 10/07/96 22:22
SAMPLE NAME = LL100796A
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	57.20	50.00	76-114	70-121 (S3)	114.4
Toluene-d8(TOL)	50.36	50.00	88-110	81-117 (S1)	100.7
Bromofluorone(BFB)	52.92	50.00	86-115	74-121 (S2)	105.8

[STEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8493::D4
DATE AND TIME OF ANALYSIS = 10/07/96 17:49
SAMPLE NAME = ~~180~~429-19
MISC. INFO = .090.....
METHOD = CSCVT
INSTRUMENT = MSD1
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	55.80	50.00	76-114	70-121 (S3)	111.6
Toluene-d8(TOL)	47.77	50.00	88-110	81-117 (S1)	95.5
Bromofluorobenzene(BFB)	48.71	50.00	86-115	74-121 (S2)	97.4

cp 10/8

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8497::D4
DATE AND TIME OF ANALYSIS = 10/07/96 20:27
SAMPLE NAME = ~~100429~~-28
MISC. INFO = .090.....
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	55.33	50.00	76-114	70-121 (S3)	110.7
Toluene-d8(TOL)	49.25	50.00	88-110	81-117 (S1)	98.5
Bromofluorobenzene(BFB)	49.66	50.00	86-115	74-121 (S2)	99.3

CP 10/8

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

	GTEL File ID	BL100896IA
	Date Analyzed	10/07/96
Analyte	Reporting Limit ug/kg[b]	Concentration, ug/kg[b]
Dichlorodifluoromethane	10	10 U
Chloromethane	10	10 U
Vinyl Chloride	5.0	5.0 U
Bromoethane	10	10 U
Chloroethane	10	10 U
Trichlorofluoromethane	5.0	5.0 U
1,1-Dichloroethene	5.0	5.0 U
Methylene Chloride	5.0	5.0 U
trans-1,2-Dichloroethene	5.0	5.0 U
1,1-Dichloroethane	5.0	5.0 U
2,2-Dichloropropane	5.0	5.0 U
cis-1,2-Dichloroethene	5.0	5.0 U
Chloroform	5.0	5.0 U
Bromochloromethane	5.0	5.0 U
1,1,1-Trichloroethane	5.0	5.0 U
1,1-Dichloropropene	5.0	5.0 U
Carbon Tetrachloride	5.0	5.0 U
Benzene	1.0	1.0 U
1,2-Dichloroethane	5.0	5.0 U
Trichloroethene	5.0	5.0 U
1,2-Dichloropropane	5.0	5.0 U
Bromodichloromethane	5.0	5.0 U
Dibromomethane	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
Toluene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U
1,1,2-Trichloroethane	5.0	5.0 U
1,2-Dibromoethane	5.0	5.0 U
Tetrachloroethene	5.0	5.0 U
1,3-Dichloropropane	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

	GTEL File ID	BL100896IA
	Date Analyzed	10/07/96
Analyte	Reporting Limit, ug/kg	Concentration, ug/kg[b]
Dibromochloromethane	5.0	5.0 U
Chlorobenzene	5.0	5.0 U
Ethylbenzene	5.0	5.0 U
1,1,1,2-Tetrachloroethane	5.0	5.0 U
Xylenes (total)	5.0	5.0 U
1,3-Dichlorobenzene	5.0	5.0 U
Styrene	5.0	5.0 U
1,4-Dichlorobenzene	5.0	5.0 U
Bromoform	5.0	5.0 U
1,2-Dichlorobenzene	5.0	5.0 U
Isopropylbenzene	5.0	5.0 U
1,1,2,2-Tetrachloroethane	5.0	5.0 U
Bromobenzene	5.0	5.0 U
1,2,3-Trichloropropane	5.0	5.0 U
n-Propylbenzene	5.0	5.0 U
2-Chlorotoluene	5.0	5.0 U
1,3,5-Trimethylbenzene	5.0	5.0 U
4-Chlorotoluene	5.0	5.0 U
tert-Butylbenzene	5.0	5.0 U
1,2,4-Trimethylbenzene	5.0	5.0 U
sec-Butylbenzene	5.0	5.0 U
p-Isopropyltoluene	5.0	5.0 U
n-Butylbenzene	5.0	5.0 U
1,2-Dibromo-3-chloropropane	5.0	5.0 U
1,2,4-Trichlorobenzene	5.0	5.0 U
Hexachlorobutadiene	5.0	5.0 U
Naphthalene	5.0	5.0 U
1,2,3-Trichlorobenzene	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

	GTEL File ID	BL100796IA
	Date Analyzed	10/07/96
Analyte	Reporting Limit ug/kg[b]	Concentration, ug/kg[b]
Dichlorodifluoromethane	10	10 U
Chloromethane	10	10 U
Vinyl Chloride	5.0	5.0 U
Bromoethane	10	10 U
Chloroethane	10	10 U
Trichlorofluoromethane	5.0	5.0 U
1,1-Dichloroethene	5.0	5.0 U
Methylene Chloride	5.0	5.0 U
trans-1,2-Dichloroethene	5.0	5.0 U
1,1-Dichloroethane	5.0	5.0 U
2,2-Dichloropropane	5.0	5.0 U
cis-1,2-Dichloroethene	5.0	5.0 U
Chloroform	5.0	5.0 U
Bromochloromethane	5.0	5.0 U
1,1,1-Trichloroethane	5.0	5.0 U
1,1-Dichloropropene	5.0	5.0 U
Carbon Tetrachloride	5.0	5.0 U
Benzene	1.0	1.0 U
1,2-Dichloroethane	5.0	5.0 U
Trichloroethene	5.0	5.0 U
1,2-Dichloropropane	5.0	5.0 U
Bromodichloromethane	5.0	5.0 U
Dibromomethane	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
Toluene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U
1,1,2-Trichloroethane	5.0	5.0 U
1,2-Dibromoethane	5.0	5.0 U
Tetrachloroethene	5.0	5.0 U
1,3-Dichloropropane	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

	GTEL File ID	BL100796IA
	Date Analyzed	10/07/96
Analyte	Reporting Limit, ug/kg	Concentration, ug/kg[b]
Dibromochloromethane	5.0	5.0 U
Chlorobenzene	5.0	5.0 U
Ethylbenzene	5.0	5.0 U
1,1,1,2-Tetrachloroethane	5.0	5.0 U
Xylenes (total)	5.0	5.0 U
1,3-Dichlorobenzene	5.0	5.0 U
Styrene	5.0	5.0 U
1,4-Dichlorobenzene	5.0	5.0 U
Bromoform	5.0	5.0 U
1,2-Dichlorobenzene	5.0	5.0 U
Isopropylbenzene	5.0	5.0 U
1,1,2,2-Tetrachloroethane	5.0	5.0 U
Bromobenzene	5.0	5.0 U
1,2,3-Trichloropropane	5.0	5.0 U
n-Propylbenzene	5.0	5.0 U
2-Chlorotoluene	5.0	5.0 U
1,3,5-Trimethylbenzene	5.0	5.0 U
4-Chlorotoluene	5.0	5.0 U
tert-Butylbenzene	5.0	5.0 U
1,2,4-Trimethylbenzene	5.0	5.0 U
sec-Butylbenzene	5.0	5.0 U
p-Isopropyltoluene	5.0	5.0 U
n-Butylbenzene	5.0	5.0 U
1,2-Dibromo-3-chloropropane	5.0	5.0 U
1,2,4-Trichlorobenzene	5.0	5.0 U
Hexachlorobutadiene	5.0	5.0 U
Naphthalene	5.0	5.0 U
1,2,3-Trichlorobenzene	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

a "Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, Table 3, US EPA November 1990; sample preparation by purge and trap. Method modified to include additional compounds.

b Data Flag Definitions

U Indicates compound was analyzed for but not detected.

J Indicates an estimated value. This flag is used when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the quantitation limit, but greater than zero, or when reporting an estimated concentration for a tentatively identified compound.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
in Number: M6090429
.roject ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Solids

	GTEL Sample Number	M6090429-08	M6090429-14	M6090429-15	M6090429-23
	Client ID	CLLTEV03S031	CLLTEV03S038	CLLTEV03S039	CLLTEV03S048
	Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
	Date Analyzed	10/08/96	10/08/96	10/08/96	10/08/96
	Dilution Factor	1.00	1.00	1.00	1.00
		Soil In - Run 2 00:25	Soil In - Run 2 00:50	Soil In - Run 2 00:55	Soil In - Run 3 00:25
Analyte	Reporting Limit	Units	Concentration:Dry Weight			
Dichlorodifluoromethane	1.2	mg/kg	1.2 U	1.2 U	1.2 U	1.2 U
Chloromethane	1.2	mg/kg	1.2 U	1.2 U	1.2 U	1.2 U
Vinyl chloride	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Bromomethane	1.2	mg/kg	1.2 U	1.2 U	1.2 U	1.2 U
Chloroethane	1.2	mg/kg	1.2 U	1.2 U	1.2 U	1.2 U
Trichlorofluoromethane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,1-Dichloroethene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Methylene chloride	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
trans-1,2-Dichloroethene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,1-Dichloroethane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
2,2-Dichloropropane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
cis-1,2-Dichloroethene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Chloroform	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
`romochloromethane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
.,1-Trichloroethane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,1-Dichloropropene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Carbon tetrachloride	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Benzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2-Dichloroethane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Trichloroethene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2-Dichloropropane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Bromodichloromethane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Dibromomethane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Toluene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,1,2-Trichloroethane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2-Dibromoethane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Tetrachloroethene	0.62	mg/kg	2.7	68.	8.4	2.5
1,3-Dichloropropane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Dibromochloromethane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Chlorobenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Ethylbenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,1,1,2-Tetrachloroethane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Xylenes (total)	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,3-Dichlorobenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Styrene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,4-Dichlorobenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Bromoform	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2-Dichlorobenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Isopropylbenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Job Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Solids

	GTEL Sample Number	M6090429-08	M6090429-14	M6090429-15	M6090429-23
	Client ID	CLLTEV03S031	CLLTEV03S038	CLLTEV03S039	CLLTEV03S048
	Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
	Date Analyzed	10/08/96	10/08/96	10/08/96	10/08/96
	Dilution Factor	1.00	1.00	1.00	1.00
Analyte	Reporting Limit	Units	Concentration:Dry Weight			
1,1,2,2-Tetrachloroethane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Bromobenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2,3-Trichloropropane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
n-Propylbenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
2-Chlorotoluene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,3,5-Trimethylbenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
4-Chlorotoluene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
tert-Butylbenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2,4-Trimethylbenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
sec-Butylbenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
p-Isopropyltoluene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
n-Butylbenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2-Dibromo-3-chloropropane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2,4-Trichlorobenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Hexachlorobutadiene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Naphthalene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2,3-Trichlorobenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
cis-1,3-Dichloropropene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
trans-1,3-Dichloropropene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Percent Solids	--	%	75.9	82.7	95.2	96.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. Analyte list modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected at or above the reporting limit indicated.

"B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination; The data user is warned to take appropriate action. "J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated.

M6090429-14:

The dilution factor equals 10 for Tetrachloroethene; data analyzed was 10/08/96.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
in Number: M6090429
oject ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Solids

	GTEL Sample Number	M6090429-24	M6090429-27	M6090429-29	M6090429-30
	Client ID	CLLTEV03S049	CLLTEV03S052	CLLTEV03S053	CLLTEV03S054
	Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
	Date Analyzed	10/08/96	10/08/96	10/08/96	10/08/96
	Dilution Factor	1.00	1.00	1.00	1.00
		Soil In - Run 3 00:30	Soil In - Run 3 00:45	Soil In - Run 3 00:50	Soil In - Run 3 00:55
Analyte	Reporting Limit / Units	Concentration:Dry Weight			
Dichlorodifluoromethane	1.2 mg/kg	1.2 U	1.2 U	1.2 U	1.2 U
Chloromethane	1.2 mg/kg	1.2 U	1.2 U	1.2 U	1.2 U
Vinyl chloride	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Bromomethane	1.2 mg/kg	1.2 U	1.2 U	1.2 U	1.2 U
Chloroethane	1.2 mg/kg	1.2 U	1.2 U	1.2 U	1.2 U
Trichlorofluoromethane	0.62 mg/kg	0.62 U	0.62 U	**0.15 J**	0.62 U
1,1-Dichloroethene	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Methylene chloride	0.62 mg/kg	0.62 U	0.62 U	0.62 U	**0.14 J**
trans-1,2-Dichloroethene	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,1-Dichloroethane	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
2,2-Dichloropropane	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
cis-1,2-Dichloroethene	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Chloroform	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Bromochloromethane	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,1,1-Trichloroethane	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,1-Dichloropropene	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Carbon tetrachloride	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Benzene	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2-Dichloroethane	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Trichloroethene	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2-Dichloropropane	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Bromodichloromethane	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Dibromomethane	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Toluene	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,1,2-Trichloroethane	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2-Dibromoethane	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Tetrachloroethene	0.62 mg/kg	**9.9**	**7.0**	**6.6**	**4.9**
1,3-Dichloropropane	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Dibromochloromethane	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Chlorobenzene	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Ethylbenzene	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,1,1,2-Tetrachloroethane	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Xylenes (total)	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,3-Dichlorobenzene	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Styrene	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,4-Dichlorobenzene	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Bromoform	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2-Dichlorobenzene	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Isopropylbenzene	0.62 mg/kg	0.62 U	0.62 U	0.62 U	0.62 U

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Lin Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Solids

GTEL Sample Number	M6090429-24	M6090429-27	M6090429-29	M6090429-30
Client ID	CLLTEV03S049	CLLTEV03S052	CLLTEV03S053	CLLTEV03S054
Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
Date Analyzed	10/08/96	10/08/96	10/08/96	10/08/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:Dry Weight			
1,1,2,2-Tetrachloroethane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Bromobenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2,3-Trichloropropane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
n-Propylbenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
2-Chlorotoluene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,3,5-Trimethylbenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
4-Chlorotoluene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
tert-Butylbenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2,4-Trimethylbenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
sec-Butylbenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
p-Isopropyltoluene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
n-Butylbenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2-Dibromo-3-chloropropane	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2,4-Trichlorobenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Hexachlorobutadiene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Naphthalene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
1,2,3-Trichlorobenzene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
cis-1,3-Dichloropropene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
trans-1,3-Dichloropropene	0.62	mg/kg	0.62 U	0.62 U	0.62 U	0.62 U
Percent Solids	--	%	78.7	80.1	76.8	81.4

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. Analyte list modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected at or above the reporting limit indicated.

"B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination; The data user is warned to take appropriate action. "J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated.

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MD) SUMMARY
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)

Volatile Organics in Soil
Modified EPA Method 8240/8260
[MEDIUM LEVEL]

Sample Spiked: 090429-21
Date of Analysis: 10-08-96

Client ID: Batch QC
Solution ID: M96MS0292B
Batch #: 100196MB

Compound	Spike Added (mg/kg)	Sample Conc. (mg/kg)	MS Conc. (mg/kg)	MS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	6.16	< 0.62	5.15	83.6	59-172
Trichloroethene	6.16	< 0.62	5.10	82.8	62-137
Benzene	6.16	< 0.62	6.32	103	66-142
Toluene	6.16	< 0.62	6.56	107	59-139
Chlorobenzene	6.16	< 0.62	6.25	101.5	60-133

Compound	MD Spike Added (mg/kg)	MD Conc. (mg/kg)	MD,% Percent Recovery	% RPD	Acceptability limits, a	
					% Recovery	% RPD
1,1-Dichloroethene	6.38	5.85	92	9.2	59-172	22
Trichloroethene	6.38	5.01	79	5.3	62-137	24
Benzene	6.38	6.17	97	5.9	66-142	21
Toluene	6.38	6.45	101	5.2	59-139	21
Chlorobenzene	6.38	6.18	97	4.6	60-133	21

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

%RPD based on concentration rather than % recovery due to high native concentrations of analyte.

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MD) SUMMARY
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)

Volatile Organics in Soil
Modified EPA Method 8240/8260
[MEDIUM LEVEL]

Sample Spiked: 090429-04
Date of Analysis: 10-08-96

Client ID: Batch QC
Solution ID: M96MS0292B
Batch #: 100196MA

Compound	Spike Added (mg/kg)	Sample Conc. (mg/kg)	MS Conc. (mg/kg)	MS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	6.38	< 0.62	6.25	98.0	59-172
Trichloroethene	6.38	< 0.62	5.68	89.1	62-137
Benzene	6.38	< 0.62	5.92	93	66-142
Toluene	6.38	< 0.62	5.97	94	59-139
Chlorobenzene	6.38	< 0.62	6.05	94.9	60-133

Compound	MD Spike Added (mg/kg)	MD Conc. (mg/kg)	MD,% Percent Recovery	% RPD	Acceptability limits, a	
					% Recovery	% RPD
1,1-Dichloroethene	6.07	5.89	97	1.0	59-172	22
Trichloroethene	6.07	5.62	93	3.9	62-137	24
Benzene	6.07	5.94	98	5.3	66-142	21
Toluene	6.07	6.06	100	6.5	59-139	21
Chlorobenzene	6.07	5.88	97	2.1	60-133	21

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

%RPD based on concentration rather than % recovery due to high native concentrations of analyte.

LABORATORY CONTROL SAMPLE (LCS) , PERCENT RECOVERY REPORT

Volatile Organics in Soil
Modified EPA Method 8240/8260
[MEDIUM LEVEL]

Sample Spiked: LS100196A
Date of Analysis: 10-08-96

Client ID: Batch QC
Solution ID: M96MS0292B
Batch #: 100196MA

Compound	Spike Added (mg/kg)	Sample Conc. (mg/kg)	LCS Conc. (mg/kg)	LCS% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	6.25	< 0.62	6.55	105	59-172
Trichloroethene	6.25	< 0.62	5.95	95	62-137
Benzene	6.25	< 0.62	5.74	92	66-142
Toluene	6.25	< 0.62	6.38	102	59-139
Chlorobenzene	6.25	< 0.62	6.37	102	60-133

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

LABORATORY CONTROL SAMPLE (LCS) , PERCENT RECOVERY REPORT

Volatile Organics in Soil
GC/MS VOA
[MEDIUM LEVEL]

Sample Spiked: LS100196B
Date of Analysis: 10-08-96

Client ID: Batch QC
Solution ID: M96MS0292B
Batch #: 100196MB

Compound	Spike Added (mg/kg)	Sample Conc. (mg/kg)	LCS Conc. (mg/kg)	LCS% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	6.25	< 0.62	5.41	86.6	59-172
Trichloroethene	6.25	< 0.62	4.96	79.4	62-137
Benzene	6.25	< 0.62	6.28	100.5	66-142
Toluene	6.25	< 0.62	6.43	102.9	59-139
Chlorobenzene	6.25	< 0.62	6.11	97.8	60-133

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Aromatic Volatile Organics in Soil
EPA Method 8260[a]

	GTEL Blank ID	BS100196A
	Date Analyzed	10/08/96
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg
Dichlorodifluoromethane	1.2	1.2 U
Chloromethane	1.2	1.2 U
Vinyl Chloride	0.62	0.62 U
Bromomethane	1.2	1.2 U
Chloroethane	1.2	1.2 U
Trichlorodifluoromethane	0.62	0.62 U
1,1-Dichloroethene	0.62	0.62 U
Methylene Chloride	0.62	0.62 U
trans-1,2-Dichloroethene	0.62	0.62 U
1,1-Dichloroethane	0.62	0.62 U
2,2-Dichloropropane	0.62	0.62 U
cis-1,2-Dichloroethene	0.62	0.62 U
Chloroform	0.62	0.62 U
Bromodichloromethane	0.62	0.62 U
1,1,1-Trichloroethane	0.62	0.62 U
1,1-Dichloropropane	0.62	0.62 U
Carbon Tetrachloride	0.62	0.62 U
Benzene	0.62	0.62 U
1,2-Dichloroethane	0.62	0.62 U
Trichloroethene	0.62	0.62 U
1,2-Dichloropropane	0.62	0.62 U
Bromochloromethane	0.6 2	0.62 U
Dibromochloromethane	0.62	0.62 U
cis-1,3-Dichloropropene	0.62	0.62 U
Toluene	0.62	0.62 U
trans-1,3-Dichloropropene	0.62	0.62 U
1,1,2-Trichloroethane	0.62	0.62 U
1,2-Dibromomethane	0.62	0.62 U
Tetrachloroethene	0.62	0.62 U
1,3-Dichloropropane	0.62	0.62 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Aromatic Volatile Organics in Soil
EPA Method 8260[a]

	GTEL Blank ID	BS100196A
	Date Analyzed	10/08/96
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg
Dibromochloromethane	0.62	0.62 U
Chlorobenzene	0.62	0.62 U
Ethylbenzene	0.62	0.62 U
1,1,2,2-Tetrachloroethane	0.62	0.62 U
Xylenes (total)	0.62	0.62 U
1,3-Dichlorobenzene	0.62	0.62 U
Styrene	0.62	0.62 U
1,4-Dichlorobenzene	0.62	0.62 U
Bromoform	0.62	0.62 U
1,2-Dichlorobenzene	0.62	0.62 U
Isopropylbenzene	0.62	0.62 U
1,1,2,2-Tetrachloroethane	0.62	0.62 U
Bromobenzene	0.62	0.62 U
1,2,3-Trichloropropane	0.62	0.62 U
n-Propylbenzene	0.62	0.62 U
2-Chlorotoluene	0.62	0.62 U
1,3,5-Trimethylbenzene	0.62	0.62 U
4-Chlorotoluene	0.62	0.62 U
tert-Butylbenzene	0.62	0.62 U
1,2,4-Trimethylbenzene	0.62	0.62 U
sec-Butylbenzene	0.62	0.62 U
p-Isopropyltoluene	0.62	0.62 U
n-Butylbenzene	0.62	0.62 U
1,2-Dibromo-3-chloropropane	0.62	0.62 U
1,2,4-Trichlorobenzene	0.62	0.62 U
Hexachlorobutadiene	0.62	0.62 U
Naphthalene	0.62	0.62 U
1,2,3-Trichlorobenzene	0.62	0.62 U
cis-1,3-Dichloropropene	0.62	0.62 U
trans-1,3-Dichloropropene	0.62	0.62 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Aromatic Volatile Organics in Soil
EPA Method 8260[a]

	GTEL Blank ID	BS100196B
	Date Analyzed	10/08/96
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg
Dichlorodifluoromethane	1.2	1.2 U
Chloromethane	1.2	1.2 U
Vinyl Chloride	0.62	0.62 U
Bromomethane	1.2	1.2 U
Chloroethane	1.2	1.2 U
Trichlorodifluoromethane	0.62	0.62 U
1,1-Dichloroethene	0.62	0.62 U
Methylene Chloride	0.62	0.62 U
trans-1,2-Dichloroethene	0.62	0.62 U
1,1-Dichloroethane	0.62	0.62 U
2,2-Dichloropropane	0.62	0.62 U
cis-1,2-Dichloroethene	0.62	0.62 U
Chloroform	0.62	0.62 U
Bromodichloromethane	0.62	0.62 U
1,1,1-Trichloroethane	0.62	0.62 U
1,1-Dichloropropane	0.62	0.62 U
Carbon Tetrachloride	0.62	0.62 U
Benzene	0.62	0.62 U
1,2-Dichloroethane	0.62	0.62 U
Trichloroethene	0.62	0.62 U
1,2-Dichloropropane	0.62	0.62 U
Bromochloromethane	0.62	0.62 U
Dibromochloromethane	0.62	0.62 U
cis-1,3-Dichloropropene	0.62	0.62 U
Toluene	0.62	0.62 U
trans-1,3-Dichloropropene	0.62	0.62 U
1,1,2-Trichloroethane	0.62	0.62 U
1,2-Dibromomethane	0.62	0.62 U
Tetrachloroethene	0.62	0.62 U
1,3-Dichloropropane	0.62	0.62 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Aromatic Volatile Organics in Soil
EPA Method 8260[a]

	GTEL Blank ID	BS100196B
	Date Analyzed	10/08/96
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg
Dibromochloromethane	0.62	0.62 U
Chlorobenzene	0.62	0.62 U
Ethylbenzene	0.62	0.62 U
1,1,2,2-Tetrachloroethane	0.62	0.62 U
Xylenes (total)	0.62	0.62 U
1,3-Dichlorobenzene	0.62	0.62 U
Styrene	0.62	0.62 U
1,4-Dichlorobenzene	0.62	0.62 U
Bromoform	0.62	0.62 U
1,2-Dichlorobenzene	0.62	0.62 U
Isopropylbenzene	0.62	0.62 U
1,1,2,2-Tetrachloroethane	0.62	0.62 U
Bromobenzene	0.62	0.62 U
1,2,3-Trichloropropane	0.62	0.62 U
n-Propylbenzene	0.62	0.62 U
2-Chlorotoluene	0.62	0.62 U
1,3,5-Trimethylbenzene	0.62	0.62 U
4-Chlorotoluene	0.62	0.62 U
tert-Butylbenzene	0.62	0.62 U
1,2,4-Trimethylbenzene	0.62	0.62 U
sec-Butylbenzene	0.62	0.62 U
p-Isopropyltoluene	0.62	0.62 U
n-Butylbenzene	0.62	0.62 U
1,2-Dibromo-3-chloropropane	0.62	0.62 U
1,2,4-Trichlorobenzene	0.62	0.62 U
Hexachlorobutadiene	0.62	0.62 U
Naphthalene	0.62	0.62 U
1,2,3-Trichlorobenzene	0.62	0.62 U
cis-1,3-Dichloropropene	0.62	0.62 U
trans-1,3-Dichloropropene	0.62	0.62 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Aromatic Volatile Organics in Soil
EPA Method 8260[a]

a Federal Register, Vol. 49, October 26, 1984. Method modified to include additional compounds.

b Data Flag Definitions

U Indicates compound was analyzed for but not detected.

J Indicates an estimated value. This flag is used when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the quantitation limit, but greater than zero, or when reporting an estimated concentration for a tentatively identified compound.

c Total 1,2-dichloroethene is the sum of the cis- and trans- isomers.

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8505::D4
DATE AND TIME OF ANALYSIS = 10/08/96 1:39
SAMPLE NAME = BS1001968
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	5.95	50.00	76-114	70-121 (S3)	95.2
Toluene-d8(TOL)	6.06	50.00	88-110	81-117 (S1)	96.9
Bromofluoro-benzene(BFB)	5.97	50.00	86-115	74-121 (S2)	95.5

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8504::D4
DATE AND TIME OF ANALYSIS = 10/08/96 0:56
SAMPLE NAME = BS100196A
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	5.54	50.00	76-114	70-121 (S3)	88.6
Toluene-d8(TOL)	6.26	50.00	88-110	81-117 (S1)	100.2
Bromofluorobenzene(BFB)	6.06	50.00	86-115	74-121 (S2)	97.0

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8516::D4
DATE AND TIME OF ANALYSIS = 10/08/96 9:26
SAMPLE NAME = MS090429-04
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	6.06	$0.00	76-114	70-121 (S3)	94.7
Toluene-d8(TOL)	6.35	$0.00	88-110	81-117 (S1)	99.3
Bromofluorobenzene(BFB)	6.44	$0.00	86-115	74-121 (S2)	100.7

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8517::D4
DATE AND TIME OF ANALYSIS = 10/08/96 10:05
SAMPLE NAME = MD090429-04
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	5.50	50.00	76-114	70-121 (S3)	90.9
Toluene-d8(TOL)	6.09	50.00	88-110	81-117 (S1)	100.6
Bromofluoro-benzene(BFB)	6.13	50.00	86-115	74-121 (S2)	101.3

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8518::D4
DATE AND TIME OF ANALYSIS = 10/08/96 10:46
SAMPLE NAME = LS100196A
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	5.39	50.00	76-114	70-121 (S3)	86.2
Toluene-d8(TOL)	6.25	50.00	88-110	81-117 (S1)	100.0
Bromofluorobenzene(BFB)	6.39	50.00	86-115	74-121 (S2)	102.2

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8508::D4
DATE AND TIME OF ANALYSIS = 10/08/96 3:46
SAMPLE NAME = 090429-08
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	5.22	50.00	76-114	70-121 (S3)	87.7
Toluene-d8(TOL)	5.99	50.00	88-110	81-117 (S1)	100.7
Bromofluorobenzene(BFB)	5.72	50.00	86-115	74-121 (S2)	96.1

[GTEL:NILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8509::D4
DATE AND TIME OF ANALYSIS = 10/08/96 4:28
SAMPLE NAME = 090429-14
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	6.00	50.00	76-114	70-121 (S3)	91.6
Toluene-d8(TOL)	6.33	50.00	88-110	81-117 (S1)	96.6
Bromofluorobenzene(BFB)	6.36	50.00	86-115	74-121 (S2)	97.1

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8528::D6
DATE AND TIME OF ANALYSIS = 10/08/96 17:49
SAMPLE NAME = 090429-14R1 [10]
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	65.61	50.00	76-114	70-121 (S3)	100.2
Toluene-d8(TOL)	68.31	50.00	88-110	81-117 (S1)	104.3
Bromofluorobenzene(BFB)	62.89	50.00	86-115	74-121 (S2)	96.0

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8510::D4
DATE AND TIME OF ANALYSIS = 10/08/96 5:11
SAMPLE NAME = 090429-15
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	5.73	$0.00	76-114	70-121 (S3)	88.2
Toluene-d8(TOL)	6.33	$0.00	88-110	81-117 (S1)	97.3
Bromofluorobenzene(BFB)	6.28	$0.00	86-115	74-121 (S2)	96.6

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8511::D4
DATE AND TIME OF ANALYSIS = 10/08/96 5:53
SAMPLE NAME = 090429-23
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
,2-Dichloro-thane-d4(DCE)	5.90	50.00	76-114	70-121 (S3)	93.6
Toluene-d8(TOL)	6.12	50.00	88-110	81-117 (S1)	97.2
Bromofluoro-ber ene(BFB)	6.02	50.00	86-115	74-121 (S2)	95.6

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8512::D4
DATE AND TIME OF ANALYSIS = 10/08/96 6:35
SAMPLE NAME = 090429-24
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	5.12	50.00	76-114	70-121 (S3)	85.4
Toluene-d8(TOL)	6.33	50.00	88-110	81-117 (S1)	105.5
Bromofluorobenzene(BFB)	5.74	50.00	86-115	74-121 (S2)	95.8

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8513::D4
DATE AND TIME OF ANALYSIS = 10/08/96 7:18
SAMPLE NAME = 090429-27
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	5.47	50.00	76-114	70-121 (S3)	87.5
Toluene-d8(TOL)	6.30	50.00	88-110	81-117 (S1)	100.8
Bromofluorobenzene(BFB)	6.00	50.00	86-115	74-121 (S2)	96.0

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8514::D4
DATE AND TIME OF ANALYSIS = 10/08/96 8:00
SAMPLE NAME = 090429-29
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	5.31	50.00	76-114	70-121 (S3)	89.2
Toluene-d8(TOL)	5.80	50.00	88-110	81-117 (S1)	97.5
Bromofluorobenzene(BFB)	5.81	50.00	86-115	74-121 (S2)	97.6

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8515::D4
DATE AND TIME OF ANALYSIS = 10/08/96 8:43
SAMPLE NAME = 090429-30
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	5.68	50.00	76-114	70-121 (S3)	85.3
Toluene-d8(TOL)	6.67	50.00	88-110	81-117 (S1)	100.3
Bromofluorobenzene(BFB)	6.47	50.00	86-115	74-121 (S2)	97.2

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8522::D4
DATE AND TIME OF ANALYSIS = 10/08/96 13:29
SAMPLE NAME = MS090429-21
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	5.31	50.00	76-114	70-121 (S3)	86.4
Toluene-d8(TOL)	6.26	50.00	88-110	81-117 (S1)	101.7
Bromofluoro-benzene(BFB)	6.07	50.00	86-115	74-121 (S2)	98.8

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8523::D4
DATE AND TIME OF ANALYSIS = 10/08/96 14:09
SAMPLE NAME = MD090429-21
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	5.88	50.00	76-114	70-121 (S3)	91.9
Toluene-d8(TOL)	6.45	50.00	88-110	81-117 (S1)	100.8
Bromofluorobenzene(BFB)	6.19	50.00	86-115	74-121 (S2)	96.8

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8526::D4
DATE AND TIME OF ANALYSIS = 10/08/96 16:05
SAMPLE NAME = LS1001968
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	5.77	50.00	76-114	70-121 (S3)	92.4
Toluene-d8(TOL)	6.33	50.00	88-110	81-117 (S1)	101.2
Bromofluorobenzene(BFB)	6.11	50.00	86-115	74-121 (S2)	97.7

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Low Soil

	GTEL Sample Number	M6090429-04	M6090429-05	M6090429-06	M6090429-07
	Client ID	CLLTEV06S008	CLLTEV03S028	CLLTEV03S029	CLLTEV03S030
	Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
	Date Analyzed	10/02/96	10/02/96	10/02/96	10/02/96
	Dilution Factor	1.00	5.00	1.00	1.00
		Bin G - Treated Soil	Soil In - Run 2 00:10	Soil In - Run 2 00:15	Soil In - Run 2 00:20
Analyte	Reporting Limit / Units	Concentration:Dry Weight			
Dichlorodifluoromethane	10. ug/kg	10. U	50. U	10. U	10. U
Chloromethane	10. ug/kg	10. U	50. U	10. U	10. U
Vinyl chloride	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
Bromomethane	10. ug/kg	10. U	50. U	10. U	10. U
Chloroethane	10. ug/kg	10. U	50. U	10. U	10. U
Trichlorofluoromethane	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 ug/kg	2.2 JB	13. JB	2.1 JB	2.1 JB
Methylene chloride	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
2,2-Dichloropropane	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
Chloroform	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
Bromochloromethane	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
1,1-Dichloropropene	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
Carbon tetrachloride	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
Benzene	1.0 ug/kg	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichloroethane	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
Trichloroethene	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
Bromodichloromethane	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
Dibromomethane	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
Toluene	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
1,2-Dibromoethane	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
Tetrachloroethene	5.0 ug/kg	5.0 U	26.	7.5	110
1,3-Dichloropropane	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
Dibromochloromethane	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
Chlorobenzene	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
Ethylbenzene	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
1,1,1,2-Tetrachloroethane	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
Xylenes (total)	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
1,3-Dichlorobenzene	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
Styrene	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
1,4-Dichlorobenzene	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
Bromoform	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
1,2-Dichlorobenzene	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U
Isopropylbenzene	5.0 ug/kg	5.0 U	25. U	5.0 U	5.0 U

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Low Soil

	GTEL Sample Number	M6090429-04	M6090429-05	M6090429-06	M6090429-07
	Client ID	CLLTEV06S008	CLLTEV03S028	CLLTEV03S029	CLLTEV03S030
	Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
	Date Analyzed	10/02/96	10/02/96	10/02/96	10/02/96
	Dilution Factor	1.00	5.00	1.00	1.00
Analyte	Reporting Limit	Units	Concentration:Dry Weight			
1,1,2,2-Tetrachloroethane	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
Bromobenzene	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
1,2,3-Trichloropropane	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
n-Propylbenzene	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
2-Chlorotoluene	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
4-Chlorotoluene	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
tert-Butylbenzene	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
sec-Butylbenzene	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
p-Isopropyltoluene	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
n-Butylbenzene	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
Hexachlorobutadiene	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
Naphthalene	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0	ug/kg	5.0 U	25. U	5.0 U	5.0 U
Percent Solids	--	%	94.3	94.6	96.6	94.1

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. "U" indicates that the analyte was analyzed for but not detected. "J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated. "B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination: The data user is warned to take appropriate action.

M6090429-05:

Sample diluted due to non-target interference.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Low Soil

	GTEL Sample Number	M6090429-16	M6090429-17	M6090429-20	M6090429-26
	Client ID	CLLTEV03S040	CLLTEV03S041	CLLTEV03S044	CLLTEV03S051
	Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
	Date Analyzed	10/02/96	10/02/96	10/02/96	10/02/96
	Dilution Factor	1.00	1.00	1.00	5.00
		Soil In-Run 2 01:00	Soil In-Run 3 00:00	Soil In-Run 3 00:15	Soil In-Run 3 00:40
Analyte	Reporting Limit / Units	Concentration:Dry Weight			
Dichlorodifluoromethane	10. ug/kg	10. U	10. U	10. U	50. U
Chloromethane	10. ug/kg	10. U	10. U	10. U	50. U
Vinyl chloride	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
Bromomethane	10. ug/kg	10. U	10. U	10. U	50. U
Chloroethane	10. ug/kg	10. U	10. U	10. U	50. U
Trichlorofluoromethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
1,1-Dichloroethene	5.0 ug/kg	**2.3 JB**	**2.5 JB**	**2.6 JB**	**12. JB**
Methylene chloride	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
trans-1,2-Dichloroethene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
1,1-Dichloroethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
2,2-Dichloropropane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
cis-1,2-Dichloroethene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
Chloroform	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
Bromochloromethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
1,1,1-Trichloroethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
1,1-Dichloropropene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
Carbon tetrachloride	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
Benzene	1.0 ug/kg	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloroethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
Trichloroethene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
1,2-Dichloropropane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
Bromodichloromethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
Dibromomethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
Toluene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
1,1,2-Trichloroethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
1,2-Dibromoethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
Tetrachloroethene	5.0 ug/kg	**14.**	**7.8**	**55.**	**49.**
1,3-Dichloropropane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
Dibromochloromethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
Chlorobenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
Ethylbenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
1,1,1,2-Tetrachloroethane	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
Xylenes (total)	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
1,3-Dichlorobenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
Styrene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
1,4-Dichlorobenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
Bromoform	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
1,2-Dichlorobenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U
Isopropylbenzene	5.0 ug/kg	5.0 U	5.0 U	5.0 U	25. U

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Low Soil

	GTEL Sample Number	M6090429-16	M6090429-17	M6090429-20	M6090429-26
	Client ID	CLLTEV03S040	CLLTEV03S041	CLLTEV03S044	CLLTEV03S051
	Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
	Date Analyzed	10/02/96	10/02/96	10/02/96	10/02/96
	Dilution Factor	1.00	1.00	1.00	5.00
Analyte	Reporting Limit	Units	Concentration:Dry Weight			
1,1,2,2-Tetrachloroethane	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
Bromobenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
1,2,3-Trichloropropane	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
n-Propylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
2-Chlorotoluene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
1,3,5-Trimethylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
4-Chlorotoluene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
tert-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
1,2,4-Trimethylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
sec-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
p-Isopropyltoluene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
n-Butylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
1,2-Dibromo-3-chloropropane	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
1,2,4-Trichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
Hexachlorobutadiene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
Naphthalene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
1,2,3-Trichlorobenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
cis-1,3-Dichloropropene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
trans-1,3-Dichloropropene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	25. U
Percent Solids	--	%	96.0	92.1	82.6	94.5

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update I. "U" indicates that the analyte was analyzed for but not detected. "J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated. "B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination: The data user is warned to take appropriate action.

M6090429-26:

Sample diluted due to non-target interference.

[illegible]

VOLATILE ORGANICS - GC/MS

[illegible] SURROGATE RECOVERY REPORT

SAMPLE DATA FILE = [illegible]
DATE AND TIME OF ANALYSIS = [illegible]
SAMPLE NAME = BL1000[illegible]
MISC. INFO = ...
METHOD = CSCNT
INSTRUMENT = ms01
OPERATOR = [illegible]

SURROGATE	AS FOUND IN SAMPLE	AMT SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	50.3e	50.00	76-114	70-121 (93)	100.7
Toluene-d8(TOL)	51.77	50.00	88-110	81-117 (61)	103.5
Bromofluorobenzene(BFB)	48.48	50.00	86-115	74-121 (82)	97.0

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8416::D4
DATE AND TIME OF ANALYSIS = 10/03/96 0:17
SAMPLE NAME = MS090429-04
MISC. INFO = ...
METHOD = CSCUT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
,2-Dichloro-ethane-d4(DCE)	52.23	50.00	76-114	70-121 (S3)	104.5
Toluene-d8(TOL)	47.85	50.00	88-110	81-117 (S1)	95.7
Bromofluoro-benzene(BFB)	50.85	50.00	86-115	74-121 (S2)	101.7

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8417::D4
DATE AND TIME OF ANALYSIS = 10/03/96 0:54
SAMPLE NAME = MD090429-04
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
,2-Dichloro-ethane-d4(DCE)	48.74	50.00	76-114	70-121 (S3)	97.5
Toluene-d8(TOL)	47.62	50.00	88-110	81-117 (S1)	95.2
Bromofluoro-benzene(BFB)	50.81	50.00	86-115	74-121 (S2)	101.6

[illegible]

[illegible]

[illegible]

SAMPLE DATA FILE = [illegible]
[illegible] = [illegible]
SAMPLE NAME = LL100/##
[illegible] = [illegible]
METHOD = CSCOT
INSTRUMENT = MSD1
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	AMS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERED
1,2-Dichloro-ethane-d4(DCE)	46.67	50.00	76-114	70-121 (S3)	97.3
Toluene-d8(TOL)	45.17	50.00	86-110	81-117 (S1)	94.3
Bromofluoro-benzene(BFB)	90.06	50.00	86-115	74-121 (S2)	100.1

[illegible]

[illegible]

[PRELIMINARY SURROGATE STANDARD RECOVERY]

[illegible]

SURROGATE	% RECOVERY (# OUTSIDE LIMITS)	SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	47.2	50.00	76-114	70-121 (S)	94.4
Toluene-d8(TOL)	47.3	50.00	88-110	81-117 (S)	94.6
Bromofluoro-benzene(BFB)	49.45	50.00	86-115	74-121 (S)	99.9

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	47.4	50.0	76-114	70-121 (5)	94.9
Toluene-d8(TOL)	49.5	50.0	88-110	81-117 (5)	99.0
Bromofluoro-benzene(BFB)	49.4	50.0	86-115	74-121 (6)	99.0

[illegible]

VOLATILE ORGANICS - (CLP?)

(PRELIMINARY SURROGATE STANDARD REPORT)

SAMPLE DATA FILE - [illegible]
DATE AND TIME OF ANALYSIS - [illegible]
SAMPLE NAME - 890429-0[illegible]
MISC. INFO - ....
OPERATOR - [illegible]
INSTRUMENT ID - [illegible]
MATRIX - [illegible]

SURROGATE	AS FOUND IN SAMPLE	AMT SPIKED	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	48.65	50.[illegible]	76-114	70-121 (53)	97.[illegible]
Toluene-d8(TOL)	49.19	50.00	88-110	81-117 (51)	98.4
Bromofluorobenzene(BFB)	49.42	50.00	86-115	74-121 (52)	98.8

[illegible]

[illegible]

[illegible] SURROGATE STANDARD REPORT

SAMPLE DATA FILE [illegible]
[illegible] [illegible] [illegible]
SAMPLE NAME [illegible]
[illegible] [illegible]
METHOD [illegible]
INSTRUMENT [illegible]
OPERATOR [illegible]

SURROGATE	% RECOVERY IN SAMPLE	SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
[illegible]	88.8	50.0	78-114	[illegible]	99.7
[illegible]	87.6	50.00	69-110	81-117	99.3
[illegible]	89.2	50.00	86-115	74-121	98.4

[illegible]

[illegible]

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

VOLATILE ORGANICS - [illegible]

PRELIMINARY SURROGATE STANDARD REPORT

SAMPLE DATA FILE - [illegible]
DATE AND TIME OF ANALYSIS - 10/0?/96 2:[illegible]
SAMPLE NAME - 96042?-2
MISC. INFO - [illegible]
METHOD - [illegible]
INSTRUMENT - MSD1
OPERATOR - [illegible]

SURROGATE	AMOUNT IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	49.[illegible]	50.[illegible]	76-114	70-121 (S4)	99.5
Toluene-d8(TOL)	4[illegible].9[illegible]	50.00	88-110	81-117 (S1)	96.9
Bromofluorobenzene(BFB)	49.[illegible]	50.00	86-115	74-121 (S2)	99.7

[illegible]

[illegible] ORGANICS - GC/MS)

(PRELIMINARY SURROGATE STANDARD REPORT)

SAMPLE [illegible] = [illegible]

[illegible]

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
[illegible]	208.92	50.	76-114	70-121 (53)	99.4
[illegible]	240.92	50.00	88-110	81-117 (S[illegible])	96.2
[illegible]	246.19	50.00	86-115	74-121 ([illegible])	98.5

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MD) SUMMARY
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)

Volatile Organics in Soil
Modified EPA Method 8240/8260
[LOW LEVEL]

Sample Spiked: 090429-04
Date of Analysis: 10-02-96

Client ID: Batch QC
Solution ID: B96MS0136
Batch #: 100296LA

Compound	Spike Added (ug/kg)	Sample Conc. (ug/kg)	MS Conc. (ug/kg)	MS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	20.0	2.1	17.30	76.2	59-172
Trichloroethene	20.0	< 5.00	20.03	100.2	62-137
Benzene	20.0	< 5.00	23.91	119.6	66-142
Toluene	20.0	< 5.00	20.37	101.9	59-139
Chlorobenzene	20.0	< 5.00	21.35	106.8	60-133

Compound	Spike Added (ug/kg)	MD Conc. (ug/kg)	MD,% Percent Recovery	% RPD	Acceptability limits, a	
					% Recovery	% RPD
1,1-Dichloroethene	20.0	18.20	80.7	5.74	59-172	22
Trichloroethene	20.0	20.08	100.4	0.25	62-137	24
Benzene	20.0	24.64	123.2	3.01	66-142	21
Toluene	20.0	20.34	102	0.1	59-139	21
Chlorobenzene	20.0	21.59	108.0	1.12	60-133	21

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

**** %RPD based on concentration rather than % recovery due to high native concentrations of analyte.**

LABORATORY CONTROL SAMPLE (LCS)

Volatile Organics in Soil
Modified EPA Method 8240/8260
[LOW LEVEL]

Sample Spiked: LL100296
Date of Analysis: 10-03-96

Client ID: Batch QC
Solution ID: M96MS0126
Batch #: 100396LA

Compound	Spike Added (ug/kg)	Sample Conc. (ug/kg)	LCS Conc. (ug/kg)	LCS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	20.0	< 5.00	18.50	92.5	59-172
Trichloroethene	20.0	< 5.00	20.58	102.9	62-137
Benzene	20.0	< 5.00	23.13	115.7	66-142
Toluene	20.0	< 5.00	21.08	105.4	59-139
Chlorobenzene	20.0	< 5.00	21.82	109.1	60-133

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

	GTEL File ID	BL100296IB
	Date Analyzed	10/02/96
Analyte	Reporting Limit ug/kg[b]	Concentration, ug/kg[b]
Dichlorodifluoromethane	10	10 U
Chloromethane	10	10 U
Vinyl Chloride	5.0	5.0 U
Bromoethane	10	10 U
Chloroethane	10	10 U
Trichlorofluoromethane	5.0	5.0 U
1,1-Dichloroethene	5.0	2.7
Methylene Chloride	5.0	5.0 U
trans-1,2-Dichloroethene	5.0	5.0 U
1,1-Dichloroethane	5.0	5.0 U
2,2-Dichloropropane	5.0	5.0 U
cis-1,2-Dichloroethene	5.0	5.0 U
Chloroform	5.0	5.0 U
Bromochloromethane	5.0	5.0 U
1,1,1-Trichloroethane	5.0	5.0 U
1,1-Dichloropropene	5.0	5.0 U
Carbon Tetrachloride	5.0	5.0 U
Benzene	1.0	1.0 U
1,2-Dichloroethane	5.0	5.0 U
Trichloroethene	5.0	5.0 U
1,2-Dichloropropane	5.0	5.0 U
Bromodichloromethane	5.0	5.0 U
Dibromomethane	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
Toluene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U
1,1,2-Trichloroethane	5.0	5.0 U
1,2-Dibromoethane	5.0	5.0 U
Tetrachloroethene	5.0	5.0 U
1,3-Dichloropropane	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

	GTEL File ID	BL100296IB
	Date Analyzed	10/02/96
Analyte	Reporting Limit, ug/kg	Concentration, ug/kg[b]
Dibromochloromethane	5.0	5.0 U
Chlorobenzene	5.0	5.0 U
Ethylbenzene	5.0	5.0 U
1,1,1,2-Tetrachloroethane	5.0	5.0 U
Xylenes (total)	5.0	5.0 U
1,3-Dichlorobenzene	5.0	5.0 U
Styrene	5.0	5.0 U
1,4-Dichlorobenzene	5.0	5.0 U
Bromoform	5.0	5.0 U
1,2-Dichlorobenzene	5.0	5.0 U
Isopropylbenzene	5.0	5.0 U
1,1,2,2-Tetrachloroethane	5.0	5.0 U
Bromobenzene	5.0	5.0 U
1,2,3-Trichloropropane	5.0	5.0 U
n-Propylbenzene	5.0	5.0 U
2-Chlorotoluene	5.0	5.0 U
1,3,5-Trimethylbenzene	5.0	5.0 U
4-Chlorotoluene	5.0	5.0 U
tert-Butylbenzene	5.0	5.0 U
1,2,4-Trimethylbenzene	5.0	5.0 U
sec-Butylbenzene	5.0	5.0 U
p-Isopropyltoluene	5.0	5.0 U
n-Butylbenzene	5.0	5.0 U
1,2-Dibromo-3-chloropropane	5.0	5.0 U
1,2,4-Trichlorobenzene	5.0	5.0 U
Hexachlorobutadiene	5.0	5.0 U
Naphthalene	5.0	5.0 U
1,2,3-Trichlorobenzene	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Low Soil
EPA Method 8260[a]

a "Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, Table 3, US EPA November 1990; sample preparation by purge and trap. Method modified to include additional compounds.

b Data Flag Definitions

U Indicates compound was analyzed for but not detected.

J Indicates an estimated value. This flag is used when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the quantitation limit, but greater than zero, or when reporting an estimated concentration for a tentatively identified compound.

ANALYTICAL RESULTS
Volatile Organics

^TEL Client ID: 966044044
ɔgin Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Solids

	GTEL Sample Number	M6090429-13	M6090429-31	--	--
	Client ID	CLLTEV03S037	CLLTEV03S055	--	--
	Date Sampled	09/26/96	09/26/96	--	--
	Date Analyzed	10/03/96	10/03/96	--	--
	Dilution Factor	1.00	1.00	--	--
		Soil In- Run 2 00:45	Soil In- Run 3 01:00		
Analyte	Reporting Limit / Units	Concentration:Dry Weight			
Dichlorodifluoromethane	1.2 mg/kg	1.2 U	1.2 U	--	--
Chloromethane	1.2 mg/kg	1.2 U	1.2 U	--	--
Vinyl chloride	0.6 mg/kg	0.6 U	0.6 U	--	--
Bromomethane	1.2 mg/kg	1.2 U	1.2 U	--	--
Chloroethane	1.2 mg/kg	1.2 U	1.2 U	--	--
Trichlorofluoromethane	0.6 mg/kg	0.6 U	0.6 U	--	--
1,1-Dichloroethene	0.6 mg/kg	0.6 U	0.6 U	--	--
Methylene chloride	0.6 mg/kg	0.6 U	0.6 U	--	--
trans-1,2-Dichloroethene	0.6 mg/kg	0.6 U	0.6 U	--	--
1,1-Dichloroethane	0.6 mg/kg	0.6 U	0.6 U	--	--
2,2-Dichloropropane	0.6 mg/kg	0.6 U	0.6 U	--	--
cis-1,2-Dichloroethene	0.6 mg/kg	0.6 U	0.6 U	--	--
Chloroform	0.6 mg/kg	0.6 U	0.6 U	--	--
ʳomochloromethane	0.6 mg/kg	0.6 U	0.6 U	--	--
..1,1-Trichloroethane	0.6 mg/kg	0.6 U	0.6 U	--	--
1,1-Dichloropropene	0.6 mg/kg	0.6 U	0.6 U	--	--
Carbon tetrachloride	0.6 mg/kg	0.6 U	0.6 U	--	--
Benzene	0.6 mg/kg	0.6 U	0.6 U	--	--
1,2-Dichloroethane	0.6 mg/kg	0.6 U	0.6 U	--	--
Trichloroethene	0.6 mg/kg	0.6 U	0.6 U	--	--
1,2-Dichloropropane	0.6 mg/kg	0.6 U	0.6 U	--	--
Bromodichloromethane	0.6 mg/kg	0.6 U	0.6 U	--	--
Dibromomethane	0.6 mg/kg	0.6 U	0.6 U	--	--
Toluene	0.6 mg/kg	0.6 U	0.6 U	--	--
1,1,2-Trichloroethane	0.6 mg/kg	0.6 U	0.6 U	--	--
1,2-Dibromoethane	0.6 mg/kg	0.6 U	0.6 U	--	--
Tetrachloroethene	0.6 mg/kg	14.	2.4	--	--
1,3-Dichloropropane	0.6 mg/kg	0.6 U	0.6 U	--	--
Dibromochloromethane	0.6 mg/kg	0.6 U	0.6 U	--	--
Chlorobenzene	0.6 mg/kg	0.6 U	0.6 U	--	--
Ethylbenzene	0.6 mg/kg	0.6 U	0.6 U	--	--
1,1,1,2-Tetrachloroethane	0.6 mg/kg	0.6 U	0.6 U	--	--
Xylenes (total)	0.6 mg/kg	0.6 U	0.6 U	--	--
1,3-Dichlorobenzene	0.6 mg/kg	0.6 U	0.6 U	--	--
Styrene	0.6 mg/kg	0.6 U	0.6 U	--	--
1,4-Dichlorobenzene	0.6 mg/kg	0.6 U	0.6 U	--	--
Bromoform	0.6 mg/kg	0.6 U	0.6 U	--	--
1,2-Dichlorobenzene	0.6 mg/kg	0.6 U	0.6 U	--	--
Isopropylbenzene	0.6 mg/kg	0.6 U	0.6 U	--	--

ANALYTICAL RESULTS
Volatile Organics

TEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Solids

GTEL Sample Number	M6090429-13	M6090429-31	--	--
Client ID	CLLTEV03S037	CLLTEV03S055	--	--
Date Sampled	09/26/96	09/26/96	--	--
Date Analyzed	10/03/96	10/03/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:Dry Weight			
1,1,2,2-Tetrachloroethane	0.6	mg/kg	0.6 U	0.6 U	--	--
Bromobenzene	0.6	mg/kg	0.6 U	0.6 U	--	--
1,2,3-Trichloropropane	0.6	mg/kg	0.6 U	0.6 U	--	--
n-Propylbenzene	0.6	mg/kg	0.6 U	0.6 U	--	--
2-Chlorotoluene	0.6	mg/kg	0.6 U	0.6 U	--	--
1,3,5-Trimethylbenzene	0.6	mg/kg	0.6 U	0.6 U	--	--
4-Chlorotoluene	0.6	mg/kg	0.6 U	0.6 U	--	--
tert-Butylbenzene	0.6	mg/kg	0.6 U	0.6 U	--	--
1,2,4-Trimethylbenzene	0.6	mg/kg	0.6 U	0.6 U	--	--
sec-Butylbenzene	0.6	mg/kg	0.6 U	0.6 U	--	--
p-Isopropyltoluene	0.6	mg/kg	0.6 U	0.6 U	--	--
n-Butylbenzene	0.6	mg/kg	0.6 U	0.6 U	--	--
1,2-Dibromo-3-chloropropane	0.6	mg/kg	0.6 U	0.6 U	--	--
1,2,4-Trichlorobenzene	0.6	mg/kg	0.6 U	0.6 U	--	--
Hexachlorobutadiene	0.6	mg/kg	0.6 U	0.6 U	--	--
Naphthalene	0.6	mg/kg	0.6 U	0.6 U	--	--
1,2,3-Trichlorobenzene	0.6	mg/kg	0.6 U	0.6 U	--	--
cis-1,3-Dichloropropene	0.6	mg/kg	0.6 U	0.6 U	--	--
trans-1,3-Dichloropropene	0.6	mg/kg	0.6 U	0.6 U	--	--
Percent Solids	--	%	97.4	81.5	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. Analyte list modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected at or above the reporting limit indicated.

"B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination; The data user is warned to take appropriate action. "J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated.

[STL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8424::D4
DATE AND TIME OF ANALYSIS = 10/03/96 12:54
SAMPLE NAME = BS100196A
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	5.89	50.00	76-114	70-121 (S3)	94.2
Toluene-d8(TOL)	6.14	50.00	88-110	81-117 (S1)	98.2
Bromofluoro-benzene(BFB)	5.93	50.00	86-115	74-121 (S2)	94.9

(GTEL:MILFORD,N.H.)

(VOLATILE ORGANICS - GC/MS)

(PRELIMINARY SURROGATE STANDARD REPORT)

SAMPLE DATA FILE = [illegible]
DATE AND TIME OF ANALYSIS [illegible]
SAMPLE NAME = [illegible]
MISC. INFO = ...
METHOD = [illegible]
INSTRUMENT = [illegible]
OPERATOR = [illegible]

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	6.02	50.00	76-114	70-121 (S3)	96.4
Toluene-d8(TOL)	6.17	50.00	88-110	81-117 (S1)	98.7
Bromofluoro-benzene(BFB)	5.92	50.00	86-115	74-121 (S2)	94.7

(GTEL:MILFORD,N.H.)

(VOLATILE ORGANICS - GC/MS)

(PRELIMINARY SURROGATE STANDARD REPORT)

SAMPLE DATA FILE = S18426::D4
DATE AND TIME OF ANALYSIS = 10/03/96 14:13
SAMPLE NAME = 940429-31
MISC. INFO = ...
METHOD = CSOV
INSTRUMENT = MSD1
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	ORG SPIKED AMT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	5.80	50.00	76-114	70-121 (S3)	96.6
Toluene-d8(TOL)	5.91	50.00	88-110	81-117 (S1)	98.4
Bromofluorobenzene(BFB)	5.76	50.00	86-115	74-121 (S2)	96.1

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8428::D4
DATE AND TIME OF ANALYSIS = 10/03/96 15:32
SAMPLE NAME = MS090429-04
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

URROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
,2-Dichloro-thane-d4(DCE)	5.65	50.00	76-114	70-121 (S3)	88.3
oluene-d8(TOL)	6.42	50.00	88-110	81-117 (S1)	100.3
romofluoro-enzene(BFB)	6.29	50.00	86-115	74-121 (S2)	98.3

[@TEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >I8429::D4
DATE AND TIME OF ANALYSIS = 10/03/96 16:09
SAMPLE NAME = MD090429-04
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloroethane-d4(DCE)	5.26	%0.00	76-114	70-121 (S3)	86.9
Toluene-d8(TOL)	5.96	%0.00	88-110	81-117 (S1)	98.5
Bromofluorobenzene(BFB)	5.98	%0.00	86-115	74-121 (S2)	98.9

[GTEL:MILFORD,N.H.]

[VOLATILE ORGANICS - GC/MS]

[PRELIMINARY SURROGATE STANDARD REPORT]

SAMPLE DATA FILE = >IS430::D4
DATE AND TIME OF ANALYSIS = 10/03/96 16:47
SAMPLE NAME = LS100196A
MISC. INFO = ...
METHOD = CSCVT
INSTRUMENT = MSDI
OPERATOR = VANGIE

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
1,2-Dichloro-ethane-d4(DCE)	5.31	50.00	76-114	70-121 (S3)	85.0
Toluene-d8(TOL)	6.42	50.00	88-110	81-117 (S1)	102.8
Bromofluoro-benzene(BFB)	6.28	50.00	86-115	74-121 (S2)	100.4

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MD) SUMMARY
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)

Volatile Organics in Soil
Modified EPA Method 8240/8260
[MEDIUM LEVEL]

Sample Spiked: 090429-13
Date of Analysis: 10-03-96

Client ID: Batch QC
Solution ID: M96MS0292B
Batch #: 100196MA

Compound	Spike Added (mg/kg)	Sample Conc. (mg/kg)	MS Conc. (mg/kg)	MS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	6.38	< 0.62	6.47	101.4	59-172
Trichloroethene	6.38	< 0.62	6.90	108.2	62-137
Benzene	6.38	< 0.62	7.20	113	66-142
Toluene	6.38	< 0.62	6.77	106	59-139
Chlorobenzene	6.38	< 0.62	6.71	105.2	60-133

Compound	MD Spike Added (mg/kg)	MD Conc. (mg/kg)	MD,% Percent Recovery	% RPD	Acceptability limits, a	
					% Recovery	% RPD
1,1-Dichloroethene	6.07	5.25	87	15.9	59-172	22
Trichloroethene	6.07	6.58	108	0.2	62-137	24
Benzene	6.07	6.92	114	1.0	66-142	21
Toluene	6.07	6.39	105	0.8	59-139	21
Chlorobenzene	6.07	6.63	109	3.8	60-133	21

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

**** %RPD based on concentration rather than % recovery due to high native concentrations of analyte.**

LABORATORY CONTROL SAMPLE (LCS) , PERCENT RECOVERY REPORT

Volatile Organics in Soil
Modified EPA Method 8240/8260
[MEDIUM LEVEL]

Sample Spiked: LS100196A
Date of Analysis: 10-03-96

Client ID: Batch QC
Solution ID: M96MS0292B
Batch #: 100196MA

Compound	Spike Added (mg/kg)	Sample Conc. (mg/kg)	LCS Conc. (mg/kg)	LCS% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	6.25	< 0.62	7.08	113	59-172
Trichloroethene	6.25	< 0.62	6.67	107	62-137
Benzene	6.25	< 0.62	6.18	99	66-142
Toluene	6.25	< 0.62	6.46	103	59-139
Chlorobenzene	6.25	< 0.62	6.36	102	60-133

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Aromatic Volatile Organics in Soil
EPA Method 8260[a]

	GTEL Blank ID	BS100196A
	Date Analyzed	10/03/96
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg
Dichlorodifluoromethane	1.2	1.2 U
Chloromethane	1.2	1.2 U
Vinyl Chloride	0.6	0.6 U
Bromomethane	1.2	1.2 U
Chloroethane	1.2	1.2 U
Trichlorodifluoromethane	0.6	0.6 U
1,1-Dichloroethene	0.6	0.6 U
Methylene Chloride	0.6	0.6 U
trans-1,2-Dichloroethene	0.6	0.6 U
1,1-Dichloroethane	0.6	0.6 U
2,2-Dichloropropane	0.6	0.6 U
cis-1,2-Dichloroethene	0.6	0.6 U
Chloroform	0.6	0.6 U
Bromodichloromethane	0.6	0.6 U
1,1,1-Trichloroethane	0.6	0.6 U
1,1-Dichloropropane	0.6	0.6 U
Carbon Tetrachloride	0.6	0.6 U
Benzene	0.6	0.6 U
1,2-Dichloroethane	0.6	0.6 U
Trichloroethene	0.6	0.6 U
1,2-Dichloropropane	0.6	0.6 U
Bromochloromethane	0.6	0.6 U
Dibromochloromethane	0.6	0.6 U
cis-1,3-Dichloropropene	0.6	0.6 U
Toluene	0.6	0.6 U
trans-1,3-Dichloropropene	0.6	0.6 U
1,1,2-Trichloroethane	0.6	0.6 U
1,2-Dibromomethane	0.6	0.6 U
Tetrachloroethene	0.6	0.6 U
1,3-Dichloropropane	0.6	0.6 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Aromatic Volatile Organics in Soil
EPA Method 8260[a]

	GTEL Blank ID	BS100196A
	Date Analyzed	10/03/96
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg
Dilbromochloromethane	0.6	0.6 U
Chlorobenzene	0.6	0.6 U
Ethylbenzene	0.6	0.6 U
1,1,2,2-Tetrachloroethane	0.6	0.6 U
Xylenes (total)	0.6	0.6 U
1,3-Dichlorobenzene	0.6	0.6 U
Styrene	0.6	0.6 U
1,4-Dichlorobenzene	0.6	0.6 U
Bromoform	0.6	0.6 U
1,2-Dichlorobenzene	0.6	0.6 U
Isopropylbenzene	0.6	0.6 U
1,1,2,2-Tetrachloroethane	0.6	0.6 U
Bromobenzene	0.6	0.6 U
1,2,3-Trichloropropane	0.6	0.6 U
n-Propylbenzene	0.6	0.6 U
2-Chlorotoluene	0.6	0.6 U
1,3,5-Trimethylbenzene	0.6	0.6 U
4-Chlorotoluene	0.6	0.6 U
tert-Butylbenzene	0.6	0.6 U
1,2,4-Trimethylbenzene	0.6	0.6 U
sec-Butylbenzene	0.6	0.6 U
p-Isopropyltoluene	0.6	0.6 U
n-Butylbenzene	0.6	0.6 U
1,2-Dibromo-3-chloropropane	0.6	0.6 U
1,2,4-Trichlorobenzene	0.6	0.6 U
Hexachlorobutadiene	0.6	0.6 U
Naphthalene	0.6	0.6 U
1,2,3-Trichlorobenzene	0.6	0.6 U
cis-1,3-Dichloropropene	0.6	0.6 U
trans-1,3-Dichloropropene	0.6	6 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Aromatic Volatile Organics in Soil
EPA Method 8260[a]

a Federal Register, Vol. 49, October 26, 1984. Method modified to include additional compounds.

b Data Flag Definitions

U Indicates compound was analyzed for but not detected.

J Indicates an estimated value. This flag is used when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the quantitation limit, but greater than zero, or when reporting an estimated concentration for a tentatively identified compound.

c Total 1,2-dichloroethene is the sum of the cis- and trans- isomers.

Narrative Summary

Login Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site Date of Report: Oct 09, 1996

Footnotes and Comments

Symbol keys (may appear beside values)

* - Indicates the analyte has been qualified in the narrative section of the report.
d - Indicates the analyte was reported from a dilution other than that indicated on the report page.
B - Organic Analyses - Indicates the analyte is found in the associated blank as well as in the sample.
B - Inorganic Analyses - Indicates an estimated value below the EPA Contract Required Detection Limit.
G - Indicates an estimated surrogate recovery due to dilutions.
J - Indicates an estimated value below the reporting limit.
U - Indicates the analyte was analyzed for but not detected.
NA - Matrix Spike Results - Not Applicable, since the Sample Conc. exceeded four times the Spike Added.
NA - Matrix Spike Duplicate RPD Results - Not Applicable, since the Sample Conc. exceeded four times the Spike Added.
NA - Serial Dilution RPD Results - Not Applicable, since the Sample Conc. was less than five times the CLP Contract Required Detection Limit.

Inorganics

Method: EPA 6010A
"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 2.
Digestion is Method Specific.

GTEL ENVIRONMENTAL LABORATORIES, INC.

MEADOWBROOK INDUSTRIAL PARK
MILFORD, NH 03055
(603) 672-4835
(800) LAB-GTEL

Page 1 of 4

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

64040

…pany Name: …w Environmental Inc.

Phone #: 516-249-8800

FAX #: 516-249-8874

…pany Address: …1 Winding Road, Old Bethpage, NY 11804

Site location: (same)

…ect Manager: …hn Munson

Client Project ID: (#) 6044

(NAME) Claremont Polychemical Superfund Site

…est that the proper field sampling …edures were used during the collection …ese samples.

Sampler Name (Print): TRENT PARKES

Analysis options printed on form: BTEX/602 ☐ 8020 ☐ with MTBE ☐; BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐; Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐; Hydrocarbon Profile (SIMDIS) ☐; Oil and Grease 413.1 ☐ 413.2 ☐ SM 503 ☐; TPH/IR 418.1 ☐ SM 503 ☐; EDB by 504 ☐ DBCP by 504 ☐; EPA 503.1 ☐ EPA 502.2 ☐; EPA 601 ☐ EPA 8010 ☐; EPA 602 ☐ EPA 8020 ☐; EPA 608 ☐ 8080 ☐ PCB only ☐; EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐; EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐; EPA 610 ☐ 8310 ☐; EP TOX Metals ☐ Pesticides ☐ Herbicides ☐; TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐; EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐; CAM Metals TTLC ☐ STLC ☐; Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐; ~~Organic Lead ☐~~ Expedite 3-5 days; Corrosivity ☐ Flash Point ☐ Reactivity ☐; SW6010A - Sodium; EPA 325.2 - Chloride; SW8260A - Water or Soil

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Water	Soil	HCl	HNO₃	Ice	Date	Time	Expedite 3-5 days	SW6010A - Sodium	EPA 325.2 - Chloride	SW8260A - Water or Soil
…TEV-03-WA-020	1	1	X			X	X	96.09.26	19:56		X		
…TEV-03-WA-025	2	1	X				X	"	19:56			X	
…TEV-03-WA-026	3	2	X		X		X	"	[illegible]				X
…TEV-06-S-008	4	2		X			X	"	20:07				X
…TEV-03-S-028	5	2		X			X	"	13:30				X
…TEV-03-S-029	6	2		X			X	"	13:35				X
…TEV-03-S-030	7	2		X			X	"	13:40	X			X
…TEV-03-S-031	8	2		X			X	"	13:45				X
…TEV-03-S-032	9	2		X			X	"	13:50				X
…TEV-03-S-033	10	2		X			X	"	13:55				X

} Report as NaCl concentration.

TAT: …rity (24 hr) ☐; …edited (48 hr) ☐; …usiness Days ☐; …er 3-5 calendar; ~~Business~~ Days ☒

Special Handling

GTEL Contact Patti Lenzott

Quote/Contract # 8450A-R1

Confirmation #

PO # SC-96-6044-044

QA / QC LEVEL

…E ☐ CLP ☐ OTHER USACOE Admissible Package

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

3-5 day Fax

14 day QA/QC

FAX ☒

REMARKS

The 20 soil samples to expedite are marked. All soil sample VOC concentrations are probably <100 ppm.

Lab Use Only Lot #

Storage Location: 28-IC / W7E / 23LC

Work Order # M6090429

Relinquished by Sampler: [signature] Date 96.09.27 Time 14:35

Received by:

Relinquished by: Date Time

Received by:

Relinquished by: Date …/96 Time 12:10

Received by Laboratory: Lydia Miller

Waybill # [illegible]

CUSTODY RECORD

…/91

GTEL ENVIRONMENTAL LABORATORIES, INC

MEADOWBROOK INDUSTRIAL PARK
MILFORD, NH 03055
(603) 672-4835
(800) LAB-GTEL

Page 2 of 4

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

64041

mpany Name: | Phone #: | FAX #:

mpany Address: | Site location:

ject Manager: | Client Project ID: (#) | (NAME)

est that the proper field sampling cedures were used during the collection hese samples. | Sampler Name (Print):

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (SPECIFY)	Sampling: DATE	TIME	BTEX/602 ☐ 8020 ☐ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐	Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	Hydrocarbon Profile (SIMDIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM 503 ☐	TPH/IR 418.1 ☐ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010 ☐	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	~~Organic Lead ☐~~ Expidit 3-5 days	Corrosivity ☐ Flash Point ☐ Reactivity ☐	SW8260A-Soil		
LTEV-03-S-034	11	2		X								X			96.09.26	14:00																				X		
LTEV-03-S-036	12	2		X								X			"	14:00																				X		
LTEV-03-S-037	13	2		X								X			"	14:05																			X	X		
LTEV-03-S-038	14	2		X								X			"	14:10																				X		
LTEV-03-S-039	15	2		X								X			"	14:15																				X		
LTEV-03-S-040	16	2		X								X			"	14:20																			X	X		
LTEV-03-S-041	17	2		X								X			"	15:45																			X	X		
LTEV-03-S-042	18	2		X								X			"	15:50																				X		
LTEV-03-S-043	19	2		X								X			"	15:55																				X		
LTEV-03-S-044	20	2		X								X			"	16:00																			X	X		

TAT

- ority (24 hr) ☐
- pedited (48 hr) ☐
- Business Days ☐
- ner _____
- siness Days ☐

Special Handling

GTEL Contact _____
Quote/Contract # _____
Confirmation # _____
PO # _____

QA / QC LEVEL

UE ☐ CLP ☐ OTHER _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

FAX ☐

REMARKS

Lab Use Only Lot #

Storage Location: 23 C

Work Order # M6C9C429

CUSTODY RECORD

7/91

	Date	Time	
Relinquished by Sampler:			Received by:
Relinquished by:			Received by:
Relinquished by:	9/28/96	12:12	Received by Laboratory:

Waybill #

GTEL ENVIRONMENTAL LABORATORIES, INC

MEADOWBROOK INDUSTRIAL PARK
MILFORD, NH 03055
(603) 672-4835
(800) LAB-GTEL

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

64302

ompany Name: | Phone #:

FAX #:

ompany Address: | Site location:

oject Manager: | Client Project ID: (#)

(NAME)

ttest that the proper field sampling ocedures were used during the collection these samples. | Sampler Name (Print):

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (SPECIFY)	Sampling: DATE	TIME	BTEX/602 ☐ 8020 ☐ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐	Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	Hydrocarbon Profile (SIMDIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM 503 ☐	TPH/IR 418.1 ☐ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010 ☐	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	Organic Lead ☐ Expedite 3-5 days	Corrosivity ☐ Flash Point ☐ Reactivity ☐	SW8260A - Soil		
-LTEV-03-S-045	21	2		X								X			4.09.96	16:07		Run	MS/MSD																X		
-LTEV-03-S-046	22	2		X								X			"	16:07																			X		
-LTEV-03-S-048	23	2		X								X			"	17:13																			X		
-LTEV-03-S-049	24	2		X								X			"	17:18																			X		
-LTEV-03-S-050	25	2		X								X			"	17:23																			X		
-LTEV-03-S-051	26	2		X								X			"	17:28																		X	X		
-LTEV-03-S-052	27	2		X								X			"	17:33																			X		
-LTEV-05-S-011	28	2		X								X			"	17:25																			X		
-LTEV-03-S-053	29	2		X								X			"	17:38																			X		
-LTEV-03-S-054	30	2		X								X			"	17:43																			X		

TAT

- ☐ ority (24 hr)
- ☐ pedited (48 hr)
- ☐ Business Days
- ☐ her _____
- ☐ siness Days

Special Handling

GTEL Contact _____
Quote/Contract # _____
Confirmation # _____
PO # _____

QA / QC LEVEL

UE ☐ CLP ☐ OTHER _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

FAX ☐

REMARKS

Lab Use Only Lot # | Storage Location: 23C

Work Order # M609049

CUSTODY RECORD

	Date	Time
Relinquished by Sampler:		
Relinquished by:		
Relinquished by:	9/8/96	12:10

Received by:

Received by:

Received by Laboratory:

Waybill # 716 293 7341

7/91

GTEL ENVIRONMENTAL LABORATORIES, INC.

MEADOWBROOK INDUSTRIAL PARK
MILFORD, NH 03055
(603) 672-4835
(800) LAB-GTEL

Page 4 of 4

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

64303

mpany Name:

Phone #:

FAX #:

mpany Address:

Site location:

ect Manager:

Client Project ID: (#)

(NAME)

est that the proper field sampling edures were used during the collection ese samples.

Sampler Name (Print):

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (SPECIFY)	Sampling: DATE	TIME
LTEV-03-5-055	31	2		X								X			96.09.26	17:48

Analysis request:

Analysis	Sample LTEV-03-5-055
BTEX/602 ☐ 8020 ☐ with MTBE ☐	
BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐	
Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	
Hydrocarbon Profile (SIMDIS) ☐	
Oil and Grease 413.1 ☐ 413.2 ☐ SM 503 ☐	
TPH/IR 418.1 ☐ SM 503 ☐	
EDB by 504 ☐ DBCP by 504 ☐	
EPA 503.1 ☐ EPA 502.2 ☐	
EPA 601 ☐ EPA 8010 ☐	
EPA 602 ☐ EPA 8020 ☐	
EPA 608 ☐ 8080 ☐ PCB only ☐	
EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	
EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	
EPA 610 ☐ 8310 ☐	
EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	
TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	
EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	
CAM Metals TTLC ☐ STLC ☐	
Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	
~~Organic Lead~~ ☐ Expedite 3-5 days	X
Corrosivity ☐ Flash Point ☐ Reactivity ☐	
SW8260X - Soil	X

TAT

rity (24 hr) ☐
edited (48 hr) ☐
usiness Days ☐
er ____
iness Days ☐

Special Handling

GTEL Contact ____
Quote/Contract # ____
Confirmation # ____
PO # ____

QA / QC LEVEL

E ☐ CLP ☐ OTHER ____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

FAX ☐

REMARKS

Lab Use Only Lot #

Storage Location: 23C

Work Order # 6090424

CUSTODY RECORD

Relinquished by Sampler:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date 9/28/96	Time 10:10	Received by Laboratory: [signature]
			Waybill # 7162737342

7/91

NEI/GTEL Environmental Laboratories,Inc.
LOGIN CHAIN OF CUSTODY REPORT (ln01)
Sep 28 1996, 12:52 pm

Login Number: M6090429
Account: DWE01 Dow Environmental, Inc.
Project: 966044044 Old Bethbage, NY

Laboratory Sample Number	Client Sample Number	Collect Date	Receive Date	PR	Due Date
M6090429-01	CL-LTEV-03-WA-020	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates. \ Full custody records needed. \ Report as NACL concentration.					
Aqueous S NA/6010/B		Hold:25-MAR-97 w7e			1 Bottles
Aqueous S P/3005/B		Hold:25-MAR-97 w7e			0 Bottles
M6090429-02	CL-LTEV-03-WA-~~020~~ 025	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surogates. \ Full custody records needed. \ Report as NACL concentration.					
Aqueous S CLRID/325.2L/B		Hold:24-OCT-96 w7e			1 Bottles
M6090429-03	CL-LTEV-03-WA-016	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.					
Aqueous S 8260/B		Hold:10-OCT-96 28-1c			2 Bottles
M6090429-04	CL-LTEV-06-S-008	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.					
Solids S 8260/B		Hold:10-OCT-96 231c			2 Bottles
Solids S SOLIDS		231c			0 Bottles
M6090429-05	CL-LTEV-03-S-028	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.					
Solids S 8260/B		Hold:10-OCT-96 231c			2 Bottles
Solids S SOLIDS		231c			0 Bottles
M6090429-06	CL-LTEV-03-S-029	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.					
Solids S 8260/B		Hold:10-OCT-96 231c			2 Bottles
Solids S SOLIDS		231c			0 Bottles
M6090429-07	CL-LTEV-03-S-030	26-SEP-96	28-SEP-96	5	04-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.					
Solids S 8260/B		Hold:10-OCT-96 231c			2 Bottles
Solids S SOLIDS		231c			0 Bottles
M6090429-08	CL-LTEV-03-S-031	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.					
Solids S 8260/B		Hold:10-OCT-96 231c			2 Bottles

NEI/GTEL Environmental Laboratories,Inc.
LOGIN CHAIN OF CUSTODY REPORT (ln01)
Sep 28 1996, 12:52 pm

Login Number: M6090429
Account: DWE01 Dow Environmental, Inc.
Project: 966044044 Old Bethbage, NY

Laboratory Sample Number		Client Sample Number	Collect Date	Receive Date	PR	Due Date
Solids	S SOLIDS			231c		0 Bottles
M6090429-09		CL-LTEV-03-S-032	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	231c		2 Bottles
Solids	S SOLIDS			231c		0 Bottles
M6090429-10		CL-LTEV-03-S-033	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	231c		2 Bottles
Solids	S SOLIDS			231c		0 Bottles
M6090429-11		CL-LTEV-03-S-034	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	231c		2 Bottles
Solids	S SOLIDS			231c		0 Bottles
M6090429-12		CL-LTEV-03-S-036	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	231c		2 Bottles
Solids	S SOLIDS			231c		0 Bottles
M6090429-13		CL-LTEV-03-S-037	26-SEP-96	28-SEP-96	5	04-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	231c		2 Bottles
Solids	S SOLIDS			231c		0 Bottles
M6090429-14		CL-LTEV-03-S-038	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	231c		2 Bottles
Solids	S SOLIDS			231c		0 Bottles
M6090429-15		CL-LTEV-03-S-039	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	231c		2 Bottles
Solids	S SOLIDS			231c		0 Bottles

NEI/GTEL Environmental Laboratories,Inc.
LOGIN CHAIN OF CUSTODY REPORT (ln01)
Sep 28 1996, 12:52 pm

Login Number: M6090429
Account: DWE01 Dow Environmental, Inc.
Project: 9660#4044 Old Bethbage, NY

Laboratory Sample Number		Client Sample Number	Collect Date	Receive Date	PR	Due Date
M6090429-16		CL-LTEV-03-S-040	26-SEP-96	28-SEP-96	5	04-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	231c		2 Bottles
Solids	S SOLIDS			231c		0 Bottles
M6090429-17		CL-LTEV-03-S-041	26-SEP-96	28-SEP-96	5	04-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	231c		2 Bottles
Solids	S SOLIDS			231c		0 Bottles
M6090429-18		CL-LTEV-03-S-042	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	231c		2 Bottles
Solids	S SOLIDS			231c		0 Bottles
M6090429-19		CL-LTEV-03-S-043	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	231c		2 Bottles
Solids	S SOLIDS			231c		0 Bottles
M6090429-20		CL-LTEV-03-S-044	26-SEP-96	28-SEP-96	5	04-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	231c		2 Bottles
Solids	S SOLIDS			231c		0 Bottles
M6090429-21		CL-LTEV-03-S-045	26-SEP-96	28-SEP-96		11-OCT-96
Run MS/MSD \ Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	231c		2 Bottles
Solids	S SOLIDS			231c		0 Bottles
M6090429-22		CL-LTEV-03-S-046	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	231c		2 Bottles
Solids	S SOLIDS			231c		0 Bottles
M6090429-23		CL-LTEV-03-S-048	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	231c		2 Bottles

NEI/GTEL Environmental Laboratories,Inc.
LOGIN CHAIN OF CUSTODY REPORT (ln01)
Sep 28 1996, 12:52 pm

Login Number: M6090429
Account: DWE01 Dow Environmental, Inc.
Project: 966044044 Old Bethbage, NY

Laboratory Sample Number		Client Sample Number	Collect Date	Receive Date	PR	Due Date
Solids	S SOLIDS			23lc		0 Bottles
M6090429-24		CL-LTEV-03-S-049	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	23lc		2 Bottles
Solids	S SOLIDS			23lc		0 Bottles
M6090429-25		CL-LTEV-03-S-050	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	23lc		2 Bottles
Solids	S SOLIDS			23lc		0 Bottles
M6090429-26		CL-LTEV-03-S-051	26-SEP-96	28-SEP-96	5	04-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	23lc		2 Bottles
Solids	S SOLIDS			23lc		0 Bottles
M6090429-27		CL-LTEV-03-S-052	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	23lc		2 Bottles
Solids	S SOLIDS			23lc		0 Bottles
M6090429-28		CL-LTEV-05-S-011	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	23lc		2 Bottles
Solids	S SOLIDS			23lc		0 Bottles
M6090429-29		CL-LTEV-03-S-053	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	23lc		2 Bottles
Solids	S SOLIDS			23lc		0 Bottles
M6090429-30		CL-LTEV-03-S-054	26-SEP-96	28-SEP-96		11-OCT-96
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.						
Solids	S 8260/B		Hold:10-OCT-96	23lc		2 Bottles
Solids	S SOLIDS			23lc		0 Bottles

NEI/GTEL Environmental Laboratories,Inc.
LOGIN CHAIN OF CUSTODY REPORT (ln01)
Sep 28 1996, 12:52 pm

Login Number: M6090429
Account: DWE01 Dow Environmental, Inc.
Project: 96604044 Old Bethbage, NY

Laboratory Sample Number		Client Sample Number	Collect Date	Receive Date	PR	Due Date	
M6090429-31		CL-LTEV-03-S-055	26-SEP-96	28-SEP-96	5	04-OCT-96	
Army deliverables package \ Client specific QC \ BJU reporting \ Include any rerun due to OOC surrogates \ Full custody records needed.							
Solids	S	8260/B	Hold:10-OCT-96	231c			2 Bottles
Solids	S	SOLIDS		231c			0 Bottles
M6090429-32		BLUE QC	26-SEP-96	28-SEP-96	5	04-OCT-96	
Full custody records needed.							
Aqueous	S	8260/B	Hold:10-OCT-96	28-1c			0 Bottles
Aqueous	S	CLRID/325.2L/B	Hold:24-OCT-96	w7e			0 Bottles
Aqueous	S	NA/6010/B	Hold:25-MAR-97	w7e			0 Bottles
Aqueous	S	P/3005/B	Hold:25-MAR-97	w7e			0 Bottles
M6090429-33		BLUE QC	26-SEP-96	28-SEP-96	5	04-OCT-96	
Full custody records needed.							
Aqueous	S	8260/B	Hold:10-OCT-96	28-1c			0 Bottles
Aqueous	S	CLRID/325.2L/B	Hold:24-OCT-96	w7e			0 Bottles
Aqueous	S	NA/6010/B	Hold:25-MAR-97	w7e			0 Bottles
Aqueous	S	P/3005/B	Hold:25-MAR-97	w7e			0 Bottles
M6090429-34		BLUE QC	26-SEP-96	28-SEP-96	5	04-OCT-9	
Full custody records needed.							
Solids	S	8260/B	Hold:10-OCT-96	231c			0 Bottles
M6090429-35		BLUE QC	26-SEP-96	28-SEP-96	5	04-OCT-96	
Full custody records needed.							
Solids	S	8260/B	Hold:10-OCT-96	231c			0 Bottles

Login Number: M6090429

Samples Transfered	Released by	Time	Date	Transf. To	Recvd By	Time	Date
3(2of2)		15:30	9/28/96	VS			
4-31(25f2)	AZ. TL	14:20	10/1/96	V-MS	Shana Morgan	16:00	10/1/96
2(1of1)	AZ. TL	15:30	10/1/96				15-40
4-7,13,16,17,20,26,31(15f2)	AZ. TL	16:45	10/1/96			2:44	10/2/96
4-31(20f2)	Shana Morgan	17:50	10/1/96	stg	AZ. TL	14:45	10/2/96
2(1of1)		10/1/96		stg	AZ. TL	14:45	10/2/96
4-8,13,16,17,20,26,31(15f2)		4:02	10/2/96	stg	AZ. TL	15:50	10/2/96
4(1of2)		17:12	10-2-96	GCMS VOA		5:20	10/2/96
4(1of2)		17:20	10/2/96	storage		7:21	10-2-96
9-12(2of2)		16:22	10-3-96	GCMS VOA		10:50	10/4/96
9-12(2of2)		4:16	10/4/96	storage	STG	16:10	10-4-96
3(1of2)		10/5/96	4:30	GCMS VOA		2:00	10/7/96
8,19,21,22,25,28(2of2)		10/5/96	17:00	GCMS VOA		10/7/96	9:10
1(1of1)	AZ. TL	11:05	10/7/96	instr/s		11:09	10/07/96
19,21,22,25,28(2of2)		10/7/96	16:10	storage	AZ. TL	11:05	10/8/96
1(1of1)		16:51	10/07/96	GL	AZ. TL	11:30	10/8/96
10,12(2of2)		8:30	10/4/96	V-GCMS		12:46	10/08/96
18,21,22,25(2of2)		13:53	10/4/96	VOA		20:20	10/08/96
10,12(2of2)		15:15	10/08/96	stg	AZ. TL	15:55	10/8/96
18,21,22,25(2of2)		20:40	10/2/96	stg	AZ. TL	13:35	10/9/96

INTERNAL SAMPLE HISTORY
Sample Temperature Preservation

GTEL Sample Control Person (*signature*): Jackie Miller

Date & Time: 9/28/96 & 2:10 am / (pm) Custody Seal on Cooler Intact: (Y)/N /(NA)

CS# none

Cooler#	°C F=frozen	Bluepack ✓=Yes	ICE ✓=Yes, W =Water	BAGGED ✓=Yes	Top ✓=Yes	Interspersed ✓=Yes	Bottom ✓=Yes	Alot or too Little
1	6°							Alot / Little
								Alot / Little
								Alot / Little
								Alot / Little

If more than one project was shipped in the cooler containing this project, record the other project numbers in the space below:

Cooler Tracking

Unpacker notes GTEL coolers returned with this job. Each block represents a cooler. Data entry updates cooler tracking.

Preservation
HCL, HNO3, and H2SO4 ph<2 NAOH ph>12 or ph>9

Sample ID	pH	PP ✓=yes	Sample ID	pH	PP ✓=yes
CL-LTEV-03-WA-020	1				

Dots: Unpacker check if applicable:

White (temp or Frozen) ____ Blue (0'-3') ____ Red (hot) ____

Orange (ph or Wrong preservative) ____ Yellow (wrong container) ____

Nonconformance/Phone Log

COC# 64040, 41, 64302, 303 Date: 1/1/

Contact:_____ Time:____AM/PM

✓ = Nonconformance seen in Login

Sample Custodian: Brad *Items to be Discussed---* **CONTAINERS: Other (non-GTEL/ICHEM)** *(If Other, cleaning/ traceability resp. of user.)*	**Customer Service Rep.**_____ *---Resolution*
Temperature *ooc* (white dot/F) ; If All X ; Reling'd by Sampler *missing* (orange dot + W) }	on COCs 64041, 64302, 64303
pH ; Wrong Preserv. (orange dot + W) X ; Sample Signature *missing* }	
Wrong Cont. (Yellow dot)/ Insuf. Sample	
INORGANICS Default Used *correct?*	
Sample Date *coc missing / label missing / not agree*	
Sample Time *COC missing / label missing / not agree*	
✓ ✓ Site Location *missing/INC* } COC 64041, 64302, 64303	
✓ Project # 3	
VERIFY TAT	✓
— NO TAPE ON SAMPLE CONTAINERS	
— ~~LOGGED AS CLP(W) DO VERIFY~~ AND LOGGED AS M16C90414	— VERIFY
— CLRID/325.2L DOESN'T WORK AS /CLP - VERIFY	NOT CLP PKG, IB list
CLIENT ED:	
No VOA backup ___ Wrong Container ___ Unused Containers	

SOIL DRY WEIGHT SPREADSHEET

Oven No.: 6
Balance Number: T8

File No.: 100196SOL
Book #: 1730
Page #: 0081

Logins needing MOISTURE formats:
Logins needing DUP's (SOLIDS/C):
Comments:

Email Sent (Y/N):

Date In: 10/01/96
Time In: 17:30
Temp. In: 105

Date Out: 10/02/96
Time Out: 08:35 am
Temp Out: 105

STARTED BY: Shana Morgan

COMPLETED BY: R.Grant

LOGIN	DISH	WET DISH	WET MASS	DRY DISH	DRY MASS	%SOLIDS	MOIST.
09040111	0.9800	11.5300	10.5500	2.9200	1.9400	18.39	81.61
09040121	0.9800	11.5300	10.5500	2.9200	1.9400	18.39	81.61
09042010	0.9900	11.8900	10.9000	11.3000	10.3100	94.59	5.41
09042601	0.9800	11.2500	10.2700	10.4300	9.4500	92.02	7.98
09042602	0.9900	11.5500	10.5600	10.7000	9.7100	91.95	8.05
09042603	0.9700	11.7200	10.7500	10.0300	9.0600	84.28	15.72
09042604	1.0000	11.0600	10.0600	10.4900	9.4900	94.33	5.67
09042605	1.0000	11.2800	10.2800	9.5700	8.5700	83.37	16.63
09042606	0.9900	11.6100	10.6200	10.6600	9.6700	91.05	8.95
09042607	1.0100	11.0900	10.0800	9.9600	8.9500	88.79	11.21
09042608	0.9900	11.2700	10.2800	10.2700	9.2800	90.27	9.73
09042609	0.9800	11.4000	10.4200	10.1500	9.1700	88.00	12.00
09042610	0.9900	11.2700	10.2800	10.4700	9.4800	92.22	7.78
09042611	0.9900	10.8100	9.8200	10.2200	9.2300	93.99	6.01
09042612	0.9800	11.0600	10.0800	9.7100	8.7300	86.61	13.39
09042613	0.9800	10.9500	9.9700	9.4500	8.4700	84.95	15.05
09042614	0.9800	11.1700	10.1900	10.1200	9.1400	89.70	10.30
09042615	1.0100	10.9800	9.9700	9.0600	8.0500	80.74	19.26
09042616	1.0200	11.1500	10.1300	10.0000	8.9800	88.65	11.35
09042617	1.0100	10.8300	9.8200	10.2200	9.2100	93.79	6.21
09042618	0.9900	11.2500	10.2600	9.8500	8.8600	86.35	13.65
09042619	1.0100	11.4400	10.4300	10.2900	9.2800	88.97	11.03
09042904	0.9900	11.4400	10.4500	10.8400	9.8500	94.26	5.74
09042905	1.0000	11.0600	10.0600	10.5200	9.5200	94.63	5.37
09042906	1.0000	11.4300	10.4300	11.0700	10.0700	96.55	3.45
09042907	1.0100	11.6000	10.5900	10.9700	9.9600	94.05	5.95
09042908	1.0100	11.6300	10.6200	9.0700	8.0600	75.89	24.11
09042909	1.0000	11.2200	10.2200	10.7200	9.7200	95.11	4.89
09042910	1.0200	11.2600	10.2400	10.6400	9.6200	93.95	6.05
09042911	0.9900	11.4800	10.4900	11.0000	10.0100	95.42	4.58
09042912	0.9700	11.6700	10.7000	11.1700	10.2000	95.33	4.67
09042913	1.0000	11.2500	10.2500	10.9800	9.9800	97.37	2.63
09042914	0.9900	11.6500	10.6600	9.8000	8.8100	82.65	17.35
09042915	0.9800	11.0000	10.0200	10.5200	9.5400	95.21	4.79
09042916	0.9900	11.0700	10.0800	10.6700	9.6800	96.03	3.97
09042917	0.9700	10.8000	9.8300	10.0200	9.0500	92.07	7.93
09042918	0.9800	11.5500	10.5700	9.1900	8.2100	77.67	22.33
09042919	0.9800	11.5800	10.6000	11.1400	10.1600	95.85	4.15
09042920	1.0000	11.0300	10.0300	9.2800	8.2800	82.55	17.45
09042921	1.0200	11.6200	10.6000	11.1600	10.1400	95.66	4.34
09042922	1.0000	11.1300	10.1300	9.1000	8.1000	79.96	20.04
09042923	1.0000	10.8500	9.8500	10.4600	9.4600	96.04	3.96
09042924	0.9900	11.4500	10.4600	9.2200	8.2300	78.68	21.32
09042925	0.9700	11.3400	10.3700	10.8000	9.8300	94.79	5.21
09042926	0.9800	11.4500	10.4700	10.8700	9.8900	94.46	5.54
09042927	0.9800	11.0200	10.0400	9.0200	8.0400	80.08	19.92
09042928	0.9900	11.3800	10.3900	9.0600	8.0700	77.67	22.33
09042929	1.0100	11.2200	10.2100	8.8500	7.8400	76.79	23.21
09042930	1.0200	11.3700	10.3500	9.4400	8.4200	81.35	18.65
09042931	1.0000	11.2300	10.2300	9.3400	8.3400	81.52	18.48
10000301	0.9900	11.3400	10.3500	9.3300	8.3400	80.58	19.42
10000302	1.0000	11.1100	10.1100	9.4300	8.4300	83.38	16.62
10000303	0.9700	11.2400	10.2700	10.0300	9.0600	88.22	11.78
10000304	1.0000	11.0900	10.0900	9.6400	8.6400	85.63	14.37
10000305	1.0100	11.4300	10.4200	10.7100	9.7000	93.09	6.91
10000601	0.9900	10.9900	10.0000	8.6600	7.6700	76.70	23.30
10001201	0.9900	11.2400	10.2500	9.8900	8.9000	86.83	13.17
10001202	0.9800	11.6200	10.6400	10.4800	9.5000	89.29	10.71
10001203	0.9800	11.8800	10.9000	10.9100	9.9300	91.10	8.90

NEI/GTEL
ENVIRONMENTAL LABORATORIES, INC.

Northeast Region
Meadowbrook Industrial Park
Milford, NH 03055
(603) 672-4835
(603) 673-8105 (FAX)

October 11, 1996

John Munson
Dow Environmental, Inc.
501 Winding Road.
Old Bethpage, NY 11804

RE: GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Dear John Munson:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 09/28/96 under Chain-of-Custody Number(s) 64040/64041/64302/64303.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This Analytical report shall not be reproduced except in full.

GTEL is certified by the State of New York under Lab ID #10599.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Richard Ravenelle for

Susan C. Uhler
Laboratory Director

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

CONFORMANCE/NONCONFORMANCE SUMMARY

(X = Requirements Met * = See Comments NA = Not Applicable)

#	Conformance Item	VOA GC/MS	VOA GC	SV GC/MS	SV GC	METALS	WET CHEM
1	GC/MS Tune	X	NA	--	NA	NA	NA
2	Initial Calibration	X	--	--	--	X	X
3	Continuing Calibration	X	--	--	--	X	X
4	Surrogate Recovery	X	--	--	--	NA	NA
5	Holding Time	X	--	--	--	X	X
6	Method Accuracy	X	--	--	--	*	*
7	Method Precision	X	--	--	--	*	X
8	Blank	*	--	--	--	X	X

9 Comments:

Method 8260 in Low Soil:
Batch QC. Lab anomaly. Method Blank BL100296IR > ½ reporting limits, 1,1-Dichloroethane. Due to contaminated syringe. Analyte detected on samples is < ½ reporting limit.

Method 325.2 in Aqueous:
Sample M6090429-02. Sample anomaly. Estimated concentration. Matrix Spike and Matrix Spike Duplicate 090429-02 < limits, Chloride 3.1% Rec bias. Due to matrix interference. Supporting data batch laboratory control samples demonstrate(s) accuracy (%Rec).

Method 6010 in Aqueous:
Sample M6090429-01. Sample anomaly. Matrix Spike and Matrix Spike Duplicate 090429-01. Not appropriate for evaluation. Sodium. Due to sample > spike. Supporting data batch laboratory control sample(s) demonstrate(s) accuracy (% Rec). %RPD based on concentration is 1.5% and demonstrate(s) precision (%RPD or RSD).

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Job Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Aqueous

GTEL Sample Number	M6090429-03	--	--	--
Client ID	CLLTEV03WA016	--	--	--
Date Sampled	09/26/96	--	--	--
Date Analyzed	10/07/96	--	--	--
Dilution Factor	1.00	--	--	--

Trip Blank - Cooler 2

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	10.	ug/L	10. U	--	--	--
Chloromethane	10.	ug/L	10. U	--	--	--
Vinyl chloride	5.0	ug/L	5.0 U	--	--	--
Bromomethane	10.	ug/L	10. U	--	--	--
Chloroethane	10.	ug/L	10. U	--	--	--
Trichlorofluoromethane	5.0	ug/L	5.0 U	--	--	--
1,1-Dichloroethene	5.0	ug/L	5.0 U	--	--	--
Methylene chloride	5.0	ug/L	5.0 U	--	--	--
trans-1,2-Dichloroethene	5.0	ug/L	5.0 U	--	--	--
1,1-Dichloroethane	5.0	ug/L	5.0 U	--	--	--
2,2-Dichloropropane	5.0	ug/L	5.0 U	--	--	--
cis-1,2-Dichloroethene	5.0	ug/L	5.0 U	--	--	--
Chloroform	5.0	ug/L	5.0 U	--	--	--
Bromochloromethane	5.0	ug/L	5.0 U	--	--	--
1,1,1-Trichloroethane	5.0	ug/L	5.0 U	--	--	--
1,1-Dichloropropene	5.0	ug/L	5.0 U	--	--	--
Carbon tetrachloride	5.0	ug/L	5.0 U	--	--	--
Benzene	1.0	ug/L	1.0 U	--	--	--
1,2-Dichloroethane	5.0	ug/L	5.0 U	--	--	--
Trichloroethene	5.0	ug/L	5.0 U	--	--	--
1,2-Dichloropropane	5.0	ug/L	5.0 U	--	--	--
Bromodichloromethane	5.0	ug/L	5.0 U	--	--	--
Dibromomethane	5.0	ug/L	5.0 U	--	--	--
cis-1,3-Dichloropropene	5.0	ug/L	5.0 U	--	--	--
Toluene	5.0	ug/L	5.0 U	--	--	--
trans-1,3-Dichloropropene	5.0	ug/L	5.0 U	--	--	--
1,1,2-Trichloroethane	5.0	ug/L	5.0 U	--	--	--
1,2-Dibromoethane	5.0	ug/L	5.0 U	--	--	--
Tetrachloroethene	5.0	ug/L	5.0 U	--	--	--
1,3-Dichloropropane	5.0	ug/L	5.0 U	--	--	--
Dibromochloromethane	5.0	ug/L	5.0 U	--	--	--
Chlorobenzene	5.0	ug/L	5.0 U	--	--	--
Ethylbenzene	5.0	ug/L	5.0 U	--	--	--
1,1,1,2-Tetrachloroethane	5.0	ug/L	5.0 U	--	--	--
Xylenes (total)	5.0	ug/L	5.0 U	--	--	--
1,3-Dichlorobenzene	5.0	ug/L	5.0 U	--	--	--
Styrene	5.0	ug/L	5.0 U	--	--	--
1,4-Dichlorobenzene	5.0	ug/L	5.0 U	--	--	--
Bromoform	5.0	ug/L	5.0 U	--	--	--

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Lab Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 8260
Matrix: Aqueous

GTEL Sample Number	M6090429-03	--	--	--
Client ID	CLLTEV03WA016	--	--	--
Date Sampled	09/26/96	--	--	--
Date Analyzed	10/07/96	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:			
1,2-Dichlorobenzene	5.0	ug/L	5.0 U	--	--	--
Isopropylbenzene	5.0	ug/L	5.0 U	--	--	--
1,1,2,2-Tetrachloroethane	5.0	ug/L	5.0 U	--	--	--
Bromobenzene	5.0	ug/L	5.0 U	--	--	--
1,2,3-Trichloropropane	5.0	ug/L	5.0 U	--	--	--
n-Propylbenzene	5.0	ug/L	5.0 U	--	--	--
2-Chlorotoluene	5.0	ug/L	5.0 U	--	--	--
1,3,5-Trimethylbenzene	5.0	ug/L	5.0 U	--	--	--
4-Chlorotoluene	5.0	ug/L	5.0 U	--	--	--
tert-Butylbenzene	5.0	ug/L	5.0 U	--	--	--
1,2,4-Trimethylbenzene	5.0	ug/L	5.0 U	--	--	--
sec-Butylbenzene	5.0	ug/L	5.0 U	--	--	--
p-Isopropyltoluene	5.0	ug/L	5.0 U	--	--	--
Butylbenzene	5.0	ug/L	5.0 U	--	--	--
-Dibromo-3-chloropropane	5.0	ug/L	5.0 U	--	--	--
1,2,4-Trichlorobenzene	5.0	ug/L	5.0 U	--	--	--
Hexachlorobutadiene	5.0	ug/L	5.0 U	--	--	--
Naphthalene	5.0	ug/L	5.0 U	--	--	--
1,2,3-Trichlorobenzene	5.0	ug/L	5.0 U	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. Analyte list modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected.

"J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated. "B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination; The data user is warned to take appropriate action.

[E N V I R O N M E N T A L G C / M S Q A / Q C R E P O R T]

DataFile : C:\HPCHEM\1\DATA\K100796\K4822.D
Sample Name: BW100796KA
Sample Misc:
Acquisition: 7 Oct 96 at 2:12 pm
Quant Time : 10-11-96 at 9:57 via Daily Calibration

Operator : ~~SillyGoose~~ @WPH
Instrument: MSDK
Multiplier: 1.
Matrix : Water

Title of the GC/MS Method: SW-846: 8240/8260 { MSDK }
The GC/MS Method File : C:\HPCHEM\1\METHODS\8260.M
Last Method Modification : 10-11-96 at 9:51
Acquisition Paramaters : 9-6-96 at 7:45

Continuing Calibration: C:\HPCHEM\1\DATA\K100796\K4821.D
Acquisition Timestamp : 7 Oct 96 1:10 pm
Quantitation Timestamp: Oct 11 09:55 1996
Calibration Timestamp : Fri Oct 11 09:56:57 1996
Initial Calibration : Mon Oct 07 10:10:05 1996

[S u r r o g a t e R e c o v e r y R e p o r t]

Compound Name	RT	Conc.	Spike	Recov.	Limits	Flag
1,2-Dichloroethane-d4	11.47	51.30	50.00	102.59	76-114	pass
Tolene-d8 (S2)	15.11	51.12	50.00	102.23	88-110	pass
Bromofluorobenzene (S3	18.87	45.75	50.00	91.50	86-115	pass

[I n t e r n a l S t a n d a r d R e p o r t]

Internal Standard	-+0.5 RT Limits	RT Det.	RT Flag	50%-200% Area Limits	Area Det.	Area Flag
Pentafluorobenzene	10.88-11.88	11.37	pass	89925-359698	151168	pass
1,4-Difluorobenzene	12.09-13.09	12.59	pass	232445-929778	375862	pass
Chlorobenzene-d5	16.63-17.63	17.13	pass	123883-495532	204233	pass
1,4-Dichlorobenzene-d5	20.56-21.56	21.06	pass	94957-379828	139647	pass

Reporting Time: 12:21:24 Date: 10/11/96

[E N V I R O N M E N T A L G C / M S Q A / Q C R E P O R T]

DataFile : C:\HPCHEM\1\DATA\K100796\K4828.D
Sample Name: M6090429-03
Sample Misc:
Acquisition: 7 Oct 96 at 6:05 pm
Quant Time : 10-11-96 at 10:6 via Daily Calibration

Operator : ~~SillyGoos~~ (JD 10/11)
Instrument: MSDK
Multiplier: 1.
Matrix : Water

Title of the GC/MS Method: SW-846: 8240/8260 { MSDK }
The GC/MS Method File : C:\HPCHEM\1\METHODS\8260.M
Last Method Modification : 10-11-96 at 9:51
Acquisition Paramaters : 9-6-96 at 7:45

Continuing Calibration: C:\HPCHEM\1\DATA\K100796\K4821.D
Acquisition Timestamp : 7 Oct 96 1:10 pm
Quantitation Timestamp: Oct 11 09:55 1996
Calibration Timestamp : Fri Oct 11 09:56:57 1996
Initial Calibration : Mon Oct 07 10:10:05 1996

[S u r r o g a t e R e c o v e r y R e p o r t]

Compound Name	RT	Conc.	Spike	Recov.	Limits	Flag
1,2-Dichloroethane-d4	11.43	50.50	50.00	101.00	76-114	pass
Tolene-d8 (S2)	15.11	49.69	50.00	99.37	88-110	pass
Bromofluorobenzene (S3	18.83	45.81	50.00	91.61	86-115	pass

[I n t e r n a l S t a n d a r d R e p o r t]

Internal Standard	-+0.5 RT Limits	RT Det.	RT Flag	50%-200% Area Limits	Area Det.	Area Flag
Pentafluorobenzene	10.88-11.88	11.38	pass	89925-359698	179925	pass
1,4-Difluorobenzene	12.09-13.09	12.60	pass	232445-929778	467314	pass
Chlorobenzene-d5	16.63-17.63	17.14	pass	123883-495532	248308	pass
1,4-Dichlorobenzene-d5	20.56-21.56	21.06	pass	94957-379828	175153	pass

Reporting Time: 12:21:50 Date: 10/11/96

[E N V I R O N M E N T A L G C / M S Q A / Q C R E P O R T]

DataFile : C:\HPCHEM\1\DATA\K100796\K4829.D
Sample Name: MS090429-03
Sample Misc:
Acquisition: 7 Oct 96 at 6:41 pm
Quant Time : 10-11-96 at 10:7 via Daily Calibration

Operator : ~~SillyGoose~~ (W) 10/11/96
Instrument: MSDK
Multiplier: 1.
Matrix : Water

Title of the GC/MS Method: SW-846: 8240/8260 { MSDK }
The GC/MS Method File : C:\HPCHEM\1\METHODS\8260.M
Last Method Modification : 10-11-96 at 9:51
Acquisition Paramaters : 9-6-96 at 7:45

Continuing Calibration: C:\HPCHEM\1\DATA\K100796\K4821.D
Acquisition Timestamp : 7 Oct 96 1:10 pm
Quantitation Timestamp: Oct 11 09:55 1996
Calibration Timestamp : Fri Oct 11 09:56:57 1996
Initial Calibration : Mon Oct 07 10:10:05 1996

[S u r r o g a t e R e c o v e r y R e p o r t]

Compound Name	RT	Conc.	Spike	Recov.	Limits	Flag
1,2-Dichloroethane-d4	11.48	51.33	50.00	102.66	76-114	pass
Tolene-d8 (S2)	15.11	49.79	50.00	99.59	88-110	pass
Bromofluorobenzene (S3	18.88	46.97	50.00	93.95	86-115	pass

[I n t e r n a l S t a n d a r d R e p o r t]

Internal Standard	-+0.5 RT Limits	RT Det.	RT Flag	50%-200% Area Limits	Area Det.	Area Flag
Pentafluorobenzene	10.88-11.88	11.38	pass	89925-359698	166401	pass
1,4-Difluorobenzene	12.09-13.09	12.59	pass	232445-929778	447616	pass
Chlorobenzene-d5	16.63-17.63	17.14	pass	123883-495532	245364	pass
1,4-Dichlorobenzene-d5	20.56-21.56	21.06	pass	94957-379828	181019	pass

Reporting Time: 12:21:53 Date: 10/11/96

[E N V I R O N M E N T A L G C / M S Q A / Q C R E P O R T]

DataFile : C:\HPCHEM\1\DATA\K100796\K4830.D
Sample Name: MD090429-03
Sample Misc:
Acquisition: 7 Oct 96 at 7:17 pm
Quant Time : 10-11-96 at 10:9 via Daily Calibration

Operator :~~SillyGoose~~ @ 10/10
Instrument:MSDK
Multiplier:1.
Matrix :Water

Title of the GC/MS Method: SW-846: 8240/8260 { MSDK }
The GC/MS Method File : C:\HPCHEM\1\METHODS\8260.M
Last Method Modification : 10-11-96 at 9:51
Acquisition Paramaters : 9-6-96 at 7:45

Continuing Calibration: C:\HPCHEM\1\DATA\K100796\K4821.D
Acquisition Timestamp : 7 Oct 96 :10 pm
Quantitation Timestamp: Oct 11 09:55 1996
Calibration Timestamp : Fri Oct 11 09:56:57 1996
Initial Calibration : Mon Oct 07 10:10:05 1996

[S u r r o g a t e R e c o v e r y R e p o r t]

Compound Name	RT	Conc.	Spike	Recov.	Limits	Flag
1,2-Dichloroethane-d4	11.47	51.89	50.00	103.78	76-114	pass
Tolene-d8 (S2)	15.12	49.68	50.00	99.36	88-110	pass
Bromofluorobenzene (S3	18.87	46.94	50.00	93.88	86-115	pass

[I n t e r n a l S t a n d a r d R e p o r t]

Internal Standard	-+0.5 RT Limits	RT Det.	RT Flag	50%-200% Area Limits	Area Det.	Area Flag
Pentafluorobenzene	10.88-11.88	11.38	pass	89925-359698	177089	pass
1,4-Difluorobenzene	12.09-13.09	12.59	pass	232445-929778	474305	pass
Chlorobenzene-d5	16.63-17.63	17.13	pass	123883-495532	255251	pass
1,4-Dichlorobenzene-d5	20.56-21.56	21.06	pass	94957-379828	187752	pass

Reporting Time: 12:21:55 Date: 10/11/96

[E N V I R O N M E N T A L G C / M S Q A / Q C R E P O R T]

DataFile : C:\HPCHEM\1\DATA\K100796\K4823.D
Sample Name: LW100796KA
Sample Misc:
Acquisition: 7 Oct 96 at 2:48 pm
Quant Time : 10-11-96 at 9:58 via Daily Calibration

Operator : ~~SillyGoose~~ (LW) 10/11/96
Instrument: MSDK
Multiplier: 1.
Matrix : Water

Title of the GC/MS Method: SW-846: 8240/8260 { MSDK }
The GC/MS Method File : C:\HPCHEM\1\METHODS\8260.M
Last Method Modification : 10-11-96 at 9:51
Acquisition Paramaters : 9-6-96 at 7:45

Continuing Calibration: C:\HPCHEM\1\DATA\K100796\K4821.D
Acquisition Timestamp : 7 Oct 96 1:10 pm
Quantitation Timestamp: Oct 11 09:55 1996
Calibration Timestamp : Fri Oct 11 09:56:57 1996
Initial Calibration : Mon Oct 07 10:10:05 1996

[S u r r o g a t e R e c o v e r y R e p o r t]

Compound Name	RT	Conc.	Spike	Recov.	Limits	Flag
1,2-Dichloroethane-d4	11.48	50.04	50.00	100.07	76-114	pass
Tolene-d8 (S2)	15.11	50.01	50.00	100.03	88-110	pass
Bromofluorobenzene (S3	18.87	47.92	50.00	95.84	86-115	pass

[I n t e r n a l S t a n d a r d R e p o r t]

Internal Standard	-+0.5 RT Limits	RT Det.	RT Flag	50%-200% Area Limits	Area Det.	Area Flag
Pentafluorobenzene	10.88-11.88	11.38	pass	89925-359698	176492	pass
1,4-Difluorobenzene	12.09-13.09	12.59	pass	232445-929778	459939	pass
Chlorobenzene-d5	16.63-17.63	17.14	pass	123883-495532	251007	pass
1,4-Dichlorobenzene-d5	20.56-21.56	21.06	pass	94957-379828	188704	pass

Reporting Time: 12:21:30 Date: 10/11/96

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MD) SUMMARY
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)

Volatile Organics in Water
GC/MS VOA

Sample Spiked: 090429-03
Date of Analysis: 10/07/96

Client ID: Batch QC
Solution ID: M96MS0133
Batch #: 100796KA

Compound	Spike Added (ug/L)	Sample Conc. (ug/L)	MS Conc. (ug/L)	MS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	20.0	< 5.00	19.99	100.0	61-145
Trichloroethene	20.0	< 5.00	20.39	102.0	71-120
Benzene	20.0	< 5.00	20.69	103.5	76-127
Toluene	20.0	< 5.00	21.13	105.7	76-125
Chlorobenzene	20.0	< 5.00	20.83	104.2	75-130

Compound	Spike Added (ug/L)	MD Conc. (ug/L)	MD,% Percent Recovery	% RPD	Acceptability limits, a % Recovery	% RPD
1,1-Dichloroethene	20.0	19.42	97.1	2.89	61-145	14
Trichloroethene	20.0	19.69	98.5	3.49	71-120	14
Benzene	20.0	19.43	97.2	6.28	76-127	11
Toluene	20.0	20.16	100.8	4.70	76-125	13
Chlorobenzene	20.0	20.14	100.7	3.37	75-130	13

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

**** %RPD based on concentration rather than % recovery due to high native concentrations of analyte.**

LABORATORY CONTROL SAMPLE (LCS)
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD

Volatile Organics in Water
GC/MS VOA

Sample Spiked: LW100796KA
Date of Analysis: 10/07/96

Client ID: Batch QC
Solution ID: M96MS0133
Batch #: 100796KA

Compound	Spike Added (ug/L)	Sample Conc. (ug/L)	LCS Conc. (ug/L)	LCS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	20.0	< 5.00	18.17	90.9	61-145
Trichloroethene	20.0	< 5.00	20.17	100.9	71-120
Benzene	20.0	< 5.00	19.57	97.9	76-127
Toluene	20.0	< 5.00	20.97	104.9	76-125
Chlorobenzene	20.0	< 5.00	20.72	103.6	75-130

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

**** %RPD based on concentration rather than % recovery due to high native concentrations of analyte.**

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Aqueous
EPA Method 8260[a]

	GTEL File ID	BW100796KA
	Date Analyzed	10/07/96
Analyte	Reporting Limit ug/L[b]	Concentration, ug/L[b]
Dichlorodifluoromethane	10	10 U
Chloromethane	10	10 U
Vinyl Chloride	5.0	5.0 U
Bromoethane	10	10 U
Chloroethane	10	10 U
Trichlorofluoromethane	5.0	5.0 U
1,1-Dichloroethene	5.0	5.0 U
Methylene Chloride	5.0	5.0 U
trans-1,2-Dichloroethene	5.0	5.0 U
1,1-Dichloroethane	5.0	5.0 U
2,2-Dichloropropane	5.0	5.0 U
cis-1,2-Dichloroethene	5.0	5.0 U
Chloroform	5.0	5.0 U
Bromochloromethane	5.0	5.0 U
1,1,1-Trichloroethane	5.0	5.0 U
1,1-Dichloropropene	5.0	5.0 U
Carbon Tetrachloride	5.0	5.0 U
Benzene	1.0	5.0 U
1,2-Dichloroethane	5.0	5.0 U
Trichloroethene	5.0	5.0 U
1,2-Dichloropropane	5.0	5.0 U
Bromodichloromethane	5.0	5.0 U
Dibromomethane	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
Toluene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U
1,1,2-Trichloroethane	5.0	5.0 U
1,2-Dibromoethane	5.0	5.0 U
Tetrachloroethene	5.0	5.0 U
1,3-Dichloropropane	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Aqueous
EPA Method 8260[a]

	GTEL File ID	BW100796KA
	Date Analyzed	10/07/96
Analyte	Reporting Limit, ug/L	Concentration, ug/L[b]
Dibromochloromethane	5.0	5.0 U
Chlorobenzene	5.0	5.0 U
Ethylbenzene	5.0	5.0 U
1,1,1,2-Tetrachloroethane	5.0	5.0 U
Xylenes (total)	5.0	5.0 U
1,3-Dichlorobenzene	5.0	5.0 U
Styrene	5.0	5.0 U
1,4-Dichlorobenzene	5.0	5.0 U
Bromoform	5.0	5.0 U
1,2-Dichlorobenzene	5.0	5.0 U
Isopropylbenzene	5.0	5.0 U
1,1,2,2-Tetrachloroethane	5.0	5.0 U
Bromobenzene	5.0	5.0 U
1,2,3-Trichloropropane	5.0	5.0 U
n-Propylbenzene	5.0	5.0 U
2-Chlorotoluene	5.0	5.0 U
1,3,5-Trimethylbenzene	5.0	5.0 U
4-Chlorotoluene	5.0	5.0 U
tert-Butylbenzene	5.0	5.0 U
1,2,4-Trimethylbenzene	5.0	5.0 U
sec-Butylbenzene	5.0	5.0 U
p-Isopropyltoluene	5.0	5.0 U
n-Butylbenzene	5.0	5.0 U
1,2-Dibromo-3-chloropropane	5.0	5.0 U
1,2,4-Trichlorobenzene	5.0	5.0 U
Hexachlorobutadiene	5.0	5.0 U
Naphthalene	5.0	5.0 U
1,2,3-Trichlorobenzene	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Aqueous
EPA Method 8260[a]

	GTEL File ID	BW100796KA
	Date Analyzed	10/07/96
Analyte	Reporting Limit ug/L[b]	Concentration, ug/L[b]
Dichlorodifluoromethane	10	10 U
Chloromethane	10	10 U
Vinyl Chloride	5.0	5.0 U
Bromoethane	10	10 U
Chloroethane	10	10 U
Trichlorofluoromethane	5.0	5.0 U
1,1-Dichloroethene	5.0	5.0 U
Methylene Chloride	5.0	5.0 U
trans-1,2-Dichloroethene	5.0	5.0 U
1,1-Dichloroethane	5.0	5.0 U
2,2-Dichloropropane	5.0	5.0 U
cis-1,2-Dichloroethene	5.0	5.0 U
Chloroform	5.0	5.0 U
Bromochloromethane	5.0	5.0 U
1,1,1-Trichloroethane	5.0	5.0 U
1,1-Dichloropropene	5.0	5.0 U
Carbon Tetrachloride	5.0	5.0 U
Benzene	1.0	5.0 U
1,2-Dichloroethane	5.0	5.0 U
Trichloroethene	5.0	5.0 U
1,2-Dichloropropane	5.0	5.0 U
Bromodichloromethane	5.0	5.0 U
Dibromomethane	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
Toluene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U
1,1,2-Trichloroethane	5.0	5.0 U
1,2-Dibromoethane	5.0	5.0 U
Tetrachloroethene	5.0	5.0 U
1,3-Dichloropropane	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Aqueous
EPA Method 8260[a]

	GTEL File ID	BW100796KA
	Date Analyzed	10/07/96
Analyte	Reporting Limit, ug/L	Concentration, ug/L[b]
Dibromochloromethane	5.0	5.0 U
Chlorobenzene	5.0	5.0 U
Ethylbenzene	5.0	5.0 U
1,1,1,2-Tetrachloroethane	5.0	5.0 U
Xylenes (total)	5.0	5.0 U
1,3-Dichlorobenzene	5.0	5.0 U
Styrene	5.0	5.0 U
1,4-Dichlorobenzene	5.0	5.0 U
Bromoform	5.0	5.0 U
1,2-Dichlorobenzene	5.0	5.0 U
Isopropylbenzene	5.0	5.0 U
1,1,2,2-Tetrachloroethane	5.0	5.0 U
Bromobenzene	5.0	5.0 U
1,2,3-Trichloropropane	5.0	5.0 U
n-Propylbenzene	5.0	5.0 U
2-Chlorotoluene	5.0	5.0 U
1,3,5-Trimethylbenzene	5.0	5.0 U
4-Chlorotoluene	5.0	5.0 U
tert-Butylbenzene	5.0	5.0 U
1,2,4-Trimethylbenzene	5.0	5.0 U
sec-Butylbenzene	5.0	5.0 U
p-Isopropyltoluene	5.0	5.0 U
n-Butylbenzene	5.0	5.0 U
1,2-Dibromo-3-chloropropane	5.0	5.0 U
1,2,4-Trichlorobenzene	5.0	5.0 U
Hexachlorobutadiene	5.0	5.0 U
Naphthalene	5.0	5.0 U
1,2,3-Trichlorobenzene	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE

METHOD BLANK RESULTS
Volatile Organics in Aqueous
EPA Method 8260[a]

a "Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, Table 3, US EPA November 1990; sample preparation by purge and trap. Method modified to include additional compounds.

b Data Flag Definitions

U Indicates compound was analyzed for but not detected.

J Indicates an estimated value. This flag is used when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the quantitation limit, but greater than zero, or when reporting an estimated concentration for a tentatively identified compound.

GTEL Client ID: 966044044

Login Number: M6090429

Project ID (Number): 6044

Project ID (Name): Claremont Polychemical Superfund Site

ANALYTICAL RESULTS

Date of Report: Oct 09, 1996

EPA 6010A	GTEL Sample Number	M6090429-01
Metals	Client ID	CLLTEV03WA020
Matrix: Aqueous	Date Sampled	09/26/96
	Date Prepared	10/07/96
	Date Analyzed	10/07/96
	Adjustment Multiplier	1.00

CLTEV - Water Supply Tank

Analyte	Reporting Limit	Units	
Sodium	1000	ug/L	27000

Narrative Summary

Login Number: M6090429
Project ID (number): 6044
oject ID (name): Claremont Polychemical Superfund Site Date of Report: Oct 09, 1996

Footnotes and Comments

Symbol keys (may appear beside values)

* - Indicates the analyte has been qualified in the narrative section of the report.
d - Indicates the analyte was reported from a dilution other than that indicated on the report page.
B - Organic Analyses - Indicates the analyte is found in the associated blank as well as in the sample.
B - Inorganic Analyses - Indicates an estimated value below the EPA Contract Required Detection Limit.
G - Indicates an estimated surrogate recovery due to dilutions.
J - Indicates an estimated value below the reporting limit.
U - Indicates the analyte was analyzed for but not detected.
NA - Matrix Spike Results - Not Applicable, since the Sample Conc. exceeded four times the Spike Added.
NA - Matrix Spike Duplicate RPD Results - Not Applicable, since the Sample Conc. exceeded four times the Spike Added.
NA - Serial Dilution RPD Results - Not Applicable, since the Sample Conc. was less than five times the CLP Contract Required Detection Limit.

Inorganics

Method: EPA 7421
"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 2.
Digestion is Method Specific.

GTEL Client ID: 966044044 ANALYTICAL RESULTS

Login Number: M6090429

Project ID (Number): 6044

Project ID (Name): Claremont Polychemical Superfund Site Date of Report: Oct 09, 1996

EPA 7421	GTEL Sample Number	M6090429-01
Metals	Client ID	CLLTEV03WA020
Matrix: Aqueous	Date Sampled	09/26/96
	Date Prepared	10/07/96
	Date Analyzed	10/08/96
	Adjustment Multiplier	1.00

CLTEV - Water Supply Tank

Analyte	Reporting Limit	Units	
Lead	4.0	ug/L	4.0 U

ANALYTICAL RESULTS
Chloride

GTEL Client ID: 966044044
Job Number: M6090429
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site

Method: EPA 325.2
Matrix: Aqueous

GTEL Sample Number	M6090429-02	--	--	--
Client ID	CLLTEV03WA025	--	--	--
Date Sampled	09/26/96	--	--	--
Date Analyzed	10/01/96	--	--	--
Dilution Factor	1.00	--	--	--

LTEV - Water Supply Tank

Analyte	Reporting Limit	Units	Concentration:			
Chloride	4.0	mg/L	40.	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 325.2:

"Methods for Chemical Analysis of Water and Wastes", EPA 600/4-79-020, USEPA EMSL, Cincinnati, OH, Revised, March 1983.

M6090429-02:

See Nonconformance Summary.

GTEL Client ID: 966044044
Login Number: M6090429 QUALITY CONTROL RESULTS
Project ID (Number): 6044
Project ID (Name): Claremont Polychemical Superfund Site Date of Report: Oct 09, 1996

EPA 6010A Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results
Metals
Matrix: Aqueous Sample ID: M6090429-01 MS ID:MS09042901 MSD ID:MD09042901
Analysis Date: 10/07/96 10/07/96 10/07/96

Units: ug/L	Sample	Spikes Added		MS	MS	MSD	MSD		Acceptability Limits	
Analyte	Conc.	MS	MSD	Conc.	% Rec.	Conc.	% Rec.	RPD	RPD	%Rec.
Sodium	27000(27300)	5560	5560	32700	97.1	32200	88.1 NA	0.00 NA	20	80-120

GTEL Client ID: 966044044

Login Number: M6090429 QUALITY CONTROL RESULTS

Project ID (Number): 6044

Project ID (Name): Claremont Polychemical Superfund Site Date of Report: Oct 09, 1996

EPA 6010A Laboratory Control Sample(LCS) Results

Metals

Matrix: Aqueous Blank Ref: BW100796A LCS Ref:LW100796A

Date Prepared: 10/07/96 10/07/96

Date Analyzed: 10/07/96 10/07/96

Units: ug/L	Sample	Spike Added	LCS	LCS	Acceptability Limits
Analyte	Conc.	LCS	Conc.	%Rec.	%Rec.
Sodium	U 1000(0.00)	5560	5510	99.1	80-120

GTEL Client ID: 966044044
Login Number: M6090429
Project ID (Number): 6044
Project ID (Name): Claremont Polychemical Superfund Site

QUALITY CONTROL RESULTS
METHOD BLANK REPORT

Date of Report: Oct 09, 1996

EPA 6010A	GTEL Sample Number	10079615A-1
Metals	Reference	BW100796A
Matrix: Aqueous	Date Prepared	10/07/96
	Date Analyzed	10/07/96
	Adjustment Multiplier	1.00

Analyte	Reporting Limit	Units	
Antimony	60	ug/L	60 U
Sodium	1000	ug/L	1000 U

Chloride
EPA Method 325.2

Quality Control Results

Method Blank

Date Analyzed: 10/01/96

GTEL Sample ID			Reporting Limit (mg/L)			Result (mg/L)	Q	
BW100196			4.00			4.00	U	

Matrix Spike (MS) Recovery

Date Analyzed: 10/01/96

GTEL Sample ID	Sample Result (mg/L)	Q	Spike Amount	MS Result (mg/L)	Q	% Recovery	Q	Control Limits
MS090429-02	40.0230		50.0000	78.4690		76.9	N	80-120%

Matrix Spike Duplicate (MD) Sample Results

Date Analyzed: 10/01/96

GTEL Sample ID	Spike Amount	Q	MD Result (mg/L)	% Recovery	Q	% RPD	Q	Control Limits
MD090429-02	50.0000		78.5240	77.0020	N	0.14		20

Laboratory Control Sample (LCS) Results

Date Analyzed: 10/01/96

GTEL Sample ID			Spike Amount (mg/L)	LCS Result (mg/L)	Q	% Recovery	Q	Control Limits
LW100196			74.00	72.92		98.5		90-110%

Qualifiers (Q)

U - Indicates analyte was not detected at or above the reporting limit.

* - See Nonconformance Summary

NA = Not applicable; %RPD is not calculated when sample result is less than five times the reporting limit.

GTEL Client ID: 966044044

ANALYTICAL RESULTS

Login Number: M6090414

Project ID (Number): 6044

Project ID (Name): Claremont Polychemical Superfund Site, Old Bethpage, NY

Date of Report: Oct 10, 1996

PA 6010A	GTEL Sample Number	M6090414-11
Metals	Client ID	CLLTEV03WA023
Matrix: Aqueous	Date Sampled	09/26/96
	Date Prepared	09/01/96
	Date Analyzed	10/03/96
	Adjustment Multiplier	1.00

Scrubber Discharge Run 3

Analyte	Reporting Limit	Units	
Sodium	1000	ug/L	330000

Reporting Conventions

The table below summarizes the reporting conventions which appear on the enclosed QC Package for inorganic analyses.

Flag	Interpretation
Column Heading: C	Concentration qualifier:
U	The analyte was analyzed for but not detected > reporting limit.
Column Heading: Q	Qualifier-Specified entries and their meanings are as follows:
N	Spiked sample recovery not within control limits.
*	Duplicate analysis not in control.
Column Heading: M	Method Used:
P	Inductively Coupled Plasma (ICP).

Data for soils are reported on a wet weight basis unless otherwise indicated.

SPIKED SAMPLE RECOVERY SUMMARY

GTEL Sample Spiked: 090414-11
Date Analyzed: 10/03/96
Concentration Units: ug/L
Matrix: Aqueous

Analyte	Spiked Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	Recovery %	Lim	Q	M
Sodium	333086.7		332293.3		5560.0	NA	a		P

a Control limits (80-120%) are derived from EPA 6010A

NA Not applicable when sample results are greater than four times the amount added.

LABORATORY DUPLICATE SAMPLE RESULTS

GTEL Sample I.D.: MSC90414-1.1
Date Analyzed: 10/03/96
Concentration Units: ug/L
Matrix: Aqueous

Analyte	Sample Result	C	Duplicate Result	C	RPD, %	Control Limit[a]	Q	M
Sodium	333086.7		335580.0		0.8	a		P

a Control limits are derived from EPA 6010A
MS Matrix Spike

LABORATORY CONTROL SAMPLE

Date Analyzed: 10/03/96
Units: ug/L

Analyte	True	Found	C	Recovery, %	Control Limits, %[a]
Sodium	5560	4993.5		90	80-120

a Control limits are derived from EPA 6010A

BLANK RESULTS

Date Analyzed: 10/03/96
Preparation Blank Units: ug/L
Matrix: Aqueous

Analyte	Prep Blank		
		C	M
Sodium	1000.0	U	P

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Job Number: M6090414
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY

Method: EPA 8260
Matrix: Aqueous

	GTEL Sample Number	M6090414-01	M6090414-02	M6090414-03	M6090414-04
	Client ID	CLLTEV03WA012	CLLTEV03WA014	CLLTEV03WA017	CLLTEV03WA018
	Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
	Date Analyzed	10/01/96	10/01/96	10/01/96	10/01/96
	Dilution Factor	1.00	1.00	1.00	1.00
		Rinsate Blank	Trip Blank	Run 1 - Scrubber Blowdown	Run 2 - Scrubber Blowdown
Analyte	Reporting Limit / Units	Concentration:			
Dichlorodifluoromethane	10. ug/L	10. U	10. U	10. U	10. U
Chloromethane	10. ug/L	10. U	10. U	10. U	10. U
Vinyl chloride	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	10. ug/L	10. U	10. U	10. U	10. U
Chloroethane	10. ug/L	10. U	10. U	10. U	10. U
Trichlorofluoromethane	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5.0 ug/L	5.0 U	1.3 J	1.2 J	1.3 J
trans-1,2-Dichloroethene	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,2-Dichloropropane	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromochloromethane	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloropropene	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1.0 ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromomethane	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichloropropane	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1,2-Tetrachloroethane	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 ug/L	5.0 U	5.0 U	5.0 U	5.0 U

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
in Number: M6090414
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY

Method: EPA 8260
Matrix: Aqueous

	GTEL Sample Number	M6090414-01	M6090414-02	M6090414-03	M6090414-04
	Client ID	CLLTEV03WA012	CLLTEV03WA014	CLLTEV03WA017	CLLTEV03WA018
	Date Sampled	09/26/96	09/26/96	09/26/96	09/26/96
	Date Analyzed	10/01/96	10/01/96	10/01/96	10/01/96
	Dilution Factor	1.00	1.00	1.00	1.00
Analyte	Reporting Limit	Units	Concentration:			
1,2-Dichlorobenzene	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	5.0	ug/L	5.0 U	5.0 U	1.8 J	5.0 U
1,1,2,2-Tetrachloroethane	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromobenzene	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
n-Propylbenzene	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorotoluene	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
tert-Butylbenzene	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
sec-Butylbenzene	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
p-Isopropyltoluene	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
n-Butylbenzene	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	5.0	ug/L	5.0 U	5.0 U	5.0 U	5.0 U

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. Analyte list modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected.

"J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated. "B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination; The data user is warned to take appropriate action.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
in Number: M6090414
oject ID (number): 6044 Method: EPA 8260
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY Matrix: Aqueous

GTEL Sample Number	M6090414-05	--	--	--
Client ID	CLLTEV03WA019	--	--	--
Date Sampled	09/26/96	--	--	--
Date Analyzed	10/01/96	--	--	--
Dilution Factor	1.00	--	--	--

Run 3 - Scrubber Blowdown

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	10.	ug/L	10. U	--	--	--
Chloromethane	10.	ug/L	10. U	--	--	--
Vinyl chloride	5.0	ug/L	5.0 U	--	--	--
Bromomethane	10.	ug/L	10. U	--	--	--
Chloroethane	10.	ug/L	10. U	--	--	--
Trichlorofluoromethane	5.0	ug/L	5.0 U	--	--	--
1,1-Dichloroethene	5.0	ug/L	5.0 U	--	--	--
Methylene chloride	5.0	ug/L	1.2 J	--	--	--
trans-1,2-Dichloroethene	5.0	ug/L	5.0 U	--	--	--
1,1-Dichloroethane	5.0	ug/L	5.0 U	--	--	--
2,2-Dichloropropane	5.0	ug/L	5.0 U	--	--	--
cis-1,2-Dichloroethene	5.0	ug/L	5.0 U	--	--	--
Chloroform	5.0	ug/L	5.0 U	--	--	--
Bromochloromethane	5.0	ug/L	5.0 U	--	--	--
1,1,1-Trichloroethane	5.0	ug/L	5.0 U	--	--	--
1,1-Dichloropropene	5.0	ug/L	5.0 U	--	--	--
Carbon tetrachloride	5.0	ug/L	5.0 U	--	--	--
Benzene	1.0	ug/L	1.0 U	--	--	--
1,2-Dichloroethane	5.0	ug/L	5.0 U	--	--	--
Trichloroethene	5.0	ug/L	5.0 U	--	--	--
1,2-Dichloropropane	5.0	ug/L	5.0 U	--	--	--
Bromodichloromethane	5.0	ug/L	5.0 U	--	--	--
Dibromomethane	5.0	ug/L	5.0 U	--	--	--
cis-1,3-Dichloropropene	5.0	ug/L	5.0 U	--	--	--
Toluene	5.0	ug/L	5.0 U	--	--	--
trans-1,3-Dichloropropene	5.0	ug/L	5.0 U	--	--	--
1,1,2-Trichloroethane	5.0	ug/L	5.0 U	--	--	--
1,2-Dibromoethane	5.0	ug/L	5.0 U	--	--	--
Tetrachloroethene	5.0	ug/L	5.0 U	--	--	--
1,3-Dichloropropane	5.0	ug/L	5.0 U	--	--	--
Dibromochloromethane	5.0	ug/L	5.0 U	--	--	--
Chlorobenzene	5.0	ug/L	5.0 U	--	--	--
Ethylbenzene	5.0	ug/L	5.0 U	--	--	--
1,1,1,2-Tetrachloroethane	5.0	ug/L	5.0 U	--	--	--
Xylenes (total)	5.0	ug/L	5.0 U	--	--	--
1,3-Dichlorobenzene	5.0	ug/L	5.0 U	--	--	--
Styrene	5.0	ug/L	5.0 U	--	--	--
1,4-Dichlorobenzene	5.0	ug/L	5.0 U	--	--	--
Bromoform	5.0	ug/L	5.0 U	--	--	--

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY

Method: EPA 8260
Matrix: Aqueous

GTEL Sample Number	M6090414-05	--	--	--
Client ID	CLLTEV03WA019	--	--	--
Date Sampled	09/26/96	--	--	--
Date Analyzed	10/01/96	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:			
1,2-Dichlorobenzene	5.0	ug/L	5.0 U	--	--	--
Isopropylbenzene	5.0	ug/L	5.0 U	--	--	--
1,1,2,2-Tetrachloroethane	5.0	ug/L	5.0 U	--	--	--
Bromobenzene	5.0	ug/L	5.0 U	--	--	--
1,2,3-Trichloropropane	5.0	ug/L	5.0 U	--	--	--
n-Propylbenzene	5.0	ug/L	5.0 U	--	--	--
2-Chlorotoluene	5.0	ug/L	5.0 U	--	--	--
1,3,5-Trimethylbenzene	5.0	ug/L	5.0 U	--	--	--
4-Chlorotoluene	5.0	ug/L	5.0 U	--	--	--
tert-Butylbenzene	5.0	ug/L	5.0 U	--	--	--
1,2,4-Trimethylbenzene	5.0	ug/L	5.0 U	--	--	--
sec-Butylbenzene	5.0	ug/L	5.0 U	--	--	--
p-Isopropyltoluene	5.0	ug/L	5.0 U	--	--	--
Butylbenzene	5.0	ug/L	5.0 U	--	--	--
-Dibromo-3-chloropropane	5.0	ug/L	5.0 U	--	--	--
1,2,4-Trichlorobenzene	5.0	ug/L	5.0 U	--	--	--
Hexachlorobutadiene	5.0	ug/L	5.0 U	--	--	--
Naphthalene	5.0	ug/L	5.0 U	--	--	--
1,2,3-Trichlorobenzene	5.0	ug/L	5.0 U	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. Analyte list modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected.

"J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated. "B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination; The data user is warned to take appropriate action.

[E N V I R O N M E N T A L G C / M S Q A / Q C R E P O R T]

DataFile : C:\HPCHEM\1\DATA\K100196\K4744.D
Sample Name: BW100196KA
Sample Misc:
Acquisition: 1 Oct 96 at 11:13 am
Quant Time : 10-1-96 at 11:56 via Daily Calibration

Operator :~~SillyGoose~~ (4) 10/3
Instrument:MSDK
Multiplier:1.
Matrix :Water

Title of the GC/MS Method: SW-846: 8240/8260 { MSDK }
The GC/MS Method File : C:\HPCHEM\1\METHODS\8260.M
Last Method Modification : 10-1-96 at 11:55
Acquisition Paramaters : 9-6-96 at 7:45

RECEIVED
OCT 17 1996

Continuing Calibration: C:\HPCHEM\1\DATA\K100196\K4743.D
Acquisition Timestamp : 1 Oct 96 10:16 am
Quantitation Timestamp: Oct 01 10:52 1996
Calibration Timestamp : Tue Oct 01 10:55:06 1996
Initial Calibration : Wed Sep 25 12:27:06 1996

[S u r r o g a t e R e c o v e r y R e p o r t]

Compound Name	RT	Conc.	Spike	Recov.	Limits	Flag
1,2-Dichloroethane-d4	11.43	48.77	50.00	97.54	76-114	pass
Tolene-d8 (S2)	15.07	50.23	50.00	100.47	88-110	pass
Bromofluorobenzene (S3	18.83	47.12	50.00	94.24	86-115	pass

I n t e r n a l S t a n d a r d R e p o r t]

Internal Standard	-+0.5 RT Limits	RT Det.	RT Flag	50%-200% Area Limits	Area Det.	Area Flag
Pentafluorobenzene	10.83-11.83	11.33	pass	95571-382284	188696	pass
1,4-Difluorobenzene	12.05-13.05	12.55	pass	252931-1011722	492108	pass
Chlorobenzene-d5	16.60-17.60	17.09	pass	140829-563314	269146	pass
1,4-Dichlorobenzene-d5	20.51-21.51	21.01	pass	105714-422856	196967	pass

Reporting Time: 16:43:33 Date: 10/01/96

[E N V I R O N M E N T A L G C / M S Q A / Q C R E P O R T]

DataFile : C:\HPCHEM\1\DATA\K100196\K4745.D
Sample Name: LW100196KA
Sample Misc:
Acquisition: 1 Oct 96 at 11:48 am
Quant Time : 10-1-96 at 12:20 via Daily Calibration

Operator :~~SillyGoose~~
Instrument:MSDK
Multiplier:1.
Matrix :Water

Title of the GC/MS Method: SW-846: 8240/8260 { MSDK }
The GC/MS Method File : C:\HPCHEM\1\METHODS\8260.M
Last Method Modification : 10-1-96 at 11:55
Acquisition Paramaters : 9-6-96 at 7:45

Continuing Calibration: C:\HPCHEM\1\DATA\K100196\K4743.D
Acquisition Timestamp : 1 Oct 96 10:16 am
Quantitation Timestamp: Oct 01 10:52 1996
Calibration Timestamp : Tue Oct 01 10:55:06 1996
Initial Calibration : Wed Sep 25 12:27:06 1996

[S u r r o g a t e R e c o v e r y R e p o r t]

Compound Name	RT	Conc.	Spike	Recov.	Limits	Flag
1,2-Dichloroethane-d4	11.43	49.43	50.00	98.86	76-114	pass
Tolene-d8 (S2)	15.08	48.77	50.00	97.53	88-110	pass
Bromofluorobenzene (S3	18.83	45.54	50.00	91.08	86-115	pass

[I n t e r n a l S t a n d a r d R e p o r t]

Internal Standard	-+0.5 RT Limits	RT Det.	RT Flag	50%-200% Area Limits	Area Det.	Area Flag
Pentafluorobenzene	10.83-11.83	11.34	pass	95571-382284	198019	pass
1,4-Difluorobenzene	12.05-13.05	12.56	pass	252931-1011722	534447	pass
Chlorobenzene-d5	16.60-17.60	17.10	pass	140829-563314	287108	pass
1,4-Dichlorobenzene-d5	20.51-21.51	21.01	pass	105714-422856	202114	pass

Reporting Time: 16:43:38 Date: 10/01/96

[E N V I R O N M E N T A L G C / M S Q A / Q C R E P O R T]

DataFile : C:\HPCHEM\1\DATA\K100196\K4756.D
Sample Name: M6090414-01
Sample Misc:
quisition: 1 Oct 96 at 6:49 pm
uant Time : 10-1-96 at 19:21 via Daily Calibration

Operator :~~SillyGoose~~ 4/10/03
Instrument:MSDK
Multiplier:1.
Matrix :Water

Title of the GC/MS Method: SW-846: 8240/8260 { MSDK }
The GC/MS Method File : C:\HPCHEM\1\METHODS\8260.M
Last Method Modification : 10-1-96 at 11:55
Acquisition Paramaters : 9-6-96 at 7:45

Continuing Calibration: C:\HPCHEM\1\DATA\K100196\K4743.D
Acquisition Timestamp : 1 Oct 96 10:16 am
Quantitation Timestamp: Oct 01 10:52 1996
Calibration Timestamp : Tue Oct 01 10:55:06 1996
Initial Calibration : Wed Sep 25 12:27:06 1996

[S u r r o g a t e R e c o v e r y R e p o r t]

Compound Name	RT	Conc.	Spike	Recov.	Limits	Flag
1,2-Dichloroethane-d4	11.44	50.65	50.00	101.29	76-114	pass
Tolene-d8 (S2)	15.09	46.81	50.00	93.63	88-110	pass
Bromofluorobenzene (S3	18.84	45.85	50.00	91.69	86-115	pass

I n t e r n a l S t a n d a r d R e p o r t]

Internal Standard	-+0.5 RT Limits	RT Det.	RT Flag	50%-200% Area Limits	Area Det.	Area Flag
Pentafluorobenzene	10.83-11.83	11.35	pass	95571-382284	170809	pass
1,4-Difluorobenzene	12.05-13.05	12.57	pass	252931-1011722	472879	pass
Chlorobenzene-d5	16.60-17.60	17.11	pass	140829-563314	246726	pass
1,4-Dichlorobenzene-d5	20.51-21.51	21.02	pass	105714-422856	180317	pass

Reporting Time: 08:26:26 Date: 10/02/96

[E N V I R O N M E N T A L G C / M S Q A / Q C R E P O R T]

DataFile : C:\HPCHEM\1\DATA\K100196\K4757.D
Sample Name: MS090414-01
Sample Misc:
Acquisition: 1 Oct 96 at 7:25 pm
Quant Time : 10-1-96 at 19:58 via Daily Calibration

Operator :~~SillyGoose~~ 4/10/03
Instrument:MSDK
Multiplier:1.
Matrix :Water

Title of the GC/MS Method: SW-846: 8240/8260 { MSDK }
The GC/MS Method File : C:\HPCHEM\1\METHODS\8260.M
Last Method Modification : 10-1-96 at 11:55
Acquisition Paramaters : 9-6-96 at 7:45

Continuing Calibration: C:\HPCHEM\1\DATA\K100196\K4743.D
Acquisition Timestamp : 1 Oct 96 10:16 am
Quantitation Timestamp: Oct 01 10:52 1996
Calibration Timestamp : Tue Oct 01 10:55:06 1996
Initial Calibration : Wed Sep 25 12:27:06 1996

[S u r r o g a t e R e c o v e r y R e p o r t]

Compound Name	RT	Conc.	Spike	Recov.	Limits	Flag
1,2-Dichloroethane-d4	11.45	50.37	50.00	100.73	76-114	pass
Tolene-d8 (S2)	15.09	48.50	50.00	97.00	88-110	pass
Bromofluorobenzene (S3	18.85	46.21	50.00	92.41	86-115	pass

[I n t e r n a l S t a n d a r d R e p o r t]

Internal Standard	-+0.5 RT Limits	RT Det.	RT Flag	50%-200% Area Limits	Area Det.	Area Flag
Pentafluorobenzene	10.83-11.83	11.35	pass	95571-382284	177646	pass
1,4-Difluorobenzene	12.05-13.05	12.56	pass	252931-1011722	498953	pass
Chlorobenzene-d5	16.60-17.60	17.11	pass	140829-563314	265296	pass
1,4-Dichlorobenzene-d5	20.51-21.51	21.03	pass	105714-422856	197690	pass

Reporting Time: 08:26:30 Date: 10/02/96

[E N V I R O N M E N T A L G C / M S Q A / Q C R E P O R T]

DataFile : C:\HPCHEM\1\DATA\K100196\K4758.D
Sample Name: MD090414-01
Sample Misc:
Acquisition: 1 Oct 96 at 8:01 pm
Quant Time : 10-1-96 at 20:33 via Daily Calibration

Operator :~~SillyGoose~~
Instrument:MSDK
Multiplier:1.
Matrix :Water

Title of the GC/MS Method: SW-846: 8240/8260 { MSDK }
The GC/MS Method File : C:\HPCHEM\1\METHODS\8260.M
Last Method Modification : 10-1-96 at 11:55
Acquisition Paramaters : 9-6-96 at 7:45

Continuing Calibration: C:\HPCHEM\1\DATA\K100196\K4743.D
Acquisition Timestamp : 1 Oct 96 10:16 am
Quantitation Timestamp: Oct 01 10:52 1996
Calibration Timestamp : Tue Oct 01 10:55:06 1996
Initial Calibration : Wed Sep 25 12:27:06 1996

[S u r r o g a t e R e c o v e r y R e p o r t]

Compound Name	RT	Conc.	Spike	Recov.	Limits	Flag
1,2-Dichloroethane-d4	11.44	49.10	50.00	98.20	76-114	pass
Tolene-d8 (S2)	15.09	48.07	50.00	96.14	88-110	pass
Bromofluorobenzene (S3	18.84	45.62	50.00	91.23	86-115	pass

[I n t e r n a l S t a n d a r d R e p o r t]

Internal Standard	-+0.5 RT Limits	RT Det.	RT Flag	50%-200% Area Limits	Area Det.	Area Flag
Pentafluorobenzene	10.83-11.83	11.35	pass	95571-382284	178305	pass
1,4-Difluorobenzene	12.05-13.05	12.57	pass	252931-1011722	497698	pass
Chlorobenzene-d5	16.60-17.60	17.11	pass	140829-563314	264087	pass
1,4-Dichlorobenzene-d5	20.51-21.51	21.02	pass	105714-422856	187307	pass

Reporting Time: 08:26:33 Date: 10/02/96

[E N V I R O N M E N T A L G C / M S Q A / Q C R E P O R T]

DataFile : C:\HPCHEM\1\DATA\K100196\K4759.D
Sample Name: M6090414-02
Sample Misc:
Acquisition: 1 Oct 96 at 8:37 pm
Quant Time : 10-1-96 at 21:9 via Daily Calibration

Operator :~~SillyGoose~~
Instrument:MSDK
Multiplier:1.
Matrix :Water

Title of the GC/MS Method: SW-846: 8240/8260 { MSDK }
The GC/MS Method File : C:\HPCHEM\1\METHODS\8260.M
Last Method Modification : 10-1-96 at 11:55
Acquisition Paramaters : 9-6-96 at 7:45

Continuing Calibration: C:\HPCHEM\1\DATA\K100196\K4743.D
Acquisition Timestamp : 1 Oct 96 10:16 am
Quantitation Timestamp: Oct 01 10:52 1996
Calibration Timestamp : Tue Oct 01 10:55:06 1996
Initial Calibration : Wed Sep 25 12:27:06 1996

[S u r r o g a t e R e c o v e r y R e p o r t]

Compound Name	RT	Conc.	Spike	Recov.	Limits	Flag
1,2-Dichloroethane-d4	11.44	50.22	50.00	100.44	76-114	pass
Tolene-d8 (S2)	15.09	48.84	50.00	97.67	88-110	pass
Bromofluorobenzene (S3	18.84	46.25	50.00	92.51	86-115	pass

[I n t e r n a l S t a n d a r d R e p o r t]

Internal Standard	-+0.5 RT Limits	RT Det.	RT Flag	50%-200% Area Limits	Area Det.	Area Flag
Pentafluorobenzene	10.83-11.83	11.35	pass	95571-382284	174088	pass
1,4-Difluorobenzene	12.05-13.05	12.57	pass	252931-1011722	483244	pass
Chlorobenzene-d5	16.60-17.60	17.11	pass	140829-563314	252414	pass
1,4-Dichlorobenzene-d5	20.51-21.51	21.03	pass	105714-422856	185733	pass

Reporting Time: 08:26:36 Date: 10/02/96

[E N V I R O N M E N T A L G C / M S Q A / Q C R E P O R T]

DataFile : C:\HPCHEM\1\DATA\K100196\K4760.D
Sample Name: M6090414-03
Sample Misc:
Acquisition: 1 Oct 96 at 9:13 pm
Quant Time : 10-1-96 at 21:45 via Daily Calibration

Operator :~~SillyGoose~~ 10/2/03
Instrument:MSDK
Multiplier:1.
Matrix :Water

Title of the GC/MS Method: SW-846: 8240/8260 { MSDK }
The GC/MS Method File : C:\HPCHEM\1\METHODS\8260.M
Last Method Modification : 10-1-96 at 11:55
Acquisition Paramaters : 9-6-96 at 7:45

Continuing Calibration: C:\HPCHEM\1\DATA\K100196\K4743.D
Acquisition Timestamp : 1 Oct 96 10:16 am
Quantitation Timestamp: Oct 01 10:52 1996
Calibration Timestamp : Tue Oct 01 10:55:06 1996
Initial Calibration : Wed Sep 25 12:27:06 1996

[S u r r o g a t e R e c o v e r y R e p o r t]

Compound Name	RT	Conc.	Spike	Recov.	Limits	Flag
1,2-Dichloroethane-d4	11.44	50.76	50.00	101.53	76-114	pass
Tolene-d8 (S2)	15.09	48.75	50.00	97.50	88-110	pass
Bromofluorobenzene (S3	18.84	46.26	50.00	92.51	86-115	pass

I n t e r n a l S t a n d a r d R e p o r t]

Internal Standard	-+0.5 RT Limits	RT Det.	RT Flag	50%-200% Area Limits	Area Det.	Area Flag
Pentafluorobenzene	10.83-11.83	11.35	pass	95571-382284	166904	pass
1,4-Difluorobenzene	12.05-13.05	12.57	pass	252931-1011722	463799	pass
Chlorobenzene-d5	16.60-17.60	17.11	pass	140829-563314	243481	pass
1,4-Dichlorobenzene-d5	20.51-21.51	21.02	pass	105714-422856	179967	pass

Reporting Time: 08:26:39 Date: 10/02/96

[E N V I R O N M E N T A L G C / M S Q A / Q C R E P O R T]

DataFile : C:\HPCHEM\1\DATA\K100196\K4761.D
Sample Name: M6090414-04
Sample Misc:
Acquisition: 1 Oct 96 at 9:49 pm
Quant Time : 10-1-96 at 22:21 via Daily Calibration

Operator :~~SillyGoose~~ 10/03
Instrument:MSDK
Multiplier:1.
Matrix :Water

Title of the GC/MS Method: SW-846: 8240/8260 { MSDK }
The GC/MS Method File : C:\HPCHEM\1\METHODS\8260.M
Last Method Modification : 10-1-96 at 11:55
Acquisition Paramaters : 9-6-96 at 7:45

Continuing Calibration: C:\HPCHEM\1\DATA\K100196\K4743.D
Acquisition Timestamp : 1 Oct 96 10:16 am
Quantitation Timestamp: Oct 01 10:52 1996
Calibration Timestamp : Tue Oct 01 10:55:06 1996
Initial Calibration : Wed Sep 25 12:27:06 1996

[S u r r o g a t e R e c o v e r y R e p o r t]

Compound Name	RT	Conc.	Spike	Recov.	Limits	Flag
1,2-Dichloroethane-d4	11.44	48.73	50.00	97.46	76-114	pass
Tolene-d8 (S2)	15.09	48.19	50.00	96.37	88-110	pass
Bromofluorobenzene (S3	18.84	45.10	50.00	90.20	86-115	pass

[I n t e r n a l S t a n d a r d R e p o r t]

Internal Standard	-+0.5 RT Limits	RT Det.	RT Flag	50%-200% Area Limits	Area Det.	Area Flag
Pentafluorobenzene	10.83-11.83	11.35	pass	95571-382284	167132	pass
1,4-Difluorobenzene	12.05-13.05	12.57	pass	252931-1011722	457194	pass
Chlorobenzene-d5	16.60-17.60	17.10	pass	140829-563314	236509	pass
1,4-Dichlorobenzene-d5	20.51-21.51	21.02	pass	105714-422856	160477	pass

Reporting Time: 08:26:41 Date: 10/02/96

[E N V I R O N M E N T A L G C / M S Q A / Q C R E P O R T]

DataFile : C:\HPCHEM\1\DATA\K100196\K4762.D
Sample Name: M6090414-05
Sample Misc:
Acquisition: 1 Oct 96 at 10:25 pm
Quant Time : 10-1-96 at 22:57 via Daily Calibration

Operator : ~~SillyGoose~~
Instrument: MSDK
Multiplier: 1.
Matrix : Water

Title of the GC/MS Method: SW-846: 8240/8260 { MSDK }
The GC/MS Method File : C:\HPCHEM\1\METHODS\8260.M
Last Method Modification : 10-1-96 at 11:55
Acquisition Paramaters : 9-6-96 at 7:45

Continuing Calibration: C:\HPCHEM\1\DATA\K100196\K4743.D
Acquisition Timestamp : 1 Oct 96 10:16 am
Quantitation Timestamp: Oct 01 10:52 1996
Calibration Timestamp : Tue Oct 01 10:55:06 1996
Initial Calibration : Wed Sep 25 12:27:06 1996

[S u r r o g a t e R e c o v e r y R e p o r t]

Compound Name	RT	Conc.	Spike	Recov.	Limits	Flag
1,2-Dichloroethane-d4	11.44	51.40	50.00	102.81	76-114	pass
Tolene-d8 (S2)	15.09	48.56	50.00	97.13	88-110	pass
Bromofluorobenzene (S3	18.84	46.32	50.00	92.63	86-115	pass

[I n t e r n a l S t a n d a r d R e p o r t]

Internal Standard	-+0.5 RT Limits	RT Det.	RT Flag	50%-200% Area Limits	Area Det.	Area Flag
Pentafluorobenzene	10.83-11.83	11.35	pass	95571-382284	163186	pass
1,4-Difluorobenzene	12.05-13.05	12.57	pass	252931-1011722	455410	pass
Chlorobenzene-d5	16.60-17.60	17.11	pass	140829-563314	239737	pass
1,4-Dichlorobenzene-d5	20.51-21.51	21.02	pass	105714-422856	176476	pass

Reporting Time: 08:26:44 Date: 10/02/96

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MD) SUMMARY
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)

Volatile Organics in Water
GC/MS VOA

Sample Spiked: 090414-01
Date of Analysis: 10/01/96

Client ID: Batch QC
Solution ID: M96MS0133
Batch #: 100196KA

Compound	Spike Added (ug/L)	Sample Conc. (ug/L)	MS Conc. (ug/L)	MS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	20.0	< 5.00	22.41	112.1	61-145
Trichloroethene	20.0	< 5.00	21.28	106.4	71-120
Benzene	20.0	< 5.00	20.63	103.2	76-127
Toluene	20.0	< 5.00	21.25	106.3	76-125
Chlorobenzene	20.0	< 5.00	21.65	108.3	75-130

Compound	Spike Added (ug/L)	MD Conc. (ug/L)	MD,% Percent Recovery	% RPD	Acceptability limits, a	
					% Recovery	% RPD
1,1-Dichloroethene	20.0	21.12	105.6	5.93	61-145	14
Trichloroethene	20.0	20.82	104.1	2.19	71-120	14
Benzene	20.0	20.07	100.4	2.75	76-127	11
Toluene	20.0	20.70	103.5	2.62	76-125	13
Chlorobenzene	20.0	21.12	105.6	2.48	75-130	13

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

**** %RPD based on concentration rather than % recovery due to high native concentrations of analyte.**

LABORATORY CONTROL SAMPLE (LCS)
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD

Volatile Organics in Water
GC/MS VOA

Sample Spiked: LW100196KA
Date of Analysis: 10/01/96

Client ID: Batch QC
Solution ID: M96MS0133
Batch #: 100196KA

Compound	Spike Added (ug/L)	Sample Conc. (ug/L)	LCS Conc. (ug/L)	LCS,% Percent Recovery	Acceptability limits % Recovery,a
1,1-Dichloroethene	20.0	< 5.00	21.14	105.7	61-145
Trichloroethene	20.0	< 5.00	20.96	104.8	71-120
Benzene	20.0	< 5.00	20.06	100.3	76-127
Toluene	20.0	< 5.00	21.28	106.4	76-125
Chlorobenzene	20.0	< 5.00	20.64	103.2	75-130

Reported concentrations are based on wet weight.

*** Indicates values outside of acceptability limits. See Nonconformance Summary.**

a Acceptability limits are derived from USEPA Contract Laboratory Program (CLP).

D Diluted out. Percent Recovery and RPD are not calculated when spike compound(s) are diluted out.

NA:Not Applicable % Recovery is not calculated when sample results exceed 5 times the spike concentration.

**** %RPD based on concentration rather than % recovery due to high native concentrations of analyte.**

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

METHOD BLANK RESULTS
Volatile Organics in Aqueous
EPA Method 8260[a]

	GTEL File ID	BW100196KA
	Date Analyzed	10/21/96
Analyte	Reporting Limit ug/L[b]	Concentration, ug/L[b]
Dichlorodifluoromethane	10	10 U
Chloromethane	10	10 U
Vinyl Chloride	5.0	5.0 U
Bromoethane	10	10 U
Chloroethane	10	10 U
Trichlorofluoromethane	5.0	5.0 U
1,1-Dichloroethene	5.0	5.0 U
Methylene Chloride	5.0	5.0 U
trans-1,2-Dichloroethene	5.0	5.0 U
1,1-Dichloroethane	5.0	5.0 U
2,2-Dichloropropane	5.0	5.0 U
cis-1,2-Dichloroethene	5.0	5.0 U
Chloroform	5.0	5.0 U
Bromochloromethane	5.0	5.0 U
1,1,1-Trichloroethane	5.0	5.0 U
1,1-Dichloropropene	5.0	5.0 U
Carbon Tetrachloride	5.0	5.0 U
Benzene	1.0	5.0 U
1,2-Dichloroethane	5.0	5.0 U
Trichloroethene	5.0	5.0 U
1,2-Dichloropropane	5.0	5.0 U
Bromodichloromethane	5.0	5.0 U
Dibromomethane	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
Toluene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U
1,1,2-Trichloroethane	5.0	5.0 U
1,2-Dibromoethane	5.0	5.0 U
Tetrachloroethene	5.0	5.0 U
1,3-Dichloropropane	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

METHOD BLANK RESULTS
Volatile Organics in Aqueous
EPA Method 8260[a]

	GTEL File ID	BW100196KA
	Date Analyzed	10/21/96
Analyte	Reporting Limit ug/L[b]	Concentration, ug/L[b]
Dichlorodifluoromethane	10	10 U
Chloromethane	10	10 U
Vinyl Chloride	5.0	5.0 U
Bromoethane	10	10 U
Chloroethane	10	10 U
Trichlorofluoromethane	5.0	5.0 U
1,1-Dichloroethene	5.0	5.0 U
Methylene Chloride	5.0	5.0 U
trans-1,2-Dichloroethene	5.0	5.0 U
1,1-Dichloroethane	5.0	5.0 U
2,2-Dichloropropane	5.0	5.0 U
cis-1,2-Dichloroethene	5.0	5.0 U
Chloroform	5.0	5.0 U
Bromochloromethane	5.0	5.0 U
1,1,1-Trichloroethane	5.0	5.0 U
1,1-Dichloropropene	5.0	5.0 U
Carbon Tetrachloride	5.0	5.0 U
Benzene	1.0	5.0 U
1,2-Dichloroethane	5.0	5.0 U
Trichloroethene	5.0	5.0 U
1,2-Dichloropropane	5.0	5.0 U
Bromodichloromethane	5.0	5.0 U
Dibromomethane	5.0	5.0 U
cis-1,3-Dichloropropene	5.0	5.0 U
Toluene	5.0	5.0 U
trans-1,3-Dichloropropene	5.0	5.0 U
1,1,2-Trichloroethane	5.0	5.0 U
1,2-Dibromoethane	5.0	5.0 U
Tetrachloroethene	5.0	5.0 U
1,3-Dichloropropane	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

METHOD BLANK RESULTS
Volatile Organics in Aqueous
EPA Method 8260[a]

	GTEL File ID	BW100196KA
	Date Analyzed	10/21/96
Analyte	Reporting Limit, ug/L	Concentration, ug/L[b]
Dibromochloromethane	5.0	5.0 U
Chlorobenzene	5.0	5.0 U
Ethylbenzene	5.0	5.0 U
1,1,1,2-Tetrachloroethane	5.0	5.0 U
Xylenes (total)	5.0	5.0 U
1,3-Dichlorobenzene	5.0	5.0 U
Styrene	5.0	5.0 U
1,4-Dichlorobenzene	5.0	5.0 U
Bromoform	5.0	5.0 U
1,2-Dichlorobenzene	5.0	5.0 U
Isopropylbenzene	5.0	5.0 U
1,1,2,2-Tetrachloroethane	5.0	5.0 U
Bromobenzene	5.0	5.0 U
1,2,3-Trichloropropane	5.0	5.0 U
n-Propylbenzene	5.0	5.0 U
2-Chlorotoluene	5.0	5.0 U
1,3,5-Trimethylbenzene	5.0	5.0 U
4-Chlorotoluene	5.0	5.0 U
tert-Butylbenzene	5.0	5.0 U
1,2,4-Trimethylbenzene	5.0	5.0 U
sec-Butylbenzene	5.0	5.0 U
p-Isopropyltoluene	5.0	5.0 U
n-Butylbenzene	5.0	5.0 U
1,2-Dibromo-3-chloropropane	5.0	5.0 U
1,2,4-Trichlorobenzene	5.0	5.0 U
Hexachlorobutadiene	5.0	5.0 U
Naphthalene	5.0	5.0 U
1,2,3-Trichlorobenzene	5.0	5.0 U

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): CLAREMONT POLYCHEMICAL SUPERFUND SITE, OLD BETHPAGE, NY

METHOD BLANK RESULTS
Volatile Organics in Aqueous
EPA Method 8260[a]

a "Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, Table 3, US EPA November 1990; sample preparation by purge and trap. Method modified to include additional compounds.

b Data Flag Definitions

U Indicates compound was analyzed for but not detected.

J Indicates an estimated value. This flag is used when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the quantitation limit, but greater than zero, or when reporting an estimated concentration for a tentatively identified compound.

Narrat.ve Summary

Login Number: M6090414
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY Date of Report: Oct 02, 1996

Footnotes and Comments

Symbol keys (may appear beside values)

* - Indicates the analyte has been qualified in the narrative section of the report.
d - Indicates the analyte was reported from a dilution other than that indicated on the report page.
B - Organic Analyses - Indicates the analyte is found in the associated blank as well as in the sample.
B - Inorganic Analyses - Indicates an estimated value below the EPA Contract Required Detection Limit.
G - Indicates an estimated surrogate recovery due to dilutions.
J - Indicates an estimated value below the reporting limit.
U - Indicates the analyte was analyzed for but not detected.
NA - Matrix Spike Results - Not Applicable, since the Sample Conc. exceeded four times the Spike Added.
NA - Matrix Spike Duplicate RPD Results - Not Applicable, since the Sample Conc. exceeded four times the Spike Added.
NA - Serial Dilution RPD Results - Not Applicable, since the Sample Conc. was less than five times the CLP Contract Required Detection Limit.

Inorganics

Method: EPA 6010A
"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 2.
Digestion is Method Specific.

GTEL Client ID: 966044044 ANALYTICAL RESULTS

Login Number: M6090414

Project ID (Number): 6044

Project ID (Name): Claremont Polychemical Superfund Site, Old Bethpage, NY Date of Report: Oct 02, 1996

EPA 6010A	GTEL Sample Number	M6090414-06	M6090414-08
Metals	Client ID	CLLTEV03WA021	CLLTEV03WA022
Matrix: Aqueous	Date Sampled	09/26/96	09/26/96
	Date Prepared	09/30/96	09/30/96
	Date Analyzed	09/30/96	10/01/96
	Adjustment Multiplier	1.00	1.00

Analyte	Reporting Limit	Units	Run 1 - Scrubber Discharge	Run 2 - Scrubber Discharge
Sodium	1000	ug/L	230000	290000

ANALYTICAL RESULTS
Chloride

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (number): 6044
Project ID (name): Claremont Polychemical Superfund Site, Old Bethpage, NY

Method: EPA 325.2
Matrix: Aqueous

	GTEL Sample Number	M6090414-07	M6090414-09	M6090414-12	--
	Client ID	CLLTEV03WA024	CLLTEV03WA026	CLLTEV03WA027	--
	Date Sampled	09/26/96	09/26/96	09/26/96	--
	Date Analyzed	10/01/96	10/01/96	10/01/96	--
	Dilution Factor	1.00	1.00	5.00	--
		Run 1 - Scrubber Discharge	Run 2 - Scrubber Discharge	Run 3 - Scrubber Discharge	
Analyte	Reporting Limit / Units	Concentration:			
Chloride	4.0 mg/L	96.	95.	170	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 325.2:

"Methods for Chemical Analysis of Water and Wastes", EPA 600/4-79-021, USEPA EMSL, Cincinnati, OH, Revised, March 1983.

GTEL Client ID: 966044044

Login Number: M6090414 QUALITY CONTROL RESULTS

Project ID (Number): 6044

Project ID (Name): Claremont Polychemical Superfund Site, Old Bethpage, NY Date of Report: Oct 02, 1996

EPA 6010A Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

Metals

Matrix: Aqueous Sample ID: M6090414-06 MS ID:MS09041406 MSD ID:MD09041406

Analysis Date: 09/30/96 10/01/96 10/01/96

Units: ug/L	Sample	Spikes Added		MS	MS	MSD	MSD		Acceptability Limits	
Analyte	Conc.	MS	MSD	Conc.	% Rec.	Conc.	% Rec.	RPD	RPD	%Rec.
Sodium	230000(228000)	5560	5560	234000	108 NA	236000	144 NA	0.00 NA	20	80-120

GTEL Client ID: 966044044

Login Number: M6090414

QUALITY CONTROL RESULTS

Project ID (Number): 6044

Project ID (Name): Claremont Polychemical Superfund Site, Old Bethpage, NY

Date of Report: Oct 02, 1996

EPA 6010A

Laboratory Control Sample(LCS) Results

Metals

Matrix: Aqueous

Blank Ref:	BW093096A	LCS Ref:LW093096A
Date Prepared:	09/30/96	09/30/96
Date Analyzed:	09/30/96	09/30/96

Units: ug/L	Sample	Spike Added	LCS	LCS	Acceptability Limits
Analyte	Conc.	LCS	Conc.	%Rec.	%Rec.
Sodium	U 1000(0.00)	5560	5580	100	80-120

GTEL Client ID: 966044044
Login Number: M6090414
Project ID (Number): 6044
Project ID (Name): Claremont Polychemical Superfund Site, Old Bethpage, NY

QUALITY CONTROL RESULTS
METHOD BLANK REPORT

Date of Report: Oct 02, 1996

EPA 6010A
Metals
Matrix: Aqueous

GTEL Sample Number: 09309615A-1
Reference: BW093096A
Date Prepared: 09/30/96
Date Analyzed: 09/30/96
Adjustment Multiplier: 1.00

Analyte	Reporting Limit	Units	
Barium	200	ug/L	200 U
Sodium	1000	ug/L	1000 U

Chloride
EPA Method 325.2

Quality Control Results

Method Blank

Date Analyzed: 10/01/96

GTEL Sample ID			Reporting Limit (mg/L)			Result (mg/L)	Q	
BW100196			4.00			4.00	U	

Matrix Spike (MS) Recovery

Date Analyzed: 10/01/96

GTEL Sample ID	Sample Result (mg/L)	Q	Spike Amount	MS Result (mg/L)	Q	% Recovery	Q	Control Limits
LW100196	4.00	U	74.00	72.92		98.5		80-120%

Matrix Spike Duplicate (MD) Sample Results

Date Analyzed: 10/01/96

GTEL Sample ID	Spike Amount	Q	MD Result (mg/L)	% Recovery	Q	% RPD	Q	Control Limits
LW100196	74.00		73.05	98.7		0.19		20

Laboratory Control Sample (LCS) Results

Date Analyzed: 10/01/96

GTEL Sample ID			Spike Amount (mg/L)	LCS Result (mg/L)	Q	% Recovery	Q	Control Limits
LW100196			74.00	72.92		98.5		90-110%

Qualifiers (Q)
U - Indicates analyte was not detected at or above the reporting limit.
* - See Nonconformance Summary
NA = Not applicable; %RPD is not calculated when sample result is less than five times the reporting limit.

GTEL ENVIRONMENTAL LABORATORIES, INC.

MEADOWBROOK INDUSTRIAL PARK
MILFORD, NH 03055
(603) 672-4835
(800) LAB-GTEL

Page 1 of 3

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 64038

Company Name: Environmental Inc.	Phone #: 516-249-8800
Company Address: Winding Road, Old Bethpage, NY 11804	FAX #: 516-249-8874
Project Manager: M Manson	Site location: (Same)
I certify that the proper field sampling procedures were used during the collection of these samples.	Client Project ID: (#) 6044
	(NAME) Claremont Polychemical Superfund Site
	Sampler Name (Print): TRENT PARKS

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (SPECIFY)	Sampling: DATE	TIME
TEV-03-WA-012		3	X						X			X			96.09.26	11:21
TEV-03-WA-014		2	X						X			X			"	11:21
TEV-03-WA-017		3	X						X			X			"	11:02
TEV-03-WA-018		3	X						X			X			"	14:06
TEV-03-WA-019		3	X						X			X			"	17:34
TEV-03-WA-021		1	X							X		X			"	11:02
TEV-03-WA-024		1	X									X			"	11:02
TEV-03-WA-022		1	X							X		X			"	14:06
TEV-03-WA-025		1	X									X			"	14:06
TEV-03-WA-010		2		X								X			"	13:57

Field Sample ID	BTEX/602 ☐ 8020 ☐ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐	Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	Hydrocarbon Profile (SIMDIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM 503 ☐	TPH/IR 418.1 ☐ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010 ☐	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	Organic Lead ☐	Corrosivity ☐ Flash Point ☐ Reactivity ☐	SW8260A - Water or Soil	SW6010A - Sodium	EPA 325.2 - Chloride
TEV-03-WA-012																						X	
TEV-03-WA-014																						X	
TEV-03-WA-017																						X	
TEV-03-WA-018																						X	
TEV-03-WA-019																						X	
TEV-03-WA-021		}	Report as Ag Cl concentration.																				X	
TEV-03-WA-024																								X
TEV-03-WA-022		}	Report as Ag Cl concentration.																				X	
TEV-03-WA-025																								X
TEV-03-WA-010																						X	

TAT: 96.09.26

- Priority (24 hr) ☐
- Expedited (48 hr) ☐
- Business Days ☐
- 3-5 calendar Days ☒

Special Handling

GTEL Contact: Patti Lazott
Quote/Contract #: 84501-R1
Confirmation #:
PO #: SC-96-6044-044

QA / QC LEVEL

E ☐ CLP ☐ OTHER USACOE Deliverable Package

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

3-5 day Fax
14 day QA/QC

FAX ☒

REMARKS

Lab Use Only Lot #

Storage Location:

Work Order #

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler:	96.09.26	19:30	Received by:
Relinquished by:			Received by:
Relinquished by:			Received by Laboratory:

Waybill #

GTEL ENVIRONMENTAL LABORATORIES, INC.

MEADOWBROOK INDUSTRIAL PARK
MILFORD, NH 03055
(603) 672-4835
(800) LAB-GTEL

Page 2 of 23

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

64336

Company Name: | Phone #:
FAX #:
Company Address: | Site location:
Project Manager: | Client Project ID: (#)
(NAME)
I attest that the proper field sampling procedures were used during the collection of these samples. | Sampler Name (Print):

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (SPECIFY)	Sampling: DATE	TIME
LTEV-03-WA-023		1	X							X		X			96.09.26	17:34
LTEV-03-WA-027		1	X									X			"	17:34
LTEV-03-S-009		2		X								X			"	10:15
~~LTEV-03-S-010~~		2		X								X			"	10:20
LTEV-03-S-011		2		X								X			"	10:25
LTEV-03-S-012		2		X								X			"	10:25
LTEV-03-S-~~013~~ 017	017 96.09.26	2		X								X			"	10:45
LTEV-03-S-014		2		X								X			"	10:30
LTEV-03-S-015		2		X								X			"	10:35
LTEV-03-S-016		2		X								X			"	10:40

Field Sample ID	BTEX/602 ☐ 8020 ☐ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐	Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	Hydrocarbon Profile (SIMDIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM 503 ☐	TPH/IR 418.1 ☐ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010 ☐	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	~~Organic Lead ☐~~ Expedite 3-5 days	Corrosivity ☐ Flash Point ☐ Reactivity ☐	SW6010A - Sodium	EPA 325.2 - Chloride	SW8260A - Soil
LTEV-03-WA-023	} Report as NaCl concentration.																					X		
LTEV-03-WA-027																							X	
LTEV-03-S-009																				X				X
~~LTEV-03-S-010~~																								X
LTEV-03-S-011																				X				X
LTEV-03-S-012																				X				X
LTEV-03-S-~~013~~ 017																								X
LTEV-03-S-014																				X				X
LTEV-03-S-015																								X
LTEV-03-S-016																				X				X

TAT
Priority (24 hr) ☐
Expedited (48 hr) ☐
Business Days ☐
Other ____
Business Days ☐

Special Handling
GTEL Contact ____
Quote/Contract # ____
Confirmation # ____
PO # ____

QA / QC LEVEL
UE ☐ CLP ☐ OTHER ____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

FAX ☐

REMARKS

Lab Use Only Lot # | Storage Location:

Work Order #

	Date	Time	
Relinquished by Sampler: [signature]	96.09.26	19:30	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
			Waybill #

CUSTODY RECORD

7/91

GTEL ENVIRONMENTAL LABORATORIES, INC.
MEADOWBROOK INDUSTRIAL PARK
MILFORD, NH 03055
(603) 672-4835
(800) LAB-GTEL

Page 3 of 3

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

64039

Company Name: | Phone #: | FAX #:

Company Address: | Site location:

Project Manager: | Client Project ID: (#) | (NAME)

Please check that the proper field sampling procedures were used during the collection of these samples. | Sampler Name (Print):

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (SPECIFY)	Sampling: DATE	TIME	BTEX/602 ☐ 8020 ☐ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐	Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	Hydrocarbon Profile (SIMDIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM 503 ☐	TPH/IR 418.1 ☐ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010 ☐	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	Organic Lead ☐	Corrosivity ☐ Flash Point ☐ Reactivity ☐	51628745
LTEV-05-S-009		2	X									X			96.09.26	10:52																X		X	
LTEV-03-S-018		2	X									X			"	10:50																X		X	
LTEV-03-S-019		2	X									X			"	10:55																		X		
LTEV-03-S-020		2	X									X			"	11:00		Run MS/MSD														X		X	
LTEV-03-S-021		2	X									X			"	11:00																X		X	
LTEV-03-S-023		2	X									X			"	11:07																		X		
LTEV-03-S-024		2	X									X			"	11:10																X		X	
LTEV-03-S-025		2	X									X			"	11:15																		X		
LTEV-03-S-026		2	X									X			"	13:20																X		X	
LTEV-03-S-027		2	X									X			"	13:25																		X		

Expedite 3-5 days

TAT

- Priority (24 hr) ☐
- Expedited (48 hr) ☐
- Business Days ☐
- Other _____
- Business Days ☐

Special Handling

GTEL Contact _____
Quote/Contract # _____
Confirmation # _____
PO # _____

QA / QC LEVEL

JE ☐ CLP ☐ OTHER _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

FAX ☐

REMARKS

Lab Use Only Lot # | **Storage Location:**

Work Order #

	Relinquished by Sampler:	Date	Time	Received by:
CUSTODY RECORD		96.09.26	19:30	
	Relinquished by:	Date	Time	Received by:
	Relinquished by:	Date	Time	Received by Laboratory:
				Waybill #

7/91

GTEL ENVIRONMENTAL LABORATORIES, INC.

MEADOWBROOK INDUSTRIAL PARK
MILFORD, NH 03055
(603) 672-4835
(800) LAB-GTEL

Page 1 of 3

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

94038

Company Name: Dow Environmental Inc.
Phone #: 516-249-8800
FAX #: 516-249-8874
Company Address: 101 Winding Road, Old Bethpage, NY 11804
Site location: (same)
Project Manager: John Munson
Client Project ID: (#) 6044
(NAME) Claremont Polychemical Superfund Site
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): TRENT PARKS

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (SPECIFY)	Sampling: DATE	TIME	BTEX/602 ☐ 8020 ☐ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐	Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	Hydrocarbon Profile (SIMDIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM 503 ☐	TPH/IR 418.1 ☐ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010 ☐	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	Organic Lead ☐	Corrosivity ☐ Flash Point ☐ Reactivity ☐	SW8020 - water or Soil	SW6010 - sodium	EPA 325.2 - Chlor.
2-LTEV-03-WA-012		3	X						X			X			96.09.26	11:21																		X		
2-LTEV-03-WA-014		2	X						X			X			"	11:21																		X		
2-LTEV-03-WA-017		3	X						X			X			"	11:02																		X		
2-LTEV-03-WA-018		3	X						X			X			"	14:06																		X		
2-LTEV-03-WA-019		3	X						X			X			"	17:34																		X		
2-LTEV-03-WA-021		1	X							X		X			"	11:02	} Report as NaCl concentration.																			X	
2-LTEV-03-WA-024		1	X									X			"	11:02																				X
2-LTEV-03-WA-022		1	X							X		X			"	14:06	} Report as NaCl concentration.																			X	
2-LTEV-03-WA-026		1	X									X			"	14:06																				X
2-LTEV-03-WA-010		2		X								X			"	13:57																		X		

TAT 7 96.09.26

- Priority (24 hr) ☐
- Expedited (48 hr) ☐
- Business Days ☐
- Other 3-5 calendar
- ~~Business~~ Days ☒

Special Handling
GTEL Contact Patti Lazott
Quote/Contract # 8450A-R1
Confirmation #
PO # SC-96-6044-044

QA / QC LEVEL
OTHER USACOE Deliverable Package

CLP ☐ VALUE ☐

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS
3-5 day Fax
14 day QA/QC
FAX ☒

REMARKS

Lab Use Only Lot # 23LA
Storage Location:
Work Order #

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler:	96.09.26	19:30	Received by:
Relinquished by:			Received by:
Relinquished by:			Received by Laboratory:

Waybill # 716 293 6841

Rev. 7/91

GTEL ENVIRONMENTAL LABORATORIES, INC.

MEADOWBROOK INDUSTRIAL PARK TP 96.07.
MILFORD, NH 03055
(603) 672-4835
(800) LAB-GTEL

Page 2 of 23

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

C 4336

ompany Name:
Phone #:
FAX #:
ompany Address:
Site location:
roject Manager:
Client Project ID: (#)
(NAME)
Sampler Name (Print):

attest that the proper field sampling
rocedures were used during the collection
these samples.

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (SPECIFY)	Sampling: DATE	TIME
-LTEV-03-WA-023		1	X							X		X			96.07.25	17:34
-LTEV-03-WA-027		1	X									X			//	17:34
-LTEV-03-S-009		2		X								X			//	10:15
-LTEV-03-S-010		2		X								X			//	10:20
-LTEV-03-S-011		2		X								X			//	10:25
-LTEV-03-S-012		2		X								X			//	10:23
-LTEV-03-S-~~013~~ 017	TP 96.07.26	2		X								X			//	10:45
-LTEV-03-S-014		2		X								X			//	10:30
-LTEV-03-S-015		2		X								X			//	10:35
-LTEV-03-S-016		2		X								X			//	10:40

Field Sample ID	BTEX/602 ☐ 8020 ☐ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐	Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	Hydrocarbon Profile (SIMDIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM 503 ☐	TPH/IR 418.1 ☐ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010 ☐	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	~~Organic Lead ☐~~ Extd. 3-5 days	Corrosivity ☐ Flash Point ☐ Reactivity ☐	SW6010A - Sodium	EPA 325.2 - Chloride	SW7420A - Sol-1
-LTEV-03-WA-023	} Report as Well concentration.																					X		
-LTEV-03-WA-027																							X	
-LTEV-03-S-009																				X				X
-LTEV-03-S-010																								
-LTEV-03-S-011																				X				
-LTEV-03-S-012																				X				
-LTEV-03-S-017																								
-LTEV-03-S-014																				X				
-LTEV-03-S-015																								
-LTEV-03-S-016																				X				

TAT
riority (24 hr) ☐
xpedited (48 hr) ☐
Business Days ☐
ther ______
usiness Days ☐

Special Handling
GTEL Contact ______
Quote/Contract # ______
Confirmation # ______
PO # ______

QA / QC LEVEL
LUE ☐ CLP ☐ OTHER ______

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

FAX ☐

REMARKS

Lab Use Only Lot #
Storage Location: 21A / W6D
Work Order # N 90414

CUSTODY RECORD

Relinquished by Sampler:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date 27/96	Time 09:[illegible]	Received by Laboratory: [illegible]

Waybill # [illegible]

v. 7/91

GTEL ENVIRONMENTAL LABORATORIES, INC.

MEADOWBROOK INDUSTRIAL PARK
MILFORD, NH 03055
(603) 672-4835
(800) LAB-GTEL

Page 3 of 3

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

64039

ompany Name: | Phone #:
FAX #:

ompany Address: | Site location:

oject Manager: | Client Project ID: (#)

(NAME)

attest that the proper field sampling ocedures were used during the collection these samples. | Sampler Name (Print):

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (SPECIFY)	Sampling: DATE	TIME
-LTEV-05-S-009		2	X									X			96.09.26	10:52
-LTEV-03-S-018		2	X									X			〃	10:50
-LTEV-03-S-019		2	X									X			〃	10:55
-LTEV-03-S-020		2	X									X			〃	11:00
-LTEV-03-S-021		2	X									X			〃	11:00
-LTEV-03-S-023		2	X									X			〃	11:07
-LTEV-03-S-024		2	X									X			〃	11:10
-LTEV-03-S-025		2	X									X			〃	11:15
-LTEV-03-S-026		2	X									X			〃	13:20
-LTEV-03-S-027		2	X									X			〃	13:25

Field Sample ID	BTEX/602 ☐ 8020 ☐ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐	Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	Hydrocarbon Profile (SIMDIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM 503 ☐	TPH/IR 418.1 ☐ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010 ☐	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	~~Organic Lead~~ ☐ Expedite 3-5 days	Corrosivity ☐ Flash Point ☐ Reactivity ☐	SW8270A-SIM
-LTEV-05-S-009																				X		X
-LTEV-03-S-018																				X		X
-LTEV-03-S-019																						X
-LTEV-03-S-020		Run MS/MSD																		X		X
-LTEV-03-S-021																				X		X
-LTEV-03-S-023																						X
-LTEV-03-S-024																				X		X
-LTEV-03-S-025																						X
-LTEV-03-S-026																				X		X
-LTEV-03-S-027																						X

TAT
riority (24 hr) ☐
xpedited (48 hr) ☐
Business Days ☐
ther ____ Business Days ☐

Special Handling
GTEL Contact ____
Quote/Contract # ____
Confirmation # ____
PO # ____

QA / QC LEVEL
LUE ☐ CLP ☐ OTHER ____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

FAX ☐

REMARKS

Lab Use Only Lot # | Storage Location: 23A
Work Order # M609041

	Date	Time	
Relinquished by Sampler:			Received by:
Relinquished by:			Received by:
Relinquished by:	9/27	0930	Received by Laboratory: R. Bryden
			Waybill # 7/6 3736847

CUSTODY RECORD

. 7/91

NEI/GTEL Environmental Laboratories,Inc.
LOGIN CHAIN OF CUSTODY REPORT (ln01)
Sep 27 1996, 12:34 pm

Login Number: M6090414
Account: DWE01 Dow Environmental, Inc.
Project: 966044044 Old Bethbage, NY

Laboratory Sample Number	Client Sample Number	Collect Date	Receive Date	PR	Due Date
M6090414-01	CLLTEV03WA012	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Aqueous	S 8260/B	Hold:10-OCT-96 27-1E			3 Bottles
M6090414-02	CLLTEV03WA014	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Aqueous	S 8260/B	Hold:10-OCT-96 27-1E			2 Bottles
M6090414-03	CLLTEV03WA017	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Aqueous	S 8260/B	Hold:10-OCT-96 27-1E			3 Bottles
M6090414-04	CLLTEV03WA018	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Aqueous	S 8260/B	Hold:10-OCT-96 27-1E			3 Bottles
M6090414-05	CLLTEV03WA019	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Aqueous	S 8260/B	Hold:10-OCT-96 27-1E			3 Bottles
M6090414-06	CLLTEV03WA021	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Aqueous	S NA/6010/B	Hold:25-MAR-97 W6D			1 Bottles
M6090414-07	CLLTEV03WA024	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Aqueous	S CLRID/325.2L/B	Hold:24-OCT-96 W6D			1 Bottles
M6090414-08	CLLTEV03WA022	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Aqueous	S NA/6010/B	Hold:25-MAR-97 W6D			1 Bottles
M6090414-09	CLLTEV03WA026	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Aqueous	S CLRID/325.2L/B	Hold:24-OCT-96 W6D			1 Bottles

NEI/GTEL Environmental Laboratories,Inc.
LOGIN CHAIN OF CUSTODY REPORT (ln01)
Sep 27 1996, 12:34 pm

Login Number: M6090414
Account: DWE01 Dow Environmental, Inc.
Project: 966044044 Old Bethbage, NY

Laboratory Sample Number	Client Sample Number	Collect Date	Receive Date	PR	Due Date
M6090414-10	CLLTEV05WA010	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
~~Aqueous~~ Solid (a)	S 8260/B	Hold:10-OCT-96 ~~27-1E~~ 23LA			2 Bottles
M6090414-11	CLLTEV03WA023	26-SEP-96	27-SEP-96		10-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Aqueous	S NA/6010/B	Hold:25-MAR-97 W6D			1 Bottles
M6090414-12	CLLTEV03WA027	26-SEP-96	27-SEP-96		10-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Aqueous	S CLRID/325.2L/B	Hold:24-OCT-96 ~~W9D~~ W6D			1 Bottles
M6090414-13	CLLTEV03S009	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids	S 8260/B	Hold:10-OCT-96 23LA			2 Bottles
Solids	S SOLIDS	23LA			0 Bottles
M6090414-14	CLLTEV03S010	26-SEP-96	27-SEP-96		10-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids	S 8260/B	Hold:10-OCT-96 23LA			2 Bottles
Solids	S SOLIDS	23LA			0 Bottles
M6090414-15	CLLTEV03S011	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids	S 8260/B	Hold:10-OCT-96 23LA			2 Bottles
Solids	S SOLIDS	23LA			0 Bottles
M6090414-16	CLLTEV03S012	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids	S 8260/B	Hold:10-OCT-96 23LA			2 Bottles
Solids	S SOLIDS	23LA			0 Bottles
M6090414-17	CLLTEV03S017	26-SEP-96	27-SEP-96		10-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids	S 8260/B	Hold:10-OCT-96 23LA			2 Bottles
Solids	S SOLIDS	23LA			0 Bottles

NEI/GTEL Environmental Laboratories,Inc.
LOGIN CHAIN OF CUSTODY REPORT (ln01)
Sep 27 1996, 12:34 pm

Login Number: M6090414
Account: DWE01 Dow Environmental, Inc.
Project: 966044044 Old Bethbage, NY

Laboratory Sample Number	Client Sample Number	Collect Date	Receive Date	PR	Due Date
M6090414-18	CLLTEV03S014	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids	S 8260/B	Hold:10-OCT-96	23LA		2 Bottles
Solids	S SOLIDS		23LA		0 Bottles
M6090414-19	CLLTEV03S015	26-SEP-96	27-SEP-96		10-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids	S 8260/B	Hold:10-OCT-96	23LA		2 Bottles
Solids	S SOLIDS		23LA		0 Bottles
M6090414-20	CLLTEV03S016	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids	S 8260/B	Hold:10-OCT-96	23LA		2 Bottles
Solids	S SOLIDS		23LA		0 Bottles
M6090414-21	CLLTEV05S009	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids	S 8260/B	Hold:10-OCT-96	23LA		2 Bottles
Solids	S SOLIDS		23LA		0 Bottles
M6090414-22	CLLTEV03S018	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids	S 8260/B	Hold:10-OCT-96	23LA		2 Bottles
Solids	S SOLIDS		23LA		0 Bottles
M6090414-23	CLLTEV03S019	26-SEP-96	27-SEP-96		10-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids	S 8260/B	Hold:10-OCT-96	23LA		2 Bottles
Solids	S SOLIDS		23LA		0 Bottles
M6090414-24	CLLTEV03S020	26-SEP-96	27-SEP-96	5	03-OCT-96
MS/MSD // Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids	S 8260/B	Hold:10-OCT-96	23LA		2 Bottles
Solids	S SOLIDS		23LA		0 Bottles
M6090414-25	CLLTEV03S021	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids	S 8260/B	Hold:10-OCT-96	23LA		2 Bottles

NEI/GTEL Environmental Laboratories,Inc.
LOGIN CHAIN OF CUSTODY REPORT (ln01)
Sep 27 1996, 12:34 pm

Login Number: M6090414
Account: DWE01 Dow Environmental, Inc.
Project: 966044044 Old Bethbage, NY

Laboratory Sample Number	Client Sample Number	Collect Date	Receive Date	PR	Due Date
Solids S SOLIDS			23LA		0 Bottles
M6090414-26	CLLTEV03S023	26-SEP-96	27-SEP-96		10-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids S 8260/B		Hold:10-OCT-96	23LA		2 Bottles
Solids S SOLIDS			23LA		0 Bottles
M6090414-27	CLLTEV03S024	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids S 8260/B		Hold:10-OCT-96	23LA		2 Bottles
Solids S SOLIDS			23LA		0 Bottles
M6090414-28	CLLTEV03S025	26-SEP-96	27-SEP-96		10-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids S 8260/B		Hold:10-OCT-96	23LA		2 Bottles
Solids S SOLIDS			23LA		0 Bottle
M6090414-29	CLLTEV03S026	26-SEP-96	27-SEP-96	5	03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids S 8260/B		Hold:10-OCT-96	23LA		2 Bottles
Solids S SOLIDS			23LA		0 Bottles
M6090414-30	CLLTEV03S027	26-SEP-96	27-SEP-96		10-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids S 8260/B		Hold:10-OCT-96	23LA		2 Bottles
Solids S SOLIDS			23LA		0 Bottles
M6090414-31	BLUE QC 1	26-SEP-96	27-SEP-96		03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids S 8260/B		Hold:10-OCT-96	23LA		0 Bottles
M6090414-32	BLUE QC 2	26-SEP-96	27-SEP-96		03-OCT-96
Army Deliverables package // BJU Reporting // Include any rerun due to OOC surrogates // Client specific QC // Full Custody records needed.					
Solids S 8260/B		Hold:10-OCT-96	23LA		0 Bottles

Login Number: M6090414

Samples Transfered	Released by	Time	Date	Transf. To	Recvd By	Time	Date
+(3) 1,3-5(3 of 3) 2(2 of 2)	AZ. T	13[00]	9/27/96	VS			
10,13,15,16,18,20-22,24,25,27,29(18 of 2)	AZ. T	15[25]	9/27/96	GCMS VOA		2:00[pm]	9/
10,13,15,16,18,20-22,24,25,27,29(10 of 2)		9/27/96	storage	STL		15:30	9-27-96
10,13-30(10 of 2)		09:45	9-28-96	V-BROOM			
10,13-30(1 of 2)		9/25/96	STL				
7,9,12(10 of 1)		15:55	9-28-96			10/1/96	14:3
6,8(18 of 1)	AZ. T	12[45]	9/30/96	Metals		12:58	9/30/96
14,17,19,23,26,28,30(18 of 2)	AZ. T	13[10]	9/30/96	V-ML/0105		14:55	9/30/9
8,6(1 of 1)		14:21	09/30/96	stg	AZ. T	14[20]	9/30/96
1,3-5(18 of 3) 2(18 of 2)	AZ. T	14[45]	9/30/96	V-GCMS			10/1/96
10,13,15,16,20,21,27(18 of 2)	AZ. T	14[45]	9/30/96				
11(18 of 1)	AZ. T	16[15]	9/30/96	Metals		0640	10/1/96
14,17,19,23,26,28,30(10 of 2)		16:45	9/30/96	stg	AZ. T	13[55]	10/1/96
11(10 of 1)		1340	10/01/96	STL	AZ. T	13[35]	10/1/96
13,15,16,20,21,27(1 of 2)			10/1/96	STL			10/1/96
7,9,12(1 of 1)		22[00]	10/01/96	stg	AZ. T	14[45]	10/2/96
14,17,19,28,30(10 of 2)		10/1/96	2:00-3:00	GCMS VOA		10:54	10/1/96
14,17,19,28,30(10 of 2)		11:15	10/1/96	storage	STL	16:12	10-4-96

Nonconformance/Phone Log

COC# 64038, 64336, 64039

Date: 9/27/96

Contact: Trent

Time: 3:00 AM/PM (PM circled)

✓ = Nonconformance seen in Login

L.M. Called back 3:15

Sample Custodian: (initials) *Items to be Discussed---* CONTAINERS: Other (non-GTEL/ICHEM) *(If Other, cleaning/ traceability resp. of user.)*	Customer Service Rep. KR *---Resolution*
Temperature ooc (white dot/F) / If All / Relinq'd by Sampler missing (orange dot + W)	
pH / Wrong Preserv. (orange dot + W) / Sample Signature missing	
Wrong Cont. (Yellow dot)/ Insuf. Sample	
INORGANICS Default Used correct?	
Sample Date coc missing / label missing / not agree	
Sample Time COC missing / label missing / not agree	
Site Location missing/INC	
Project #	
(1) bubbles in -03 x 3	} OK 70°C when put in vials
-04 x 3	then cools-
-05 x 3	
(2) -10 = CL-LTEV-05-5-010	
(3) Did not relinquish CoC 64336 + 64039	Informed will fax signed COCs
(4) all soils appear to be 8260, verify TAT.	yes run 8260, 5 day TAT [illegible]
Each sample was not custody sealed	- OK to just seal cooler, [illegible]
CLIENT ED: Sample container receipt form not received	- use noncnf. summary,
✓ No VOA backup -02 only / Wrong Container / Unused Containers	sample history sh[illegible]

G:\COMMON\QAMILF\NCPHONE Rev. 03/21/95

INTERNAL SAMPLE HISTORY
Sample Temperature Preservation

GTEL Sample Control Person (*signature*): Brenda

Date & Time: 9/27/96 & 09:30 am / pm Custody Seal on Cooler Intact: Y /N /NA

CS# _____

Cooler#	°C F=frozen	Bluepack ✓=Yes	ICE ✓=Yes, W=Water	BAGGED ✓=Yes	Top ✓=Yes	Interspersed ✓=Yes	Bottom ✓=Yes	Alot or too Little
1	4°							Alot / Little
								Alot / Little
								Alot / Little
								Alot / Little

If more than one project was shipped in the cooler containing this project, record the other project numbers in the space below:

_____ _____ _____ _____ _____ _____ _____

Cooler Tracking

Unpacker notes GTEL coolers returned with this job. Each block represents a cooler. Data entry updates cooler tracking.

Preservation
HCL, HNO3, and H2SO4 ph<2 NAOH ph>12 or ph>9

Sample ID	pH	PP ✓=yes	Sample ID	pH	PP ✓=yes
CL-LTEV-03-WA-021 x1 N	1.0				
CL-LTEV-03-WA-022	↓				
CL-LTEV-03-WA-023 N	↓				

6016 ↓

Does: Unpacker check if applicable:

White (temp or Frozen) ____ Blue (0'-3') ____ Red (hot) ____

Orange (ph or Wrong preservative) ____ Yellow (wrong container) ____

No Custody Seals on coolers or bottles

LAFAYETTE AREA LAB
600 AMBASSADOR CAFFERY PKWY.
SCOTT, LOUISIANA
ZIP 70583-8644
PHONE: (318) 237-4775

Certificate of Analysis No. L1-9609C61-02

RADIAN CORPORATION
1600 PERIMETER PARK DRIVE
MORRISVILLE, NC 27560
ATTN: A. WEBER

P.O.# 277557.UA - COC #21215
10/23/96

PROJECT: CLAREMONT POLYCHEM
SITE:
SAMPLED BY: RADIAN
SAMPLE ID: RUN 2

PROJECT NO:
MATRIX: PROPANE
DATE SAMPLED: 09/26/96 13:55:00
DATE RECEIVED: 09/30/96

ANALYTICAL DATA

PARAMETER	RESULTS	UNITS
Carbonyl Sulfide	15.5808	ppm
Hydroden Sulfide	<1	ppm
Carbon Disulfide	<1	ppm
Sulfur Dioxide	<1	ppm
Total Mercaptans	<1	ppm

ANALYZED BY: EG
DATE/TIME: 10/08/96
METHOD: FPD-GC [GPA]

COMMENTS:

QUALITY ASSURANCE: This analysis was performed in accordance with ASTM, UOP, or GPA guidelines for quality assurance.

Billy Rich, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY.
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE: (318) 237-4775

Certificate of Analysis No. L1-9609C61-01

RADIAN CORPORATION
1600 PERIMETER PARK DRIVE
MORRISVILLE, NC 27560
ATTN: A. WEBER

P.O.#
277557.UA - COC #21215
10/23/96

PROJECT: CLAREMONT POLYCHEM
SITE:
SAMPLED BY: RADIAN
SAMPLE ID: RUN 1

PROJECT NO:
MATRIX: PROPANE
DATE SAMPLED: 09/26/96 10:40:00
DATE RECEIVED: 09/30/96

ANALYTICAL DATA

PARAMETER	RESULTS	UNITS
Carbonyl Sulfide	13.9798	ppm
Hydroden Sulfide	<1	ppm
Carbon Disulfide	<1	ppm
Sulfur Dioxide	<1	ppm
Total Mercaptans	<1	ppm

ANALYZED BY: EG
METHOD: FPD-GC [GPA]

DATE/TIME: 10/08/96

COMMENTS:

QUALITY ASSURANCE: This analysis was performed in accordance with ASTM, UOP, or GPA guidelines for quality assurance.

Billy Rich, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE: (318) 237-4775

Certificate of Analysis No. L1-9609C61-03

RADIAN CORPORATION
1600 PERIMETER PARK DRIVE
MORRISVILLE, NC 27560
ATTN: A. WEBER

P.O.#
277557.UA - COC #21215
10/23/96

PROJECT: CLAREMONT POLYCHEM
SITE:
SAMPLED BY: RADIAN
SAMPLE ID: RUN 3

PROJECT NO:
MATRIX: PROPANE
DATE SAMPLED: 09/26/96
DATE RECEIVED: 09/30/96

ANALYTICAL DATA

PARAMETER	RESULTS	UNITS
Carbonyl Sulfide	25.0461	ppm
Hydroden Sulfide	<1	ppm
Carbon Disulfide	<1	ppm
Sulfur Dioxide	<1	ppm
Total Mercaptans	<1	ppm

ANALYZED BY: EG
METHOD: FPD-GC [GPA]

DATE/TIME: 10/08/96

COMMENTS:

QUALITY ASSURANCE: This analysis was performed in accordance with ASTM, UOP, or GPA guidelines for quality assurance.

Billy Rich, Laboratory Manager

RADIAN CORPORATION

40 75 5 .5 .05 .3 .10

VOST FIELD DATA

Run
Page 1 of

Plant	Claremont	Ambient Temp. (°F)	63	Meter Box Number	A 147720
Date	9/26	Barometric Pressure (in. H2O)		DGM Cal. Factor (Y)	.980
Sampling Location	Outlet	Stack Temp. (°F)		Probe Length & Type	3'
Sample Type	VOST	Average delta P (in.H2O)		Probe Heater Setting (°F)	225
Run Number	1A	Static Pressure (±) (in. H2O)	+.25	Filter # & Type (if used)	
Operator	A.U	Sample Rate (lpm)	.5	Filter Temp. (°F)	

Purpose:

Other Data/Notes:

LEAK CHECKS: Set	PRE TEST Rate (In. Hg)	PRE TEST Vacuum (In.Hg)	POST TEST Rate (In. Hg)	POST TEST Vacuum (In.Hg)
~~0~~	~~10~~ 0	15"		

Set: 1A Outlet Tenax Tube: Tenax Charcoal: Additional Tubes:

Set: Tenax Tube: Tenax Charcoal: Additional Tubes:

	Sampling Times Run (min)	Clock (24hr)	Gas Meter Reading (Vol in L or ft3)	Rotameter Setting (lpm/ft3/min)	Meter Pressure (in.H2O)	Meter Temp. (°F)	Condenser Temperature A (°F)	Condenser Temperature B (°F)	Line Temp. (°F)	Probe Temp. (°F)	Stack Temp. (°F)	Train Vacuum (in.Hg)
	0	1015	17.022	.5	5	60	58	58		210	143	4
1A	5	~~10~~ 18	~~19~~ 19.35	.5	.8							
	10	~~10~~ 26	20.040	.5								
	~~15~~											
1B	0	1107	21.900	.5	.8	75	60	61		234	143	0
	5	11:12	22.650	.5	1	75	61	61		234	143	0
	10	11:17	24.500									
	0	~~11~~ 90	25 384	.5	.9	75	61	60		232	141	0
1C	5	1153	27.50	.5	1	76	61	60		233	141 2	0
	10	~~12~~ 00	29.240									
	Run Time	Total Time	Total Volume Metered	Average Flow Rate	Average Pm	Average Tm					Ts	Vacuum (in.Hg)

Comments:

RADIAN CORPORATION

VOST FIELD DATA

Run
Page 1 of

Plant	Chrome	Ambient Temp. (°F)	0	Meter Box Number	A 14772
Date	1/26/96	Barometric Pressure (in. H2O)	30.1	DGM Cal. Factor (Y)	.98
Sampling Location	outlet	Stack Temp. (°F)	141	Probe Length & Type	Vost
Sample Type	VOS	Average delta P (in.H2O)		Probe Heater Setting (°F)	250
Run Number	2	Static Pressure (±) (in. H2O)	.25	Filter # & Type (if used)	
Operator	A.W	Sample Rate (lpm)	.5	Filter Temp. (°F)	

Purpose:

Other Data/Notes:

LEAK CHECKS: Set	PRE TEST Rate (in. Hg)	PRE TEST Vacuum (in.Hg)	POST TEST Rate (in. Hg)	POST TEST Vacuum (in.Hg)
1	0	15	0	15

Set: Tenax Tube: Tenax Charcoal: Additional Tubes:

Set: Tenax Tube: Tenax Charcoal: Additional Tubes:

	Sampling Times Run (min)	Clock (24hr)	Gas Meter Reading (Vol in L or ft3)	Rotameter Setting (lpm/ft3/min)	Meter Pressure (in.H2O)	Meter Temp. (°F)	Condenser Temperature A (°F)	Condenser Temperature B (°F)	Line Temp. (°F)	Probe Temp. (°F)	Stack Temp. (°F)	Train Vacuum (in.Hg)
	0	1332	29.283	.5	1	64	63	61		233	141	0
2A	5	1337	31.50	.5	1	67	61	61		233	144	0
	10	1342	33.45	.5	1	67	60	60		232	144	0
	15	1347	36.70	.5	1	68	59	60		233	145	0
	20	1352	38.00	.5	1	70	59	60		233	145	0
2B	0	1405	38.17	.5	1	68	58	57		233	145	0
		1410	40.10	.5	1	70	58	57		233	145	0
		1415	42.450	.5								
		1421	42.788	.5	1	70	57	57		233	145	0
		1426	45.1	.5	1	71	57	59		233	145	0
		1431	47.298									
	Run Time	Total Time	Total Volume Metered	Average Flow Rate	Average Pm	Average Tm					Ts	Vacuum (in.Hg)

Comments:

RADIAN CORPORATION

VOST FIELD DATA

Run
Page 1 of

Plant	Unc no.1	Ambient Temp. (°F)	86	Meter Box Number	A 147720
Date	9/26/90	Barometric Pressure (in. H2O)	30.1	DGM Cal. Factor (Y)	.980
Sampling Location	Outlet	Stack Temp. (°F)	144	Probe Length & Type	3'
Sample Type	Vost	Average delta P (in.H2O)	—	Probe Heater Setting (°F)	210
Run Number	3	Static Pressure (±) (in. H2O)	.25	Filter # & Type (if used)	
Operator	A.W	Sample Rate (lpm)	.5	Filter Temp. (°F)	

Purpose:

Other Data/Notes:

LEAK CHECKS: Set	PRE TEST Rate (in. Hg)	PRE TEST Vacuum (in.Hg)	POST TEST Rate (in. Hg)	POST TEST Vacuum (in.Hg)
1	0	15		

Set: _____ Tenax Tube: _____ Tenax Charcoal: _____ Additional Tubes: _____

Set: _____ Tenax Tube: _____ Tenax Charcoal: _____ Additional Tubes: _____

	Sampling Times Run (min)	Clock (24hr)	Gas Meter Reading (Vol in L or ft3)	Rotameter Setting (lpm/ft3/ min)	Meter Pressure (in.H2O)	Meter Temp. (°F)	Condenser Temperature A (°F)	Condenser Temperature B (°F)	Line Temp. (°F)	Probe Temp. (°F)	Stack Temp. (°F)	Train Vacuum (in.Hg)
	1547	0	48.910	.5	1	86	61	63	—	234	144	0
3A	1552	5	50.85	.5	1	86	60	62	—	233	144	0
	57	10	53.075									
3B	1603	0	53.400	.5	1	85	58	59	—	233	144	0
	1607	Down										
	1710	Set										
	1711	5	56.10	.5	1	81	60	61	—	232	144	0
	1716	10	58.273									
	1734	0	58.620	.5	1	79	61	60	—	233	144	0
	1739	5	61.3									
	1744	10	63.285									
	Run Time	Total Time	Total Volume Metered	Average Flow Rate	Average Pm	Average Tm					Ts	Vacuum (in.Hg)

Comments:

VOST DATA CORRELATION

Sample No.	Report Run No.
CL-LTEV-II-AI-108	1A Front
CL-LTEV-II-AI-109	1A Back
CL-LTEV-II-AI-110	1 B Front
CL-LTEV-II-AI-111	1 B Back
CL-LTEV-II-AI-112	1 C Front
CL-LTEV-II-AI-113	1 C Back
CL-LTEV-II-AI-114	2A Front
CL-LTEV-II-AI-115	2A Back
CL-LTEV-II-AI-116	2 B Front
CL-LTEV-II-AI-117	2 B Back
CL-LTEV-II-AI-118	2 C Front
CL-LTEV-II-AI-119	2 C Back
CL-LTEV-II-AI-120	3A Front
CL-LTEV-II-AI-121	3A Back
CL-LTEV-II-AI-122	3 B Front
CL-LTEV-II-AI-123	3 B Back
CL-LTEV-II-AI-124	3 C Front
CL-LTEV-II-AI-125	3 C Back
CL-LTEV-II-AI-126	Blank Front
CL-LTEV-II-AI-127	Black Back

[redacted]

TRIANGLE LABS

CASE NARRATIVE

Analysis of Samples for the Presence of

Volatile Hydrocarbons by

High-Resolution Gas Chromatography / Low-Resolution Mass Spectrometry

METHOD 8240A Rev. 1 (7/92)

Date : October 3, 1996

Client ID : Radian Corporation

TLI Project Number : 39034

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729
P.O. Box 13485
Research Triangle Park, NC 27709-3485
Fax # 919-544-5491

Objective: Analysis of fourteen VOST tubes for the volatile compound tetracholorethene using Method 8240A.

Method:

Seven VOST tube pairs were received at Triangle Laboratories , Inc. on September 28, 1996 at 14°C in good condition. The samples were stored in a refrigerator at 4°C prior to analysis. The VOST tube samples were analyzed in separately according to the guidelines of Methods 8240A and 5040. The internal standards and surrogate standards were added in the amount of 0.25 micrograms (ug) immediately prior to analysis by GC/MS. The internal standard reported is chlorobenzene-d_5 and the surrogate standard reported is toluene-d_8. The results reported relate only to the items tested.

The GC/MS analysis conditions are listed below:

Purge and trap:	Tekmar LSC-2000
Purge:	11 min.
Desorb Temperature:	250 C
Desorb Time:	3 min.

GC Conditions:

Column:	30 m x .53 mm x 0.3*u* J&W DB624 0 C hold .5 min, 10 C/min to 45C, 6 C/min to 90C, hold 1.5 min, 50 C/min to 200C.

MS Conditions:

Instrument:	VG-TRIO-1 Lab Base data system
Scan:	35-350 amu at .6s/scan
Interface:	Jet Separator, 200 C

Report:

Enclosed with the case narrative are copies of the sample identification index, the project summary sheets, client paperwork, sample log-in sheets, and log book pages. A sample identification index summarizes the client sample name, TLI sample number, and analytical file name for each sample and blank. The project summary lists the amounts for detected analytes in gray. The estimated detection limits will be listed in parentheses when the target analytes are not detected.

The data are reported as quantitation reports, chromatograms, interim reports, and spectra of detected target analytes. The quantitation report header lists the TLI project number, analysis method, instrument sample file name, client sample name, client project number, TLI sample number, calibration file, date received, and analysis date. The response factors used for all calculations are from the calibration file listed in the header. All initial and continuing calibration data are located in the back of the data package The amount is reported in total ug for the VOST tubes. The retention time (RT) will be listed for all internal standards and analytes which are detected. If a target analyte is not detected, it will be flagged with a "U" and a detection limit will be listed. Estimated detection limits are calculated for all analytes

which were not found in the samples by using an area of 2000. The estimated detection limits reported are the average detection limits achievable over time on an instrument type. The actual detection limit for a given compound on a given day may vary from the estimate reported. The quantitation limit for all analytes is half of the low point of the initial calibration. Below this point the calibration cannot be considered to be linear. Any amount reported at a level below the quantitation limit will be flagged with a "J" and should be considered estimated. If any compounds are found at a level above the upper calibration range, the analyte will be flagged with an "E" and the amounts reported should be considered estimated. If any target analytes found in the laboratory blanks are detected in the associated samples, they will be flagged with a "B" on each sample topsheet. All analytes are quantitated against the internal standard preceding them on the target analyte list. Surrogate standards are quantitated against the internal standard with the matching internal standard reference number. For example, toluene-d_8 has 3 in the IS Ref column and would be quantitated against the internal standard which has IS3 listed in the flag column. If an internal standard area is above or below the quality control limits as defined by the continuing calibration, it will be flagged with "High" or "Low" in the flag column.

Results:

There were minor discrepancies between the sample identifications listed on the client chain of custody and those listed on the samples which arrived. The identifications on the sample labels were used for analytical and reporting purposes.

The VOST tubes were analyzed separately per client request. All samples were analyzed within the fourteen day sampling to analysis holding time. The samples were analyzed for tetrachloroethene only.

Tetracholoroethene was found at a level above the upper calibration limit in samples CL LTEV-11-AI-116 T and CL LTEV-11-AI-118 T. This compound is flagged with "E" and the amounts reported should be considered estimated.

The analyst noted that sample CL LTEV-11-AI-121 had a hairline crack.

All internal standard areas and surrogate standard percent recoveries were within quality control limits for all samples and the blank.

Tetrachloroethene was not detected in the laboratory blank. Tetrachloroethene was manually searched for when not detected in the samples by the instrument.

Sample Calculations:

$$\text{Response Factor (RF)} = \frac{(\text{area analyte}) \times (\text{amt IS})}{(\text{area IS}) \times (\text{amt analyte})}$$

$$\text{Amount in ug} = \frac{(\text{area analyte in sample}) \times (\text{amt IS})}{(\text{area IS}) \times (\text{avg ical RF})}$$

Where:

amt IS = amount of internal standard = 0.25 ug
ical = initial calibration

The data in this package has been judged to be valid according to the guidelines of Methods 8240A and 5040 except as noted above. Should you have any questions, please feel free to contact our Project Scientist, Walter Murray, at (919)544-5729, Ext. 271.

For Triangle Laboratories , Inc.,

Report Preparation:

Tracy Wardell 10-3-96
Tracy Wardell
Report Preparation Chemist

Quality Control:

Amy Wall 10/04/96
Amy Wall
Report Preparation Chemist

The total number of pages in this data package is 77.

TRIANGLE LABORATORIES, INC.

LIST OF CERTIFICATIONS AND ACCREDITATIONS

American Association for Laboratory Accreditation. Valid until July 31, 1997. Certificate Number 0226-01. Accreditation for technical competence in Environmental Testing.(Including Waste Water, Sol/Haz Waste, Pulp/Paper, and Air Matrices) Parameters are AOX/TOX, Volatiles, Pesticides, PCB's, BNA's, and Dioxin/Furan. Method 1613 for Drinking Water.

State of Alabama, Department of Environmental Management. Laboratory I.D. # 40950. Drinking Water for Dioxin. Expires December 31, 1997.

State of Alaska, Department of Environmental Conservation. Drinking Water for Dioxin. Expires December 31, 1996.

State of Arizona, Department of Health Services. Certificate # AZ0423. Drinking Water for Dioxin, Dioxin in WW and S/H Waste. Effective May 26, 1996. Expires May 26, 1997.

State of Arkansas, Department of Pollution Control and Ecology. Pulp/paper, soil, water, and Hazardous Waste for Dioxin/Furan: AOX/TOX. Expires February 14, 1997. Primary No. 94-06497.

State of California, Department of Health Services. Certificate # 1922. Selected Metals in Waste Water; Volatiles, Semi-volatiles, and Dioxin/furan in WW and Sol/Haz Waste. Dioxin in Drinking Water. Expires August 31, 1997.

CLIA Registration. ID # 34D0705123. Expires May 30, 1997.

State of Connecticut, Department of Health Services. Registration # PH-0117. Dioxin in Drinking Water. Expires September 30, 1997.

Delaware Health and Social Services. Dioxin in drinking Water. Effective December 13, 1993. Expires December 31, 1996.

FDA Registration. ID #'s 059244 1053481. Expires July 1996.

Florida Department of Health and Rehabilitative Services. Dioxin in DW. Drinking Water ID HRS# 87424. Metals, Extractable Organics (GC/MS), Pesticides/PCB's (GC) and Volatiles (GC/MS) in Environmental Samples. Environmental water ID HRS# E87411. Expires May 27, 1997.

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729
P.O. Box 13485
Research Triangle Park, NC 27709-3485
Fax # 919-544-5491

Hawaii Department of Health. Dioxin in drinking water. "Accepted" status for regulatory purposes until March 1, 1997.

Idaho Department of Health and Welfare. Effective August 18, 1993. Dioxin in Drinking Water. Expires November 30, 1996.

State of Kansas, Department of Health and Environment. Valid until January 31, 1997. Environmental Analyses/Non potable Water and Solid and Hazardous Waste. Method 1613 for drinking water. ID #'s - Drinking water and/or pollution control - E-215. Solid or Hazardous Waste - E-1209.

Commonwealth of Kentucky, Department for Environmental Protection. Drinking Water for Dioxin. ID# 90060. Valid until December 31, 1996.

Maryland Department of Health and Mental Hygiene. Drinking water by Method 1613A. Expires September 30, 1996.

State of Michigan, Department of Public Health. Drinking water by Method 1613. Expires October 1, 1996.

Montana Department of Health and Environmental Services. Effective October 1, 1993. Dioxin in Drinking Water. Expires December 31, 1996.

State of New Jersey, Department of Environmental Protection and Energy. BNAs and Volatiles. Drinking water for Dioxin. Expires October 30, 1996. ID # 67851.

State of New Mexico, Environment Department. Drinking water for Dioxin. Expires July 31, 1997.

New York State Department of Health. Valid until June 30, 1996. ID #11026. Environmental Analyses of non potable Water, Solid and Hazardous Waste. Method 1613 in DW.

State of North Carolina, Department of Environment Health and Natural Resources Certificate # 37751. Expiration date is December 31, 1996. Drinking Water for Dioxin.

State of North Carolina, Department of Environment, Health, and Natural Resources, Division of Environmental Management. Certificate # 485. Expires December 31, 1997. Metals, pesticides, semi-volatiles and volatiles; TCLP.

State of North Carolina, Department of Environment, Health, and Natural Resources - Division of Radiation Protection. General License No. 32-0875-0G; Specific License No. 0954-1. Expires April 30, 1998.

North Dakota State Department of Health and Consolidated Laboratories. Certificate # R-076. Effective October 4, 1993. Dioxin in Drinking Water. Expires December 31, 1996.

State of South Carolina, Department of Health and Environmental Control. Dioxin/Furans, BNA, Volatiles, and PCBs/pesticides under Clean Water Act, 2,3,7,8-TCDD for Drinking Water, and Organic extractables for Solid and Hazardous Waste. Expire June 30, 1996 and August 31, 1997. ID# 99040

State of Tennessee. Department of Environment and Conservation. Valid until February 5, 1999. Method 1613 Drinking water only. ID# 02992.

U.S. Army Corps of Engineers. Renewed until Nov. 30, 1997. Validated to perform methods 8280, 8290.

U.S. EPA Region V. Dioxin in Drinking Water. Expires December 29, 1996.

U.S. EPA Region VIII, for the State of Wyoming. Dioxin in Drinking Water. Expires December 31, 1996.

U.S. EPA Region X. Certification for 2,3,7,8-TCDD in Drinking Water.

State of Utah, Department of Health. Valid until December 31, 1997. Certificate Number E-166. Certification for the following parameters: Semi-Volatiles and Volatiles under RCRA; Volatiles under Clean Water Act; Dioxin/furans by Method 8280; Drinking water for Dioxin by Method 1613; Metals including Mercury and Microwave Digestion.

Commonwealth of Virginia, Department of General Services, Division of Consolidated Laboratory Services. ID # 00341. Dioxin in Drinking Water. Expires June, 1996.

State of Washington, Department of Ecology. Valid through September 11, 1996 . Lab Accreditation Number C067. Scope of Accreditation applies to water analyses for Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans, volatiles, Base/Neutral and Acid Organics.

State of Washington, Department of Health. Drinking water for Dioxin. Expires April 30, 1997.

State of West Virginia, Department of Health. Drinking water for Dioxin. Expires December 31, 1996.

State of Wisconsin, Department of Natural Resources. Valid until June 30, 1996. Laboratory ID Number 999869530. Certification for the following categories of Organics: Purgeable, Base/Neutral, Acid, PCBs, and Dioxin.

Triangle Laboratories of RTP

Sample Identification Index for Project: 39034

Client Id:	TLI Id:	File Name:
CL LTEV-11-AI-108 T	140-63-1A	FT429
CL LTEV-11-AI-109 TC	140-63-1B	FT422
CL LTEV-11-AI-110 T	140-63-2A	FT430
CL LTEV-11-AI-111 TC	140-63-2B	FT423
CL LTEV-11-AI-112 T	140-63-3A	FT431
CL LTEV-11-AI-113 TC	140-63-3B	FT424
CL LTEV-11-AI-114 T	140-63-4A	FT432
CL LTEV-11-AI-115 TC	140-63-4B	FT425
CL LTEV-11-AI-116 T	140-63-5A	FT433
CL LTEV-11-AI-117 TC	140-63-5B	FT426
CL LTEV-11-AI-118 T	140-63-6A	FT434
CL LTEV-11-AI-119 TC	140-63-6B	FT427
CL LTEV-11-AI-120 T	140-63-7A	FT435
CL LTEV-11-AI-121 TC	140-63-7B	FT428
VOSTBLK T/TC 100296	VOSTBLK T/TC	FT421

Triangle Laboratories of RTP

Project Summary for Project 39034

Client ID:	CL LTEV-11 -AI-108 T	CL LTEV-11 -AI-109 TC	CL LTEV-11 -AI-110 T	CL LTEV-11 -AI-111 TC	CL LTEV-11 -AI-112 T
Filename :	FT429	FT422	FT430	FT423	FT431
TLI Id :	140-63-1A	140-63-1B	140-63-2A	140-63-2B	140-63-3A
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Tetrachloroethene	**0.105**	(0.001)	(0.001)	**0.813**	**0.304**

( )-Estimated Detection Limit **Page 1**

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Client ID:	CL LTEV-11 -AI-113 TC	CL LTEV-11 -AI-114 T	CL LTEV-11 -AI-115 TC	CL LTEV-11 -AI-116 T	CL LTEV-11 -AI-117 TC
Filename :	FT424	FT432	FT425	FT433	FT426
TLI Id :	140-63-3B	140-63-4A	140-63-4B	140-63-5A	140-63-5B
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Tetrachloroethene	(0.001)	**0.742**	**0.028**	**5.687**	**0.005**

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Client ID:	CL LTEV-11 -AI-118 T	CL LTEV-11 -AI-119 TC	CL LTEV-11 -AI-120 T	CL LTEV-11 -AI-121 TC	VOSTBLK T/ TC 100296
Filename :	FT434	FT427	FT435	FT428	FT421
TLI Id :	140-63-6A	140-63-6B	140-63-7A	140-63-7B	VOSTBLK T/TC
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Tetrachloroethene	**2.241**	(0.001)	**0.086**	(0.001)	(0.001)

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

LAB ID: _____ Page 1 of 2

Analysis Request and Chain of Custody Record

COPY JH 9/28/96

Project Name

Sample submitted by: Andrew Weber

Company	Address	Contact	Project Location and State	Project No.
Radian	1600 Perimeter Park N.C	Andrew Weber	Claremont	
		Phone 919 461 1340		

Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Type)	Sample Type (Water, Soil, Oil, Sludge, Etc.)	Preservative	ANALYSIS REQUESTED TEST	ANALYSIS REQUESTED METHOD	REMARKS
ILTED-MW11									
108	9/26/96		X	Vost			PCE		
109							PCE		
110							PCE		
111							PCE		
112							PCE		
113							PCE		
114							PCE		
115							PCE		
116							PCE		
117				Vost			PCE		

Samplers: (Signature)	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
Affiliation	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
SAMPLER REMARKS:			Received by: (Signature) John Griffith	Date: 9/28/96 Time: 0845	Data Results to:
			Invoice to:		

LAB ID: _____ Page 2 of 2

SCFY 40H 9/28/96

Analysis Request and Chain of Custody Record

Sample submitted by: Andrew Weber

Project Name

Company	Address	Contact	Project Location and State	Project No.
Radian Inter	1600 Perimeter N.C	A. Weber Phone 461 1390	Claremont	

Sample No. / Identification	Date and Time	Grab	Comp	Sample Container (Size/Type)	Sample Type (Water, Soil, Oil, Sludge, Etc.)	Preservative	ANALYSIS REQUESTED TEST	ANALYSIS REQUESTED METHOD	REMARKS
118	9/26/96		X	Vost			PCE · Tetrachloroethylene		
119	"		"	"			PCE		
120	"		"	"			PCE		
121	"		"	Vost			PCE ·		

Samplers: (Signature)	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
Affiliation	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
SAMPLER REMARKS:			Received by: (Signature) John Guenther	Date: 9/28/96 Time: 08:45	Data Results to:
			Invoice to:		

Custody Seal : Absent	Sample Seals: Absent	TLI Project Number	39034		Book
Chain of Custody : Present	Accept.Cond.: YES				
Sample Tags : Present		Client: RAC05	Radian Corporation		140
Sample Tag Numbers: Listed					
SMO Forms : N/A		Date Received	09/28/96	By JGuertin	Page
Ice Chest	ICE PACKS	Temp 14.0 C	Carrier and Number	FedEx/	63

TLI Number mR/H:CPM Client ID	Matrix Location	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To ARCHIVE Date/Init	DISPOSED Date/Init
140-63-1A CL LTEV-11-AI-108	TENAX R26	CD 10/21/96							
140-63-1B CL LTEV-11-AI-109	TNX/CHAR R26								
140-63-2A CL LTEV-11-AI-110	TENAX R26								
140-63-2B CL LTEV-11-AI-111	TNX/CHAR R26								
140-63-3A CL LTEV-11-AI-112	TENAX R26								
140-63-3B CL LTEV-11-AI-113	TNX/CHAR R26								
140-63-4A CL LTEV-11-AI-114	TENAX R26								
140-63-4B CL LTEV-11-AI-115	TNX/CHAR R26								
140-63-5A CL LTEV-11-AI-116	TENAX R26								
140-63-5B CL LTEV-11-AI-117	TNX/CHAR R26								

Receiving Remarks:

Archive Remarks:

TRIANGLE LABORATORIES, INC.--LOG IN RECORD/CHAIN OF CUSTODY--REVISED 06/13/1996

Custody Seal : Absent Chain of Custody : Present Sample Tags : Present Sample Tag Numbers: Listed SMO Forms : N/A	Sample Seals: Absent Accept.Cond.: YES	TLI Project Number	39034	Book
		Client: RACOS	Radian Corporation	140
		Date Received	09/28/96 By [signature]	Page
Ice Chest	ICE PACKS Temp 14.0 C	Carrier and Number	FedEx/	63

TLI Number mR/H:CPM	Client ID	Matrix Location	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To ARCHIVE Date/Init	DISPOSED Date/Init
140-63-6A	CL LTEV-11-AI-118	TENAX R26	CA 10/2/96							
140-63-6B	CL LTEV-11-AI-119	TNX/CHAR R26	↓							
140-63-7A	CL LTEV-11-AI-120	TENAX R26	↓							
140-63-7B	CL LTEV-11-AI-121	TNX/CHAR R26	↓							

Receiving Remarks:

Archive Remarks:

TRIANGLE LABORATORIES, INC.--LOG IN RECORD/CHAIN OF CUSTODY--REVISED 06/13/1996

TRIANGLE LABORATORIES OF RTP, INC. RUN LOG

MS#	COLUMN TYPE	COLUMN #	ANALYSIS	ACQ METHOD	GC METHOD	FIND DB'S	OTHER
F	DB624	2427663	8240	VOA	VOA3/Short	1. Wobbler2	
						2.	

EXTRACT / SAMPLE VOLUME _____ uL / mL

DATE	TIME	PROJECT #	SAMPLE #	CLIENT SAMPLE ID	FILENAME	OPER	BACKUP NET	BACKUP ARC	PROC	pH	COMMENTS
9/18/96	10:12		10.0 US7-115-2 exp 9/17/96	VOSEBLK THC	FT234	CA	CA 9/24/96		CA		
	10:34	38800A	138-27-10B	R1-0030-CHA-D THC	FT235	CA			CA		moisture Purged out Yellow at the top of the trap
	10:57	38800A	138-27-10A	R1-003p-TEW-D T	FT236	CA			CA		wet / moisture Purged out
	11:20	38800A	138-27-19A	R3-0030-TEW-A T	FT237	CA			CA		
	11:42	38800A	138-27-20A	R3-0030-TEW-B T	FT238	CA			CA		
	12:05	38800A	138-27-21A	R3-0030-TEW-C T	FT239	CA			CA		
9/19/96	08:02		2.0 US7-115-2 exp 9/17/96	BFB	FT240	CA			CA		
	08:41		1.0 US7-115-2 exp 9/17/96	System Blank	FT241	CA			CA		
	04:21	1.0 US7-118-4 exp 10/2/96	1.0 US7-116-2 exp 9/29/96	VSTD5000.10 THC	FT242	CA			CA		5mls 35% Sodium chloride soln
	04:46	↓	↓	↓	FT243	CA	↓		CA		↓

TW 10-3-96

PAGE #	INTERNAL STANDARD	SURROGATE STANDARD	ANALYTE STANDARD
45	US7-115-2 exp 9/17/96 @ 25 mL	→	

TRIANGLE LABORATORIES OF RTP, INC. RUN LOG

MS#	COLUMN TYPE	COLUMN #	ANALYSIS	ACQ METHOD	GC METHOD	FIND DB'S	OTHER
F	DB624	242 7003	8240	U00	U003/s1Aun	1. EX1 :D	
						2.	

EXTRACT / SAMPLE VOLUME __________ uL / mL

DATE	TIME	PROJECT #	SAMPLE #	CLIENT SAMPLE ID	FILENAME	OPER	BACKUP NET	BACKUP ARC	PROC	pH	COMMENTS
9/19/96	10:13	2.5 U57-118-4 exp 10/2/96	1.5 U57-116-3 exp 9/28/96	VOSEDO.25 TIC	FT244	CA	CA 9/24/96		CA		5 mls 3% sodium carbonate
↓	10:40	5.0 U57-118-4 exp 10/2/96	1.5 U57-117-1 exp 9/29/96	VOSEDO.50 TIC	FT245	CA	↓		CA		↓
	11:07	1.5 U57-118-4 exp 10/2/96	1.0 U57-117-2 exp 9/28/96	VOSEDO.75 TIC	FT246	CA			CA		
	11:32	1.0 U57-118-4 exp 10/2/96	1.0 U57-117-3 exp 9/28/96	VOSED1.00 TIC	FT247	CA			CA		
	12:49	1.0 U57-118-4 exp 10/2/96	1.0 ~~U57-116-2~~ U57-116-2 exp 9/29/96	VOSED0.10 TIC (spike exp 10/1/96 9/19/96)	FT248	CA			N/V		
	13:26	↓	↓	↓	FT249	CA			CA		
	14:42	5.0 U57-118-3 exp 9/24/96	10 U57-115-2 exp 9/27/96	LCS T IDC	FT250	CA			CA		1.0 U57-112-4 exp 10/2/96
	16:00	↓	↓	LCS T IDC	FT251	CA			CA		
↓	16:50	↓		LCS T IDC	FT252	CA	↓		CA		↓
				9/20/96							

DW 10-3-96

PAGE #	46

INTERNAL STANDARD: U57-115-2 exp 9/27/96 @ 25 ml →

SURROGATE STANDARD: →

ANALYTE STANDARD: U57-118-3 exp 9/24/96 @ 25.1 ml

TRIANGLE LABORATORIES OF RTP, INC. RUN LOG

MS#	COLUMN TYPE	COLUMN #	ANALYSIS	ACQ METHOD	GC METHOD	FIND DB'S	OTHER
F	DB624	2427663	8240	VOA	short	1. extra 2. Hshort	

EXTRACT / SAMPLE VOLUME ______________ uL / mL

DATE	TIME	PROJECT #	SAMPLE #	CLIENT SAMPLE ID	FILENAME	OPER	BACKUP NET	BACKUP ARC	PROC	pH	COMMENTS
10/1/96	14:43	39035A	140-64-2B	Run 1B T/C	FT 399	CA			CA		[illegible]
↓	15:05	39035A	140-64-3B	Run 1C T/C	FT 400	CA			CA		[illegible] ↓
	15:26	39035A	140-64-5B	Run 2A T/C	FT 401	CA			CA		
	15:48	39035A	140-64-6B	Run 2B T/C	FT 402	CA			CA		
	16:10	39035A	140-64-7B	Run 2C T/C	FT 403	CA			CA		[illegible]
	16:32	39035A	140-64-9B	Run 3A T/C	FT 404	CA			CA		
	16:54	39035A	140-64-10B	Run 3B T/C	FT 405	CA			CA		
↓	17:16	39035A	140-64-11B	Run 3C T/C	FT 406	CA			CA		
10/2/96	07:25		2.0 ul VSB-2-4 exp 10/14/96	BFB	FT 407	CA			CA		
↓	07:53		10 ul VSB-1-3 exp 10/14/96	VSSTD0.25 T/C	FT 408	CA			CA		

JW 10-3-96

PAGE #	12	

INTERNAL STANDARD: VSB-2-4 exp 10/14/96 [illegible]

SURROGATE STANDARD: →

ANALYTE STANDARD:

TRIANGLE LABORATORIES OF RTP, INC. RUN LOG

MS#	COLUMN TYPE	COLUMN #	ANALYSIS	ACQ METHOD	GC METHOD	FIND DB'S	OTHER
F	DB624	2427663	8240	VOA	SHort	1. Extra	
						2. N SHort	

EXTRACT / SAMPLE VOLUME ______________ uL / mL

DATE	TIME	PROJECT #	SAMPLE #	CLIENT SAMPLE ID	FILENAME	OPER	BACKUP NET	BACKUP ARC	PROC	pH	COMMENTS
10/2/96	08:42	5.0 ~~[illegible]~~ U58-3-1 Exp 10/14/96	10p U58-2-4 Exp 10/14/96	LCS T ITC	FT409 ~~FT409~~	CA			CA		
	09:34	↓	↓	↓	FT410	CA			CA		
	0957		↓	VOSTBlK TITC	FT411	CA			CA		
	10:19	39035A	140-64-1A	Run 1A T	FT412	CA			CA		wet glasswool discolored moisture pushed out
	10:40	39035A	140-64-2A	Run 1B T	FT413	CA			CA		
	11:03	39035A	140-64-3A	Run 1C T	FT414	CA			CA		wet, wet
	11:24	39035A	140-64-5A	Run 2A T	FT415	CA			CA		Tube seat cracked on ok; Not o.-ed
	11:46	39035A	140-64-6A	Run 2B T	FT416	CA			CA		wet
	12:08	39035A	140-64-7A	Run 2C T	FT417	CA			CA		
↓	12:30	39035A	140-64-9A	Run 3A T	FT418	CA			CA		Tube seal cracked at the top but ok

TW 10-3-96

PAGE #	13	

INTERNAL STANDARD: U58-2-4 Exp 10/14/96 @25 ppm →

SURROGATE STANDARD: →

ANALYTE STANDARD: ~~U58-2~~ [illegible] 10/2/96 U58-3-1 (20 ppm) Exp 10/14/96

13

TRIANGLE LABORATORIES OF RTP, INC. RUN LOG

MS#	COLUMN TYPE	COLUMN #	ANALYSIS	ACQ METHOD	GC METHOD	FIND DB'S	OTHER
F	DB624	2427603	8290	UOA	Short	1. oxtra	
						2. NShort	

EXTRACT / SAMPLE VOLUME ________ uL / mL

DATE	TIME	PROJECT #	SAMPLE #	CLIENT SAMPLE ID	FILENAME	OPER	BACKUP NET	BACKUP ARC	PROC	pH	COMMENTS
10/2/96	12:54	39035A	140-64-10A	Run3B T	FT419	CD			CA		wet Moisture Purged
↓	13:16	39035A	140-64-11A	Run3C T	FT420	CA			CA		↓
	13:39		USB 2-4 OP101496	USSBIK TIC	FT421	CA			CA		
	14:03	39034	140-63-1B	CL LTEV-11-AI-109 TIC	FT422	CA			CA		
	14:25	39034	140-63-2B	CL LTEV-11-AI-111 TIC	FT423	CA			CA		
	14:47	39034	140-63-3B	CL LTEV-11-AI-113 TIC	FT424	CA			CA		
	15:18	39034	140-63-4B	CL LTEV-11-AI-115 TIC	FT425	CA			CA		
	15:40	39034	140-63-5B	CL LTEV-11-AI-117 TIC	FT426	CA			CA		
	16:02	39034	140-63-6B	CL LTEV-11-AI-119 TIC	FT427	CA			CA		
↓	16:24	39034	140-63-7B	CL LTEV-11-AI-121 TIC	FT428	CA			CA		Tune had a [illegible] [illegible] down [illegible] [illegible]

TW 10-3-96

PAGE #	14		INTERNAL STANDARD	SURROGATE STANDARD	ANALYTE STANDARD
			USB 2-4 OP101496 [illegible]	→	

TRIANGLE LABORATORIES OF RTP, INC. RUN LOG

MS#	COLUMN TYPE	COLUMN #	ANALYSIS	ACQ METHOD	GC METHOD	FIND DB'S	OTHER
F	DB624	2427663	8240	VOA	Short	1. Nistlrd	
						2.	

EXTRACT / SAMPLE VOLUME ______________ uL / mL

DATE	TIME	PROJECT #	SAMPLE #	CLIENT SAMPLE ID	FILENAME	OPER	BACKUP NET	BACKUP ARC	PROC	pH	COMMENTS
10/2/96	16:46	39034	140-63-1A	CL LTEV-11-AJ-108 T	FT429	CA			CA		
↓	17:09	39034	140-63-2A	CL LTEV-11-AJ-110 T	FT430	CA			CA		
↓	17:30	39034	140-63-3A	CL LTEV-11-AJ-112 T	FT431	CA			CA		
↓	17:51	39034	140-63-4A ERRA 10/2/96 ~~140-63-3A~~	CL LTEV-11-AJ-114 T	FT432	CA			CA		
↓	18:13	39034	140-63-5A	CL LTEV-11-AJ-116 T	FT433	CA			CA		
↓	18:35	39034	140-63-6A	CL LTEV-11-AJ-118 T	FT434 ~~FT434~~ DECA 10/2/96	CA			CA		
↓	18:57	39034	140-63-7A	CL LTEV-11-AJ-120 T	FT435	CA			CA		
10/3/96	07:22		2.5 3.58-2-4 exp 10/14/96	BFB	FT436	CA			CA		
			25 V57-1-2 exp 10/14/96	V056D0.10 T1R	FT437	CA					

TW 10-3-96

PAGE #	15	

INTERNAL STANDARD: V58-2-4 exp 10/14/96 @ 25 pm ——→

SURROGATE STANDARD: ——→

ANALYTE STANDARD:

RADIAN CORPORATION

Project Number: 39034
Sample File: FT429

Method 8240A VOST
Sample ID: CL LTEV-11-AI-108

Client Project: VOLATILE ANAL.
TLI ID: 140-63-1A

Date Received: 09/28/96
Date Analyzed : 10/02/96

Response File: ICALF919

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Chlorobenzene-d_5		IS 3	10.09		
Tetrachloroethene	0.10		8.68		0.05

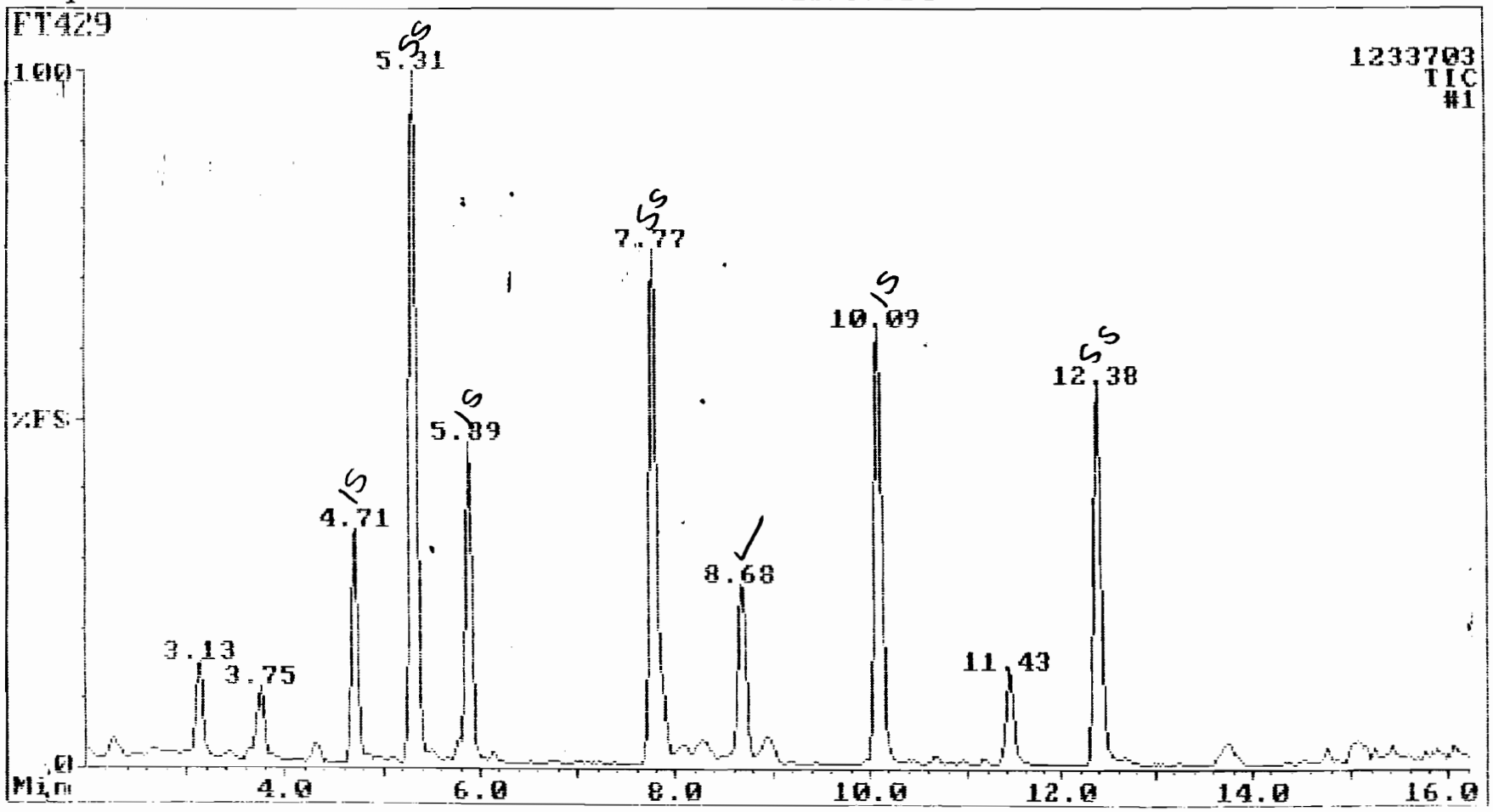
Surrogate Summary	Amount (ug)		RT	IS Ref	%REC
Toluene-d_8	0.23		7.77	3	93

Reviewed by TW Date 10/3/96

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

02-Oct-96 16:46 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-108 T 140-63-1A TLI#39034 Instrument F



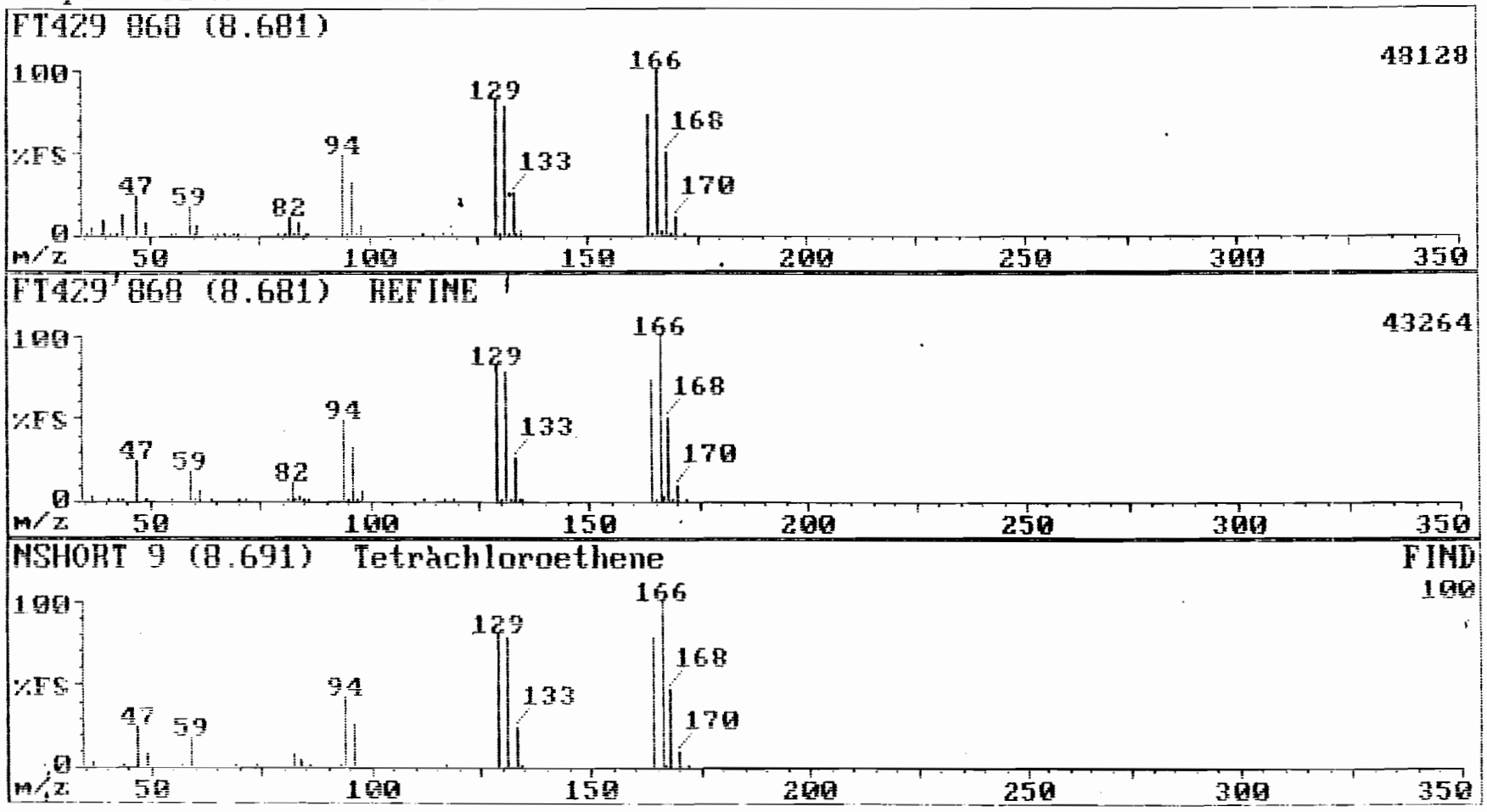
Data Review: TW
Date: 10-3-96

QUAN DB : FT429 LAB-BASE QUAN 02-Oct-96 17:09

No.	MAT	FOR	REV	Delta	Area	P:Flags	RT	QM	Name
1	100	94	99	-1	337064	bv	4.711	128	Bromochloromethane
2	100	95	99	-1	1511835	bv	5.881	114	1,4-Difluorobenzene
3	100	94	96	2	1841824	bv	10.091	117	Chlorobenzene-d5
4	72	32	83	-1	792848	bv	5.311	65	1,2-Dichloroethane-d4
5	100	83	85	1	2429116	bv	5.311	84	Benzene-d6
6	100	93	99	-1	2402746	bv	7.771	98	Toluene-d8
~~7~~	~~9~~	~~6~~	~~11~~	~~26~~	~~836~~	~~bb~~	~~12.681~~	98	o-Xylene-d10
8	100	89	95	0	1130883	bv	12.381	95	4-Bromofluorobenzene
9	100	88	98	0	300824	bv	8.681	164	Tetrachloroethene

Reviewed: TW
Date: 10-3-96

02-Oct-96 16:46 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-108 T 140-63-1A TLI#39034 Instrument F



RADIAN CORPORATION

Project Number: 39034
Sample File: FT422

Method 8240A VOST
Sample ID: CL LTEV-11-AI-109 T(

Client Project: VOLATILE ANAL.
TLI ID: 140-63-1B

Date Received: 09/28/96

Date Analyzed : 10/02/96

Response File: ICALF919

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Chlorobenzene-d_5		IS 3	10.09		
Tetrachloroethene		U		0.001	0.05

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Toluene-d_8	0.238	7.77	3	95

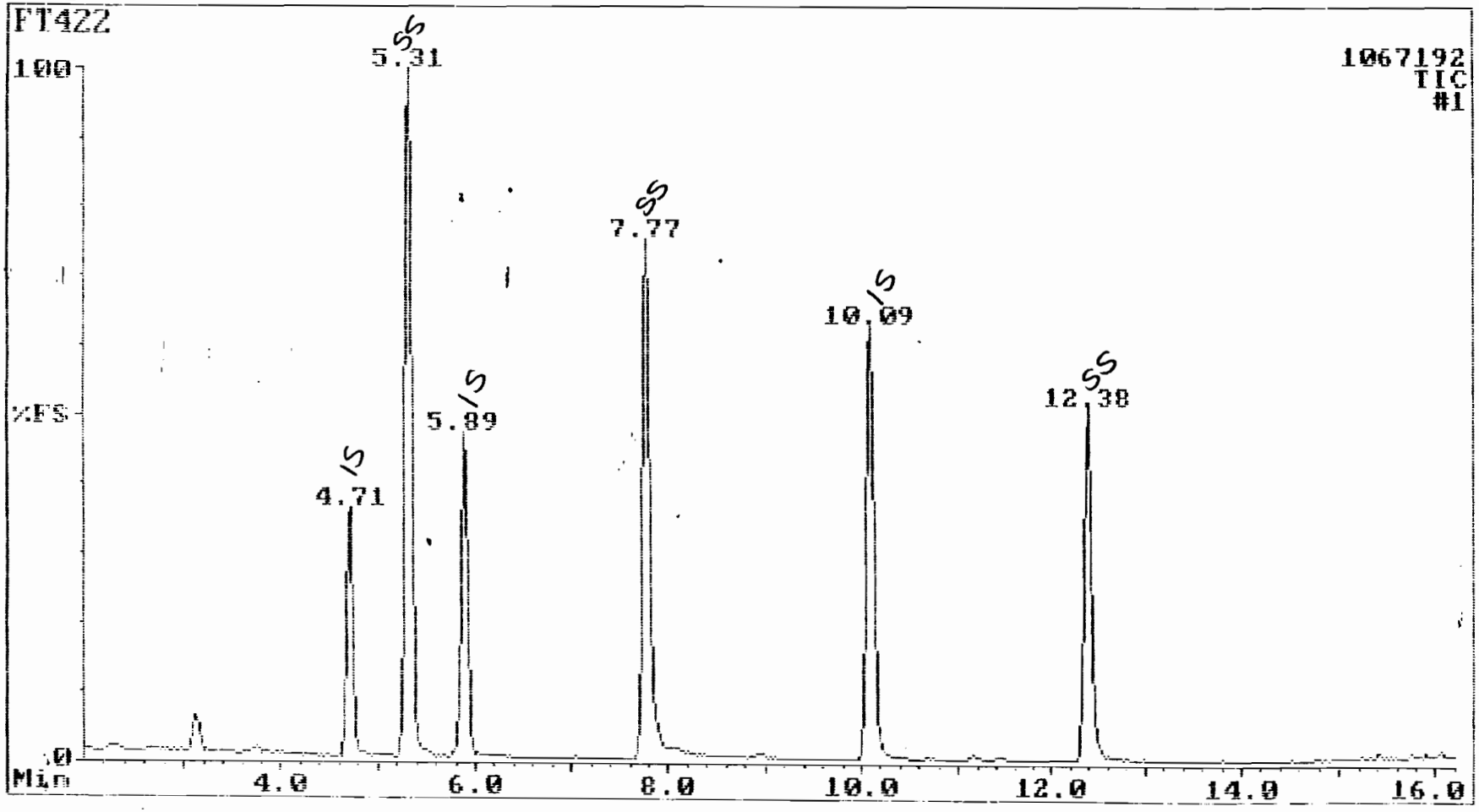
Reviewed by TW Date 10/3/96

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

02-Oct-96 14:03 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-109 T/C 140-63-1B TLI#39034 Instrument F



Data Review: TW
Date: 10-3-96

QUAN DB : FT422 LAB-BASE QUAN 02-Oct-96 14:26

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	94	99	-1	306668	bv	4.711	128	Bromochloromethane
2	100	96	98	0	1290964	bv	5.391	114	1,4-Difluorobenzene
3	100	96	97	1	1543689	bv	10.091	117	Chlorobenzene-d5
4	74	34	85	0	738456	bv	5.321	65	1,2-Dichloroethane-d4
5	100	80	82	0	2203980	bv	5.311	84	Benzene-d6
6	100	94	99	-1	2058711	bv	7.771	98	Toluene-d8
~~7~~	~~7~~	~~2~~	~~15~~	~~50~~	~~352~~	~~bl~~	~~12.381~~	98	o-Xylene-d10 FP TW
8	100	89	94	0	920096	bv	12.381	95	4-Bromofluorobenzene
~~9~~	~~15~~	~~9~~	~~15~~	~~6~~	~~728~~	~~bb~~	~~8.631~~	~~164~~	Tetrachloroethene FP TW

Data Review: TW
Date: 10-3-96

RADIAN CORPORATION

Project Number: 39034
Sample File: FT430

Method 8240A VOST
Sample ID: CL LTEV-11-AI-110 T

Client Project: VOLATILE ANAL. **Date Received: 09/28/96** **Response File: ICALF919**
TLI ID: 140-63-2A

Date Analyzed : 10/02/96

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Chlorobenzene-d_5		IS 3	10.09		
Tetrachloroethene		U		0.001	0.05

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Toluene-d_8	0.240	7.77	3	96

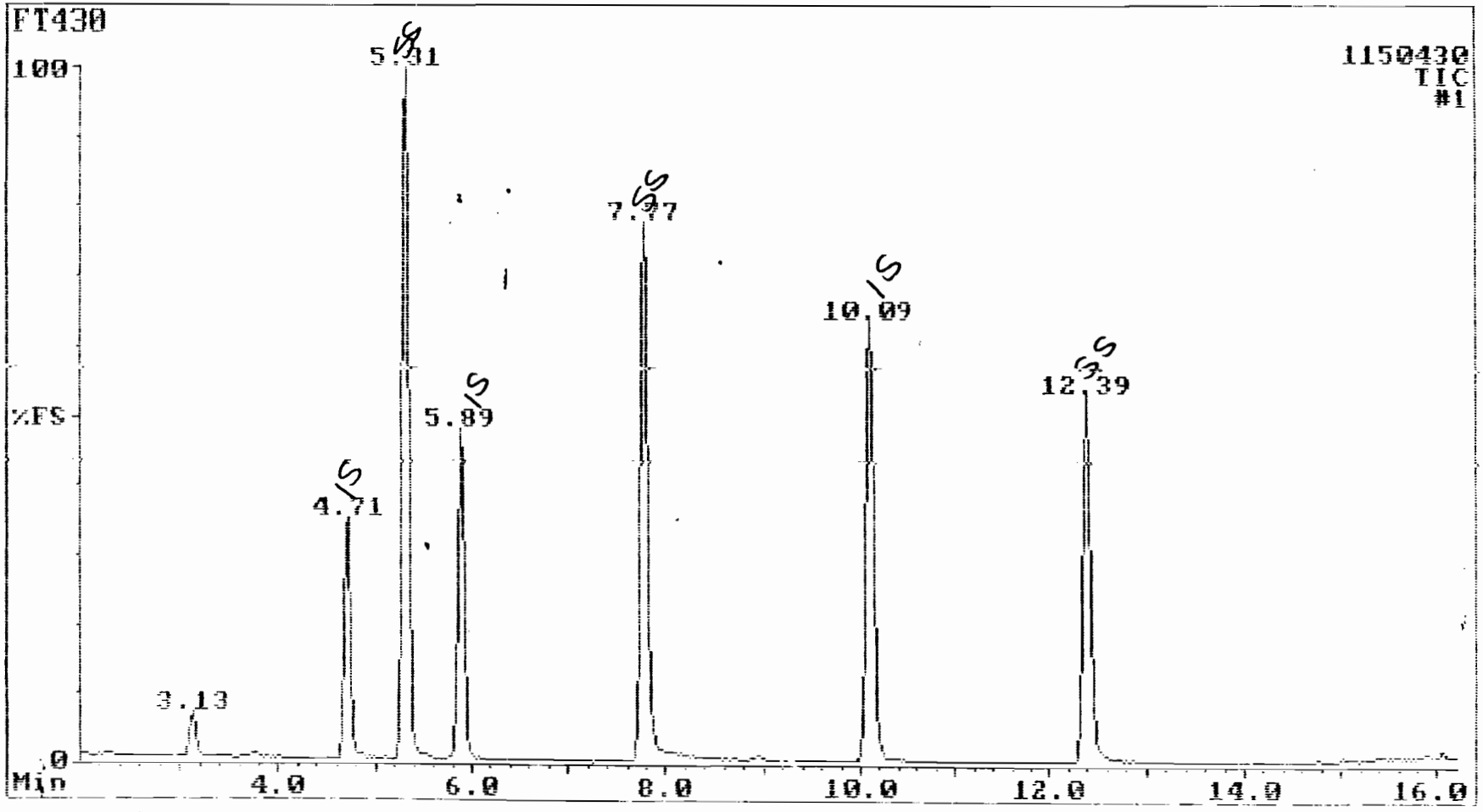
Reviewed by TW Date 10/3/96

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

02-Oct-96 17:08 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-110 T 140-63-2A TLI#39034 Instrument F



Data Review: TW
Date: 10-3-96

30

QUAN DB : FT430 · LAB-BASE QUAN 02-Oct-96 17:30

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	94	99	-1	336160	bv	4.711	128	Bromochloromethane
2	100	96	99	0	1425000	bv	5.891	114	1,4-Difluorobenzene
3	100	96	97	1	1723294	bv	10.091	117	Chlorobenzene-d5
4	75	35	85	-1	788564	bv	5.311	65	1,2-Dichloroethane-d4
5	100	79	81	0	2407600	bv	5.311	84	Benzene-d6
6	100	94	99	-1	2325544	bv	7.771	98	Toluene-d8
~~7~~	~~7~~	~~2~~	~~14~~	~~50~~	~~360~~	~~bb~~	~~12.381~~	98	o-Xylene-d10 FP TW
8	100	90	95	1	1032019	bv	12.391	95	4-Bromofluorobenzene
~~9~~	~~16~~	~~10~~	~~16~~	~~0~~	~~1488~~	~~bb~~	~~8.601~~	164	Tetrachloroethene FP TW

Data Review: TW
Date: 10-3-96

RADIAN CORPORATION

Project Number: 39034
Sample File: FT423

Method 8240A VOST
Sample ID: CL LTEV-11-AI-111 TC

Client Project: VOLATILE ANAL.
TLI ID: 140-63-2B

Date Received: 09/28/96
Date Analyzed : 10/02/96

Response File: ICALF919

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Chlorobenzene-d_5		IS 3	10.09		
Tetrachloroethene	0.813		8.68		0.05

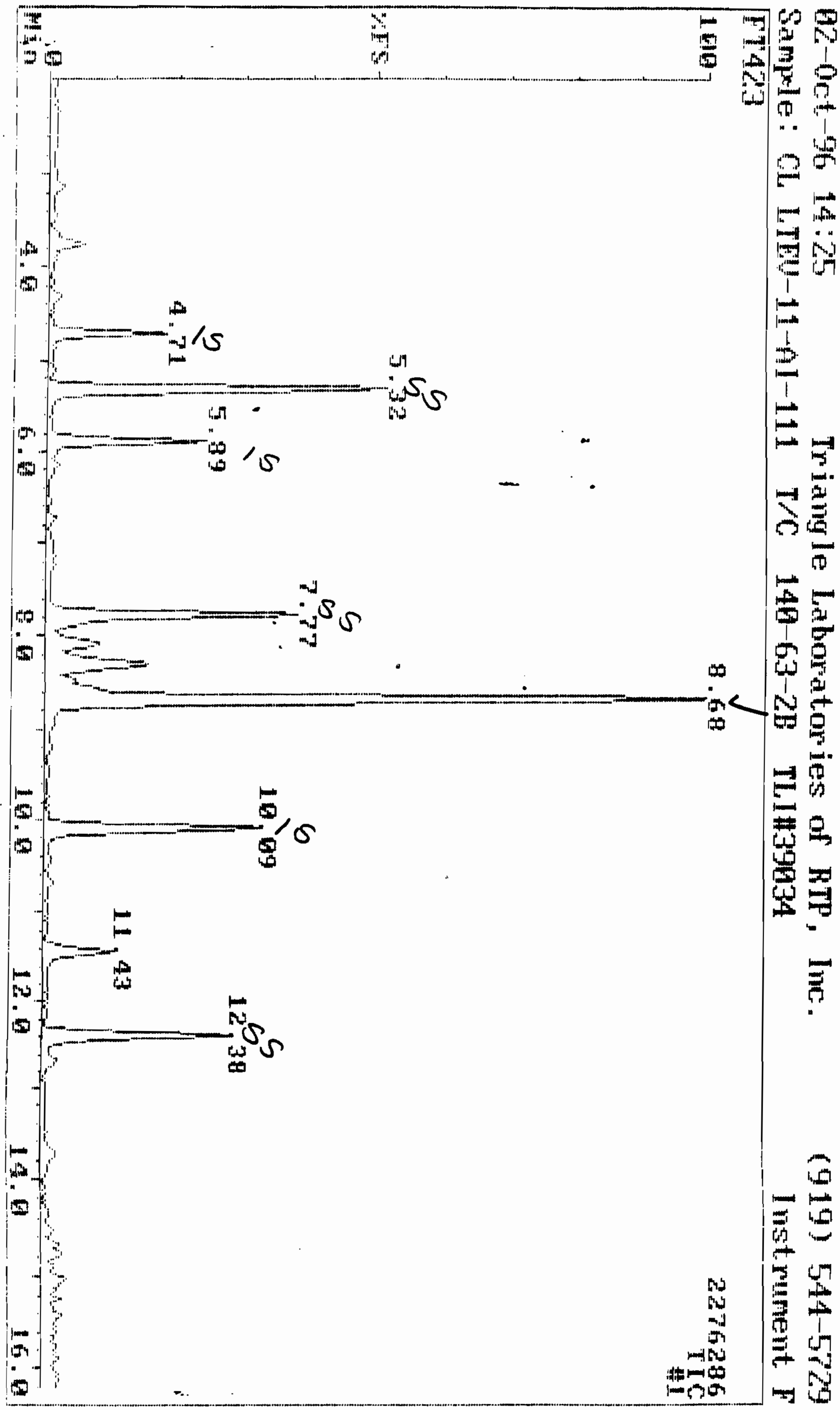
Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Toluene-d_8	0.231	7.77	3	92

Reviewed by TW Date 10/4/96

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491



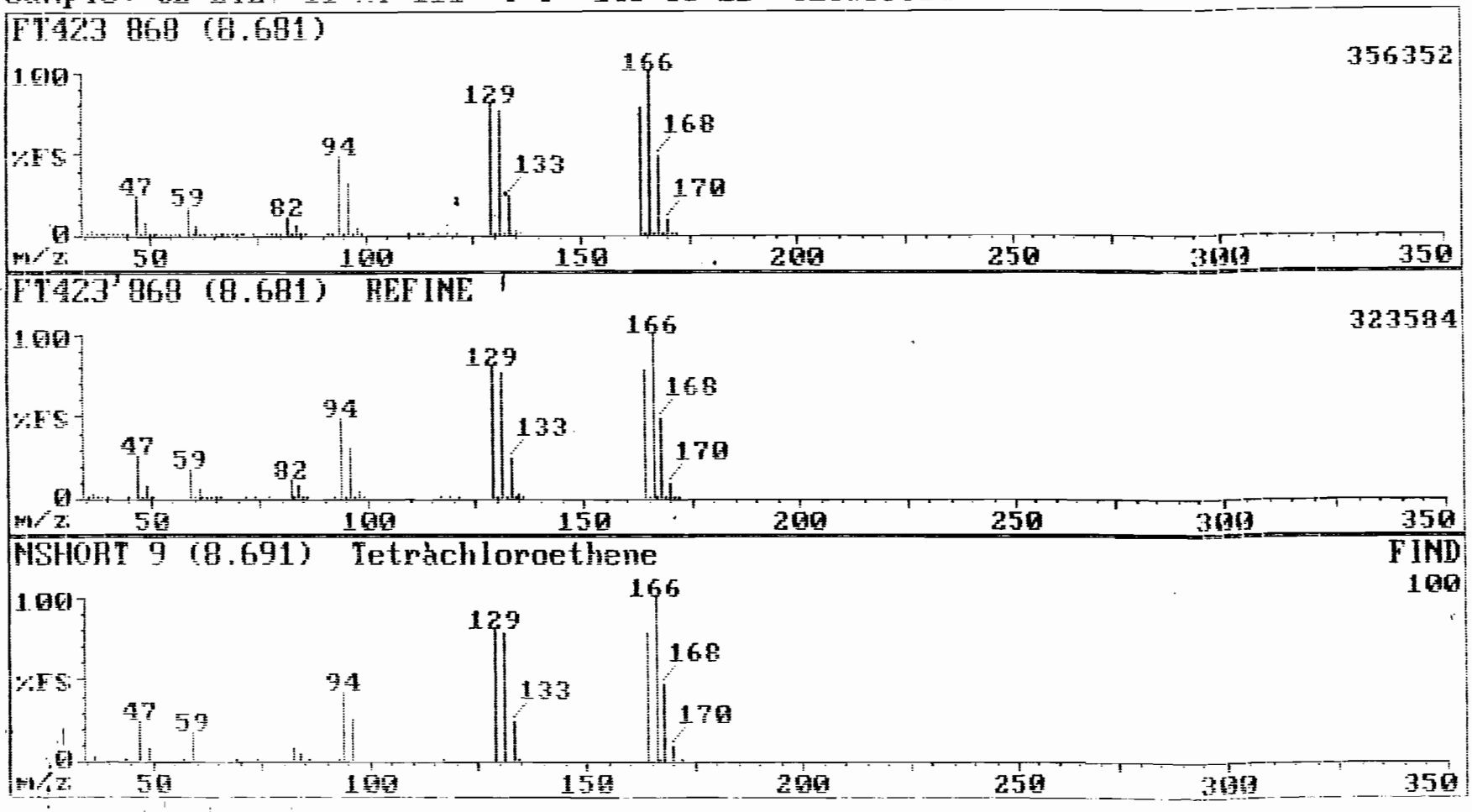
Data Review: TW
Date: 10-3-96

QUAN DB : FT423 LAB-BASE QUAN 02-Oct-96 14:48

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	93	99	-1	316812	bv	4.711	128	Bromochloromethane
2	100	94	99	0	1365364	bv	5.891	114	1,4-Difluorobenzene
3	100	97	98	1	1724408	bv	10.091	117	Chlorobenzene-d5
4	72	32	83	0	750052	bv	5.321	65	1,2-Dichloroethane-d4
5	100	83	85	0	2237200	bv	5.311	84	Benzene-d6
6	100	93	99	-1	2236081	bv	7.771	98	Toluene-d8
~~7~~	~~19~~	~~19~~	~~24~~	~~-20~~	~~6772~~	~~bv~~	~~12.601~~	98	o-Xylene-d10
8	100	89	95	0	1055098	bv	12.381	95	4-Bromofluorobenzene
9	100	91	99	0	2186412	bv	8.681	164	Tetrachloroethene

Data Review: TW
Date: 10-3-96

02-Oct-96 14:25 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-111 T/C 140-63-2B TLI#39034 Instrument F



RADIAN CORPORATION

Project Number: 39034 | **Method 8240A VOST**
Sample File: FT431 | **Sample ID: CL LTEV-11-AI-112 T**

Client Project: VOLATILE ANAL. | **Date Received: 09/28/96** | **Response File: ICALF919**
TLI ID: 140-63-3A | **Date Analyzed : 10/02/96**

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Chlorobenzene-d_5		IS 3	10.08		
Tetrachloroethene	0.304		8.67		0.05

Surrogate Summary	Amount (ug)		RT	IS Ref	%REC
Toluene-d_8	0.231	—	7.77	3	92

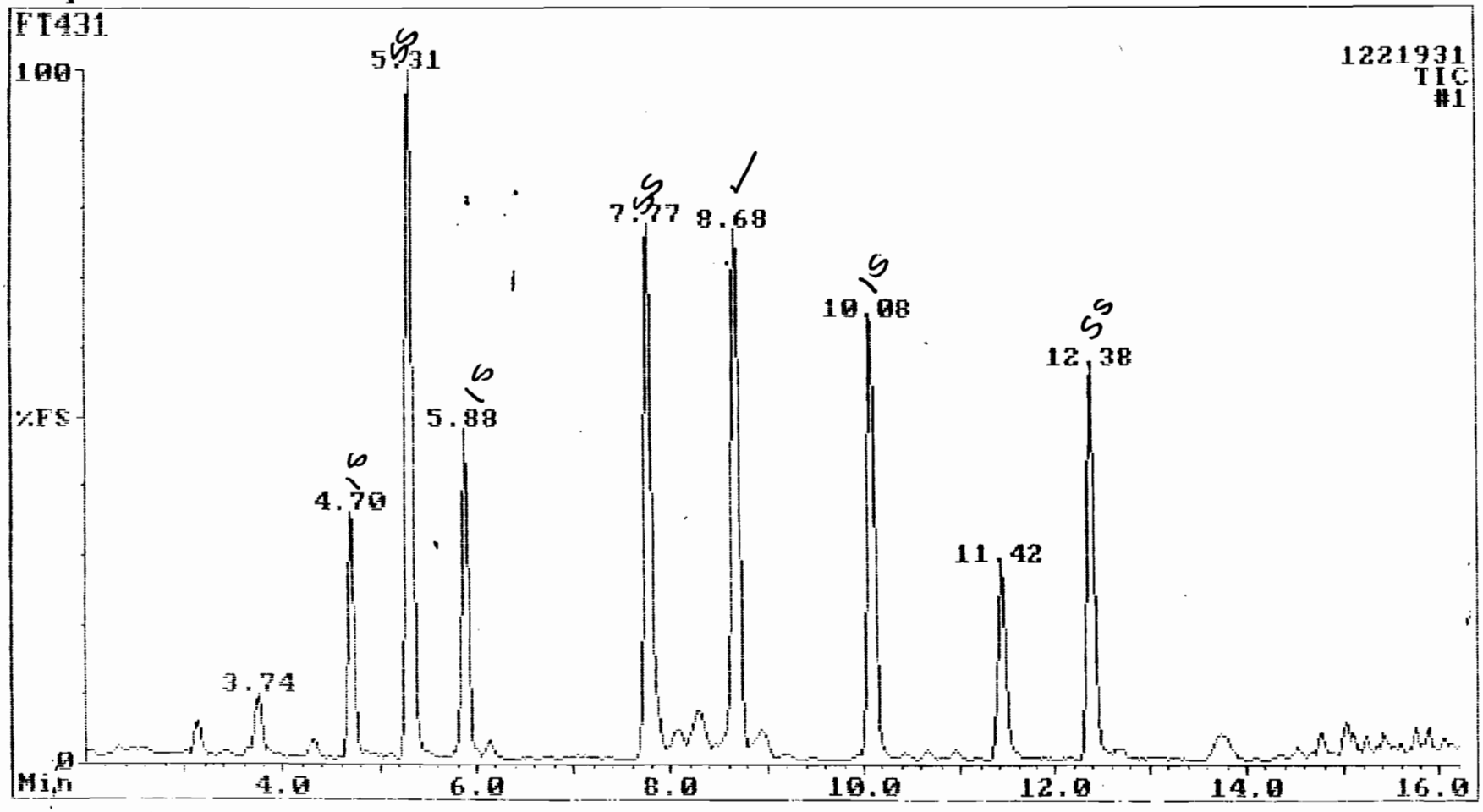
Reviewed by TW Date: 10/3/96

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

02-Oct-96 17:30 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-A1-112 T 140-63-3A TLI#39034 Instrument F



Data Review: TW
Date: 10-3-96

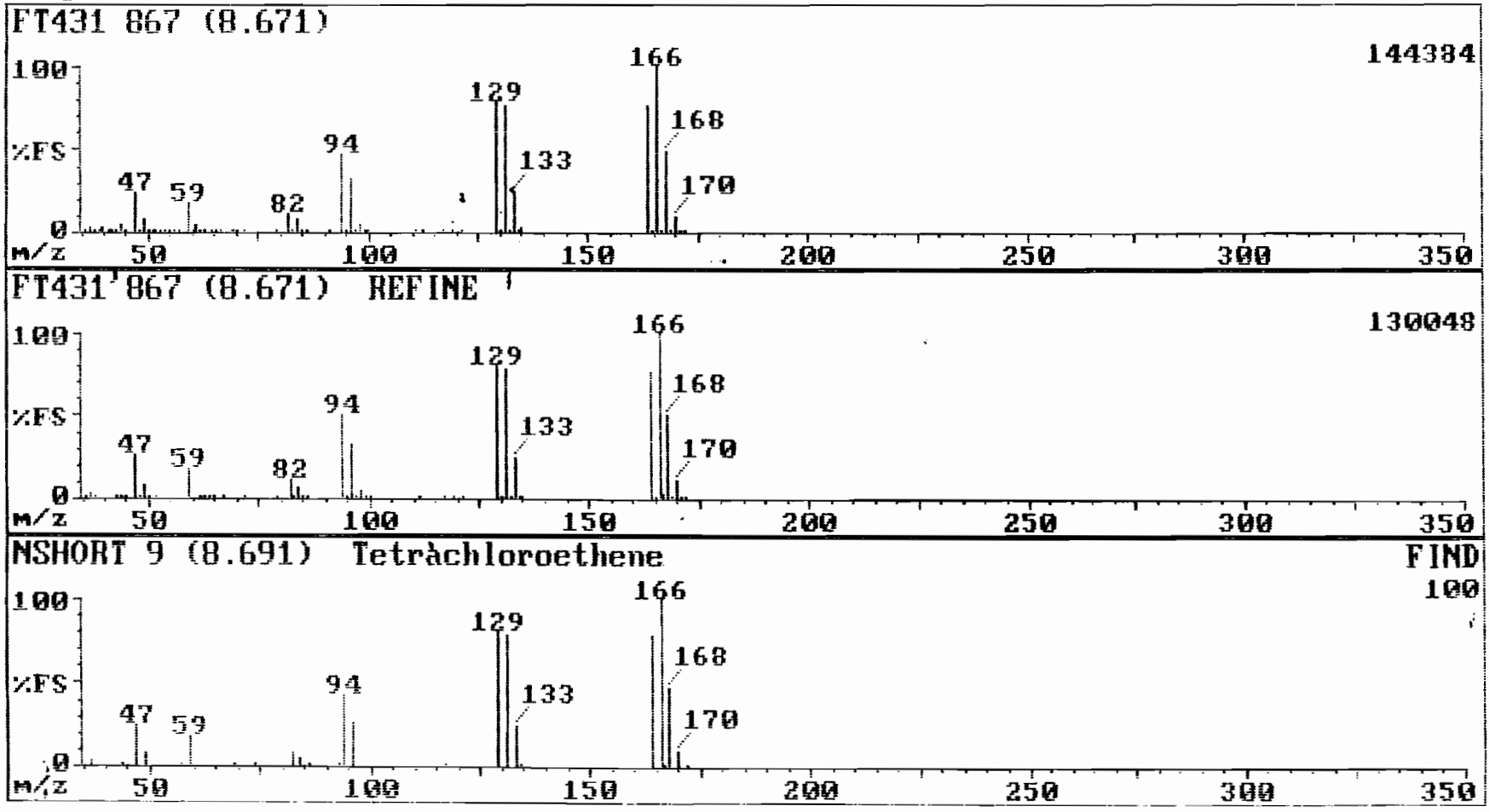
QUAN DB : FT431 LAB-BASE QUAN 02-Oct-96 17:52

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	94	99	-2	347552	bv	4.701	128	Bromochloromethane
2	100	95	99	0	1498072	bv	5.881	114	1,4-Difluorobenzene
3	100	96	97	1	1887702	bv	10.081	117	Chlorobenzene-d5
4	73	32	84	0	792376	bv	5.311	65	1,2-Dichloroethane-d4
5	100	82	84	1	2441236	bv	5.311	84	Benzene-d6
6	100	94	99	0	2442864	bv	7.771	98	Toluene-d8
~~7~~	~~15~~	~~9~~	~~18~~	~~-19~~	~~39144~~	~~bv~~	~~12.671~~	98	o-Xylene-d10
8	100	90	95	1	1163049	bv	12.381	95	4-Bromofluorobenzene
9	100	91	99	0	896024	bv	8.671	164	Tetrachloroethene

FP TW

Reviewed: TW
Date: 10-3-96

02-Oct-96 17:30 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-A1-112 T 140-63-3A TLI#39034 Instrument F



RADIAN CORPORATION

Project Number: 39034
Sample File: FT424

Method 8240A VOST
Sample ID: CL LTEV-11-AI-113 T

Client Project: VOLATILE ANAL.
TLI ID: 140-63-3B

Date Received: 09/28/96
Date Analyzed : 10/02/96

Response File: ICALF919

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Chlorobenzene-d_5		IS 3	10.09		
Tetrachloroethene		U		0.001	0.05

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Toluene-d_8	0.229	7.77	3	92

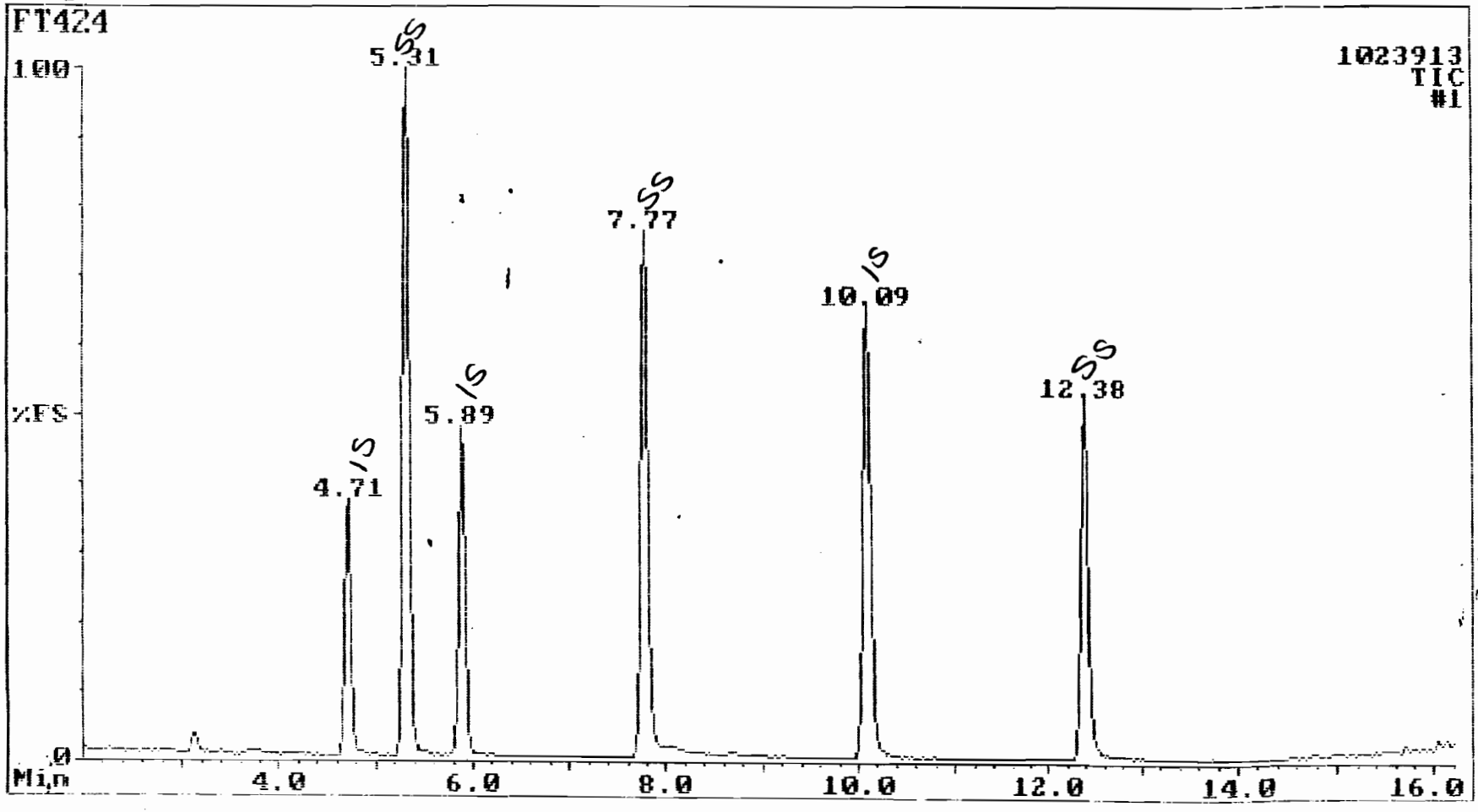
Reviewed by TW Date 10/3/96

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

02-Oct-96 14:47 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-113 T/C 140-63-3B TLI#39034 Instrument F



Data Review: TW
Date: 10-3-96

QUAN DB : FT424 LAB-BASE QUAN 02-Oct-96 15:19

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	94	99	-1	305456	bv	4.711	128	Bromochloromethane
2	100	96	98	0	1234496	bv	5.891	114	1,4-Difluorobenzene
3	100	94	96	1	1581767	bv	10.091	117	Chlorobenzene-d5
4	76	36	85	0	727936	bv	5.321	65	1,2-Dichloroethane-d4
5	99	78	80	0	2122720	bv	5.311	84	Benzene-d6
6	100	94	99	-1	2036635	bv	7.771	98	Toluene-d8
~~7~~	~~5~~	~~2~~	~~A~~	~~39~~	~~324~~	~~bb~~	~~12.491~~	98	o-Xylene-d10
8	100	89	94	0	927327	bv	12.381	95	4-Bromofluorobenzene
~~9~~	~~51~~	~~34~~	~~47~~	~~1~~	~~7560~~	~~A~~	~~8.691~~	164	Tetrachloroethene

FP TW

FP TW

Reviewed: TW
Date: 10-3-96

RADIAN CORPORATION

Project Number: 39034
Sample File: FT432

Method 8240A VOST
Sample ID: CL LTEV-11-AI-114 T

Client Project: VOLATILE ANAL.
TLI ID: 140-63-4A

Date Received: 09/28/96

Date Analyzed : 10/02/96

Response File: ICALF919

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Chlorobenzene-d_5		IS 3	10.09		
Tetrachloroethene	0.742		8.68		0.05

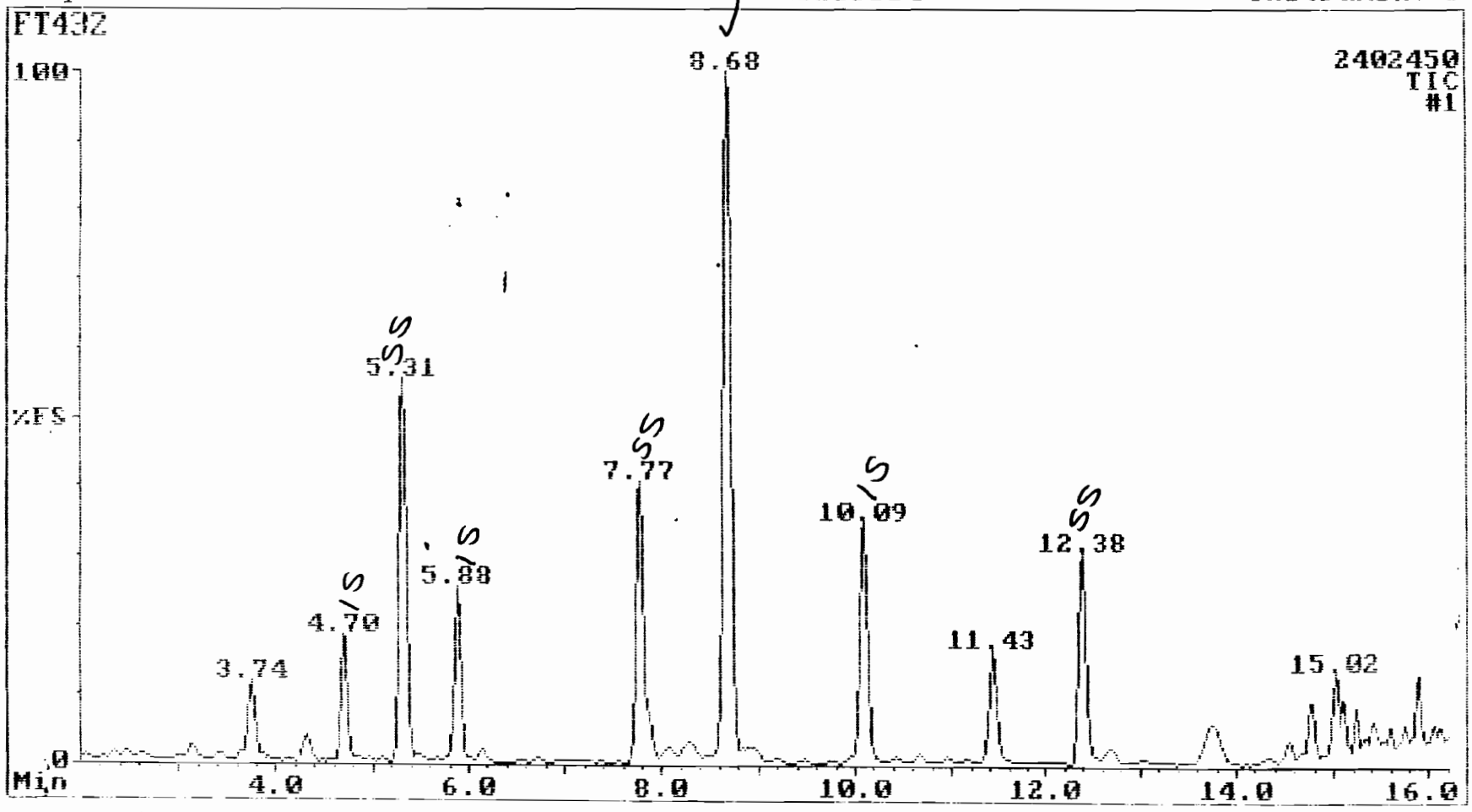
Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Toluene-d_8	0.225	7.77	3	90

Reviewed by TW Date 10/3/96

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

02-Oct-96 17:51 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-114 T 140-63-4A, TLI#39034 Instrument F



Date: 10-3-96

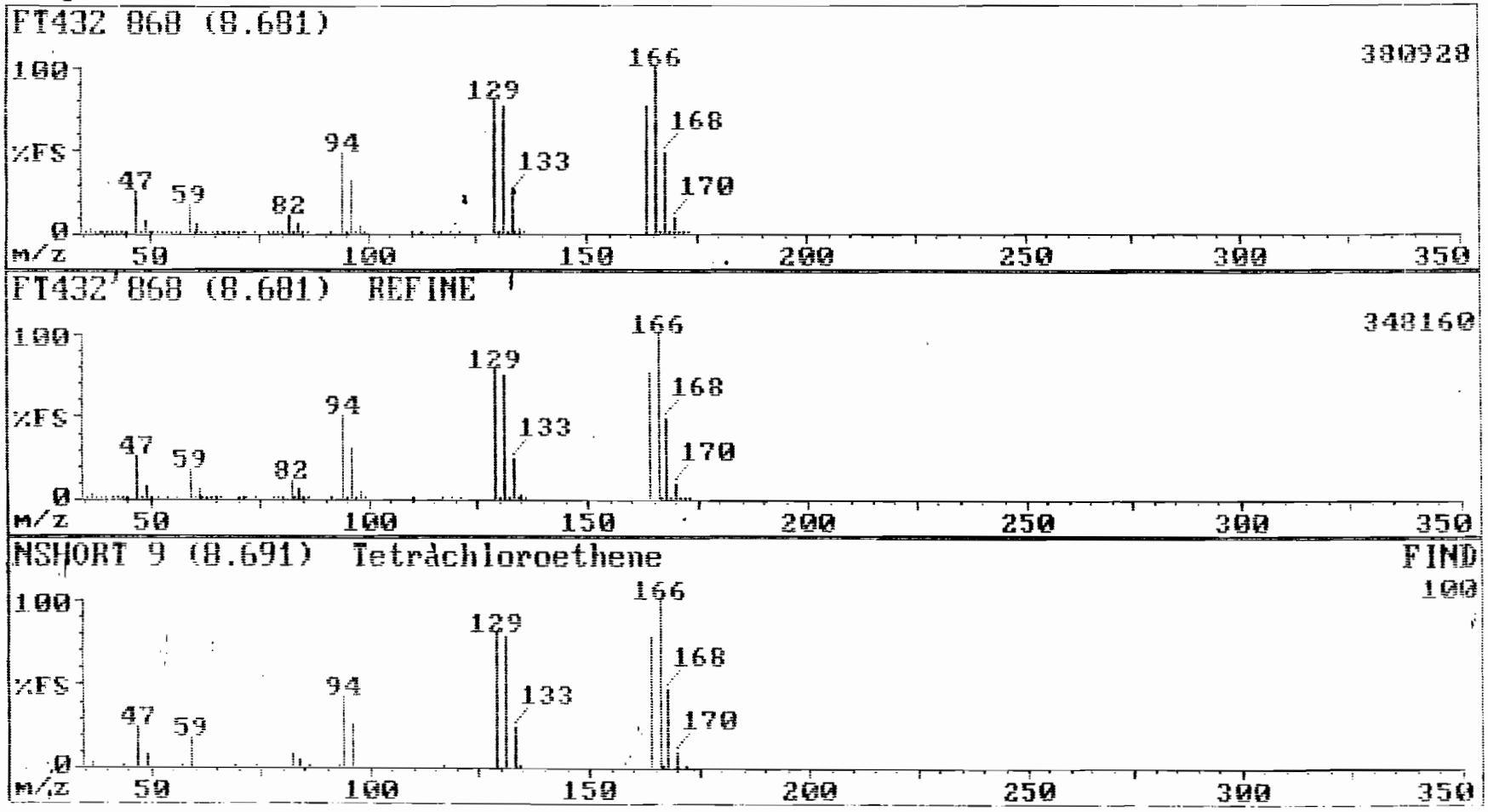
QUAN DB : FT432 LAB-BASE QUAN 02-Oct-96 18:14

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	93	99	-2	353708	bv	4.701	128	Bromochloromethane
2	100	95	99	0	1566492	bv	5.881	114	1,4-Difluorobenzene
3	100	97	98	2	1992976	bv	10.091	117	Chlorobenzene-d5
4	71	31	83	0	822472	bv	5.311	65	1,2-Dichloroethane-d4
5	100	84	86	0	2534316	bv	5.301	84	Benzene-d6
6	100	93	99	-1	2521152	bv	7.771	98	Toluene-d8
~~7~~	~~19~~	~~16~~	~~24~~	~~19~~	~~102084~~	~~bv~~	~~12.691~~	98	o-Xylene-d10
8	100	89	95	0	1217122	bv	12.381	95	4-Bromofluorobenzene
9	100	92	99	0	2308356	bv	8.681	164	Tetrachloroethene

RW TW

Date: 10-3-96

02-Oct-96 17:51 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-114 I 140-63-4A TLI#39034 Instrument F



RADIAN CORPORATION

Project Number: 39034
Sample File: FT425

Method 8240A VOST
Sample ID: CL LTEV-11-AI-115 TC

Client Project: VOLATILE ANAL.
TLI ID: 140-63-4B

Date Received: 09/28/96

Date Analyzed : 10/02/96

Response File: ICALF919

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Chlorobenzene-d_5		IS 3	10.09		
Tetrachloroethene	0.028	J	8.69		0.05

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Toluene-d_8	0.238	7.78	3	95

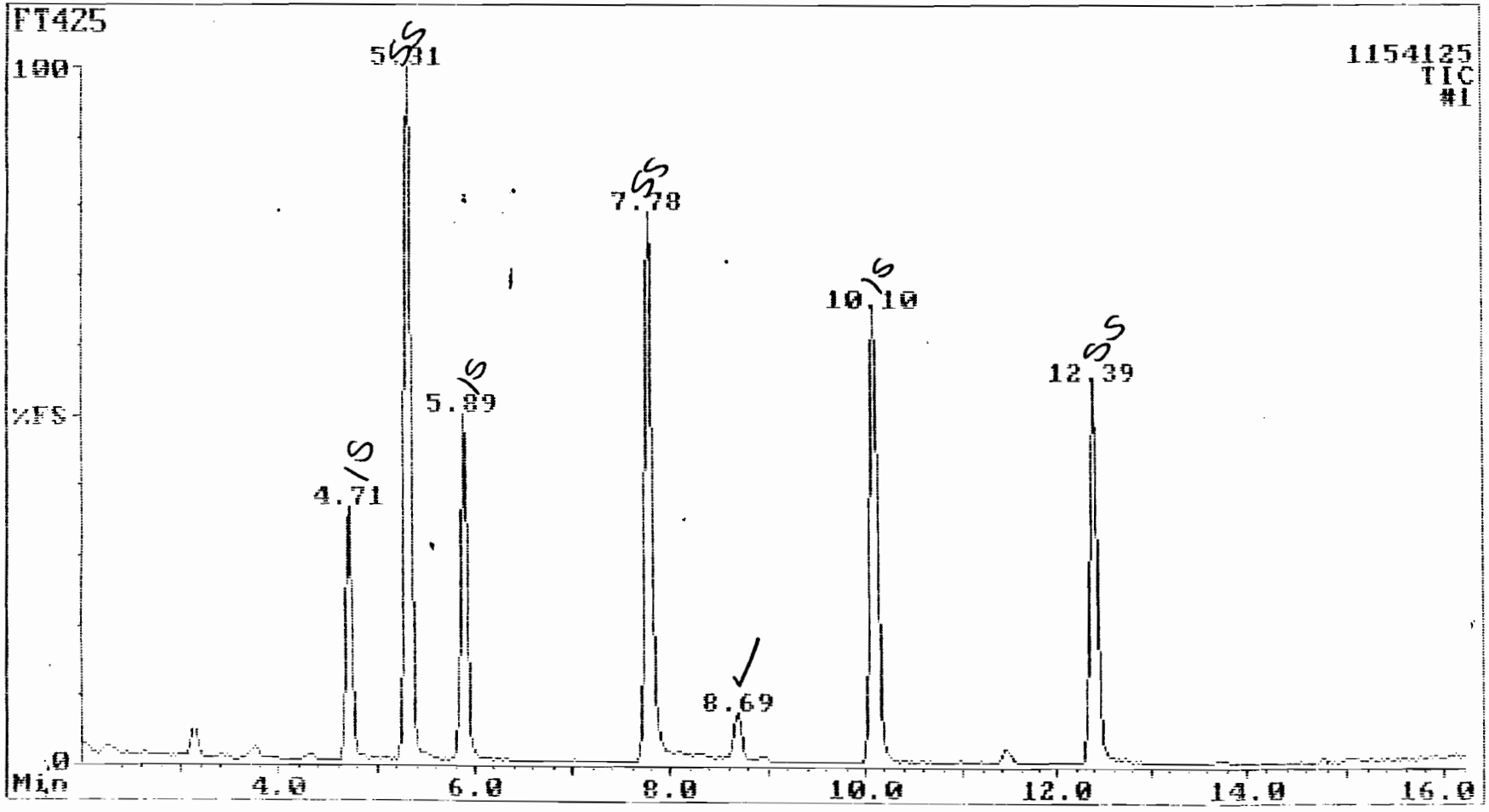
Reviewed by TW Date 10/3/96

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

02-Oct-96 15:18 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-115 T/C 140-63-4B TLI#39034 Instrument F



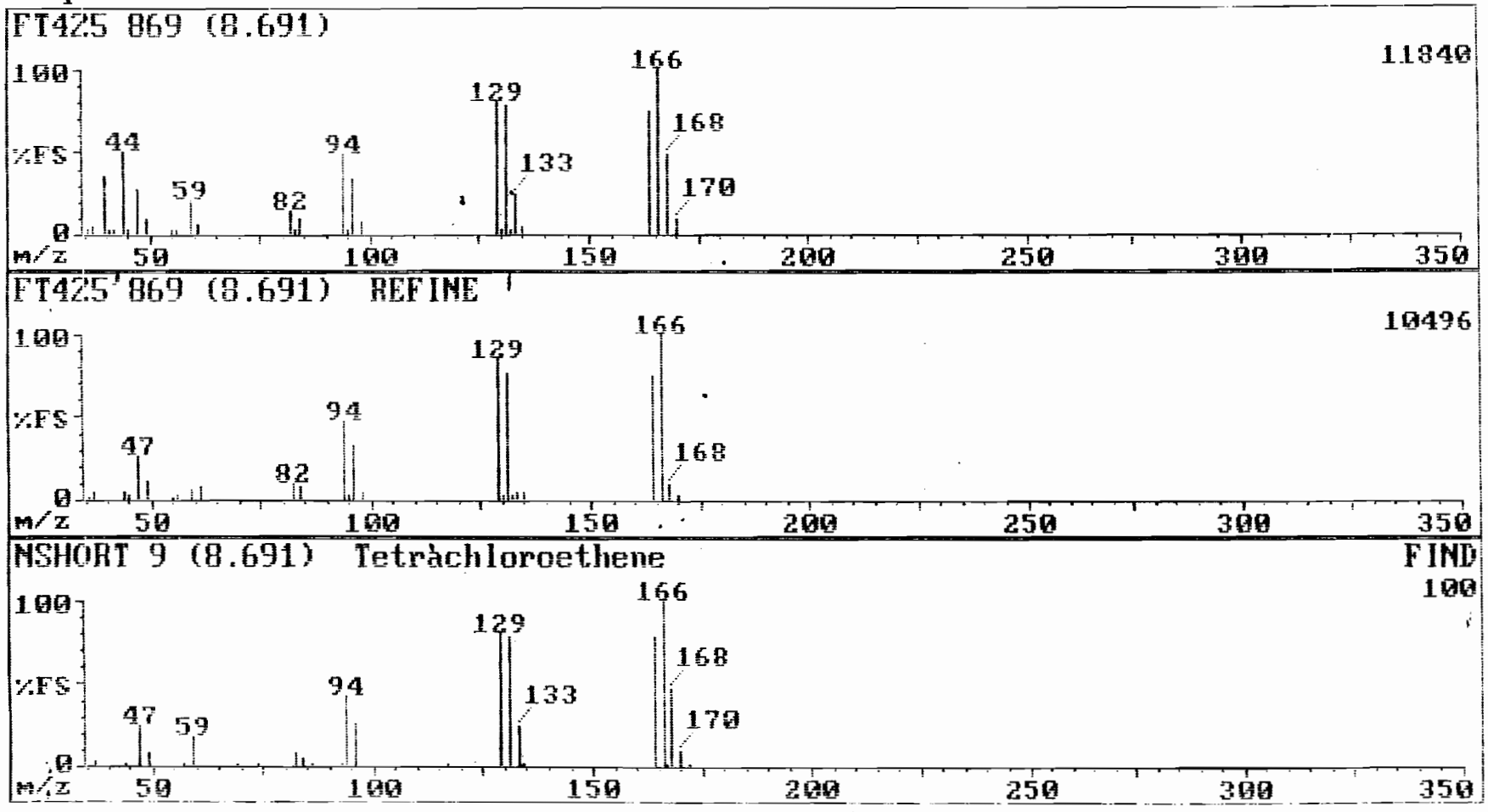
Date: 10-3-96

QUAN DB : FT425 LAB-BASE QUAN 02-Oct-96 15:42

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	95	99	-1	333620	bv	4.711	128	Bromochloromethane
2	100	96	99	0	1460328	bv	5.891	114	1,4-Difluorobenzene
3	100	96	96	1	1782816	bv	10.091	117	Chlorobenzene-d5
4	74	34	84	0	789384	bv	5.321	65	1,2-Dichloroethane-d4
5	100	80	82	0	2426524	bv	5.311	84	Benzene-d6
6	100	94	99	0	2385516	bv	7.781	98	Toluene-d8
~~7~~	~~7~~	~~2~~	~~15~~	~~51~~	~~428~~	~~bb~~	~~12.371~~	98	o-Xylene-dLO
8	100	89	95	1	1039873	bv	12.391	95	4-Bromofluorobenzene
9	100	80	92	1	77308	bb	8.691	164	Tetrachloroethene

Data Review: TW
Date: 10-3-96

02-Oct-96 15:18 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-115 T/C 140-63-4B TLI#39034 Instrument F



RADIAN CORPORATION

Project Number: 39034
Sample File: FT433

Method 8240A VOST
Sample ID: CL LTEV-11-AI-116 T

Client Project: VOLATILE ANAL.
TLI ID: 140-63-5A

Date Received: 09/28/96
Date Analyzed : 10/02/96

Response File: ICALF919

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Chlorobenzene-d_5		IS 3	10.09		
Tetrachloroethene	5.687	E	8.70		0.05

Surrogate Summary	Amount (ug)		RT	IS Ref	%REC
Toluene-d_8	0.228	—	7.77	3	91

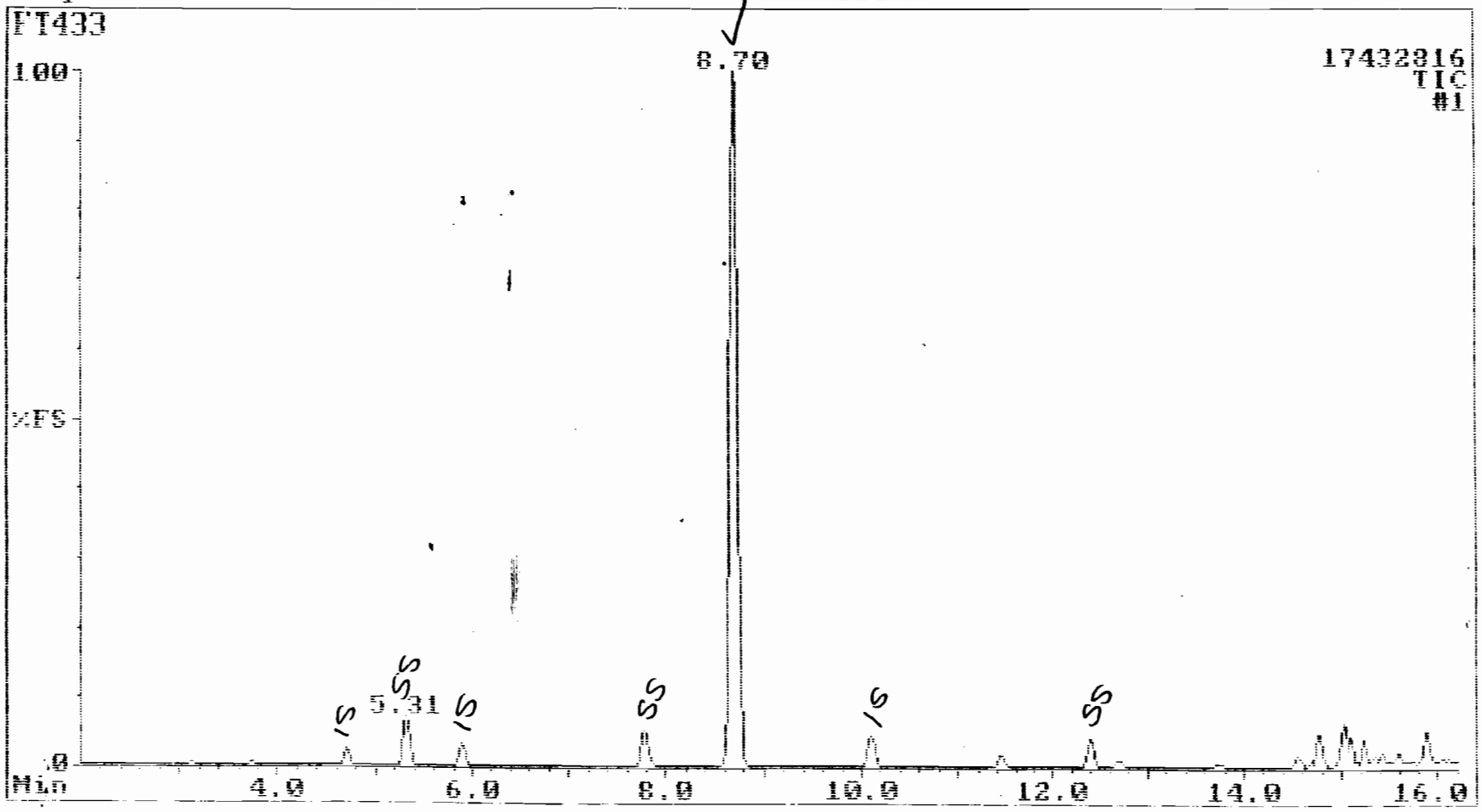
Reviewed by TW Date 10/3/96

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

02-Oct-96 18:13 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-116 T 140-63-5A TLI#39034 Instrument F



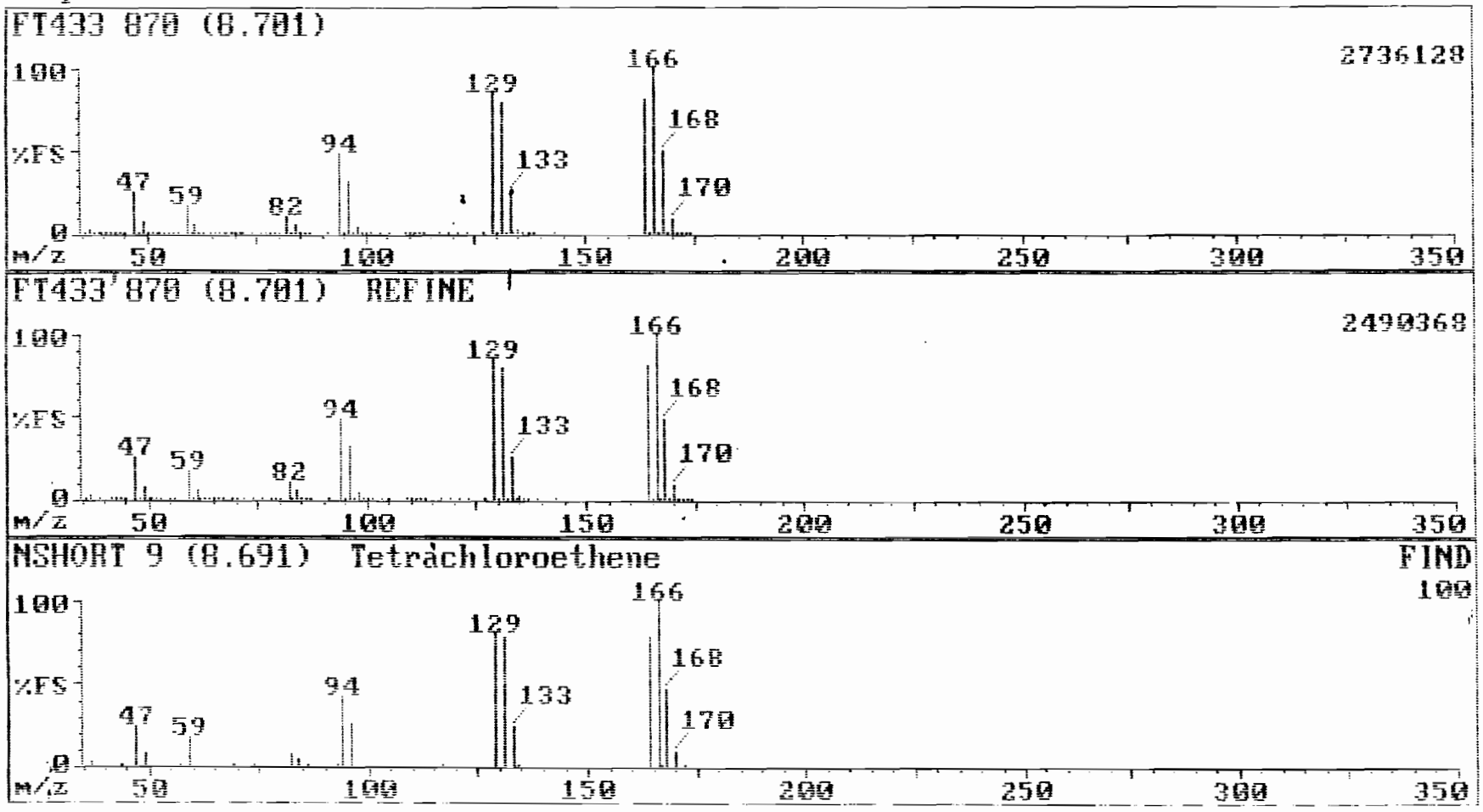
Date: 10-3-96

QUAN DB : FT433 LAB-BASE QUAN 02-Oct-96 18:36

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	93	99	-2	357920	bv	4.701	128	Bromochloromethane
2	100	95	99	0	1581260	bv	5.381	114	1,4-Difluorobenzene
3	100	97	98	2	1985828	bv	10.091	117	Chlorobenzene-d5
4	71	32	84	0	821440	bv	5.311	65	1,2-Dichloroethane-d4
5	100	83	85	1	2500932	bv	5.311	84	Benzene-d6
6	100	93	99	-1	2539524	bv	7.771	98	Toluene-d8
~~7~~	~~34~~	~~42~~	~~81~~	~~19~~	~~45280~~	~~bb~~	~~12.391~~	98	o-Xylene-d10
8	100	89	96	1	1231878	bv	12.391	95	4-Bromofluorobenzene
9	100	93	99	2	17617120	bv	8.701	164	Tetrachloroethene

Reviewed: TW
Date: 10-3-96

02-Oct-96 18:13 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-116 T 140-63-5A TLI#39034 Instrument F



RADIAN CORPORATION

Project Number: 39034
Sample File: FT426

Method 8240A VOST
Sample ID: CL LTEV-11-AI-117 TC

Client Project: VOLATILE ANAL.
TLI ID: 140-63-5B

Date Received: 09/28/96
Date Analyzed : 10/02/96

Response File: ICALF919

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Chlorobenzene-d_5		IS 3	10.10		
Tetrachloroethene	0.005	J	8.70		0.05

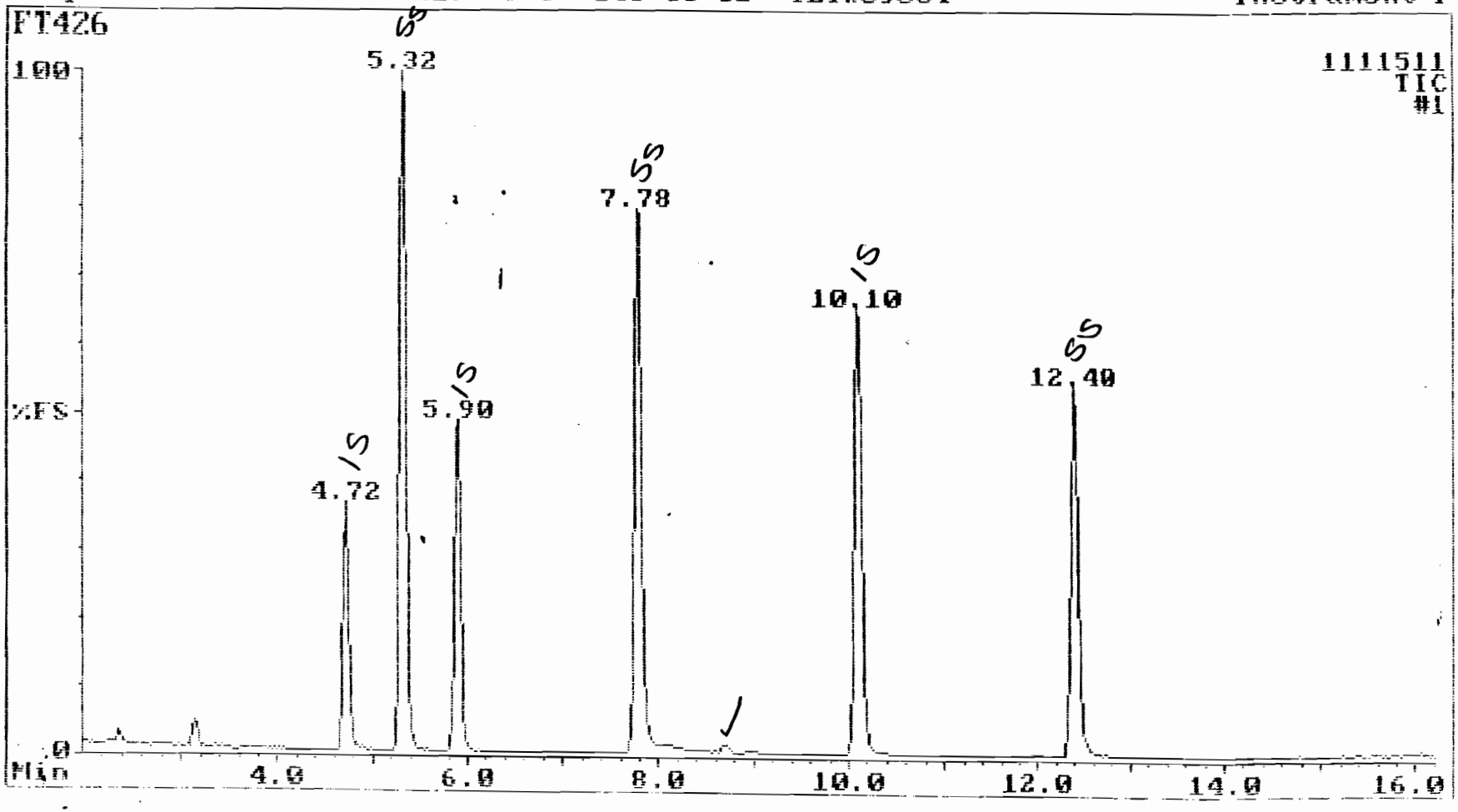
Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Toluene-d_8	0.240	7.78	3	96

Reviewed by TW Date 10/3/96

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

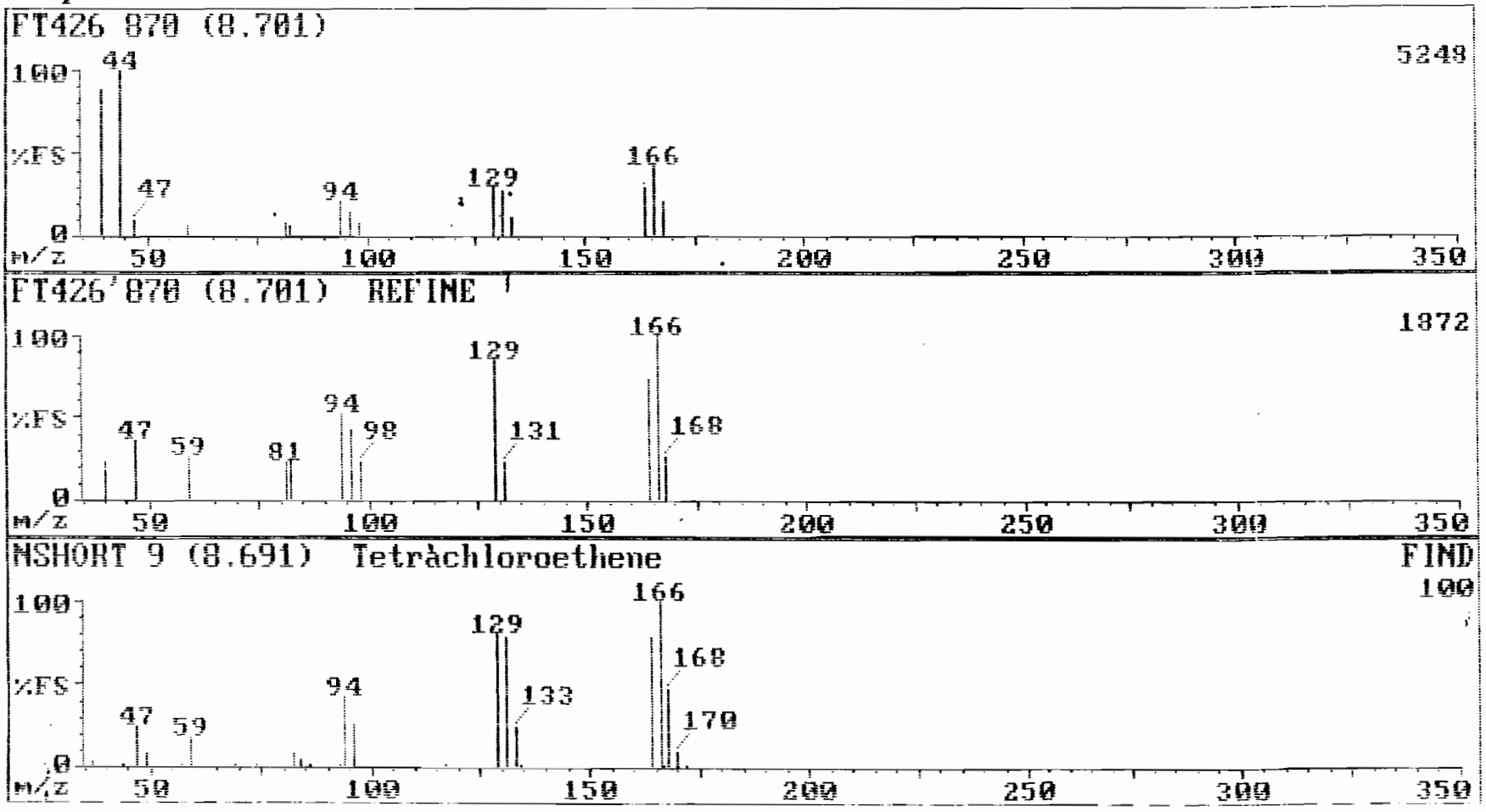
02-Oct-96 15:40 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-117 T/C 140-63-5B TL1#39034 Instrument F



QUAN DB : FT426 LAB-BASE QUAN 02-Oct-96 16:03

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	94	99	-1	327908	bv	4.711	128	Bromochloromethane
2	100	96	99	1	1396992	bv	5.901	114	1,4-Difluorobenzene
3	100	96	96	0	1717819	bv	10.101	117	Chlorobenzene-d5
4	74	35	85	0	780800	bv	5.321	65	1,2-Dichloroethane-d4
5	100	80	82	0	2315720	bv	5.321	84	Benzene-d6
6	100	94	99	-1	2312575	bv	7.781	98	Toluene-d8
~~7~~	~~7~~	~~2~~	~~15~~	~~-48~~	~~364~~	~~bb~~	~~12.411~~	98	o-Xylene-d10
8	100	89	94	1	1014960	bv	12.401	95	4-Bromofluorobenzene
9	73	51	68	1	13983	bb	8.701	164	Tetrachloroethene

02-Oct-96 15:40 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-117 T/C 140-63-5B TLI#39034 Instrument F



RADIAN CORPORATION

Project Number: 39034
Sample File: FT434

Method 8240A VOST
Sample ID: CL LTEV-11-AI-118 T

Client Project: VOLATILE ANAL.
TLI ID: 140-63-6A

Date Received: 09/28/96
Date Analyzed : 10/02/96

Response File: ICALF919

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Chlorobenzene-d_5		IS 3	10.10		
Tetrachloroethene	2.241	E	8.69		0.05

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Toluene-d_8	0.223	7.78	3	89

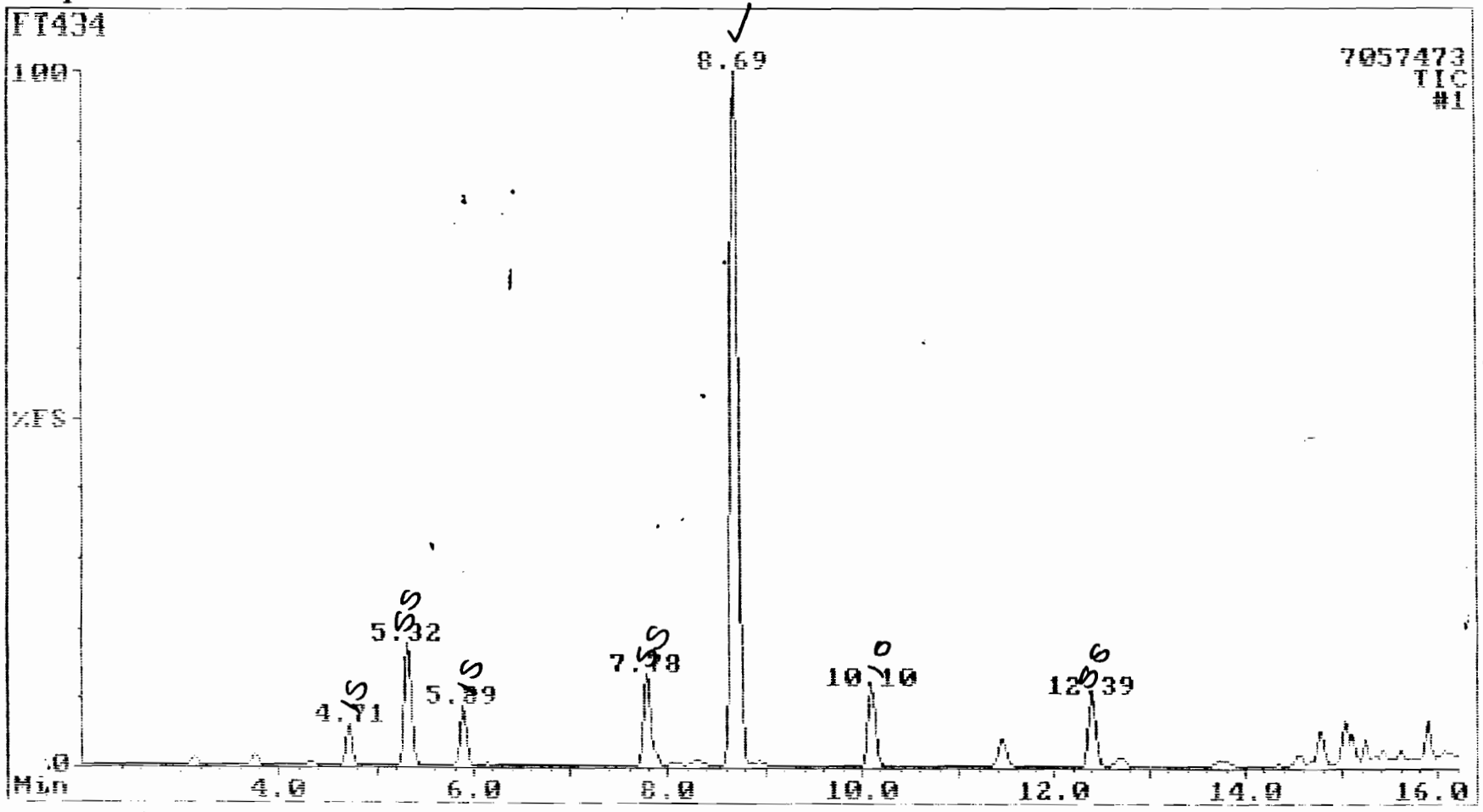
Reviewed by TW Date 10/3/96

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

02-Oct-96 18:35 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-A1-118 T 140-63-6A TLI#39034 Instrument F



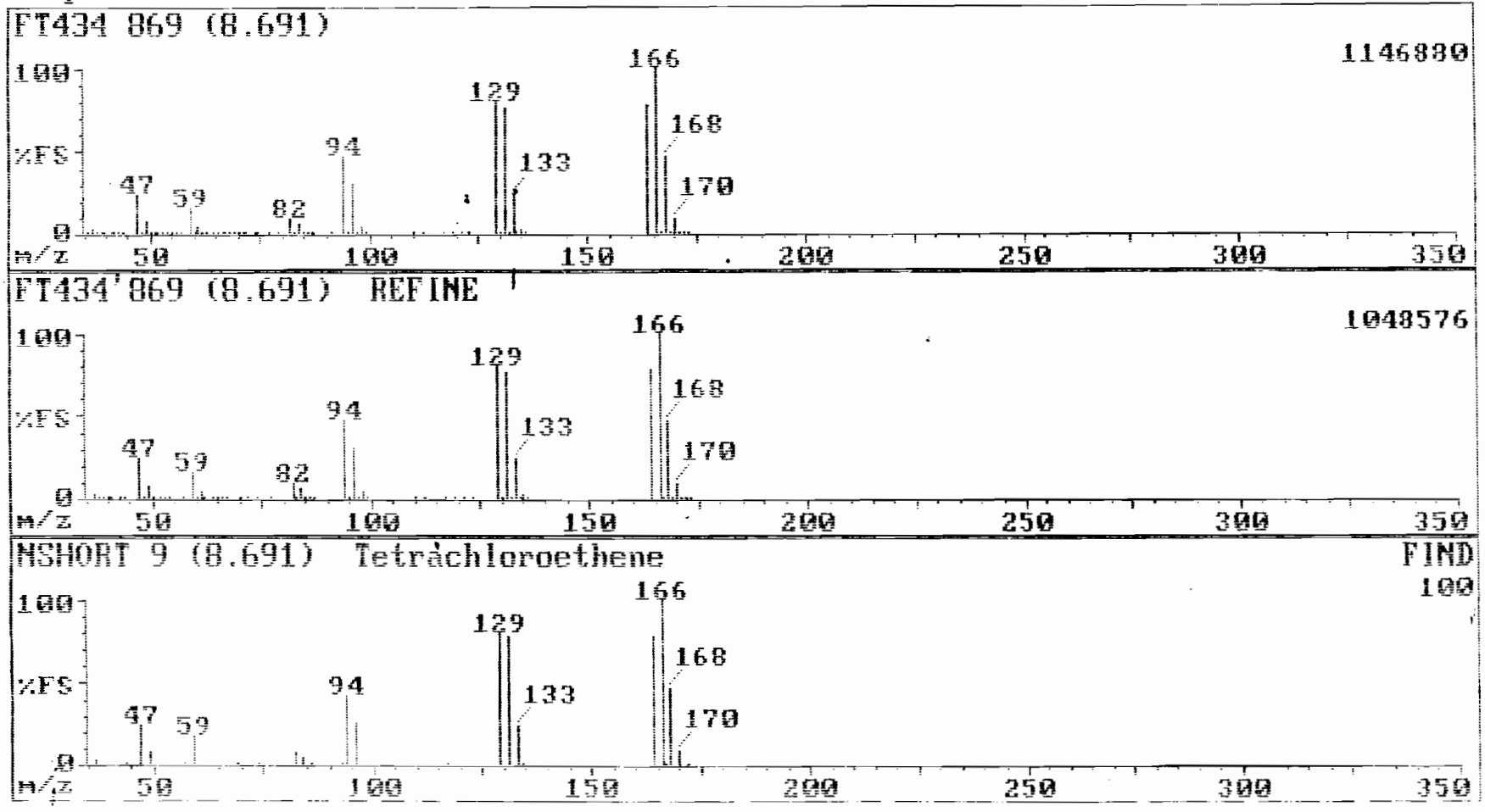
Date: 10-3-96

QUAN DB : FT434 LAB-BASE QUAN 02-Oct-96 18:57

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	94	99	-1	353776	bv	4.711	128	Bromochloromethane
2	100	~~95~~	99	0	1606720	bv	5.871	114	1,4-Difluorobenzene
3	100	97	98	-2	2020605	bv	10.101	117	Chlorobenzene-d5
4	72	32	83	0	798200	bv	5.321	65	1,2-Dichloroethane-d4
5	100	83	85	0	2467428	bv	5.311	84	Benzene-d6
6	100	93	92	-1	2524408	bv	7.781	98	Toluene-d8
~~7~~	~~93~~	~~12~~	~~29~~	~~20~~	~~25252~~	~~bv~~	~~12.071~~	98	o-Xylene-d10 (RR)
8	100	89	95	0	1276787	bv	12.391	95	4-Bromofluorobenzene
9	100	93	99	0	7062464	bv	8.691	164	Tetrachloroethene

...ew: TW
Date: 10-3-96

02-Oct-96 18:35 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LIEV-11-AI-118 T 140-63-6A TLI#39034 Instrument F



RADIAN CORPORATION

Project Number: 39034
Sample File: FT427

Method 8240A VOST
Sample ID: CL LTEV-11-AI-119 TC

Client Project: VOLATILE ANAL.
TLI ID: 140-63-6B

Date Received: 09/28/96
Date Analyzed : 10/02/96

Response File: ICALF919

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Chlorobenzene-d_5		IS 3	10.09		
Tetrachloroethene		U		0.001	0.05

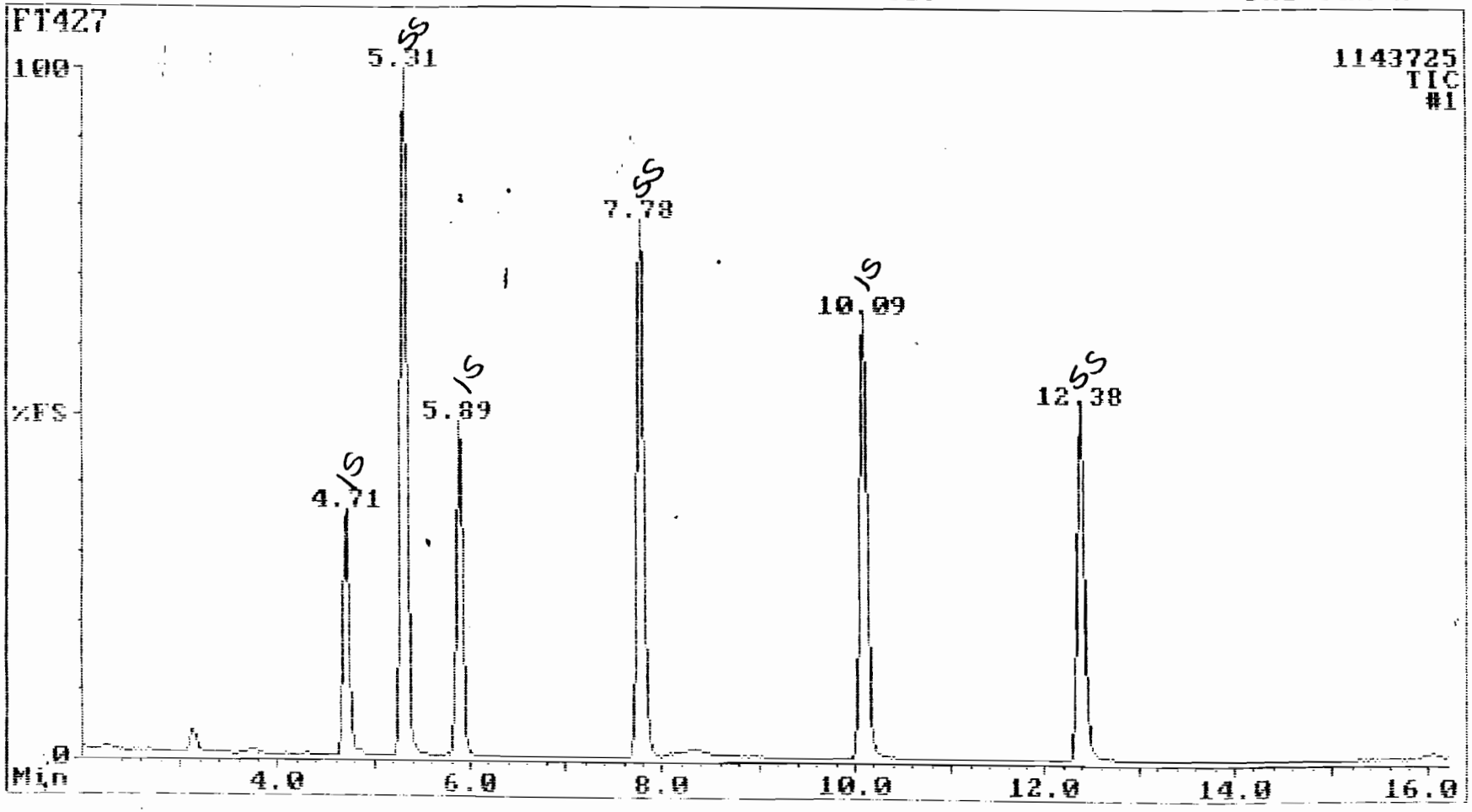
Surrogate Summary	Amount (ug)		RT	IS Ref	%REC
Toluene-d_8	0.243		7.78	3	97

Reviewed by TW Date 10/3/96

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

02-Oct-96 16:02 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-119 T/C 140-63-6B TLI#39034 Instrument F



QUAN DB : FT427 LAB-BASE QUAN 02-Oct-96 16:25

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	95	99	-1	328948	bv	4.711	128	Bromochloromethane
2	100	96	99	0	1425312	bv	5.891	114	1,4-Difluorobenzene
3	100	94	95	1	1726899	bv	10.091	117	Chlorobenzene-d5
4	74	34	85	-1	785992	bv	5.311	65	1,2-Dichloroethane-d4
5	100	79	81	0	2384416	bv	5.311	84	Benzene-d6
6	100	94	99	0	2356430	bv	7.731	98	Toluene-d8
~~7~~	~~7~~	~~2~~	~~14~~	~~50~~	~~5044~~	~~bb~~	~~12.371~~	98	o-Xylene-d10 FP TW
8	100	89	95	0	999171	bv	12.381	95	4-Bromofluorobenzene
~~9~~	~~19~~	~~13~~	~~18~~	~~-1~~	~~1660~~	~~bb~~	~~8.671~~	164	Tetrachloroethene FP TW

RADIAN CORPORATION

Project Number: 39034 | **Method 8240A VOST**
Sample File: FT435 | **Sample ID: CL LTEV-11-AI-120 T**

Client Project: VOLATILE ANAL. **Date Received: 09/28/96** **Response File: ICALF919**
TLI ID: 140-63-7A
Date Analyzed : 10/02/96

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Chlorobenzene-d_5		IS 3	10.09		
Tetrachloroethene	0.086		8.68		0.05

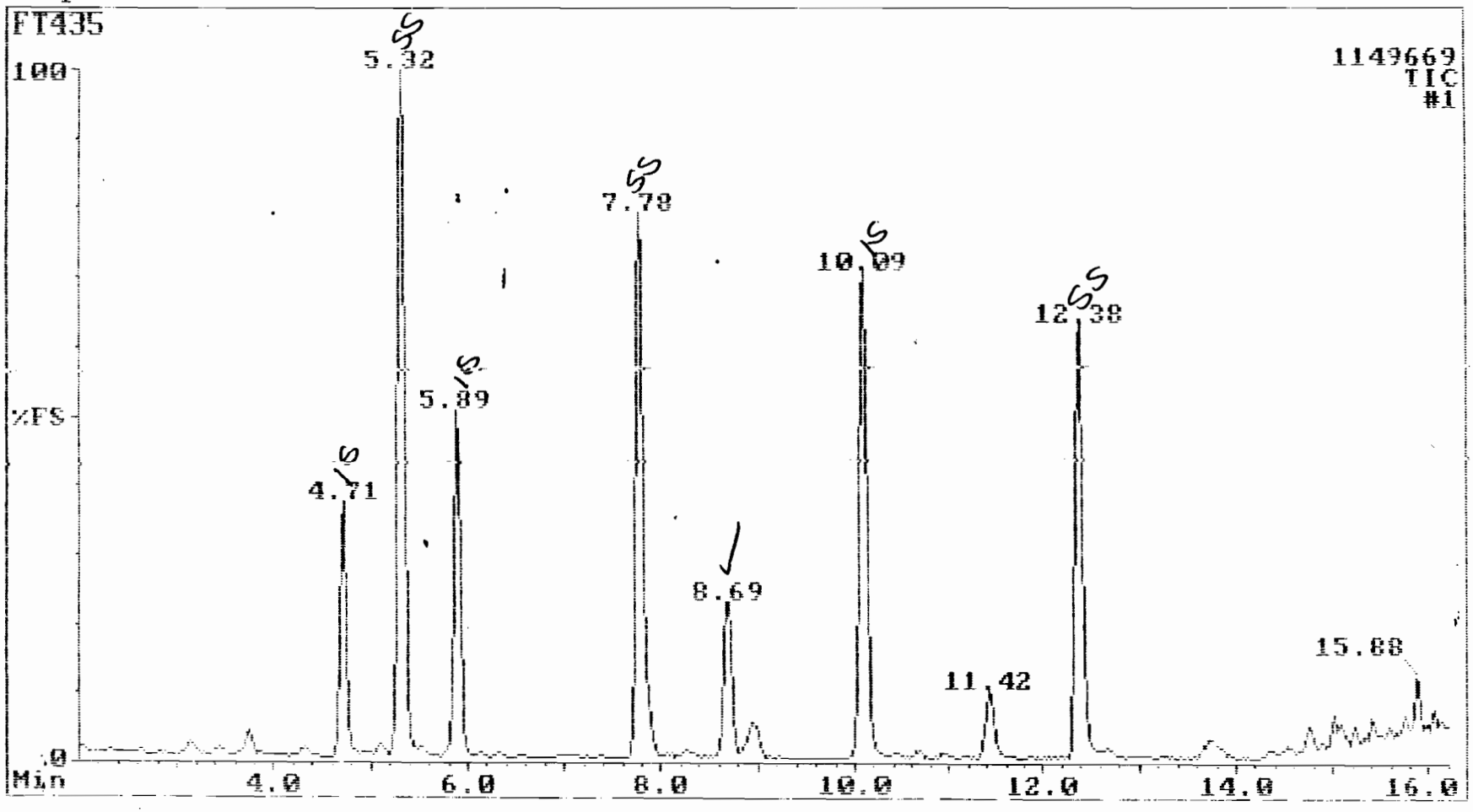
Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Toluene-d_8	0.218	7.78	3	87

Reviewed by TW Date 10/3/96

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

02-Oct-96 18:57 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-120 T 140-63-7A TLI#39034 Instrument F



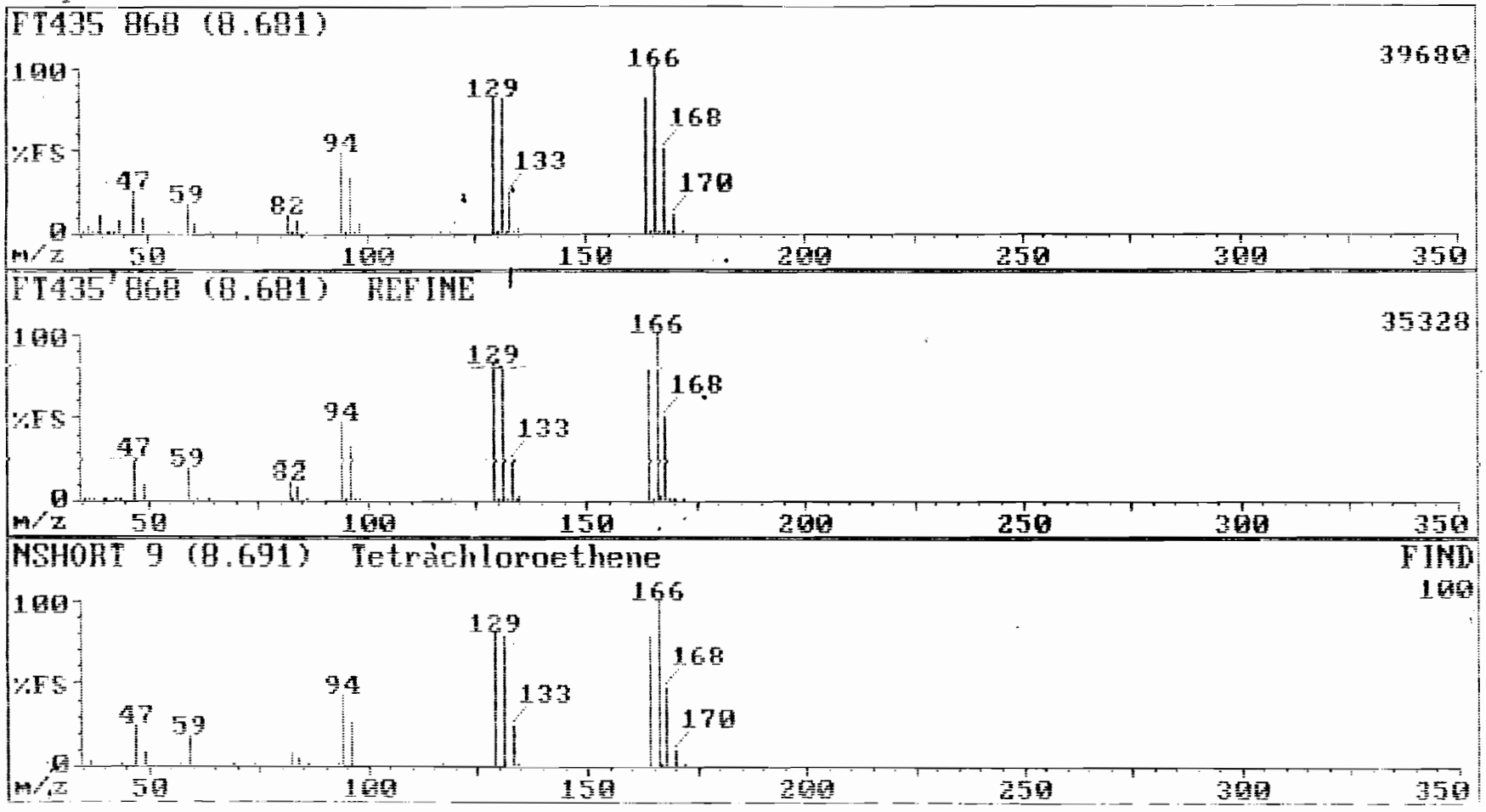
Date: 10-3-96

QUAN DB : FT435 LAB-BASE QUAN 03-Oct-96 07:28

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	94	99	-1	360124	bv	4.711	128	Bromochloromethane
2	100	96	99	0	1549668	bv	5.391	114	1,4-Difluorobenzene
3	100	96	97	1	1987120	bv	10.091	117	Chlorobenzene-d5
4	73	33	84	0	799332	bv	5.321	65	1,2-Dichloroethane-d4
5	100	81	83	0	2453156	bv	5.311	84	Benzene-d6
6	100	94	99	0	2435828	bv	7.781	98	Toluene-d8
~~7~~	~~10~~	~~6~~	~~11~~	~~16~~	~~609~~	~~bb~~	~~12.721~~	98	o-Xylene-d10
8	100	89	95	0	1251411	bv	12.381	95	4-Bromofluorobenzene
9	100	90	99	0	267964	bv	8.681	164	Tetrachloroethene

Review: TW
Date: 10-3-96

02-Oct-96 18:57 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-120 T 140-63-7A TLI#39034 Instrument F



RADIAN CORPORATION

Project Number: 39034
Sample File; FT428

Method 8240A VOST
Sample ID: CL LTEV-11-AI-121 TC

Client Project: VOLATILE ANAL. **Date Received: 09/28/96** **Response File: ICALF919**
TLI ID: 140-63-7B

Date Analyzed : 10/02/96

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Chlorobenzene-d_5		IS 3	10.09		
Tetrachloroethene		U		0.001	0.05

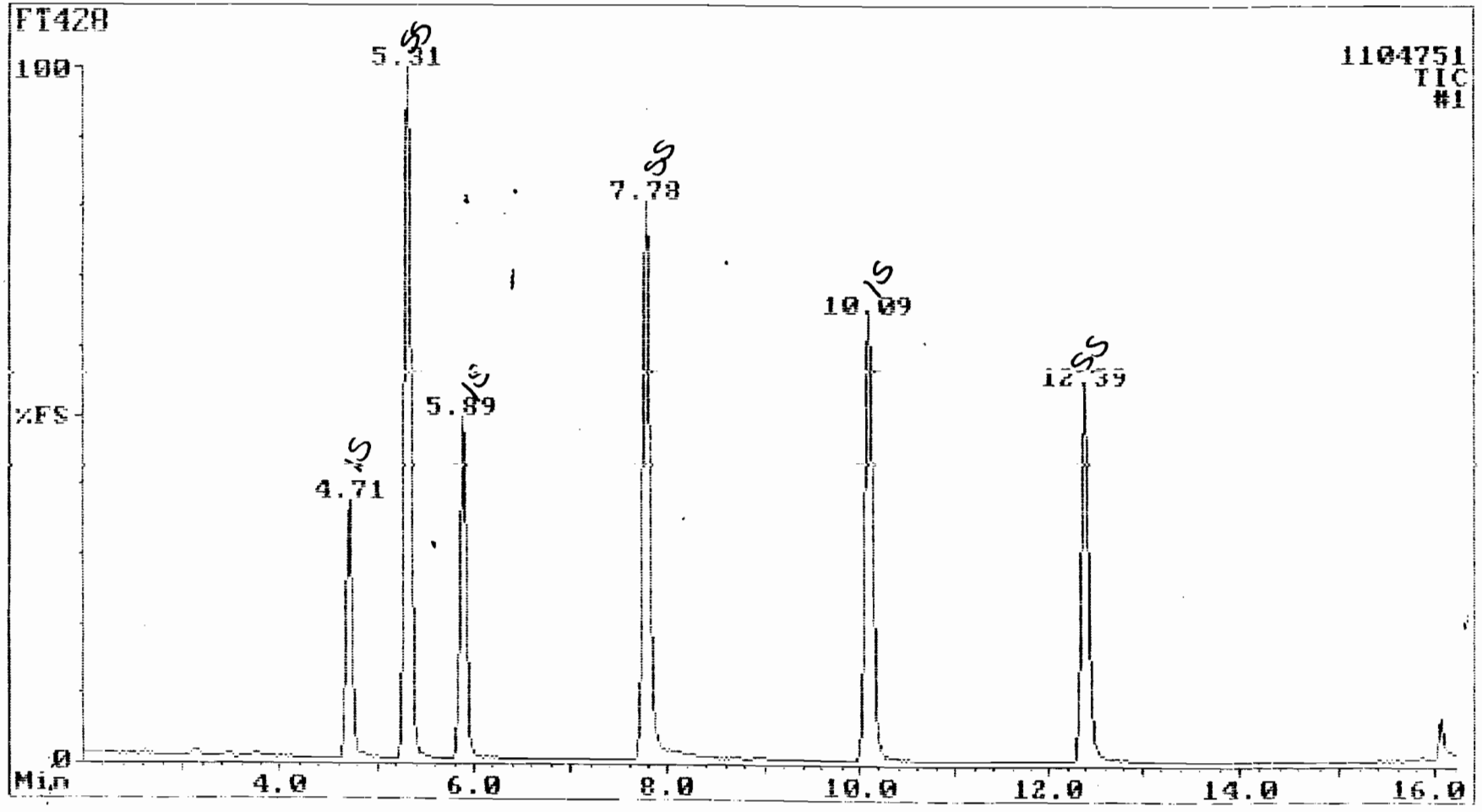
Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Toluene-d_8	0.238	7.78	3	95

Reviewed by TW Date 10/3/96

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

02-Oct-96 16:24 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: CL LTEV-11-AI-121 T/C 140-63-7B TLI#39034 Instrument F



Date Reviewed: TLD
Date: 10-3-96

QUAN DB : FT428 LAB-BASE QUAN 02-Oct-96 16:47

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	94	99	-1	328052	bv	4.711	128	Bromochloromethane
2	100	96	99	0	1396464	bv	5.891	114	1,4-Difluorobenzene
3	100	96	96	1	1731352	bv	10.091	117	Chlorobenzene-d5
4	74	34	85	0	765680	bv	5.321	65	1,2-Dichloroethane-d4
5	100	79	81	0	2358252	bv	5.311	84	Benzene-d6
6	100	94	99	0	2308546	bv	7.781	98	Toluene-d8
~~7~~	~~7~~	~~2~~	~~14~~	~~-48~~	~~368~~	~~bk~~	~~12.401~~	98	o-Xylene-d10
8	100	88	94	1	998816	bv	12.391	95	4-Bromofluorobenzene
~~9~~	~~35~~	~~23~~	~~33~~	~~0~~	~~2160~~	~~bk~~	~~8.681~~	164	Tetrachloroethene

FP TW

FP TW

Data Review: TW
Date: 10 - 3 - 96

RADIAN CORPORATION

Project Number: 39034
Sample File: FT421

Method 8240A VOST
Sample ID: VOSTBLK T/TC 10029€

Client Project: VOLATILE ANAL.
TLI ID: VOSTBLKT/TC100296

Date Received: / /
Date Analyzed : 10/02/96

Response File: ICALF919

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Chlorobenzene-d_5		IS 3	10.10		
Tetrachloroethene		U		0.001	0.05

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Toluene-d_8	0.244	7.78	3	98

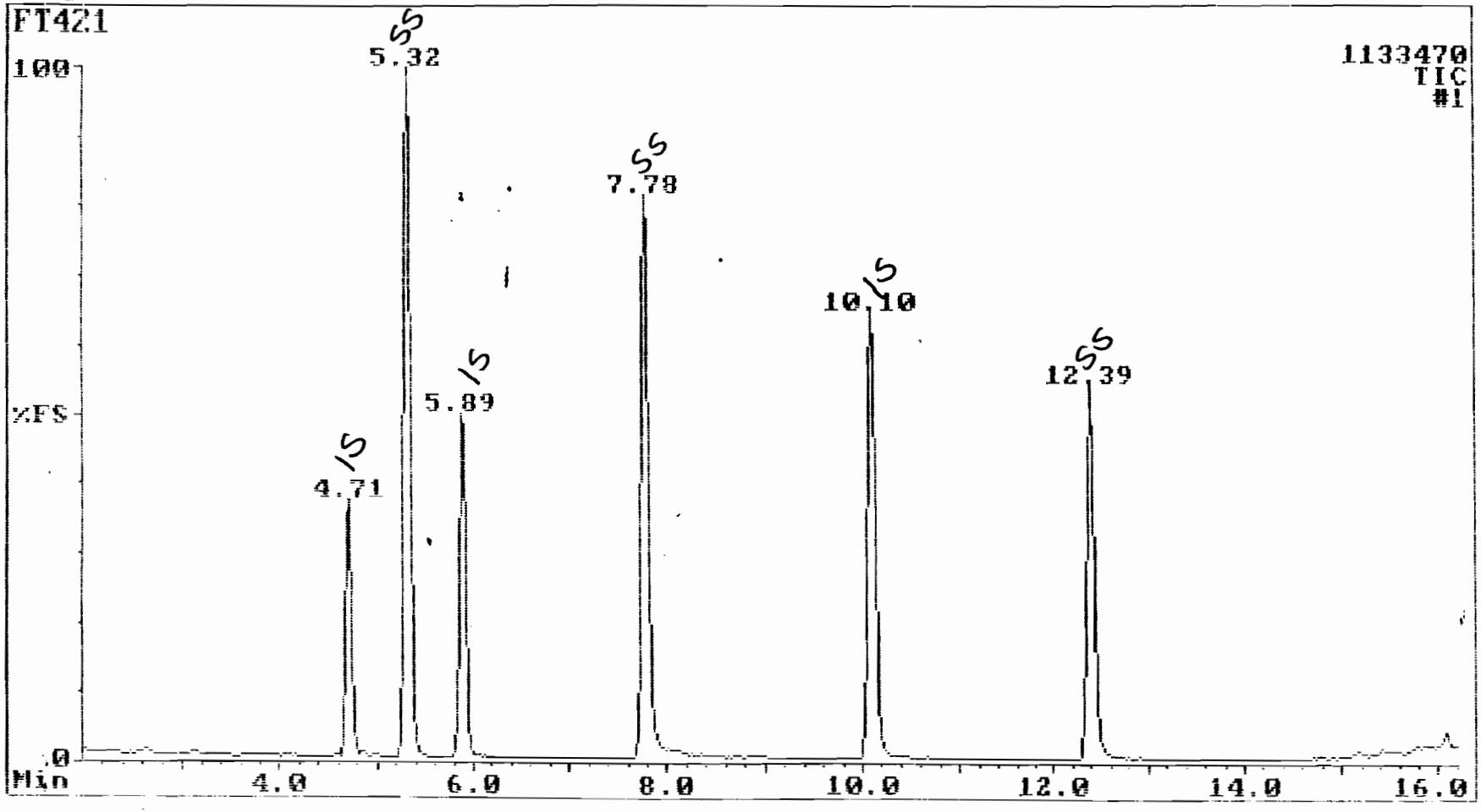
Reviewed by TW Date: 10/3/96

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

02-Oct-96 13:39 Triangle Laboratories of RTP, Inc. (919) 544-5729
Sample: VOSTBLK T/TC Instrument F



Data Review: TW
Date: 10-3-96

QUAN DB : FT421 LAB-BASE QUAN 02-Oct-96 14:05

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	94	99	-1	327535	bb	4.711	128	Bromochloromethane
2	100	96	99	0	1438532	bv	5.891	114	1,4-Difluorobenzene
3	100	96	97	2	1730313	bv	10.101	117	Chlorobenzene-d5
4	75	36	85	0	765500	bv	5.321	65	1,2-Dichloroethane-d4
5	100	80	82	0	2363463	bv	5.311	84	Benzene-d6
6	100	94	99	-1	2369716	bv	7.781	98	Toluene-d8
~~7~~	~~4~~	~~5~~	~~5~~	~~64~~	~~318~~	~~bb~~	~~13.491~~	98	o-Xylene-d10 (FP) TW
8	100	89	95	0	1016226	bv	12.391	95	4-Bromofluorobenzene
9	0	0	0	0	0		0.000	164	Tetrachloroethene

Data Review: TW
Date: 10-3-96

Triangle Laboratories of RTP, Inc.
Continuing Calibration Curve

CCAL File: FT408 Date of Analysis :10/02/96 Analyte List: 8240A
ICAL File: ICALF919
VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Chlorobenzene-d5	I			
Tetrachloroethene		0.405	0.390	-3.8
Surrogate	**Flag**	**RF0.25**	**RFMEAN**	**%D**
Toluene-d8	S	1.479	1.403	-5.4

Approved by: TW Date 10/3/96

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

Triangle Laboratories of RTP, Inc.
Initial Calibration Curve

ICAL File: ICALF919	Date of Analysis :09/19/96	Analyte List: 8240A
RF0.10 FT249	RF0.25 FT244	RF0.50 FT245
RF0.75 FT246	RF1.00 FT247	

VOST Calibration.

Analyte	Flag	RF0.10	RF0.25	RF0.50	RF0.75	RF1.00	MEAN	%RSD
Chlorobenzene-d5	I							
Tetrachloroethene		0.404	0.387	0.412	0.380	0.366	0.390	4.7

Surrogate	Flag	RF0.10	RF0.25	RF0.50	RF0.75	RF1.00	Mean	%RSD
Toluene-d8	S	1.361	1.450	1.459	1.380	1.363	1.403	3.4

Approved by: TW Date 10/3/96

*- Fails QC Criteria for %RSD; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

Air Quality Laboratory, Inc.

CLIENT: Radian International
PROJECT: Claremont
PROJECT ID: CL-LTEV-11-AI
AQL #: 96055
DATE OF REPORT: October 4, 1996
DATE RECEIVED: September 28,1996

ANALYSIS OF TENAX & TENAX-CHARCOAL CARTRIDGE PAIRS FOR TETRACHLOROETHENE BY GC-MS.

The set of samples consisted of three pairs of Tenax/Tenax-Charcoal cartridges delivered to Air Quality Laboratory, Inc. via FED EX.

The samples were analyzed using SW-846 Method 5041 as a guidance document.

Summary points of the results are:

1. All samples arrived in good condition.

2. The samples were analyzed by GC-MS, utilizing a 0.32mm X 60 m DB-1 capillary column.

3. The Field blank samples were analyzed as a pair.

4. The remaining cartridges were analyzed separately to verify the presence or absence of breakthrough during sampling.

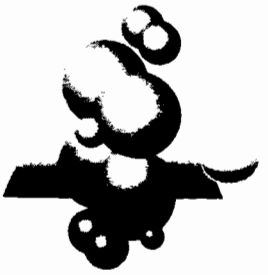
5. The sample cartridge 96055-3, Radian CL-LTEV-11-AI-124/3CF Outlet exceeded the calibration range of the GC-MS. This is an estimated value.

Thomas A. Buedel
Laboratory Manager
Air Quality Laboratory

10-4-96
Date

P.O.Box 12104 Research Triangle Park, NC 27709 Fax (919) 544-5600 Phone (919) 361-0338

Air Quality Laboratory, Inc.



REPORT DATE 10/4/96
CLIENT Radian International, LLC
CLIENT PROJECT ID Claremont
CUSTOMER I.D. CL-LTEV-11-AI
DATE RECEIVED 9/28/96
DATE OF ANALYSIS 10/4/96
DATA FILE GC-MS 960334
AQL I.D. 96055

Sample ID	Tetrachloroethene Amount (Total Ng)
96055-1 CL-LTEV-11-AI-122 3BF - OUTLET	419
96055-2 CL-LTEV-11-AI-123 3BB - OUTLET	<5NG
96055-3 CL-LTEV-11-AI-124 3CF - OUTLET	1740
96055-4 CL-LTEV-11-AI-125 3CB - OUTLET	<5NG
96055-5 & 6 CL-LTEV-11-AI-126 Field Blank F - OUTLET CL-LTEV-11-AI-127 Field Blank B - OUTLET	<5NG
Lab Blank	7

P.O.Box 12104 Research Triangle Park, NC 27709 Fax (919) 544-5600 Phone (919) 361-0338

CALIBRATION CURVE DATA
PROJECT: 96055
COMPOUND: TETRACHLOROETHENE

Air Quality Laboratory, Inc.

	Standard Area Counts	Standard Amount (Nanograms)	Internal Standard Area Counts	Internal Standard Amount (Nanograms)	Response Factor
1	13864	200	57647	200	0.2405
2	24104	350	51472	200	0.2676
3	7138	100	54814	200	0.2604
4	38654	500	66258	200	0.2334
5	2893	50	48280	200	0.2397

Average response Factor = 0.2483
Standard Deviation = 0.0148
Per Cent Relative Std Dev. = 6.0

Internal Standard = d8-Toluene, ion 98.

96055 - SAMPLE CALCULATIONS

Sample ID	Amount (Total Ng)	Tetrachloroethene Area Units	Internal Standard Area Units	File
96055-1 CL-LTEV-11-AI-122 3BF - OUTLET	419	28962	55710	960338
96055-2 CL-LTEV-11-AI-123 3BB - OUTLET	<5NG	0	78006	960336
96055-3 CL-LTEV-11-AI-124 3CF - OUTLET	1740	148357	68693	960339
96055-4 CL-LTEV-11-AI-125 3CB - OUTLET	<5NG	0	75465	960337
96055-5 & 6 CL-LTEV-11-AI-126 Field Blank F - OUTLET CL-LTEV-11-AI-127 Field Blank B - OUTLET	<5NG	0	75215	960335
Lab Blank	6.5	634	78299	960334

P.O.Box 12104 Research Triangle Park, NC 27709 Fax (919) 544-5600 Phone (919) 361-0338

Calculations - continued

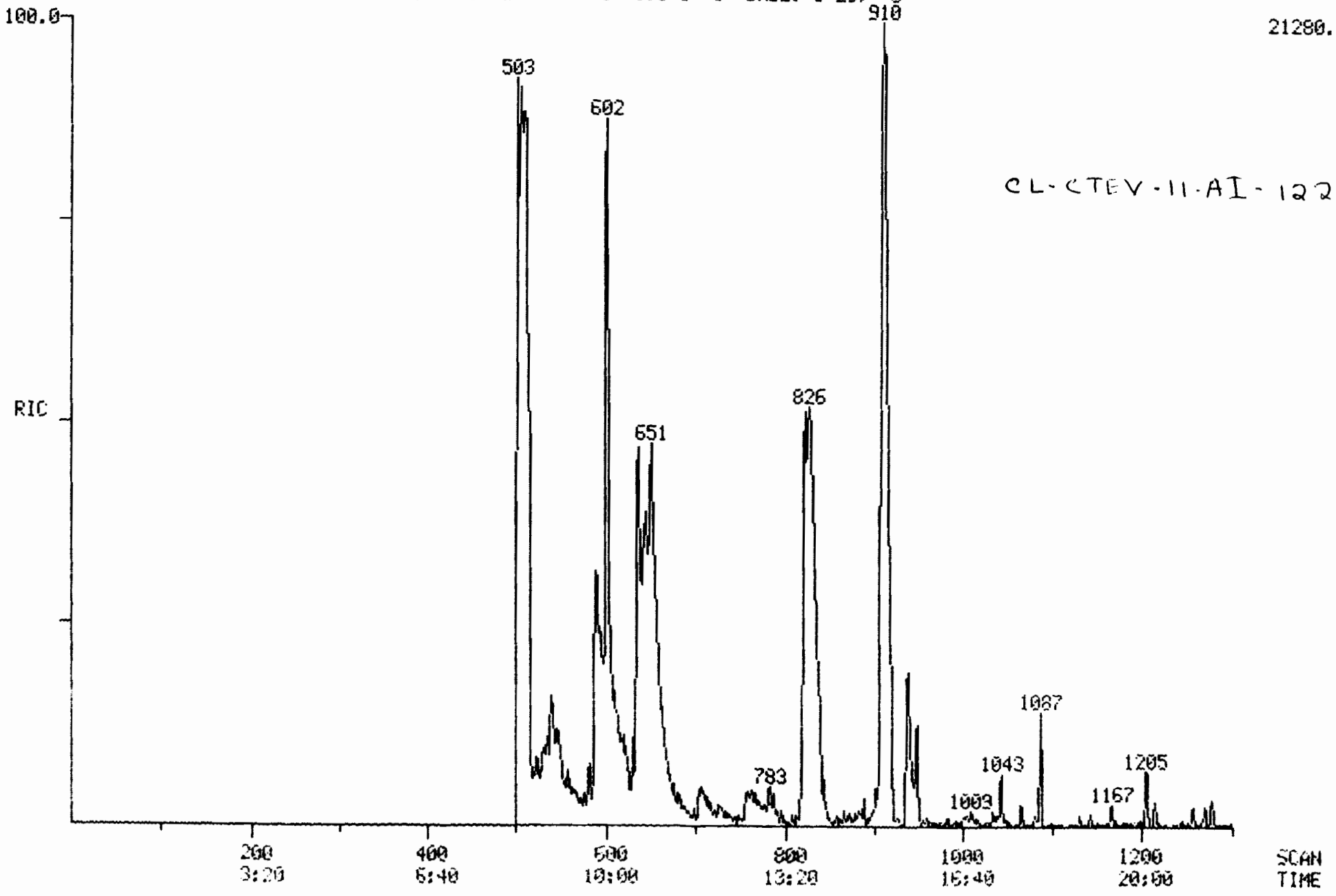
Amount Tetrachloroethene = (AMOUNTis X AREAtet) / (AREAis X RF)

Where : AMOUNTis = Amount of Internal Standard (200ng)
AREAis = Area of Internal Standard
AREAtet = Area of Tetrachloroethene
RF = Average response factor of Tetrachloroethene (0.2483)

RIC
10/04/96 12:21:00
SAMPLE: 96055-1
CONDS.: 10C(3MIN) TO 150C @ 8C/MIN, T5O 230C @ 20C/MIN
RANGE: G 1,1300 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 960338 #1
CALI: 960332 #3

SCANS 1 TO 1300

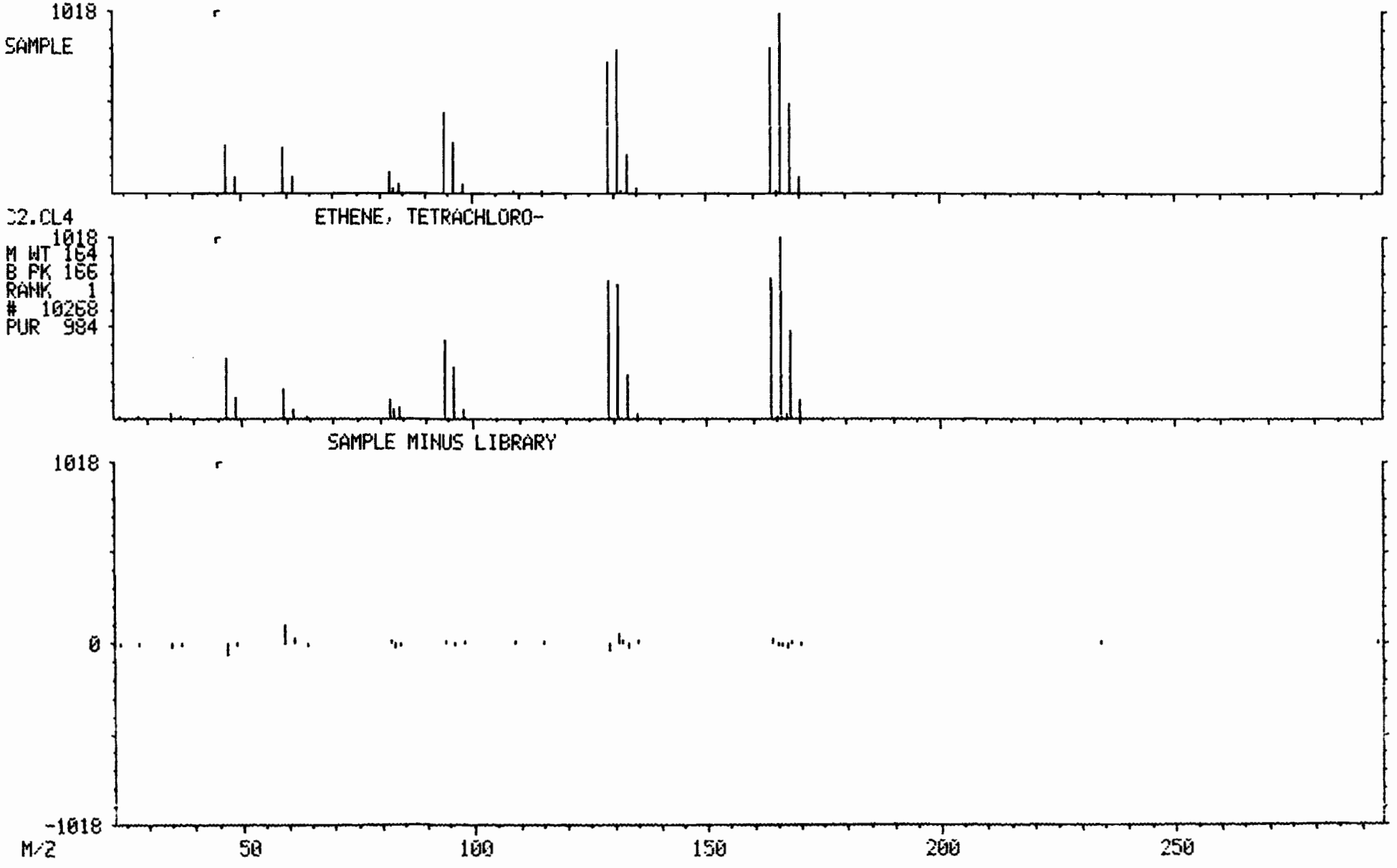


CL-CTEV-11-AI-122

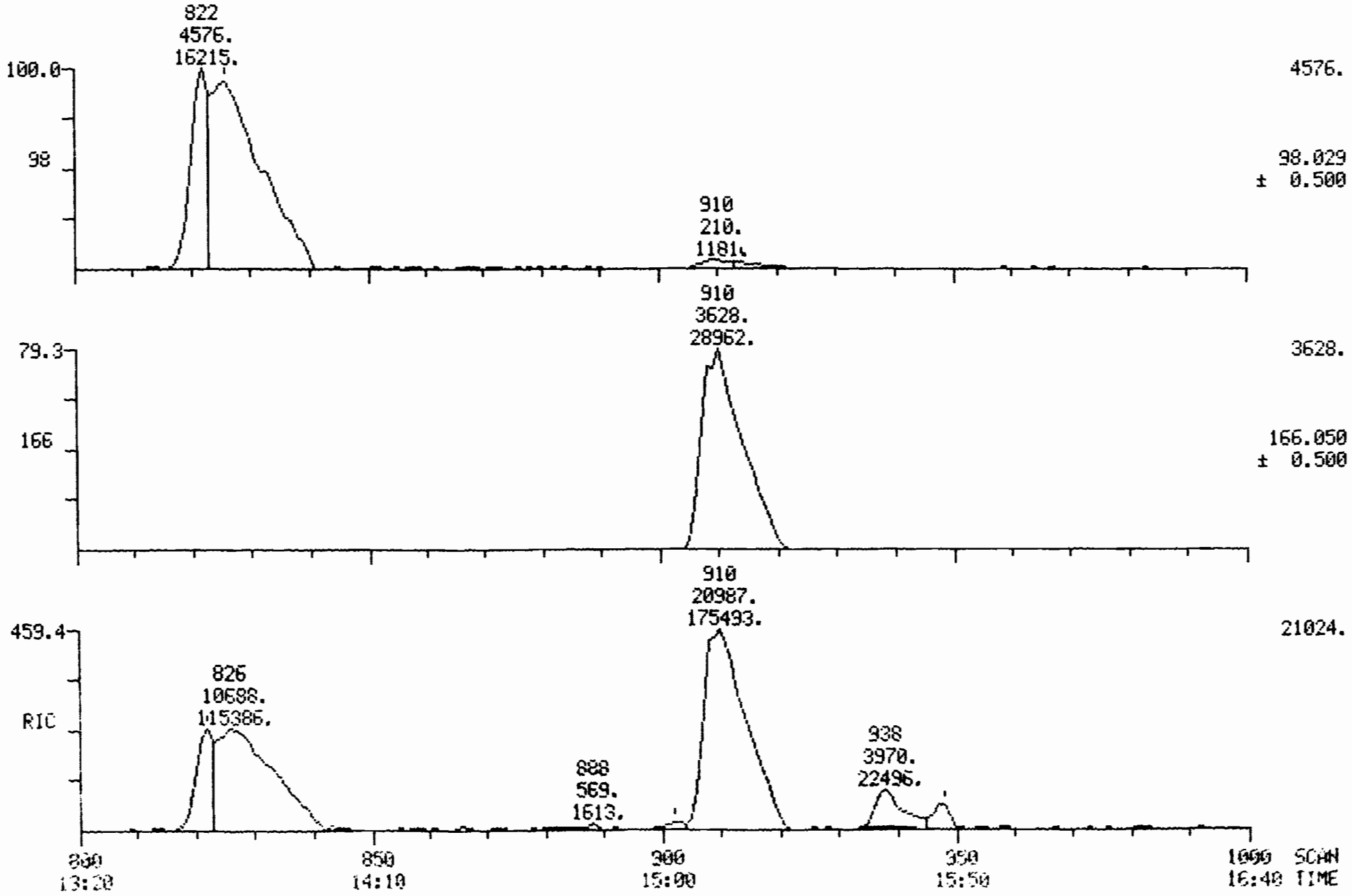
LIBRARY SEARCH
10/04/96 12:21:00 + 15:10
SAMPLE: 96055-1
CONDS.: 10C(3MIN) TO 150C @ 8C/MIN, T5O 230C @ 20C/MIN
ENHANCED (S 15B 2N 0T)

DATA: 960338 # 910
CALI: 960332 # 3

BASE M/Z: 166
RIC: 17503.



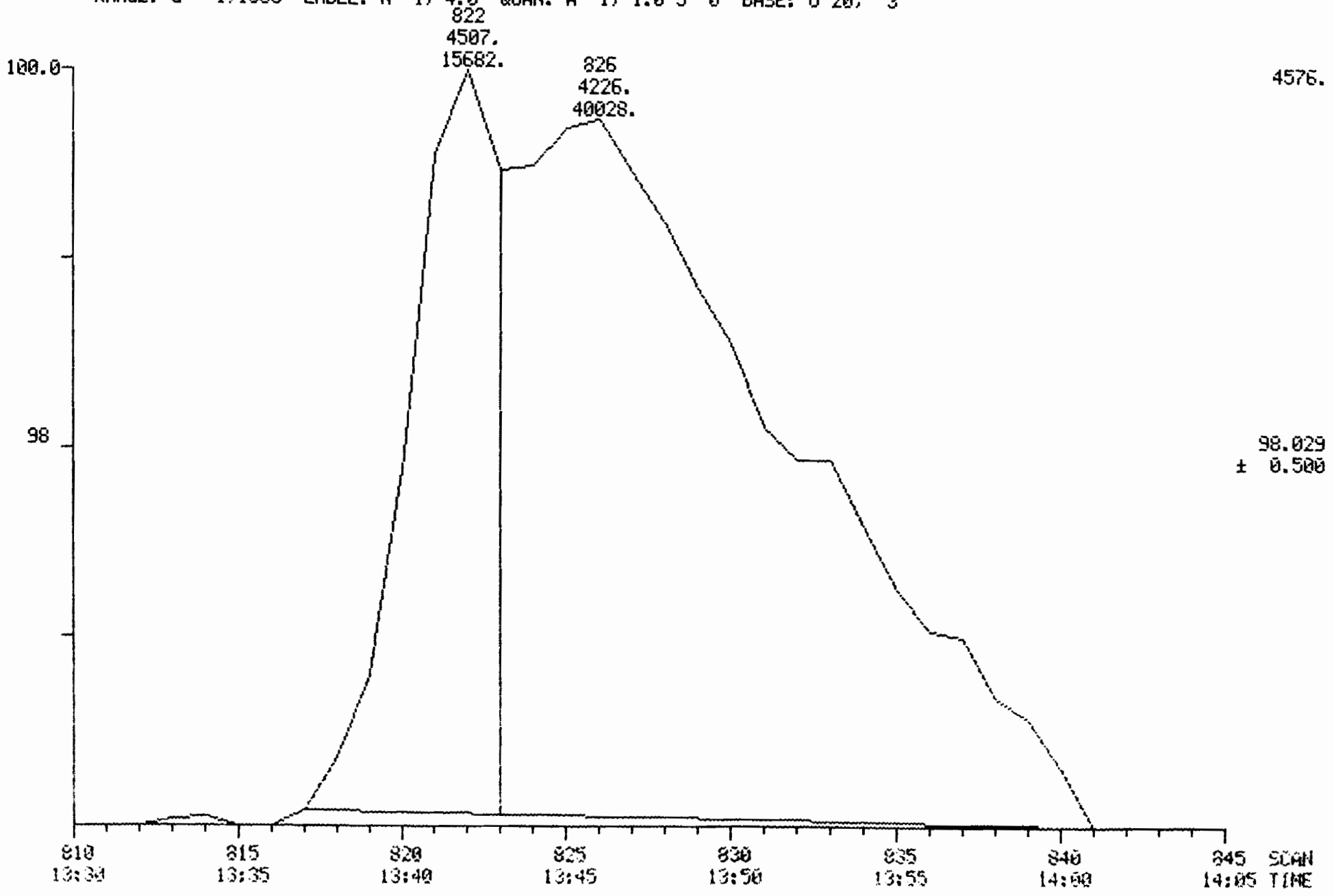
RIC+MASS CHROMATOGRAMS DATA: 960338 #1 SCANS 800 TO 1000
10/04/96 12:21:00 CALI: 960332 #3
SAMPLE: 96055-1
CONDS.: 10C(3MIN) TO 150C @ 8C/MIN, T5O 230C @ 20C/MIN
RANGE: G 1,1300 LABEL: N 1, 4.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3

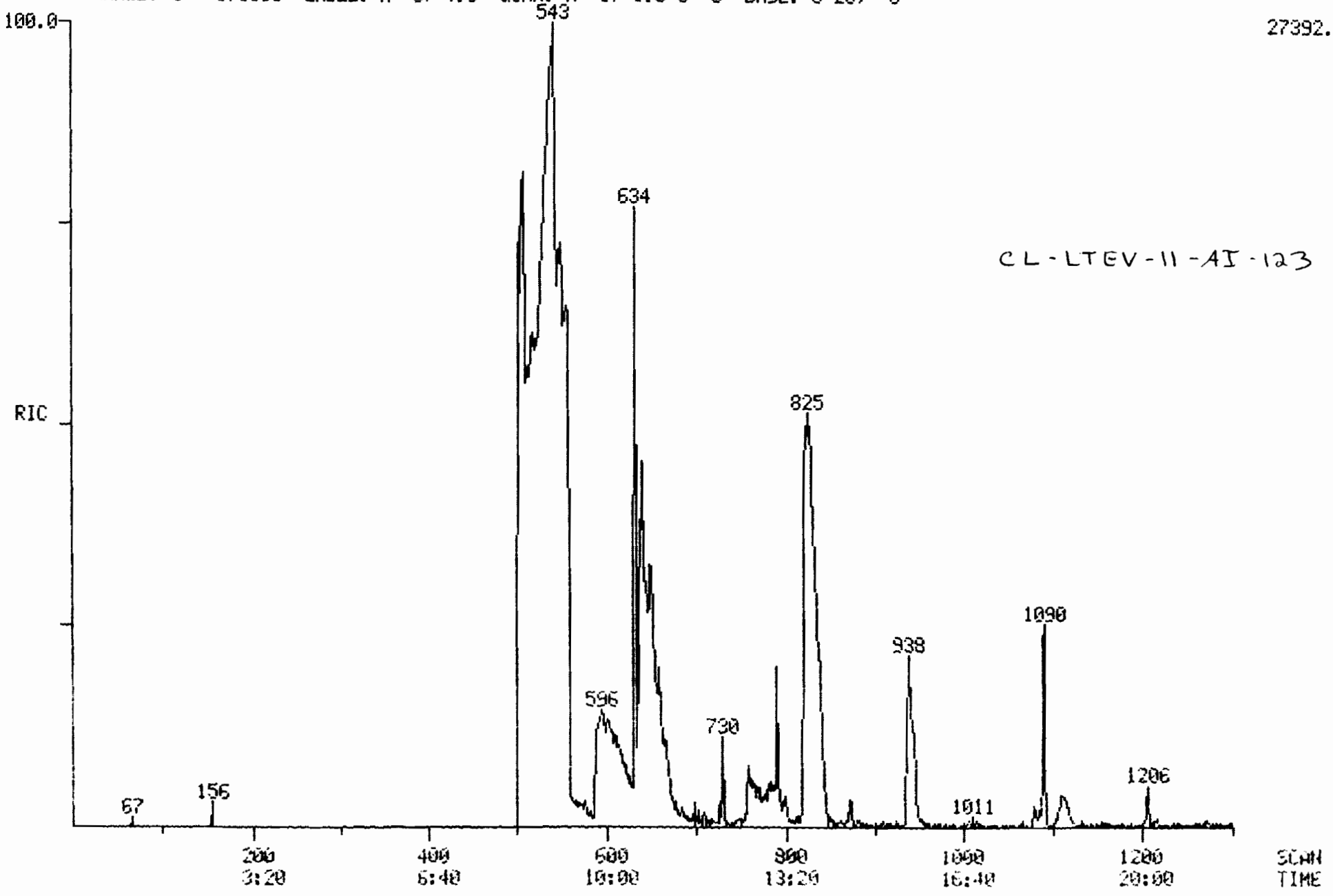


MASS CHROMATOGRAM
10/04/96 12:21:00
SAMPLE: 96055-1
CONDS.: 10C(3MIN) TO 150C @ 8C/MIN, T50 230C @ 20C/MIN
RANGE: G 1,1300 LABEL: N 1, 4.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3

DATA: 960338 #1
CALI: 960332 #3

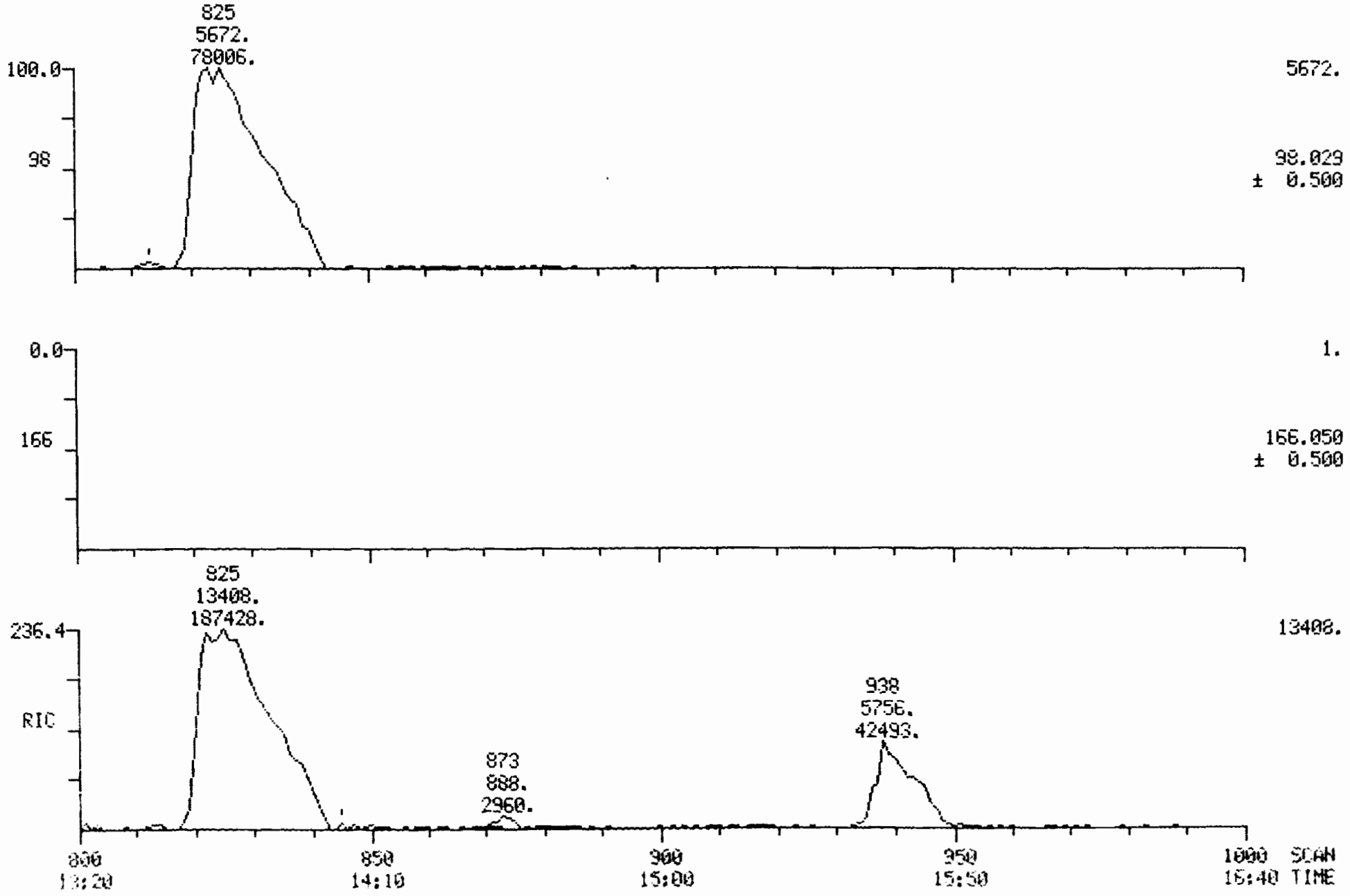
SCANS 810 TO 845





CL-LTEV-11-AI-123

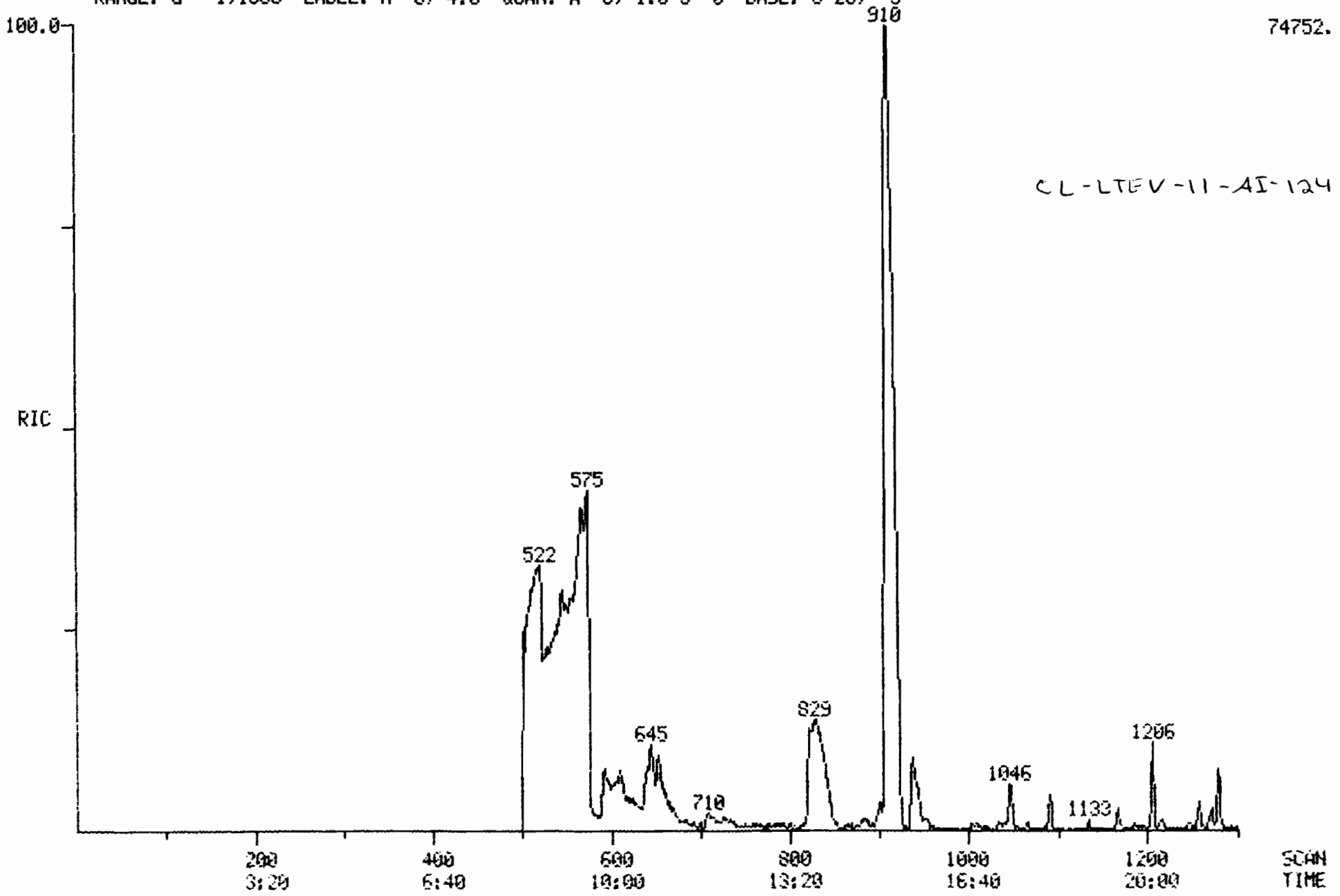
RIC+MASS CHROMATOGRAMS DATA: 960336 #1 SCANS 800 TO 1000
10/04/96 11:04:00 CALI: 960332 #3
SAMPLE: 96055-2
CONDS.: 10C(3MIN) TO 150C @ 8C/MIN, T5O 230C @ 20C/MIN
RANGE: G 1,1300 LABEL: N 1, 4.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



RIC
10/04/96 12:59:00
SAMPLE: 96055-3
CONDS.: 10C(3MIN) TO 150C @ 8C/MIN, T50 230C @ 20C/MIN
RANGE: G 1,1300 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 960339 #1
CALI: 960332 #3

SCANS 1 TO 1300

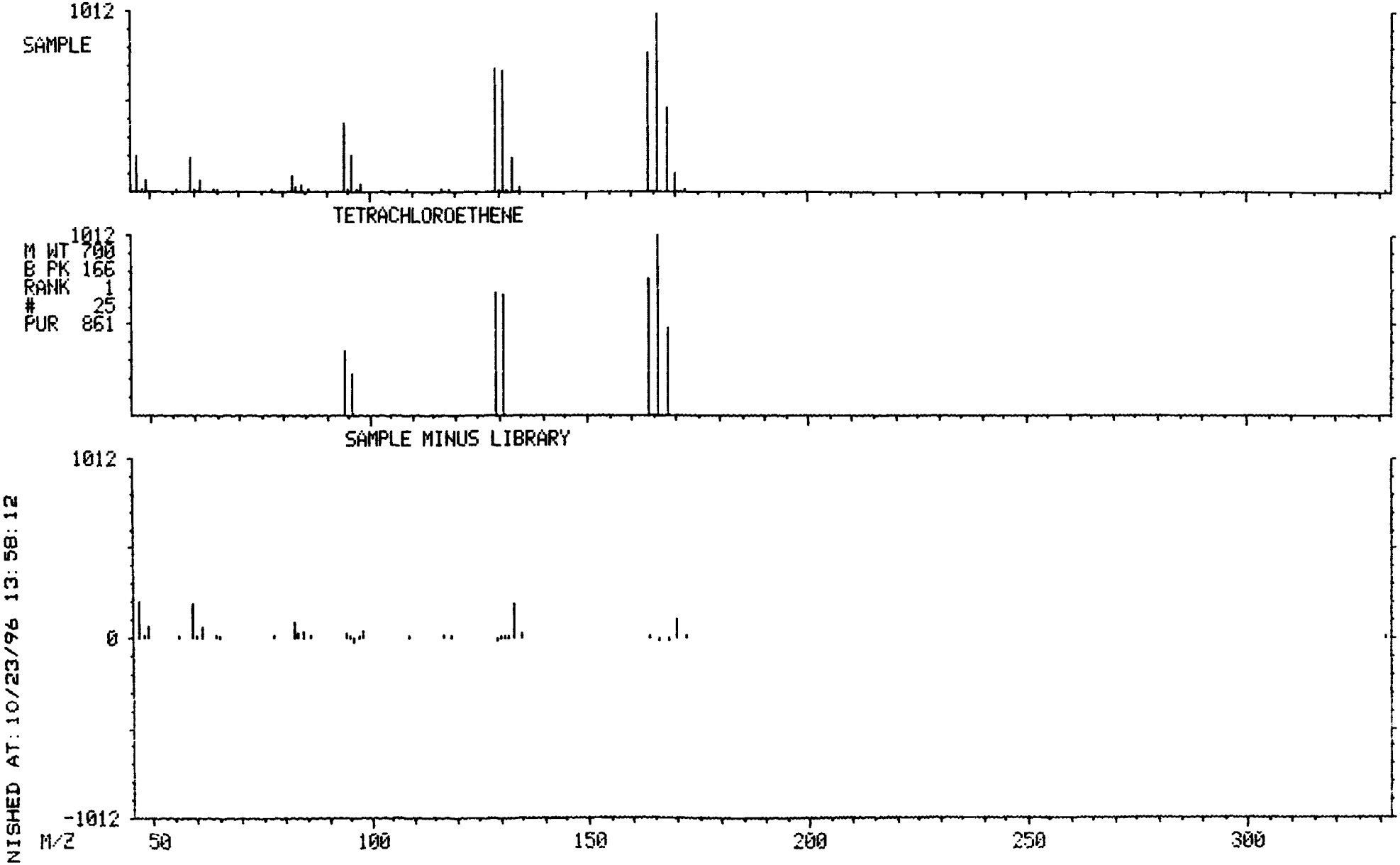


CL-LTEV-11-AI-124

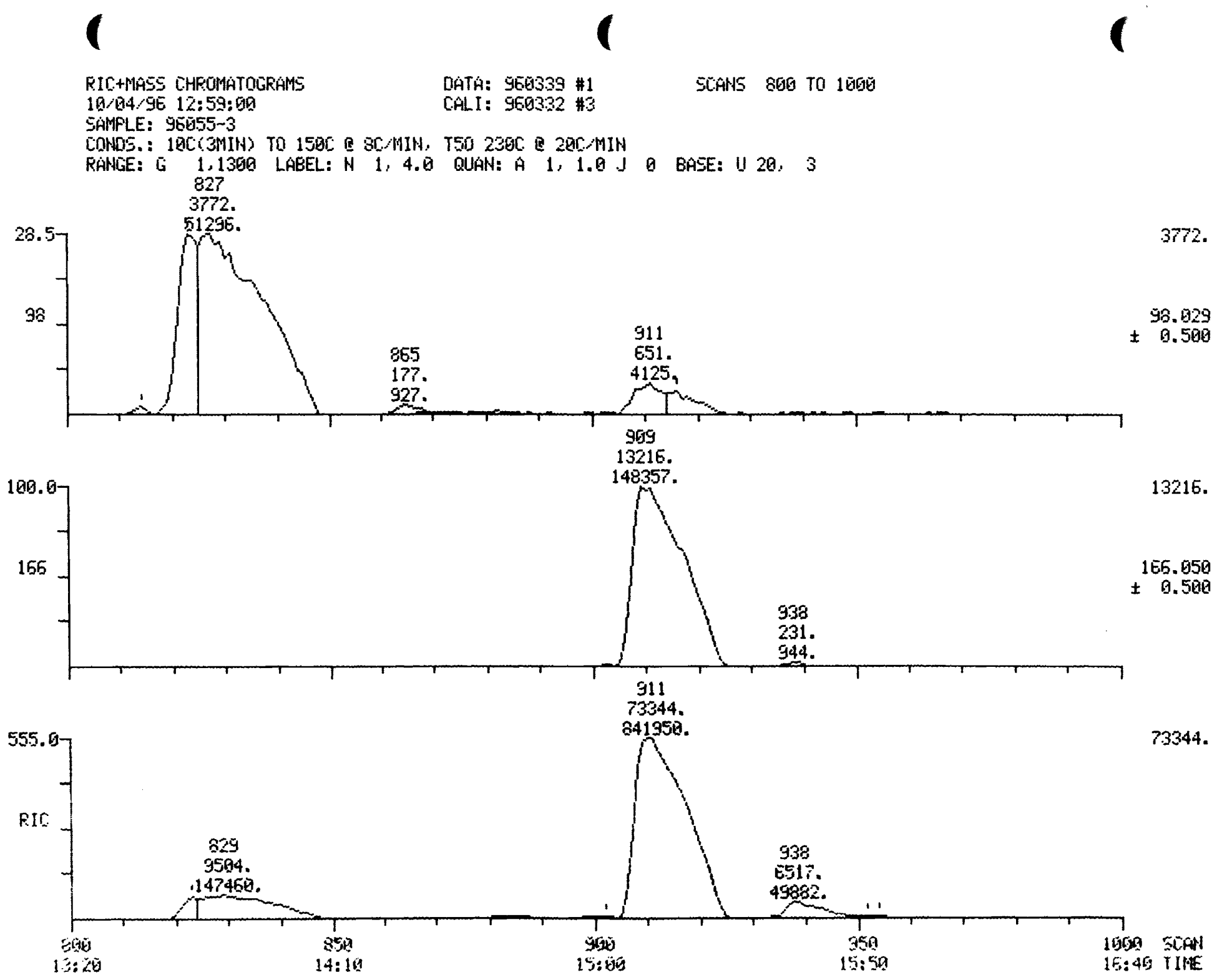
LIBRARY SEARCH
10/04/96 12:59:00 + 15:09
SAMPLE: 96055-3
CONDS.: 10C(3MIN) TO 150C @ 8C/MIN, T5O 230C @ 20C/MIN
ENHANCED (S 15B 2N 0T)

DATA: 960339 # 909
CALI: 960332 # 3

BASE M/Z: 166
RIC: 49407.



TCA FINISHED, 13 FOUND
FINISHED AT: 10/23/96 13:58:12

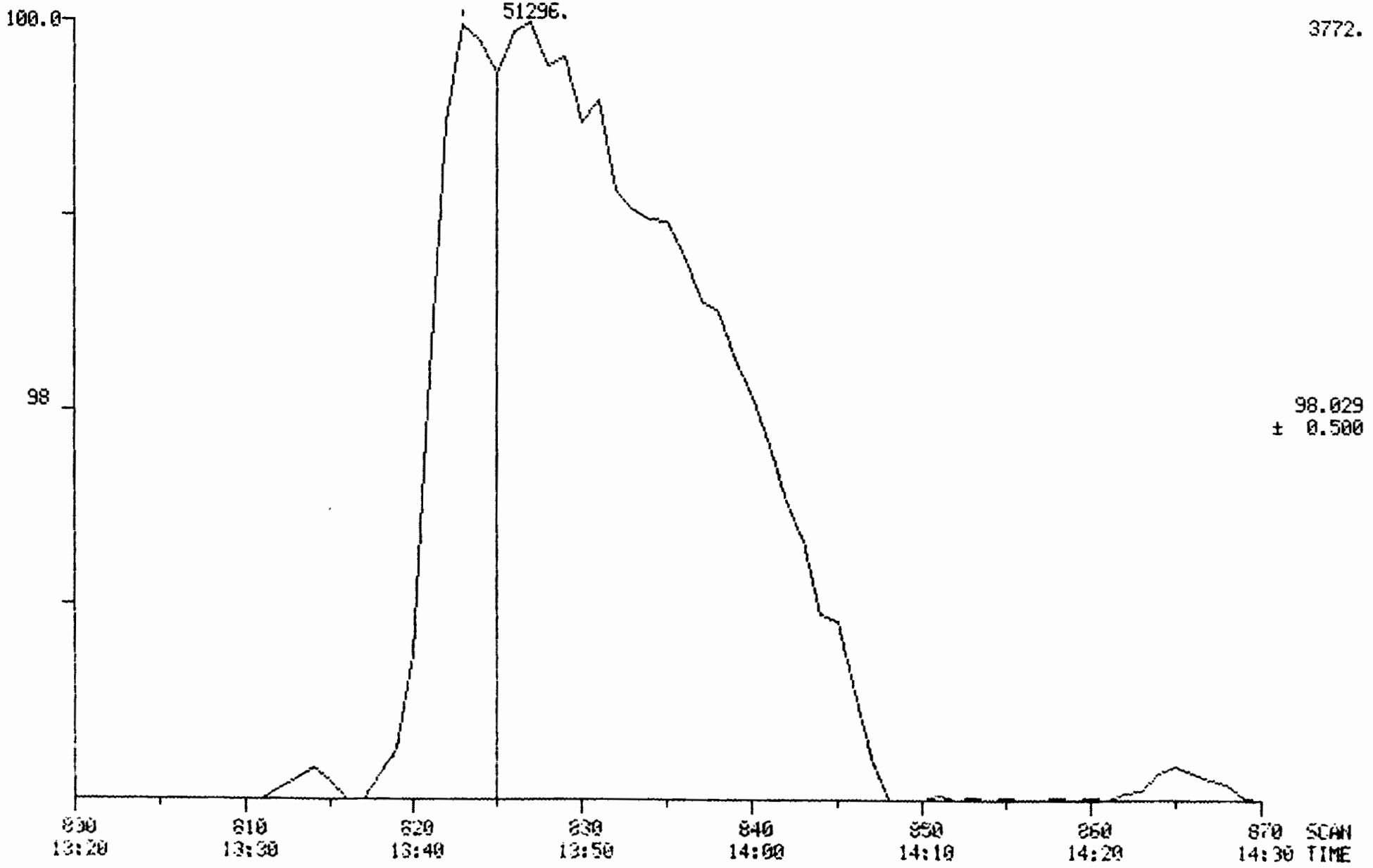

RIC+MASS CHROMATOGRAMS
DATA: 960339 #1
SCANS 800 TO 1000
10/04/96 12:59:00
CALI: 960332 #3
SAMPLE: 96055-3
CONDS.: 10C(3MIN) TO 150C @ 8C/MIN, T50 230C @ 20C/MIN
RANGE: G 1.1300 LABEL: N 1, 4.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3
827
3772.
51296.
865
177.
927.
911
651.
4125.
28.5
98
3772.
98.029
± 0.500
909
13216.
148357.
938
231.
944.
100.0
166
13216.
166.050
± 0.500
911
73344.
841950.
829
9504.
147460.
938
6517.
49882.
555.0
RIC
73344.
800
13:20
850
14:10
900
15:00
950
15:50
1000 SCAN
16:40 TIME

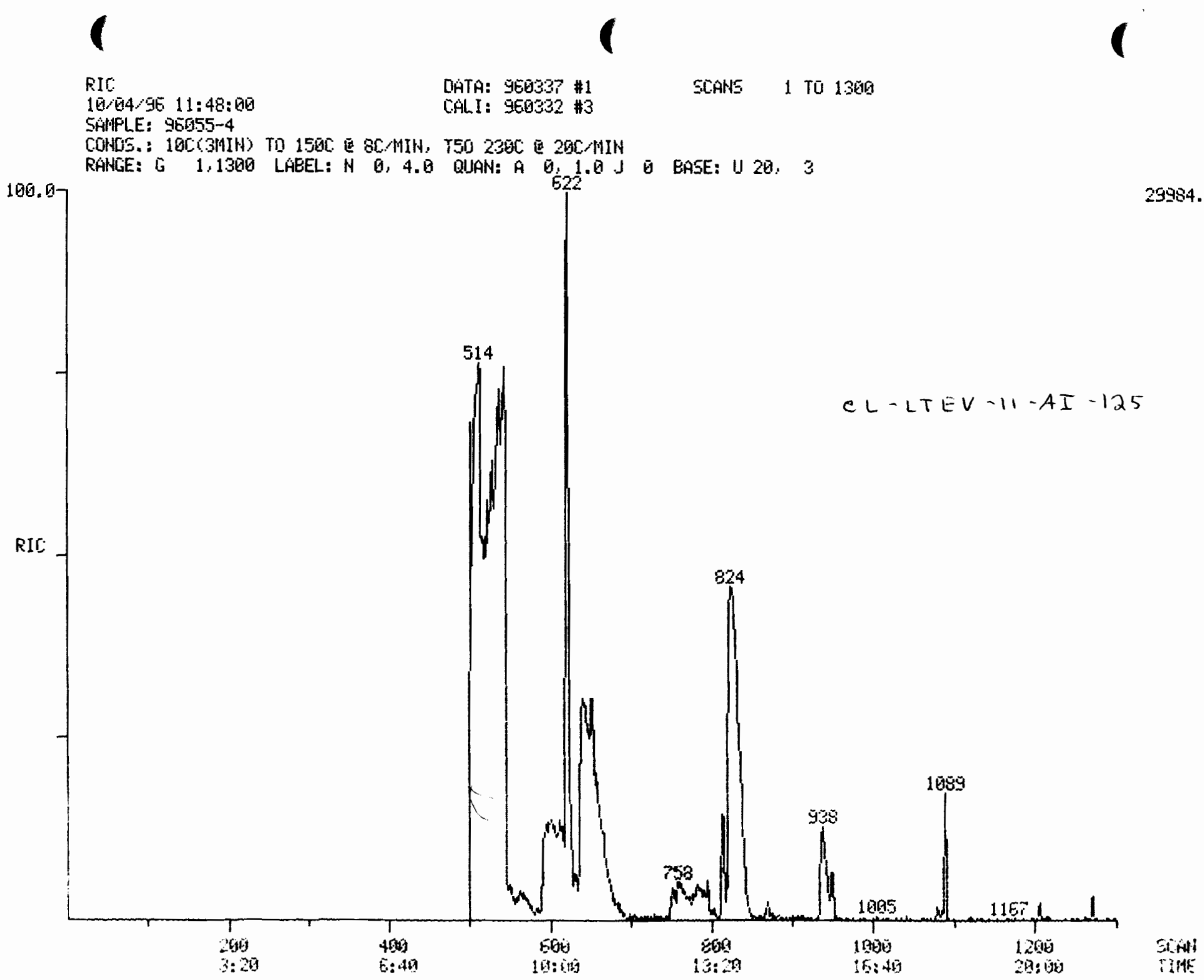
MASS CHROMATOGRAM
10/04/96 12:59:00
SAMPLE: 96055-3
CONDS.: 10C(3MIN) TO 150C @ 8C/MIN, T5O 230C @ 20C/MIN
RANGE: G 1,1300 LABEL: N 1, 4.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3

DATA: 960339 #1
CALI: 960332 #3

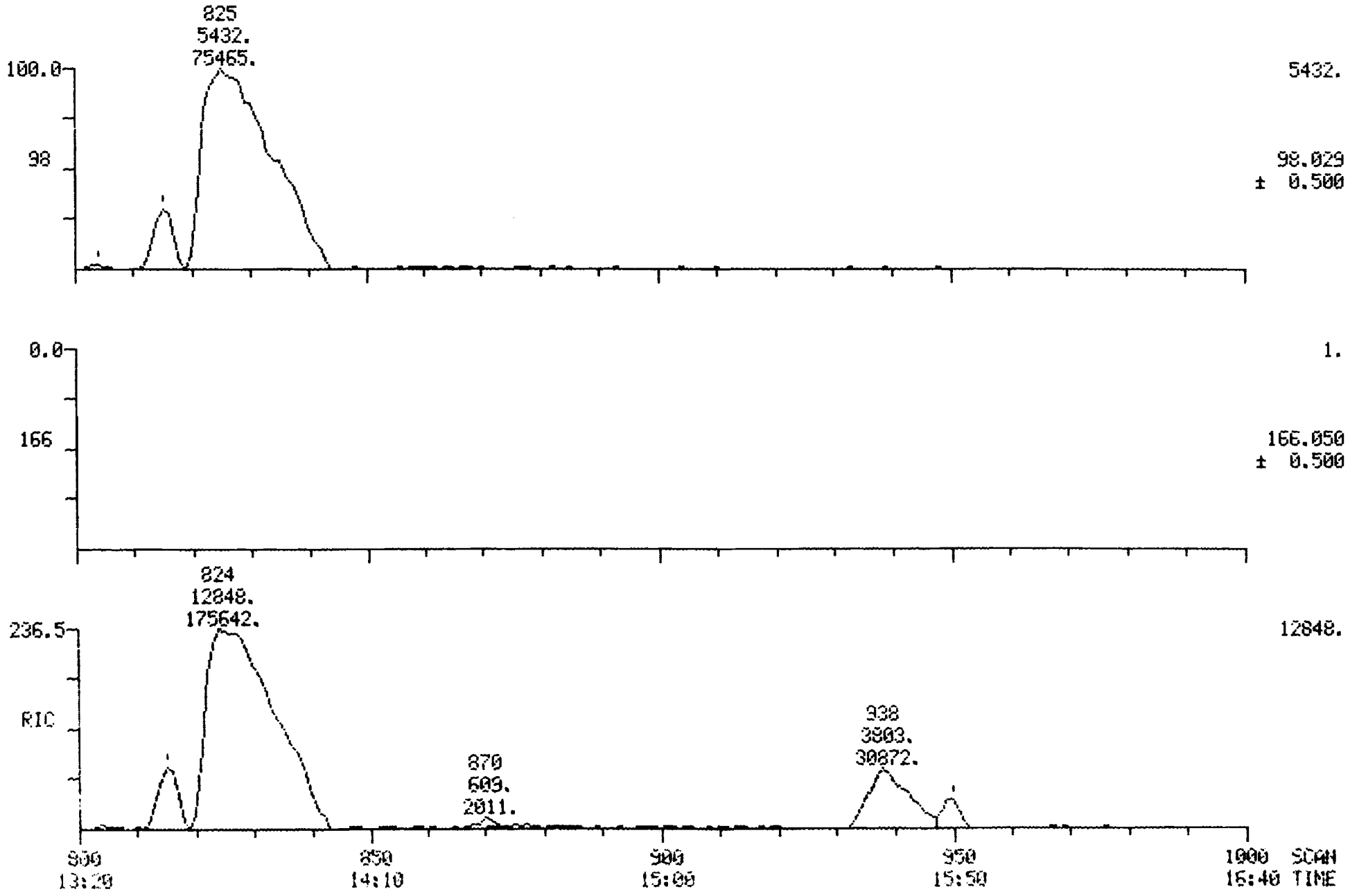
SCANS 800 TO 870

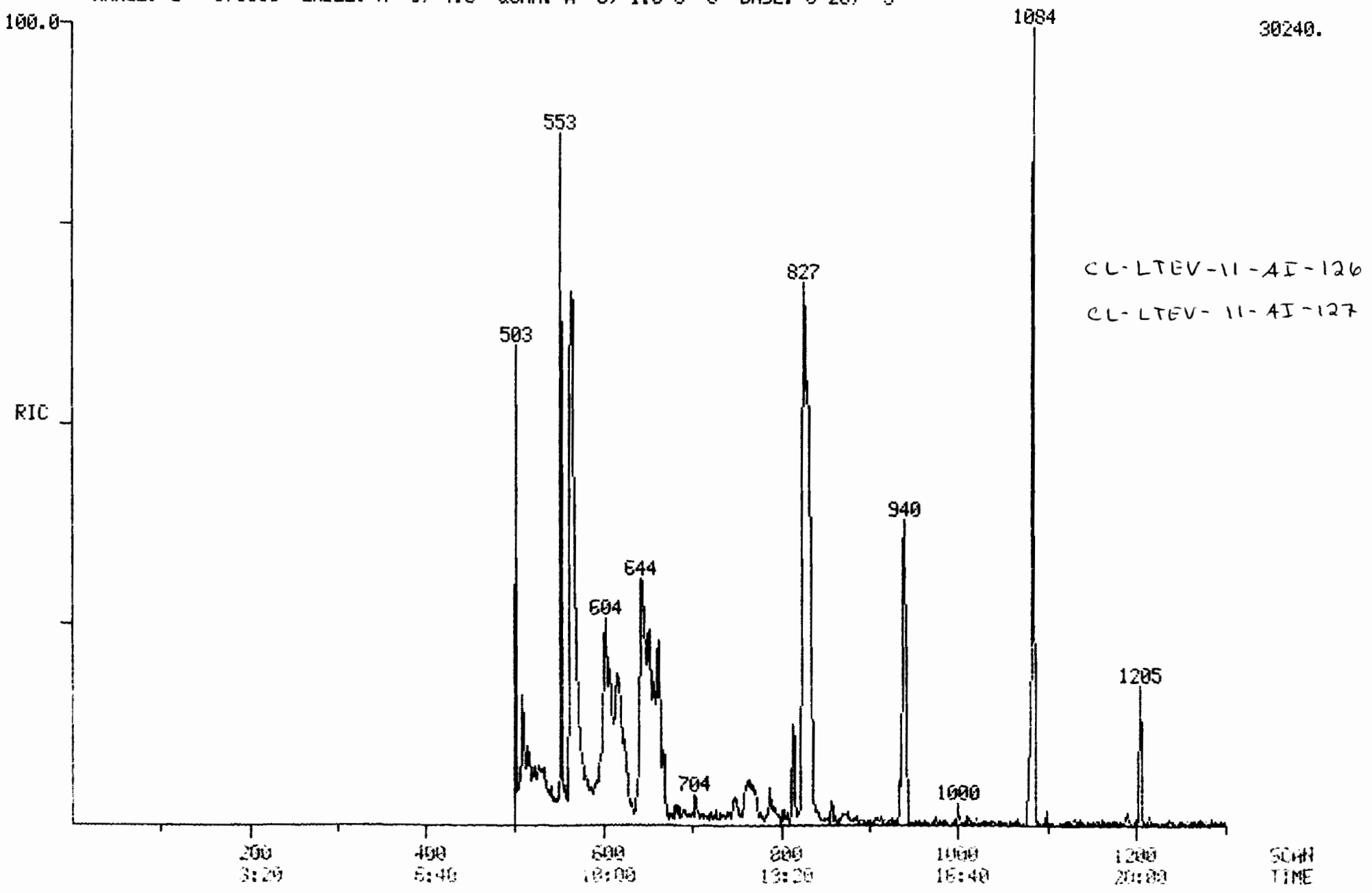
827
3772.
51296.



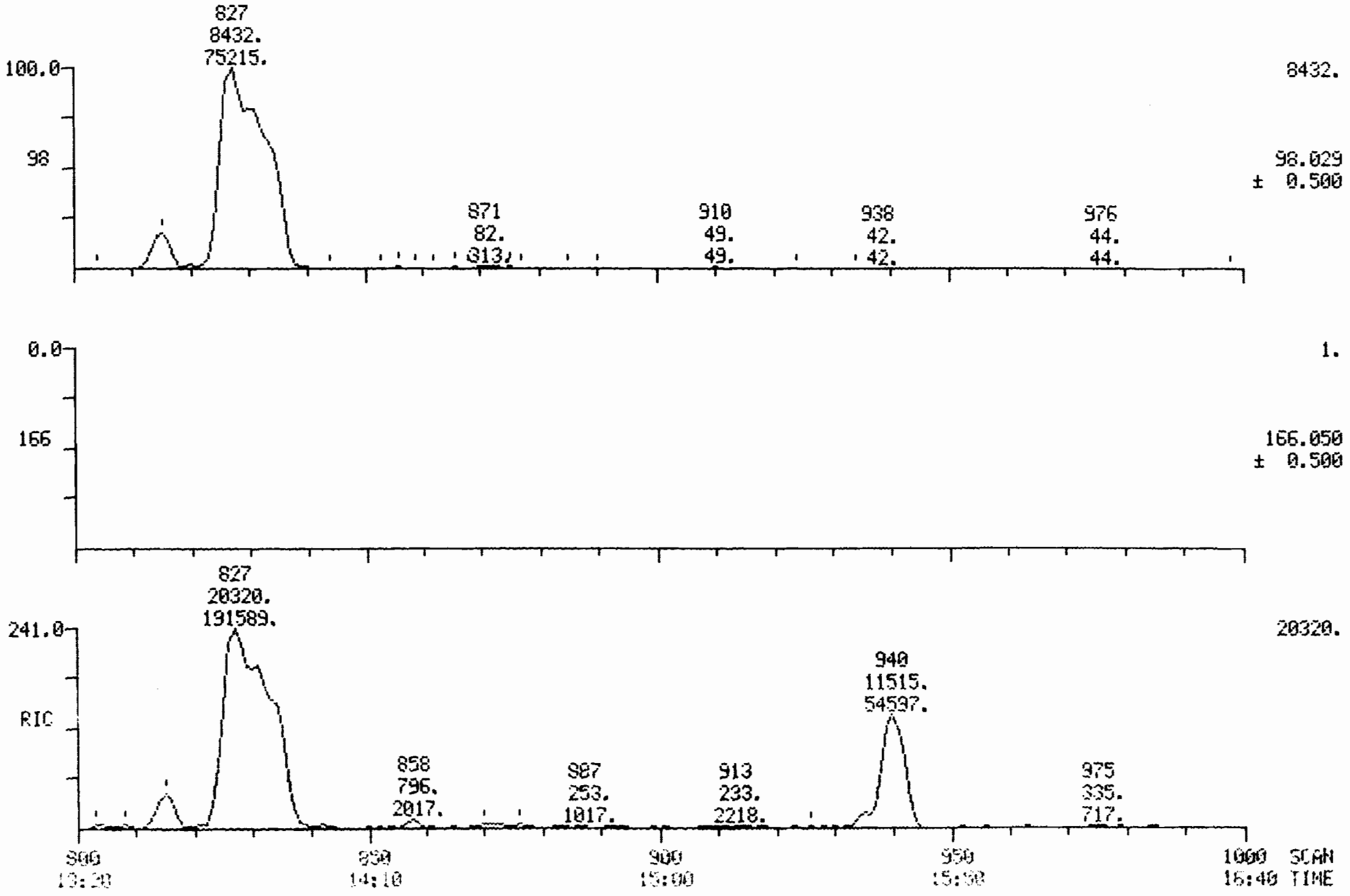

RIC
10/04/96 11:48:00
SAMPLE: 96055-4
CONDS.: 10C(3MIN) TO 150C @ 8C/MIN, T50 230C @ 20C/MIN
RANGE: G 1,1300 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
DATA: 960337 #1
CALI: 960332 #3
SCANS 1 TO 1300
100.0
29984.
RIC
622
514
824
938
1089
758
1005
1167
200
3:20
400
6:40
600
10:00
800
13:20
1000
16:40
1200
20:00
SCAN
TIME
CL-LTEV-11-AI-125

RIC+MASS CHROMATOGRAMS DATA: 960337 #1 SCANS 800 TO 1000
10/04/96 11:48:00 CALI: 960332 #3
SAMPLE: 96055-4
CONDS.: 10C(3MIN) TO 150C @ 8C/MIN, T5O 230C @ 20C/MIN
RANGE: G 1.1300 LABEL: N 1, 4.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3




RIC
10/04/96 10:09:00
SAMPLE: 96055-5 & 6
CONDS.: 10C(3MIN) TO 150C @ 8C/MIN, T50 230C @ 20C/MIN
RANGE: G 1,1300 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
DATA: 960335 #1
CALI: 960332 #3
SCANS 1 TO 1300
100.0
30240.
RIC
1084
553
827
503
940
644
604
1205
704
1000
200
3:20
400
5:40
600
10:00
800
13:20
1000
16:40
1200
20:00
SCAN
TIME
CL-LTEV-11-AI-126
CL-LTEV-11-AI-127

RIC+MASS CHROMATOGRAMS DATA: 960335 #1 SCANS 800 TO 1000
10/04/96 10:09:00 CALI: 960332 #3
SAMPLE: 96055-5 & 6
CONDS.: 100(3MIN) TO 150C @ 8C/MIN, T50 230C @ 20C/MIN
RANGE: G 1,1300 LABEL: N 1, 4.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



SUMMA CANISTER DATA CORRELATION

Sample No.	Report Run No.
CL-LTEV-II-AI-091	Inlet 1-1
CL-LTEV-II-AI-092	Inlet 1-2
CL-LTEV-II-AI-093	Inlet 1-3
CL-LTEV-II-AI-097	Inlet 2-1
CL-LTEV-II-AI-098	Inlet 2-2
CL-LTEV-II-AI-099	Inlet 2-3
CL-LTEV-II-AI-103	Inlet 3-1
CL-LTEV-II-AI-104	Inlet 3-2
CL-LTEV-II-AI-105	Inlet 3-3
CL-LTEV-II-AI-094	Outlet 1-1
CL-LTEV-II-AI-095	Outlet 1-2
CL-LTEV-II-AI-096	Outlet 1-3
CL-LTEV-II-AI-100	Outlet 2-1
CL-LTEV-II-AI-101	Outlet 2-2
CL-LTEV-II-AI-102	Outlet 2-3
CL-LTEV-II-AI-106	Outlet 3-1
CL-LTEV-II-AI-107	Outlet 3-2

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. AQ 2589991
Collected: 9/27/96

Submitted: 9/30/96 Reported: 10/ 8/96
Discard: 10/ 8/96

100 Summa Canister
LL LTEU-11-A1
Project: Claremont

Account No: 09379
Radian International
PO BOX 13000

RTP NC 27709

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
5651	TO-14 Volatile Organics in Air	see form I		
5652	TO-14 Volatile Organics (cont)	see form I		
5695	TO-14 Form 1			See Page 2
7056	Methane	20.	10.	ppm (v)
9001	Ethane	< 2.	2.	ppm(v)
9002	Propane	4.	2.	ppm(v)

1 COPY TO Radian International ATTN: Mr Andrew Weber

Questions? Contact your Client Services Representative
Kay G. Hower at (717) 656-2300
21:30:18 D 0001 8 0 127845 535501
320 70.00 00084800 DIS000

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

MEMBER ACIL

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	BMQL	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	MPN	Most Probable Number
IU	International Units	CP Units	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	NTU	nephelometric turbidity units
C	degrees Celsius	F	degrees Fahrenheit
Cal	calories	lb.	pound(s)
meq	milliequivalents	kg	kilogram(s)
g	gram(s)	mg	milligram(s)
ug	microgram(s)	l	liter(s)
ml	milliliter(s)	ul	microliter(s)
m3	cubic meter(s)	fib > 5 um/ml	fibers greater than 5 microns in length per ml

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TIC's only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Lancaster Laboratories
A division of Thermo Analytical Inc.

VOLATILE ORGANICS IN AIR
SUMMA CANISTER SAMPLE
ANALYSIS DATA SHEET

Sample No.:100 Date Collected: 9/27/96 Date Received: 9/30/96
Lab Sample ID:2589991 Date Analyzed:10/03/96 Time Analyzed:15:37
Canister ID:SUMMA0085 Pressure Rec'd: 15.8 psia Final Pressure: 31.6 psia
Injection Volume: 50.0 cc Nominal Volume: 250 cc Dilution Factor: 10.0
Instrument ID:HP4508 Lab File ID:C:\HPCHEM\1\DATA\OCT03\0801011.D

CAS RN	COMPOUND NAME	CONCENTRATION (PPBV)	Q
127-18-4	Tetrachloroethene	220	D

U = Compound was undetected at the specified limit of quantitation.
B = Compound was found in method blank. D = analysis of diluted sample.

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib > 5 um/ml**	fibers greater than 5 microns in length per ml

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TIC's only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITATION OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. We disclaim any other warranties, express or implied, including a Warranty of Fitness for Particular Purpose and Warranty of Merchantability. We accept no responsibility for the purpose for which the client uses the test results. No purchase order or other order for work shall be accepted by the company with any conditions that vary from our Standard Terms and Conditions. If Lancaster Laboratories performs work requested by the client, conditions at variance to our Standard Terms and Conditions are not part of the contract.

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. AQ 2589992
Collected: 9/27/96

Submitted: 9/30/96 Reported: 10/ 8/96
Discard: 10/ 8/96

101 Summa Canister
LL LTEU-11-A1
Project: Claremont

Account No: 09379
Radian International
PO BOX 13000

RTP NC 27709

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
5651	TO-14 Volatile Organics in Air	see form I		
5652	TO-14 Volatile Organics (cont)	see form I		
5695	TO-14 Form 1			See Page 2
7056	Methane	30.	10.	ppm (v)
9001	Ethane	< 2.	2.	ppm(v)
9002	Propane	3.	2.	ppm(v)

1 COPY TO Radian International ATTN: Mr Andrew Weber

Questions? Contact your Client Services Representative
Kay G. Hower at (717) 656-2300
21:30:40 D 0001 8 0 127845 535501
320 70.00 00084800 DIS000

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

MEMBER ACIL

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	BMQL	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	MPN	Most Probable Number
IU	International Units	CP Units	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	NTU	nephelometric turbidity units
C	degrees Celsius	F	degrees Fahrenheit
Cal	calories	lb.	pound(s)
meq	milliequivalents	kg	kilogram(s)
g	gram(s)	mg	milligram(s)
ug	microgram(s)	l	liter(s)
ml	milliliter(s)	ul	microliter(s)
m3	cubic meter(s)	fib > 5 um/ml	fibers greater than 5 microns in length per ml

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TIC's only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITATION OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. We disclaim any other warranties, express or implied, including a Warranty of Fitness for Particular Purpose and Warranty of Merchantability. We accept no responsibility for the purpose for which the client uses the test results. No purchase order or other order for work shall be accepted by the company with any conditions that vary from our Standard Terms and Conditions. If Lancaster Laboratories performs work requested by the client, conditions at variance to our Standard Terms and Conditions are not part of the contract.

Lancaster Laboratories
A division of Thermo Analytical Inc.

VOLATILE ORGANICS IN AIR
SUMMA CANISTER SAMPLE
ANALYSIS DATA SHEET

Sample No.:101 Date Collected: 9/27/96 Date Received: 9/30/96
Lab Sample ID:2589992 Date Analyzed:10/03/96 Time Analyzed:16:27
Canister ID:SUMMA0046 Pressure Rec'd: 14.9 psia Final Pressure: 29.8 psia
Injection Volume: 50.0 cc Nominal Volume: 250 cc Dilution Factor: 10.0
Instrument ID:HP4508 Lab File ID:C:\HPCHEM\1\DATA\OCT03\0901012.D

CAS RN	COMPOUND NAME	CONCENTRATION (PPBV)	Q
127-18-4	Tetrachloroethene	170	D

U = Compound was undetected at the specified limit of quantitation.
B = Compound was found in method blank. D = analysis of diluted sample.

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib > 5 um/ml**	fibers greater than 5 microns in length per ml

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TIC's only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. AQ 2589993
Collected: 9/27/96

Submitted: 9/30/96 Reported: 10/ 8/96
Discard: 10/ 8/96

102 Summa Canister
LL LTEU-11-A1
Project: Claremont

Account No: 09379
Radian International
PO BOX 13000

RTP NC 27709

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
5651	TO-14 Volatile Organics in Air	see form I		
5652	TO-14 Volatile Organics (cont)	see form I		
5695	TO-14 Form 1			See Page 2
7056	Methane	20.	10.	ppm (v)
9001	Ethane	< 2.	2.	ppm(v)
9002	Propane	3.	2.	ppm(v)

1 COPY TO Radian International ATTN: Mr Andrew Weber

Questions? Contact your Client Services Representative
Kay G. Hower at (717) 656-2300
21:30:58 D 0001 8 0 127845 535501
320 70.00 00084800 DIS000

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	[illegible] calories	**lb.**	pound(s)
meq	[illegible]	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib > 5 um/ml**	fibers greater than 5 microns in length per ml

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TIC's only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITATION OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. We disclaim any other warranties, express or implied, including a Warranty of Fitness for Particular Purpose and Warranty of Merchantability. We accept no responsibility for the purpose for which the client uses the test results. No purchase order or other order for work shall be accepted by the company with any conditions that vary from our Standard Terms and Conditions. If Lancaster Laboratories performs work requested by the client, conditions at variance to our Standard Terms and Conditions are not part of the contract.

Lancaster Laboratories
A division of Thermo Analytical Inc.

VOLATILE ORGANICS IN AIR
SUMMA CANISTER SAMPLE
ANALYSIS DATA SHEET

Sample No.:102 Date Collected: 9/27/96 Date Received: 9/30/96
Lab Sample ID:2589993 Date Analyzed:10/03/96 Time Analyzed:19:39
Canister ID:SUMMA0121 Pressure Rec'd: 16.1 psia Final Pressure: 32.2 psia
Injection Volume: 500.0 cc Nominal Volume: 250 cc Dilution Factor: 1.0
Instrument ID:HP4224 Lab File ID:C:\HPCHEM\1\DATA\OCT03\1401006.D

CAS RN	COMPOUND NAME	CONCENTRATION (PPBV)	Q
127-18-4	Tetrachloroethene	12	D

U = Compound was undetected at the specified limit of quantitation.
B = Compound was found in method blank. D = analysis of diluted sample.

MEMBER ACIL

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data.

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	gram calories	**lb.**	pounds
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib > 5 um/ml**	fibers greater than 5 microns in length per ml

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TIC's only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITATION OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. We disclaim any other warranties, express or implied, including a Warranty of Fitness for Particular Purpose and Warranty of Merchantability. We accept no responsibility for the purpose for which the client uses the test results. No purchase order or other order for work shall be accepted by the company with any conditions that vary from our Standard Terms and Conditions. If Lancaster Laboratories performs work requested by the client, conditions at variance to our Standard Terms and Conditions are not part of the contract.

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. AQ 2589994
Collected: 9/27/96

Submitted: 9/30/96 Reported: 10/ 8/96
Discard: 10/ 8/96

103 Summa Canister
LL LTEU-11-A1
Project: Claremont

Account No: 09379
Radian International
PO BOX 13000

RTP NC 27709

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
5651	TO-14 Volatile Organics in Air	see form I		
5652	TO-14 Volatile Organics (cont)	see form I		
5695	TO-14 Form 1			

See Page 2

1 COPY TO Radian International ATTN: Mr Andrew Weber

Questions? Contact your Client Services Representative
Kay G. Hower at (717) 656-2300
21:31:20 D 0001 8 0 127845 535501
320 0.00 00072000 DIS000

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

MEMBER ACIL

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	calorie(s)	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib > 5 um/ml**	fibers greater than 5 microns in length per ml

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TIC's only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITATION OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. We disclaim any other warranties, express or implied, including a Warranty of Fitness for Particular Purpose and Warranty of Merchantability. We accept no responsibility for the purpose for which the client uses the test results. No purchase order or other order for work shall be accepted by the company with any conditions that vary from our Standard Terms and Conditions. If Lancaster Laboratories performs work requested by the client, conditions at variance to our Standard Terms and Conditions are not part of the contract.

Lancaster Laboratories
A division of Thermo Analytical Inc.

VOLATILE ORGANICS IN AIR
SUMMA CANISTER SAMPLE
ANALYSIS DATA SHEET

Sample No.:103 Date Collected: 9/27/96 Date Received: 9/30/96
Lab Sample ID:2589994 Date Analyzed:10/03/96 Time Analyzed:03:32
Canister ID:SUMMA0088 Pressure Rec'd: 14.3 psia Final Pressure: 28.6 psia
Injection Volume: 50.0 cc Nominal Volume: 250 cc Dilution Factor: 10.0
Instrument ID:HP4508 Lab File ID:C:\HPCHEM\1\DATA\OCT02\2101023.D

CAS RN	COMPOUND NAME	CONCENTRATION (PPBV)	Q
127-18-4	Tetrachloroethene	550	D

U = Compound was undetected at the specified limit of quantitation.
B = Compound was found in method blank. D = analysis of diluted sample.

MEMBER ACIL
2425 New Holland Pike
P.O. Box 12425
Lancaster, PA 17605-2425
Phone: 717-656-2300 Fax: 717-656-2681

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	[illegible]	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib > 5 um/ml**	fibers greater than 5 microns in length per ml

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TIC's only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITATION OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. We disclaim any other warranties, express or implied, including a Warranty of Fitness for Particular Purpose and Warranty of Merchantability. We accept no responsibility for the purpose for which the client uses the test results. No purchase order or other order for work shall be accepted by the company with any conditions that vary from our Standard Terms and Conditions. If Lancaster Laboratories performs work requested by the client, conditions at variance to our Standard Terms and Conditions are not part of the contract.

Analysis Report

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. AQ 2589995
Collected: 9/27/96

Submitted: 9/30/96 Reported: 10/ 8/96
Discard: 10/ 8/96

104 Summa Canister
LL LTEU-11-A1
Project: Claremont

Account No: 09379
Radian International
PO BOX 13000

RTP NC 27709

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
5651	TO-14 Volatile Organics in Air	see form I		
5652	TO-14 Volatile Organics (cont)	see form I		
5695	TO-14 Form 1			

See Page 2

1 COPY TO Radian International ATTN: Mr Andrew Weber

Questions? Contact your Client Services Representative
Kay G. Hower at (717) 656-2300
21:31:38 D 0001 8 0 127845 535501
320 0.00 00072000 DIS000

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

Lancaster Laboratories
2425 New Holland Pike
P.O. Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax 717-656-2681

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	BMQL	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	MPN	Most Probable Number
IU	International Units	CP Units	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	NTU	nephelometric turbidity units
C	degrees Celsius	F	degrees Fahrenheit
Cal	[illegible]	lb.	pounds
meq	milliequivalents	kg	kilogram(s)
g	gram(s)	mg	milligram(s)
ug	microgram(s)	l	liter(s)
ml	milliliter(s)	ul	microliter(s)
m3	cubic meter(s)	fib > 5 um/ml	fibers greater than 5 microns in length per ml

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TIC's only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Lancaster Laboratories
A division of Thermo Analytical Inc.

VOLATILE ORGANICS IN AIR
SUMMA CANISTER SAMPLE
ANALYSIS DATA SHEET

Sample No.:104 Date Collected: 9/27/96 Date Received: 9/30/96
Lab Sample ID:2589995 Date Analyzed:10/03/96 Time Analyzed:05:12
Canister ID:SUMMA0128 Pressure Rec'd: 14.4 psia Final Pressure: 28.8 psia
Injection Volume: 50.0 cc Nominal Volume: 250 cc Dilution Factor: 10.0
Instrument ID:HP4508 Lab File ID:C:\HPCHEM\1\DATA\OCT02\2301025.D

CAS RN	COMPOUND NAME	CONCENTRATION (PPBV)	Q
127-18-4	Tetrachloroethene	400	D

U = Compound was undetected at the specified limit of quantitation.
B = Compound was found in method blank. D = analysis of diluted sample.

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib > 5 um/ml**	fibers greater than 5 microns in length per ml

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TIC's only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITATION OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. We disclaim any other warranties, express or implied, including a Warranty of Fitness for Particular Purpose and Warranty of Merchantability. We accept no responsibility for the purpose for which the client uses the test results. No purchase order or other order for work shall be accepted by the company with any conditions that vary from our Standard Terms and Conditions. If Lancaster Laboratories performs work requested by the client, conditions at variance to our Standard Terms and Conditions are not part of the contract.

Analysis Report

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. AQ 2589996
Collected: 9/27/96

Submitted: 9/30/96 Reported: 10/ 8/96
Discard: 10/ 8/96

105 Summa Canister
LL LTEU-11-A1
Project: Claremont

Account No: 09379
Radian International
PO BOX 13000

RTP NC 27709

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
5651	TO-14 Volatile Organics in Air	see form I		
5652	TO-14 Volatile Organics (cont)	see form I		
5695	TO-14 Form 1			

See Page 2

1 COPY TO Radian International ATTN: Mr Andrew Weber

Questions? Contact your Client Services Representative
Kay G. Hower at (717) 656-2300
21:31:56 D 0001 8 0 127845 535501
320 0.00 00072000 DIS000

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	BMQL	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	MPN	Most Probable Number
IU	International Units	CP Units	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	NTU	nephelometric turbidity units
C	degrees Celsius	F	degrees Fahrenheit
Cal	calories	lb.	pounds
meq	milliequivalents	kg	kilograms
g	grams	mg	milligrams
ug	micrograms	l	liters
ml	milliliters	ul	microliters
m3	cubic meters	fib > 5 um/ml	fibers greater than 5 microns in length per ml

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TIC's only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Lancaster Laboratories
A division of Thermo Analytical Inc.

VOLATILE ORGANICS IN AIR
SUMMA CANISTER SAMPLE
ANALYSIS DATA SHEET

Sample No.:105 Date Collected: 9/27/96 Date Received: 9/30/96
Lab Sample ID:2589996 Date Analyzed:10/03/96 Time Analyzed:02:46
Canister ID:SUMMA0147 Pressure Rec'd: 14.4 psia Final Pressure: 28.8 psia
Injection Volume: 500.0 cc Nominal Volume: 250 cc Dilution Factor: 100.0
Instrument ID:HP4508 Lab File ID:C:\HPCHEM\1\DATA\OCT02\2001022.D

CAS RN	COMPOUND NAME	CONCENTRATION (PPBV)	Q
127-18-4	Tetrachloroethene	7400	D

U = Compound was undetected at the specified limit of quantitation.
B = Compound was found in method blank. D = analysis of diluted sample.

MEMBER ACIL

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib > 5 um/ml**	fibers greater than 5 microns in length per ml

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers.

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC-MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TIC's only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITATION OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. We disclaim any other warranties, express or implied, including a Warranty of Fitness for Particular Purpose and Warranty of Merchantability. We accept no responsibility for the purpose for which the client uses the test results. No purchase order or other order for work shall be accepted by the company with any conditions that vary from our Standard Terms and Conditions. If Lancaster Laboratories performs work requested by the client conditions at variance to our Standard Terms and Conditions are not part of the contract.

Analysis Report

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. AQ 2589997
Collected: 9/27/96

Submitted: 9/30/96 Reported: 10/ 8/96
Discard: 10/ 8/96

106 Summa Canister
LL LTEU-11-A1
Project: Claremont

Account No: 09379
Radian International
PO BOX 13000

RTP NC 27709

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
5651	TO-14 Volatile Organics in Air	see form I		
5652	TO-14 Volatile Organics (cont)	see form I		
5695	TO-14 Form 1			See Page 2
7056	Methane	30.	10.	ppm (v)
9001	Ethane	< 2.	2.	ppm(v)
9002	Propane	6.	2.	ppm(v)

1 COPY TO Radian International ATTN: Mr Andrew Weber

Questions? Contact your Client Services Representative
Kay G. Hower at (717) 656-2300
21:32:15 D 0001 8 0 127845 535501
320 70.00 00084800 DIS000

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

MEMBER ACIL
Lancaster Laboratories
2425 New Holland Pike
P.O. Box 12425
Lancaster PA 17605-2425
(717)656-2300 Fax (717)656-2681

See reverse side for explanation of symbols and abbreviations.

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib > 5 um/ml**	fibers greater than 5 microns in length per ml

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TIC's only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Lancaster Laboratories
A division of Thermo Analytical Inc.

VOLATILE ORGANICS IN AIR
SUMMA CANISTER SAMPLE
ANALYSIS DATA SHEET

Sample No.:106 Date Collected: 9/27/96 Date Received: 9/30/96
Lab Sample ID:2589997 Date Analyzed:10/03/96 Time Analyzed:20:26
Canister ID:SUMMA0055 Pressure Rec'd: 15.9 psia Final Pressure: 31.8 psia
Injection Volume: 500.0 cc Nominal Volume: 250 cc Dilution Factor: 1.0
Instrument ID:HP4224 Lab File ID:C:\HPCHEM\1\DATA\OCT03\1501007.D

CAS RN	COMPOUND NAME	CONCENTRATION (PPBV)	Q
127-18-4	Tetrachloroethene	38	D

U = Compound was undetected at the specified limit of quantitation.
B = Compound was found in method blank. D = analysis of diluted sample.

MEMBER ACIL

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data.

N.D.	none detected	BMQL	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	MPN	Most Probable Number
IU	International Units	CP Units	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	NTU	nephelometric turbidity units
C	degrees Celsius	F	degrees Fahrenheit
Cal	calories	lb.	pounds
meq	milliequivalents	kg	kilograms
g	grams	mg	milligrams
ug	micrograms	l	liter(s)
ml	milliliters	ul	microliter(s)
m3	cubic meters	fib > 5 um/ml	fibers greater than 5 microns in length per ml

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TIC's only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITATION OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the samples as submitted. We disclaim any other warranties, express or implied, including a Warranty of Fitness for Particular Purpose and Warranty of Merchantability. We accept no responsibility for the purpose for which the client uses the test results. No purchase order or other order for work shall be accepted by the company with any conditions that vary from our Standard Terms and Conditions. If Lancaster Laboratories performs work requested by the client, conditions at variance to our Standard Terms and Conditions are not part of the contract.

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. AQ 2589998
Collected: 9/27/96

Submitted: 9/30/96 Reported: 10/ 8/96
Discard: 10/ 8/96

107 Summa Canister
LL LTEU-11-A1
Project: Claremont

Account No: 09379
Radian International
PO BOX 13000

RTP NC 27709

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
5651	TO-14 Volatile Organics in Air	see form I		
5652	TO-14 Volatile Organics (cont)	see form I		
5695	TO-14 Form 1			See Page 2
7056	Methane	30.	10.	ppm (v)
9001	Ethane	< 2.	2.	ppm(v)
9002	Propane	11.	2.	ppm(v)

1 COPY TO Radian International ATTN: Mr Andrew Weber

Questions? Contact your Client Services Representative
Kay G. Hower at (717) 656-2300
21:32:35 D 0001 8 0 127845 535501
320 70.00 00084800 DIS000

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	BMQL	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	MPN	Most Probable Number
IU	International Units	CP Units	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	NTU	nephelometric turbidity units
C	degrees Celsius	F	degrees Fahrenheit
Cal	calories	lb.	pound(s)
meq	milliequivalents	kg	kilogram(s)
g	gram(s)	mg	milligram(s)
ug	microgram(s)	l	liter(s)
ml	milliliter(s)	ul	microliter(s)
m3	cubic meter(s)	fib > 5 um/ml	fibers greater than 5 microns in length per ml

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TIC's only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITATION OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. We disclaim any other warranties, express or implied, including a Warranty of Fitness for Particular Purpose and Warranty of Merchantability. We accept no responsibility for the purpose for which the client uses the test results. No purchase order or other order for work shall be accepted by the company with any conditions that vary from our Standard Terms and Conditions. If Lancaster Laboratories performs work requested by the client, conditions at variance to our Standard Terms and Conditions are not part of the contract.

Lancaster Laboratories
A division of Thermo Analytical Inc.

VOLATILE ORGANICS IN AIR
SUMMA CANISTER SAMPLE
ANALYSIS DATA SHEET

Sample No.:107 Date Collected: 9/27/96 Date Received: 9/30/96
Lab Sample ID:2589998 Date Analyzed:10/03/96 Time Analyzed:21:12
Canister ID:SUMMA0005 Pressure Rec'd: 15.0 psia Final Pressure: 30.0 psia
Injection Volume: 500.0 cc Nominal Volume: 250 cc Dilution Factor: 1.0
Instrument ID:HP4224 Lab File ID:C:\HPCHEM\1\DATA\OCT03\1601008.D

CAS RN	COMPOUND NAME	CONCENTRATION (PPBV)	Q
127-18-4	Tetrachloroethene	44	D

U = Compound was undetected at the specified limit of quantitation.
B = Compound was found in method blank. D = analysis of diluted sample.

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	BMQL	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	MPN	Most Probable Number
IU	International Units	CP Units	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	NTU	nephelometric turbidity units
C	degrees Celsius	F	degrees Fahrenheit
Cal	kilogram calories	lb.	pound(s)
meq	milliequivalents	kg	kilogram(s)
g	gram(s)	mg	milligram(s)
ug	microgram(s)	l	liter(s)
ml	milliliter(s)	ul	microliter(s)
m3	cubic meter(s)	fib > 5 um/ml	fibers greater than 5 microns in length per ml

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TIC's only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

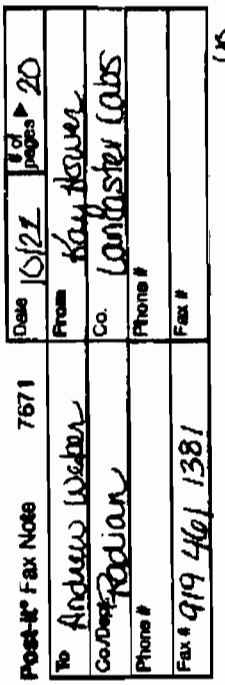
WARRANTY AND LIMITATION OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. We disclaim any other warranties, express or implied, including a Warranty of Fitness for Particular Purpose and Warranty of Merchantability. We accept no responsibility for the purpose for which the client uses the test results. No purchase order or other order for work shall be accepted by the company with any conditions that vary from our Standard Terms and Conditions. If Lancaster Laboratories performs work requested by the client, conditions at variance to our Standard Terms and Conditions are not part of the contract

Response Factor Report HP4508

Method : C:\HPCHEM\1\METHODS\ALL396.M
Title : TO14 SCAN METHOD
Last Update : Wed Oct 02 15:21:33 1996
Response via : Continuing Calibration

Calibration Files
1 =0801010.D 2 =0401005.D 3 =0601007.D

	Compound	1	2	3	Avg	%RSD
1)	Bromochloromethane	----------ISTD----------				
2)	Propene	1.072	1.050	1.001	1.0	3.48
3)	Dichlorodifluorometha	2.770	2.348	2.119	2.4	13.69
4)	Chlorodifluoromethane	1.866	1.858	1.720	1.8	4.52
5)	Freon 114	2.416	2.124	2.471	2.3	7.99
6)	Chloromethane	0.802	0.679	1.047	0.8	22.26
7)	Vinyl Chloride	0.906	0.778	1.106	0.9	17.76
8)	1,3-Butadiene	0.619	0.641	0.918	0.7	22.99
9)	Bromomethane	1.013	0.887	0.858	0.9	8.93
10)	Chloroethane	0.718	0.626	0.601	0.6	9.47
11)	Dichlorofluoromethane	3.359	3.427	3.091	3.3	5.39
12)	Bromoethene	0.830	0.876	0.808	0.8	4.13
13)	Trichlorofluoromethan	2.191	1.916	1.723	1.9	12.10
14)	Pentane	2.307	2.344	2.136	2.3	4.89
15)	Acrolein	0.322	0.357	0.378	0.4	8.02
16)	1,1-Dichloroethene	1.874	1.527	1.330	1.6	17.48
17)	Freon 113	1.315	1.086	0.980	1.1	15.18
18)	Acetone	1.460	1.437	1.436	1.4	0.95
19)	Methyl Iodide	3.052	3.203	2.895	3.0	5.06
20)	Carbon Disulfide	2.954	3.094	2.678	2.9	7.28
21)	Acetonitrile	0.693	0.458	0.486	0.5	23.58
22)	3-Chloropropene	0.459	0.426	0.390	0.4	8.05
23)	Methylene Chloride	0.977	0.850	0.754	0.9	12.98
24)	Acrylonitrile	0.619	0.632	0.608	0.6	1.89
25)	trans-1,2-Dichloroeth	1.528	1.559	1.308	1.5	9.36
26)	Methyl t-Butyl Ether	2.364	2.417	2.291	2.4	2.69
27)	Hexane	1.768	1.794	1.500	1.7	9.64
28)	1,1-Dichloroethane	2.054	1.840	1.645	1.8	11.08
29)	Vinyl Acetate	2.419	2.582	2.460	2.5	3.40
30)	cis-1,2-Dichloroethan	1.649	1.388	1.200	1.4	15.97
31)	2-Butanone	0.476	0.508	0.453	0.5	5.74
32)	Ethyl Acetate	0.240	0.266	0.244	0.3	5.60
33)	Methyl Acrylate	1.626	1.771	1.605	1.7	5.42
34)	Chloroform	2.099	1.855	1.664	1.9	11.66
35)	1,1,1-Trichloroethane	1.716	1.570	1.403	1.6	10.03
36)	Carbon Tetrachloride	1.908	1.662	1.471	1.7	13.03
37)	1,4-Difluorobenzene	----------ISTD----------				
38)	1,2-Dichloroethane	0.317	0.278	0.277	0.3	7.82
39)	Benzene	0.805	0.692	0.681	0.7	9.48
40)	Isooctane	1.510	1.484	1.337	1.4	6.46
41)	Heptane	0.593	0.595	0.536	0.6	5.78
42)	Trichloroethene	0.380	0.343	0.327	0.3	7.84



(#) = Out of Range

Response Factor Report HP4508

Method : C:\HPCHEM\1\METHODS\ALL396.M
Title : TO14 SCAN METHOD
Last Update : Wed Oct 02 15:21:33 1996
Response via : Continuing Calibration

Calibration Files
1 =0801010.D 2 =0401005.D 3 =0601007.D

	Compound	1	2	3	Avg	%RSD
43)	Ethyl Acrylate	0.621	0.681	0.702	0.7	6.26
44)	1,2-Dichloropropane	0.329	0.296	0.298	0.3	6.02
45)	Methyl Methacrylate	0.280	0.316	0.325	0.3	7.76
46)	Dibromomethane	0.239	0.261	0.269	0.3	5.95
47)	1,4-Dioxane	0.153	0.154	0.123	0.1	12.12
48)	Bromodichloromethane	0.446	0.497	0.498	0.5	6.29
49)	cis-1,3-Dichloroprope	0.438	0.405	0.425	0.4	3.87
50)	4-Methyl-2-Pentanone	0.692	0.755	0.756	0.7	5.00
51)	Chlorobenzene d5	----------ISTD----------				
52)	Toluene	0.918	0.683	0.792	0.8	14.73
53)	Octane	0.792	0.677	0.711	0.7	8.14
54)	trans-1,3-Dichloropro	0.399	0.322	0.382	0.4	11.01
55)	Ethyl Methacrylate	0.549	0.517	0.583	0.5	6.00
56)	1,1,2-Trichloroethane	0.326	0.248	0.287	0.3	13.49
57)	Tetrachloroethene	0.536	0.401	0.429	0.5	15.54
58)	2-Hexanone	0.792	0.697	0.763	0.8	6.49
59)	Dibromochloromethane	0.381	0.363	0.410	0.4	6.1
60)	1,2-Dibromoethane	0.462	0.365	0.422	0.4	11.
61)	Chlorobenzene	0.669	0.521	0.605	0.6	12.3
62)	1,1,1,2-Tetrachloroet	0.333	0.306	0.333	0.3	4.85
63)	Ethylbenzene	1.130	0.807	0.891	0.9	17.75
64)	m/p-Xylene	0.886	0.630	0.690	0.7	18.18
65)	o-Xylene	0.882	0.635	0.709	0.7	17.09
66)	Styrene	0.561	0.424	0.484	0.5	14.10
67)	Bromoform	0.438	0.427	0.484	0.4	6.67
68)	Cumene	1.011	0.930	1.028	1.0	5.30
69)	1,1,2,2-Tetrachloroet	0.772	0.568	0.612	0.7	16.52
70)	1,2,3-Trichloropropan	0.154	0.140	0.151	0.1	5.11
71)	Bromobenzene	0.328	0.309	0.340	0.3	4.85
72)	4-Ethyltoluene	1.132	0.875	0.974	1.0	13.07
73)	1,3,5-Trimethylbenzen	0.920	0.676	0.765	0.8	15.71
74)	Alpha Methyl Styrene	0.452	0.427	0.491	0.5	7.02
75)	1,2,4-Trimethylbenzen	0.940	0.704	0.787	0.8	14.79
76)	1,3-Dichlorobenzene	0.663	0.505	0.571	0.6	13.65
77)	1,4-Dichlorobenzene	0.639	0.487	0.560	0.6	13.56
78)	Benzyl Chloride	0.580	0.462	0.553	0.5	11.66
79)	1,2-Dichlorobenzene	0.644	0.473	0.533	0.6	15.77
80)	Hexachloroethane	0.399	0.354	0.376	0.4	6.04
81)	1,2,4-Trichlorobenzen	0.373	0.227	0.234	0.3	29.65
82)	Hexachlorobutadiene	0.322	0.226	0.231	0.3	20.75

(#) = Out of Range

Quantitation Report

Data File : c:\hpchem\1\data\oct02\0401005.d
Acq On : 2 Oct 96 10:55 am
Sample : VSTD50
Misc :
Quant Time: Oct 2 11:31 1996

Vial: 4
Operator: GMM
Inst : HP4508
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\ALL396.M
Title : TO14 SCAN METHOD
Last Update : Wed Oct 02 16:51:58 1996
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	15.63	130	128608	10.00	PPB		0.00
37) 1,4-Difluorobenzene	17.58	114	459169	10.00	PPB		0.00
51) Chlorobenzene d5	23.15	117	479016	10.00	PPB		0.00
System Monitoring Compounds							%Recovery
Target Compounds							Qvalue
2) Propene	6.41	41	674987	50.13	PPB		97
3) Dichlorodifluoromethane	6.54	85	1509643	56.21	PPB		99
4) Chlorodifluoromethane	6.58	51	1194665	51.60	PPB		96
5) Freon 114	6.93	85	1365572	57.65	PPB		95
6) Chloromethane	7.11	50	436582	52.39	PPB		99
7) Vinyl Chloride	7.48	62	500287	52.68	PPB		100
8) 1,3-Butadiene	7.60	54	414359	49.94	PPB		98
9) Bromomethane	8.53	94	570198	54.37	PPB		99
10) Chloroethane	8.84	64	402347	53.73	PPB		100
11) Dichlorofluoromethane	9.42	67	1322269	31.41	PPB		99
12) Bromoethene	9.39	106	588792	53.80	PPB		99
13) Trichlorofluoromethane	9.57	101	1232112	57.33	PPB		99
14) Pentane	9.78	43	1228322	41.32	PPB		99
15) Acrolein	10.74	56	213397	54.20	PPB		99
16) 1,1-Dichloroethene	11.01	61	981930	54.11	PPB		97
17) Freon 113	10.99	103	698632	53.81	PPB		100
18) Acetone	11.12	43	850294	48.36	PPB		98
19) Methyl Iodide	11.42	142	1647780	42.35	PPB		98
20) Carbon Disulfide	11.61	76	1840294	47.98	PPB		99
21) Acetonitrile	11.86	41	273724	43.75	PPB	#	11
22) 3-Chloropropene	11.94	76	274070	50.90	PPB		91
23) Methylene Chloride	12.25	84	546890	53.05	PPB		95
24) Acrylonitrile	12.84	53	408234	49.78	PPB		99
25) trans-1,2-Dichloroethene	12.90	61	917409	47.78	PPB		97
26) Methyl t-Butyl Ether	12.87	73	1430122	49.64	PPB		97
27) Hexane	13.48	57	1107720	48.39	PPB		95
28) 1,1-Dichloroethane	13.86	63	1123916	46.09	PPB		100
29) Vinyl Acetate	13.92	43	1519110	47.16	PPB		99
30) cis-1,2-Dichloroethene	15.12	61	847931	49.56	PPB		100
31) 2-Butanone	15.11	72	298801	47.93	PPB		83
32) Ethyl Acetate	15.19	70	157424	47.41	PPB	#	100
33) Methyl Acrylate	15.29	55	1042127	49.18	PPB		99
34) Chloroform	15.76	83	1192567	54.40	PPB		99
35) 1,1,1-Trichloroethane	16.15	97	1009352	54.98	PPB		99
36) Carbon Tetrachloride	16.49	117	1015441	54.10	PPB		99
38) 1,2-Dichloroethane	16.93	62	637932	46.39	PPB		100
39) Benzene	16.90	78	1588492	44.90	PPB		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data\oct02\0401005.d
Acq On : 2 Oct 96 10:55 am
Sample : VSTD50
Misc :
Quant Time: Oct 2 11:31 1996

Vial: 4
Operator: GMM
Inst : HP4508
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\ALL396.M
Title : TO14 SCAN METHOD
Last Update : Wed Oct 02 16:51:58 1996
Response via : Single Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
40) Isooctane	16.97	57	3135046	43.25 PPB	99
41) Heptane	17.29	43	1304097	47.74 PPB	95
42) Trichloroethene	18.12	130	787823	52.27 PPB	99
43) Ethyl Acrylate	18.22	55	1438047	47.12 PPB	99
44) 1,2-Dichloropropane	18.57	63	680428	50.90 PPB	99
45) Methyl Methacrylate	18.67	69	667136	47.02 PPB	92
46) Dibromomethane	18.82	174	548143	41.27 PPB	99
47) 1,4-Dioxane	18.79	88	323387	47.80 PPB	98
48) Bromodichloromethane	19.07	83	1056335	42.68 PPB	100
49) cis-1,3-Dichloropropene	19.89	75	837074	44.03 PPB	98
50) 4-Methyl-2-Pentanone	20.12	43	1603341	47.19 PPB	97
52) Toluene	20.53	91	1636647	44.27 PPB	100
53) Octane	20.60	43	1491925	35.74 PPB	95
54) trans-1,3-Dichloropropene	20.91	75	694000	40.02 PPB	97
55) Ethyl Methacrylate	20.97	69	1132247	41.22 PPB	93
56) 1,1,2-Trichloroethane	21.28	97	565168	41.69 PPB	98
57) Tetrachloroethene	21.58	166	961470	47.75 PPB	1
58) 2-Hexanone	21.66	43	1526944	42.72 PPB	
59) Dibromochloromethane	22.07	127	796188	36.68 PPB	100
60) 1,2-Dibromoethane	22.32	107	873338	43.09 PPB	100
61) Chlorobenzene	23.20	112	1247759	43.23 PPB	100
62) 1,1,1,2-Tetrachloroethane	23.33	131	695436	41.82 PPB	98
63) Ethylbenzene	23.35	91	1933728	43.11 PPB	99
64) m/p-Xylene	23.55	91	2942452	83.50 PPB	99
65) o-Xylene	24.32	91	1519830	43.11 PPB	99
66) Styrene	24.34	104	1015023	41.74 PPB	95
67) Bromoform	24.78	173	950565	40.68 PPB	99
68) Cumene	24.98	105	2037936	40.38 PPB	99
69) 1,1,2,2-Tetrachloroethane	25.55	83	1292065	38.99 PPB	100
70) 1,2,3-Trichloropropane	25.67	110	314697	40.13 PPB	91
71) Bromobenzene	25.67	156	688231	39.61 PPB	100
72) 4-Ethyltoluene	25.97	105	1989942	41.47 PPB	99
73) 1,3,5-Trimethylbenzene	26.07	105	1618692	43.02 PPB	97
74) Alpha Methyl Styrene	26.51	118	941123	39.64 PPB	99
75) 1,2,4-Trimethylbenzene	26.80	105	1601094	40.65 PPB	100
76) 1,3-Dichlorobenzene	27.43	146	1210543	42.37 PPB	99
77) 1,4-Dichlorobenzene	27.59	146	1166455	41.36 PPB	98
78) Benzyl Chloride	27.82	91	1106251	41.38 PPB	100
79) 1,2-Dichlorobenzene	28.33	146	1133512	41.97 PPB	98
80) Hexachloroethane	28.83	117	779244	39.72 PPB	98
81) 1,2,4-Trichlorobenzene	31.40	180	542974	37.21 PPB	99
82) Hexachlorobutadiene	31.67	225	515044	39.83 PPB	100

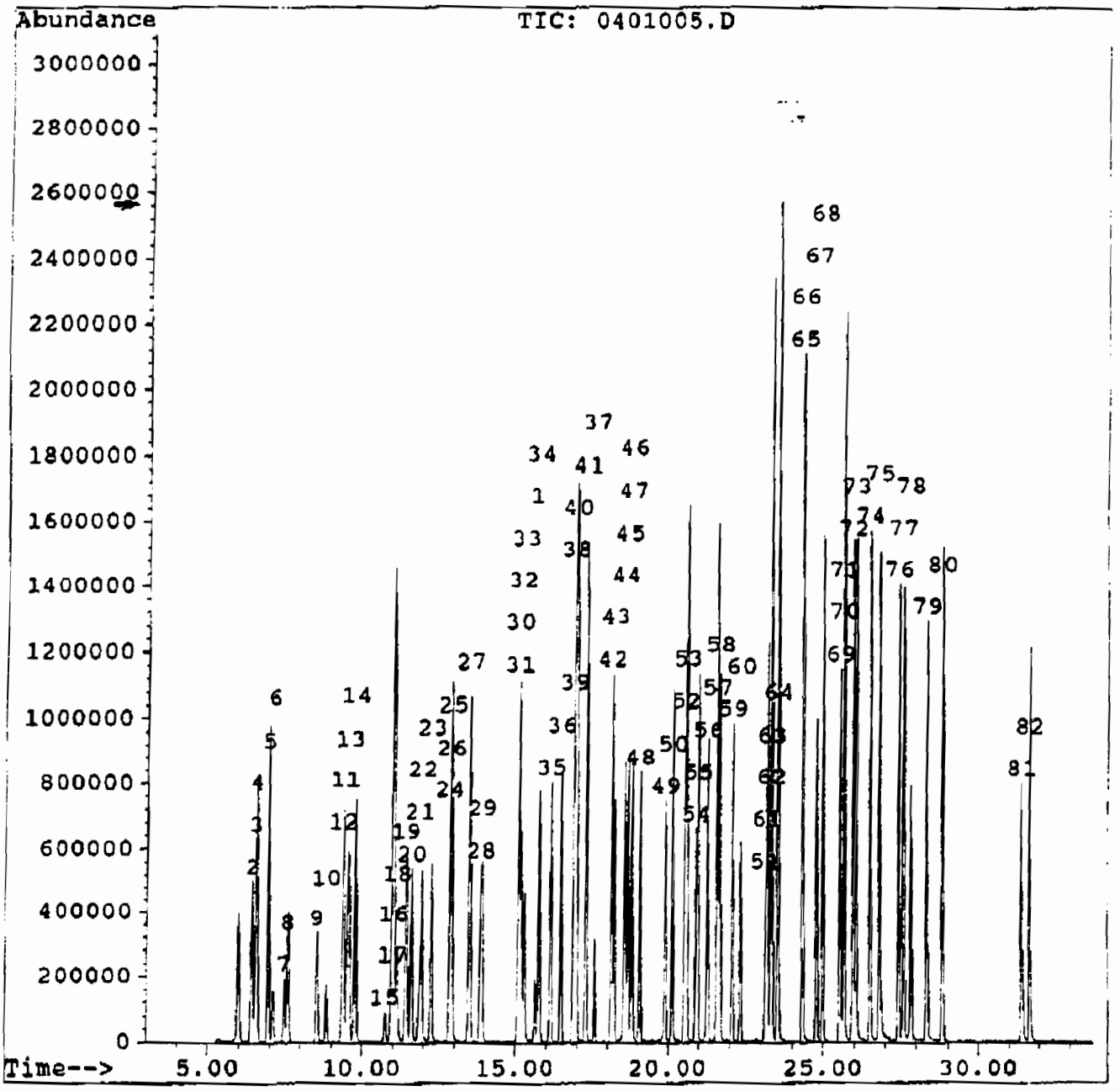
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data\oct02\0401005.d
Acq On : 2 Oct 96 10:55 am
Sample : VSTD50
Misc :
Quant Time: Oct 2 11:31 1996

Vial: 4
Operator: GMM
Inst : HP4508
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\ALL396.M
Title : TO14 SCAN METHOD
Last Update : Wed Oct 02 16:51:58 1996
Response via : Single Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data\oct02\0601007.d
Acq On : 2 Oct 96 12:58 pm
Sample : VSTD100
Misc :
Quant Time: Oct 2 13:44 1996

Vial: 6
Operator: GMM
Inst : HP4508
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\ALL396.M
Title : TO14 SCAN METHOD
Last Update : Wed Oct 02 16:51:58 1996
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	15.63	130	139294	10.00	PPB		0.00
37) 1,4-Difluorobenzene	17.59	114	469664	10.00	PPB		0.01
51) Chlorobenzene d5	23.16	117	438999	10.00	PPB		0.03
System Monitoring Compounds							%Recovery
Target Compounds							Qvalue
2) Propene	6.42	41	1394156	95.61	PPB		98
3) Dichlorodifluoromethane	6.54	85	2952112	101.49	PPB		100
4) Chlorodifluoromethane	6.58	51	2395579	95.53	PPB		97
5) Freon 114	6.96	85	3441762	134.15	PPB		97
6) Chloromethane	7.13	50	1459053	161.67	PPB		100
7) Vinyl Chloride	7.51	62	1540124	149.73	PPB		100
8) 1,3-Butadiene	7.63	54	1285809	143.09	PPB		97
9) Bromomethane	8.54	94	1195607	105.26	PPB		100
10) Chloroethane	8.84	64	837688	103.29	PPB		100
11) Dichlorofluoromethane	9.42	67	2583670	56.66	PPB		1
12) Bromoethene	9.39	106	1176688	99.28	PPB		
13) Trichlorofluoromethane	9.57	101	2399875	103.10	PPB		100
14) Pentane	9.78	43	2425151	75.31	PPB		99
15) Acrolein	10.72	56	490274	114.96	PPB		99
16) 1,1-Dichloroethene	11.01	61	1852106	94.23	PPB		99
17) Freon 113	10.98	103	1364983	97.06	PPB		100
18) Acetone	11.11	43	1840057	96.63	PPB		99
19) Methyl Iodide	11.42	142	3225496	76.53	PPB		99
20) Carbon Disulfide	11.61	76	3450047	83.04	PPB		99
21) Acetonitrile	11.86	41	629525	92.89	PPB	#	15
22) 3-Chloropropene	11.93	76	543751	93.24	PPB		93
23) Methylene Chloride	12.25	84	1050026	94.05	PPB		93
24) Acrylonitrile	12.83	53	851651	95.88	PPB		99
25) trans-1,2-Dichloroethene	12.90	61	1666956	80.16	PPB		100
26) Methyl t-Butyl Ether	12.86	73	2936268	94.11	PPB		97
27) Hexane	13.48	57	2006239	80.92	PPB		94
28) 1,1-Dichloroethane	13.86	63	2177031	82.43	PPB		99
29) Vinyl Acetate	13.93	43	3135433	89.87	PPB		98
30) cis-1,2-Dichloroethene	15.12	61	1587582	85.68	PPB		100
31) 2-Butanone	15.11	72	577376	85.52	PPB		87
32) Ethyl Acetate	15.21	70	312573	86.91	PPB	#	100
33) Methyl Acrylate	15.31	55	2045827	89.13	PPB		98
34) Chloroform	15.76	83	2317187	97.59	PPB		99
35) 1,1,1-Trichloroethane	16.16	97	1954093	98.28	PPB		99
36) Carbon Tetrachloride	16.50	117	1947218	95.79	PPB		99
38) 1,2-Dichloroethane	16.94	62	1302368	92.60	PPB		10
39) Benzene	16.90	78	3196488	88.33	PPB		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data\oct02\0601007.d
Acq On : 2 Oct 96 12:58 pm
Sample : VSTD100
Misc :
Quant Time: Oct 2 13:44 1996

Vial: 6
Operator: GMM
Inst : HP4508
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\ALL396.M
Title : TO14 SCAN METHOD
Last Update : Wed Oct 02 16:51:58 1996
Response via : Single Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
40) Isooctane	16.97	57	5776276	77.91	PPB		99
41) Heptane	17.30	43	2405110	86.08	PPB		92
42) Trichloroethene	18.13	130	1533969	99.49	PPB		99
43) Ethyl Acrylate	18.24	55	3034176	97.19	PPB		99
44) 1,2-Dichloropropane	18.58	63	1399101	102.32	PPB		99
45) Methyl Methacrylate	18.68	69	1405201	96.82	PPB		93
46) Dibromomethane	18.83	174	1154319	84.98	PPB		99
47) 1,4-Dioxane	18.82	88	529623	76.54	PPB		96
48) Bromodichloromethane	19.08	83	2165041	85.53	PPB		100
49) cis-1,3-Dichloropropene	19.91	75	1797153	92.42	PPB		99
50) 4-Methyl-2-Pentanone	20.14	43	3283148	94.48	PPB		97
52) Toluene	20.55	91	3477499	102.64	PPB	m	100
53) Octane	20.62	43	2870557	75.03	PPB	m	93
54) trans-1,3-Dichloropropene	20.92	75	1507537	94.86	PPB	m	98
55) Ethyl Methacrylate	20.99	69	2340178	92.97	PPB	m	92
56) 1,1,2-Trichloroethane	21.29	97	1196255	96.30	PPB	m	99
57) Tetrachloroethene	21.59	166	1885105	102.16	PPB	m	99
58) 2-Hexanone	21.69	43	3063109	93.51	PPB	m	97
59) Dibromochloromethane	22.08	127	1648506	82.87	PPB	m	100
60) 1,2-Dibromoethane	22.34	107	1851881	99.69	PPB	m	99
61) Chlorobenzene	23.22	112	2653804	100.33	PPB	m	99
62) 1,1,1,2-Tetrachloroethane	23.34	131	1388765	91.12	PPB	m	99
63) Ethylbenzene	23.36	91	3911068	95.14	PPB	m	98
64) m/p-Xylene	23.57	91	5906246	182.88	PPB	m	99
65) o-Xylene	24.34	91	3114363	96.39	PPB	m	99
66) Styrene	24.36	104	2123444	95.28	PPB	m	96
67) Bromoform	24.80	173	1974048	92.19	PPB	m	100
68) Cumene	25.00	105	4129809	89.30	PPB	m	100
69) 1,1,2,2-Tetrachloroethane	25.57	83	2552085	84.04	PPB	m	99
70) 1,2,3-Trichloropropane	25.70	110	623382	86.73	PPB	m	88
71) Bromobenzene	25.69	156	1389373	87.25	PPB	m	100
72) 4-Ethyltoluene	25.99	105	4062162	92.36	PPB	m	99
73) 1,3,5-Trimethylbenzene	26.09	105	3356605	97.34	PPB	m	98
74) Alpha Methyl Styrene	26.53	118	1981749	91.09	PPB	m	99
75) 1,2,4-Trimethylbenzene	26.82	105	3281054	90.89	PPB	m	99
76) 1,3-Dichlorobenzene	27.45	146	2506622	95.74	PPB	m	99
77) 1,4-Dichlorobenzene	27.61	146	2460071	95.17	PPB	m	98
78) Benzyl Chloride	27.85	91	2428014	99.09	PPB	m	99
79) 1,2-Dichlorobenzene	28.35	146	2338450	94.49	PPB	m	99
80) Hexachloroethane	28.84	117	1519902	84.53	PPB	m	98
81) 1,2,4-Trichlorobenzene	31.39	180	1028878	76.93	PPB	m	99
82) Hexachlorobutadiene	31.67	225	963409	81.29	PPB	m	100

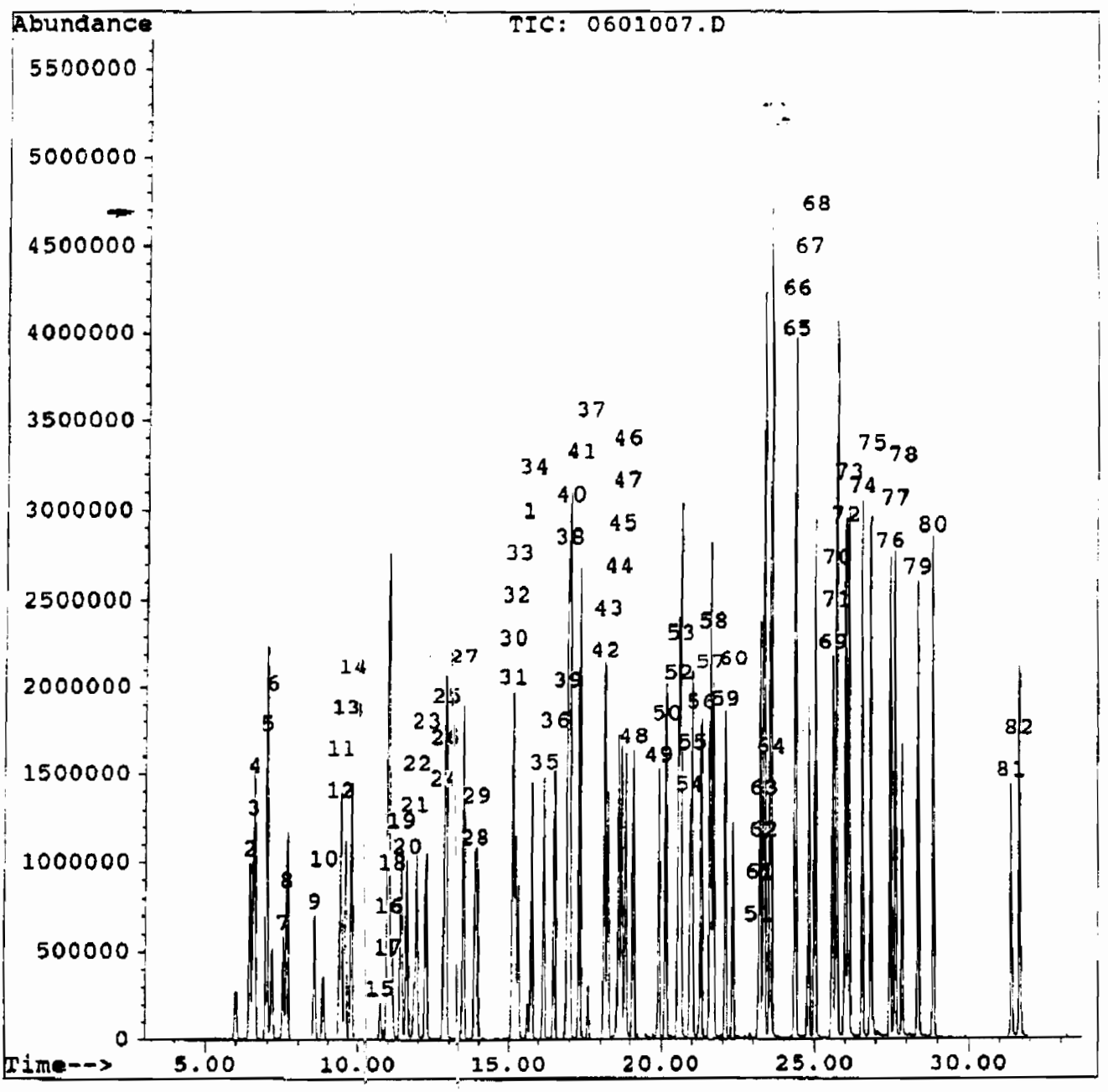
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data\oct02\0601007.d
Acq On : 2 Oct 96 12:58 pm
Sample : VSTD100
Misc :
Quant Time: Oct 2 13:44 1996

Vial: 6
Operator: GMM
Inst : HP4508
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\ALL396.M
Title : TO14 SCAN METHOD
Last Update : Wed Oct 02 16:51:58 1996
Response via : Single Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data\oct02\0801010.d Vial: 8
Acq On : 2 Oct 96 4:09 pm Operator: GMM
Sample : VSTD10 Inst : HP4508
Misc : Multiplr: 1.00
Quant Time: Oct 2 16:46 1996

Method : c:\HPCHEM\1\METHODS\ALL396.M
Title : TO14 SCAN METHOD
Last Update : Wed Oct 02 16:51:58 1996
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	15.66	130	122239	10.00	PPB		0.00
37) 1,4-Difluorobenzene	17.61	114	443293	10.00	PPB		0.00
51) Chlorobenzene d5	23.16	117	383015	10.00	PPB		0.00
System Monitoring Compounds							%Recovery
Target Compounds							Qvalue
2) Propene	6.43	41	131010	10.24	PPB		98
3) Dichlorodifluoromethane	6.54	85	338617	13.27	PPB		99
4) Chlorodifluoromethane	6.58	51	228072	10.36	PPB		99
5) Freon 114	6.97	85	295377	13.12	PPB		98
6) Chloromethane	7.13	50	98072	12.38	PPB		99
7) Vinyl Chloride	7.51	62	110776	12.27	PPB		99
8) 1,3-Butadiene	7.64	54	76025	9.64	PPB		99
9) Bromomethane	8.57	94	123781	12.42	PPB		99
10) Chloroethane	8.88	64	87738	12.33	PPB		99
11) Dichlorofluoromethane	9.47	67	246326	6.16	PPB		98
12) Bromoethene	9.43	106	106037	10.19	PPB		100
13) Trichlorofluoromethane	9.61	101	267793	13.11	PPB		99
14) Pentane	9.83	43	229785	8.13	PPB		99
15) Acrolein	10.79	56	36653	9.79	PPB		97
16) 1,1-Dichloroethene	11.05	61	229077	13.28	PPB		97
17) Freon 113	11.03	103	160717	13.02	PPB		98
18) Acetone	11.17	43	164228	9.83	PPB		100
19) Methyl Iodide	11.47	142	298467	8.07	PPB		100
20) Carbon Disulfide	11.66	76	333986	9.16	PPB		98
21) Acetonitrile	11.94	41	78827	13.25	PPB	m	57
22) 3-Chloropropene	11.99	76	56081	10.96	PPB		89
23) Methylene Chloride	12.29	84	119370	12.18	PPB		96
24) Acrylonitrile	12.88	53	76030	9.75	PPB		99
25) trans-1,2-Dichloroethene	12.94	61	170950	9.37	PPB		96
26) Methyl t-Butyl Ether	12.91	73	265859	9.71	PPB		97
27) Hexane	13.52	57	207490	9.54	PPB		95
28) 1,1-Dichloroethane	13.91	63	238538	10.29	PPB		100
29) Vinyl Acetate	13.96	43	270589	8.84	PPB		100
30) cis-1,2-Dichloroethene	15.15	61	191466	11.77	PPB		96
31) 2-Butanone	15.14	72	53280	8.99	PPB		87
32) Ethyl Acetate	15.24	70	27010	8.56	PPB	#	100
33) Methyl Acrylate	15.33	55	181882	9.03	PPB		98
34) Chloroform	15.79	83	256594	12.31	PPB		99
35) 1,1,1-Trichloroethane	16.19	97	209780	12.02	PPB		99
36) Carbon Tetrachloride	16.52	117	221589	12.42	PPB		98
38) 1,2-Dichloroethane	16.96	62	140493	10.58	PPB		99
39) Benzene	16.93	78	356849	10.45	PPB		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data\oct02\0801010.d
Acq On : 2 Oct 96 4:09 pm
Sample : VSTD10
Misc :
Quant Time: Oct 2 16:46 1996

Vial: 8
Operator: GMM
Inst : HP4508
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\ALL396.M
Title : TO14 SCAN METHOD
Last Update : Wed Oct 02 16:51:58 1996
Response via : Single Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
40)	Isooctane	17.00	57	615650	8.80	PPB		98
41)	Heptane	17.32	43	250908	9.51	PPB		97
42)	Trichloroethene	18.15	130	168552	11.58	PPB		98
43)	Ethyl Acrylate	18.24	55	253440	8.60	PPB	#	91
44)	1,2-Dichloropropane	18.60	63	145940	11.31	PPB		99
45)	Methyl Methacrylate	18.70	69	114209	8.34	PPB		91
46)	Dibromomethane	18.84	174	97033	7.57	PPB		97
47)	1,4-Dioxane	18.81	88	61914	9.48	PPB		99
48)	Bromodichloromethane	19.10	83	182690	7.65	PPB		99
49)	cis-1,3-Dichloropropene	19.92	75	174552	9.51	PPB		96
50)	4-Methyl-2-Pentanone	20.14	43	283677	8.65	PPB		99
52)	Toluene	20.55	91	351659	11.90	PPB		100
53)	Octane	20.63	43	279112	8.36	PPB		98
54)	trans-1,3-Dichloropropene	20.92	75	137602	9.92	PPB		96
55)	Ethyl Methacrylate	21.00	69	192523	8.77	PPB		95
56)	1,1,2-Trichloroethane	21.30	97	118551	10.94	PPB		9[illegible]
57)	Tetrachloroethene	21.60	166	205160	12.74	PPB		
58)	2-Hexanone	21.68	43	277541	9.71	PPB		
59)	Dibromochloromethane	22.09	127	133607	7.70	PPB		99
60)	1,2-Dibromoethane	22.34	107	176875	10.91	PPB		100
61)	Chlorobenzene	23.22	112	256060	11.10	PPB		99
62)	1,1,1,2-Tetrachloroethane	23.35	131	121056	9.10	PPB		99
63)	Ethylbenzene	23.36	91	432707	12.06	PPB		99
64)	m/p-Xylene	23.57	91	661375	23.47	PPB		100
65)	o-Xylene	24.34	91	337750	11.98	PPB		99
66)	Styrene	24.35	104	215058	11.06	PPB		95
67)	Bromoform	24.80	173	156168	8.36	PPB		99
68)	Cumene	25.00	105	354220	8.78	PPB		98
69)	1,1,2,2-Tetrachloroethane	25.57	83	280941	10.60	PPB		99
70)	1,2,3-Trichloropropane	25.69	110	55511	8.85	PPB		96
71)	Bromobenzene	25.69	156	116964	8.42	PPB		99
72)	4-Ethyltoluene	25.98	105	411913	10.74	PPB		99
73)	1,3,5-Trimethylbenzene	26.08	105	352385	11.71	PPB		94
74)	Alpha Methyl Styrene	26.53	118	159213	8.39	PPB		99
75)	1,2,4-Trimethylbenzene	26.81	105	341990	10.86	PPB		100
76)	1,3-Dichlorobenzene	27.45	146	253947	11.12	PPB		98
77)	1,4-Dichlorobenzene	27.60	146	244918	10.86	PPB		96
78)	Benzyl Chloride	27.84	91	222250	10.40	PPB		98
79)	1,2-Dichlorobenzene	28.34	146	246698	11.43	PPB		98
80)	Hexachloroethane	28.84	117	140641	8.96	PPB		96
81)	1,2,4-Trichlorobenzene	31.40	180	142929	12.25	PPB		95
82)	Hexachlorobutadiene	31.67	225	117144	11.33	PPB		99

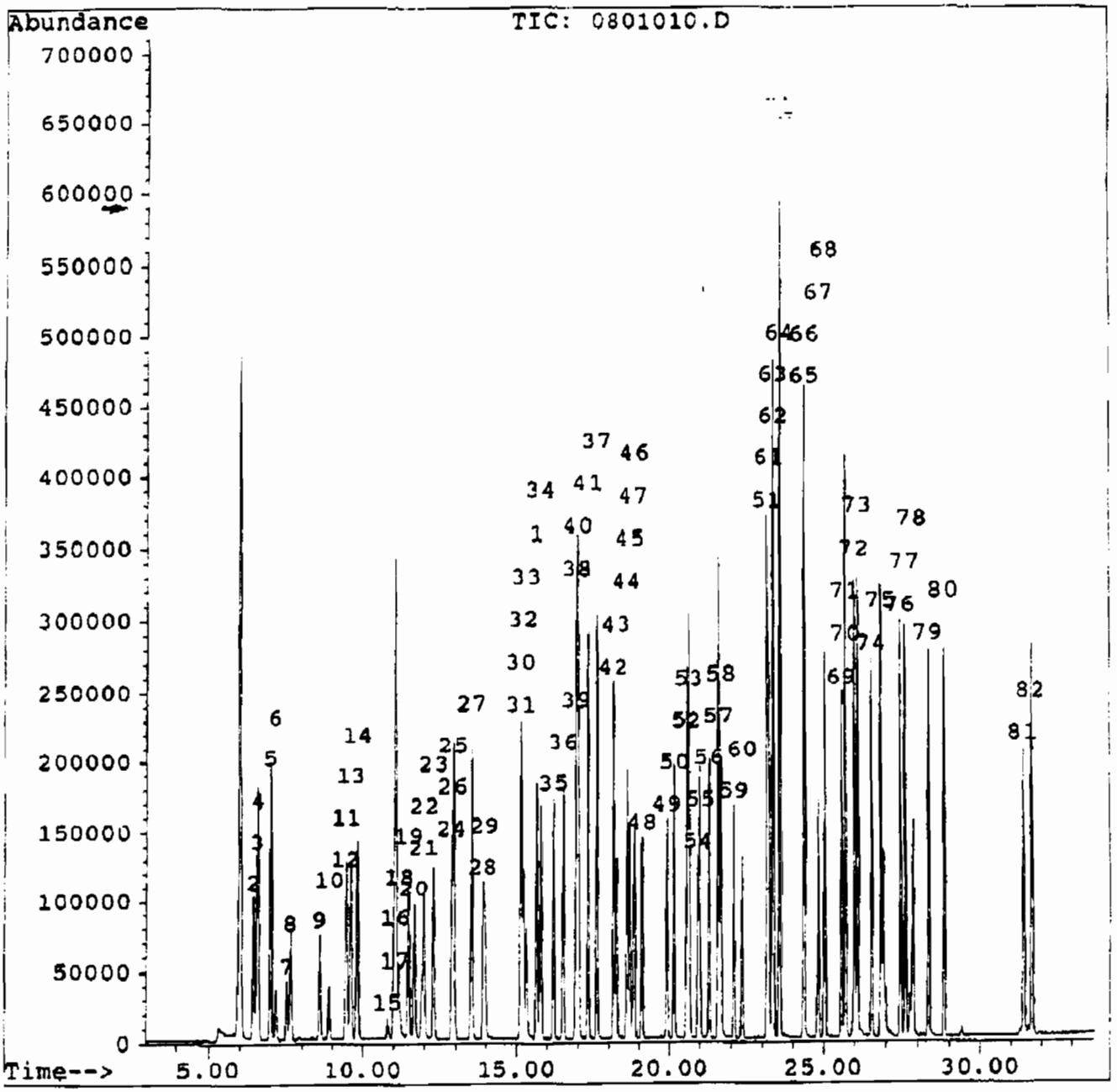
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data\oct02\0801010.d
Acq On : 2 Oct 96 4:09 pm
Sample : VSTD10
Misc :
Quant Time: Oct 2 16:46 1996

Vial: 8
Operator: GMM
Inst : HP4508
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\ALL396.M
Title : TO14 SCAN METHOD
Last Update : Wed Oct 02 16:51:58 1996
Response via : Single Level Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\OCT03\0201003.D Vial: 2
Acq On : 3 Oct 96 9:11 am Operator: GMM
Sample : VSTD50 Inst : HP4508
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\ALL396.M
Title : TO14 SCAN METHOD
Last Update : Wed Oct 02 16:51:58 1996
Response via : Single Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Bromochloromethane	1.000	1.000	0.0	104	0.00
2	Propene	1.041	1.140	-9.6	113	-0.02
3	Dichlorodifluoromethane	2.412	2.300	4.6	102	-0.02
4	Chlorodifluoromethane	1.814	1.911	-5.3	107	-0.03
5	Freon 114	2.337	2.743	-17.4	134	0.00
6	Chloromethane	0.843	1.104	-30.9#	169#	0.00
7	Vinyl Chloride	0.930	1.178	-26.7#	157#	0.00
8	1,3-Butadiene	0.726	1.015	-39.7#	164#	0.00
9	Bromomethane	0.919	0.909	1.1	107	-0.01
10	Chloroethane	0.648	0.634	2.2	105	-0.02
11	Dichlorofluoromethane	3.292	3.434	-4.3	104	-0.01
12	Bromoethene	0.838	0.891	-6.3	106	-0.02
13	Trichlorofluoromethane	1.943	1.827	6.0	99	0.00
14	Pentane	2.262	2.345	-3.7	104	0.00
15	Acrolein	0.353	0.351	0.4	102	-0.0
16	1,1-Dichloroethene	1.577	1.470	6.8	100	0.00
17	Freon 113	1.127	1.072	4.9	103	0.00
18	Acetone	1.444	1.375	4.8	99	-0.02
19	Methyl Iodide	3.050	3.175	-4.1	103	0.00
20	Carbon Disulfide	2.908	2.993	-2.9	101	-0.01
21	Acetonitrile	0.546	0.455	16.6	103	0.00
22	3-Chloropropene	0.425	0.421	0.9	103	0.00
23	Methylene Chloride	0.860	0.818	4.9	100	0.00
24	Acrylonitrile	0.620	0.599	3.4	98	-0.01
25	trans-1,2-Dichloroethene	1.465	1.487	-1.5	99	0.00
26	Methyl t-Butyl Ether	2.358	2.273	3.6	98	0.00
27	Hexane	1.688	1.730	-2.5	100	0.00
28	1,1-Dichloroethane	1.846	1.916	-3.7	108	0.00
29	Vinyl Acetate	2.487	2.398	3.6	97	0.00
30	cis-1,2-Dichloroethene	1.412	1.336	5.4	100	0.00
31	2-Butanone	0.479	0.469	2.0	96	0.00
32	Ethyl Acetate	0.250	0.248	0.8	97	0.00
33	Methyl Acrylate	1.667	1.559	6.5	91	0.00
34	Chloroform	1.872	1.833	2.1	103	0.00
35	1,1,1-Trichloroethane	1.563	1.515	3.0	100	0.00
36	Carbon Tetrachloride	1.681	1.585	5.7	99	0.00
37	1,4-Difluorobenzene	1.000	1.000	0.0	98	0.00
38	1,2-Dichloroethane	0.291	0.280	3.6	99	0.00
39	Benzene	0.726	0.733	-1.0	104	0.00
40	Isooctane	1.444	1.666	-15.4	110	0.00
41	Heptane	0.575	0.648	-12.8	107	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\OCT03\0201003.D Vial: 2
Acq On : 3 Oct 96 9:11 am Operator: GMM
Sample : VSTD50 Inst : HP4508
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\ALL396.M
Title : TO14 SCAN METHOD
Last Update : Wed Oct 02 16:51:58 1996
Response via : Single Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
42	Trichloroethene	0.350	0.357	-2.0	102	0.00
43	Ethyl Acrylate	0.668	0.706	-5.7	102	0.00
44	1,2-Dichloropropane	0.308	0.305	0.8	101	0.00
45	Methyl Methacrylate	0.307	0.325	-5.7	101	0.00
46	Dibromomethane	0.256	0.290	-13.0	109	0.00
47	1,4-Dioxane	0.143	0.169	-18.3	108	0.00
48	Bromodichloromethane	0.480	0.557	-15.9	110	0.01
49	cis-1,3-Dichloropropene	0.423	0.416	1.5	101	0.00
50	4-Methyl-2-Pentanone	0.734	0.796	-8.4	103	0.00
51	Chlorobenzene d5	1.000	1.000	0.0	82	0.00
52	Toluene	0.798	0.847	-6.2	102	0.01
53	Octane	0.727	0.888	-22.2	108	0.01
54	trans-1,3-Dichloropropene	0.368	0.390	-6.1	99	0.00
55	Ethyl Methacrylate	0.550	0.638	-16.1	101	0.00
56	1,1,2-Trichloroethane	0.287	0.312	-8.7	103	0.00
57	Tetrachloroethene	0.455	0.493	-8.3	101	0.00
58	2-Hexanone	0.750	0.849	-13.2	100	0.02
59	Dibromochloromethane	0.385	0.436	-13.3	98	0.00
60	1,2-Dibromoethane	0.416	0.448	-7.7	101	0.02
61	Chlorobenzene	0.598	0.649	-8.6	102	0.00
62	1,1,1,2-Tetrachloroethane	0.324	0.370	-14.2	99	0.00
63	Ethylbenzene	0.943	1.011	-7.2	103	0.00
64	m/p-Xylene	0.735	0.787	-7.1	102	0.01
65	o-Xylene	0.742	0.793	-6.9	102	0.01
66	Styrene	0.490	0.535	-9.3	104	0.01
67	Bromoform	0.450	0.527	-17.3	101	0.01
68	Cumene	0.990	1.132	-14.4	100	0.01
69	1,1,2,2-Tetrachloroethane	0.651	0.731	-12.4	106	0.01
70	1,2,3-Trichloropropane	0.148	0.175	-18.3	103	0.02
71	Bromobenzene	0.326	0.385	-18.0	102	0.01
72	4-Ethyltoluene	0.994	1.094	-10.1	103	0.01
73	1,3,5-Trimethylbenzene	0.787	0.862	-9.5	105	0.01
74	Alpha Methyl Styrene	0.457	0.533	-16.7	102	0.01
75	1,2,4-Trimethylbenzene	0.810	0.888	-9.6	103	0.01
76	1,3-Dichlorobenzene	0.580	0.641	-10.6	104	0.01
77	1,4-Dichlorobenzene	0.562	0.626	-11.3	105	0.01
78	Benzyl Chloride	0.532	0.594	-11.7	105	0.01
79	1,2-Dichlorobenzene	0.550	0.603	-9.7	104	0.01
80	Hexachloroethane	0.376	0.436	-15.8	101	0.00
81	1,2,4-Trichlorobenzene	0.278	0.283	-1.9	102	0.00
82	Hexachlorobutadiene	0.260	0.277	-6.8	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : c:\HPCHEM\1\DATA\OCT03\0201003.D Vial: 2
Acq On : 3 Oct 96 9:11 am Operator: GMM
Sample : VSTD50 Inst : HP4508
Misc : Multiplr: 1.00
Quant Time: Oct 3 9:57 1996

Method : C:\HPCHEM\1\METHODS\ALL396.M
Title : TO14 SCAN METHOD
Last Update : Wed Oct 02 16:51:58 1996
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	15.63	130	133642	10.00	PPB		0.00
37) 1,4-Difluorobenzene	17.58	114	449530	10.00	PPB		0.00
51) Chlorobenzene d5	23.16	117	392727	10.00	PPB		0.00
System Monitoring Compounds							%Recovery
Target Compounds							Qvalue
2) Propene	6.39	41	762019	54.32	PPB		98
3) Dichlorodifluoromethane	6.51	85	1537179	48.99	PPB		99
4) Chlorodifluoromethane	6.55	51	1276951	51.43	PPB		98
5) Freon 114	6.94	85	1832853	64.58	PPB		99
6) Chloromethane	7.11	50	737423	81.27	PPB		100
7) Vinyl Chloride	7.48	62	787079	75.70	PPB		99
8) 1,3-Butadiene	7.61	54	681310	79.51	PPB		97
9) Bromomethane	8.52	94	607662	51.28	PPB		99
10) Chloroethane	8.82	64	423836	50.69	PPB		99
11) Dichlorofluoromethane	9.41	67	1376703	30.06	PPB		[illegible]
12) Bromoethene	9.37	106	622296	53.14	PPB		1[illegible]
13) Trichlorofluoromethane	9.56	101	1220533	47.66	PPB		100
14) Pentane	9.78	43	1277148	40.77	PPB		99
15) Acrolein	10.72	56	218262	45.77	PPB		100
16) 1,1-Dichloroethene	11.00	61	982146	48.13	PPB		99
17) Freon 113	10.98	103	716326	49.34	PPB		99
18) Acetone	11.11	43	844990	43.99	PPB		98
19) Methyl Iodide	11.42	142	1697305	39.65	PPB		99
20) Carbon Disulfide	11.60	76	1849929	44.74	PPB		99
21) Acetonitrile	11.86	41	282699	46.22	PPB	m	30
22) 3-Chloropropene	11.93	76	281631	49.44	PPB		92
23) Methylene Chloride	12.25	84	546892	48.12	PPB		95
24) Acrylonitrile	12.83	53	401982	47.62	PPB		96
25) trans-1,2-Dichloroethene	12.90	61	909249	43.64	PPB		98
26) Methyl t-Butyl Ether	12.86	73	1397208	43.25	PPB		97
27) Hexane	13.48	57	1109708	46.27	PPB		95
28) 1,1-Dichloroethane	13.86	63	1215978	49.46	PPB		100
29) Vinyl Acetate	13.92	43	1466303	42.50	PPB		99
30) cis-1,2-Dichloroethene	15.12	61	848402	45.74	PPB		99
31) 2-Butanone	15.11	72	286977	42.28	PPB		87
32) Ethyl Acetate	15.19	70	152497	42.88	PPB	#	100
33) Methyl Acrylate	15.30	55	953463	40.28	PPB		99
34) Chloroform	15.76	83	1224558	49.41	PPB		99
35) 1,1,1-Trichloroethane	16.16	97	1012651	48.27	PPB		99
36) Carbon Tetrachloride	16.49	117	1006297	45.30	PPB		99
38) 1,2-Dichloroethane	16.94	62	629549	50.40	PPB		9[illegible]
39) Benzene	16.91	78	1648222	52.99	PPB		1[illegible]

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\HPCHEM\1\DATA\OCT03\0201003.D Vial: 2
Acq On : 3 Oct 96 9:11 am Operator: GMM
Sample : VSTD50 Inst : HP4508
Misc : Multiplr: 1.00
Quant Time: Oct 3 9:57 1996

Method : C:\HPCHEM\1\METHODS\ALL396.M
Title : TO14 SCAN METHOD
Last Update : Wed Oct 02 16:51:58 1996
Response via : Single Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Isooctane	16.97	57	3446035	51.65	PPB	98
41) Heptane	17.30	43	1390612	52.01	PPB	95
42) Trichloroethene	18.13	130	802318	52.01	PPB	99
43) Ethyl Acrylate	18.23	55	1460704	47.73	PPB	100
44) 1,2-Dichloropropane	18.58	63	686078	51.50	PPB	98
45) Methyl Methacrylate	18.68	69	671153	47.27	PPB	94
46) Dibromomethane	18.83	174	595775	50.79	PPB	99
47) 1,4-Dioxane	18.79	88	348505	50.36	PPB	97
48) Bromodichloromethane	19.08	83	1157763	51.78	PPB	100
49) cis-1,3-Dichloropropene	19.90	75	841975	46.23	PPB	98
50) 4-Methyl-2-Pentanone	20.13	43	1654433	48.75	PPB	98
52) Toluene	20.55	91	1663647	61.99	PPB	99
53) Octane	20.62	43	1604292	60.33	PPB	95
54) trans-1,3-Dichloropropene	20.92	75	689032	54.49	PPB	97
55) Ethyl Methacrylate	20.98	69	1146720	56.52	PPB	93
56) 1,1,2-Trichloroethane	21.29	97	582025	59.66	PPB	99
57) Tetrachloroethene	21.59	166	968894	61.46	PPB	100
58) 2-Hexanone	21.68	43	1525850	55.76	PPB	98
59) Dibromochloromethane	22.08	127	783850	54.94	PPB	100
60) 1,2-Dibromoethane	22.33	107	879636	61.43	PPB	100
61) Chlorobenzene	23.21	112	1275207	62.33	PPB	99
62) 1,1,1,2-Tetrachloroethane	23.34	131	689730	57.46	PPB	99
63) Ethylbenzene	23.36	91	1984292	62.58	PPB	99
64) m/p-Xylene	23.56	91	3013769	121.80	PPB	99
65) o-Xylene	24.33	91	1557048	62.48	PPB	99
66) Styrene	24.35	104	1050632	63.13	PPB	96
67) Bromoform	24.79	173	963253	57.47	PPB	99
68) Cumene	24.99	105	2034100	55.70	PPB	99
69) 1,1,2,2-Tetrachloroethane	25.56	83	1363739	61.15	PPB	100
70) 1,2,3-Trichloropropane	25.69	110	323920	59.01	PPB	91
71) Bromobenzene	25.68	156	702497	57.89	PPB	100
72) 4-Ethyltoluene	25.98	105	2040589	59.41	PPB	99
73) 1,3,5-Trimethylbenzene	26.08	105	1692263	63.76	PPB	98
74) Alpha Methyl Styrene	26.52	118	962238	57.37	PPB	99
75) 1,2,4-Trimethylbenzene	26.81	105	1656275	59.93	PPB	100
76) 1,3-Dichlorobenzene	27.44	146	1259573	63.46	PPB	98
77) 1,4-Dichlorobenzene	27.60	146	1229149	64.26	PPB	98
78) Benzyl Chloride	27.84	91	1166578	64.31	PPB	100
79) 1,2-Dichlorobenzene	28.34	146	1184425	63.73	PPB	98
80) Hexachloroethane	28.83	117	787677	56.71	PPB	98
81) 1,2,4-Trichlorobenzene	31.39	180	556521	62.51	PPB	98
82) Hexachlorobutadiene	31.66	225	517588	58.22	PPB	100

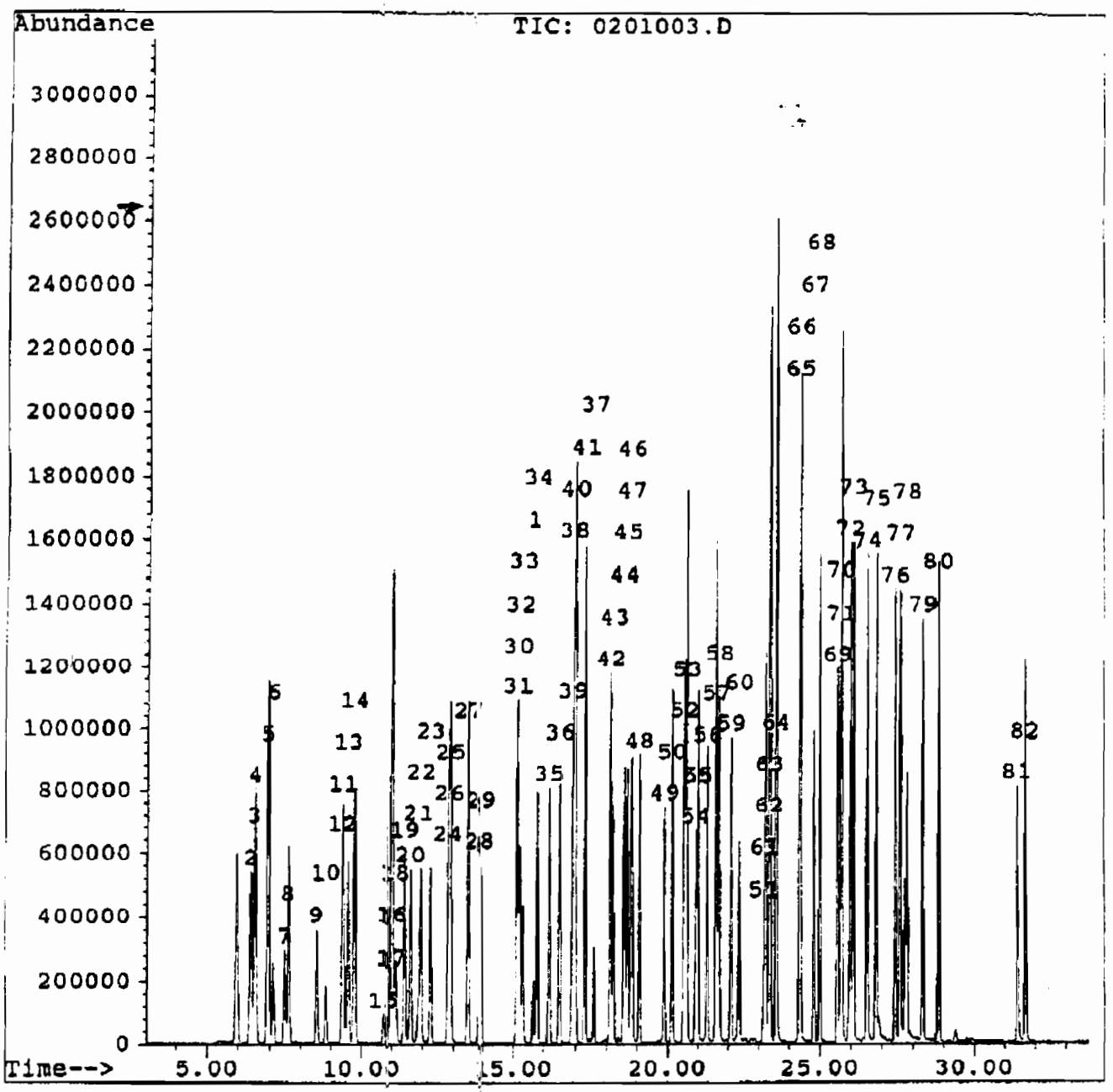
(#) = qualifier out of range (m) = manual integration

Quantitation Report

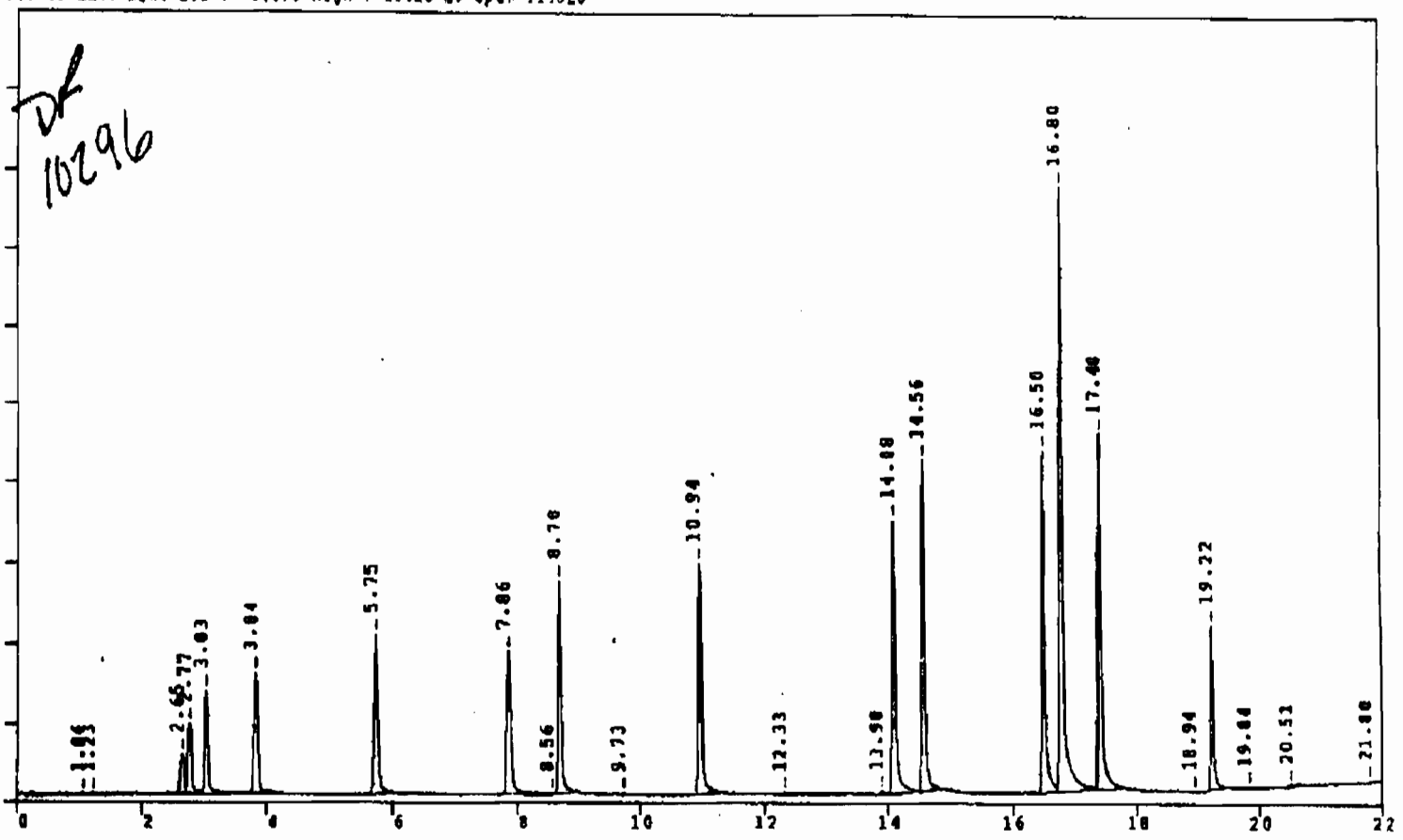
Data File : c:\HPCHEM\1\DATA\OCT03\0201003.D
Acq On : 3 Oct 96 9:11 am
Sample : VSTD50
Misc :
Quant Time: Oct 3 9:57 1996

Vial: 2
Operator: GMM
Inst : HP4508
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\ALL396.M
Title : TO14 SCAN METHOD
Last Update : Wed Oct 02 16:51:58 1996
Response via : Single Level Calibration



File=C:\CP\DATA1\96275.01R Date printed=10-01-1996 Time= 06:47:20
Sample Name=VSTD010
0.0 to 22.0 min. Low Y=-0.098 High Y=11.23 mv Span=11.328



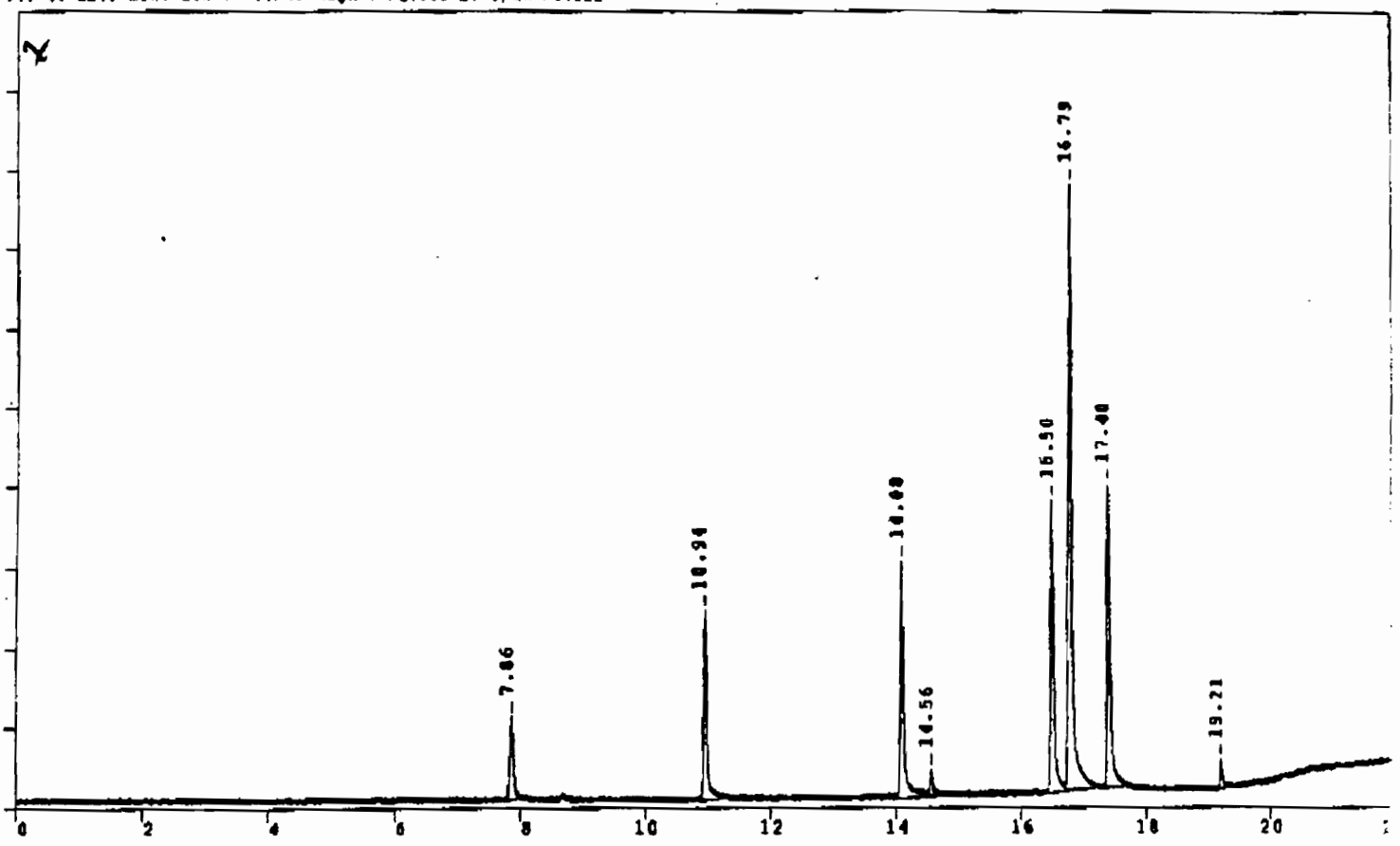
Lancaster Labs Inc.
Analysis Data Sheet
DIR Analysis:
Sample No:
Lab Sample: VSTD010
Date Analyzed: Oct 1, 1996 06:47:01
Nominal Vol: 100 uL
Instr. ID: A58309--FID
Lab File ID: C:\CP\DATA1\96275.01R
Calibration File: c:\cp\data1\FIDT.CAL
Calibration Version: 44 09/30/96 06:45:54

DIR Analysis:
Sample No:
Lab Sample: VSTD010
Date Analyzed: Oct 1, 1996 06:47:01
Nominal Vol: 100 uL
Instr. ID: A58309--FID
Lab File ID: C:\CP\DATA\96275.01R
Calibration File: c:\cp\data1\FIDT.CAL
Calibration Version: 44 09/30/96 06:45:54

Ret Time (min)	Peak Area	Peak Name	Amount PPM
1.064	64		0.0000
1.230	87		0.0000
2.649	2535	Methane	11.6422
2.773	4494	Ethane	11.1526
3.034	6376	Propane	11.0531
3.841	7952	Butane	10.5817
5.746	9835	Pentane	10.2832
7.864	9796	Methyl t-Butyl Ether	11.1086
8.565	51		0.0000
8.704	11438	Hexane	10.2085
9.727	62		0.0000
10.945	11662	Benzene	10.6874
12.329	71		0.0000
13.903	167		0.0000
14.084	14038	Toluene	10.8699
14.560	15463	Octane	10.5359
16.498	17099	Ethylbenzene	11.1949
16.795	36747	m/p-Xylene	11.4975
17.403	18546	o-Xylene	11.3817
18.937	40		0.0000
19.223	8037	Decane	4.4397
19.837	33		0.0000
20.512	117		0.0000
21.798	171		0.0000

Total Area: 174881.2

File=C:\CP\DATA1\96275B.01R Date printed=10-01-1996 Time= 06:49:21
Sample Name=VSTD010
0.0 to 22.0 min. Low Y=-0.748 High Y=72.363 mv Span=73.111



Lancaster Labs Inc.
Analysis Data Sheet
DIR Analysis:
Sample No:
Lab Sample: VSTD010
Date Analyzed: Oct 1, 1996 06:47:02
Nominal Vol: 100 uL
Instr. ID: A58309--PID
Lab File ID: C:\CP\DATA1\96275B.01R
Calibration File: c:\cp\data1\PIDT.CAL
Calibration Version: 53 09/30/96 06:45:54

Ret Time (min)	Peak Area	Peak Name	Amount ppm
7.865	31986	Methyl t-Butyl Ether	8.9966
10.942	65327	Benzene	10.5935
14.081	81589	Toluene	11.0440
14.561	9661		0.0000
16.496	95757	Ethylbenzene	11.4742
16.792	235574	m/p-Xylene	23.5559
17.400	99958	o-Xylene	10.8956
19.215	7999		0.0000

Total Area: 627850.9

Continuing Calibration Report

Calib File (FID): FIDT44.CAL Ver#: 44 Date: 09-26-1996
(PID): PIDT53.CAL Ver#: 53 Date: 09-27-1996

CC Data file: C:\CP\DATA1\96275.01Z Date: 10/ 1/96 Time: 06:47
C:\CP\DATA1\96275B.01Z Date: 10/ 1/96 Time: 06:47

Compound	AvgRF	CCRF	%Diff	Qual
Methane	235.47	250.99	6.6%	
Ethane	420.32	432.12	2.8%	
Propane	577.47	637.60	10.4%	
Butane	771.09	795.20	3.1%	
Pentane	962.72	954.85	-0.8%	
Hexane	1084.07	1121.37	3.4%	
Octane	1393.37	1486.83	6.7%	
Decane	1933.33	2575.96	33.2%	#
Benzene	5989.63	6342.43	5.9%	
Toluene	7474.20	7921.26	6.0%	
Ethylbenzene	8504.67	9387.94	10.4%	
m/p-Xylene	10235.34	11325.67	10.7%	
o-Xylene	9406.30	9519.81	1.2%	
Methyl t-Butyl Ether	900.74	981.56	9.0%	

DR 10296

10/17/96 16:25:51
Previously Reported on 10/10/96.

RADIAN ANALYTICAL SERVICES
FPAS REPORT
TABLE OF CONTENTS

Work Order # 9610075

Client DEI Clairmont
Facility Clairmont
Client Code V DEI CM

Certified By Linda Bryddle Voight
Date 10/18/96

RADIAN ANALYTICAL SERVICES
FPAS REPORT
TABLE OF CONTENTS (Cont'd)

Client DEI Clairmont
Facility Clairmont
Client Code V DEI CM

10/17/96 16:25:51

WORK ORDER SUMMARY

Report Radian Corporation
To 8501 Mo-Pac Blvd.
Austin, TX 78720
Attention Andy Weber

Client Code V DEI CM
Client DEI Clairmont
Facility Clairmont
Work ID Equipment & VOC Samp

Work Order # 9610075

RCN 650-233-02-01

Prepared Radian Analytical Services
By 14046 Summit Dr., Bldg. B
P. O. Box 201088
Austin, TX 78720-1088

CSC LABENDELE

Case # NA
SDG # NA
RAS # 61001ALAB

New York ELAP ID #: 10915

Project Sample ID/ Description	Lab Sample ID	Test Code(s)	Method Desciption
CL LTEV-11-AI 094	01A	ADHRAACM	AMBIENT VOC-GC/MD
		SDFRAACM	SOURCE VOC - GC/MD
	01B	ADHRAACM	AMBIENT VOC-GC/MD
		SDFRAACM	SOURCE VOC - GC/MD
CL LTEV-11-AI 095	02A	ADHRAACM	AMBIENT VOC-GC/MD
		SDFRAACM	SOURCE VOC - GC/MD
CL LTEV-11-AI 096	03A	ADHRAACM	AMBIENT VOC-GC/MD
		SDFRAACM	SOURCE VOC - GC/MD
CL LTEV-11-AI 091	04A	SDHRAACM	SOURCE VOC - GC/MD
CL LTEV-11-AI 092	05A	SDHRAACM	SOURCE VOC - GC/MD
	05B	SDHRAACM	SOURCE VOC - GC/MD
CL LTEV-11-AI 093	06A	SDHRAACM	SOURCE VOC - GC/MD
CL LTEV-11-AI 097	07A	SDHRAACM	SOURCE VOC - GC/MD
CL LTEV-11-AI 098	08A	SDHRAACM	SOURCE VOC - GC/MD
	08B	SDHRAACM	SOURCE VOC - GC/MD
CL LTEV-11-AI 099	09A	SDHRAACM	SOURCE VOC - GC/MD

FLAG DEFINITIONS

Flag	Definition
< DL	Result less than stated Detection Limit and greater than or equal to zero.
NA	Analyte concentration not available for this analysis.
NC	RPD and/or % Recovery not calculated. See Narrative for explanation.
ND	Not detected. No instrument response for analyte or result less than zero.
NR	Not reported. Result greater than or equal to stated Detection Limit and less than specified Reporting Limit.
NS	Analyte not spiked.
B	Analyte detected in method blank at concentration greater than the Reporting Limit (and greater than zero).
C	Confirming data obtained using second GC column or GCMS.
E	Analyte concentration exceeded calibration range.
F	Interference or coelution suspected. See Narrative for explanation.
H	Presence of analyte previously confirmed by historical data.
I	Analyte identification suspect. See Narrative for explanation.
J	Result is less than stated Detection Limit but greater than or equal to specified Reporting Limit.
K	Peak did not meet method identification criteria. Analyte not detected on other GC column.
M	Result modified from previous Report. See Narrative for explanation.
P	Analyte not confirmed. Results from primary and secondary GC columns differ by greater than a factor of 3.
Q	QC result does not meet tolerance in Protocol Specification.
R	Result reported elsewhere.
S	Analyte concentration obtained using Method of Standard Additions (MSA).
T	Second column confirmational analysis not performed.
X	See Narrative for explanation.
Y	See Narrative for explanation.
Z	See Narrative for explanation.

ANALYTICAL PROTOCOL SUMMARY

Client DEI Clairmont
Specification # ADHR
Facility Clairmont
Client Code V DEI CM
Method AMBIENT VOC-GC/MD

Project Sample ID/Description	Lab Sample ID	Test Code(s)	Extraction/Digestion Batch #	Analysis Batch #
CL LTEV-11-AI 094	9610075-01A	ADHRAACM	NA	VOC2__61003173401
CL LTEV-11-AI 094	9610075-01B	ADHRAACM	NA	VOC2__61003173401
CL LTEV-11-AI 095	9610075-02A	ADHRAACM	NA	VOC2__61003173401
CL LTEV-11-AI 096	9610075-03A	ADHRAACM	NA	VOC2__61003173401

Method Ambient VOC - GC/MD ELCD
Test Code ADHRAACM

Project Sample ID:	CL LTEV-11-AI 094		CL LTEV-11-AI 094		CL LTEV-11-AI 095		CL LTEV-11-AI 096	
Lab ID:	9610075-01A		9610075-01B		9610075-02A		9610075-03A	
File ID:	L100306		L100307		L100308		L100309	
Date Collected:	09/26/96		09/26/96		09/26/96		09/26/96	
Date Prepared:								
Date Analyzed:	10/04/96 00:19:00		10/04/96 01:20:00		10/04/96 09:33:00		10/04/96 10:34:00	
Dilution Factor:	.3819		.3819		.3137		.3249	
Matrix:	Air		Air		Air		Air	
Units:	ppbV		ppbV		ppbV		ppbV	
Report as:	received		received		received		received	
Column:								
Analyte	Conc.	DL	Conc.	DL	Conc.	DL	Conc.	DL
Tetrachloroethene	11.2	0.0812	11.2	0.0812	51.3	0.0988	16.7	0.0954

10/17/96 16:25:51

INITIAL CALIBRATION

Work Order # 9610075

Initial Calibration # C2960606010000

Calibration Date 06/06/96 01:00:00

Sol'n # _____

Method AMBIENT VOC-GC/MD

Test Code ADHRAASS

Instrument C2

Analyst KRW

Reviewer JHC

Analytes	Response Area Counts / Reference Conc. ppbV	Response Area Counts / Reference Conc. ppbV	Response Area Counts / Reference Conc. ppbV	Response Area Counts / Reference Conc. ppbV	Response / Reference Conc.	Response / Reference Conc.	Response / Reference Conc.	RF	% RSD	Correlation Coefficient
Dichlorodifluoromethane	38351 0.156000	81110 0.313000	203873 0.783000	375721 1.566000				0.00000398	4.02	0.999
Chlorodifluoromethane	117561 1.167600	235686 2.335200	556852 5.83800	1142278 11.67600				0.0000101	2.68	1.000
Chloromethane/Halocarbon 114	48939 0.311064	116471 0.624122	294342 1.561302	598393 3.122604				0.00000556	9.61	1.000
Vinyl chloride	28472 0.313000	85583 0.783000	182756 1.566000					0.00000957	13.2	1.000
Bromomethane	23067 0.311435	69140 0.779085	147643 1.558170					0.0000118	13.1	1.000
Chloroethane	25958 0.311122	80091 0.778302	170989 1.556604					0.0000103	14.8	1.000
Vinyl bromide	99955 1.167600	209328 2.335200	597899 5.83800	1150071 11.67600				0.0000107	8.27	0.999
Trichlorofluoromethane	97897 0.313000	268084 0.783000	548192 1.566000					0.00000299	6.05	1.000
Dichlorofluoromethane	257723 1.167600	488741 2.335200	1233003 5.83800	2438102 11.67600				0.00000471	2.56	1.000
1,1-Dichloroethene	41805 0.313000	141086 0.783000	284586 1.566000					0.00000618	18.3	0.999

Specification Limits %RSD < 20% or correlation coefficient ≥ 0.995

INITIAL CALIBRATION Cont'd

Initial Calibration # C2960606010000

Sol'n # _____

Calibration Date 06/06/96 01:00:00

Method AMBIENT VOC-GC/MD

Instrument C2

Test Code ADHRAASS

Analyst KRW

Reviewer JHC

Analytes	Response Area Counts / Reference Conc. ppbV	Response Area Counts / Reference Conc. ppbV	Response Area Counts / Reference Conc. ppbV	Response Area Counts / Reference Conc. ppbV	Response / Reference Conc.	Response / Reference Conc.	Response / Reference Conc.	RF	% RSD	Correlation Coefficient
Methylene chloride	49419 0.313000	153197 0.783000	296623 1.566000					0.00000557	11.9	0.999
Halocarbon 113	33336 0.151164	86516 0.303297	246615 0.758727	496690 1.517454				0.00000354	19.6	1.000
trans-1,2-Dichloroethene	27731 0.153504	47912 0.307992	152645 0.770472	300832 1.540944				0.00000553	11.5	0.999
1,1-Dichloroethane	40590 0.313000	133289 0.783000	270896 1.566000					0.00000646	16.9	1.000
Chloroprene	19048 0.149604	39598 0.300167	91155 0.750897	180372 1.501794				0.00000800	4.33	1.000
cis-1,2-Dichloroethene	53157 0.313000	151241 0.783000	285603 1.566000					0.00000552	6.47	0.998
Bromochloromethane	49155 0.328650	142238 0.822150	283291 1.644300					0.00000609	8.48	1.000
Chloroform	30228 0.157560	82901 0.316130	226872 0.790830	448131 1.581660				0.00000401	20.3	1.000
1,2-Dichloroethane	42939 0.155688	91791 0.312374	167646 0.781434	336136 1.562868				0.00000408	16.3	0.998
1,1,1-Trichloroethane	33832 0.156000	94099 0.313000	258138 0.783000	511208 1.566000				0.00000351	21.3	1.000

Specificati imits %RSD < 20% or correlation coefficient ≥ 0.995

Initial Calibration # C2960606010000

Sol'n # _____

Calibration Date 06/06/96 01:00:00

Method AMBIENT VOC-GC/MD

Instrument C2

Analyst KRW

Test Code ADHRAASS

Reviewer JHC

Analytes	Response Area Counts / Reference Conc. ppbV	Response Area Counts / Reference Conc. ppbV	Response Area Counts / Reference Conc. ppbV	Response Area Counts / Reference Conc. ppbV	Response / Reference Conc.	Response / Reference Conc.	Response / Reference Conc.	RF	% RSD	Correlation Coefficient
Carbon tetrachloride	42651 0.154128	111706 0.309244	287496 0.773604	575095 1.547208				0.00000294	15.3	1.000
1,2-Dichloropropane	39740 0.156000	81069 0.313000	167628 0.783000	330295 1.566000				0.00000430	11.0	0.999
Bromodichloromethane	39263 0.163800	99274 0.328650	239021 0.822150	465179 1.644300				0.00000361	10.6	0.999
Trichloroethene	73722 0.309870	223594 0.775170	455527 1.550340					0.00000369	12.0	1.000
cis-1,3-Dichloropropene	24469 0.215280	58761 0.431940	139223 1.080540	283036 2.161080				0.00000789	8.01	1.000
trans-1,3-Dichloropropene	35633 0.306740	107130 0.767340	227092 1.534680					0.00000751	13.0	1.000
1,1,2-Trichloroethane	36982 0.156000	88387 0.313000	229809 0.783000	460139 1.566000				0.00000364	10.7	1.000
Dibromochloromethane	32531 0.163800	73802 0.328650	185279 0.822150	377614 1.644300				0.00000457	6.85	1.000
1,2-Dibromoethane	31078 0.156000	80844 0.313000	184371 0.783000	410574 1.566000				0.00000424	13.1	0.998
Tetrachloroethene	53374 0.156000	130896 0.313000	341668 0.783000	682652 1.566000				0.00000247	12.2	1.000

Specification Limits %RSD < 20% or correlation coefficient ≥ 0.995

INITIAL CALIBRATION Cont'd

Initial Calibration # C2960606010000
Calibration Date 06/06/96 01:00:00

Sol'n # _____
Method AMBIENT VOC-GC/MD
Test Code ADHRAASS

Instrument C2
Analyst KRW
Reviewer JHC

Analytes	Response Area Counts / Reference Conc. ppbV	Response Area Counts / Reference Conc. ppbV	Response Area Counts / Reference Conc. ppbV	Response Area Counts / Reference Conc. ppbV	Response / Reference Conc.	Response / Reference Conc.	Response / Reference Conc.	RF	% RSD	Correlation Coefficient
Bromoform	26892 0.163800	67948 0.328650	181364 0.822150	392226 1.644300				0.00000491	16.9	1.000
1,1,2,2-Tetrachloroethane	49627 0.156000	115366 0.313000	292501 0.783000	603184 1.566000				0.00000278	8.83	1.000

Specificati[illegible]mits %RSD < 20% or correlation coefficient ≥ 0.995

ANALYSIS BATCH SUMMARY

Analysis Batch # VOC2 61003173401

Method AMBIENT VOC-GC/MD
Test Code ADHRAASS
Initial Calibration # C2960606010000
Calibration Date 06/06/96

Analysis Start Date/Time 10/03/96 17:34:00
Analysis Stop Date/Time 10/04/96 10:34:00

Instrument C2
Analyst KRW
Reviewer JHC

Sequence/Analysis Time	Project Sample ID	Lab Sample ID	Sample Type	Analysis File #
1 10/03/96 17:34:00		CALCHECK	Continuing Calibration Verification	L100301
2 10/03/96 18:51:00		BLK963621	Blank, Method	L100302
3 10/03/96 22:07:00		LCS966296	Lab Control Sample	L100304
4 10/03/96 23:18:00		LCSD966296	Lab Control Sample Duplicate	L100305
5 10/04/96 00:19:00	CL LTEV-11-AI 094	9610075-01A	Sample	L100306
6 10/04/96 01:20:00	CL LTEV-11-AI 094	9610075-01B	Sample Duplicate	L100307
7 10/04/96 09:33:00	CL LTEV-11-AI 095	9610075-02A	Sample	L100308
8 10/04/96 10:34:00	CL LTEV-11-AI 096	9610075-03A	Sample	L100309

Analysis Batch # VOC2 61003173401

Project Sample ID CL LTEV-11-AI 094 Date Collected 09/26/96 Instrument C2 Reporting Subset ___ Matrix A
Lab Sample ID 9610075-01A Date Received 10/03/96 Column _____ Spikes Subset ___ Report As received
File # L100306 Date Prepared _____ Analyst KRW Specs Subset ___ % Moisture _____
Method Ambient VOC - GC/MD ELCD Date Analyzed 10/04/96 00:19:00 Reviewer JHC
Test Code ADHRAACM

Analyte	CAS #	Aliquot Mass/Volume 0.1 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor .3819 Measured Concentration ppbV	Detection Limit ppbV	Reporting Limit ppbV
Tetrachloroethene	127-18-4	11.2	0.0812	0

Analysis Batch # VOC2 61003173401

Project Sample ID CL LTEV-11-AI 094 | Date Collected 09/26/96 | Instrument C2 | Reporting Subset ___ | Matrix A

Lab Sample ID 9610075-01B | Date Received 10/03/96 | Column _____ | Spikes Subset ___ | Report As received

File # L100307 | Date Prepared _____ | Analyst KRW | Specs Subset ___ | % Moisture _____

Method Ambient VOC - GC/MD ELCD | Date Analyzed 10/04/96 01:20:00 | Reviewer JHC

Test Code ADHRAACM

Analyte	CAS #	Aliquot Mass/Volume 0.1 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor .3819 — Measured Concentration ppbV	Detection Limit ppbV	Reporting Limit ppbV
Tetrachloroethene	127-18-4	11.2	0.0812	0

Analysis Batch # VOC2 61003173401

Project Sample ID CL LTEV-11-AI 095 Date Collected 09/26/96 Instrument C2 Reporting Subset ___ Matrix A
Lab Sample ID 9610075-02A Date Received 10/03/96 Column _____ Spikes Subset ___ Report As received
File # L100308 Date Prepared _____ Analyst KRW Specs Subset ___ % Moisture _____
Method Ambient VOC - GC/MD ELCD Date Analyzed 10/04/96 09:33:00 Reviewer JHC
Test Code ADHRAACM

Analyte	CAS #	Aliquot Mass/Volume 0.1 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor .3137 Measured Concentration ppbV	Detection Limit ppbV	Reporting Limit ppbV
Tetrachloroethene	127-18-4	51.3	0.0988	0

Analysis Batch # VOC2 61003173401

Project Sample ID CL LTEV-11-AI 096 | Date Collected 09/26/96 | Instrument C2 | Reporting Subset ___ | Matrix A

Lab Sample ID 9610075-03A | Date Received 10/03/96 | Column _____ | Spikes Subset ___ | Report As received

File # L100309 | Date Prepared _____ | Analyst KRW | Specs Subset ___ | % Moisture _____

Method Ambient VOC - GC/MD ELCD | Date Analyzed 10/04/96 10:34:00 | Reviewer JHC

Test Code ADHRAACM

Analyte	CAS #	Aliquot Mass/Volume 0.1 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor .3249 Measured Concentration ppbV	Detection Limit ppbV	Reporting Limit ppbV
Tetrachloroethene	127-18-4	16.7	0.0954	0

LABORATORY BLANK INFORMATION

Analysis Batch # VOC2 61003173401

Lab Sample ID BLK963621 Date Prepared _____ Instrument C2 Reporting Subset ___ Matrix A
File # L100302 Date Analyzed 10/03/96 18:51:00 Column _____ Spikes Subset ___
Method Ambient VOC - GC/MD ELCD Analyst KRW Specs Subset ___
Test Code ADHRAACM Reviewer JHC

Aliquot Mass/Volume
0.5 (L)
Extract/Digestate Volume
1.0 (L)
Dilution Factor 1.0

Analyte	Measured Conc. ppbV	Detection Limit ppbV	Reporting Limit ppbV
Tetrachloroethene	ND	0.00620	0

LABORATORY CONTROL SAMPLE

Analysis Batch # VOC2 61003173401

Method Ambient VOC - GC/MD ELCD
Test Code ADHRAACM
Date Prepared
Date Analyzed 10/03/96 23:18:00
Instrument C2
Column
Analyst KRW
Reviewer JHC
Reporting Subset
Spikes Subset
Specs Subset
Matrix A
Report As received
% Moisture
Aliquot Mass or Vol 0.2 (L)
Extract Mass or Vol 1.0 (L)

Control Std. #	Vol. Added	Surrogate Sol'n #	Vol. Added
CC-16236	0.2 L		

LCS Lab Sample ID LCS966296 File ID L100304

LCS Duplicate Lab Sample ID LCSD966296 File ID L100305

Analyte	LCS Spiked Conc. ppbV	LCS Measured Conc. ppbV	LCS Rec. %	LCSD Spiked Conc. ppbV	LCSD Measured Conc. ppbV	LCSD Rec. %	Recovery Spec. Limits Low %	Recovery Spec. Limits High %	RPD Result %	RPD Spec. Limit %
Tetrachloroethene	1.23	1.57	128	1.23	1.64	134			4.6	

CONTINUING (OR DAILY) CALIBRATION VERIFICATION

Analysis Batch # VOC2 61003173401
Initial Calibration # C2960606010000

Lab Sample ID CALCHECK Date Analyzed 10/03/96 17:34:00 Reporting Subset ___ Instrument C2
File # L100301 Spikes Subset ___ Analyst KRW
Method Ambient VOC - GC/MD ELCD Specs Subset ___ Reviewer JHC
Test Code ADHRAACM

Analyte	Measured Concentration ppbV	Reference Concentration ppbV	Recovery %	Recovery Specification Limits	
				Low %	High %
Tetrachloroethene	1.04	0.832	125	50	150

SAMPLE DUPLICATES

Analysis Batch # VOC2_61003173401

Project Sample ID CL LTEV-11-AI 094
Method Ambient VOC - GC/MD ELCD
Test Code ADHRAACM

Date Collected 09/26/96
Date Received 10/03/96
Date Prepared
Date Analyzed 10/04/96 01:20:00

Instrument C2
Column
Analyst KRW
Reviewer JHC

Reporting Subset
Spikes Subset
Specs Subset

Matrix A
Report As received

	Sample Lab Sample ID 9610075-01A Dil Fact. .3819	Duplicate Lab Sample ID 9610075-01B Dil Fact. .3819	RPD	
Analyte	Measured Conc. ppbV	Measured Conc. ppbV	Result	Specification Limit %
Tetrachloroethene	11.2	11.2	0.19	

ANALYTICAL PROTOCOL SUMMARY
COMMENTS/NARRATIVE

Method AMBIENT VOC-GC/MD Specification# _____

Lab Sample ID / File ID	Project Sample ID/Description	Analyte	Flag	Comment/Narrative	Corrective Action

ANALYTICAL PROTOCOL SUMMARY

Client DEI Clairmont
Facility Clairmont
Client Code V DEI CM
Method SOURCE VOC - GC/MD

Specification # SDHR

Project Sample ID/Description	Lab Sample ID	Test Code(s)	Extraction/Digestion Batch #	Analysis Batch #
CL LTEV-11-AI 091	9610075-04A	SDHRAACM	NA	VOB2__61007083501
CL LTEV-11-AI 092	9610075-05A	SDHRAACM	NA	VOB2__61007083501
CL LTEV-11-AI 092	9610075-05B	SDHRAACM	NA	VOB2__61007083501
CL LTEV-11-AI 093	9610075-06A	SDHRAACM	NA	VOB2__61007083501
CL LTEV-11-AI 097	9610075-07A	SDHRAACM	NA	VOB2__61008114701
CL LTEV-11-AI 098	9610075-08A	SDHRAACM	NA	VOB2__61008114701
CL LTEV-11-AI 098	9610075-08B	SDHRAACM	NA	VOB2__61008114701
CL LTEV-11-AI 099	9610075-09A	SDHRAACM	NA	VOB2__61008114701

Method Source VOC - GC/MD ELCD

Test Code SDHRAACM

Project Sample ID:	CL LTEV-11-AI 091		CL LTEV-11-AI 092		CL LTEV-11-AI 092		CL LTEV-11-AI 093	
Lab ID:	9610075-04A		9610075-05A		9610075-05B		9610075-06A	
File ID:	O100706		O100707		O100708		O100709	
Date Collected:	09/26/96		09/26/96		09/26/96		09/26/96	
Date Prepared:								
Date Analyzed:	10/07/96 16:40:00		10/07/96 17:42:00		10/07/96 18:37:00		10/07/96 19:33:00	
Dilution Factor:	.3824		.3645		.3645		.3793	
Matrix:	Air		Air		Air		Air	
Units:	ppmV		ppmV		ppmV		ppmV	
Report as:	received		received		received		received	
Column:								
Analyte	Conc.	DL	Conc.	DL	Conc.	DL	Conc.	DL
Tetrachloroethene	3.77	0.0363	0.817	0.0381	0.792	0.0381	0.582	0.0366

Method Source VOC - GC/MD ELCD

Test Code SDHRAACM

Project Sample ID:	CL LTEV-11-AI 097		CL LTEV-11-AI 098		CL LTEV-11-AI 098		CL LTEV-11-AI 099	
Lab ID:	9610075-07A		9610075-08A		9610075-08B		9610075-09A	
File ID:	O100806		O100806A		O100808		O100809	
Date Collected:	09/26/96		09/26/96		09/26/96		09/26/96	
Date Prepared:								
Date Analyzed:	10/08/96 17:17:00		10/08/96 19:12:00		10/08/96 20:12:00		10/08/96 21:16:00	
Dilution Factor:	.3645		.3678		.3678		.3453	
Matrix:	Air		Air		Air		Air	
Units:	ppmV		ppmV		ppmV		ppmV	
Report as:	received		received		received		received	
Column:								
Analyte	Conc.	DL	Conc.	DL	Conc.	DL	Conc.	DL
Tetrachloroethene	1.31	0.0381	1.000	0.0378	0.968	0.0378	7.65	0.0403

INITIAL CALIBRATION

Initial Calibration # B2961003010000
Calibration Date 10/03/96 01:00:00

Sol'n # _____
Method SOURCE VOC - GC/MD
Test Code SDHRAA00

Instrument B2
Analyst MEH
Reviewer JHC

Analytes	Response Area Counts / Reference Conc. ppmV	Response Area Counts / Reference Conc. ppmV	Response Area Counts / Reference Conc. ppmV	Response / Reference Conc.	Response / Reference Conc.	Response / Reference Conc.	Response / Reference Conc.	RF	% RSD	Correlation Coefficient
Tetrachloroethene	230726 0.000990	2131852 0.00990	3919512 0.0198					0.00000000466	8.19	0.999

Specificati imits %RSD < 20% or correlation coefficient ≥ 0.995

ANALYSIS BATCH SUMMARY

Analysis Batch # VOB2 61007083501

Method SOURCE VOC - GC/MD
Test Code SDHRAA00
Initial Calibration # B2961003010000
Calibration Date 10/03/96

Analysis Start Date/Time 10/07/96 08:35:00
Analysis Stop Date/Time 10/07/96 19:33:00

Instrument B2
Analyst CLS
Reviewer JHC

	Sequence/Analysis Time	Project Sample ID	Lab Sample ID	Sample Type	Analysis File #
1	10/07/96 08:35:00		CALCHECK	Continuing Calibration Verification	O100701
2	10/07/96 09:45:00		BLK963531	Blank, Method	O100702
3	10/07/96 10:56:00		LCS966528	Lab Control Sample	O100702A
4	10/07/96 12:11:00		LCSD966528	Lab Control Sample Duplicate	O100704
5	10/07/96 14:52:00		LCS966528	Lab Control Sample	O100704A
6	10/07/96 16:40:00	CL LTEV-11-AI 091	9610075-04A	Sample	O100706
7	10/07/96 17:42:00	CL LTEV-11-AI 092	9610075-05A	Sample	O100707
8	10/07/96 18:37:00	CL LTEV-11-AI 092	9610075-05B	Sample Duplicate	O100708
9	10/07/96 19:33:00	CL LTEV-11-AI 093	9610075-06A	Sample	O100709

Analysis Batch # VOB2 61007083501

Project Sample ID CL LTEV-11-AI 091 | Date Collected 09/26/96 | Instrument B2 | Reporting Subset ___ | Matrix A

Lab Sample ID 9610075-04A | Date Received 10/03/96 | Column _____ | Spikes Subset ___ | Report As received

File # 0100706 | Date Prepared _____ | Analyst CLS | Specs Subset ___ | % Moisture _____

Method Source VOC - GC/MD ELCD | Date Analyzed 10/07/96 16:40:00 | Reviewer JHC

Test Code SDHRAACM

Analyte	CAS #	Aliquot Mass/Volume .010 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor .3824 Measured Concentration ppmV	Detection Limit ppmV	Reporting Limit ppmV
Tetrachloroethene	127-18-4	3.77	0.0363	0

Analysis Batch # VOB2 61007083501

Project Sample ID CL LTEV-11-AI 092 | Date Collected 09/26/96 | Instrument B2 | Reporting Subset ___ | Matrix A

Lab Sample ID 9610075-05A | Date Received 10/03/96 | Column _____ | Spikes Subset ___ | Report As received

File # O100707 | Date Prepared _____ | Analyst CLS | Specs Subset ___ | % Moisture _____

Method Source VOC - GC/MD ELCD | Date Analyzed 10/07/96 17:42:00 | Reviewer JHC

Test Code SDHRAACM

Analyte	CAS #	Aliquot Mass/Volume .010 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor .3645 Measured Concentration ppmV	Detection Limit ppmV	Reporting Limit ppmV
Tetrachloroethene	127-18-4	0.817	0.0381	0

RESULTS

Analysis Batch # VOB2 61007083501

Project Sample ID CL LTEV-11-AI 092 | Date Collected 09/26/96 | Instrument B2 | Reporting Subset ___ | Matrix A
Lab Sample ID 9610075-05B | Date Received 10/03/96 | Column _____ | Spikes Subset ___ | Report As received
File # O100708 | Date Prepared _____ | Analyst CLS | Specs Subset ___ | % Moisture _____
Method Source VOC - GC/MD ELCD | Date Analyzed 10/07/96 18:37:00 | Reviewer JHC
Test Code SDHRAACM

Analyte	CAS #	Aliquot Mass/Volume .010 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor .3645 Measured Concentration ppmV	Detection Limit ppmV	Reporting Limit ppmV
Tetrachloroethene	127-18-4	0.792	0.0381	0

Analysis Batch # VOB2 61007083501

Project Sample ID CL LTEV-11-AI 093 | Date Collected 09/26/96 | Instrument B2 | Reporting Subset ___ | Matrix A

Lab Sample ID 9610075-06A | Date Received 10/03/96 | Column _____ | Spikes Subset ___ | Report As received

File # 0100709 | Date Prepared _____ | Analyst CLS | Specs Subset ___ | % Moisture _____

Method Source VOC - GC/MD ELCD | Date Analyzed 10/07/96 19:33:00 | Reviewer JHC

Test Code SDHRAACM

Analyte	CAS #	Aliquot Mass/Volume .010 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor .3793 Measured Concentration ppmV	Detection Limit ppmV	Reporting Limit ppmV
Tetrachloroethene	127-18-4	0.582	0.0366	0

LABORATORY BLANK INFORMATION

Analysis Batch # VOB2 61007083501

Lab Sample ID BLK963531 | Date Prepared | Instrument B2 | Reporting Subset | Matrix A
File # O100702 | Date Analyzed 10/07/96 09:45:00 | Column | Spikes Subset
Method Source VOC - GC/MD ELCD | | Analyst CLS | Specs Subset
Test Code SDHRAACM | | Reviewer JHC |

Analyte	Aliquot Mass/Volume 0.005 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor 1.0 — Measured Conc. ppmV	Detection Limit ppmV	Reporting Limit ppmV
Tetrachloroethene	ND	0.0278	0

LABORATORY CONTROL SAMPLE

Analysis Batch # VOB2 61007083501

Method Source VOC - GC/MD ELCD
Test Code SDHRAACM
Date Prepared
Date Analyzed 10/07/96 12:11:00
Instrument B2
Column
Analyst CLS
Reviewer JHC
Reporting Subset
Spikes Subset
Specs Subset
Matrix A
Report As received
% Moisture
Aliquot Mass or Vol .005 (L)
Extract Mass or Vol 1.0 (L)

Control Std. #	Vol. Added	Surrogate Sol'n #	Vol. Added
CC-16236	5 mL		

LCS Lab Sample ID LCS966528 File ID O100702A

LCS Duplicate Lab Sample ID LCSD966528 File ID O100704

Analyte	LCS Spiked Conc. ppmV	LCS Measured Conc. ppmV	LCS Rec. %	LCSD Spiked Conc. ppmV	LCSD Measured Conc. ppmV	LCSD Rec. %	Recovery Spec. Limits Low %	Recovery Spec. Limits High %	RPD Result %	RPD Spec. Limit %
Tetrachloroethene	0.00500	0.00593	118	0.00500	0.00579	116			1.7	

CONTINUING (OR DAILY) CALIBRATION VERIFICATION

Analysis Batch # VOB2 61007083501
Initial Calibration # B2961003010000

Lab Sample ID CALCHECK Date Analyzed 10/07/96 08:35:00 Reporting Subset ___ Instrument B2
File # 0100701 Spikes Subset ___ Analyst CLS
Method Source VOC - GC/MD ELCD Specs Subset ___ Reviewer JHC
Test Code SDHRAACM

Analyte	Measured Concentration ppmV	Reference Concentration ppmV	Recovery %	Recovery Specification Limits	
				Low %	High %
Tetrachloroethene	0.0100	0.00990	101	50	150

SAMPLE DUPLICATES

Analysis Batch # VOB2 61007083501

Project Sample ID CL LTEV-11-AI 092
Method Source VOC - GC/MD ELCD
Test Code SDHRAACM

Date Collected 09/26/96
Date Received 10/03/96
Date Prepared
Date Analyzed 10/07/96 18:37:00

Instrument B2
Column
Analyst CLS
Reviewer JHC

Reporting Subset
Spikes Subset
Specs Subset

Matrix A
Report As received

	Sample Lab Sample ID 9610075-05A Dil Fact. .3645	Duplicate Lab Sample ID 9610075-05B Dil Fact. .3645	RPD	
Analyte	Measured Conc. ppmV	Measured Conc. ppmV	Result	Specification Limit %
Tetrachloroethene	0.817	0.792	3.2	

ANALYSIS BATCH SUMMARY

Analysis Batch # VOB2 61008114701

Method SOURCE VOC - GC/MD
Test Code SDHRAA00
Initial Calibration # B2961003010000
Calibration Date 10/03/96

Analysis Start Date/Time 10/08/96 11:47:00
Analysis Stop Date/Time 10/08/96 21:16:00

Instrument B2
Analyst CLS
Reviewer JHC

	Sequence/Analysis Time	Project Sample ID	Lab Sample ID	Sample Type	Analysis File #
1	10/08/96 11:47:00		CALCHECK	Continuing Calibration Verification	O100802
2	10/08/96 13:46:00		BLK963531	Blank, Method	O100803
3	10/08/96 14:44:00		LCS966528	Lab Control Sample	O100804
4	10/08/96 16:08:00		LCSD966528	Lab Control Sample Duplicate	O100805
5	10/08/96 17:17:00	CL LTEV 11 AI 097	9610075-07A	Sample	O100806
6	10/08/96 19:12:00	CL LTEV-11-AI 098	9610075-08A	Sample	O100806A
7	10/08/96 20:12:00	CL LTEV-11-AI 098	9610075-08B	Sample Duplicate	O100808
8	10/08/96 21:16:00	CL LTEV-11-AI 099	9610075-09A	Sample	O100809

Analysis Batch # VOB2 61008114701

Project Sample ID CL LTEV-11-AI 097 | Date Collected 09/26/96 | Instrument B2 | Reporting Subset ___ | Matrix A

Lab Sample ID 9610075-07A | Date Received 10/03/96 | Column _____ | Spikes Subset ___ | Report As received

File # O100806 | Date Prepared _____ | Analyst CLS | Specs Subset ___ | % Moisture _____

Method Source VOC - GC/MD ELCD | Date Analyzed 10/08/96 17:17:00 | Reviewer JHC

Test Code SDHRAACM

Analyte	CAS #	Aliquot Mass/Volume .010 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor .3645 — Measured Concentration ppmV	Detection Limit ppmV	Reporting Limit ppmV
Tetrachloroethene	127-18-4	1.31	0.0381	0

Analysis Batch # VOB2 61008114701

Project Sample ID CL LTEV-11-AI 098 | Date Collected 09/26/96 | Instrument B2 | Reporting Subset ___ | Matrix A

Lab Sample ID 9610075-08A | Date Received 10/03/96 | Column _____ | Spikes Subset ___ | Report As received

File # O100806A | Date Prepared _____ | Analyst CLS | Specs Subset ___ | % Moisture _____

Method Source VOC - GC/MD ELCD | Date Analyzed 10/08/96 19:12:00 | Reviewer JHC

Test Code SDHRAACM

Analyte	CAS #	Aliquot Mass/Volume .010 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor .3678 — Measured Concentration ppmV	Detection Limit ppmV	Reporting Limit ppmV
Tetrachloroethene	127-18-4	1.000	0.0378	0

Analysis Batch # VOB2_61008114701

Project Sample ID CL LTEV-11-AI 098 Date Collected 09/26/96 Instrument B2 Reporting Subset ___ Matrix A
Lab Sample ID 9610075-08B Date Received 10/03/96 Column _____ Spikes Subset ___ Report As received
File # O100808 Date Prepared _____ Analyst CLS Specs Subset ___ % Moisture _____
Method Source VOC - GC/MD ELCD Date Analyzed 10/08/96 20:12:00 Reviewer JHC
Test Code SDHRAACM

Analyte	CAS #	Aliquot Mass/Volume .010 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor .3678 Measured Concentration ppmV	Detection Limit ppmV	Reporting Limit ppmV
Tetrachloroethene	127-18-4	0.968	0.0378	0

Analysis Batch # VOB2 61008114701

Project Sample ID CL LTEV-11-AI 099 | Date Collected 09/26/96 | Instrument B2 | Reporting Subset ___ | Matrix A

Lab Sample ID 9610075-09A | Date Received 10/03/96 | Column _____ | Spikes Subset ___ | Report As received

File # O100809 | Date Prepared _____ | Analyst CLS | Specs Subset ___ | % Moisture _____

Method Source VOC - GC/MD ELCD | Date Analyzed 10/08/96 21:16:00 | Reviewer JHC

Test Code SDHRAACM

Analyte	CAS #	Aliquot Mass/Volume .010 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor .3453 Measured Concentration ppmV	Detection Limit ppmV	Reporting Limit ppmV
Tetrachloroethene	127-18-4	7.65	0.0403	0

LABORATORY BLANK INFORMATION

Analysis Batch # VOB2 61008114701

Lab Sample ID BLK963531
File # O100803
Method Source VOC - GC/MD ELCD
Test Code SDHRAACM

Date Prepared
Date Analyzed 10/08/96 13:46:00

Instrument B2
Column
Analyst CLS
Reviewer JHC

Reporting Subset
Spikes Subset
Specs Subset

Matrix A

Analyte	Aliquot Mass/Volume 0.005 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor 1.0 Measured Conc. ppmV	Detection Limit ppmV	Reporting Limit ppmV
Tetrachloroethene	ND	0.0278	0

LABORATORY CONTROL SAMPLE

Analysis Batch # VOB2 61008114701

Method Source VOC - GC/MD ELCD
Test Code SDHRAACM
Date Prepared
Date Analyzed 10/08/96 16:08:00
Instrument B2
Column
Analyst CLS
Reviewer JHC
Reporting Subset
Spikes Subset
Specs Subset
Matrix A
Report As received
% Moisture
Aliquot Mass or Vol .005 (L)
Extract Mass or Vol 1.0 (L)

Control Std. #	Vol. Added	Surrogate Sol'n #	Vol. Added
CYLINDER A	5 mL		

LCS Lab Sample ID: LCS966528 File ID: O100804
LCS Duplicate Lab Sample ID: LCSD966528 File ID: O100805

Analyte	LCS Spiked Conc. ppmV	LCS Measured Conc. ppmV	LCS Rec. %	LCSD Spiked Conc. ppmV	LCSD Measured Conc. ppmV	LCSD Rec. %	Recovery Spec. Limits Low %	Recovery Spec. Limits High %	RPD Result %	RPD Spec. Limit %
Tetrachloroethene	0.00500	0.00584	117	0.00500	0.00538	108			8.0	

CONTINUING (OR DAILY) CALIBRATION VERIFICATION

Analysis Batch # VOB2 61008114701
Initial Calibration # B2961003010000

Lab Sample ID CALCHECK
File # 0100802
Method Source VOC - GC/MD ELCD
Test Code SDHRAACM

Date Analyzed 10/08/96 11:47:00

Reporting Subset ___
Spikes Subset ___
Specs Subset ___

Instrument B2
Analyst CLS
Reviewer JHC

Analyte	Measured Concentration ppmV	Reference Concentration ppmV	Recovery %	Recovery Specification Limits	
				Low %	High %
Tetrachloroethene	0.00942	0.00990	95	50	150

SAMPLE DUPLICATES

Analysis Batch # VOB2 61008114701

Project Sample ID CL LTEV-11-AI 098
Method Source VOC - GC/MD ELCD
Test Code SDHRAACM

Date Collected 09/26/96
Date Received 10/03/96
Date Prepared
Date Analyzed 10/08/96 20:12:00

Instrument B2
Column
Analyst CLS
Reviewer JHC

Reporting Subset
Spikes Subset
Specs Subset

Matrix A
Report As received

	Sample Lab Sample ID 9610075-08A Dil Fact. .3678	Duplicate Lab Sample ID 9610075-08B Dil Fact. .3678	RPD	
Analyte	Measured Conc. ppmV	Measured Conc. ppmV	Result	Specification Limit %
Tetrachloroethene	1.000	0.968	3.2	

ANALYTICAL PROTOCOL SUMMARY
COMMENTS/NARRATIVE

Method SOURCE VOC - GC/MD Specification# _____

Lab Sample ID / File ID	Project Sample ID/Description	Analyte	Flag	Comment/Narrative	Corrective Action

Analytical Group: HE_1961003172000
Prep Batch ID: VOHE_1610031720

Corrected

VOC PREP ANALYTICAL RUN

PR 10-17-96

Instrument: HE_1

Test Code: DILUAA00

Workorder #	Customer ID	Test Code	Can Id	Lab Init. Pres.	Lab Final Pres.	Diluent Added	Batch #	Initial Dil Factor	Lab Delta Pres.	Field Delta Pres.	Primary Dilution Factor	Final Dilution Factor	Dilution Date
9610075-01A	CL LTEV-11-AI 094	DILUAA00	HL0610	-14.15	0.000	22.35	01		14.15		0.381916	0.381916	10/03/96 19:10:26
9610075-02A	CL LTEV-11-AI 095	DILUAA00	HL0955	-14.15	-2.259	23.20	01		11.891		0.313746	0.313746	10/03/96 19:10:45
9610075-03A	CL LTEV-11-AI 096	DILUAA00	HL0842	-14.15	-1.964	22.80	01		12.186		0.324960	0.324960	10/03/96 19:11:04
9610075-04A	CL LTEV-11-AI 091	DILUAA00	HL0825	-14.15	0.000	22.30	01		14.15		0.382432	0.382432	10/03/96 19:11:20
9610075-05A	CL LTEV-11-AI 092	DILUAA00	HL0780	-14.15	-.4420	22.90	01		13.708		0.364574	0.364574	10/03/96 19:11:46
9610075-06A	CL LTEV-11-AI 093	DILUAA00	HL0866	-14.15	0.000	22.60	01		14.15		0.379356	0.379356	10/03/96 19:12:06
9610075-07A	CL LTEV-11-AI 097	DILUAA00	HL0807	-14.15	-.5894	22.50	01		13.5606		0.364532	0.364532	10/03/96 19:12:22
9610075-08A	CL LTEV-11-AI 098	DILUAA00	HL0857	-14.15	-.3929	22.70	01		13.7571		0.367836	0.367836	10/03/96 19:12:38
9610075-09A	CL LTEV-11-AI 099	DILUAA00	HL0828	-14.15	-.7859	24.00	01		13.3641		0.345325	0.345325	10/03/96 19:12:56

Location	Time	GC Run Number	Test	Conc.
TEST 1				
Direct	10:14	30	1-1	14.397
Direct	10:32	31	1-2	2.767
Bag	10:32	32	1-3	0.874
Bag	10:44	33	1-4	2.243
Bag	13:55	45	1-5	4.204
TEST 2				
Direct	12:30	36	2-1	4.02
Direct	12:37	37	2-2	1.042
Direct	12:48	38	2-3	0.734
Direct	13:03	39	2-4	0.702
Direct	13:12	40	2-5	12.758
Direct	13:26	41	2-6	3.038
Direct	13:31	42	2-7	4.078
Bag	13:43	43	2-8	29.96
Bag	13:50	44	2-9	32.906
TEST 3				
Direct	14:58	48	3-1	0.63
Direct	15:02	49	3-2	0
Direct	15:08	50	3-3	0
Direct	16:20	51	3-4	2.758
Direct	16:25	52	3-5	1.417
Direct	16:30	53	3-6	2.323
Direct	16:35	54	3-7	6.95
Direct	16:40	55	3-8	4.363
Direct	16:51	56	3-9	3.489
Direct	17:00	57	3-10	2.848
Bag	17:32	58	3-11	0
Bag	17:40	59	3-12	0

RADIAN International

Client : Claremont
Date : 9/23/96
Barometric : 29.92
Temperature : 68
gamma : 1

Compound bp	Density 20 C	Molecular weight	Meter Volume Liters	uL	ppm
Tetrachloroethylene	1.623	165.8	12.0	1.0	**19.67**
				1.0	20.0
	1.623	165.8	16.6	0.5	**7.08**
				0.7	10.0
				50.0	**#DIV/0!**
				#DIV/0!	2000.0
				15.0	**#DIV/0!**
				#DIV/0!	3000.0
				75.0	**#DIV/0!**
				#DIV/0!	3500.0

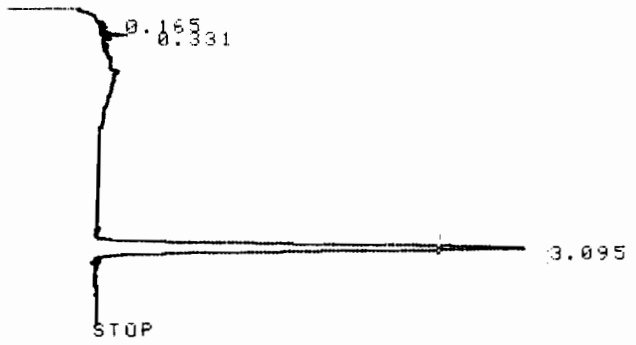
```
*


Power failed
SEP 26, 1996  18:15:21


BREAK

*
 Configuring, Wait for "LOOP UP" message

  **************( LOOP UP )**************

*
```

.655	40961	BB	.029	5.43583
.820	8990	VV	.037	1.19304
1.035	2359	PV	.050	.31306
1.168	1268	VP	.053	.16827
1.405	2388	PV	.051	.31691
1.520	645	VV	.057	.08560
2.662	2573	PV	.103	.34146
2.800	3089	VV	.139	.40993

TOTAL AREA= 753537
MUL FACTOR=1.0000E+00

7, 16 Bag

* RUN # 60 SEP 26, 1996 18:03:31
START



RUN# 60 SEP 26, 1996 18:03:31

ESTD-AREA

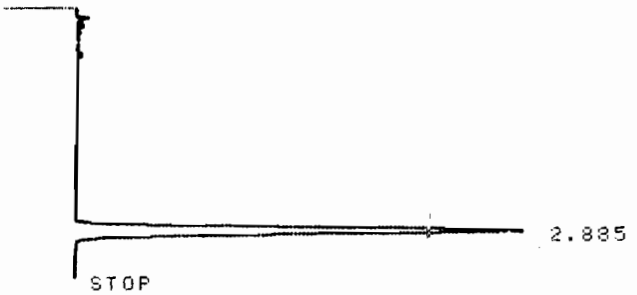
RT	AREA	TYPE	CAL#	AMOUNT
3.095	19509	PP	1R	10.037

TOTAL AREA= 20250
MUL FACTOR=1.0000E+00

miss started, 7,16 ppm

*0 BREAK

* RUN # 61 SEP 26, 1996 18:08:31
START



RUN# 61 SEP 26, 1996 18:08:31

NO CALIB PEAKS FOUND
AREA%

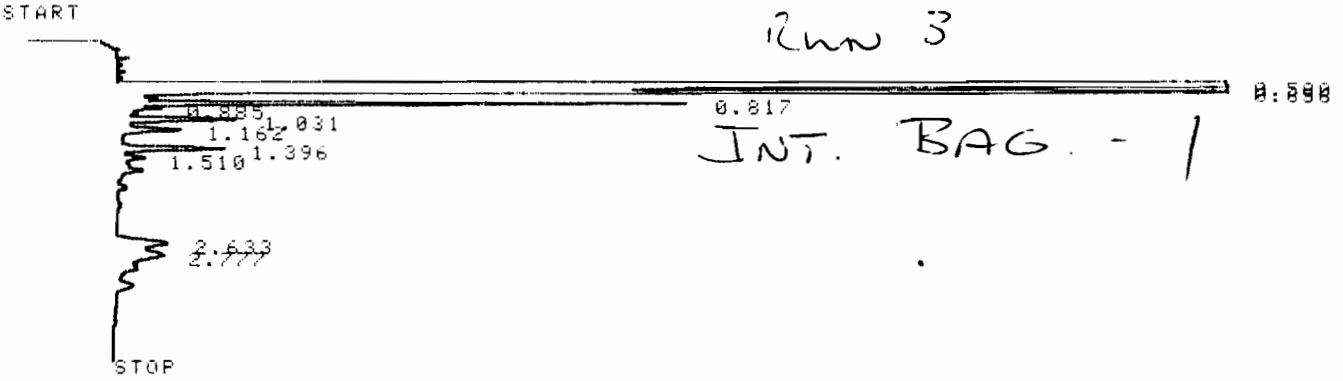
RT	AREA	TYPE	WIDTH	AREA%
2.885	20057	PV	.105	100.00000

TOTAL AREA= 20057

RT	AREA	TYPE	CAL#	AMOUNT
3.152	5535	VP	1R	2.848

TOTAL AREA=2923144
MUL FACTOR=1.0000E+00

* RUN # 58 SEP 26, 1996 17:32:11
START



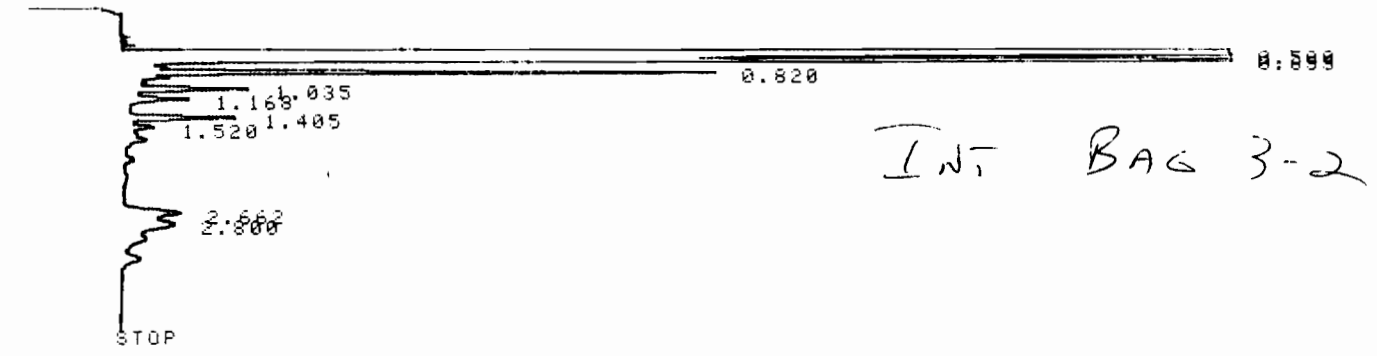
RUN# 58 SEP 26, 1996 17:32:11

NO CALIB PEAKS FOUND
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.580	636526	PB	.032	92.01955
.656	35050	BB	.026	5.06701
.817	8218	VV	.035	1.18804
.885	355	VP	.030	.05132
1.031	2298	VV	.049	.33221
1.162	1284	VP	.053	.18562
1.396	2193	BV	.049	.31703
1.510	564	VV	.055	.08153
2.633	2368	BV	.104	.34233
2.777	2873	VV	.138	.41534

TOTAL AREA= 691729
MUL FACTOR=1.0000E+00

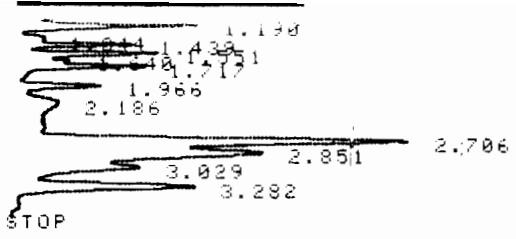
* RUN # 59 SEP 26, 1996 17:40:43
START



RUN# 59 SEP 26, 1996 17:40:43

NO CALIB PEAKS FOUND
AREA%

RT	AREA	TYPE	WIDTH	AREA%



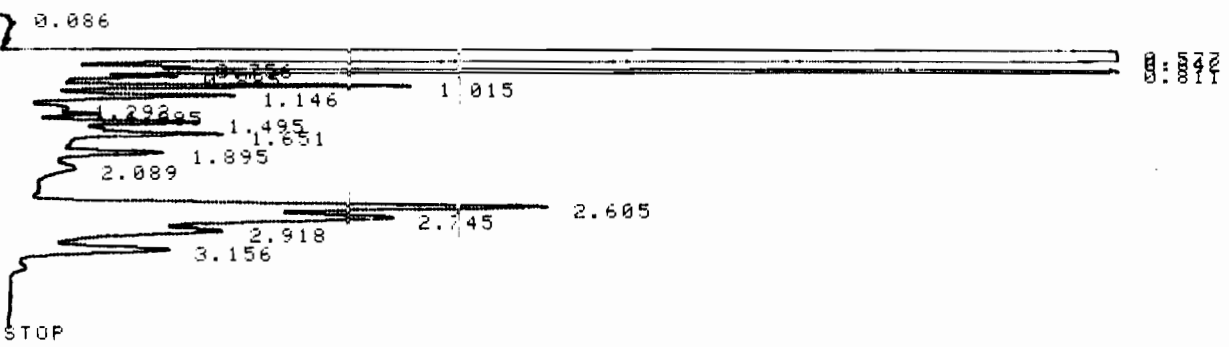
RUN# 55 SEP 26, 1996 16:40:59

ESTD-AREA

RT	AREA	TYPE	CAL#	AMOUNT
3.282	8481	VV	1R	4.363

TOTAL AREA= 975933
MUL FACTOR=1.0000E+00

* RUN # 56 SEP 26, 1996 16:51:25
START



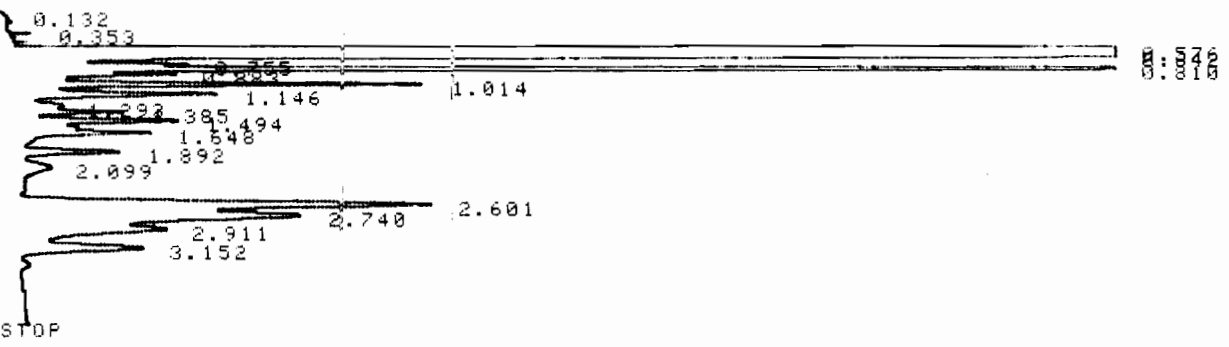
RUN# 56 SEP 26, 1996 16:51:25

ESTD-AREA

RT	AREA	TYPE	CAL#	AMOUNT
3.156	6781	VP	1R	3.489

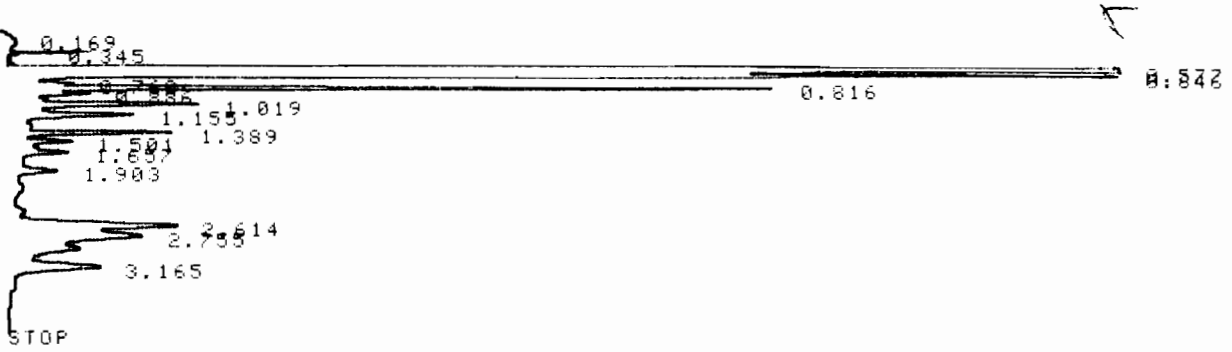
TOTAL AREA=2816890
MUL FACTOR=1.0000E+00

* RUN # 57 SEP 26, 1996 17:00:18
START



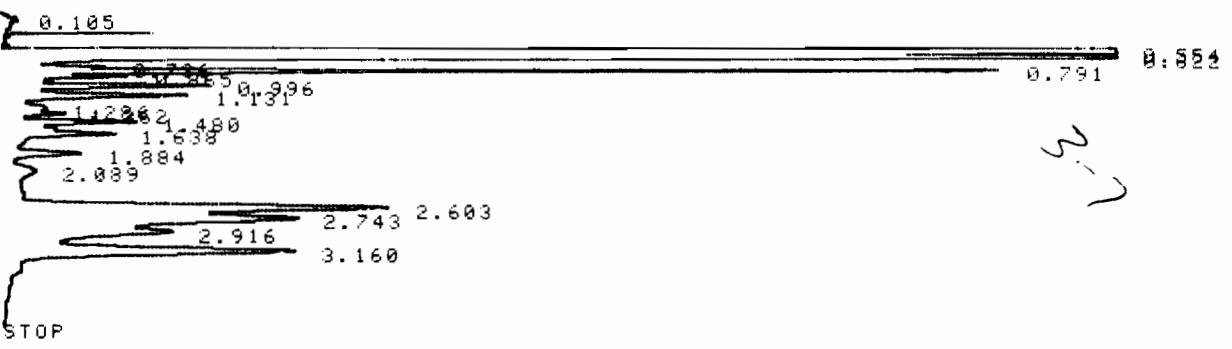
RUN# 57 SEP 26, 1996 17:00:18

```
*  RUN #    53      SEP 26, 1996   16:30:23
START
```



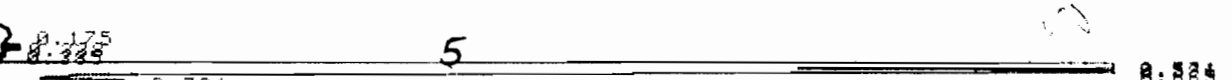

```
RUN#     53           SEP 26, 1996   16:30:23

ESTD-AREA
       RT        AREA TYPE   CAL#       AMOUNT
    3.165        4515   VV     1R        2.323

TOTAL AREA= 921296
MUL FACTOR=1.0000E+00
```

```
*  RUN #    54      SEP 26, 1996   16:35:15
START
```




```
RUN#     54           SEP 26, 1996   16:35:15

ESTD-AREA
       RT        AREA TYPE   CAL#       AMOUNT
    3.160       13508   VV     1R        6.950

TOTAL AREA=1142147
MUL FACTOR=1.0000E+00
```

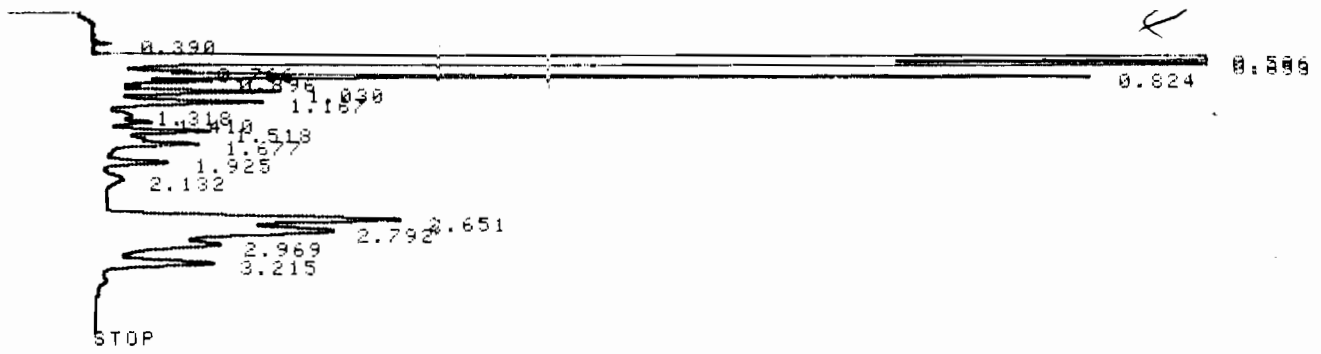
```
*  RUN #    55      SEP 26, 1996   16:40:59
START
```



.512	68	BP	.004	.01093
.590	604044	PB	.026	97.09366
.660	2948	BB	.016	.47386
.830	8050	VV	.035	1.29395
.901	494	VP	.034	.07941
1.038	1919	VV	.042	.30846
1.179	1277	VP	.049	.20526
1.417	923	VV	.090	.14836
1.523	561	VV	.093	.09017
2.663	1841	PV	.104	.29592

TOTAL AREA= 622125
MUL FACTOR=1.0000E+00

* RUN # 51 SEP 26, 1996 16:20:27
START



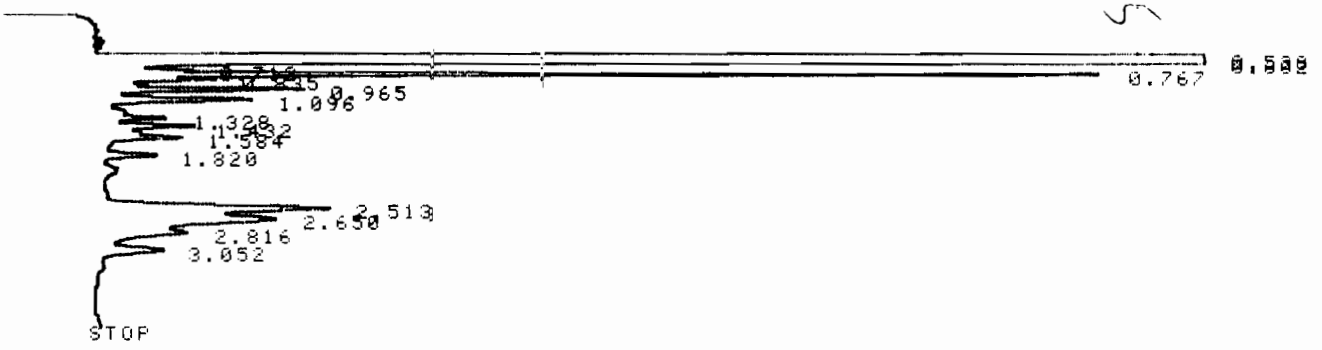
RUN# 51 SEP 26, 1996 16:20:27

ESTD-AREA

RT	AREA	TYPE	CAL#	AMOUNT
3.215	5361	VV	1R	2.758

TOTAL AREA=1050953
MUL FACTOR=1.0000E+00

* RUN # 52 SEP 26, 1996 16:25:43
START



RUN# 52 SEP 26, 1996 16:25:43

ESTD-AREA

RT	AREA	TYPE	CAL#	AMOUNT
3.052	2755	VP	1R	1.417

TOTAL AREA=1166568

RUN# 48 SEP 26, 1996 14:58:18

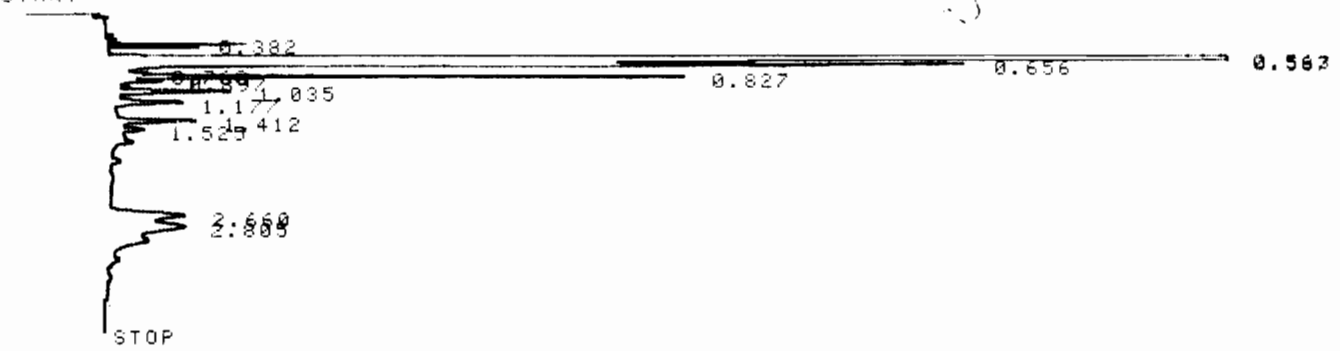
ESTD-AREA

RT	AREA TYPE	CAL#	AMOUNT
3.185	1224 VP	1R	.630

TOTAL AREA= 579058
MUL FACTOR=1.0000E+00

* RUN # 49 SEP 26, 1996 15:02:43

START



RUN# 49 SEP 26, 1996 15:02:43

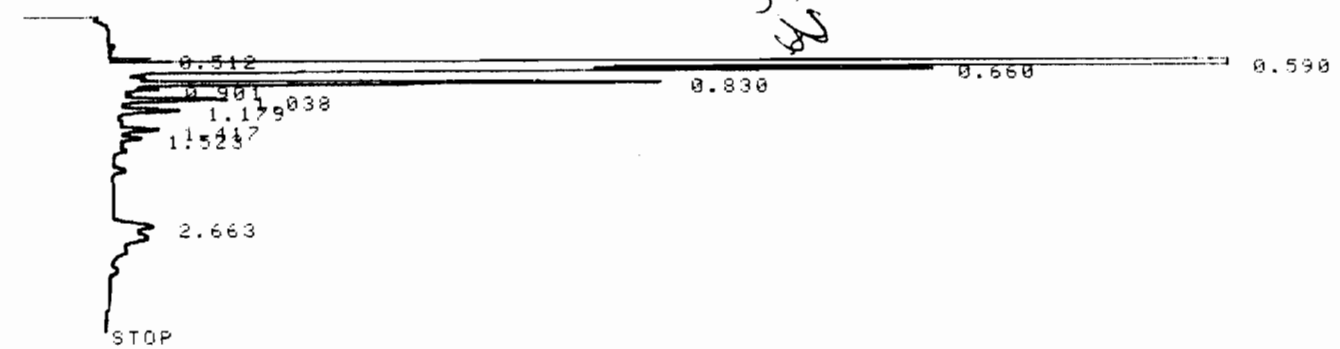
NO CALIB PEAKS FOUND
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.382	285	VP	.007	.04406
.563	125171	PV	.021	19.35205
.587	494360	VB	.019	76.43050
.656	3813	VB	.018	.58951
.768	285	PV	.031	.04406
.827	8496	VV	.035	1.31352
.897	605	VP	.035	.09354
1.035	2086	VV	.043	.32251
1.177	1568	VP	.053	.24242
1.412	1487	BV	.044	.22990
1.525	628	VV	.055	.09709
2.660	3399	PV	.102	.52550
2.805	4627	VV	.138	.71536

TOTAL AREA= 646810
MUL FACTOR=1.0000E+00

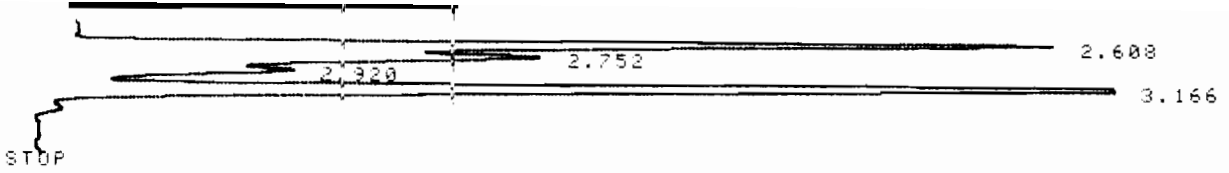
* RUN # 50 SEP 26, 1996 15:08:07

START



RUN# 50 SEP 26, 1996 15:08:07

NO CALIB PEAKS FOUND
AREA%



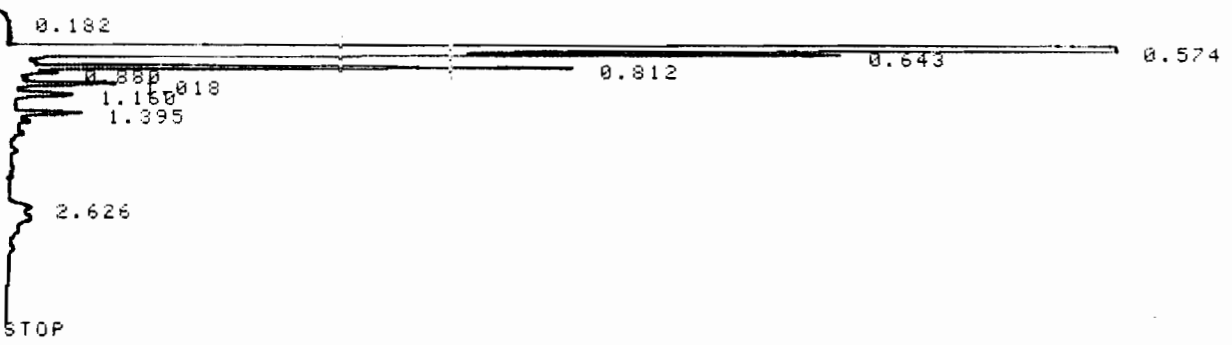
RUN# 46 SEP 26, 1996 14:00:38

ESTD-AREA

RT	AREA	TYPE	CA_#	AMOUNT
3.166	61191	VV	1R	31.483

TOTAL AREA=1316365
MUL FACTOR=1.0000E+00

* RUN # 47 SEP 26, 1996 14:51:11
START



RUN# 47 SEP 26, 1996 14:51:11

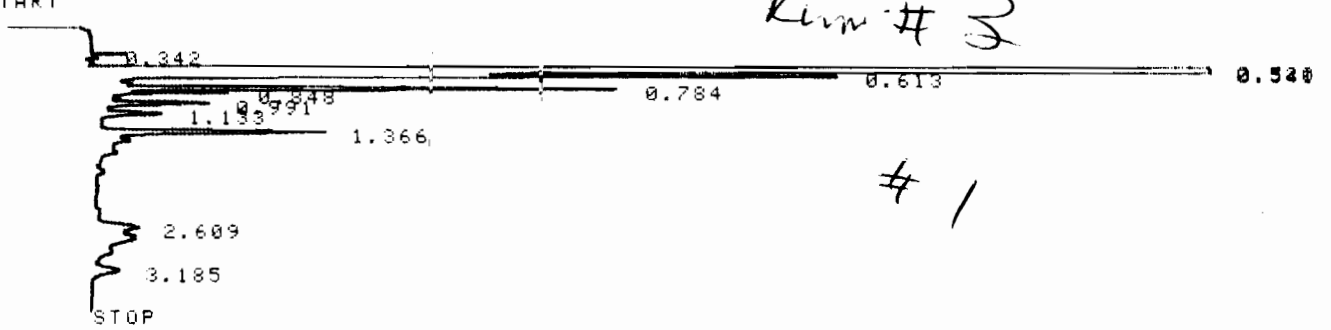
NO CALIB PEAKS FOUND
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.182	1083	PV	.210	.15582
.574	677189	PB	.030	97.43222
.643	2498	BB	.013	.35941
.812	8416	VV	.036	1.21087
.880	506	VP	.033	.07280
1.018	1815	VP	.043	.26114
1.160	1196	PP	.048	.17208
1.395	1420	VV	.048	.20431
2.626	913	BV	.104	.13136

TOTAL AREA= 695036
MUL FACTOR=1.0000E+00

* RUN # 48 SEP 26, 1996 14:58:18
START

Run # 2

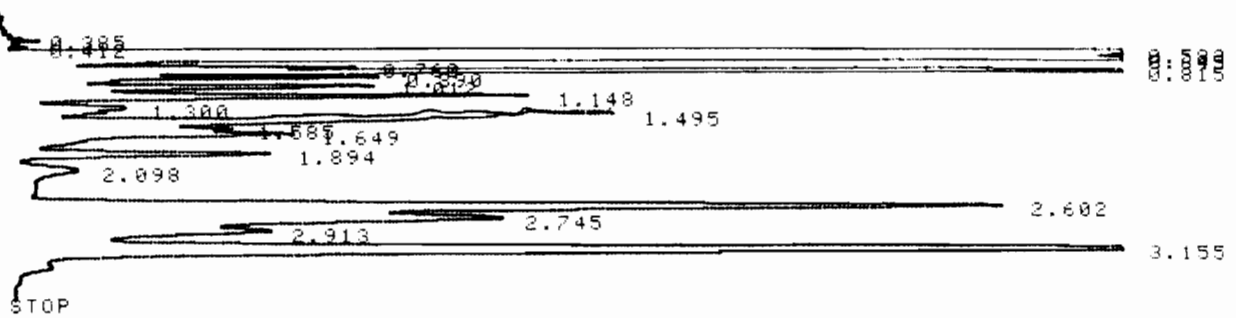


#1

TOTAL AREA=1201443
MUL FACTOR=1.0000E+00

* RUN # 44 SEP 26, 1996 13:50:01 BAG #2-2

START



RUN# 44 SEP 26, 1996 13:50:01

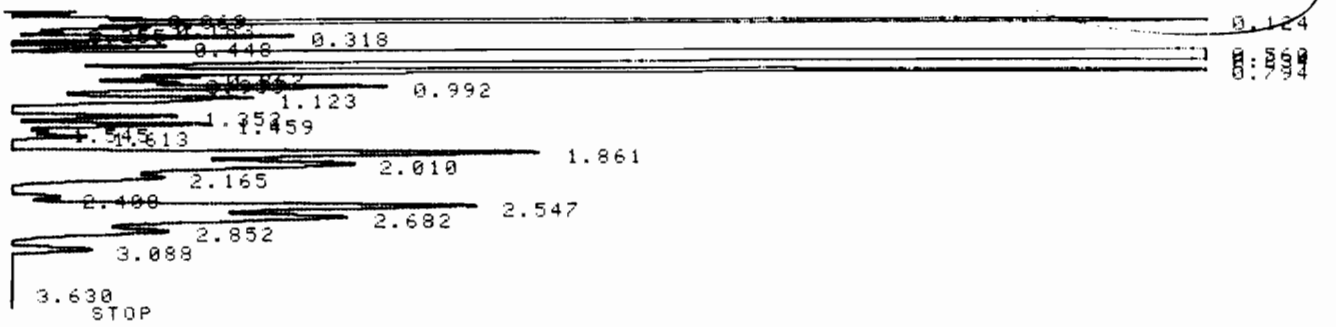
ESTD-AREA

RT	AREA	TYPE	CAL#	AMOUNT
3.155	63957	VV	1R	32.906

TOTAL AREA=1285117
MUL FACTOR=1.0000E+00

* RUN # 45 SEP 26, 1996 13:55:43 BAG SHOT Run #1

START



RUN# 45 SEP 26, 1996 13:55:43

ESTD-AREA

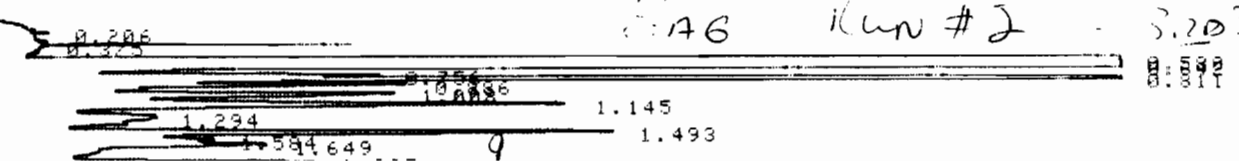
RT	AREA	TYPE	CAL#	AMOUNT
3.088	8171	VP	1R	4.204

TOTAL AREA=2581123
MUL FACTOR=1.0000E+00

* RUN # 46 SEP 26, 1996 14:00:38

START

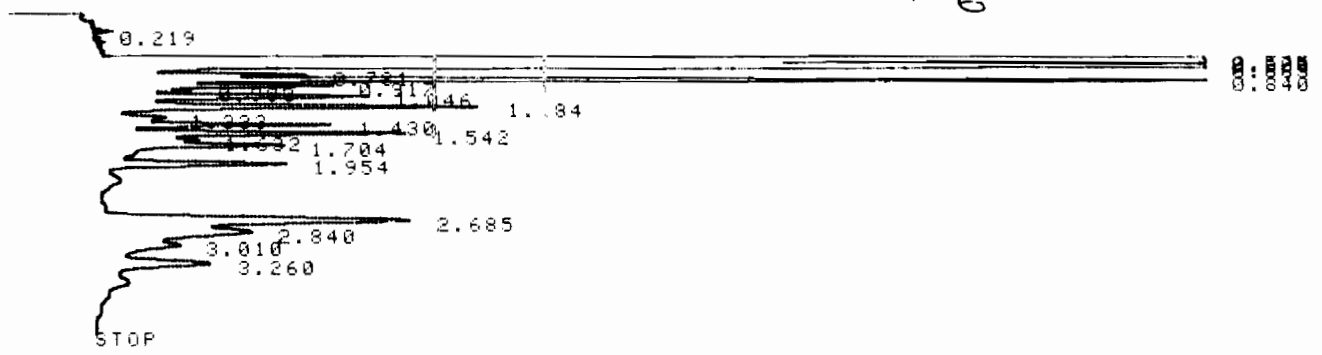
BAG Run #2 - 3.20 SHOT



* RUN # 41 SEP 26, 1996 13:26:16

#6

START



RUN# 41 SEP 26, 1996 13:26:16

ESTD-AREA

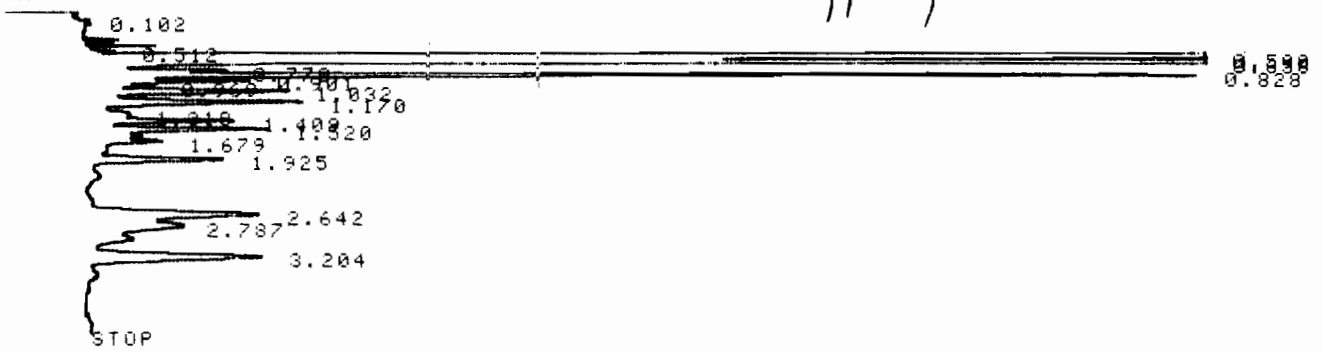
RT	AREA TYPE	CAL#	AMOUNT
3.260	5904 VV	1R	3.038

TOTAL AREA= 814790
MUL FACTOR=1.0000E+00

* RUN # 42 SEP 26, 1996 13:31:43

#7

START



RUN# 42 SEP 26, 1996 13:31:43

ESTD-AREA

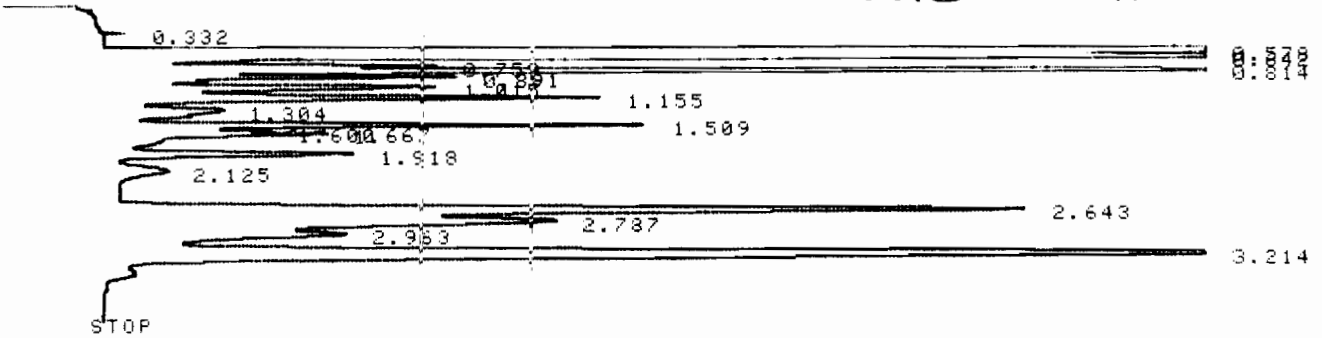
RT	AREA TYPE	CAL#	AMOUNT
3.204	7926 VV	1R	4.078

TOTAL AREA= 726233
MUL FACTOR=1.0000E+00

* RUN # 43 SEP 26, 1996 13:43:41

INT. BAG Run#2-1

START



RUN# 43 SEP 26, 1996 13:43:41

ESTD-AREA

RUN# 38 SEP 26, 1996 12:48:06

ESTD-AREA

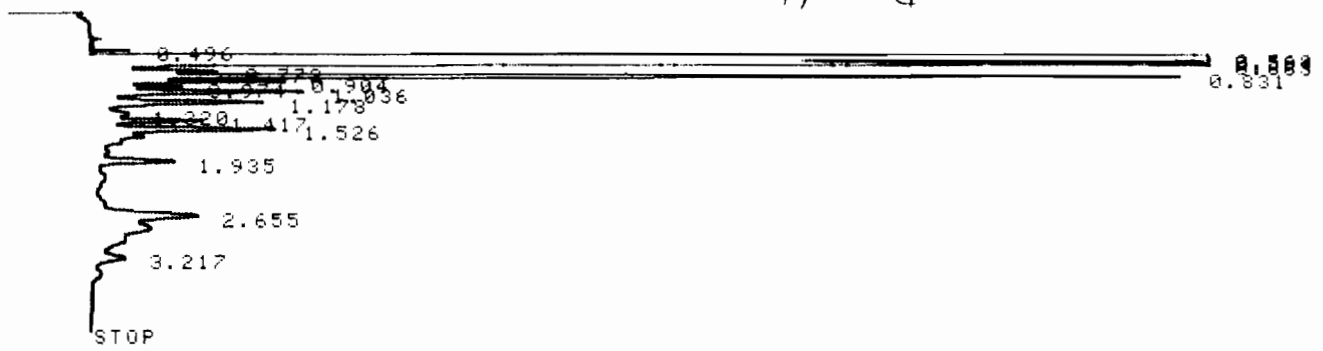
RT	AREA	TYPE	CAL#	AMOUNT
3.192	1426	VV	1R	.734

TOTAL AREA= 670425
MUL FACTOR=1.0000E+00

* RUN # 39 SEP 26, 1996 13:03:04

#4

START



RUN# 39 SEP 26, 1996 13:03:04

ESTD-AREA

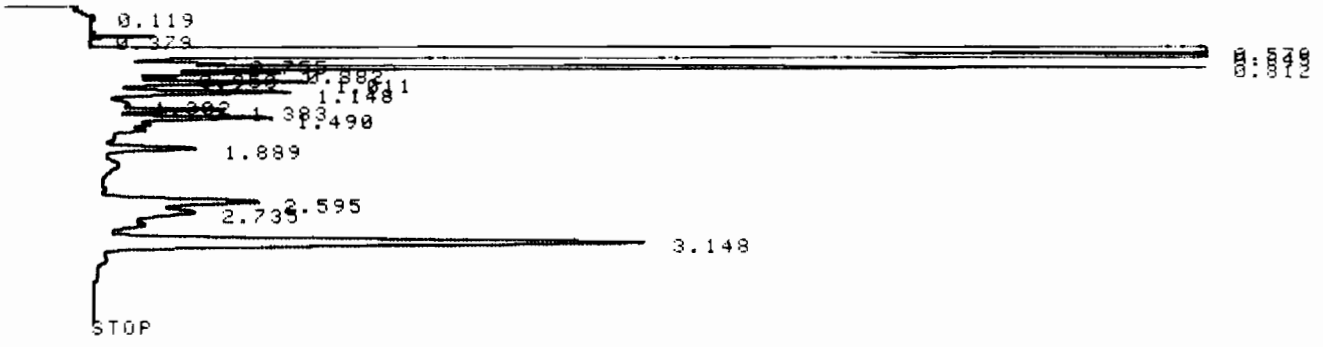
RT	AREA	TYPE	CAL#	AMOUNT
3.217	1364	VV	1R	.702

TOTAL AREA= 862053
MUL FACTOR=1.0000E+00

* RUN # 40 SEP 26, 1996 13:12:04

#5

START



RUN# 40 SEP 26, 1996 13:12:04

ESTD-AREA

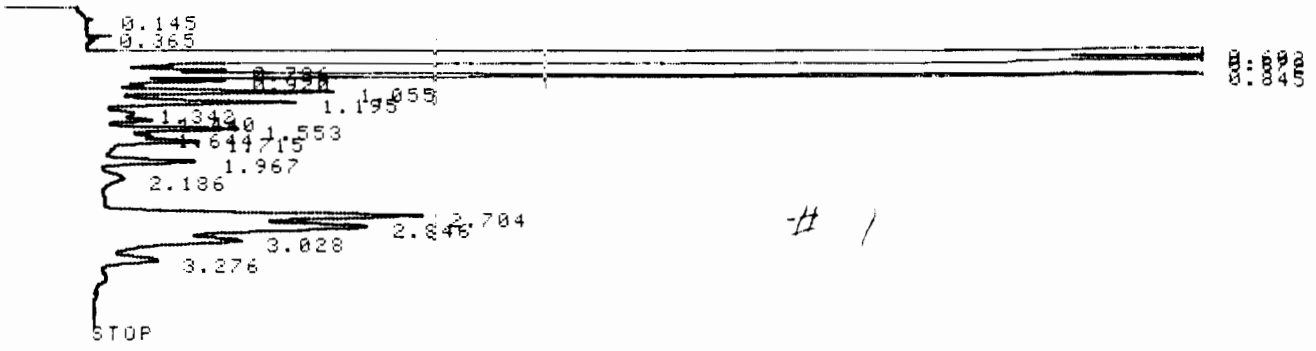
RT	AREA	TYPE	CAL#	AMOUNT
3.148	24796	VV	1R	12.758

TOTAL AREA= 949570
MUL FACTOR=1.0000E+00

TEST # 2

* RUN # 36 SEP 26, 1996 12:30:57

START



#1

RUN# 36 SEP 26, 1996 12:30:57

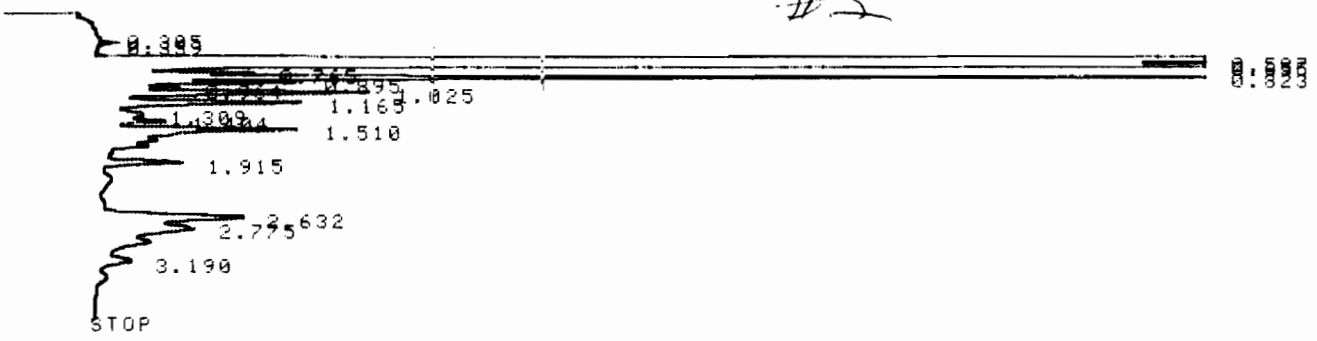
ESTD-AREA

RT	AREA	TYPE	CAL#	AMOUNT
3.028	7823	VV	R	4.025

TOTAL AREA=1167532
MUL FACTOR=1.0000E+00

* RUN # 37 SEP 26, 1996 12:37:33

START



#2

RUN# 37 SEP 26, 1996 12:37:33

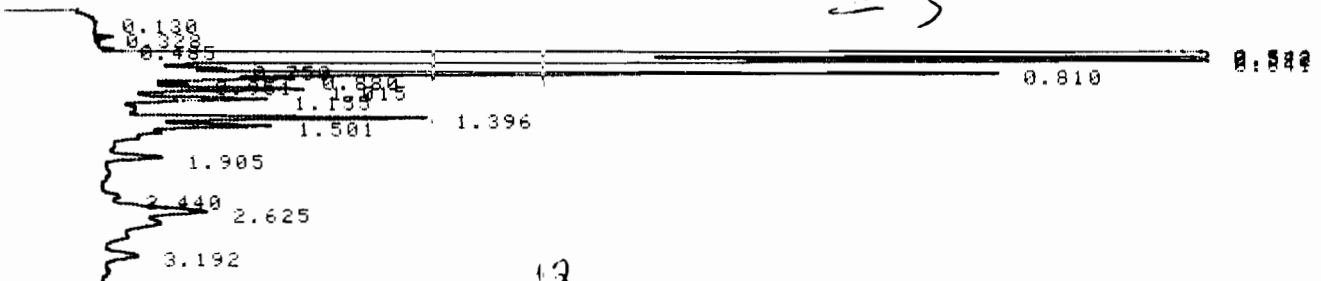
ESTD-AREA

RT	AREA	TYPE	CAL#	AMOUNT
3.190	2025	VV	R	1.042

TOTAL AREA=1381436
MUL FACTOR=1.0000E+00

* RUN # 38 SEP 26, 1996 12:48:06

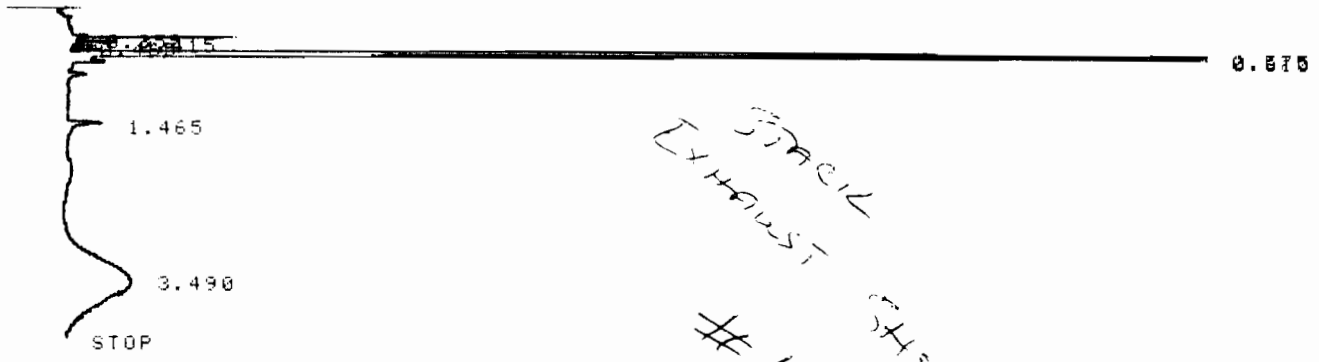
START



#3

TOTAL AREA=2056364
MUL FACTOR=1.0000E+00

* RUN # 34 SEP 26, 1996 10:53:38
START



STACK EXHAUST SHEET #1

RUN# 34 SEP 26, 1996 10:53:38

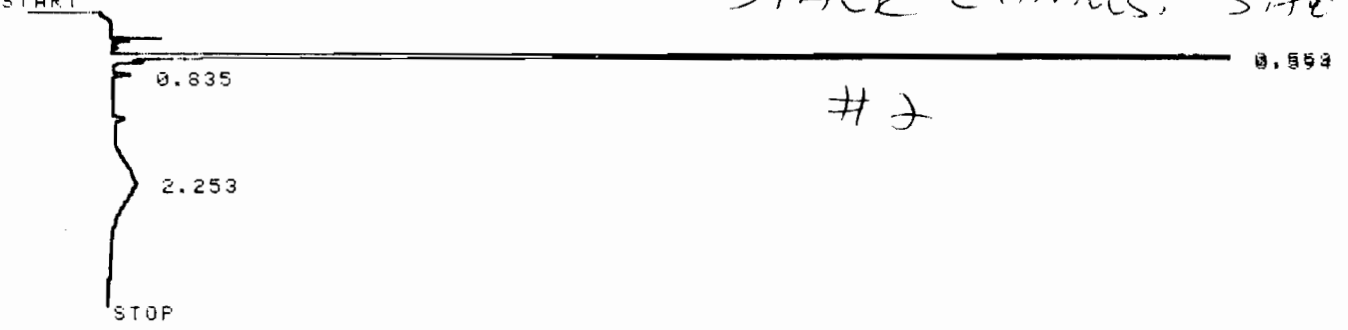
NO CALIB PEAKS FOUND
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.355	348	PB	.005	.56936
.415	72	BP	.004	.11780
.465	105	PB	.010	.17179
.575	25741	BV	.022	42.11482
.610	23399	VB	.020	38.28309
1.465	1031	PV	.067	1.68682
3.490	10425	PV	.352	17.05633

TOTAL AREA= 61121
MUL FACTOR=1.0000E+00

* RUN # 35 SEP 26, 1996 11:00:24
START

STACK EXHAUST SHEET #2

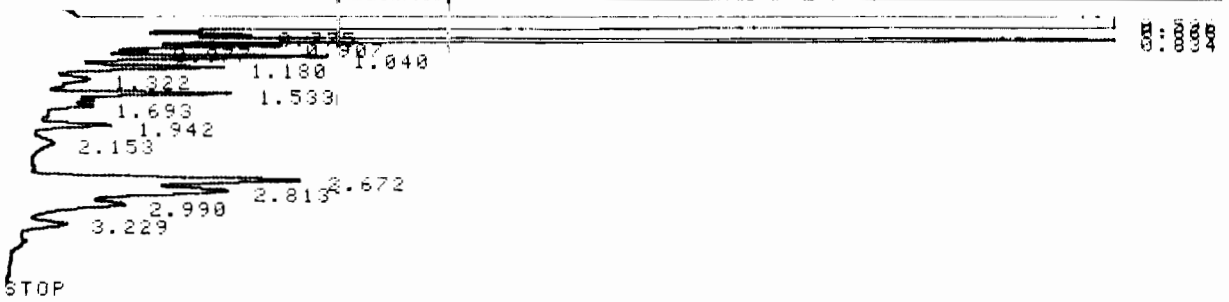


RUN# 35 SEP 26, 1996 11:00:24

NO CALIB PEAKS FOUND
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.559	28171	BV	.025	45.92973
.594	26047	VV	.024	42.46678
.835	362	VP	.042	.59020
2.253	6755	PV	.674	11.01329

TOTAL AREA= 61335
MUL FACTOR=1.0000E+00



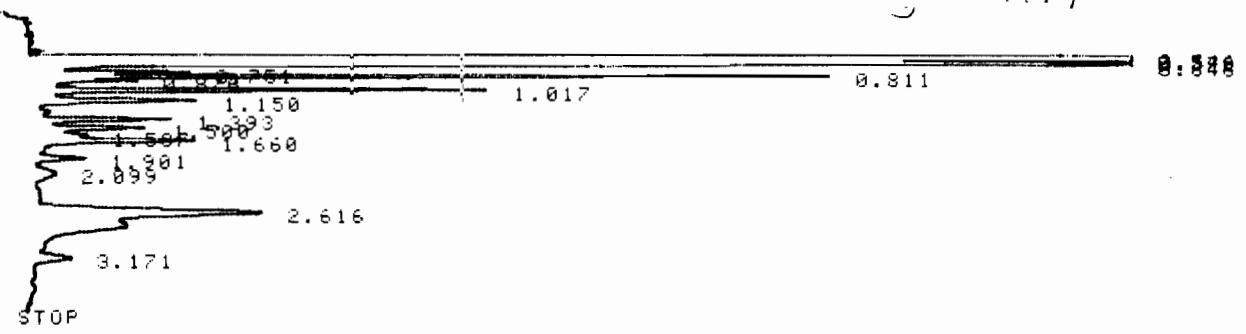
RUN# 31 SEP 26, 1996 10:32:10

ESTD-AREA

RT	AREA	TYPE	CAL#	AMOUNT
2.990	5378	VV	1R	2.767

TOTAL AREA=1447369
MUL FACTOR=1.0000E+00

* RUN # 32 SEP 26, 1996 10:39:13 START



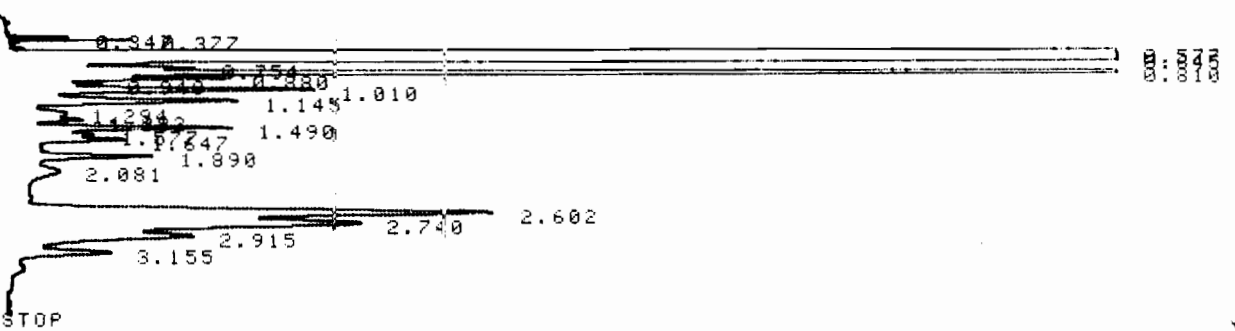
RUN# 32 SEP 26, 1996 10:39:13

ESTD-AREA

RT	AREA	TYPE	CAL#	AMOUNT
3.171	1698	VP	1R	.874

TOTAL AREA=1120803
MUL FACTOR=1.0000E+00

* RUN # 33 SEP 26, 1996 10:44:35 INT BAG SHOT #2
START



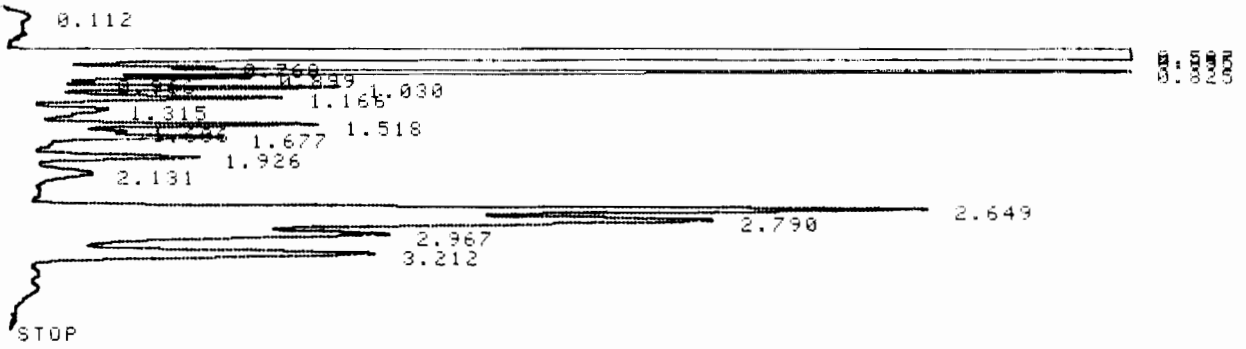
RUN# 33 SEP 26, 1996 10:44:35

ESTD-AREA

RT	AREA	TYPE	CAL#	AMOUNT
3.166	8595	VV	1R	4.422

TOTAL AREA=1995776
MUL FACTOR=1.0000E+00

* RUN # 29 SEP 26, 1996 10:07:09
START



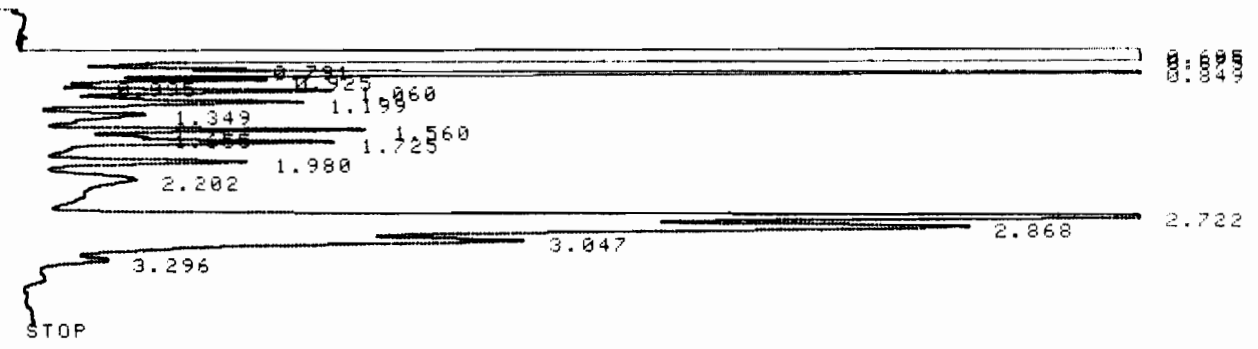
RUN# 29 SEP 26, 1996 10:07:09

ESTD-AREA

RT	AREA	TYPE	CAL#	AMOUNT
3.212	17793	VV	1R	9.155

TOTAL AREA=1963948
MUL FACTOR=1.0000E+00

* RUN # 30 SEP 26, 1996 10:14:26
START



RUN# 30 SEP 26, 1996 10:14:26

ESTD-AREA

RT	AREA	TYPE	CAL#	AMOUNT
3.047	27983	VV	1R	14.397

TOTAL AREA=1619514
MUL FACTOR=1.0000E+00

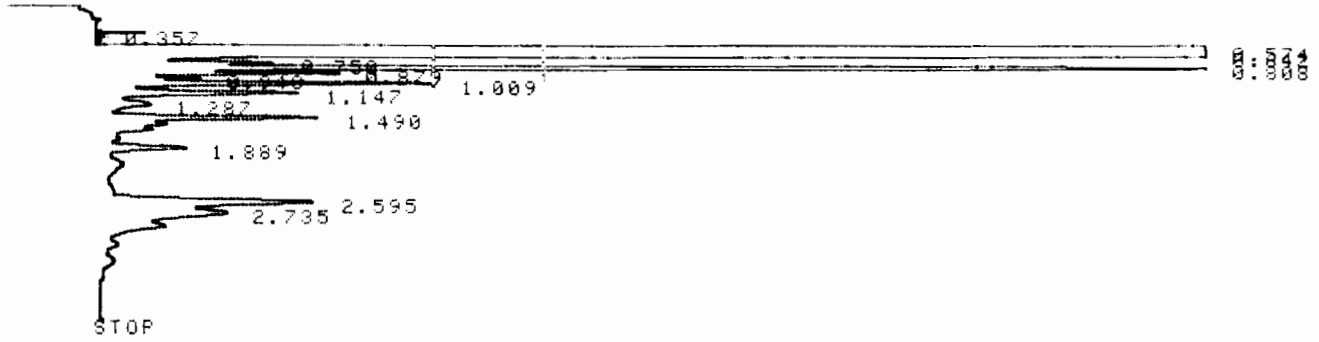
* RUN # 31 SEP 26, 1996 10:32:10
START

ESTD-AREA

RT	AREA	TYPE	CAL#	AMOUNT
3.125	1160	VV	1R	.597

TOTAL AREA=2818573
MUL FACTOR=1.0000E+00

* RUN # 27 SEP 26, 1996 09:32:02
START



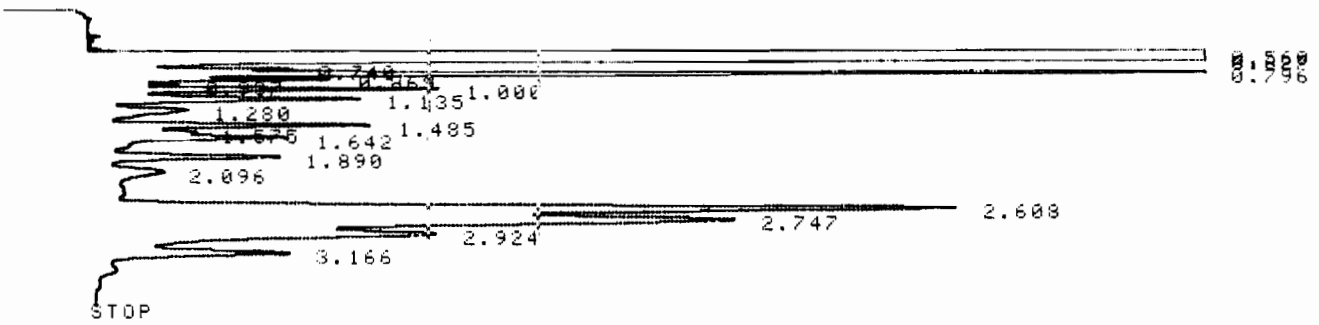
RUN# 27 SEP 26, 1996 09:32:02

NO CALIB PEAKS FOUND
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.357	364	VV	.014	.01912
.574	1830660	PB	.028	96.14704
.642	8718	BP	.015	.45787
.750	1517	PV	.031	.07967
.808	24605	VV	.038	1.29227
.879	2835	VV	.035	.14890
.948	703	VV	.030	.03692
1.009	5737	VV	.046	.30131
1.147	3996	VP	.054	.20987
1.287	1331	PP	.038	.06990
1.490	4989	PV	.056	.26202
1.889	2183	VP	.035	.11465
2.595	9240	VV	.133	.48529
2.735	7143	VV	.134	.37515

TOTAL AREA=1904021
MUL FACTOR=1.0000E+00

* RUN # 28 SEP 26, 1996 10:01:17
START

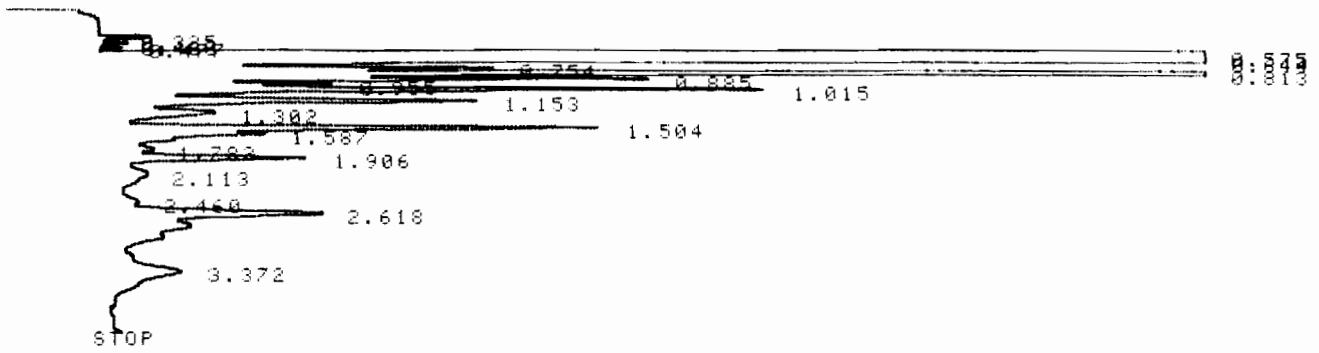


RUN# 28 SEP 26, 1996 10:01:17

TOTAL AREA=2876808
MUL FACTOR=1.0000E+00

* RUN # 25 SEP 26, 1996 07:53:56

START



RUN# 25 SEP 26, 1996 07:53:56

NO CALIB PEAKS FOUND

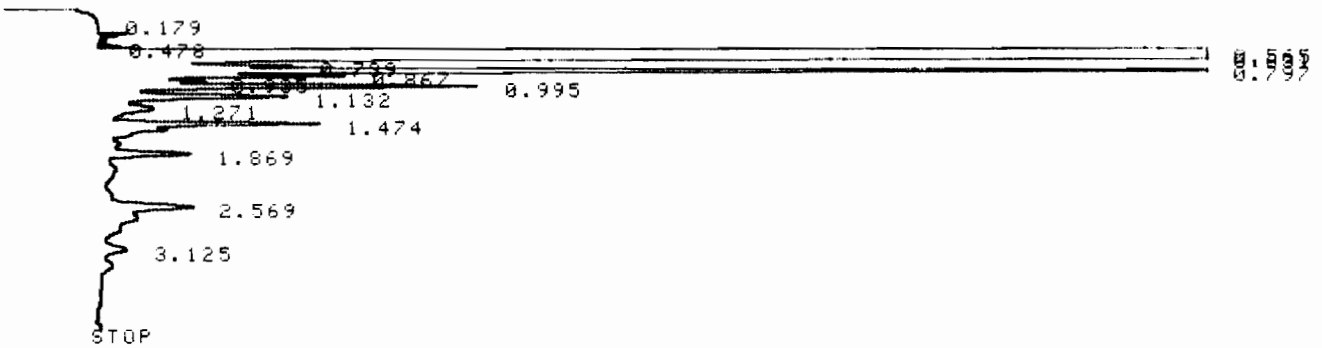
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.325	1776	VP	.060	.04740
.430	236	PV	.018	.00630
.477	326	VP	.024	.00870
.575	3602056	PB	.029	96.12758
.644	20908	BP	.018	.55797
.754	3608	PV	.033	.09629
.813	47047	VV	.039	1.25554
.885	7026	VV	.038	.18750
.955	1879	VV	.033	.05014
1.015	11681	VP	.047	.31173
1.153	7553	PP	.057	.20157
1.302	2888	PP	.093	.07707
1.504	11766	PV	.058	.31400
1.587	3357	VV	.057	.08959
1.782	1062	VV	.081	.02834
1.906	5398	VV	.070	.14406
2.113	1962	VP	.171	.05236
2.460	792	PV	.096	.02114
2.618	9068	VV	.103	.24200
3.372	6772	VV	.236	.18072

TOTAL AREA=3747162
MUL FACTOR=1.0000E+00

* RUN # 26 SEP 26, 1996 08:27:32

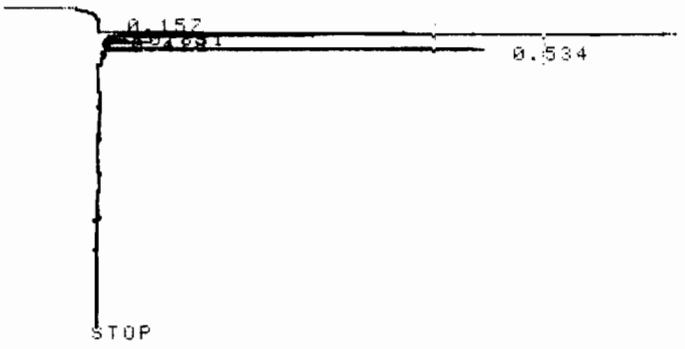
START



.536	5083	VB	.032	50	60733

TOTAL AREA= 10044
MUL FACTOR=1.0000E+00

* RUN # 23 SEP 26, 1996 07:37:39
START



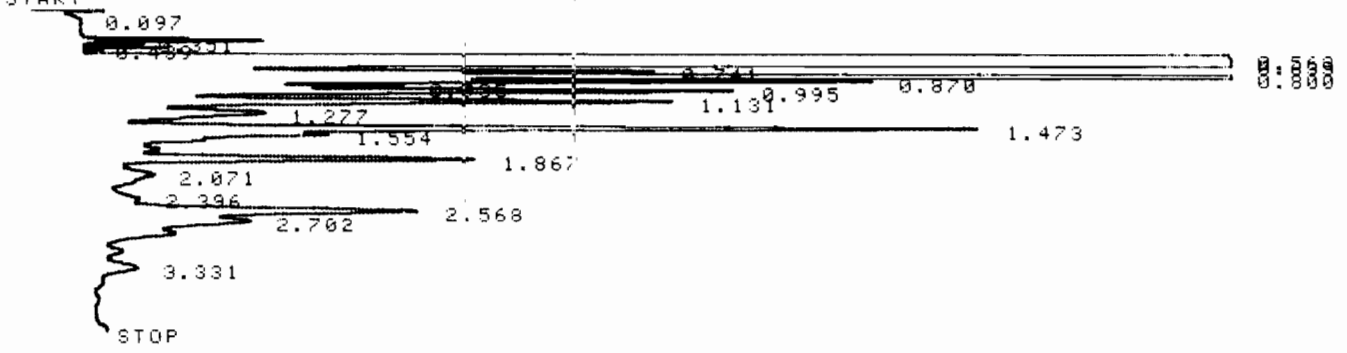
RUN# 23 SEP 26, 1996 07:37:39

NO CALIB PEAKS FOUND
AREA%

RT	AREA	TYPE	WIDTH		AREA%
.157	1411	BV	.194	13	15618
.331	3955	VV	.086	36	87646
.418	315	VV	.040	2	90909
.534	5047	VB	.030	47	05827

TOTAL AREA= 10725
MUL FACTOR=1.0000E+00

* RUN # 24 SEP 26, 1996 07:46:17
START



RUN# 24 SEP 26, 1996 07:46:17

NO CALIB PEAKS FOUND
AREA%

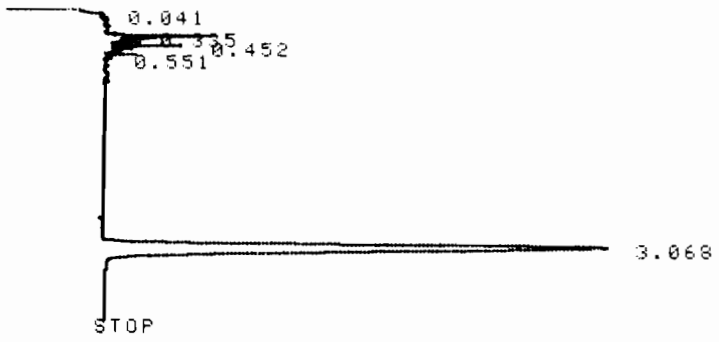
RT	AREA	TYPE	WIDTH	AREA%
.097	277	PV	.057	.00963
.351	1661	VB	.022	.05774
.439	186	BB	.005	.00647
.563	2534336	BV	.038	88.09542
.635	124505	VV	.045	4.32789
.741	9319	VV	.038	.32394
.800	61242	VV	.043	2.12882
.870	14553	VV	.043	.50587
.935	5356	VV	.039	.18618
.995	17592	VV	.063	.61151
1.131	17888	VV	.071	.62180
1.277	9537	VV	.124	.33151
1.473	23291	VV	.061	.80961
1.554	6024	VV	.058	.20940
1.867	12772	VV	.077	.44396
2.071	6446	VV	.219	.22407
2.396	2370	VV	.101	.08238
2.568	15725	VV	.111	.54661

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.154	1155	PV	.103	10.44871
.326	696	VV	.020	6.29636
.368	2576	VV	.039	23.30378
.452	591	VV	.036	5.34648
.532	5833	VV	.028	52.76822
.588	203	VB	.014	1.83644

TOTAL AREA= 11054
MUL FACTOR=1.0000E+00

* RUN # 21 SEP 26, 1996 07:10:22
START



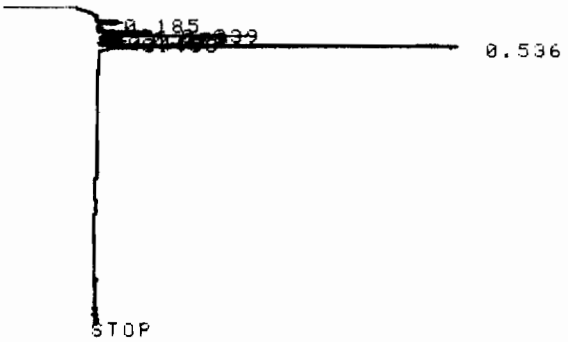
RUN# 21 SEP 26, 1996 07:10:22

ESTD-AREA

RT	AREA	TYPE	CAL#	AMOUNT
3.068	22977	PB	1R	11.822

TOTAL AREA= 24887
MUL FACTOR=1.0000E+00

* RUN # 22 SEP 26, 1996 07:31:22
START

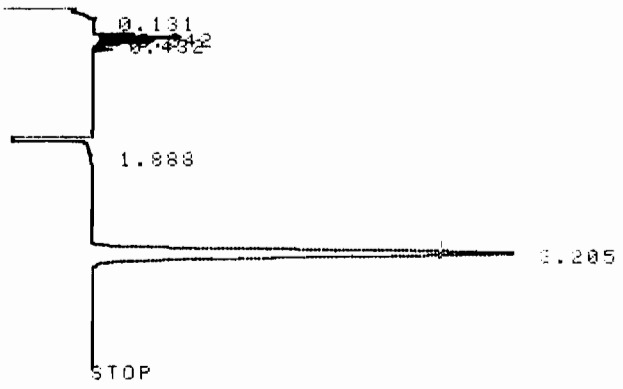


RUN# 22 SEP 26, 1996 07:31:22

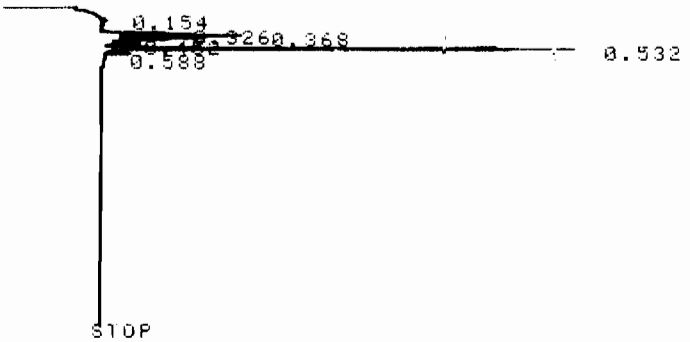
NO CALIB PEAKS FOUND
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.185	699	BB	.060	6.95938
.339	1052	VV	.027	10.47392
.379	1423	VP	.046	14.16766

```
*  RUN #    19      SEP 26, 1996  06:27:18
START
```




```
RUN#     19           SEP 26, 1996  06:27:18

ESTD-AREA
       RT        AREA TYPE  CAL#       AMOUNT
    3.205       19233   BB    1R        9.895

TOTAL AREA=  52393
MUL FACTOR=1.0000E+00

*

Power failed
SEP 26, 1996  07:02:21

BREAK

*
 Configuring, Wait for "LOOP UP" message

  *************( LOOP UP )************

*  RUN #    20      SEP 26, 1996  07:04:06
START
```




```
RUN#     20           SEP 26, 1996  07:04:06
```

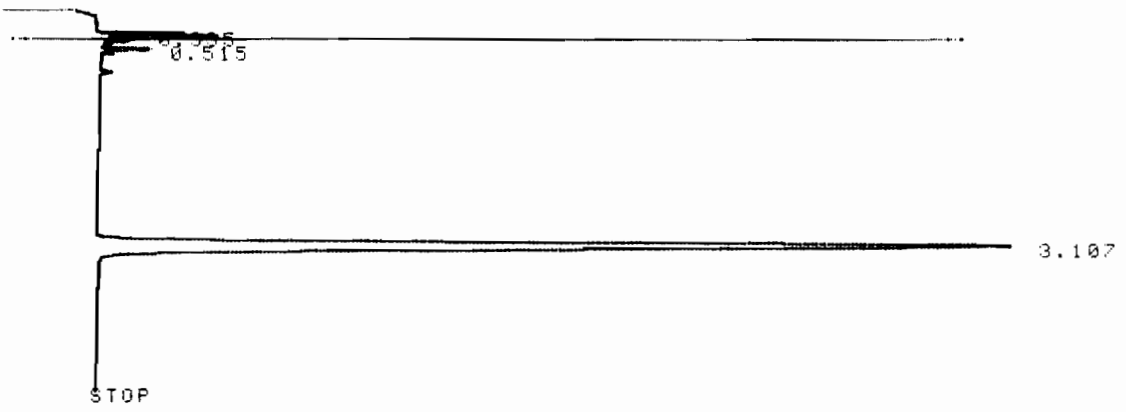
CAL# 2
RT:

REF PK CAL#:

GROUP PEAKS [Y/N*]:

CALIBRATION OPTIONS
RF of uncalibrated peaks [0.0000E+00]:
Replace calibration fit [Y/N*]:
Disable post-run RT update [Y/N*]:

* RUN # 17 SEP 26, 1996 06:12:37
START



RUN# 17 SEP 26, 1996 06:12:37

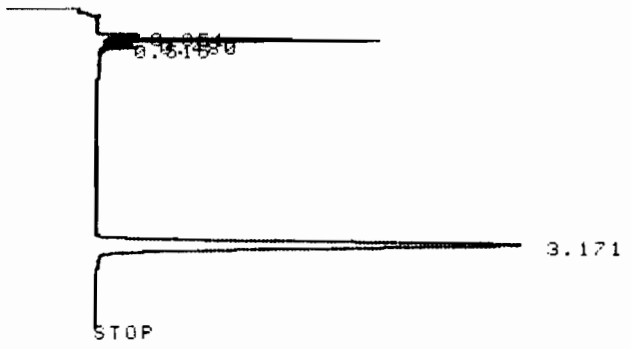
ESTD-AREA

RT	AREA	TYPE	CAL#	AMOUNT
3.107	41430	BV	1R	21.316

19,87

TOTAL AREA= 43302
MUL FACTOR=1.0000E+00

* RUN # 18 SEP 26, 1996 06:22:20
START



RUN# 18 SEP 26, 1996 06:22:20

ESTD-AREA

RT	AREA	TYPE	CAL#	AMOUNT
3.171	19265	BP	1R	9.912

TOTAL AREA= 22212
MUL FACTOR=1.0000E+00

9,16

STOP

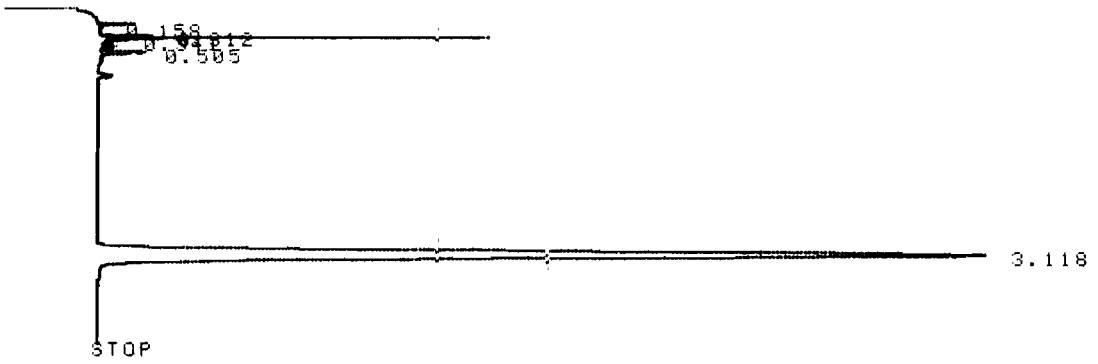
RUN# 15 SEP 26, 1996 05:25:57

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.328	631	PV	.026	1.56293
.369	2000	VB	.016	4.95380
.548	591	PB	.020	1.46385
3.180	37151	PV	.107	92.01942

TOTAL AREA= 40373
MUL FACTOR=1.0000E+00

* RUN # 16 SEP 26, 1996 06:05:56
START



STOP

RUN# 16 SEP 26, 1996 06:05:56

.0005145

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.158	534	VV	.024	1.24790
.312	1125	VV	.045	2.62900
.341	419	VV	.014	.97916
.505	627	BV	.030	1.46523
3.118	40087	PB	.106	93.67872

TOTAL AREA= 42792
MUL FACTOR=1.0000E+00

* EDIT CALIB @

E = EXTERNAL STANDARD
I = INTERNAL STANDARD
N = NORMALIZATION

CALIB PROCEDURE [E*/I/N]:

REF % RTW [5.000]:
NON-REF % RTW [5.000]:

RF BASED ON AREA OR HEIGHT [A*/H]:

CAL# 1
RT: 3.118
AMT: 19.87
AMT/AREA: .0005145
NAME: PCE

RUN# 13 JAN 1, 1901 09:27:51

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.265	1630	BV	.042	1.62487
.341	4882	VV	.021	4.86662
.364	4133	VV	.036	4.11998
.415	2373	VV	.041	2.36552
.491	1346	VB	.026	1.34176
.642	210	PB	.025	.20934
3.075	85207	BB	.106	84.93859
3.916	535	PB	.043	.53331

TOTAL AREA= 100316
MUL FACTOR=1.0000E+00

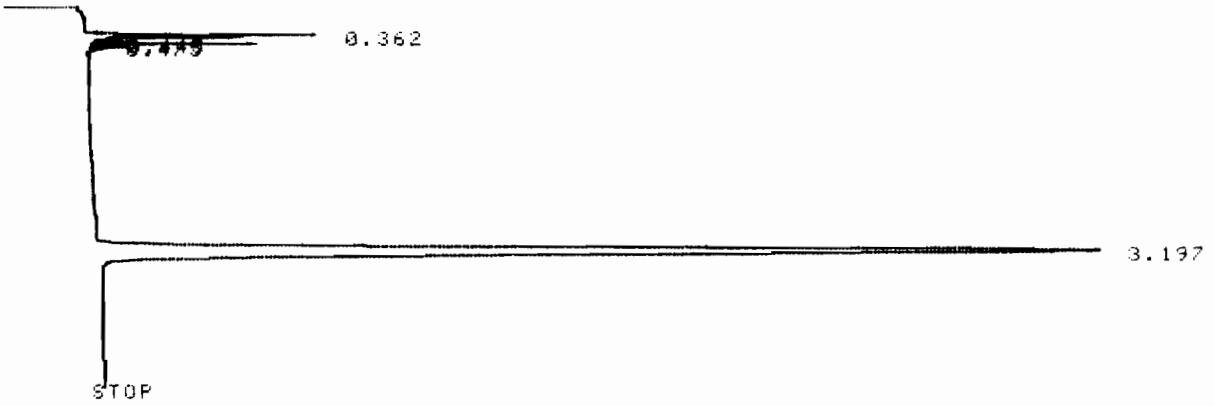
*DATE09/26/96

INVALID SYSTEM COMMAND

*TIME 04:16:14
JAN 1, 1901 04:16:14

*DATE 09/26/96
SEP 26, 1996 04:16:27

* RUN # 14 SEP 26, 1996 04:59:16
START



RUN# 14 SEP 26, 1996 04:59:16

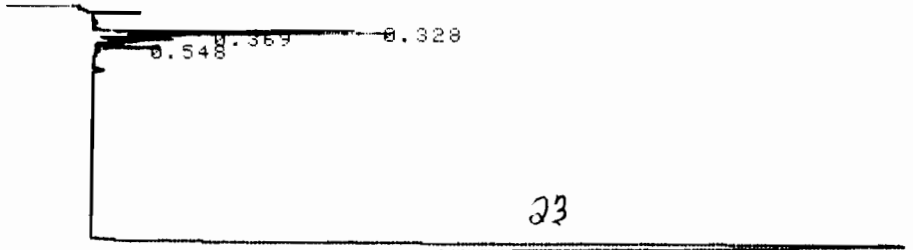
AREA%

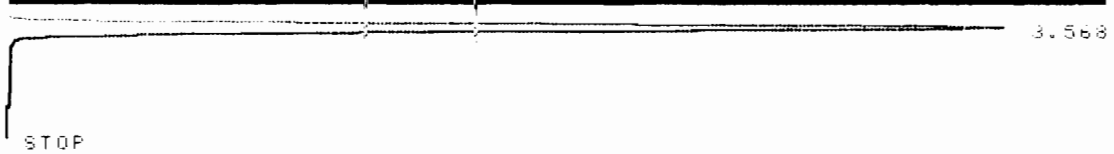
RT	AREA	TYPE	WIDTH	AREA%
.362	2268	VV	.022	4.66168
.445	293	VV	.014	.60224
.475	770	VB	.010	1.58267
3.197	45321	PB	.106	93.15341

.00 04 84

TOTAL AREA= 48652
MUL FACTOR=1.0000E+00

* RUN # 15 SEP 26, 1996 05:25:57
START





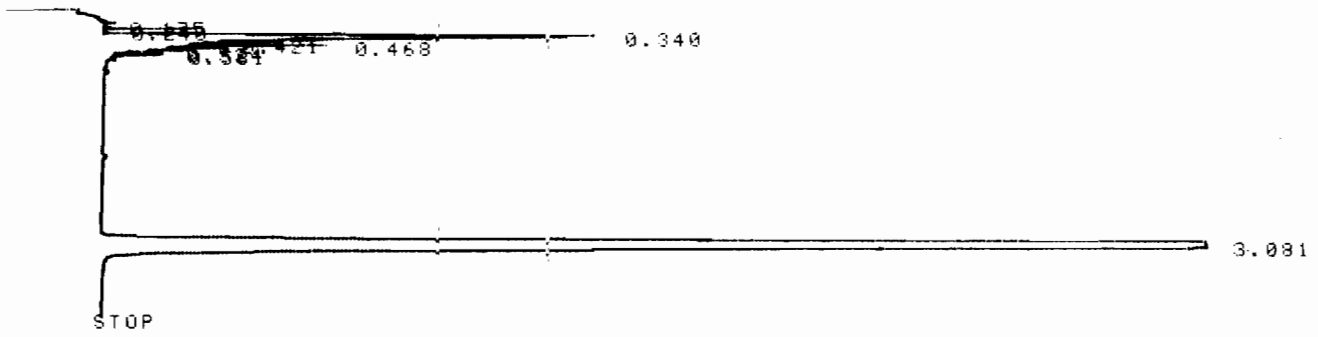
RUN# 11 JAN 1, 1901 00:11:57

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.175	601	I PB	.100	1.25078
.455	469	I PB	.026	.97607
3.568	46980	PV	.110	97.77315

TOTAL AREA= 48050
MUL FACTOR=1.0000E+00

* RUN # 12 JAN 1, 1901 09:23:04
START



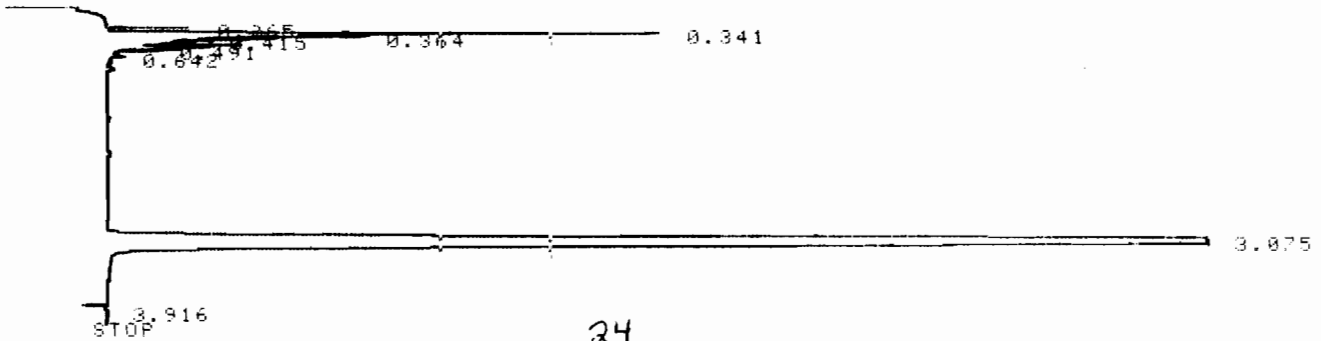
RUN# 12 JAN 1, 1901 09:23:04

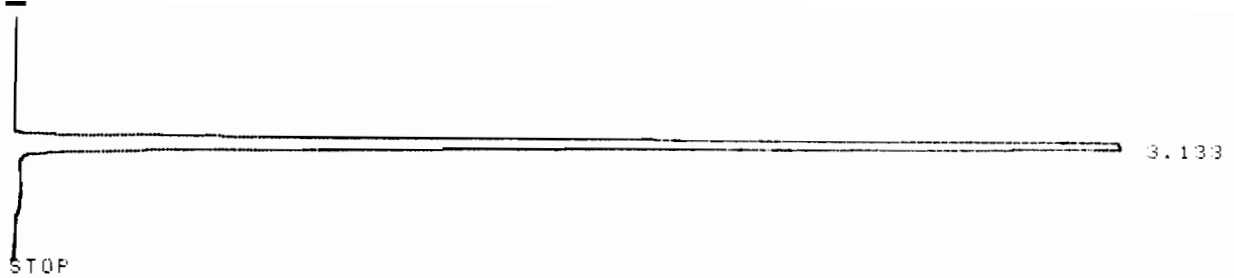
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.175	1577	BV	.102	1.50749
.240	514	VV	.009	.49134
.340	12128	VV	.055	11.59342
.421	2491	VV	.030	2.38120
.468	1729	VV	.017	1.65279
.524	1822	VV	.044	1.74169
.581	370	VV	.014	.35369
3.081	83980	PB	.106	80.27834

TOTAL AREA= 104611
MUL FACTOR=1.0000E+00

* RUN # 13 JAN 1, 1901 09:27:51
START





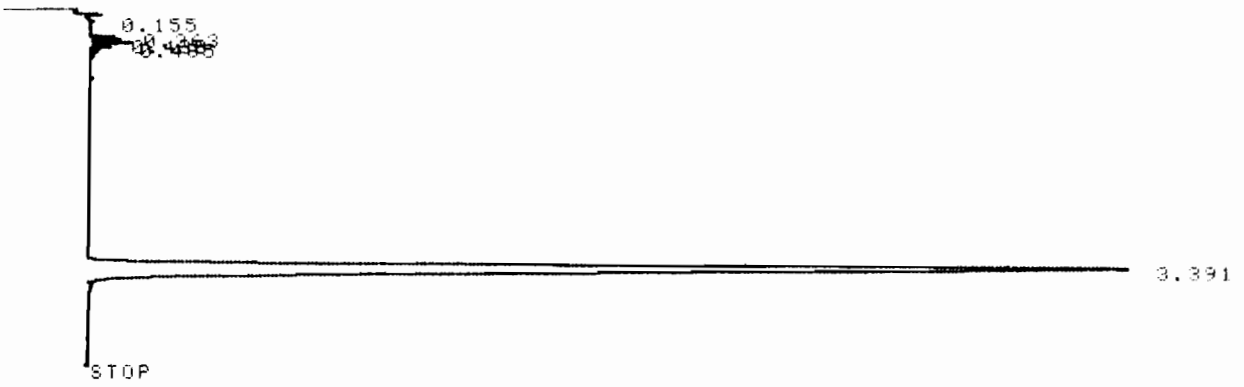
RUN# 9 JAN 1, 1901 08:59:28

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.345	473	BV	.022	.57648
.395	708	VP	.012	.86289
.495	97	PB	.010	.11822
3.133	80772	PV	.106	98.44240

TOTAL AREA= 82050
MUL FACTOR=1.0000E+00

* RUN # 10 JAN 1, 1901 09:05:49
START



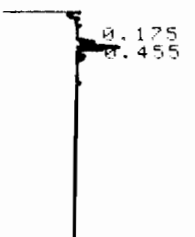
RUN# 10 JAN 1, 1901 09:05:49

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.155	401	PB	.097	.81473
.363	166	BV	.014	.33727
.438	437	VV	.022	.88787
.485	122	VP	.013	.24787
3.391	48093 I	BB	.109	97.71229

TOTAL AREA= 49219
MUL FACTOR=1.0000E+00

* RUN # 11 JAN 1, 1901 09:11:57
START



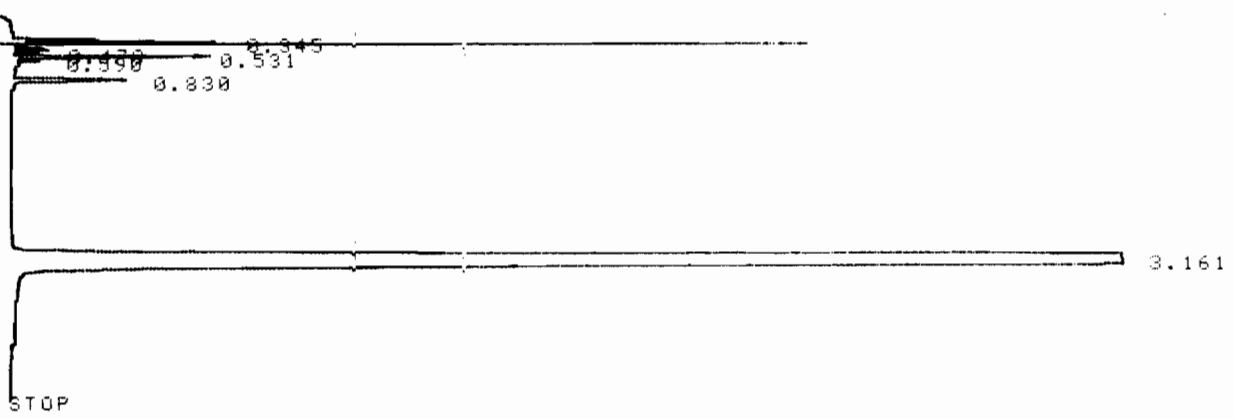
RUN# 7 JAN 1, 1901 00:33:25

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.168	477	BV	.027	.23288
.322	2849	VB	.032	1.39092
.422	128	BP	.012	.06249
.448	348	PP	.015	.16990
.499	3307	PB	.026	1.61453
.820	1682	BB	.023	.82118
1.435	332	PB	.068	.16209
3.128	195705	BV	.106	95.54602

TOTAL AREA= 204828
MUL FACTOR=1.0000E+00

* RUN # 8 JAN 1, 1901 08:39:43
START



RUN# 8 JAN 1, 1901 00:39:43

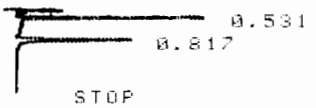
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.345	1064	VV	.012	.55850
.478	73	PB	.006	.03832
.531	2301	BV	.027	1.20781
.590	82	VB	.008	.04304
.830	1634	BB	.023	.85770
3.161	185356	PB	.107	97.29462

TOTAL AREA= 190510
MUL FACTOR=1.0000E+00

L24 ppm

* RUN # 9 JAN 1, 1901 08:59:28
START



RUN# 5 JAN 1, 1901 08:28:56

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.394	348	BB	.011	8.16326
.531	2301	PV	.029	53.97608
.817	1614	PB	.033	37.86066

TOTAL AREA= 4263
MUL FACTOR=1.0000E+00

* RUN # 6 JAN 1, 1901 08:31:02
START

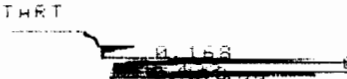
RUN# 6 JAN 1, 1901 08:31:02

AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.045	189230	PB	.106	100.00000

TOTAL AREA= 189230
MUL FACTOR=1.0000E+00

* RUN # 7 JAN 1, 1901 08:33:25
START



0000000000000000000000000000000000000000000000000000000000999999999988888888888888888
8888888888888888888888888888888888888888888888888888888888888   BREAK

* NO PROGRAM ASSIGNED TO KEY

* NO PROGRAM ASSIGNED TO KEY

*
BREAK

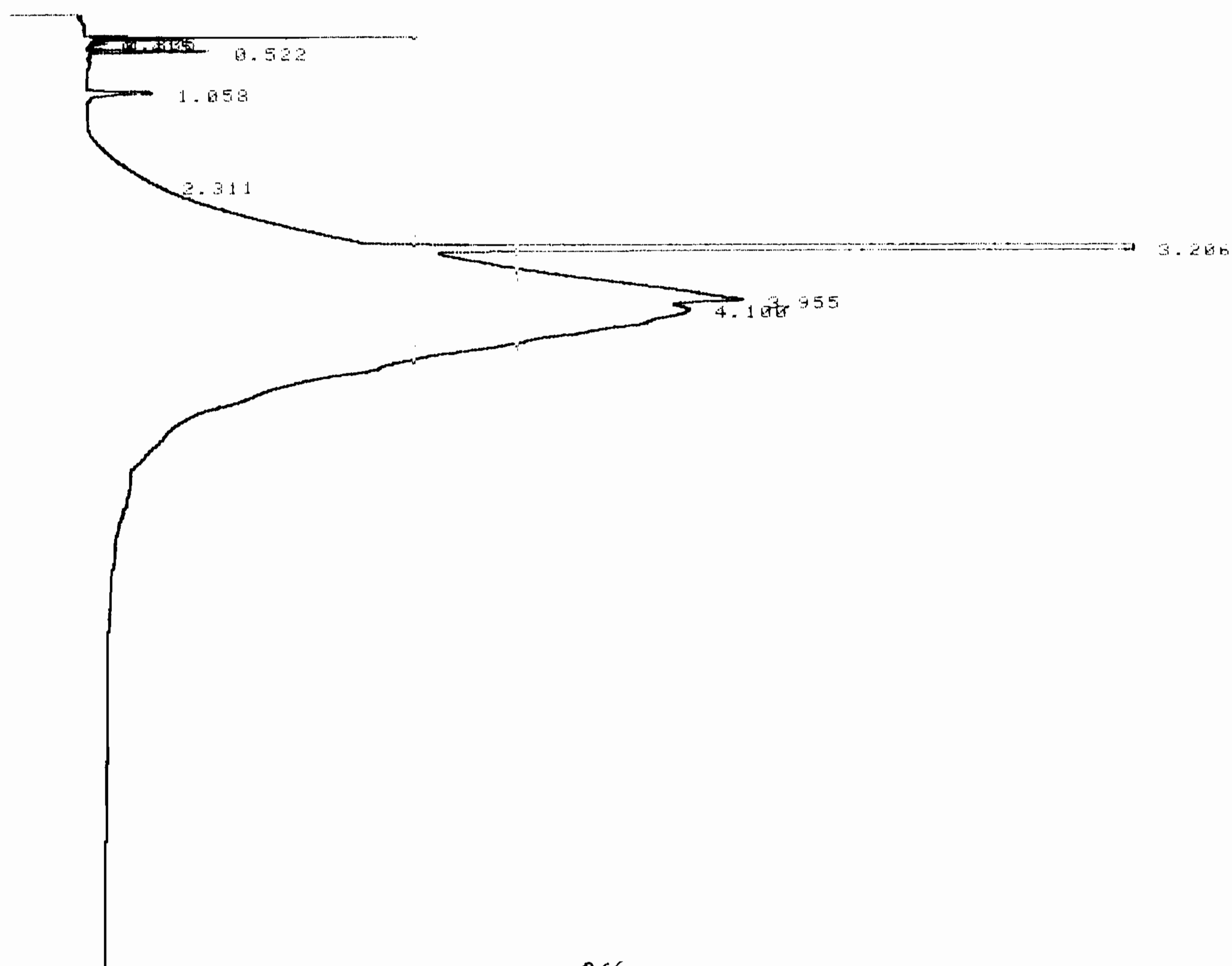
* NO PROGRAM ASSIGNED TO KEY

*KKKKKK888888888888888888KKKKKKKMMMMMMMMMMJJJJHHHGGGTTTFFFDDEDGGGGGGFFRDEES
S

INVALID SYSTEM COMMAND

*
BREAK

* RUN # 4 JAN 1, 1901 04:48:09
START



STOP

STOP

RUN# 2 JAN 1, 1901 00:27:25

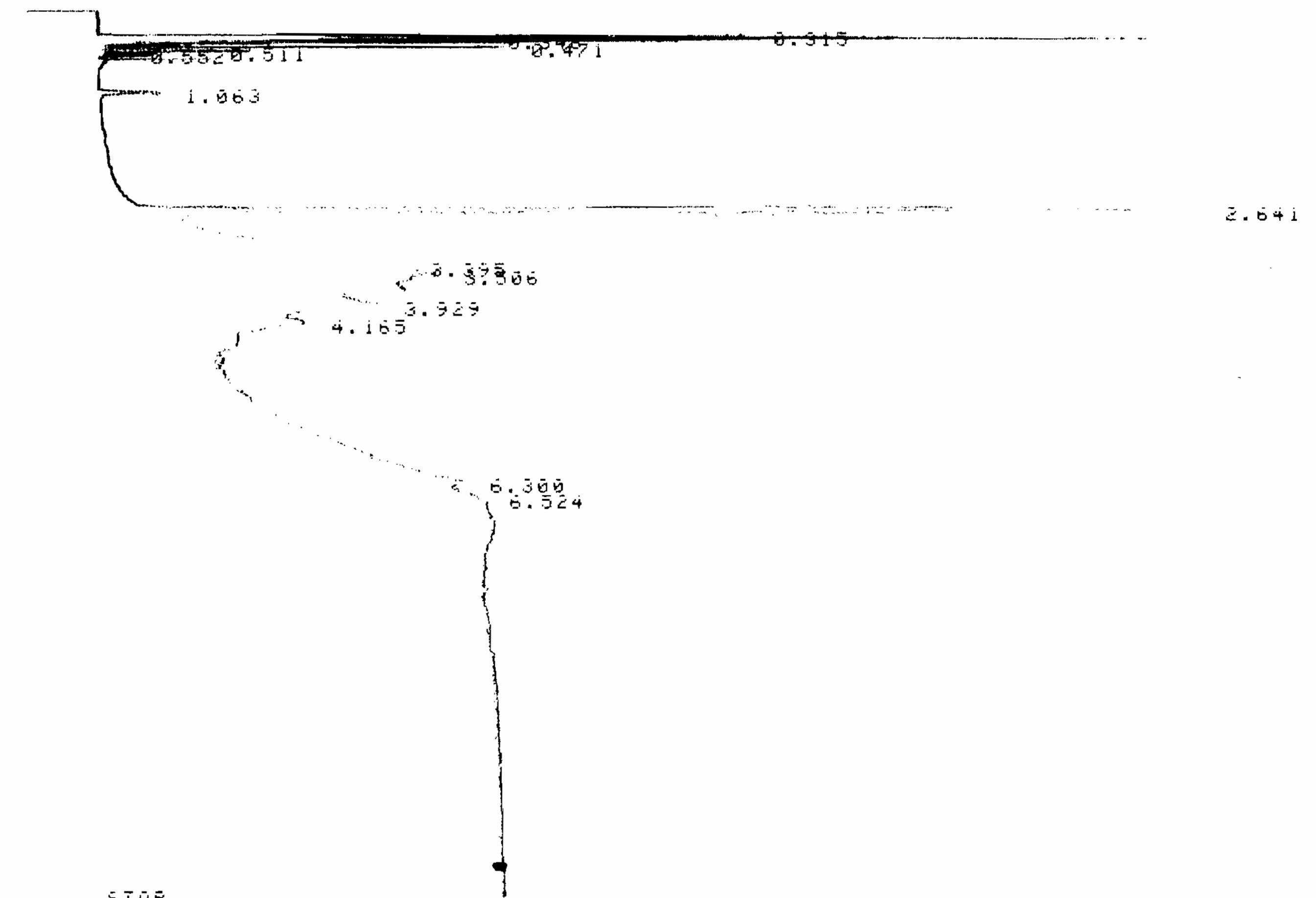
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.021	3053	BV	.017	.05445

BREAK

\# RUN # 3 JAN 1, 1901 04:14:57

START



STOP

RUN# 3 JAN 1, 1901 04:14:57

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.315	3453	VV	.012	[illegible]
.340	18458	VV	.035	4.[illegible]
.471	[illegible]	[illegible]	.007	.01364
.511	[illegible]	[illegible]	.022	[illegible]
.552	822	VP	.022	.17420
1.063	[illegible]	BB	[illegible]	[illegible]
2.641	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

5

63018 #R1

RADIAN INTERNATIONAL LLC

Date	9/26	Probe	51	Duct Dimensions	24	Initial Leak Check	.024 @ 15 in
P_{bar}	30.1	Pitot Number		Static Press	.25	Final Leak Check	.11 @ 13 in
Meter Number	N 34	Nozzle dia	.244	Filter Number	63019	Pitot Leak Check	
Meter p H @	1.97	Assumed Moisture	24%	Sample Number		O_2	
Meter Γ	1.0043	K Factor	2.45			CO_2	
Plant	Claremont						
Test Number	2						
Operator	AW						

Clock Time	Port	Point	Sample Time	Meter Volume	p P	p H	Stack Temp	Probe Temp	Filter Temp	Pump Inlet	Pump Outlet	Impinger Exit	Pump Vacuum	Notes
1325	1	1	0	197.773	.40	.98	143	202	250	67	65	63	6	
1330		2	5	200.03	.44	1.10	143	223	247	69	66	59	8	
1335		3	10	203.53	.50	1.22	144	223	237	70	67	58	8	
1340		4	15	206.61	.50	1.22	144	229	266	69	66	56	8	
1345		5	20	209.03	.52	1.27	145	230	236	71	68	56	9	
1350		6	25	212.43	.52	1.30	144	231	267	71	68	56	9	
1355			30	214.960										Le .09 @ 14"
	2													
1402	2	1	0	215.450	.40	.98	143	233	248	70	68	59	7	
07		2	5	218.42	.47	1.15	144	234	257	72	69	57	7	
1412		3	10	220.68	.50	1.22	146	23[illegible]	237	73	69	58	9	
1417		4	15	224.36	.50	1.22	147	241	256	76	71	56	9	
1422		5	20	226.36	.47	1.15	144	240	259	76	71	54	9	
1427		6	25	229.24	.45	1.11	144	233	252	76	72	55	9	
				231.750										
Total / Average				Average Δ					Average					

acid

1	593.5 - 1 impinger	688.7
2	3786	982.2
3		
4		
5		
6		
7		

Nozzle Calibration

1 _____ 2 _____ 3 _____

Average

Impinger Weights

	Final	Initial	Difference
1	664.4	502.2	162.2
2	642.0	623.5	18.5
3	612.4	610.3	2.1
4	571.5	571.1	.4
5	607.3	606.6	.7
6	778.8	771.6	7.2
7			
		Total p	191.1

RADIAN INTERNATIONAL LLC

Plant	Claremont	Date	9/26	Probe		Duct Dimensions	24	Initial Leak Check	.10 @ 11 in
Test Number	3	P_{bar}	30.1	Pitot Number		Static Press	-.25	Final Leak Check	@ in
Operator	A.W	Meter Number	34	Nozzle dia	.244	Filter Number	63022	Pitot Leak Check	
		Meter p H @	1.97	Assumed Moisture	24%	Sample Number		O_2	
		Meter Γ	1.0043	K Factor	2.45			CO_2	

Clock Time	Port	Point	Sample Time	Meter Volume	p P	p H	Stack Temp	Probe Temp	Filter Temp	Pump Inlet	Pump Outlet	Impinger Exit	Pump Vacuum	Notes
1545	1	1	0	236.696	.40	.98	144	223	256	79	79	63	5	
1650		2	5	235.377	.42	1.03	144	223	245	77	78	52	5	
1555		3	10	238.15	.45	1.10	144	224	256	76	78	50	5	
1600		4	15	241.56	.47	1.15	145	226	260	76	78	52	5	
1605		5	20	244.27	.45	1.10	146	229	255	78	79	54	5	
1607		Down.												
1710		Start	22	244.27										Start
1713		6	25	246.79	.42	1.03	143	226	238	71	73	50	5	
1718			30	249.892										.00 @ 10
1726	2	1	0	249.937	.38	.931	137	227	261	71	72	51	5	
1731		2	5	252.27	.42	1.03	142	228	268	70	71	52	5	
1736		3	10	255.441	.47	1.15	143	227	242	71	71	53	6	
1741		4	15	258.041	.52	1.27	144	231	255	72	71	53	8	
1746		5	20	260.946	.52	1.27	140	231	268	72	71	54	8	
1751		6	25	263.90	.52	1.27	143	227	232	72	70	55	8	
1756				266.680										
														1 3744 977.7
														2 380.8 699.4
														3
														4
														5
														6
														7
Total / Average				Average A					Average					

Nozzle Calibration

1 _____ 2 _____ 3 _____

Average

	Impinger Weights Final	Initial	Difference
1	668.4	504.6	163.8
2	645.2	630.3	14.9
3	612.5	610.7	1.8
4	593.9	591.9	2.0
5	608.8	608.0	0.8
6	788.1	778.8	9.3
7			
		Total p	192.6

RADIAN INTERNATIONAL LLC

Date	1/26	Probe	5'	Duct Dimensions	24"	Initial Leak Check	.011 @ 10 in
P_{bar}	30.10	Pitot Number		Static Press	+ .25	Final Leak Check	@ in
Meter Number	34	Nozzle dia	0.244	Filter Number	60	Pitot Leak Check	
Meter p H @	1.97	Assumed Moisture	24	Sample Number	1	O_2	
Meter Γ	1.0043	K Factor	2.415			CO_2	

Plant Claremont
Test Number 1
Operator GW

Clock Time	Port	Point	Sample Time	Meter Volume	ΔP	ΔH	Stack Temp	Probe Temp	Filter Temp	Pump Inlet	Pump Outlet	Impinger Exit	Pump Vacuum	Notes
10:14	1	1	03	162.272	0.40	.98	143	207	213	63	63	65	6	
10:24		2	5	163.388	0.40	0.98	142	151	218	54	60	62	6	
10:26		2	10	165.78	0.50	1.22	144	179	227	62	63	51	6	
10:31		3	15	169.28	.52	1.27								
10 55		4	30	169.088	.52	1.27	142	160	226	63	64	57	6	
11:00		5	35	171.03	.55	1.34	143	183	267	65	65		7	
11 05	2	5		174.39	.52	1.27	143	197	247	65	65	50		
11:10		6		177.21	.50	1.22	144	203	255	66	66	52		
11:15		8		180.060										
		4												
		5												
		6												
11 25	2			180.068	.40	.98	141	155	235	64	65	53		
11 30		1 32 (end)	Pow	182.32	.48	1.10	134	182	252	64	65	53		
	27	2 34 (start)	34	182.950	.48	1.10								
	37	3 42		185.20	.58	1.42	142	205	237	66	66	55		
	42	4		187.67	.58	1.42	141	208	241	66	66	55		
	47	5		189.13	.58	1.42	141	200	249	62	67	56		
	52	6		191.39	.58	1.42	138	204	261	62	67	57		
	57			195.550										
Total / Average				Average Δ					Average					

Nozzle Calibration

	1	2	3
Average			

1	378.9	946.1	
2		651.6	
3			
4			
5			
6			
7			

Impinger Weights

	Final	Initial	Difference
1	653.6	491.8	161.8
2	630.6	617.7	12.9
3	603.7	603.3	.4
4	570.	568.8	1.2
5	600.1	600.1	0
6	771.6	761.4	10.2
7			
		Total p	186.5

RADIAN INTERNATIONAL LLC.
PARTICULATE AND HCl TEST DATA WORKSHEET

CLIENT	Claremont			
LOCATION	Outlet	Outlet	Outlet	
TEST NO.	1	2	3	
DATE:	27-Sep-96			
TIME :	10:14	14:25	15:45	
TEST DATA INPUT				
Barometric Pressure (in. Hg)	30.1	30.1	30.1	
Stack Area (ft2)	3.14	3.14	3.14	
Nozzle Diameter (in.)	0.244	0.244	0.244	
Total Sampling Time (min.)	53	60	60	
Calibration Factor (Y)	1.004	1.004	1.004	
Pitot Coefficient	0.84	0.84	0.84	
Average Sqr Rt of Vel Head (in. wc)	0.71	0.69	0.67	
Average Orifice Pressure Drop (in. wc)	1.23	1.16	1.11	
Average Meter Temp. (°F)	100	98	76	
Average Stack Pressure (in. wc)	0.3	0.25	0.28	
Average Stack Temp. (°F)	154	152	148	
Meter Volume @ Meter Conditions (ft3)	34.27	33.49	33.94	
Total Water Collected (ml)	186.5	191.1	192.6	
CO2 in Stack Gas (%)	2.6	2.8	2.5	
O2 in Stack Gas (%)	17	17.1	17.4	
CO in Stack Gas (%)	0	0	0	
Total Particulate Catch (mg)				
Total HCL catch (mg)	0.16	0.16	0.14	
CALCULATED VALUES				
Meter Volume (dscf)	32.74	32.10	33.87	**Average**
Water Vapor in Stack Gas (%)	21.18	21.92	21.15	21.42
Molecular Weight of Stack Gas (dry)	29.096	29.132	29.096	29.11
Molecular Weight of Stack Gas (wet)	26.75	26.69	26.75	26.73
Average Velocity of Stack Gas (fpm)	2,659	2,582	2,517	2585.94
Actual Stack Gas Flowrate (acfm)	8,354	8,111	7,907	8123.98
SCFM	7233	7044	6913	
Stack Gas Flowrate (dscfm)	5701	5500	5451	5550.35
Isokinesis (%)	104.91	94.19	100.25	99.78
EMISSION CONCENTRATION				
Particulate Concentration (gr/acf)	0.00E+00	0.00E+00	0.00E+00	0.00
Particulate Concentration (gr/dscf)	0.00	0.00	0.00	0.00
Particulate Concentration (lbs/dscf)	0.00E+00	0.00E+00	0.00E+00	0.00
Particulate Concentration (µg/m3)	0	0	0	0.00
HCl Concentration (mg/m3)	0.17	0.18	0.15	
HCL Concentration (ppm)	0.11	0.12	0.10	
EMISSION RATE				
Particulate Emission Rate (lbs/hr)	**0.00**	**0.00**	**0.00**	
HCl Emission Rate (lbs/hr)	**0.0037**	**0.0036**	**0.0030**	0.0034
NOx	0.70	0.80	0.42	0.64
SO2				
CO	0.29	0.24	0.14	0.23

Meter Box Calibration

Full Calibration

Date	5-6-96	Cal Meter #	7014	Pbar	28.5	
Box #	N-34	Cal Meter Yd:	1.007	Vaccum	5	" Hg

Claibration Temp.(F)	Readout Temp.(F)
0	
50	
100	
250	
500	

Orifice Setting	Cal. Meter Pressure	Gas Volume Cal. Meter		Gas Volume Meter Box	Cal. Temp In	Cal. Temp Out	Meter Temp In	Meter Temp Out	Time	Yd	Delta H@	
0.50		Final	25.138	88.137	70	70	76	74	16.75			
		Init.	18.587	81.497	70	70	76	74		1.0016	1.88	6.60
		Total	6.551	6.640	Avg.	70.0	Avg.	75.0				
0.50		Final	18.587	81.497	70	70	77	74	15.75			
		Init.	12.388	75.235	70	70	78	74		1.0064	1.86	6.24
		Total	6.199	6.262	Avg.	70.0	Avg.	75.8				
1.80		Final	112.271	75.115	69	69	77	74	10			
		Init.	105.129	67.902	70	70	78	74		1.0042	2.03	7.19
		Total	7.142	7.213	Avg.	69.5	Avg.	75.8				
1.80		Final	105.129	67.902	69	69	75	73	8.5			
		Init.	99.097	61.812	70	70	77	74		1.0026	2.06	6.07
		Total	6.032	6.090	Avg.	69.5	Avg.	74.8				
3.00		Final	89.243	51.932	69	69	73	72	14			
		Init.	76.282	38.953	69	69	76	73		1.0064	2.01	13.05
		Total	12.961	12.979	Avg.	69.0	Avg.	73.5				
3.00		Final	98.968	61.682	69	69	73	72	10.5			
		Init.	89.243	51.932	69	69	75	73		1.0047	2.01	9.79
		Total	9.725	9.750	Avg.	69.0	Avg.	73.3				
									Ave.	1.0043	1.9745	

RADIAN INTERNATIONAL LLC

Meter Box Calibration

Cal Temp (F)	Readout Temp (F)
0	2
50	50
100	100
250	252
500	500

Post Calibration

Job:	**Claremont**				
Date	**23-Oct-96**	Cal Meter #	7014	Pbar	29.72
Box #	**N-34**	Cal Meter Yd:	1.007	Vaccum	5

Orifice Setting	Cal. Meter Pressure	Gas Volume Cal. Meter		Gas Volume Meter Box	Cal. Temp In	Out	Meter Temp In	Out	Time min	Yd	Delta H@
1.10		Final	90.249	85.606	70	70	74	70	31.25		
		Initial	72.548	67.442	70	70	70	69		0.9801	1.91
		Total	17.701	18.164	Avg.	70.0	Avg.	70.8			
1.10		Final	100.344	95.906	71	71	74	72	18		
		Initial	90.249	85.606	70	70	73	70		0.9875	1.95
		Total	10.095	10.300	Avg.	70.5	Avg.	72.3			
1.10		Final	12.894	108.704	70	70	73	72	23		
		Initial	0.344	95.906	70	70	74	71		0.9895	2.05
		Total	12.550	12.798	Avg.	70.0	Avg.	72.5			
									AVG.	0.9857	1.9679

HCL DATA CORRELATION

Sample No.	Report Run No.
CL-LTEV-II-AI-074	1
CL-LTEV-II-AI-078	2
CL-LTEV-II-AI-082	3
CL-LTEV-II-AI-084	Field Blank
CL-LTEV-II-AI-087	Reagant Blank

TRIANGLE LABS

CASE NARRATIVE

Analysis of Samples for the Presence of

Chloride by

Ion Chromatography

METHOD 26A (5/94 Federal Register)

Date : October 4, 1996

Client ID : Radian Corporation

TLI Project Number : 39040

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729
P.O. Box 13485
Research Triangle Park, NC 27709-3485
Fax # 919-544-5491

Triangle Laboratories, Inc. **October 4, 1996**
Case Narrative **39040**

Objective: Analysis of four impinger samples for chloride by Method 26A.

Method:

Eleven impinger samples were received by Triangle Laboratories, Inc. on September 28, 1996 without coolant and in good condition. The samples were stored at ambient temperature prior to analysis. Per client request, only four samples are being reported at this time. The samples were analyzed for chloride content by ion chromatography using EPA Method 26A (5/94 Federal Register) with suppressed conductivity detection. The results reported relate only to the items tested.

The analysis conditions are listed below:

Instrument: Dionex DX300 Ion Chromatograph with a PED-II Conductivity Detector
Eluent flow: 1.5 mL/min. (1.8 mM sodium carbonate/1.7mM sodium bicarbonate)
Suppressor: Anion self-regenerating suppressor-1
Sample Loop: 25 uL
Detection: Conductivity - suppressed ion
Data Recording: Dionex AI 450 software

Report:

Enclosed with the case narrative are copies of the client paperwork, sample log-in sheets, and log book pages. The data are reported as quantitation reports and chromatograms. A seven point calibration curve was performed ranging from 0.5 ppm to 100 ppm both before and after sample analysis. Reported concentrations are mean values determined from duplicate analyses.

Results:

Chloride was not detected in the laboratory blank. The current method detection limit established for chloride by ion chromatography is 0.04 ppm.

Chloride was detected in all the field samples at levels below the calibration range. Reported amounts for these samples should be considered estimates.

A matrix spike and matrix spike duplicate pair was analyzed. The percent recovery for both of the matrix spikes was within QC limits. The relative percent deviation between the MS and MSD was within quality control limits.

The data in this package has been judged to be valid according to the guidelines of Method 26A (5/94) except as noted above. Should you have any questions, please feel free to contact our Project Scientist, Walter Murray, at (919) 544-5729, Ext 271.

For Triangle Laboratories , Inc.,

Report Preparation:

Tracy Wardell 10-4-96
Tracy Wardell
Report Preparation Chemist

Quality Control:

10/4/96
Amy Boehm
Report Preparation Chemist

The total number of pages in this data package is 45.

[redacted] TRIANGLE LABS

TRIANGLE LABORATORIES, INC.

LIST OF CERTIFICATIONS AND ACCREDITATIONS

American Association for Laboratory Accreditation. Valid until July 31, 1997. Certificate Number 0226-01. Accreditation for technical competence in Environmental Testing.(Including Waste Water, Sol/Haz Waste, Pulp/Paper, and Air Matrices) Parameters are AOX/TOX, Volatiles, Pesticides, PCB's, BNA's, and Dioxin/Furan. Method 1613 for Drinking Water.

State of Alabama, Department of Environmental Management. Laboratory I.D. # 40950. Drinking Water for Dioxin. Expires December 31, 1997.

State of Alaska, Department of Environmental Conservation. Drinking Water for Dioxin. Expires December 31, 1996.

State of Arizona, Department of Health Services. Certificate # AZ0423. Drinking Water for Dioxin, Dioxin in WW and S/H Waste. Effective May 26, 1996. Expires May 26, 1997.

State of Arkansas, Department of Pollution Control and Ecology. Pulp/paper, soil, water, and Hazardous Waste for Dioxin/Furan; AOX/TOX. Expires February 14, 1997. Primary No. 94-06497.

State of California, Department of Health Services. Certificate # 1922. Selected Metals in Waste Water; Volatiles, Semi-volatiles, and Dioxin/furan in WW and Sol/Haz Waste. Dioxin in Drinking Water. Expires August 31, 1997.

CLIA Registration. ID # 34D0705123. Expires May 30, 1997.

State of Connecticut, Department of Health Services. Registration # PH-0117. Dioxin in Drinking Water. Expires September 30, 1997.

Delaware Health and Social Services. Dioxin in drinking Water. Effective December 13, 1993. Expires December 31, 1996.

FDA Registration. ID #'s 059244 1053481. Expires July 1996.

Florida Department of Health and Rehabilitative Services. Dioxin in DW. Drinking Water ID HRS# 87424. Metals, Extractable Organics (GC/MS), Pesticides/PCB's (GC) and Volatiles (GC/MS) in Environmental Samples. Environmental water ID HRS# E87411. Expires May 27, 1997.

Revised June 25, 1996 ceo

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729
P.O. Box 13485
Research Triangle Park, NC 27709-3485
Fax # 919-544-5491

Hawaii Department of Health. Dioxin in drinking water. "Accepted" status for regulatory purposes until March 1, 1997.

Idaho Department of Health and Welfare. Effective August 18, 1993. Dioxin in Drinking Water. Expires November 30, 1996.

State of Kansas, Department of Health and Environment. Valid until January 31, 1997. Environmental Analyses/Non potable Water and Solid and Hazardous Waste. Method 1613 for dri0nking water. ID #'s - Drinking water and/or pollution control - E-215. Solid or Hazardous Waste - E-1209.

Commonwealth of Kentucky, Department for Environmental Protection. Drinking Water for Dioxin. ID# 90060. Valid until December 31, 1996.

Maryland Department of Health and Mental Hygiene. Drinking water by Method 1613A. Expires September 30, 1996.

State of Michigan, Department of Public Health. Drinking water by Method 1613. Expires October 1, 1996.

Montana Department of Health and Environmental Services. Effective October 1, 1993. Dioxin in Drinking Water. Expires December 31, 1996.

State of New Jersey, Department of Environmental Protection and Energy. BNAs and Volatiles. Drinking water for Dioxin. Expires October 30, 1996. ID # 67851.

State of New Mexico, Environment Department. Drinking water for Dioxin. Expires July 31, 1997.

New York State Department of Health. Valid until June 30, 1996. ID #11026. Environmental Analyses of non potable Water, Solid and Hazardous Waste. Method 1613 in DW.

State of North Carolina, Department of Environment Health and Natural Resources Certificate # 37751. Expiration date is December 31, 1996. Drinking Water for Dioxin.

State of North Carolina, Department of Environment, Health, and Natural Resources, Division of Environmental Management. Certificate # 485. Expires December 31, 1997. Metals, pesticides, semi-volatiles and volatiles; TCLP.

State of North Carolina, Department of Environment, Health, and Natural Resources - Division of Radiation Protection. General License No. 32-0875-0G; Specific License No. 0954-1. Expires April 30, 1998.

North Dakota State Department of Health and Consolidated Laboratories. Certificate # R-076. Effective October 4, 1993. Dioxin in Drinking Water. Expires December 31, 1996.

State of South Carolina, Department of Health and Environmental Control. Dioxin/Furans, BNA, Volatiles, and PCBs/pesticides under Clean Water Act, 2,3,7,8-TCDD for Drinking Water, and Organic extractables for Solid and Hazardous Waste. Expire June 30, 1996 and August 31, 1997. ID# 99040

State of Tennessee. Department of Environment and Conservation. Valid until February 5, 1999. Method 1613 Drinking water only. ID# 02992.

U.S. Army Corps of Engineers. Renewed until Nov. 30, 1997. Validated to perform methods 8280, 8290.

U.S. EPA Region V. Dioxin in Drinking Water. Expires December 29, 1996.

U.S. EPA Region VIII, for the State of Wyoming. Dioxin in Drinking Water. Expires December 31, 1996.

U.S. EPA Region X. Certification for 2,3,7,8-TCDD in Drinking Water.

State of Utah, Department of Health. Valid until December 31, 1997. Certificate Number E-166. Certification for the following parameters: Semi-Volatiles and Volatiles under RCRA; Volatiles under Clean Water Act; Dioxin/furans by Method 8280; Drinking water for Dioxin by Method 1613; Metals including Mercury and Microwave Digestion.

Commonwealth of Virginia, Department of General Services, Division of Consolidated Laboratory Services. ID # 00341. Dioxin in Drinking Water. Expires June, 1996.

State of Washington, Department of Ecology. Valid through September 11, 1996 . Lab Accreditation Number C067. Scope of Accreditation applies to water analyses for Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans, volatiles, Base/Neutral and Acid Organics.

State of Washington, Department of Health. Drinking water for Dioxin. Expires April 30, 1997.

State of West Virginia, Department of Health. Drinking water for Dioxin. Expires December 31, 1996.

State of Wisconsin, Department of Natural Resources. Valid until June 30, 1996. Laboratory ID Number 999869530. Certification for the following categories of Organics: Purgeable, Base/Neutral, Acid, PCBs, and Dioxin.

TLI# 39040-HCL
CLIENT SAMPLES
RADIAN CORPORATION
03-OCTOBER-96

TLI ID	CLIENT ID	RT	AREA	LOG AREA	RUN CONC ppm	DILUTION FACTOR	SAMPLE CONC ppm	AVG CONC ppm	RPD	TOTAL mL	TOTAL mg Cl	TOTAL mg HCL	TOTAL mg CL2	PH
140-69-1	CL-LTEV-II-AI-074	2.38	1792709	6.25	0.26	1	0.26	0.27	4.0	550	0.15	0.16	---	1
		2.38	1718762	6.24	0.27	1	0.27							
140-69-3	CL-LTEV-II-AI-078	2.38	1632448	6.21	0.26	1	0.26	0.26	1.3	595	0.15	0.16	---	1
		2.41	1654894	6.22	0.26	1	0.26							
140-69-5	CL-LTEV-II-AI-082	2.39	1416646	6.15	0.22	1	0.22	0.22	0.4	590	0.13	0.14	---	1
		2.38	1411162	6.15	0.22	1	0.22							
140-69-7	CL-LTEV-II-AI-084	2.36	490477	5.69	0.08	1	0.08	0.08	0.7	385	0.03	0.03	---	1
		2.37	493997	5.69	0.08	1	0.08							
140-69-1 MS	CL-LTEV-II-AI-074	2.52	452083014	8.66	50.32	2	100.63	100.84	0.4	550	55.46	---	---	---
		2.51	454027840	8.66	50.52	2	101.04							
140-69-1 MSD	CL-LTEV-II-AI-074	2.51	455389306	8.66	50.66	2	101.32	101.57	0.5	550	55.86	---	---	---
		2.51	457731520	8.66	50.91	2	101.81							

MATRIX SPIKE

SAMPLE ID	RT	NATIVE AMT. CL (mg)	MS AMT. CL (mg)	AMT. SPIKE (mg)	DF	%RECOVERY
140-69-1 MS	2.52	0.15	55.46	55.0	2	101
140-69-1 MSD	2.51	0.15	55.86	55.0	2	101

% RECOVERY=[(AMT. SPIKED - AMT. NATIVE)/(ADDED SPIKE AMT.)] X 100
TOTAL mg HCL : (TOTAL mg CL) (FW HCL/ MW CL)
TOTAL mg CL2 : TOTAL mg CL x 1
ND= NOT DETECT

Data Reprocessed On 10/04/1996 10:42:14

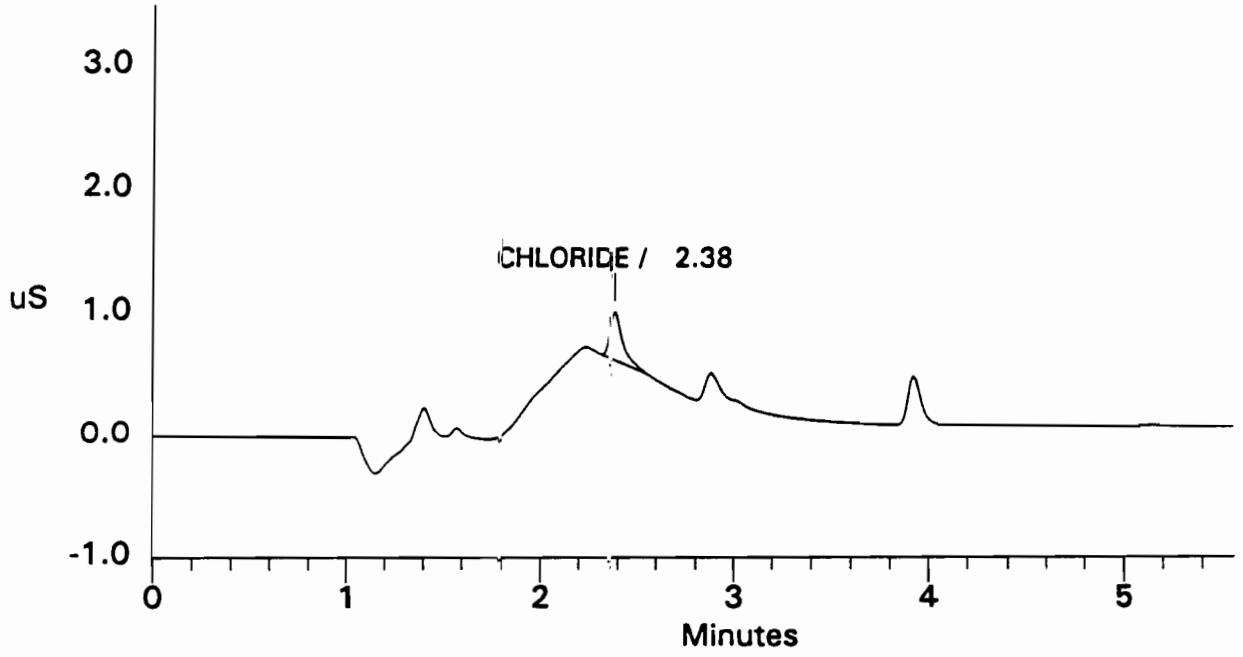
Sample Name: 140-69-1 Date: 10/03/1996 18:12:09
Data File : C:\DX\DATA\3904DHCL\14069101.D19
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 19 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.56	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.38	CHLORIDE	0.000	387209	1792709	1	1.42
		Totals	0.000	387209	1792709		

File: 14069101.D19 Sample: 140-69-1



Data Reprocessed On 10/04/1996 10:43:38

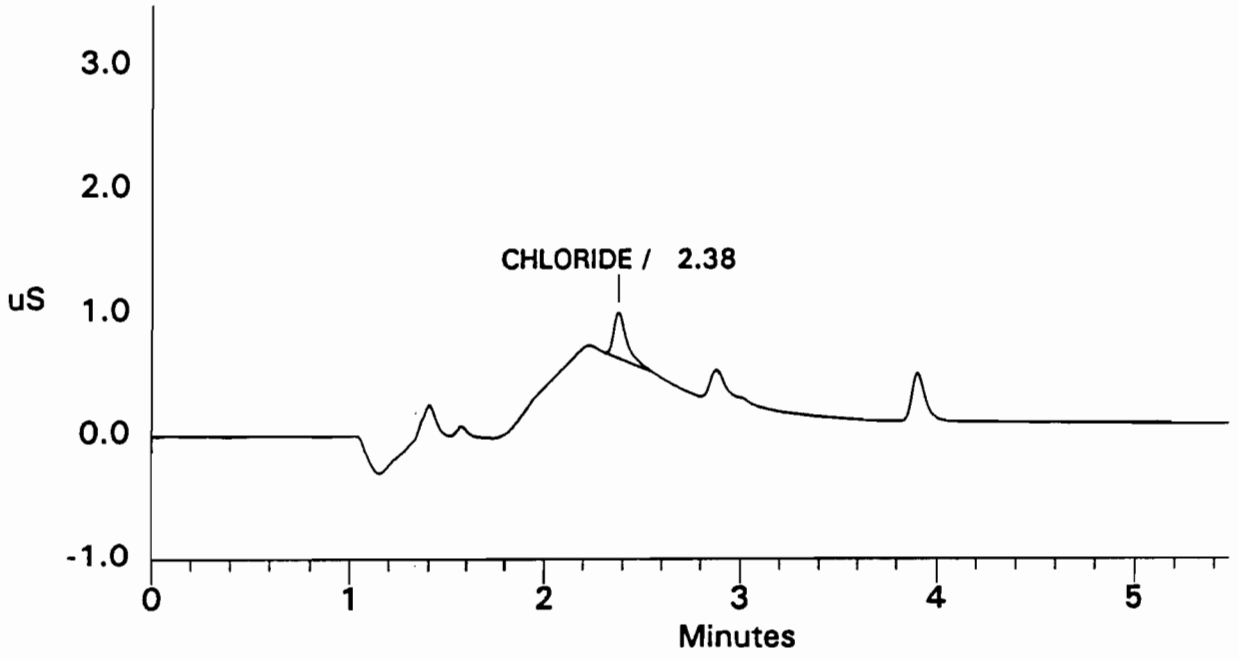
Sample Name: 140-69-1 Date: 10/03/1996 18:26:06
Data File : C:\DX\DATA\39040HCL\14069101.D20
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 20 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.47	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.38	CHLORIDE	0.000	373119	1718762	1	1.28
		Totals	0.000	373119	1718762		

File: 14069101.D20 Sample: 140-69-1



Data Reprocessed On 10/04/1996 10:48:32

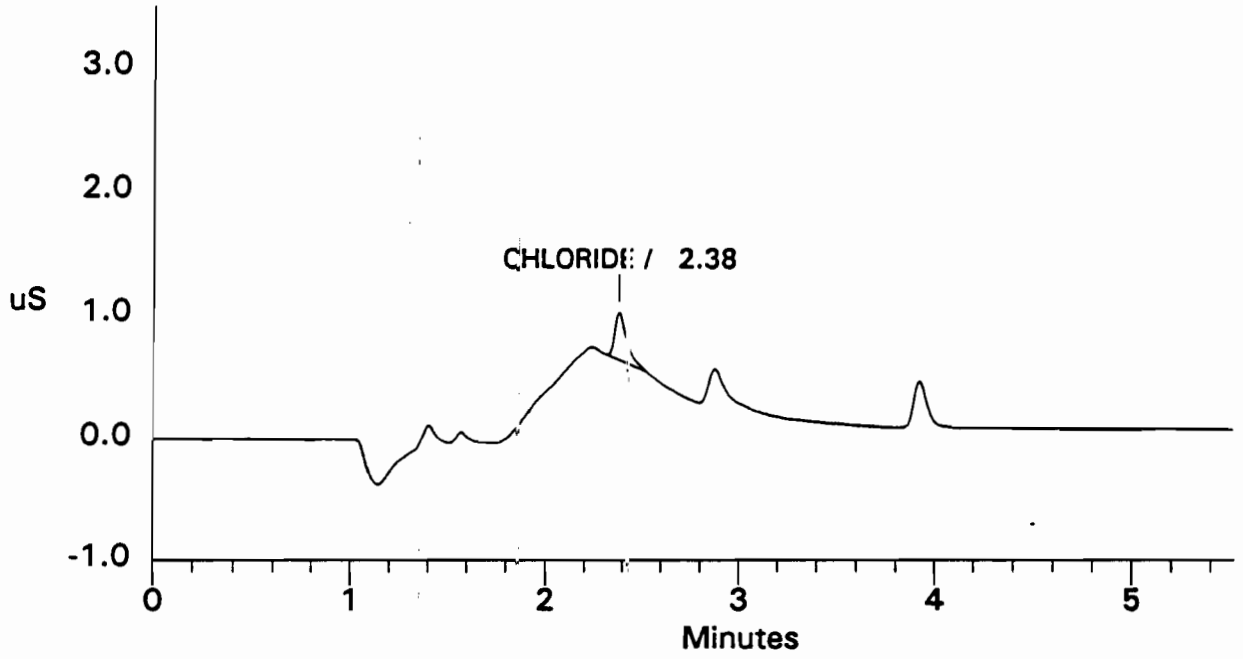
Sample Name:	140-69-3	Date:	10/03/1996 18:40:03
Data File :	C:\DX\DATA\3904CHCL\14069301.D21		
Method :	C:\DX\METHOD\CHLORIDE.met		
ACI Address:	1 System: 1 Inject#: 21	Detector:	PED-Cond.
Analyst :	Column:		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.52	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.38	CHLORIDE	0.000	380967	1632448	1	1.42
		Totals	0.000	380967	1632448		

File: 14069301.D21 Sample: 140-69-3



Data Reprocessed On 10/04/1996 10:50:05

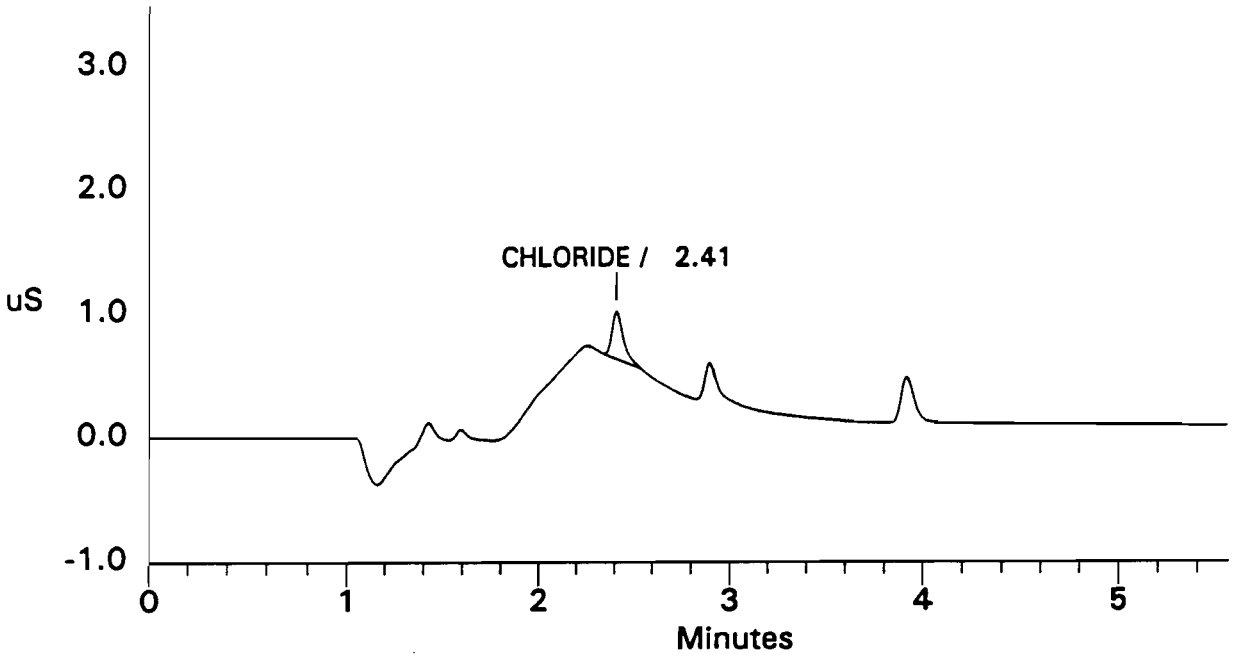
Sample Name: 140-69-3 Date: 10/03/1996 18:54:00
Data File : C:\DX\DATA\39040HCL\14069301.D22
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 22 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.56	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.41	CHLORIDE	0.000	384981	1654694	1	2.55
		Totals	0.000	384981	1654694		

File: 14069301.D22 Sample: 140-69-3



Data Reprocessed On 10/04/1996 10:45:29

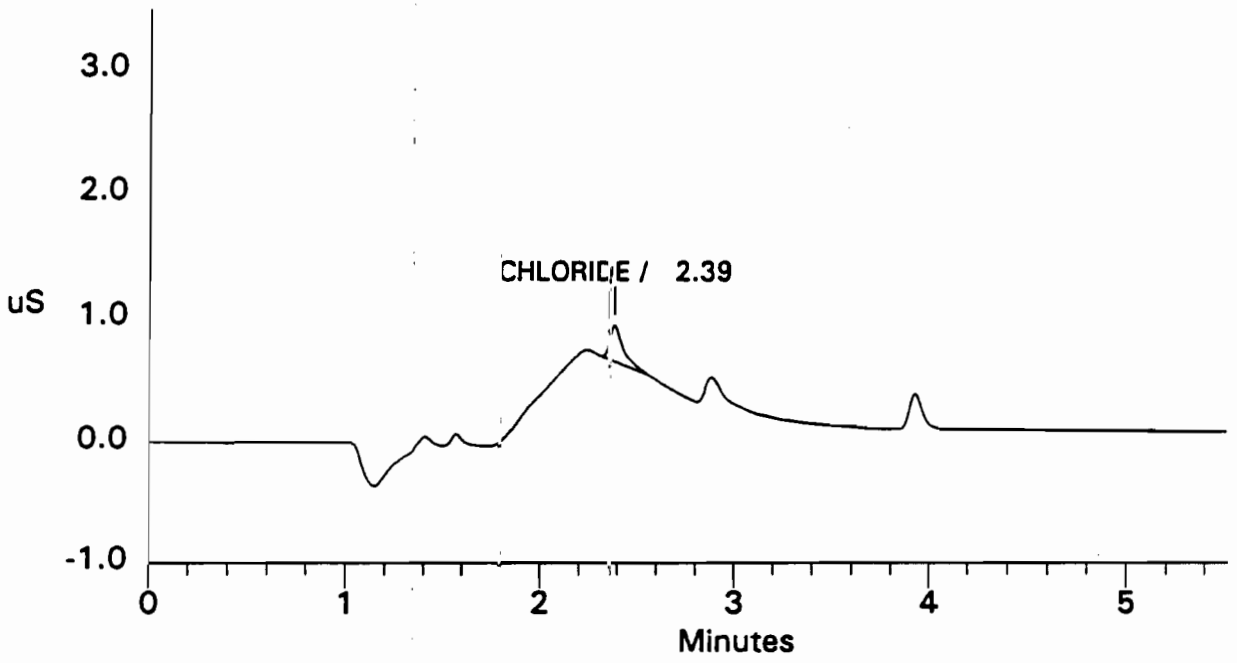
Sample Name: 140-69-5			Date: 10/03/1996 19:07:56
Data File : C:\DX\DATA\3904OHCL\14069501.D23			
Method : C:\DX\METHOD\CHLORIDE.met			
ACI Address: 1 System: 1 Inject#: 23			Detector:PED-Cond.
Analyst :	Column:		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.52	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.39	CHLORIDE	0.000	294472	1416646	1	1.56
		Totals	0.000	294472	1416646		

File: 14069501.D23 Sample: 140-69-5



Data Reprocessed On 10/04/1996 10:46:40

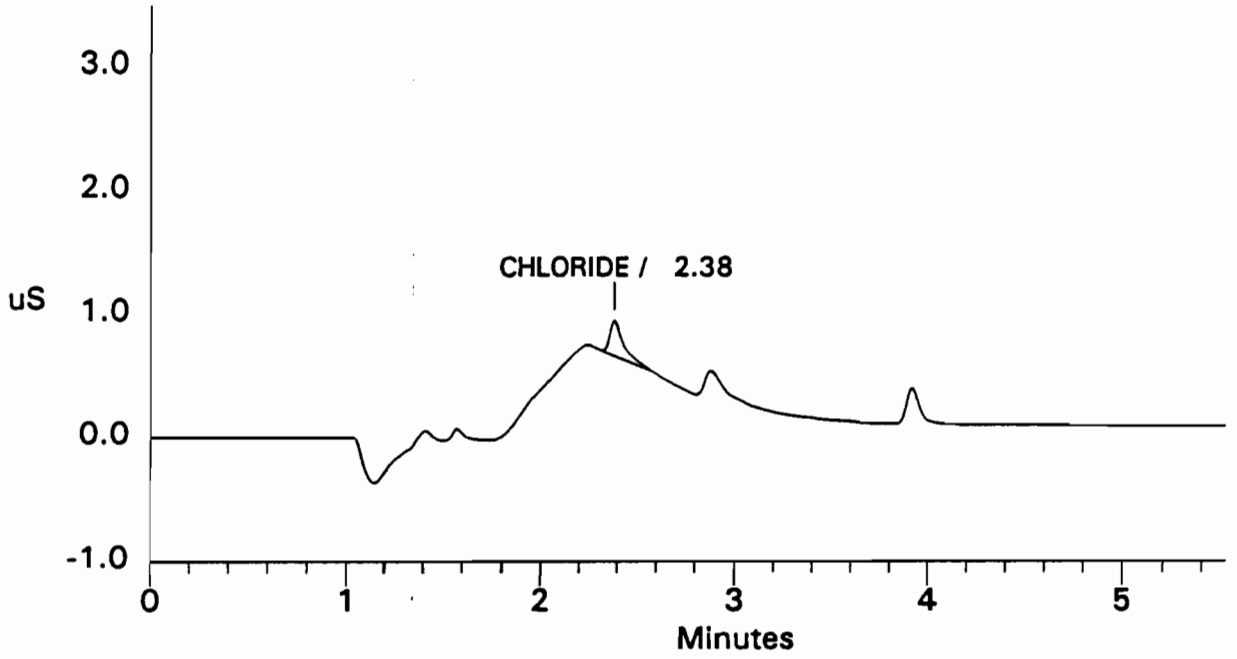
Sample Name: 140-69-5 Date: 10/03/1996 19:21:51
Data File : C:\DX\DATA\39040HCL\14069501.D24
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 24 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.52	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.38	CHLORIDE	0.000	288942	1411162	1	1.42
		Totals	0.000	288942	1411162		

File: 14069501.D24 Sample: 140-69-5



Data Reprocessed On 10/04/1996 10:39:49

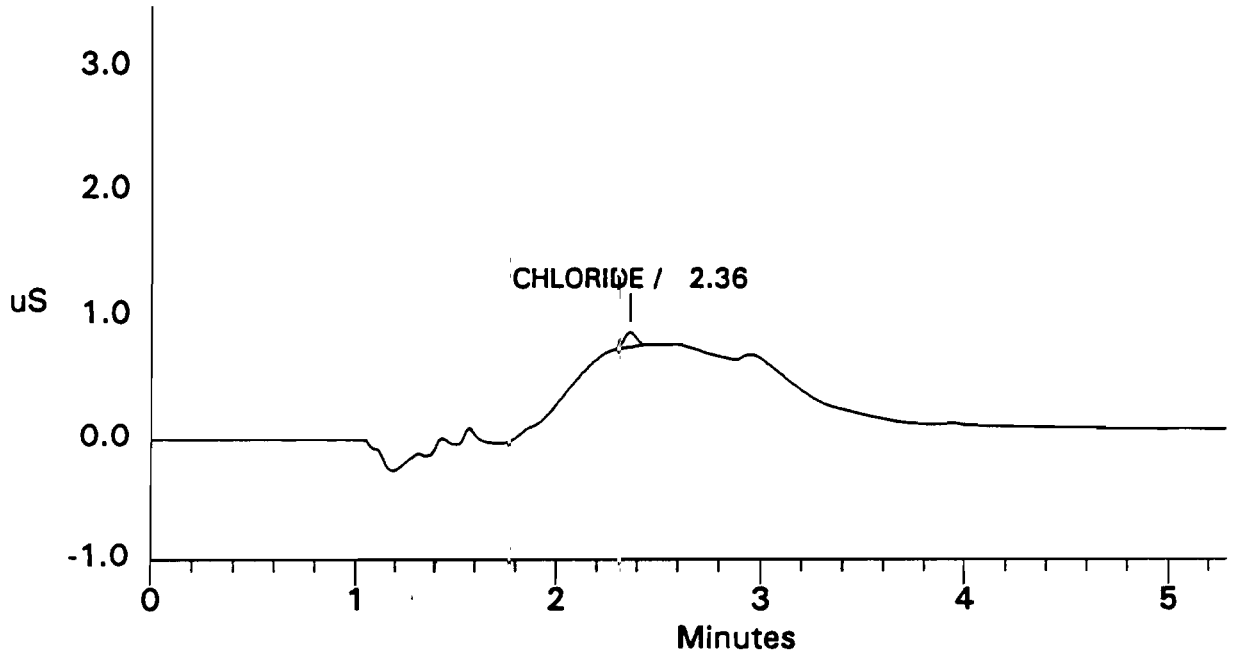
Sample Name: 140-69-7 Date: 10/03/1996 19:49:45
Data File : C:\DX\DATA\3904OHCL\14069701.D26
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 26 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.29	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.36	CHLORIDE	0.000	117491	490477	1	0.57
		Totals	0.000	117491	490477		

File: 14069701.D26 Sample: 140-69-7



Data Reprocessed On 10/04/1996 10:37:14

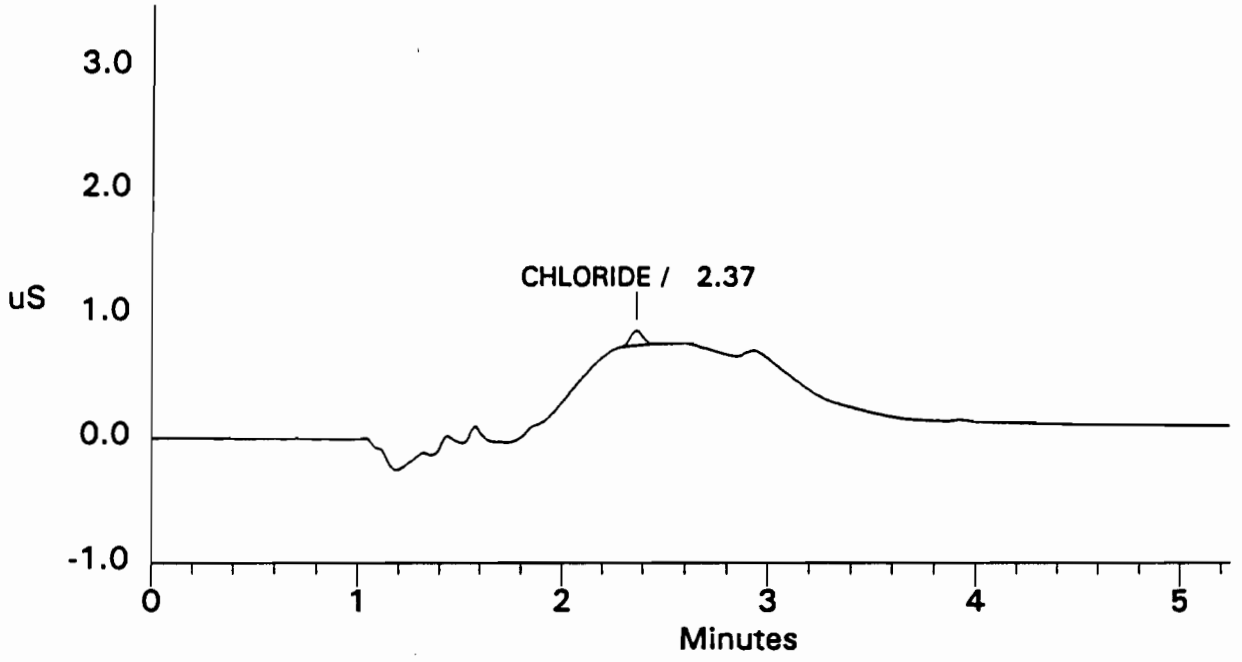
Sample Name: 140-69-7 Date: 10/03/1996 19:35:47
Data File : C:\DX\DATA\39040HCL\14069701.D25
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 25 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.25	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.37	CHLORIDE	0.000	118874	493997	1	0.71
		Totals	0.000	118874	493997		

File: 14069701.D25 Sample: 140-69-7



Data Reprocessed On 10/04/1996 10:51:14

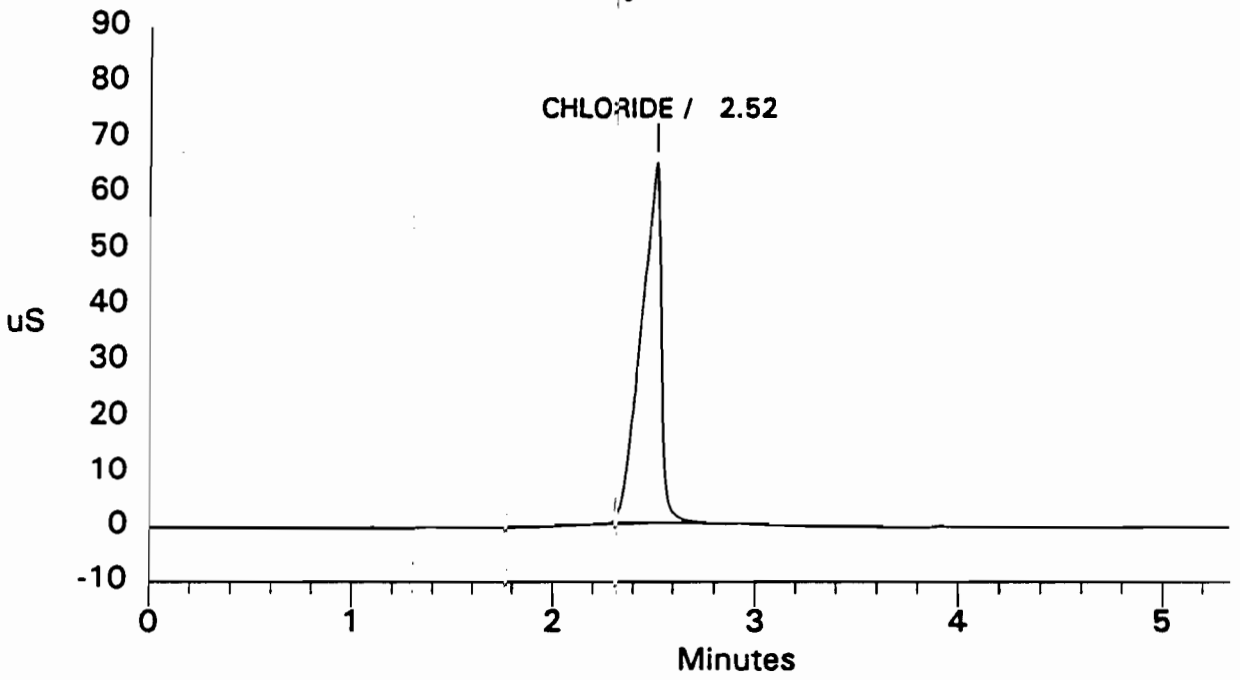
Sample Name: 140-69-1 MS Date: 10/03/1996 20:03:43
Data File : C:\DX\DATA\39040HCL\14069101.D27
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 27 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.34	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.52	CHLORIDE	0.000	64753007	452083014	1	7.09
		Totals	0.000	64753007	452083014		

File: 14069101.D27 Sample: 140-69-1 MS



Data Reprocessed On 10/04/1996 10:53:14

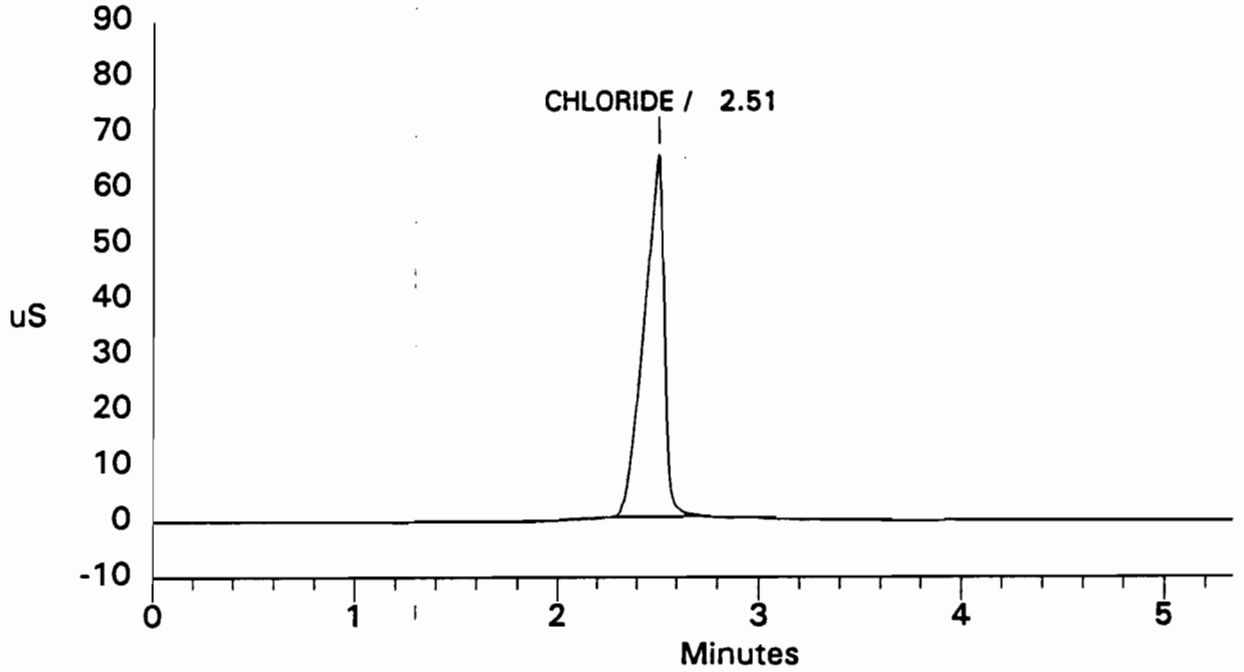
Sample Name: 140-69-1 MS Date: 10/03/1996 20:17:40
Data File : C:\DX\DATA\39040HCL\14069101.D28
Method : C:\DX\METHOD\CHLORIDE.met
\CI Address: 1 System: 1 Inject#: 28 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.34	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.51	CHLORIDE	0.000	65053154	454027840	1	6.95
		Totals	0.000	65053154	454027840		

File: 14069101.D28 Sample: 140-69-1 MS



Data Reprocessed On 10/04/1996 10:55:56

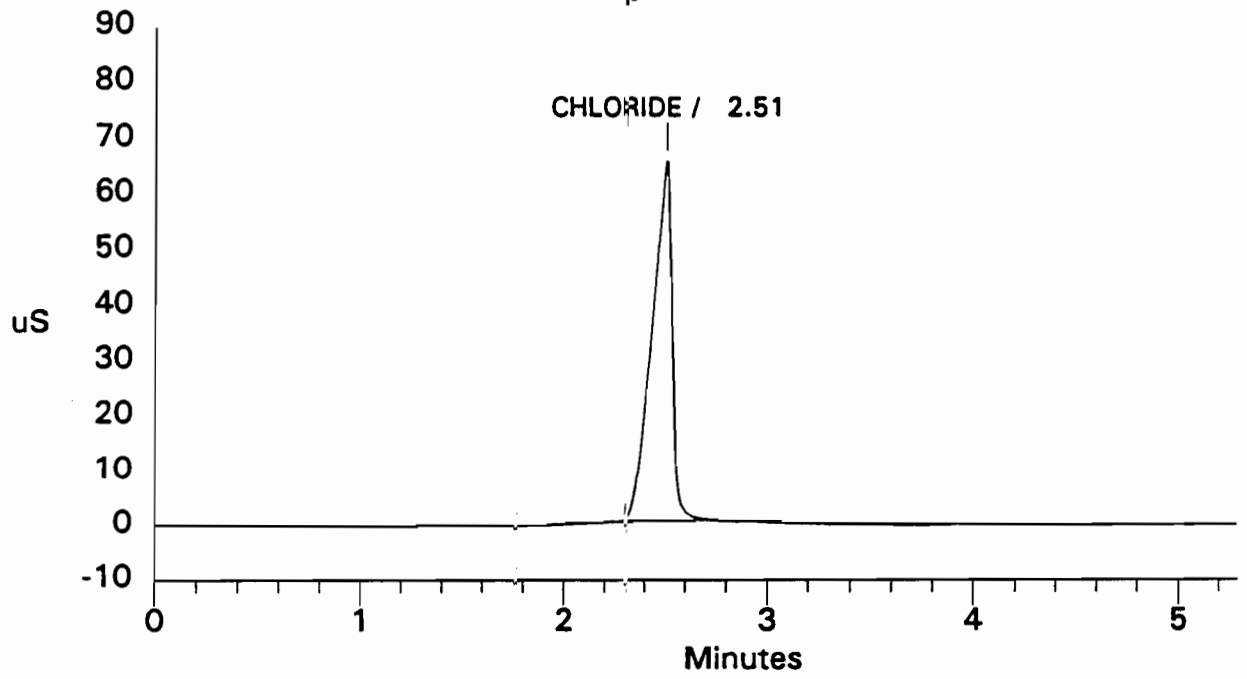
Sample Name:	140-69-1 MSD	Date:	10/03/1996 20:45:33
Data File :	C:\DX\DATA\39040HCL\14069101.D30		
Method :	C:\DX\METHOD\CHLORIDE.met		
ACI Address: 1	System: 1 Inject#: 30	Detector:	PED-Cond.
Analyst :	Column:		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.29	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.51	CHLORIDE	0.000	65101998	455389306	1	6.95
		Totals	0.000	65101998	455389306		

File: 14069101.D30 Sample: 140-69-1 MSD



Data Reprocessed On 10/04/1996 10:54:38

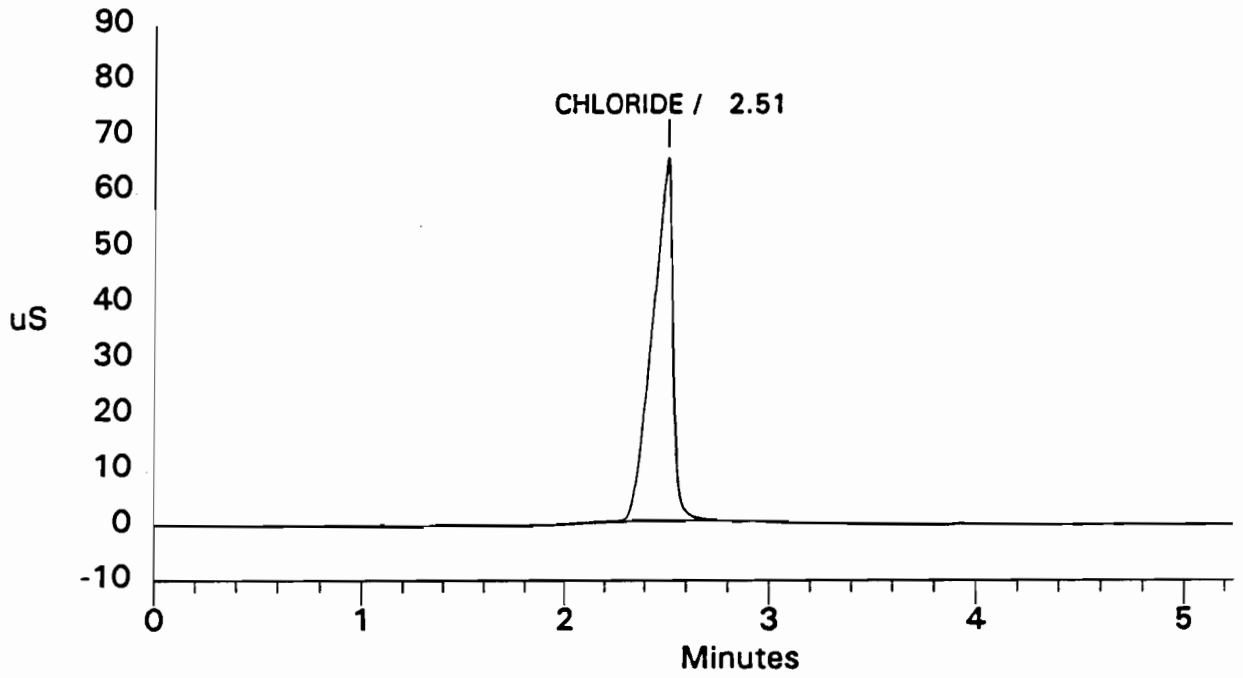
Sample Name: 140-69-1 MSD Date: 10/03/1996 20:31:35
Data File : C:\DX\DATA\39040HCL\14069101.D29
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 29 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.25	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.51	CHLORIDE	0.000	65158696	457731520	1	6.95
		Totals	0.000	65158696	457731520		

File: 14069101.D29 Sample: 140-69-1 MSD



LAB ID: _____ COPY 407 9/28/16 Page _____ of

Analysis Request and Chain of Custody Record

Sample submitted by: A. Weber

Project Name

Company	Address	Contact / Phone	Project Location and State	Project No.
Radian	1600 Perimeter Park	Contact Andrew Weber Phone 461 1390	Claremont	

Sample No. / Identification	Date and Time	Grab	Comp	Sample Container (Size/Type)	Sample Type (Water, Soil, Oil, Sludge, Etc.)	Preservative	ANALYSIS REQUESTED TEST	ANALYSIS REQUESTED METHOD	REMARKS
074							HCL		
075							Hold		
078							HCL		
079							Hold		
082							HCL		
083							Hold		
084							HCL		
085							Hold		
086							Hold		
087							Hold		

Samplers: (Signature)	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
			John Guenther	9/28/16 08:15	
Affiliation	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
SAMPLER REMARKS:			Received by: (Signature)	Date: Time:	Data Results to:
			Invoice to:		

TLI#39040-HCL
CALIBRATION
03-04-OCTOBER-96

CONC (ppm)	RT	AREA	LOG CONC	LOG AREA	PREDICTED (ppm)	%DIFF	RESPONSE (CONC/AREA)
100	2.58	960862459	2.000	8.983	102.11	2.1	1.04E-07
50	2.49	468450138	1.699	8.671	52.03	4.1	1.07E-07
25	2.42	210729574	1.398	8.324	24.58	1.7	1.19E-07
10	2.34	75079142	1.000	7.876	9.33	6.7	1.33E-07
5	2.34	38273733	0.699	7.583	4.96	0.9	1.31E-07
1	2.33	6757901	0.000	6.830	0.97	2.7	1.48E-07
0.5	2.33	3555635	-0.301	6.551	0.53	6.5	1.41E-07
100	2.57	968042086	2.000	8.986	102.83	2.8	1.03E-07
50	2.49	469130762	1.699	8.671	52.10	4.2	1.07E-07
25	2.42	210974906	1.398	8.324	24.60	1.6	1.18E-07
10	2.37	75337197	1.000	7.877	9.36	6.4	1.33E-07
5	2.35	38157322	0.699	7.582	4.94	1.2	1.31E-07
1	2.33	6654950	0.000	6.823	0.96	4.1	1.50E-07
0.5	2.33	3563341	-0.301	6.552	0.53	6.7	1.40E-07

Regression Output:

Constant		6.84237
Std Err of Y Est		0.02119
R Squared		0.99946
No. of Observations		14
Degrees of Freedom		12
X Coefficient(s)	1.06530	
Std Err of Coef.	0.00715	

EXTERNAL CALIBRATION CHECK

CONC (ppm)	RT	AREA	LOG AREA	PREDICTED (ppm)	%DIFF
20.0	2.28	176322109	8.246	20.79	4.0
20.0	2.27	172439481	8.237	20.36	1.8

BLANKS

TYPE	RT	AREA	AVERAGE AREA
H2SO4		ND	
H2SO4		ND	

Data Reprocessed On 10/04/1996 08:40:56

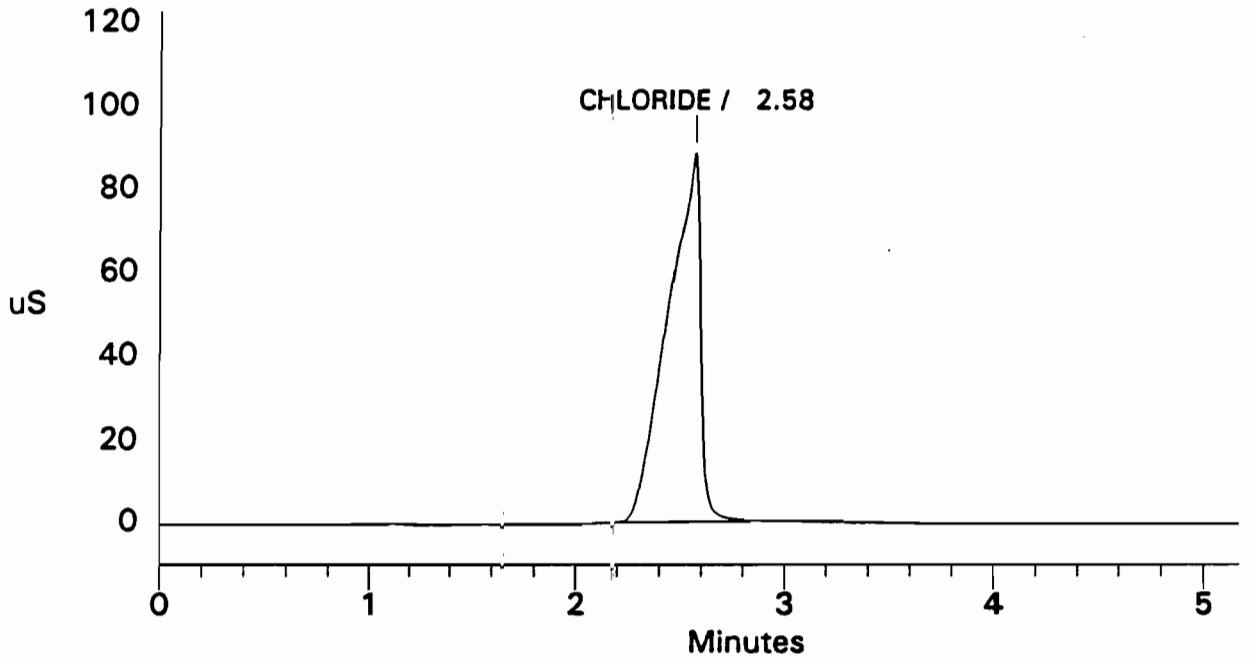
Sample Name: STD 100.0 PPM F Date: 10/03/1996 17:02:28
Data File : C:\DX\DATA\39040HCL\STD10001.D14
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 14 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.17	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.58	CHLORIDE	0.000	88380332	960862459	1	9.65
		Totals	0.000	88380332	960862459		

File: STD10001.D14 Sample: STD 100.0 PPM F



Data Reprocessed On 10/04/1996 08:30:27

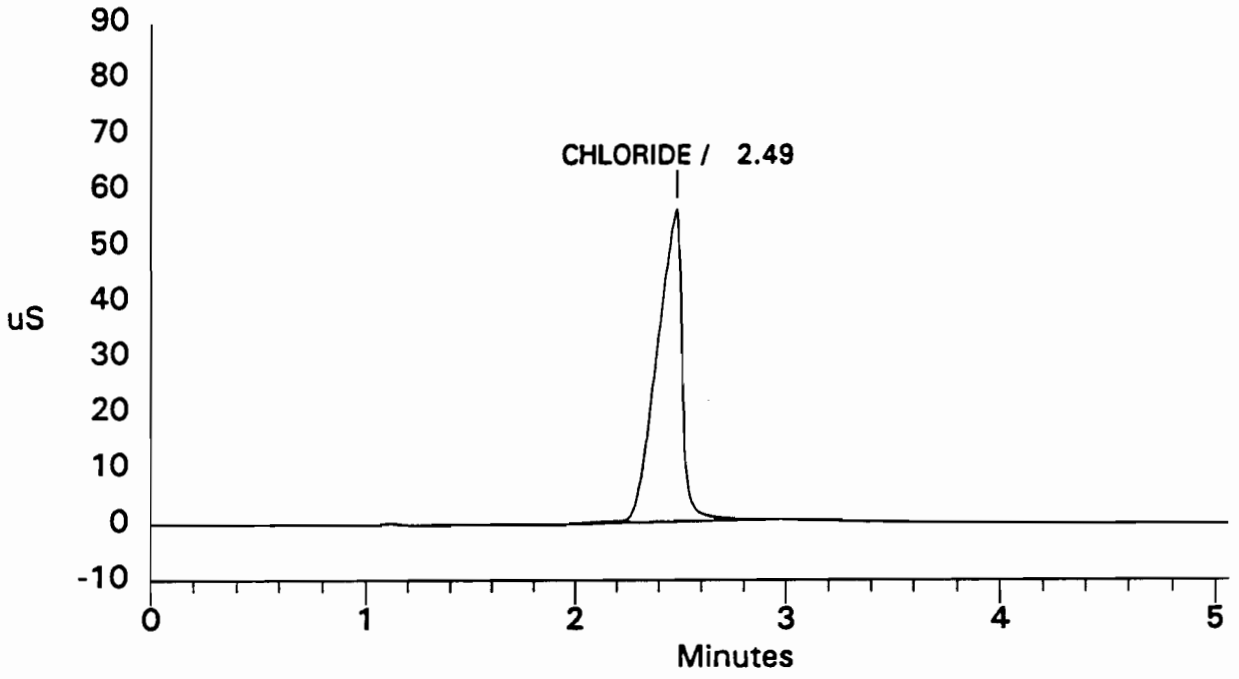
Sample Name:	STD 50.0 PPM F	Date:	10/03/1996 16:34:37
Data File :	C:\DX\DATA\39040HCL\STD05001.D12		
Method :	C:\DX\METHOD\CHLORIDE.met		
CI Address: 1	System: 1 Inject#: 12	Detector:	PED-Cond.
Analyst :	Column:		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.06	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.49	CHLORIDE	0.000	56184760	468450138	1	5.82
		Totals	0.000	56184760	468450138		

File: STD05001.D12 Sample: STD 50.0 PPM F



Data Reprocessed On 10/04/1996 08:20:26

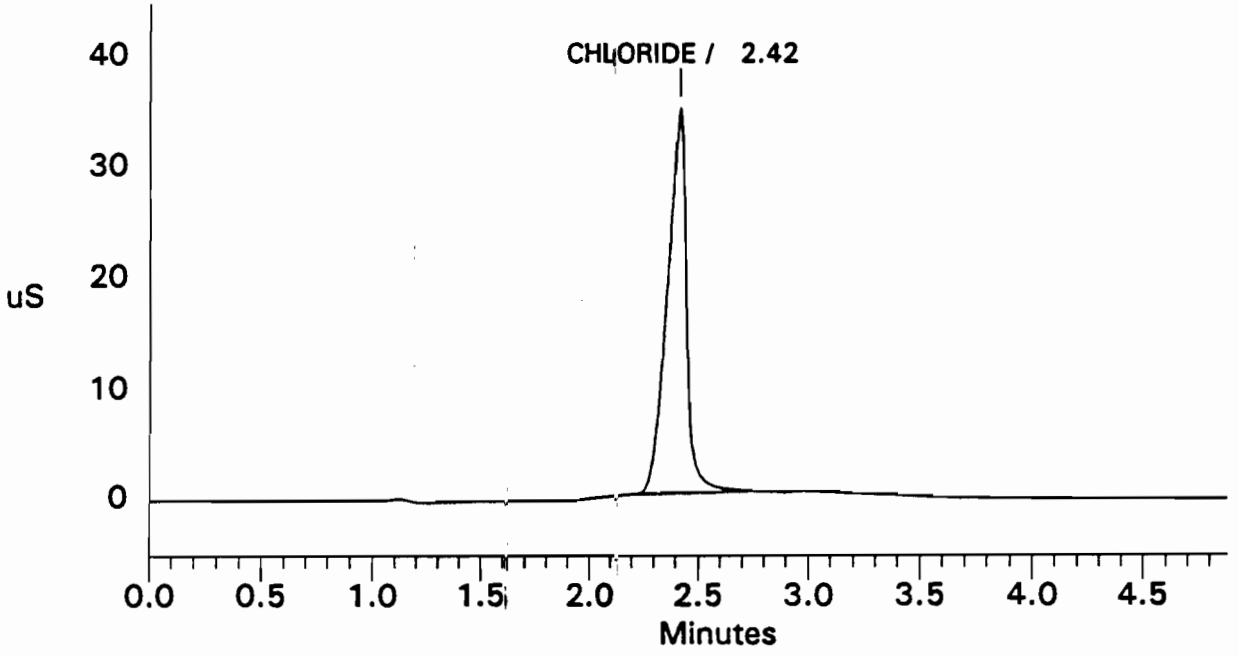
Sample Name:	STD 25.0 PPM F	Date:	10/03/1996 16:06:44
Data File :	C:\DX\DATA\39040HCL\STD02501.D10		
Method :	C:\DX\METHOD\CHLORIDE.met		
ACI Address: 1	System: 1 Inject#: 10	Detector:	PED-Cond.
Analyst :	Column:		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	4.88	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.42	CHLORIDE	0.000	34865512	210729574	1	2.98
		Totals	0.000	34865512	210729574		

File: STD02501.D10 Sample: STD 25.0 PPM F



Data Reprocessed On 10/03/1996 15:38:30

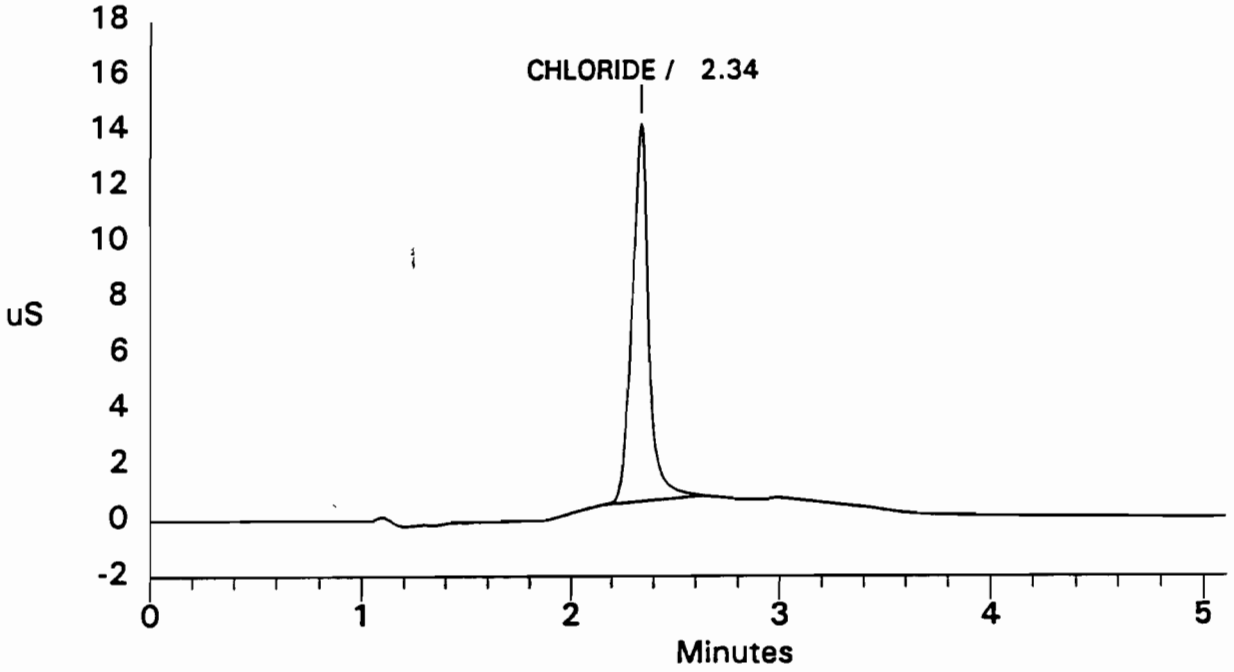
Sample Name: STD 10.0 PPM F Date: 10/03/1996 15:24:54
Data File : C:\DX\DATA\39040HCL\STD01001.D07
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 7 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.11	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.34	CHLORIDE	0.000	13561456	75079142	1	-0.43
		Totals	0.000	13561456	75079142		

File: STD01001.D07 Sample: STD 10.0 PPM F



Data Reprocessed On: 10/03/1996 15:24:28

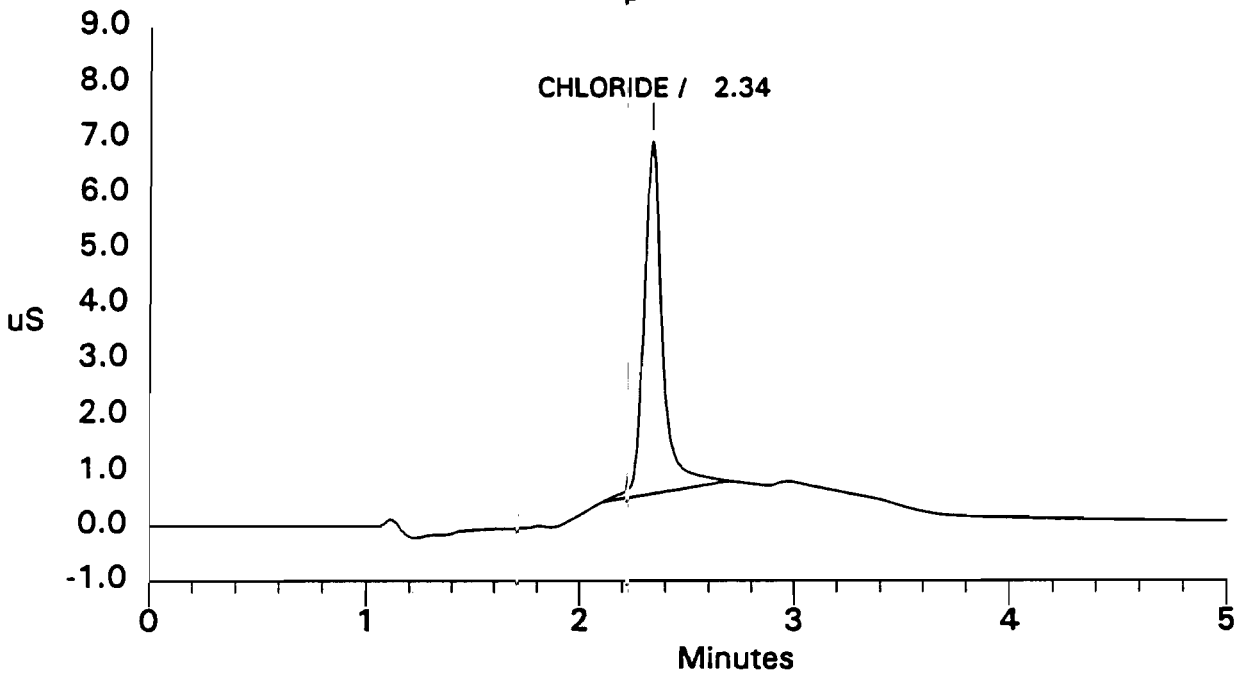
Sample Name:	STD 5.0 PPM F	Date:	10/03/1996 15:10:55
Data File :	C:\DX\DATA\39040HCL\STD00501.D06		
Method :	C:\DX\METHOD\CHLORIDE.met		
ACI Address: 1	System: 1 Inject#: 6	Detector:	PED-Cond.
Analyst :	Column:		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.01	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.34	CHLORIDE	0.000	6333764	38273733	1	-0.43
		Totals	0.000	6333764	38273733		

File: STD00501.D06 Sample: STD 5.0 PPM F



Data Reprocessed On 10/03/1996 15:16:51

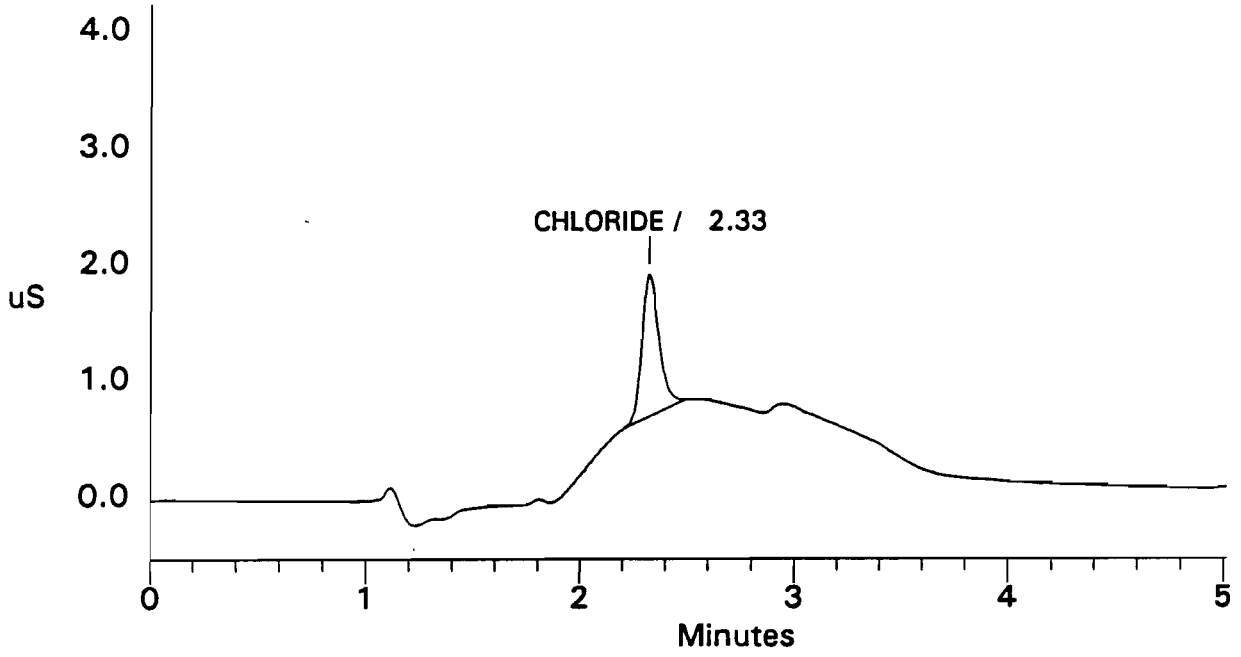
Sample Name: STD 1.0 PPM F Date: 10/03/1996 14:43:02
Data File : C:\DX\DATA\39040HCL\STD00101.D04
Method : C:\DX\METHOD\CHLORIDE.met
\CI Address: 1 System: 1 Inject#: 4 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.02	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.33	CHLORIDE	0.000	1215718	6757901	1	-0.99
		Totals	0.000	1215718	6757901		

File: STD00101.D04 Sample: STD 1.0 PPM F



Data Reprocessed On 10/03/1996 15:07:02

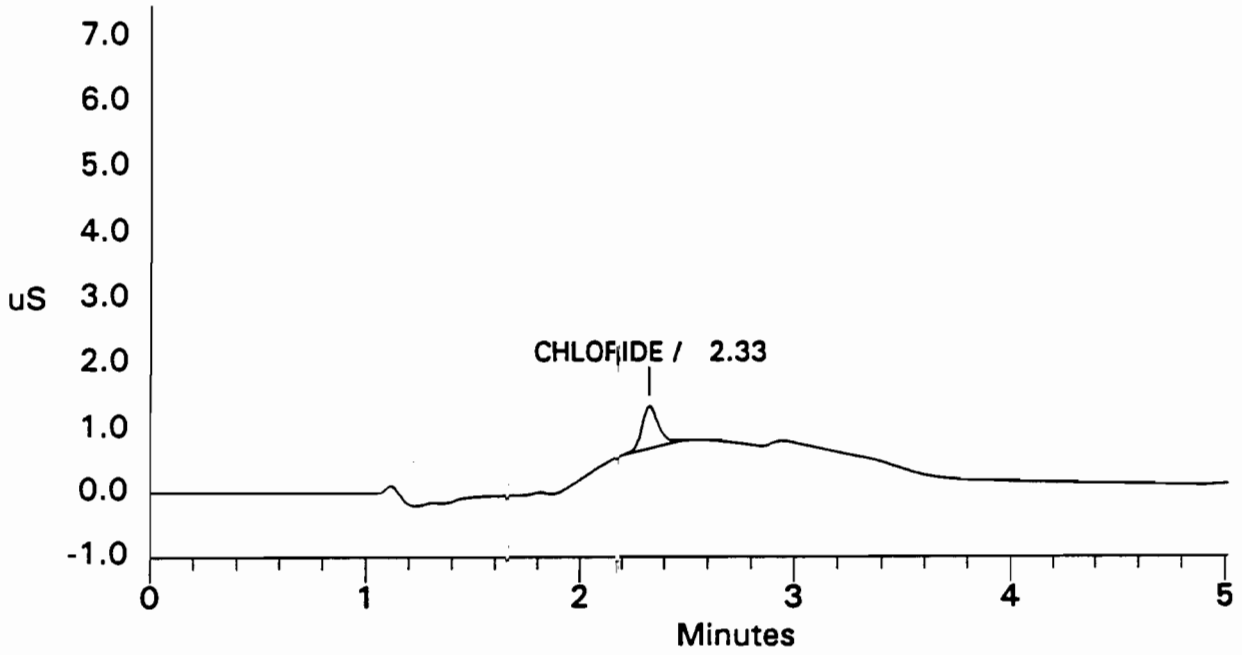
Sample Name:	STD 0.5 PPM F	Date:	10/03/1996 14:15:11
Data File :	C:\DX\DATA\3904OHCL\STD00501.D02		
Method :	C:\DX\METHOD\CHLORIDE.met		
ACI Address:	1 System: 1 Inject#: 2	Detector:	PED-Cond.
Analyst :	Column:		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.02	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.33	CHLORIDE	0.000	653034	3555635	1	-0.85
		Totals	0.000	653034	3555635		

File: STD00501.D02 Sample: STD 0.5 PPM F



Data Reprocessed On 10/04/1996 11:22:33

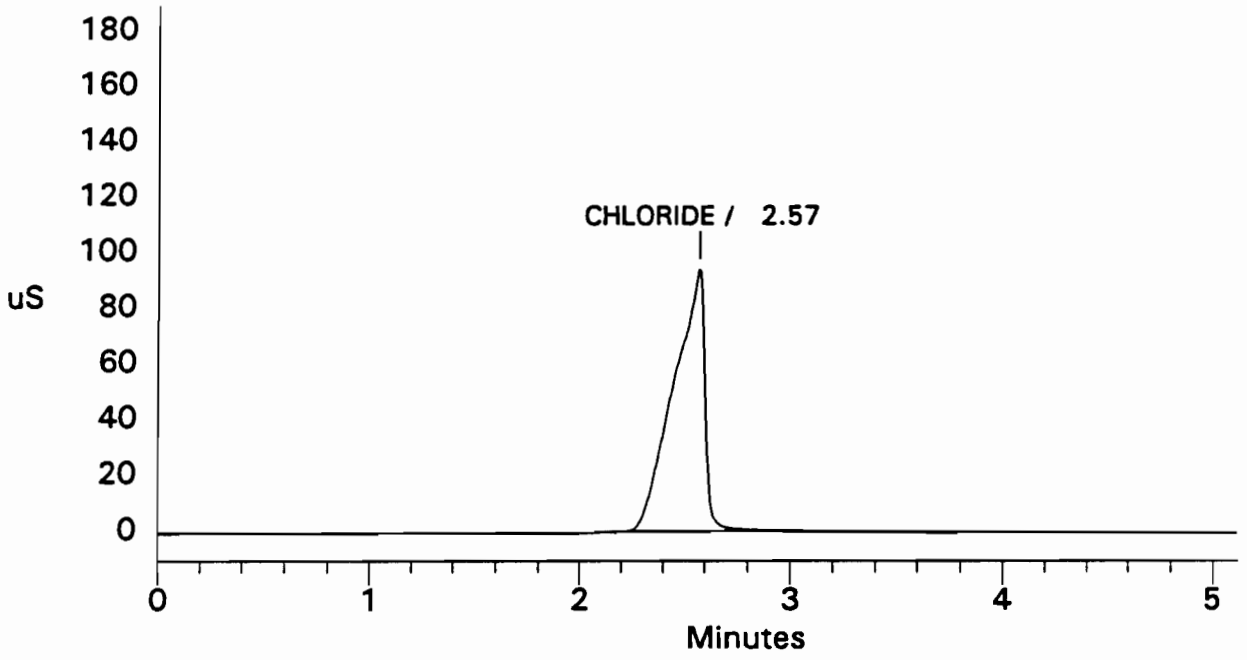
```
Sample Name: STD 100.0 PPM  B                Date: 10/04/1996 00:00:52
Data File  : C:\DX\DATA\39040HCL\STD10001.D44
Method     : C:\DX\METHOD\CHLORIDE.met
\CI Address: 1  System: 1  Inject#: 44                  Detector:PED-Cond.
Analyst    :               Column:
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.12	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.57	CHLORIDE	0.000	93388319	968042086	1	9.50
		Totals	0.000	93388319	968042086		

File: STD10001.D44 Sample: STD 100.0 PPM B



Data Reprocessed On 10/04/1996 09:59:02

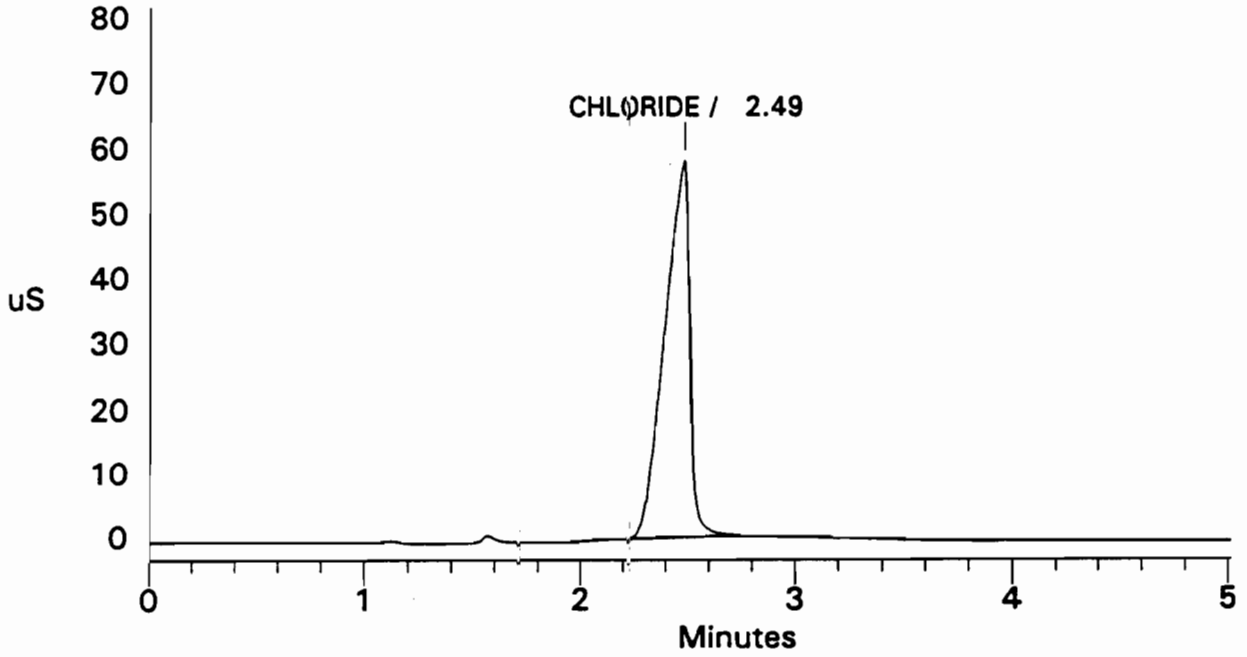
Sample Name: STD 50.0 PPM B Date: 10/03/1996 23:32:57
Data File : C:\DX\DATA\39040HCL\STD05001.D42
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 42 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	360(	5Hz	0.00	5.02	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.49	CHLORIDE	0.000	57908354	469130762	1	5.96
		Totals	0.000	57908354	469130762		

File: STD05001.D42 Sample: STD 50.0 PPM B



Data Reprocessed On 10/04/1996 09:46:54

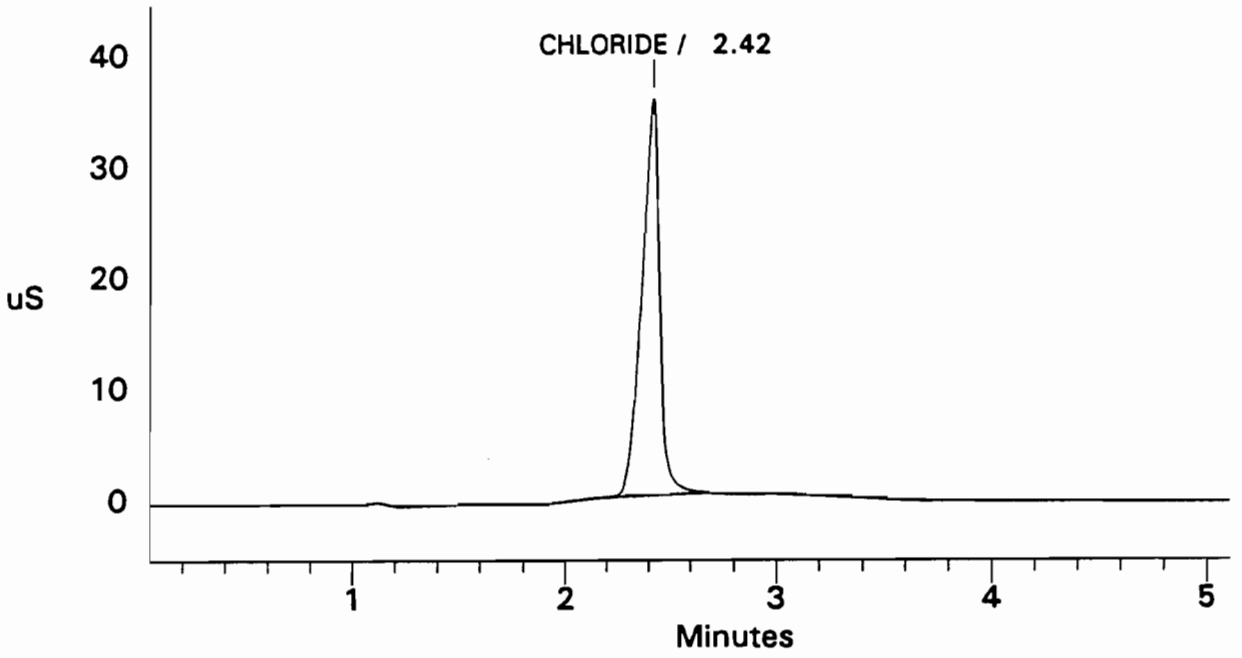
Sample Name: STD 25.0 PPM B Date: 10/03/1996 23:05:03
Data File : C:\DX\DATA\39040HCL\STD02501.D40
Method : C:\DX\METHOD\CHLORIDE.met
CI Address: 1 System: 1 Inject#: 40 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.05	5.11	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.42	CHLORIDE	0.000	35711663	210974906	1	3.12
		Totals	0.000	35711663	210974906		

File: STD02501.D40 Sample: STD 25.0 PPM B



Data Reprocessed On 10/04/1996 08:09:04

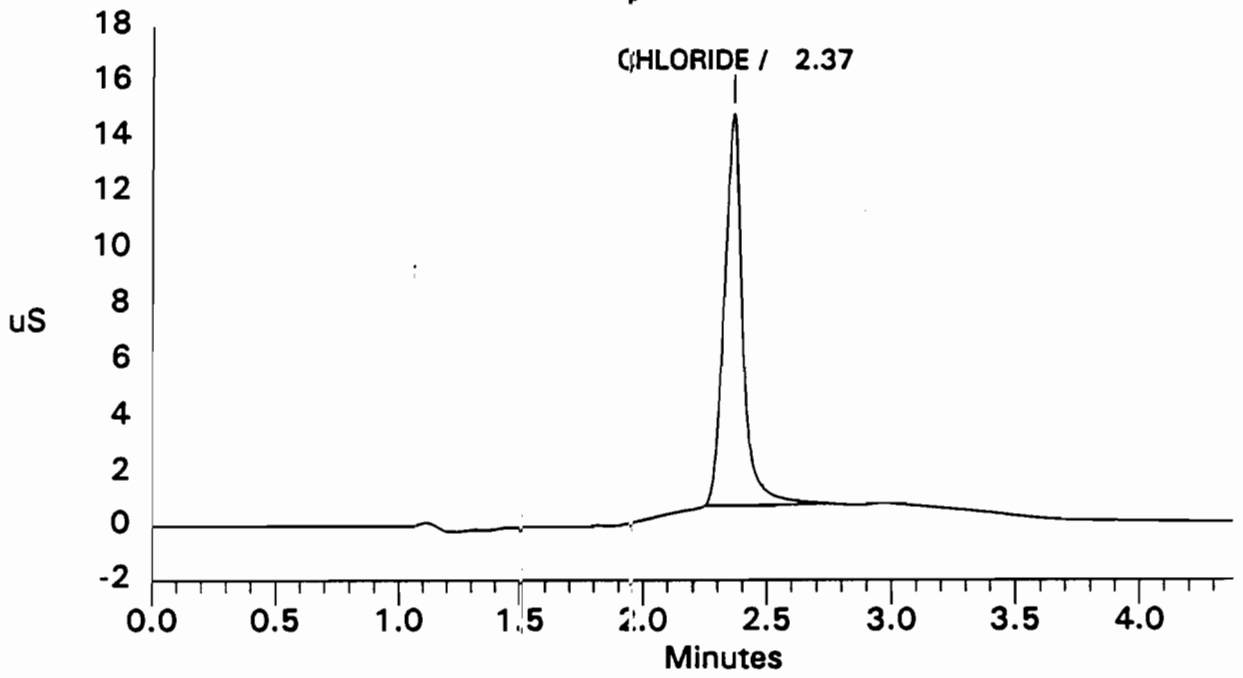
Sample Name: STD 10.0 PPM B Date: 10/03/1996 22:37:09
Data File : C:\DX\DATA\39040HCL\STD01001.D38
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 38 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	4.38	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.37	CHLORIDE	0.000	14087435	75337197	1	0.85
		Totals	0.000	14087435	75337197		

File: STD01001.D38 Sample: STD 10.0 PPM B



Data Reprocessed On 10/04/1996 09:52:00

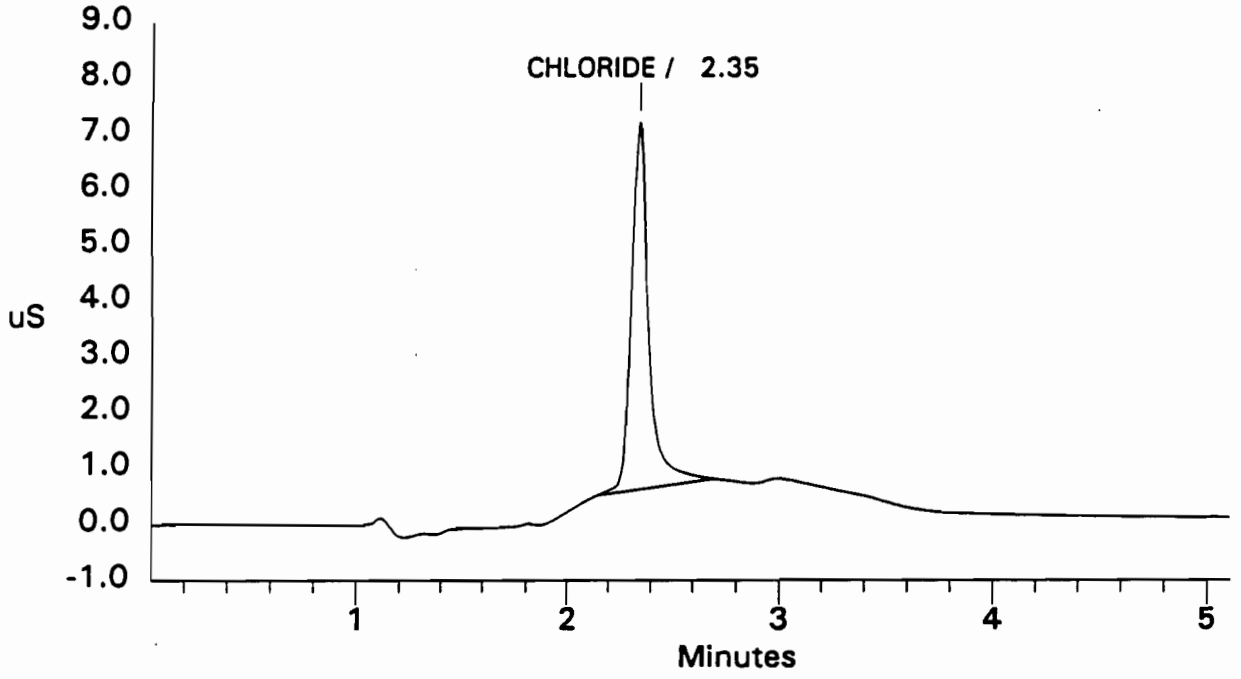
Sample Name: STD 5.0 PPM B Date: 10/03/1996 22:09:15
Data File : C:\DX\DATA\39040HCL\STD00501.D36
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 36 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.05	5.11	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.35	CHLORIDE	0.000	6591551	38157322	1	-0.14
		Totals	0.000	6591551	38157322		

File: STD00501.D36 Sample: STD 5.0 PPM B



Data Reprocessed On 10/04/1996 09:22:22

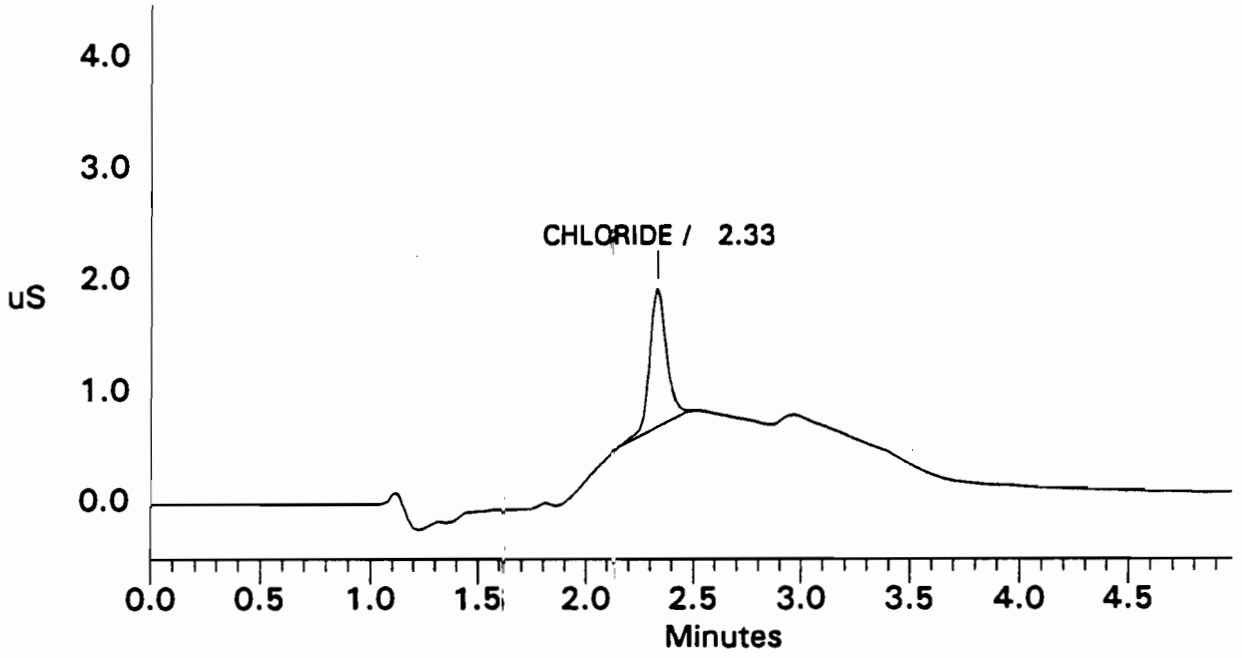
Sample Name:	STD 1.0 PPM B	Date:	10/03/1996 21:27:24
Data File :	C:\DX\DATA\39040HCL\STD00101.D33		
Method :	C:\DX\METHOD\CHLORIDE.met		
ACI Address: 1	System: 1	Inject#: 33	Detector:PED-Cond.
Analyst :		Column:	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	4.97	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.33	CHLORIDE	0.000	1221956	6654950	1	-0.71
		Totals	0.000	1221956	6654950		

File: STD00101.D33 Sample: STD 1.0 PPM B



Data Reprocessed On 10/04/1996 11:10:52

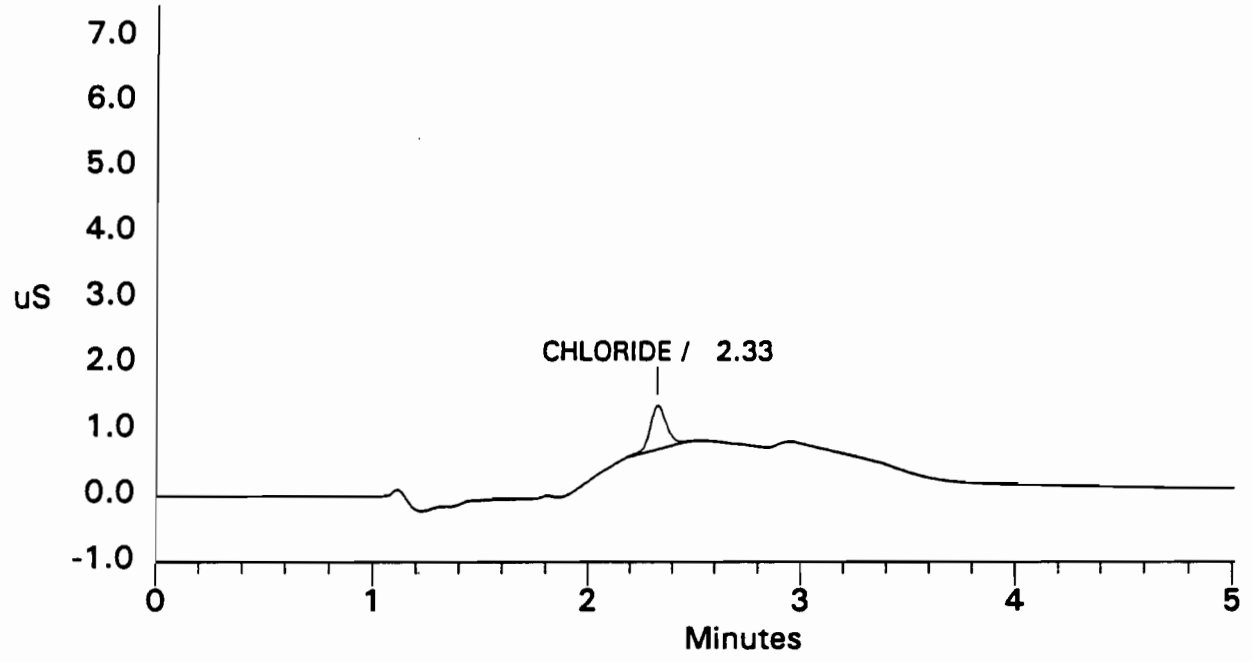
Sample Name: STD 0.5 PPM B Date: 10/03/1996 21:13:28
Data File : C:\DX\DATA\39040HCL\STD00501.D32
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 32 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.02	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.33	CHLORIDE	0.000	663936	3563341	1	-0.85
		Totals	0.000	663936	3563341		

File: STD00501.D32 Sample: STD 0.5 PPM B



Data Reprocessed On 10/04/1996 10:57:18

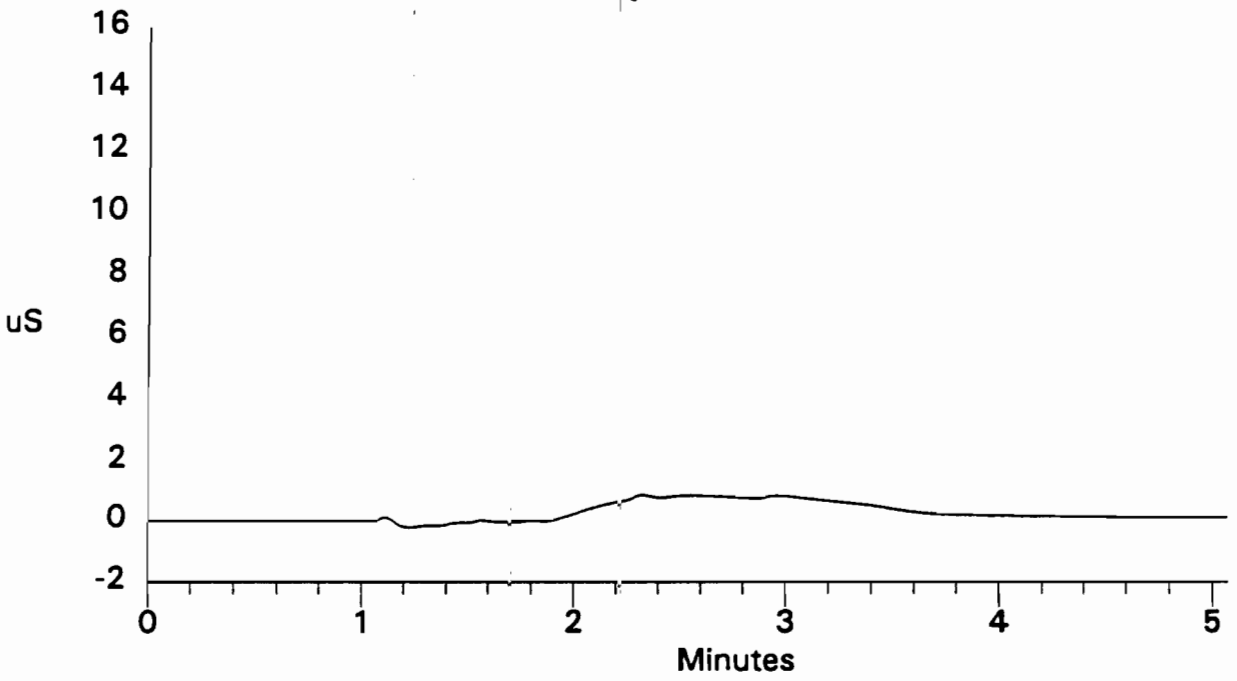
Sample Name: H2SO4 BLANK Date: 10/03/1996 17:16:24
Data File : C:\DX\DATA\39040HCL\H2SO4BL1.D15
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 15 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.07	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
0	0.00	CHLORIDE	0.000	0	0	0	0.00
		Totals	0.000	0	0		

File: H2SO4BL1.D15 Sample: H2SO4 BLANK



Data Reprocessed On 10/04/1996 10:58:41

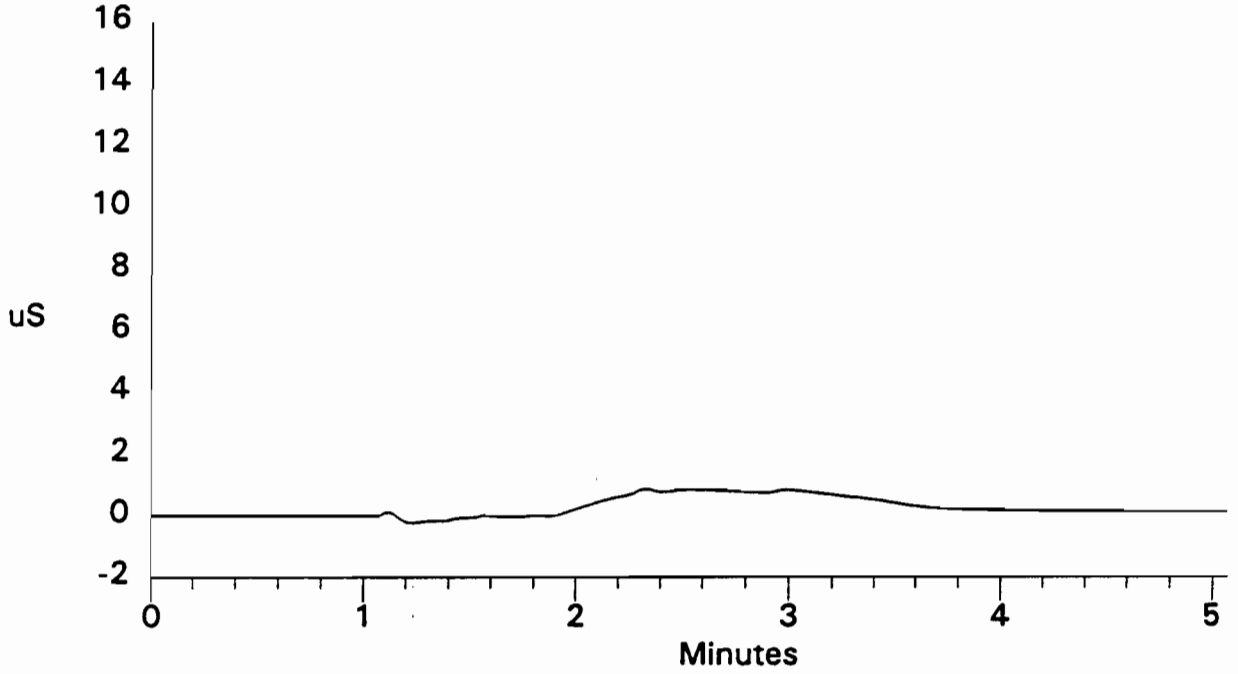
Sample Name: H2SO4 BLANK Date: 10/03/1996 17:30:20
Data File : C:\DX\DATA\39040HCL\H2SO4BL1.D16
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 16 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.07	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
0	0.00	CHLORIDE	0.000	0	0	0	0.00
		Totals	0.000	0	0		

File: H2SO4BL1.D16 Sample: H2SO4 BLANK



Data Reprocessed On: 10/04/1996 10:59:49

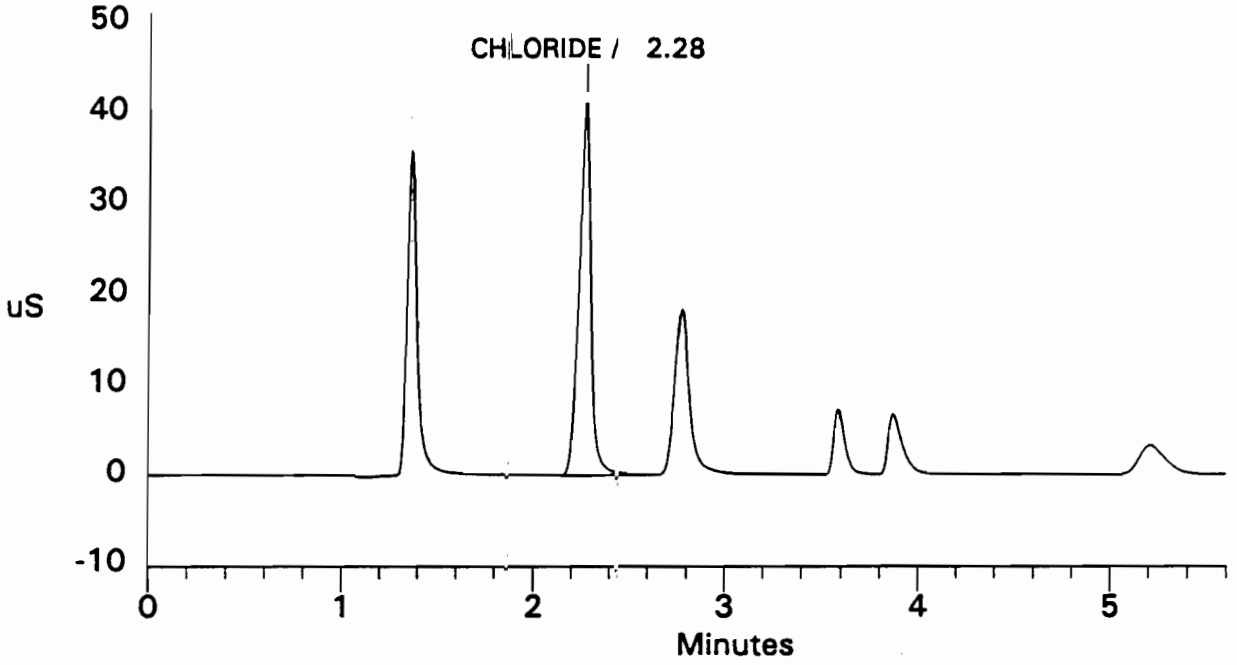
Sample Name: QC 20 PPM Date: 10/03/1996 17:44:18
Data File : C:\DX\DATA\3904CHCL\QC20PPM1.D17
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 17 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.60	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.28	CHLORIDE	0.000	41092825	176322109	1	-3.12
		Totals	0.000	41092825	176322109		

File: QC20PPM1.D17 Sample: QC 20 PPM



Data Reprocessed On 10/04/1996 11:01:14

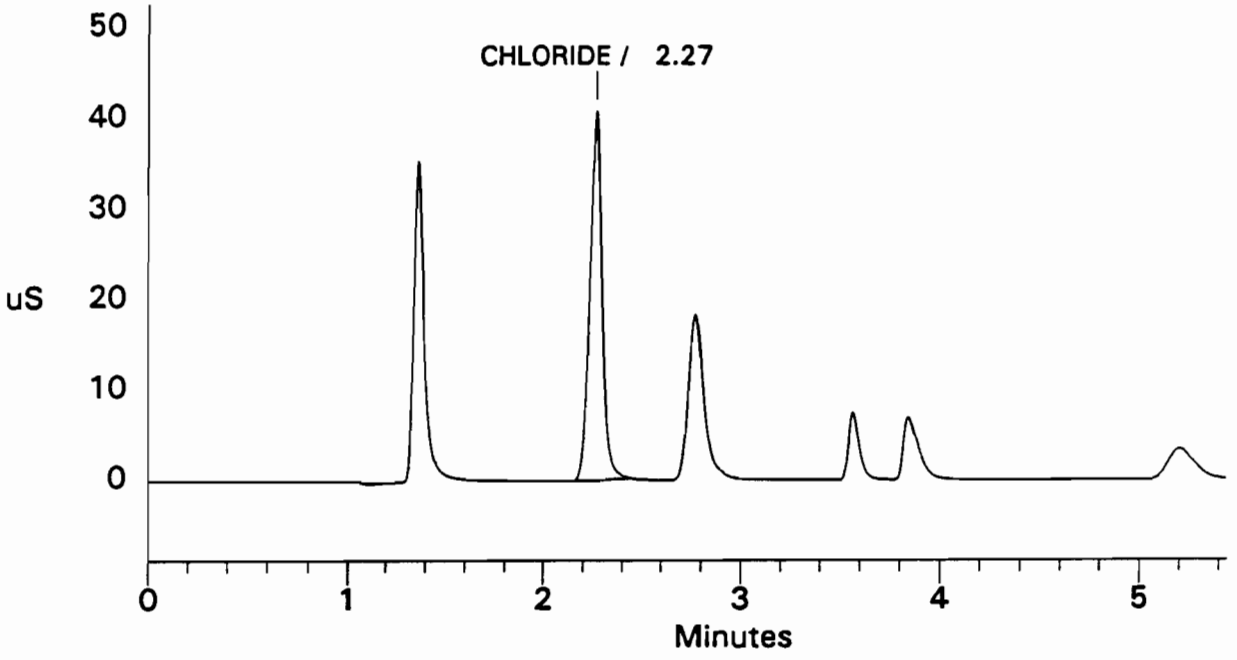
Sample Name: QC 20 PPM Date: 10/03/1996 17:58:14
Data File : C:\DX\DATA\39040HCL\QC20PPM1.D18
Method : C:\DX\METHOD\CHLORIDE.met
ACI Address: 1 System: 1 Inject#: 18 Detector:PED-Cond.
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3600	5Hz	0.00	5.44	1000

********** Component Report: All Components **********

Pk. Num	Ret Time	Component Name	Concentration	Height	Area	Bl. Code	%Delta
1	2.27	CHLORIDE	0.000	40866335	172439481	1	-3.26
		Totals	0.000	40866335	172439481		

File: QC20PPM1.D18 Sample: QC 20 PPM



LAB ID: _____ COPY 9/28/96 Page _____ of _____

Analysis Request and Chain of Custody Record

Sample submitted by: A. Weber

Project Name

Company	Address	Contact / Phone	Project Location and State	Project No.
Radia-		Phone 461 1390	Claremont	

Sample No. / Identification	Date and Time	Grab	Comp	Sample Container (Size/Type)	Sample Type (Water, Soil, Oil, Sludge, Etc.)	Preservative	ANALYSIS REQUESTED TEST	ANALYSIS REQUESTED METHOD	REMARKS
088							Hold		
72				Filter			particulate Gravimetric / HCL		Not Received 9/28/96
76				Filter			Gravimetric / HCL		
80				Filter			Gravimetric / HCL		

0814 5 103 EE 9/28/96

Samplers: (Signature)	Relinquished by: (Signature)	Date: Time:	Received by: (Signature) John Duenther	Date: 10 9/28/96 Time:	Intact
Affiliation	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
SAMPLER REMARKS:			Received by: (Signature)	Date: Time:	Data Results to:
			Invoice to:		

COPY

PAGE 1 OF 1

Custody Seal : Absent	Sample Seals: Absent	TLI Project Number	39040		Book
Chain of Custody : Present	Accept. Cond.: YES				
Sample Tags : Present		Client: RAC05	Radian Corporation		140
Sample Tag Numbers: Listed					
SMO Forms : N/A		Date Received	09/28/96	By J Guenther	Page
Ice Chest	NO COOLANT	Carrier and Number	FedEx/		69

TLI Number mR/H:CPM Client ID	Matrix Location	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To ARCHIVE Date/Init	DISPOSED Date/Init
140-69-1 CL-LTEV-II-AI-074	LIQUID IC TABLE								
140-69-2 CL-LTEV-II-AI-075	LIQUID IC TABLE								
140-69-3 CL-LTEV-II-AI-078	LIQUID IC TABLE								
140-69-4 CL-LTEV-II-AI-079	LIQUID IC TABLE								
140-69-5 CL-LTEV-II-AI-082	LIQUID IC TABLE								
140-69-6 CL-LTEV-II-AI-083	LIQUID IC TABLE								
140-69-7 CL-LTEV-II-AI-084	LIQUID IC TABLE								
140-69-8 CL-LTEV-II-AI-085	LIQUID IC TABLE								
140-69-9 CL-LTEV-II-AI-086	LIQUID IC TABLE								
140-69-10 CL-LTEV-II-AI-087	LIQUID IC TABLE								

Receiving Remarks:

Archive Remarks:

11

Custody Seal : Absent	Sample Seals: Absent	TLI Project Number	39040		Book
Chain of Custody : Present	Accept.Cond.: YES				
Sample Tags : Present		Client: RAC05	Radian Corporation		140
Sample Tag Numbers: Listed					
SMO Forms : N/A		Date Received	09/28/96	By J Guenther	Page
Ice Chest	NO COOLANT	Carrier and Number	FedEx/		69

TLI Number mR/H:CPM Client ID Location	Matrix	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To ARCHIVE Date/Init	DISPOSED Date/Init
140-69-11 CL-LTEV-II-AI-088 IC TABLE	LIQUID								

Receiving Remarks:

Archive Remarks:

TRIANGLE LABORATORIES, INC.

Sample Preparation Tracking & Management Form

Project: 39040 Client: Radian Corporation (RAC05)

Sample Information

Method: 26 Extraction Date: 10/3/96

Solvent/Acids(): _____ Lot: _____

Sample # crd	TLI SAMPLE ID / CLIENT SAMPLE ID	Sample Wgt / Vol g / ml	Final Volume ml	pH __/__/__	Vol. __/__/__				
001	140-69-1 CL-LTEV-II-AI-074	~~515~~	1	550					
002	140-69-3 CL-LTEV-AI-II-078	595	1						
003	140-69-5 CL-LTEV-AI-II-082	590	1						
004	140-69-7 CL-LTEV-AI-II-084	385	1						

Comments: Timothy DeHaven

REV 07/26/93 (PSTMF 7)

TRIANGLE LABORATORIES OF RTP, INC.

[PSTMF2]

PROJECT COMMUNICATION TRACKING FORM

TLI project Number: 39040

Use this form to record all exchanges of information between production units as well as personnel handling this project. Decisions, corrective actions and recommendations must also appear on this tracking document.

Date	Name	Comment / Decision / Resolution / Action / Observation
10-3-96	TB	Sample 140-69-1 used as MS/MSD with 3 ml of sample mixed with 3 ml of 100 ppm Std.

ATTACHMENT I

DIONEX SCHEDULE - C:\DX\SCHEDULE\39040HCL.SCH

Inj#	Sample Name	Method	Data File	Vol.	Dil.	Int.Std.
1	STD 0.5 PPM F	..\CHLORIDE	$TD005	1	1	1
2	STD 0.5 PPM F	..\CHLORIDE	$TD005	1	1	
3	STD 1.0 PPM F	..\CHLORIDE	$TD001	1	1	
4	STD 1.0 PPM F	..\CHLORIDE	$TD001	1	1	1
5	STD 5.0 PPM F	..\CHLORIDE	$TD005	1	1	1
6	STD 5.0 PPM F	..\CHLORIDE	$TD005	1	1	1
7	STD 10.0 PPM F	..\CHLORIDE	$TD010	1	1	1
8	STD 10.0 PPM F	..\CHLORIDE	$TD010	1	1	1
9	STD 25.0 PPM F	..\CHLORIDE	$TD025	1	1	1
10	STD 25.0 PPM F	..\CHLORIDE	$TD025	1	1	1
11	STD 50.0 PPM F	..\CHLORIDE	$TD050	1	1	1
12	STD 50.0 PPM F	..\CHLORIDE	$TD050	1	1	1
13	STD 100.0 PPM F	..\CHLORIDE	$TD100	1	1	1
14	STD 100.0 PPM F	..\CHLORIDE	$TD100	1	1	1
15	H2SO4 BLANK	..\CHLORIDE	H2SO4BL	1	1	1
16	H2SO4 BLANK	..\CHLORIDE	H2SO4BL	1	1	1
17	QC 20 PPM	..\CHLORIDE	QC20PPM	1	1	1
18	QC 20 PPM	..\CHLORIDE	QC20PPM	1	1	1
19	140-69-1	..\CHLORIDE	140691	1	1	1
20	140-69-1	..\CHLORIDE	140691	1	1	1
21	140-69-3	..\CHLORIDE	140693	1	1	1
22	140-69-3	..\CHLORIDE	140693	1	1	1
23	140-69-5	..\CHLORIDE	140695	1	1	1
24	140-69-5	..\CHLORIDE	140695	1	1	1
25	140-69-7	..\CHLORIDE	140697	1	1	1
26	140-69-7	..\CHLORIDE	140697	1	1	1
27	140-69-1 MS	..\CHLORIDE	140691	1	1	1
28	140-69-1 MS	..\CHLORIDE	140691	1	1	
29	140-69-1 MSD	..\CHLORIDE	140691	1	1	1
30	140-69-1 MSD	..\CHLORIDE	140691	1	1	1
31	STD 0.5 PPM B	..\CHLORIDE	$TD005	1	1	1
32	STD 0.5 PPM B	..\CHLORIDE	$TD005	1	1	1
33	STD 1.0 PPM B	..\CHLORIDE	$TD001	1	1	1
34	STD 1.0 PPM B	..\CHLORIDE	$TD001	1	1	1
35	STD 5.0 PPM B	..\CHLORIDE	$TD005	1	1	1
36	STD 5.0 PPM B	..\CHLORIDE	$TD005	1	1	1
37	STD 10.0 PPM B	..\CHLORIDE	$TD010	1	1	1
38	STD 10.0 PPM B	..\CHLORIDE	$TD010	1	1	1
39	STD 25.0 PPM B	..\CHLORIDE	$TD025	1	1	1
40	STD 25.0 PPM B	..\CHLORIDE	$TD025	1	1	1
41	STD 50.0 PPM B	..\CHLORIDE	$TD050	1	1	1
42	STD 50.0 PPM B	..\CHLORIDE	$TD050	1	1	1
43	STD 100.0 PPM B	..\CHLORIDE	$TD100	1	1	1
44	STD 100.0 PPM B	..\CHLORIDE	$TD100	1	1	1
45	END	..\STANDCL.	END	1	1	1

Comment:
TLI PROJECT 39040, , ANALYZED ON THIS SCHEDULE FOR (HCL) DATE 10-03-96.(STD) USED FOR THIS PROJECT ARE ICS2-109-1THRU 7 QC USED LOT #L-ION2143,ANION ELUENT USED LOT #100296. LOOP SIZE (25uL) JIMMY POINDEXTER ACID PART.

10/3/96 T. Bellamy

Radian International
Continuous Emissions Monitoring Dept.
Morrisville, N.C. 27560

EM SUMMARY TABLES
9/26/96

RUN ID#	TIME	O2	CO2	CO	NOx	THC	SO2
1	1014-1115	17.0	2.6	8.1	20.2	46.3	2.8
2	1320-1420	17.1	2.8	6.4	20.5	28.9	4.7
3A	1545-1607	17.4	2.5	3.9	15.8	13.8	2.1
3B	1713-1748	17.4	2.5	5.7	15.2	28.7	1.5
3 Avg.	1545-1748	17.4	2.5	5.0	15.5	22.9	1.7

Radian International
Continuous Emissions Monitoring Dept.
Morrisville, N.C. 27560

RUN ID#0926-01

TIME	O2 (%VD)	CO2 (%VD)	CO (PPMVD)	NOx (PPMVD)	THC (PPMVW)	SO2 (PPMVD)
10:14:53	17.1	2.6	7.7	20.7	41.3	2.5
10:15:53	17.0	2.6	8.0	21.4	41.8	4.9
10:16:53	17.0	2.6	7.9	20.8	42.2	4.8
10:17:53	17.0	2.6	7.9	21.9	42.9	5.1
10:18:53	17.0	2.6	7.9	21.7	44.6	7.4
10:19:53	17.0	2.7	7.9	23.3	43.9	3.2
10:20:53	17.0	2.7	7.9	22.1	43.4	2.3
10:21:53	17.0	2.6	7.9	22.2	44.7	6.3
10:22:53	17.0	2.6	8.0	22.2	43.8	3.9
10:23:53	17.0	2.6	7.9	22.0	44.0	2.7
10:24:53	17.0	2.7	7.9	22.4	43.0	1.1
10:25:53	17.0	2.7	7.7	22.5	45.1	-1.2
10:26:53	17.0	2.7	7.7	22.1	46.1	-3.8
10:27:53	17.0	2.6	7.8	21.7	47.1	-1.9
10:28:53	17.0	2.6	7.9	21.1	46.5	-2.1
10:29:53	17.0	2.6	8.0	21.0	47.2	-3.9
10:30:53	17.0	2.6	8.0	20.8	47.4	-5.6
10:31:53	17.0	2.6	7.9	20.6	45.9	-7.2
10:32:53	17.0	2.6	7.9	20.2	45.5	-8.3
10:33:53	17.0	2.6	7.8	19.6	46.0	-7.8
10:34:53	17.0	2.6	7.8	18.7	46.1	-2.5
10:35:53	17.0	2.6	7.8	18.8	44.4	0.1
10:36:53	17.1	2.6	7.8	19.2	45.5	2.9
10:37:53	17.0	2.6	7.8	19.7	44.7	5.6
10:38:53	17.0	2.6	7.7	20.3	45.1	7.9
10:39:53	17.0	2.7	7.5	20.7	42.7	5.2
10:40:53	17.0	2.6	7.4	20.4	45.2	7.3
10:41:53	17.0	2.6	7.6	20.3	47.4	6.6
10:42:53	17.0	2.6	7.8	19.6	48.4	5.0
10:43:53	17.0	2.6	7.9	19.2	47.5	7.3
10:44:53	17.0	2.6	7.9	18.8	47.4	6.2
10:45:53	17.0	2.6	8.0	19.0	43.9	6.6
10:46:53	17.0	2.7	7.8	18.9	43.6	7.7
10:47:53	17.0	2.6	7.7	18.4	44.3	9.8
10:48:53	17.0	2.7	7.8	19.2	46.9	5.8
10:49:53	17.0	2.6	8.0	19.2	47.1	2.5
10:50:53	17.0	2.6	8.2	19.3	48.4	0.1
10:51:53	17.0	2.6	8.4	18.7	49.1	-0.6
10:52:53	17.0	2.6	8.3	19.6	48.0	-1.9
10:53:53	17.0	2.7	8.0	19.5	48.6	-2.8
10:54:53	17.0	2.7	8.0	20.5	48.2	-2.0
10:55:53	17.0	2.7	8.0	20.2	49.2	-0.3
10:56:53	17.0	2.7	8.2	20.0	51.5	2.2
10:57:53	17.0	2.6	8.5	19.7	51.4	5.2
10:58:53	17.1	2.6	8.5	19.2	47.5	7.6
10:59:53	17.0	2.7	8.4	20.2	47.9	10.0
11:00:53	17.0	2.7	8.7	20.1	47.4	8.5
11:01:53	17.0	2.7	8.7	19.2	50.7	7.5
11:02:53	17.0	2.7	9.0	19.3	52.1	6.9
11:03:53	17.0	2.7	9.5	20.8	51.0	4.3
11:04:53	17.0	2.7	9.6	20.7	52.1	7.6
11:05:53	17.0	2.7	9.6	21.1	48.8	6.4
11:06:53	16.9	2.7	9.3	20.8	47.7	8.8
11:07:53	17.0	2.7	9.1	20.1	47.9	7.9
11:08:53	17.1	2.6	9.0	19.4	47.4	5.8
11:09:53	17.0	2.7	8.5	19.6	43.7	7.1
11:10:53	17.0	2.6	7.9	19.2	44.1	4.0
11:11:53	17.2	2.5	7.9	18.6	45.6	1.5
11:12:53	17.1	2.6	8.0	19.6	47.7	-0.3
11:13:53	17.1	2.6	8.1	20.1	43.4	-2.0
11:14:53	17.0	2.6	8.0	20.0	44.8	-2.6
11:15:53	17.1	2.5	7.7	19.4	42.7	-1.8
AVERAGE	17.0	2.6	8.1	20.2	46.3	2.8

Radian International
Continuous Emissions Monitoring Dept.
Morrisville, N.C. 27560

RUN ID#0926-02

TIME	O2 (%VD)	CO2 (%VD)	CO (PPMVD)	NOx (PPMVD)	THC (PPMVW)	SO2 (PPMVD)
13:20:01	17.0	2.8	6.7	17.4	34.6	7.0
13:20:11	17.1	2.8	6.8	17.1	38.8	6.9
13:20:21	17.1	2.8	6.8	16.8	33.3	6.1
13:20:31	17.1	2.8	6.8	16.4	38.4	5.6
13:20:41	17.1	2.8	6.9	16.4	42.0	5.3
13:20:51	17.1	2.7	6.9	16.8	42.2	5.3
13:21:01	17.1	2.7	6.9	16.6	38.5	4.6
13:21:11	17.2	2.7	7.0	16.4	41.1	4.0
13:21:21	17.2	2.7	7.1	16.5	41.2	3.9
13:21:31	17.2	2.8	7.2	16.5	32.6	2.9
13:21:41	17.2	2.7	7.3	16.4	40.1	2.8
13:21:51	17.2	2.7	7.3	16.3	41.7	2.6
13:22:01	17.2	2.7	7.3	16.1	42.3	2.3
13:22:11	17.8	2.7	7.3	16.1	37.7	2.1
13:23:11	17.2	2.7	7.3	16.0	36.2	1.0
13:24:11	17.1	2.8	6.8	17.3	36.4	-0.4
13:25:11	17.0	2.9	7.0	17.4	35.5	-1.8
13:26:11	17.0	2.8	7.3	18.3	38.2	-2.2
13:27:11	17.0	2.8	7.3	18.5	36.9	-0.8
13:28:11	17.0	2.9	7.2	18.8	34.0	1.5
13:29:11	17.0	2.9	7.0	19.7	33.6	4.1
13:30:11	16.9	2.9	7.1	19.9	33.6	7.1
13:31:11	16.9	2.9	7.1	20.7	34.6	9.3
13:32:11	17.0	2.9	7.2	20.9	34.7	11.2
13:33:11	16.9	2.9	7.2	21.0	33.7	13.8
13:34:11	16.9	3.0	7.1	20.9	31.4	8.9
13:35:11	17.0	2.9	7.1	20.9	33.9	6.0
13:36:11	17.0	2.9	7.1	20.4	35.9	6.4
13:37:11	17.0	2.9	7.1	19.8	32.0	7.6
13:38:11	17.0	2.9	6.6	21.7	23.7	7.2
13:39:11	17.0	2.9	6.0	22.6	21.7	5.7
13:40:11	17.0	2.8	6.1	23.3	25.7	7.5
[illegible]:41:11	17.1	2.8	6.4	23.4	26.8	11.2
[illegible]:42:11	17.1	2.8	6.5	23.4	24.1	7.6
13:43:11	17.1	2.8	6.2	23.9	23.0	4.5
13:44:11	17.1	2.8	6.1	23.0	22.4	2.5
13:45:11	17.1	2.8	6.0	22.7	21.7	0.8
13:46:11	17.1	2.8	5.9	21.0	23.9	-0.9
13:47:11	17.1	2.8	5.8	20.7	24.4	-2.2
13:48:11	17.1	2.7	5.8	20.0	27.4	-2.0
13:49:11	17.2	2.7	5.8	19.4	26.1	-0.9
13:50:11	17.2	2.7	5.7	19.3	23.8	1.2
13:51:11	17.2	2.7	5.5	18.2	22.8	4.1
13:52:11	17.2	2.7	5.5	18.2	24.0	6.5
13:53:11	17.3	2.6	5.3	17.5	22.3	8.9
13:54:11	17.3	2.7	5.2	18.2	23.8	7.9
13:55:11	17.2	2.7	5.3	18.9	24.6	4.6
13:56:11	17.1	2.8	5.6	20.5	22.7	6.9
13:57:11	17.1	2.8	5.7	21.8	23.2	7.0
13:58:11	17.1	2.8	5.8	23.7	21.2	8.3
13:59:11	17.1	2.8	5.6	23.9	20.2	6.7
14:00:11	17.1	2.8	5.5	23.9	21.3	8.5
14:01:11	17.1	2.8	5.5	23.4	21.5	7.0
14:02:11	17.2	2.7	5.5	22.5	22.7	6.9
14:03:11	17.2	2.7	5.6	22.7	23.7	10.5
14:04:11	17.1	2.8	5.7	22.9	21.5	7.3
14:05:11	17.0	2.9	5.3	22.9	18.7	4.6
14:06:11	17.1	2.8	5.2	23.0	23.0	2.5
14:07:11	17.1	2.8	5.5	22.8	25.1	0.7
14:08:11	17.1	2.8	5.9	22.6	26.4	-1.0
14:09:11	17.1	2.8	6.0	23.6	22.7	-2.2
14:10:11	17.0	2.8	5.8	23.4	21.9	-2.2
14:11:11	17.0	2.8	5.8	23.3	23.7	-0.6
14:12:11	17.1	2.8	6.2	23.0	27.6	1.5
14:13:11	17.1	2.8	6.4	23.0	26.7	4.4
14:14:11	17.1	2.8	6.4	23.2	24.2	7.0
[illegible]:15:11	17.0	2.9	6.1	23.8	23.2	9.3
[illegible]:16:11	17.1	2.8	6.0	23.9	23.8	7.1
14:17:11	17.1	2.8	6.3	23.9	27.4	7.5
14:18:11	17.2	2.7	6.6	23.5	24.3	8.3
14:19:11	17.3	2.7	6.4	22.8	23.8	7.6
14:20:11	17.1	2.8	6.2	22.8	21.8	5.8
AVERAGE	17.1	2.8	6.4	20.5	28.9	4.7

Radian International
Continuous Emissions Monitoring Dept.
Morrisville, N.C. 27560

RUN ID#0926-03A

TIME	O2 (%VD)	CO2 (%VD)	CO (PPMVD)	NOx (PPMVD)	THC (PPMVW)	SO2 (PPMVD)
15:45:31	17.2	2.6	4.4	16.3	16.8	9.5
15:46:31	17.2	2.6	4.2	16.7	15.2	12.9
15:47:31	17.1	2.6	4.1	16.8	13.8	7.9
15:48:31	17.2	2.6	4.0	16.3	15.0	5.4
15:49:31	17.2	2.6	4.2	16.6	15.6	8.5
15:50:31	17.3	2.6	4.3	16.5	16.4	7.9
15:51:31	17.3	2.6	4.2	17.0	13.7	13.1
15:52:31	17.2	2.7	4.0	17.1	13.9	8.5
15:53:31	17.1	2.7	3.9	17.5	14.9	4.4
15:54:31	17.1	2.6	4.0	17.3	16.3	0.7
15:55:31	17.2	2.6	4.2	17.3	15.1	-1.9
15:56:31	17.2	2.6	4.2	16.7	15.3	-4.3
15:57:31	17.2	2.6	4.2	17.0	14.6	-5.9
15:58:31	17.2	2.6	3.8	16.8	14.5	-7.4
15:59:31	17.3	2.6	3.7	15.7	17.0	-8.2
16:00:31	17.3	2.6	3.9	16.2	17.2	-7.9
16:01:31	17.2	2.6	3.9	16.1	14.9	-6.5
16:02:31	17.1	2.7	3.6	16.9	13.6	-4.1
16:03:31	17.1	2.7	3.7	17.2	14.1	-2.1
16:04:31	17.2	2.6	3.9	17.0	13.1	0.5
16:05:31	18.7	1.7	3.3	11.6	6.8	3.1
16:06:31	19.1	1.5	2.5	8.8	6.2	5.7
16:07:31	18.9	1.5	2.3	9.0	3.9	8.9
AVERAGE	17.4	2.5	3.9	15.8	13.8	2.1

Radian International
Continuous Emissions Monitoring Dept.
Morrisville, N.C. 27560

RUN ID#0926-03B

TIME	O2 (%VD)	CO2 (%VD)	CO (PPMVD)	NOx (PPMVD)	THC (PPMVW)	SO2 (PPMVD)

Radian International
Continuous Emissions Monitoring Dept.
Morrisville, N.C. 27560

RUN ID#0926-03B

TIME	O2 (%VD)	CO2 (%VD)	CO (PPMVD)	NOx (PPMVD)	THC (PPMVW)	SO2 (PPMVD)
17:13:31	17.3	2.7	4.6	16.8	20.6	7.7
17:14:31	17.3	2.6	4.8	16.9	20.8	5.8
17:15:31	17.3	2.6	5.0	16.5	22.9	5.4
17:16:31	17.3	2.6	5.1	16.9	22.8	5.4
17:17:31	17.5	2.5	5.0	16.2	23.4	4.5
17:18:31	17.4	2.6	5.0	16.3	19.6	3.8
17:19:31	17.3	2.6	4.7	16.7	18.5	4.1
17:20:31	17.3	2.6	4.6	16.4	22.1	4.3
17:21:31	17.5	2.5	5.1	15.1	25.9	7.7
17:22:31	17.5	2.5	5.3	14.7	24.0	3.2
17:23:31	17.4	2.5	5.2	14.6	23.0	-0.2
17:24:31	17.4	2.5	4.9	15.0	21.9	-2.6
17:25:31	17.4	2.5	4.9	14.6	24.4	-4.8
17:26:31	17.5	2.5	4.9	15.0	25.3	-6.2
17:27:31	17.4	2.5	5.1	14.8	24.7	-7.7
17:28:31	17.4	2.5	5.1	15.4	25.6	-8.3
17:29:31	17.5	2.4	5.5	15.4	30.2	-7.5
17:30:31	17.5	2.5	5.9	15.4	28.7	-5.7
17:31:31	17.4	2.6	5.4	16.2	21.5	-3.7
17:32:31	17.3	2.6	4.7	16.7	20.8	-0.7
17:33:31	17.4	2.5	5.0	16.4	23.2	1.7
17:34:31	17.4	2.5	5.4	16.3	24.5	4.2
17:35:31	17.2	2.7	4.8	17.1	20.8	6.6
17:36:31	17.3	2.5	4.5	17.0	23.1	6.4
17:37:31	17.3	2.5	5.4	16.9	24.0	5.7
17:38:31	17.3	2.5	5.5	16.4	29.2	5.4
17:39:31	17.3	2.5	6.5	13.9	49.0	4.6
17:40:31	17.3	2.5	8.1	12.5	47.4	2.7
17:41:31	17.2	2.6	8.1	12.8	44.6	5.8
17:42:31	17.2	2.6	8.0	12.4	48.1	5.4
17:43:31	17.2	2.5	8.1	12.5	47.1	7.7
17:44:31	17.3	2.5	8.2	12.3	48.8	3.7
17:45:31	17.3	2.5	8.2	12.0	44.6	0.3
17:46:31	17.2	2.5	7.6	12.8	35.4	-2.0
17:47:31	17.3	2.5	6.4	15.1	29.5	-3.9
17:48:31	17.3	2.4	6.0	15.4	31.6	-5.8
AVERAGE	17.4	2.5	5.7	15.2	28.7	1.5
Run Avg.	17.4	2.5	5.0	15.5	22.9	1.7

CALIBRATION SUMMARY
09-26-1996 06:18:11
CALIBRATION FILE NAME = c:\cemdata\0926C1.CAL

Chan.	Name	Units	Zero		Span		Slope	Int.
			Conc.	Resp.	Conc.	Resp.		
1	O2	%VD	2	.08	20.8	.8	25.11	-.0067
2	CO2	%VD	0	0	18.6	.1	201.5	.0904
3	CO	PPMVD	0	-.01	64.2	6.3	10.1	.0877
4	NOx	PPMVD	0	.05	90	9	10.06	-.5073
5	THC	PPMVW	0	0	9	9	1	-.0004
6	SO2	PPMVD	0	0	448	.1	4944.48	-2.2094

RADIAN CORPORATION
ironmental Measurement and Analysis Department
tinuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 06:20:49
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: GC CHECK--21.5 NOx/4.1 CO/8.5 SO2

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
06:20:50	-0.0	-0.2	3.8	22.2	8.7	11.2
06:20:53	-0.0	-0.1	3.8	22.2	9.0	11.5
06:21:03	-0.0	-0.2	3.9	22.2	9.0	10.5
06:21:13	-0.0	-0.2	3.8	22.3	9.0	9.5
Avg =	-0.0	-0.2	3.8	22.2	8.9	10.7

RADIAN CORPORATION
Environmental Measurement and Analysis Department
Continuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 06:25:07
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926CL.CAL

Test #: QC CHECK--13.0 NOx 0.1 CO/7.7 SO2

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
06:25:08	-0.0	-0.1	1.9	13.0	4.9	-5.5
06:25:09	-0.0	-0.1	1.9	13.0	4.9	-5.5
06:25:13	-0.0	-0.1	1.9	13.0	4.9	-2.4
06:25:23	-0.0	-0.1	1.9	13.0	4.9	2.6
06:25:33	-0.0	-0.1	1.9	13.0	4.9	2.7
06:25:43	-0.0	-0.2	1.9	13.1	4.9	1.7
Avg =	-0.0	-0.1	1.9	13.0	4.9	-1.1

RADIAN CORPORATION
Environmental Measurement and Analysis Department
Continuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 06:28:16
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: QC CHECK--49.6 NOx/37.1 CO

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
06:28:17	-0.0	-0.1	36.8	49.3	0.1	1.2
06:28:23	-0.0	-0.0	36.6	48.2	0.3	1.0
06:28:33	-0.0	-0.1	36.7	48.9	0.3	0.7
06:28:43	-0.0	-0.1	36.9	50.1	-0.0	0.2
06:28:53	-0.0	-0.1	36.9	50.5	-0.0	-0.0
06:29:03	-0.0	-0.1	36.8	51.0	-0.0	0.1
Avg =	-0.0	-0.1	36.8	49.7	0.1	0.5

RADIAN CORPORATION
ironmental Measurement and Analysis Department
ntinuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Data Printed = 09-26-1996 Current Time = 06:32:14
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: QC CHECK--90.0 NOx/64.2 CO

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
06:32:16	-0.0	-0.1	64.7	89.6	0.4	4.9
06:32:23	-0.0	-0.2	64.6	89.8	0.4	5.7
06:32:33	-0.0	-0.2	64.5	90.2	0.4	5.6
06:32:43	-0.0	-0.2	64.6	91.9	0.4	6.0
06:32:53	-0.0	-0.2	64.7	92.9	0.4	6.9
06:33:03	-0.0	-0.2	64.8	94.0	0.4	7.5
Avg =	-0.0	-0.2	64.7	91.4	0.4	6.1

RADIAN CORPORATION
Environmental Measurement and Analysis Department
Continuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 06:39:39
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: GC CHECK--448.0 SO2

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
06:39:41	-0.0	0.0	0.1	0.3	0.0	448.4
06:39:43	-0.0	0.0	0.1	0.3	0.0	448.4
06:39:53	-0.0	0.0	-0.0	0.3	-0.0	448.5
06:40:03	-0.0	0.0	0.1	0.3	0.0	448.2
06:40:13	-0.0	0.0	0.0	0.3	0.0	447.4
Avg =	-0.0	0.0	0.1	0.3	0.0	448.2

RADIAN CORPORATION
Environmental Measurement and Analysis Department
Continuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 06:45:25
File Name = c:\cemdata\092696.PRN Calibration File(s): c:\cemdata\092601.CAL

Test #: ZERO CHECK--2.0 O2

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
06:45:23	2.0	0.0	-0.0	0.4	-0.0	0.6
06:45:33	2.0	0.0	-0.0	0.4	0.0	-1.6
06:45:43	2.0	0.0	-0.1	0.4	-0.0	0.0
06:45:53	2.0	0.0	-0.0	0.3	-0.0	0.2
Avg =	2.0	0.0	-0.0	0.4	-0.0	-0.2

RADIAN CORPORATION
ironmental Measurement and Analysis Department
tinuous Emissions Monitoring Data
Claremont
SETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 06:47:39
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\092601.CAL

Test #: QC CHECK--20.8 O2/18.6 CO2

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
06:47:42	20.8	18.3	-0.2	-101.2	2.9	-1.0
06:47:44	20.8	18.3	-0.2	-101.2	2.9	-1.0
06:47:53	20.9	18.3	-0.3	-101.2	3.2	-1.2
06:48:03	20.9	18.3	-0.3	-101.2	3.1	-1.7
06:48:13	20.9	18.3	-0.3	-101.2	3.2	-1.6
Avg =	20.9	18.3	-0.3	-101.2	3.1	-1.3

RADIAN CORPORATION
ironmental Measurement and Analysis Department
cinuous Emissions Monitoring Data
Claremont
SETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 06:50:25
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: QC CHECK--12.1 O2/5.1 CO2

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
06:50:26	12.3	5.1	-0.2	40.0	0.8	2.6
06:50:33	12.2	5.1	-0.2	39.0	0.9	3.1
06:50:43	12.2	5.1	-0.1	38.6	0.8	2.8
06:50:53	12.2	5.1	-0.1	38.4	0.9	3.5
06:51:03	12.2	5.1	-0.0	38.1	1.1	4.5
06:51:13	12.2	5.1	-0.0	37.9	1.2	4.5
06:51:23	12.2	5.1	-0.0	37.7	1.0	5.0
06:51:33	12.2	5.1	-0.1	37.5	0.9	5.3
Avg =	12.2	5.1	-0.1	38.4	0.9	3.9

RADIAN CORPORATION
[illegible]ronmental Measurement and Analysis Department
[illegible]inuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 12:21:29
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: ZERO CHECK--2.0 O2

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
12:21:33	2.0	0.0	0.0	0.5	-0.0	-1.8
12:21:43	2.0	0.0	-0.0	0.5	0.0	-1.3
12:21:53	2.0	0.0	-0.0	0.5	0.0	-1.1
12:22:03	2.0	-0.0	-0.0	0.5	0.0	-0.7
Avg =	2.0	0.0	-0.0	0.5	-0.0	-1.2

RADIAN CORPORATION
ironmental Measurement and Analysis Department
tinuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont..
Date Printed = 09-26-1996 Current Time = 12:24:00
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: GC CHECK--20.8 O2/18.6 CO2

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
12:24:03	20.8	18.2	-0.2	-98.4	1.9	5.3
12:24:05	20.8	18.2	-0.2	-98.4	1.9	5.3
12:24:13	20.7	18.1	-0.3	-95.0	2.0	6.6
12:24:23	20.8	18.0	-0.2	-89.3	1.9	6.5
12:24:33	20.8	18.0	-0.3	-89.2	1.9	7.3
Avg =	20.8	18.1	-0.2	-94.0	1.9	6.2

RADIAN CORPORATION
Environmental Measurement and Analysis Department
Continuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 12:26:11
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: QC CHECK--156.8 SO2

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
12:26:14	-0.0	0.0	0.1	12.2	-0.0	157.1
12:26:23	-0.0	-0.0	0.1	9.5	-0.0	157.5
12:26:33	-0.0	0.0	0.1	8.2	-0.0	158.2
12:26:43	-0.0	0.0	0.2	7.1	0.0	160.2
12:26:53	-0.0	0.0	0.1	6.3	-0.0	161.0
12:27:03	-0.0	-0.0	0.2	5.6	-0.0	161.5
12:27:13	-0.0	-0.0	0.2	5.0	-0.0	161.9
Avg =	-0.0	0.0	0.1	7.7	-0.0	159.7

RADIAN CORPORATION
'ironmental Measurement and Analysis Department
tinuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont..
Date Printed = 09-26-1996 Current Time = 12:32:29
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: QC CHECK--90.0 NOx/64.2 CO

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
12:32:33	0.0	-0.0	64.6	92.2	-0.0	21.4
12:32:34	0.0	-0.0	64.6	92.2	-0.0	21.4
12:32:43	-0.0	-0.2	63.9	92.9	-0.0	19.0
12:32:53	-0.0	-0.2	64.1	92.6	-0.0	18.5
12:33:03	-0.0	-0.2	64.3	90.9	-0.0	18.0
Avg =	-0.0	-0.1	64.3	92.1	-0.0	19.6

RADIAN CORPORATION
- ironmental Measurement and Analysis Department
.inuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 12:36:45
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: QC CHECK--21.5 NOx/4.1 CO/8.5 SO2/9.0 CH4

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
12:36:49	-0.0	-0.0	3.8	19.9	8.9	11.2
12:36:50	-0.0	-0.0	3.8	19.9	8.9	11.2
12:36:52	-0.0	-0.0	3.8	19.9	8.9	11.2
12:37:01	-0.0	-0.0	3.9	20.8	8.9	9.8
12:37:11	-0.0	-0.1	3.9	20.9	9.0	9.8
Avg =	-0.0	-0.0	3.9	20.3	8.9	10.6

RADIAN CORPORATION
ironmental Measurement and Analysis Department
tinuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 14:31:20
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: ZERO CHECK--2.0 O2

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
14:31:23	2.0	0.0	0.1	0.6	0.0	-1.9
14:31:31	2.0	0.0	0.0	0.6	0.0	-1.9
14:31:41	2.0	0.0	0.0	0.6	0.0	-1.8
14:31:51	2.0	0.0	0.0	0.5	0.0	-2.1
14:32:01	2.0	0.0	0.0	0.5	0.0	-2.1
14:32:11	2.0	0.0	-0.0	0.5	0.0	-1.6
14:32:21	2.0	0.0	-0.1	0.5	-0.0	-1.4
14:32:31	2.0	-0.0	-0.1	0.5	-0.0	-0.8
14:32:41	2.0	0.0	-0.0	0.5	0.0	-0.5
14:32:51	2.0	0.0	-0.0	0.5	0.0	-0.4
14:33:01	2.0	0.0	-0.0	0.5	0.0	-0.2
14:33:11	2.0	-0.0	0.0	0.5	0.0	0.4
vg =	2.0	0.0	-0.0	0.5	0.0	-1.2

RADIAN CORPORATION
~ ironmental Measurement and Analysis Department
.inuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 14:37:32
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\092601.CAL

Test #: QC CHECK--20.8 O2/18.6 CO2

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
14:37:36	20.8	18.4	-0.3	-101.2	2.4	13.(
14:37:41	20.8	18.2	-0.2	-101.2	2.5	14.'
14:37:51	20.8	18.1	-0.2	-101.2	2.4	14.3
14:38:01	20.8	18.3	-0.2	-98.7	2.4	14.(
Avg =	20.8	18.3	-0.2	-100.5	2.4	14.2

RADIAN CORPORATION
Environmental Measurement and Analysis Department
Continuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 14:41:53
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: QC CHECK--90.0 NOx/64.2 CO

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
14:41:57	-0.0	-0.1	64.9	93.8	0.0	24.1
14:42:01	-0.0	-0.1	64.9	93.0	-0.0	25.9
14:42:11	-0.0	-0.2	65.0	92.8	-0.0	25.8
14:42:21	-0.0	-0.2	64.8	92.6	-0.0	25.8
14:42:31	-0.0	-0.2	64.7	92.8	-0.0	25.8
14:42:41	-0.0	-0.1	64.8	92.7	-0.0	25.8
14:42:51	-0.0	-0.1	64.7	92.5	-0.0	25.3
14:43:01	-0.0	-0.2	64.5	92.5	-0.0	25.4
14:43:11	-0.0	-0.2	64.7	92.3	-0.0	25.1
14:43:21	-0.0	-0.2	64.9	92.4	-0.0	25.3
14:43:31	-0.0	-0.1	64.7	92.6	-0.0	24.8
14:43:41	-0.0	-0.2	64.6	92.7	-0.0	24.3
Avg =	-0.0	-0.1	64.8	92.7	-0.0	25.3

RADIAN CORPORATION
'ronmental Measurement and Analysis Department
.inuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 14:45:58
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: QC CHECK--21.5 NOx/4.1 CO/8.5 SO2/9.0 CH4

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
14:46:02	0.7	0.1	4.1	21.8	9.3	15.3
14:46:04	0.7	0.1	4.1	21.8	9.3	15.3
14:46:11	0.9	0.1	4.0	21.4	9.8	14.0
14:46:21	1.0	0.1	4.0	21.1	9.8	13.4
14:46:31	1.1	0.1	4.1	20.6	9.8	11.9
14:46:41	1.2	0.1	4.1	20.5	9.8	11.8
14:46:51	1.2	0.1	4.0	21.1	9.8	11.0
14:47:01	1.1	0.1	4.0	21.3	10.1	10.1
14:47:11	1.2	0.1	4.1	21.3	10.2	9.2
14:47:21	1.3	0.2	4.1	21.4	9.9	9.0
14:47:31	1.3	0.1	4.1	21.5	10.2	8.1
, =	1.1	0.1	4.1	21.3	9.8	11.7

RADIAN CORPORATION
Environmental Measurement and Analysis Department
Continuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 14:51:34
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926D1.CAL

Test #: GC CHECK--13.0 NOx/2.1 CO/3.7 SO2/5.1 CH4

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
14:51:39	-0.0	-0.0	2.1	12.1	4.9	-3.7
14:51:40	-0.0	-0.0	2.1	12.1	4.9	-3.7
14:51:42	-0.0	-0.0	2.1	12.1	4.9	-3.7
14:51:51	-0.0	0.0	2.0	12.2	4.9	-3.9
14:52:01	-0.0	-0.0	2.0	12.2	4.9	-4.5
Avg =	-0.0	-0.0	2.1	12.1	4.9	-3.9

RADIAN CORPORATION
Environmental Measurement and Analysis Department
Continuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 18:16:43
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: ZERO CHECK--2.0 O2

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
18:16:43	2.0	-0.0	-0.1	0.3	0.0	0.3
18:16:47	2.0	-0.0	-0.0	0.3	0.0	0.4
18:16:57	2.0	-0.0	-0.0	0.3	0.0	1.1
18:17:07	2.0	0.0	-0.1	0.3	-0.0	1.8
18:17:17	2.0	0.0	-0.1	0.3	-0.0	2.2
Avg =	2.0	0.0	-0.1	0.3	0.0	1.2

RADIAN CORPORATION
Environmental Measurement and Analysis Department
Continuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 18:18:54
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: GC CHECK--20.8 O2/18.6 CO2

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
18:18:55	20.8	18.6	-0.3	-96.4	0.2	7.4
18:18:57	20.9	18.9	-0.3	-101.2	0.2	9.4
18:19:07	20.8	18.5	-0.4	-94.2	0.2	9.1
18:19:17	20.8	18.6	-0.3	-101.2	0.2	9.2
Avg =	20.8	18.7	-0.3	-98.2	0.2	8.8

RADIAN CORPORATION
Environmental Measurement and Analysis Department
Continuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 18:21:09
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: QC CHECK--12.1 O2/5.1 CO2

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
18:21:10	12.2	5.2	-0.2	38.0	0.0	15.9
18:21:11	12.2	5.2	-0.2	38.0	0.0	15.9
18:21:17	12.2	5.3	-0.1	35.5	0.0	16.8
18:21:27	12.2	5.2	-0.2	34.7	0.0	17.0
18:21:37	12.2	5.2	-0.1	34.7	0.0	17.8
Avg =	12.2	5.2	-0.2	36.2	0.0	16.7

RADIAN CORPORATION
Environmental Measurement and Analysis Department
Continuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 18:24:30
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: QC CHECK--90.0 NOx/64.2 CO

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
18:24:31	-0.0	-0.2	64.5	90.2	-0.0	12.4
18:24:37	-0.0	-0.2	64.6	89.9	-0.0	12.1
18:24:47	-0.0	-0.2	64.5	90.0	-0.0	10.3
18:24:57	-0.0	-0.2	64.6	89.6	-0.0	10.2
18:25:07	-0.0	-0.2	64.7	89.5	-0.0	9.6
18:25:17	-0.0	-0.2	64.6	89.6	-0.0	8.6
Avg =	-0.0	-0.2	64.6	89.8	-0.0	10.5

RADIAN CORPORATION
Environmental Measurement and Analysis Department
    inuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 18:34:05
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: QC CHECK--49.6 NOx/37.1 CO

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVI
18:34:07	-0.0	-0.1	36.3	49.0	-0.0	-7.3
18:34:08	-0.0	-0.1	36.3	49.0	-0.0	-7.3
18:34:17	-0.0	-0.1	36.3	48.9	-0.0	-6.7
18:34:27	-0.0	-0.1	36.4	49.5	-0.0	-6.6
18:34:37	-0.0	-0.1	36.6	49.9	-0.0	-6.0
18:34:47	-0.0	-0.1	37.0	50.0	-0.0	-6.1
Avg =	-0.0	-0.1	36.5	49.4	-0.0	-6.7

...inuous Emissions Monitoring Data

Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 18:46:13
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: QC CHECK--13.0 NOx/2.1 CO/3.7 SO2/5.0 CH4

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
18:46:17	-0.0	0.0	1.9	12.1	4.9	10.7
18:46:18	-0.0	0.0	1.9	12.1	4.9	10.7
18:46:27	-0.0	0.0	1.9	12.3	4.9	8.8
18:46:37	-0.0	0.0	1.9	12.2	4.9	7.4
18:46:47	-0.0	0.0	1.9	12.2	4.9	7.0
18:46:57	-0.0	0.0	1.9	12.2	4.9	5.8
18:47:07	-0.0	0.0	1.9	12.2	4.9	6.0
18:47:17	-0.0	0.0	1.9	12.2	4.9	5.3
18:47:27	-0.0	0.0	2.0	12.1	4.9	4.3
18:47:37	-0.0	0.0	2.0	12.1	4.9	3.7
18:47:47	-0.0	0.0	2.0	12.0	4.9	2.8
=	-0.0	0.0	1.9	12.2	4.9	6.6

RADIAN CORPORATION
Environmental Measurement and Analysis Department
Continuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 18:50:18
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: GC CHECK--3.0 CH4

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
18:50:22	-0.0	-0.0	-0.2	5.5	2.8	-4.6
18:50:27	-0.0	0.0	-0.0	5.5	2.9	-4.7
18:50:37	-0.0	0.0	-0.0	5.5	2.9	-5.5
18:50:47	-0.0	0.0	0.0	5.5	2.9	-6.0
18:50:57	-0.0	0.0	-0.0	5.5	2.9	-6.2
18:51:07	-0.0	0.0	-0.0	5.4	2.9	-6.4
18:51:17	-0.0	0.0	-0.1	5.5	2.8	-6.3
18:51:27	-0.0	0.0	-0.1	5.5	2.8	-6.5
18:51:37	-0.0	0.0	-0.0	5.4	2.8	-6.9
18:51:47	-0.0	0.0	-0.0	5.4	2.8	-7.4
Avg =	-0.0	0.0	-0.0	5.5	2.9	-6.0

RADIAN CORPORATION
Environmental Measurement and Analysis Department
Continuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 18:59:05
File Name = c:\camdata\092696.PRN Calibration File:c:\camdata\092601.CAL

Test #: INLET O2/CO2 RUN#01 Inlet

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
18:59:06	17.6	2.4	-62.5	10.2	1542.2	6.0
18:59:08	17.6	2.4	-62.5	10.2	1542.2	6.0
18:59:17	17.5	2.4	-64.7	10.3	1546.2	6.2
18:59:32	17.5	2.4	-86.3	10.4	1542.9	7.5
18:59:37	17.5	2.4	1002.1	10.5	1546.7	7.8
19:35:47	17.5	2.4	974.6	10.5	1546.7	8.5
Avg =	17.5	2.4	283.4	10.3	1544.5	7.0

RADIAN CORPORATION
T ironmental Measurement and Analysis Department
   .inuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 19:01:31
File Name = c:\cemdata\092696.PRN Calibration Files:c:\cemdata\092601.CAL

Test #: INLET O2/CO2 RUN#2 Inlet

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
19:01:32	16.6	3.0	755.8	13.7	1034.3	14.9
19:01:37	16.6	3.1	868.1	14.1	1039.7	16.2
19:01:47	16.6	3.1	935.0	14.2	1041.4	15.6
19:01:57	16.7	3.1	968.1	14.4	1044.3	16.0
19:02:07	16.6	3.1	972.0	14.4	1044.4	17.0
19:02:17	16.6	3.1	962.0	14.6	1044.3	17.9
19:02:27	16.6	3.1	977.9	14.6	1044.3	18.5
Avg =	16.6	3.1	919.8	14.3	1041.8	16.6

RADIAN CORPORATION
Environmental Measurement and Analysis Department
Continuous Emissions Monitoring Data
Claremont
BETH PAGE,NY
Performed for: Claremont
Date Printed = 09-26-1996 Current Time = 19:04:42
File Name = c:\cemdata\092696.PRN Calibration File:c:\cemdata\0926C1.CAL

Test #: INLET O2/CO2 RUN#3 Inlet

09-26-1996 Time	O2 %VD	CO2 %VD	CO PPMVD	NOx PPMVD	THC PPMVW	SO2 PPMVD
19:04:44	17.8	2.3	405.4	15.0	558.1	17.9
19:04:47	17.8	2.4	414.5	15.3	557.0	17.7
19:04:57	17.8	2.3	416.9	15.4	558.3	16.8
19:05:07	17.8	2.3	420.7	15.5	557.1	16.5
19:05:17	17.8	2.3	420.1	15.5	558.3	15.8
19:05:27	17.8	2.3	420.8	15.4	558.2	14.4
19:05:37	17.8	2.3	422.7	15.4	558.7	14.0
19:05:47	17.8	2.3	422.7	15.4	558.4	12.9
Avg =	17.8	2.3	418.0	15.4	558.0	15.7

PARTICULATE DATA CORRELATION

Sample No.	Report Run No.
CL-LTEV-AI-II-007	1 Acetone
CL-LTEV-AI-II-010	1 Filter
CL-LTEV-AI-II-013	2 Acetone
CL-LTEV-AI-II-016	2 Filter
CL-LTEV-AI-II-021	3 Acetone
CL-LTEV-AI-II-024	3 Filter
CL-LTEV-AI-II-050	Blank Acetone
CL-LTEV-AI-II-053	Blank Filter

RADIAN INTERNATIONAL LLC.
PARTICULATE AND HCl TEST DATA WORKSHEET

CLIENT	Claremont			
LOCATION	Outlet	Outlet	Outlet	
TEST NO.	1	2	3	
DATE:	9/27/96			
TIME :	10:14	14:25	15:45	
TEST DATA INPUT				
Barometric Pressure (in. Hg)	30.1	30.1	30.1	
Stack Area (ft2)	3.14	3.14	3.14	
Nozzle Diameter (in.)	0.244	0.244	0.244	
Total Sampling Time (min.)	53	60	60	
Calibration Factor (Y)	1.004	1.004	1.004	
Pitot Coefficient	0.84	0.84	0.84	
Average Sqr Rt of Vel Head (in. wc)	0.71	0.69	0.67	
Average Orifice Pressure Drop (in. wc)	1.23	1.16	1.11	
Average Meter Temp. (°F)	100	98	76	
Average Stack Pressure (in. wc)	0.3	0.25	0.28	
Average Stack Temp. (°F)	154	152	148	
Meter Volume @ Meter Conditions (ft3)	34.27	33.49	33.94	
Total Water Collected (ml)	186.5	191.1	192.6	
CO2 in Stack Gas (%)	2.6	2.9	2	
O2 in Stack Gas (%)	17.2	17.1	18.1	
CO in Stack Gas (%)	0	0	0	
Total Particulate Catch (mg)				
Total HCL catch (mg)	0.16	0.16	0.14	
CALCULATED VALUES				
Meter Volume (dscf)	32.74	32.10	33.87	**Average**
Water Vapor in Stack Gas (%)	21.14	21.89	21.12	21.38
Molecular Weight of Stack Gas (dry)	29.104	29.148	29.044	29.10
Molecular Weight of Stack Gas (wet)	26.76	26.71	26.71	26.73
Average Velocity of Stack Gas (fpm)	2,659	2,581	2,519	2586.08
Actual Stack Gas Flowrate (acfm)	8,353	8,108	7,912	8124.42
SCFM	7231	7042	6917	
Stack Gas Flowrate (dscfm)	5702	5501	5457	5553.24
Isokinesis (%)	104.88	94.17	100.14	99.73
EMISSION CONCENTRATION				
Particulate Concentration (gr/acf)	0.00E+00	0.00E+00	0.00E+00	0.00
Particulate Concentration (gr/dscf)	0.00	0.00	0.00	0.00
Particulate Concentration (lbs/dscf)	0.00E+00	0.00E+00	0.00E+00	0.00
Particulate Concentration (µg/m3)	0	0	0	0.00
HCl Concentration (mg/m3)	0.17	0.18	0.15	
HCL Concentration (ppm)	0.11	0.12	0.10	
EMISSION RATE				
Particulate Emission Rate (lbs/hr)	**0.00**	**0.00**	**0.00**	
HCl Emission Rate (lbs/hr)	**0.0037**	**0.0036**	**0.0030**	0.0034
NOx	0.70	0.80	0.42	0.64
SO2				
CO	0.29	0.24	0.14	0.23

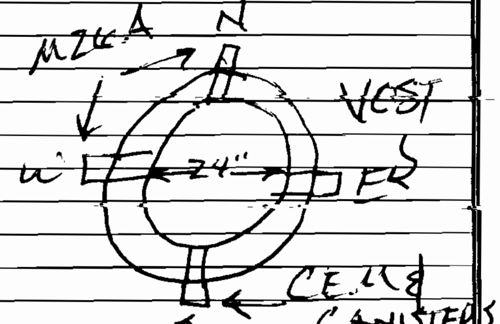
RADIAN INTERNATIONAL LLC

Plant CLAREMONT
Test Number 1
Operator JEH

Date	8/27/96	Meter Number	A16408	K Factor	2.43	Initial Leak Check	0.007@20"
Pbar	29.40	Meter Δ H @	1.973	Assumed Moisture	28	Final Leak check	0.002@11"
Probe	3'	Meter γ	1.012	Filter Number	Q3534	Pitot Leak Check	0.00
Pitot Number	1	Duct Dimensions	24"	Sample Number	1	O_2	17
Nozzle dia	0.250	Static Press	-0.30			CO_2	3

Clock Time	Port	Point	Sample Time	Meter Volume	Δ P	Δ H	Stack Temp	Probe Temp	Filter Temp	Pump Inlet	Pump Outlet	Impinger Exit	Pump Vacuum	Notes
1423	N	1	0	722.709	0.42	1.00	154	249	252	100	96	58	6.0	POINT #1 ALL THE
1428		2	5	725.510	0.41	0.98	156	255	251	102	96	52	6.0	WAY INTO THE
1433		3	10	729.692	0.39	0.93	156	254	250	103	96	50	5.0	STACK
1438		4	15	732.350	0.39	0.93	156	253	252	105	97	51	5.0	
1443		5	20	734.850	0.37	0.90	156	253	257	106	97	51	5.0	
1448		6	25	737.420	0.29	0.71	150	254	251	107	98	52	4.0	
1453		STOP	30	~~740.515~~ 739.600	FORGOT FINAL VOLUME (SD)									
				PRE MOVE LEAK CHECK 0.002@7"										
				POST MOVE LEAK CHECK 0.004@7"										
1603	W	1	0	740.680	0.40	0.97	150	254	252	100	96	65	4.0	
1608		2	35	743.359	0.40	0.97	149	256	250	102	97	53	4.0	
1613		3	40	748.300	0.42	1.02	148	254	254	104	97	53	5.0	
1618		4	45	751.010	0.40	0.97	148	254	253	103	96	53	4.5	
1623		5	50	752.040	0.37	0.90	150							
1628		STOP	52	752.270	UNIT DOWN									
~~1633~~		~~STOP~~	~~60~~											
1630		START	52	752.270	0.47	1.14	142	255	254	103	96	58	5.0	
1633		STOP	55	753.220	UNIT DOWN									
~~1638~~		~~STOP~~	~~60~~											
2159		START		753.220	0.24	0.59	147	255	254	72	76	66	3.5	
2204		STOP	60	755.665										
	T	√ Average		31.776		.906	152		Average		98			
				Average √	.611									

Notes:



PORTS - 13.25"
DOUBLE WALL
STACK

Impinger
7 705.4 714.0 8.6

Nozzle Calibration

1 0.251 2 0.248 3 0.250
Average 0.250

Impinger Weights

	Initial	Final	Difference
1	501.0	671.7	~~260.7~~ 170.7
2	581.5	609.7	27.2
3	594.2	597.3	3.1
4	498.4	501.3	2.9
5	588.3	589.4	1.1
6	601.8	603.7	1.9
		Total	215.5

~~305.5~~

RADIAN INTERNATIONAL LLC

Plant CLAREMONT
Test Number Z3
Operator JEH

Date 8/28/96
Pbar 30.25
Probe 3' GLASS
Pitot Number
Nozzle dia 0.250

Meter Number 4K1408
Meter Δ H @ 1.973
Meter γ 1.012
Duct Dimensions 24"
Static Press -0.28

K Factor 2.57
Assumed Moisture 25%
Filter Number Q3532
Sample Number 3

Initial Leak Check 0.003@15
Final Leak check 0.002@12"
Pitot Leak Check 0.00
O_2 16.7
CO_2 3.2.9

Clock Time	Port	Point	Sample Time	Meter Volume	ΔP	ΔH	Stack Temp	Probe Temp	Filter Temp	Pump Inlet	Pump Outlet	Impinger Exit	Pump Vacuum	Notes
1350	W	1	0	757.885	0.48	1.23	149	254	255	73	72	60	6.0	
1355		2	5	760.800	0.47	1.20	148	254	253	74	72	48	6.5	POINT # 1 IS ALL THE WAY IN THE STACK
1400		3	10	763.720	0.47	1.20	150	254	253	76	72	49	6.5	
1405		4	15	766.635	0.45	1.15	151	256	254	79	73	50	7.0	
1410		5	20	769.539	0.41	1.05	151	254	253	80	73	50	7.0	THIS IS THE SECOND GOOD TEST.
1415		6	25	772.424	0.35	0.89	150	254	253	80	73	51	7.0	
1416		STOP	26	772.780		UNIT DOWN								
1419		START		772.780	0.35	0.89	149	255	255	76	73	64	5.5	
1451		STOP	30	774.768										
						PRE-MOVE LEAK CHECK				0.004 @		10"		
						POST-MOVE LEAK CHECK				0.005 @		10"		
1458	N	1	0	774.943	0.34	1.35	149	255	255	77	74	62	7.0	
1503		2	35	777.770	0.32	1.30	146	254	250	79	74	52	8.0	
1508		3	40	780.755	0.51	1.28	145	254	256	81	75	53	8.0	
1513		4	45	783.770	0.48	1.21	146	255	251	83	75	54	8.0	
1518		5	50	786.765	0.44	1.10	146	255	255	83	76	56	8.0	
1523		6	55	789.790	0.39	0.98	148	254	254	83	75	57	7.0	
1528		END	60	792.531										
		Total / Average		34.774		1.162	148			Average	76			
				Average √	.674									

7 734.3 745.0 10.7

Nozzle Calibration

1 0.248 2 0.251 3 0.250
Average 0.250

Impinger Weights

	Initial	Final	Difference
1	473.7	652.0	178.3
2	603.9	625.0	21.1
3	567.2	568.3	1.1
4	486.1	487.1	1
5	611.6	612.4	0.8
6	611.1	611.5	0.4
		Total Δ	213.4

RAD-AN INTERNATIONAL LLC

Date	8/28/96	Meter Number	AH1403	K Factor	2.55	Initial Leak Check	0.00 @ 15"
Pbar	30.20	Meter Δ H @	1.973	Assumed Moisture	25%	Final Leak check	0.005 @ 15"
Probe	3' GLASS	Meter γ	1.012	Filter Number	Q3536	Pitot Leak Check	0.00
Plant	CLAREMONT	Pitot Number		Duct Dimensions	24"	O_2	17.0
Test Number	4	Nozzle dia	0.250	Static Press	-0.28	CO_2	2.6
Operator	JEH						

Clock Time	Port	Point	Sample Time	Meter Volume	Δ P	Δ H	Stack Temp	Probe Temp	Filter Temp	Pump Inlet	Pump Outlet	Impinger Exit	Pump Vacuum	Notes
1600	N	1	0	772.831	0.48	1.21	141	254	248	78	75	67	3.5	
1605		2	5	775.915	0.52	1.31	146	255	249	77	75	66	4.0	
1610		3	10	779.000	0.51	1.28	148	254	251	81	76	65	4.0	
1615		4	15	802.090	0.48	1.21	150	255	250	83	76	61	4.0	
1620		5	20	805.165	0.45	1.13	149	254	252	83	76	60	3.5	
1625		6	25	808.040	0.39	0.98	149	255	255	83	76	61	3.0	
1630		STOP	30	810.819										
					PRE MOVE LEAK CHECK						0.003 @ 11"			
					POST RUN LEAK CHECK						0.004 @ 10"			
1636	W	1	0	811.100	0.52	1.32	145	254	259	79	75	67	4.0	
1641		2	35	814.150	0.51	1.28	145	255	255	83	76	64	4.0	
1646		3	40	817.360	0.51	1.28	143	255	256	84	76	61	4.0	
1651		4	45	820.230	0.46	1.15	148	251	253	84	76	60	3.5	
1656		5	50	823.175	0.43	1.08	149	255	253	84	76	58	4.0	
1701		6	55	826.147	0.38	0.95	149	254	253	83	76	58		
1706		STOP	60	828.884										
Total / Average				35.772		1.182	147				79			
				Average √	685									

7 676.5 685.5 4

Nozzle Calibration

1 0.248 2 0.251 3 0.250

Average 0.250

Impinger Weights

	Initial	Final	Difference
1	490.2	673.1	178.2
2	596.3	615.9	19.6
3	590.4	592.5	2.1
4	486.7	487.5	0.8
5	596.6	595.41	-1.2
6	584.3	584.0	-.3
		Total	208.2

TRIANGLE LABS

CASE NARRATIVE

Analysis of Samples for Particulates

Method 5 (40 CFR, Part 60, Appendix A)

Client:	Radian Corporation
TLI Project Number:	38656A
Date:	September 4, 1996

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729
P.O. Box 13485
Research Triangle Park, NC 27709-3485
Fax # 919-544-5491

Objective: Analysis of seven filter and acetone rinse samples for filterable particulate according to the guidelines of Method 5 (40 CFR, Part 60, Appendix A).

Sample Receipt: Seven filters, seven acetone rinses, twelve H2SO4/H2O impingers, six NaOH/H2O impingers, two H2SO4 and two NaOH impingers, and one H2O sample were received at ambient temperature on August 31, 1996 by Triangle Laboratories, Inc. in good condition. The Ids on the client chain of custody did not match the Ids on the sample labels. The sample labels were used to identify the samples.

Sample Preparation and Analysis: The pre-tared filters were transferred to tared Teflon baggies and desiccated for a minimum of 24 hours. The acetone rinses were also transferred to tared Teflon baggies and desiccated for a minimum of 24 hours. After this time period, each baggie was weighed using a Mettler AT 100 analytical balance. All weights were recorded to the nearest 0.1 milligram. Each baggie was then desiccated for at least an additional six hours and weighed again. The process was continued until two consecutive weights agreed within +/- 0.5 milligrams or within 1.0% of the total weight less tare weight, whichever is greater. Results reported relate only to the items tested.

Data Review: The filterable particulate results are reported in units of milligrams (mg) and are the sum of the filter and rinse catches. The lowest weight obtained for each fraction was used in the calculations. Any particulate catch found in the acetone blank was subtracted from the reported total up to 0.001% of the weight of acetone used and then adjusted based on the relative volume of the blank and samples.

The weight for sample CL-LIEU-II-AI-050 was slightly negative. The sample has been prepared for ion chromatography analysis and cannot be further examined to determine the negative weight. Please note that negative catches of up to -0.3 mg are considered equivalent to a catch weight of 0.0 due to inherent system noise. All negative weights are reported as a value of 0.0.

The data in this package has been judged to be valid according to the guidelines of Method 5 except as noted above. If there are questions about the data, please feel free to contact our Project Scientist, Walter Murray at (919) 544-5729, extension 271.

For Triangle Laboratories, Inc.:

Report Preparation

Nina Woodgate
Report Preparation Chemist

Quality Control

Jerry P. Rauch
Report Preparation Chemist

The total number of pages in this data package is: 25

TRIANGLE LABORATORIES, INC.

LIST OF CERTIFICATIONS AND ACCREDITATIONS

American Association for Laboratory Accreditation. Valid until July 31, 1997. Certificate Number 0226-01. Accreditation for technical competence in Environmental Testing.(Including Waste Water, Sol/Haz Waste, Pulp/Paper, and Air Matrices) Parameters are AOX/TOX, Volatiles, Pesticides, PCB's, BNA's, and Dioxin/Furan. Method 1613 for Drinking Water.

State of Alabama, Department of Environmental Management. Laboratory I.D. # 40950. Drinking Water for Dioxin. Expires December 31, 1997.

State of Alaska, Department of Environmental Conservation. Drinking Water for Dioxin. Expires December 31, 1996.

State of Arizona, Department of Health Services. Certificate # AZ0423. Drinking Water for Dioxin, Dioxin in WW and S/H Waste. Effective May 26, 1996. Expires May 26, 1997.

State of Arkansas, Department of Pollution Control and Ecology. Pulp/paper, soil, water, and Hazardous Waste for Dioxin/Furan; AOX/TOX. Expires February 14, 1997. Primary No. 94-06497.

State of California, Department of Health Services. Certificate # 1922. Selected Metals in Waste Water; Volatiles, Semi-volatiles, and Dioxin/furan in WW and Sol/Haz Waste. Dioxin in Drinking Water. Expires August 31, 1997.

CLIA Registration. ID # 34D0705123. Expires May 30, 1997.

State of Connecticut, Department of Health Services. Registration # PH-0117. Dioxin in Drinking Water. Expires September 30, 1997.

Delaware Health and Social Services. Dioxin in drinking Water. Effective December 13, 1993. Expires December 31, 1996.

FDA Registration. ID #'s 059244 1053481. Expires July 1996.

Florida Department of Health and Rehabilitative Services. Dioxin in DW. Drinking Water ID HRS# 87424. Metals, Extractable Organics (GC/MS), Pesticides/PCB's (GC) and Volatiles (GC/MS) in Environmental Samples. Environmental water ID HRS# E87411. Expires May 27, 1997.

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729
P.O. Box 13485
Research Triangle Park, NC 27709-3485
Fax # 919-544-5491

Hawaii Department of Health. Dioxin in drinking water. "Accepted" status for regulatory purposes until March 1, 1997.

Idaho Department of Health and Welfare. Effective August 18, 1993. Dioxin in Drinking Water. Expires November 30, 1996.

State of Kansas, Department of Health and Environment. Valid until January 31, 1997. Environmental Analyses/Non potable Water and Solid and Hazardous Waste. Method 1613 for drinking water. ID #'s - Drinking water and/or pollution control - E-215. Solid or Hazardous Waste - E-1209.

Commonwealth of Kentucky, Department for Environmental Protection. Drinking Water for Dioxin. ID# 90060. Valid until December 31, 1996.

Maryland Department of Health and Mental Hygiene. Drinking water by Method 1613A. Expires September 30, 1996.

State of Michigan, Department of Public Health. Drinking water by Method 1613. Expires October 1, 1996.

Montana Department of Health and Environmental Services. Effective October 1, 1993. Dioxin in Drinking Water. Expires December 31, 1996.

State of New Jersey, Department of Environmental Protection and Energy. BNAs and Volatiles. Drinking water for Dioxin. Expires October 30, 1996. ID # 67851.

State of New Mexico, Environment Department. Drinking water for Dioxin. Expires July 31, 1997.

New York State Department of Health. Valid until June 30, 1996. ID #11026. Environmental Analyses of non potable Water, Solid and Hazardous Waste. Method 1613 in DW.

State of North Carolina, Department of Environment Health and Natural Resources Certificate # 37751. Expiration date is December 31, 1996. Drinking Water for Dioxin.

State of North Carolina, Department of Environment, Health, and Natural Resources, Division of Environmental Management. Certificate # 485. Expires December 31, 1997. Metals, pesticides, semi-volatiles and volatiles; TCLP.

State of North Carolina, Department of Environment, Health, and Natural Resources - Division of Radiation Protection. General License No. 32-0875-0G; Specific License No. 0954-1. Expires April 30, 1998.

North Dakota State Department of Health and Consolidated Laboratories. Certificate # R-076. Effective October 4, 1993. Dioxin in Drinking Water. Expires December 31, 1996.

State of South Carolina, Department of Health and Environmental Control. Dioxin/Furans, BNA, Volatiles, and PCBs/pesticides under Clean Water Act, 2,3,7,8-TCDD for Drinking Water, and Organic extractables for Solid and Hazardous Waste. Expire June 30, 1996 and August 31, 1997. ID# 99040

State of Tennessee. Department of Environment and Conservation. Valid until February 5, 1999. Method 1613 Drinking water only. ID# 02992.

U.S. Army Corps of Engineers. Renewed until Nov. 30, 1997. Validated to perform methods 8280, 8290.

U.S. EPA Region V. Dioxin in Drinking Water. Expires December 29, 1996.

U.S. EPA Region VIII, for the State of Wyoming. Dioxin in Drinking Water. Expires December 31, 1996.

U.S. EPA Region X. Certification for 2,3,7,8-TCDD in Drinking Water.

State of Utah, Department of Health. Valid until December 31, 1997. Certificate Number E-166. Certification for the following parameters: Semi-Volatiles and Volatiles under RCRA; Volatiles under Clean Water Act; Dioxin/furans by Method 8280; Drinking water for Dioxin by Method 1613; Metals including Mercury and Microwave Digestion.

Commonwealth of Virginia, Department of General Services, Division of Consolidated Laboratory Services. ID # 00341. Dioxin in Drinking Water. Expires June, 1996.

State of Washington, Department of Ecology. Valid through September 11, 1996 . Lab Accreditation Number C067. Scope of Accreditation applies to water analyses for Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans, volatiles, Base/Neutral and Acid Organics.

State of Washington, Department of Health. Drinking water for Dioxin. Expires April 30, 1997.

State of West Virginia, Department of Health. Drinking water for Dioxin. Expires December 31, 1996.

State of Wisconsin, Department of Natural Resources. Valid until June 30, 1996. Laboratory ID Number 999869530. Certification for the following categories of Organics: Purgeable, Base/Neutral, Acid, PCBs, and Dioxin.

Radian Corporation

TLI Project: 38656-A **NSPS Method 5**

Client Project: **US Army Corps**
Matrix: **Filters & Acetone Rinses** Date Received: **08/31/96**

TLI Number:	136-81-1	136-81-2	136-81-3	136-81-4
Sample ID:	**CL-LIEU-II-AI-010**	**CL-LIEU-II-AI-016**	**CL-LIEU-II-AI-024**	**CL-LIEU-II-AI-032**
Filter Tare Wt., g:	0.6633	0.6772	0.6754	0.7155
Baggie Tare Wt., g:	3.7159	3.6451	3.6532	3.6598
Raw Weight, g:	4.3815	4.3238	4.3324	4.3836
FILTER SAMPLE WEIGHT, g:	0.0023	0.0015	0.0038	0.0083
Sample ID:	**CL-LIEU-II-AI-007**	**CL-LIEU-II-AI-013**	**CL-LIEU-II-AI-021**	**CL-LIEU-II-AI-029**
Tare Wt., g:	3.7052	3.5899	3.4959	3.6838
Raw Weight, g:	3.7130	3.5940	3.4998	3.6855
RINSE SAMPLE WEIGHT, g:	0.0078	0.0041	0.0039	0.0017
Filter Catch, mg:	2.3	1.5	3.8	8.3
Rinse Catch, mg:	7.8	4.1	3.9	1.7
Rinse Blank Residue, mg:				
Net Rinse Catch, mg:	7.8	4.1	3.9	1.7
Filterable Particulate, mg:	**10.1**	**5.6**	**7.7**	**10.0**

VISUAL ANALYSIS OF FILTERS

Intact:				
Color:	LIGHT TAN	WHITE	LIGHT TAN	TAN
Texture:	N/A	N/A	N/A	N/A
Foreign Matter:	NONE	NONE	NONE	NONE
Rel. Comp.:	EQUAL	LEAST	EQUAL	X2
Baggie Number:	477	479	481	483

VISUAL ANALYSIS OF RINSES

Color:	LIGHT YELLOW	LIGHT YELLOW	LIGHT YELLOW	LIGHT BROWN
Texture:	SMALL STAIN	SMALL STAIN	SMALL STAIN	SMALL STAIN
Foreign Matter:	NONE	NONE	NONE	NONE
Rel. Comp.:	MOST	X2	X2	EQUAL
Volume, mL:	225	200	200	125
Fragments:				
Baggie Number:	478	480	482	484

PRDGRV v2.15, MILES v4.12.13

Triangle Laboratories, Inc.®
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Radian Corporation

TLI Project: 38656-A — NSPS Method 5

Client Project: US Army Corps
Matrix: Filters & Acetone Rinses — Date Received: 08/31/96

TLI Number:	136-81-5	136-81-6	136-81-7
Sample ID:	CL-LIEU-II-AI-038	CL-LIEU-II-AI-044	CL-LIEU-II-AI-053
Filter Tare Wt., g:	0.6982	0.6940	0.7143
Baggie Tare Wt., g:	3.7238	3.7868	3.8253
Raw Weight, g:	4.4312	4.4912	4.5406
FILTER SAMPLE WEIGHT, g:	0.0092	0.0104	0.0010
Sample ID:	CL-LIEU-II-AI-035	CL-LIEU-II-AI-041	CL-LIEU-II-AI-050
Tare Wt., g:	3.8166	3.7439	3.7647
Raw Weight, g:	3.8174	3.7445	3.7642
RINSE SAMPLE WEIGHT, g:	0.0008	0.0006	-0.0005
Filter Catch, mg:	9.2	10.4	1.0
Rinse Catch, mg:	0.8	0.6	0.0
Rinse Blank Residue, mg:			
Net Rinse Catch, mg:	0.8	0.6	0.0
Filterable Particulate, mg:	**10.0**	**11.0**	**1.0**

VISUAL ANALYSIS OF FILTERS

Intact:			
Color:	TAN	TAN	WHITE
Texture:	N/A	N/A	N/A
Foreign Matter:	NONE	NONE	NONE
Rel. Comp.:	X2	MOST	N/A
Baggie Number:	485	487	489

VISUAL ANALYSIS OF RINSES

Color:	LIGHT BROWN	LIGHT BROWN	CLEAR
Texture:	SMALL STAIN	SMALL STAIN	N/A
Foreign Matter:	NONE	NONE	NONE
Rel. Comp.:	LEAST	EQUAL	N/A
Volume, mL:	100	200	125
Fragments:			
Baggie Number:	486	488	490

Triangle Laboratories, Inc.®
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

9.5.96

RADIAN CORPORATION

TOM 8/13/96

COPY Chain of Custody Record

PROJECT: CLAREMONT POLYCHEMICAL

SITE: OLD BETHPAGE, N.Y.

COLLECTED BY (Signature): [signature]

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	NO. OF CONTAINERS	ANALYSES: HCL	Hold	Particulate						REMARKS	SAM ID NO. (for lab use only)
~~CL-LTEV-11-AI-002~~				X									
CL-LTEV-11-AI-008	H_2SO_4/H_2O	T2		X								"	
014	H_2SO_4/H_2O	T3		X								"	
022	"	T4		X								"	
030	"	T5		X								Test5 SampleB	
036	"	T6		X								Test6 SampleB	
042	"	T7		X								Test7 SampleB	
066	"	Test2 Bottle 2		X								"	
067	"	Test3 Bottle 2		X								"	

REMARKS

RELINQUISHED BY:	DATE	TIME

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION

REMARKS:

4-88-30337

RADIAN CORPORATION

908 8/31/96

6

COPY

Chain of Custody Record

Page 2 of 4

PROJECT: Clairmont Polychemical

SITE:

COLLECTED BY (Signature):

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	NO. OF CONTAINERS	ANALYSES: HCl	HNO3	Particulate						REMARKS	SAM ID NO. (for lab use only)
CL LTEV-11-AI-068	H_2SO_4/H_2O	Test 4 Bottle 2		X									
069	"	Test 5 Bottle 2		X								"	
070	"	Test 6 Bottle 2		X								"	
071	"	Test 7 Bottle 2		X								"	
CL-LTEV-11-AI-010	Filter	T-2		X		X						"	
016	Filter	T-3		X		X						"	
024	Filter	T4		X		X						"	
032	Filter	T5		X		X						"	
038	Filter	T6		X		X						"	

REMARKS

RELINQUISHED BY: | DATE | TIME

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP°C	SEAL #	CONDITION

REMARKS:

RADIAN CORPORATION

10 8/31/96

COPY

Chain of Custody Record

Page 3 of 4

PROJECT: Clairmont PolyChemical

SITE:

COLLECTED BY (Signature):

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	NO. OF CONTAINERS	ANALYSES: HCL	HOLD	Particle Ck						REMARKS	SAM ID NO. (for lab use only)
CL-LTEV-11-AI-044	Filter	T7		X		X							
007	Acetone	T2				X							
013	Acetone	T3				X							
021	"	T4				X							
029	"	T5				X						Post 5 samples	
035	"	T6				X						↓ 6a ↓ A	
041	"	T7				X						↓ 7 ↓ A	
009	$NaOH/H_2O$	T2			X								
015	$NaOH/H_2O$	T3			X								

REMARKS

RELINQUISHED BY: | DATE | TIME

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP°C	SEAL #	CONDITION

REMARKS:

4-88-30337

COPY [redacted] 8/31/96

CHAIN OF CUSTODY RECORD

GREY SHADED AREAS FOR AEN LAB USE

AEN # _____ Quote # _____ Scope Q / M

Client Name: Claremont Polychemical

Project Name: _____

Site Location: City, State _____

LAB #	SAMPLE - ID	DATE	TIME	MATRIX	# of Container	Container Type	Preservative Used	Type of Analysis: HCL	Type of Analysis: HNO3	Type of Analysis: Particulate	REMARKS
	CLTEU-11-AI-023		T4	N_2OH	1				X		Test 4 Sample C
	031		T5	"					X		5 C
	037		T6	"					X		6 C
	043		T7	"					X		7 C
	050 049	Acetone	Field					[redacted]		X	
	051	~~Acetone~~ Major	Field						X		
	052	~~NaOH~~ H_2IO_4	Field					X			
	053	~~Filter~~ Filter ~~Assay~~						X		X	
	055	reagent	H_2SO_4						X		
	056	reagent	NaOH						X		
	057	reagent	H_2O						X		

Relinquished by: (Signature) ①	Date / Time	Received by: (Signature)	Received by Laboratory: (Signature)	Date / Time	Shipped via: Shipping Ticket No.
[signature]	8/31/96 10:00				
Relinquished by: (Signature) ②	Date / Time	Received by: (Signature)	Remarks:		
Relinquished by: (Signature) ③	Date / Time	Received by: (Signature)	Sampling By:	Sampler's Signature	

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

RADIAN CORPORATION

SAMPLE LOG

CLIENT: Claremont Polychemical

RECOVERY:

DATE: 8/27/96 - 8/29/96

Sample #	Field #	Sample Type	Preservative	~~Tare Wt~~	~~Final Wt~~	Comments
	CL-LTEV-11-AE-023	M26 NaOH	H_2O			T4
	024	M26A Filter		3536		T4
X	025	0030 Vost	Outlet	08506A	08506B	T4
X	026	0030 Vost	Inlet	08508A	08508B	T4
	~~027~~	~~0030 VOST~~	Blank Inlet			
	~~028~~	0030 VOST	~~Blank Outlet~~			
	029	M26A Front Half	Acetone			T5
	030	M26A H_2SO_4	H_2O			T5
	031	M26A NaOH	H_2O			T5
	032	M26A Filter		3542		T5
X	033	0030 Vost	Outlet tubes	08518A	08518B	T5
X	034	0030 Vost	Inlet tubes	08523A	08523B	T5
	035	M26A Front Half	Acetone			T6
	036	M26A H_2SO_4	H_2O			T6
	037	M26A NaOH	H_2O			T6
	038	M26A Filter		3538		T6
X	039	0030 VOST	Outlet tubes	08522A	08522B	T6
X	040	0030 Vost	Inlet tubes	08524A	08524B	T6
	041	M26A Front Half	Acetone			T7
	042	M26A H_2SO_4	H_2O			T7
	043	M26A NaOH	H_2O			T7
	044	M26A Filter		3540		T7

RADIAN CORPORATION

SAMPLE LOG

CLIENT: Claremont Poly Chemical

RECOVERY: _____

DATE: 8/27/96 - 8/29/96

Sample #	Field #	Sample Type	Preservative	~~Tare~~ Wt	~~Final~~ Wt	Comments
	CL-LTEV-11-AI-001	M1[illegible] Front Halt	Acetone	341.1		T-1
	CL-LTEV-11-AI-002	M26A H_2SO_4	H_2O	342.3		T-1
	003	M26A NaOH	H_2O			T-1
	004	M[illegible] Filter				T-1
X	005	0030 Vost	Bullet tubes	08515A	08515B	T-1
X	006	0030 Vost	Inlet tubes	08511A	08511B	T-1
	007	M26A Front Halt	Acetone	342.7		T-2
	008	M26A H_2SO_4	H_2O	342.7		T-2
	009	M26A NaOH	H_2O			T-2
	010	M[illegible] Filter		3536		T-2
X	011	0030 Vost	outlet tubes	08512A	08512B	T-2
X	012	0030 Vost	Inlet tubes	08501A	08501B	T-2
	013	M[illegible] Front Halt	Acetone	342.0		T-3
	014	M26A H_2SO_4	H_2O	341.4		T-3
	015	M26A NaOH	H_2O			T-3
	016	M[illegible] Filter		3532		T-3
X	017	0030 Vost	Inlet ~~outlet~~ tubes	08513A	08513B	T-3
X	018	0030 Vost	outlet ~~Inlet~~ tubes	08507A	08507B	T-3
	~~019~~	~~0030 Vost Blank~~	~~Bullet~~			
X	020	0030 Vost Blank	Inlet			
	021	M26A Front Hal'	Acetone			T4
	022	M26A H_2SO_4	H_2O			T4

RADIAN CORPORATION

SAMPLE LOG

CLIENT: Claremont Polychemical

RECOVERY:

DATE: 8/27/96 - 8/29/96

	Sample #	Field #	Sample Type	Preservative	~~Tare Wt~~	~~Final Wt~~	Comments
x		CL-LTEV-11-AI-045	0030 VOST	Outlet tubes	08521A	08521B	~~T8~~ T7
✓		046	0030 VOST	Inlet tubes	08516A	08516B	~~T8~~ T7
x		047	0030 Vost	Blank. outlet	08517A	08517B	
		~~048~~	~~0030 VOST~~	~~Blank: Inlet~~			
		049	M26A	H_2O Blank			
		050	M26A	Acetone Blank			
		051	M26A	NaOH Blank			
		052	M26A	H_2SO_4 Blank			
		053	M26A	Filter Blank	3544		
		054	VOST	Trip Field Blank	08504A	08504B	
		055		H_2SO_4 reagent Blank			
		056		NaOH reagent Blank			
		057		H_2O Reagent Blank			
		058	Canister				T-1
		059	Canister				T-2
		060	Canister				T3
		061	Canister				T4
		062	Canister				T5
		063	Canister				T6
		064	Fuel propane	8/28/96 1640	1279		
		065	Fuel propane	8/29/96 11:00 am	1167		
		066	Fuel propane	8/29/96 17:00 pm	1117		

RADIAN CORPORATION

SAMPLE LOG

CLIENT: _____ **RECOVERY:** _____

DATE: _____

Sample #	Field #	Sample Type	Preservative	Tare Wt	Final Wt	Comments
	CL LTEV-11-AI-066	M26A H_2SO_4	H_2O Both 2			Test 2
	CL LTEV-11-AI-067	M26A H_2SO_4	H_2O			Test 3
	CL 068	M26A H_2SO_4	H_2O			Test 4
	069	M26A H_2SO_4	H_2O			Test 5
	070	M26A H_2SO_4	H_2O			Test 6
	071	M26A H_2SO_4	H_2O			Test 7

COPY 8/31/96

Custody Seal : Absent	Sample Seals: Absent	TLI Project Number	38656	Book
Chain of Custody : Present	Accept.Cond.: YES			
Sample Tags : Present		Client: RAC05	Radian Corporation	136
Sample Tag Numbers: Listed				
SMO Forms : N/A		Date Received	08/31/96 By	Page
Ice Chest/Styro Cooler/Box NO COOLANT		Carrier and Number	FedEx/9904619502	81

TLI Number / mR/H:CPM / Client ID	Matrix / Location	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To ARCHIVE Date/Init	DISPOSED Date/Init
136-81-1A	FILTER								
CL-LIEU-II-AI-010	IC TABLE								
136-81-1B	ACETONE								
CL-LIEU-II-AI-007	IC TABLE								
136-81-1C	H2SO4/H2O								
CL-LIEU-II-AI-008	IC TABLE								
136-81-1D	NAOH/H2O								
CL-LIEU-II-AI-009	IC TABLE								
136-81-1E	H2SO4/H2O								
CL-LIEU-II-AI-066	IC TABLE								
136-81-2A	FILTER								
CL-LIEU-II-AI-016	IC TABLE								
136-81-2B	ACETONE								
CL-LIEU-II-AI-013	IC TABLE								
136-81-2C	H2SO4/H2O								
CL-LIEU-II-AI-014	IC TABLE								
136-81-2D	NAOH/H2O								
CL-LIEU-II-AI-015	IC TABLE								
136-81-2E	H2SO4/H2O								
CL-LIEU-II-AI-067	IC TABLE								

Receiving Remarks: Client's Chain of Custody differs from what the Sample IDs read: used the IDs on sample to log in.

Archive Remarks:

COPY 10Y 8/31/96

Custody Seal : Absent	Sample Seals: Absent	TLI Project Number	38656	Book
Chain of Custody : Present	Accept.Cond.: YES			
Sample Tags : Present		Client: RAC05	Radian Corporation	136
Sample Tag Numbers: Listed				
SMO Forms : N/A		Date Received	08/31/96 By J Gwaltney	Page
Ice Chest/Styro Cooler/Box NO COOLANT		Carrier and Number	FedEx/9904619502	81

TLI Number / mR/H:CPM / Client ID	Matrix / Location	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To ARCHIVE Date/Init	DISPOSED Date/Init
136-81-3A	FILTER								
CL-LIEU-II-AI-024									
	IC TABLE								
136-81-3B	ACETONE								
CL-LIEU-II-AI-021									
	IC TABLE								
136-81-3C	H2SO4/H2O								
CL-LIEU-II-AI-022									
	IC TABLE								
136-81-3D	NAOH/H2O								
TEST 4 SAMPLE C									
	IC TABLE								
6-81-3E	H2SO4/H2O								
CL-LIEU-II-AI-068									
	IC TABLE								
136-81-4A	FILTER								
CL-LIEU-II-AI-032									
	IC TABLE								
136-81-4B	ACETONE								
TEST 5 SAMPLE A									
	IC TABLE								
136-81-4C	H2SO4/H2O								
TEST 5 SAMPLE B									
	IC TABLE								
136-81-4D	NAOH/H2O								
TEST 5 SAMPLE C									
	IC TABLE								
136-81-4E	H2SO4/H2O								
CL-LIEU-II-AI-069									
	IC TABLE								

Receiving Remarks: Client's Chain of Custody differs from what the Sample IDs read; used the IDs on sample to log in.

Archive Remarks:

COPY 408 8/31/96

Custody Seal : Absent	Sample Seals: Absent	TLI Project Number	38656		Book
Chain of Custody : Present	Accept.Cond.: YES				
Sample Tags : Present		Client: RAC05	Radian Corporation		136
Sample Tag Numbers: Listed					
SMO Forms : N/A		Date Received	08/31/96	By JJ Heatter	Page
Ice Chest/Styro Cooler/Box NO COOLANT		Carrier and Number	FedEx/9904619502		81

TLI Number / mR/H:CPM / Client ID	Matrix / Location	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To ARCHIVE Date/Init	DISPOSED Date/Init
136-81-5A	FILTER								
CL-LIEU-II-AI-038	IC TABLE								
136-81-5B	ACETONE								
TEST 6 SAMPLE A	IC TABLE								
136-81-5C	H2SO4/H2O								
TEST 6 SAMPLE B	IC TABLE								
136-81-5D	NAOH/H2O								
TEST 6 SAMPLE C	IC TABLE								
136-81-5E	H2SO4/H2O								
CL-LIEU-II-AI-070	IC TABLE								
136-81-6A	FILTER								
CL-LIEU-II-AI-044	IC TABLE								
136-81-6B	ACETONE								
TEST 7 SAMPLE A	IC TABLE								
136-81-6C	H2SO4/H2O								
TEST 7 SAMPLE B	IC TABLE								
136-81-6D	NAOH/H2O								
TEST 7 SAMPLE C	IC TABLE								
136-81-6E	H2SO4/H2O								
CL-LIEU-II-AI-071	IC TABLE								

Receiving Remarks: Client's Chain of Custody differs from what the Sample IDs read: used the IDs on sample to log in.

Archive Remarks:

COPY 10/8/31/96

Custody Seal : Absent	Sample Seals: Absent	TLI Project Number	38656	Book
Chain of Custody : Present	Accept.Cond.: YES			
Sample Tags : Present		Client: RAC05	Radian Corporation	136
Sample Tag Numbers: Listed				
SMO Forms : N/A		Date Received	08/31/96 By A Guenther	Page
Ice Chest/Styro Cooler/Box NO COOLANT		Carrier and Number	FedEx/9904619502	81

TLI Number / mR/H:CPM / Client ID	Matrix / Location	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To ARCHIVE Date/Init	DISPOSED Date/Init
136-81-7A CL-LIEU-II-AI-053	FILTER IC TABLE								
136-81-7B CL-LIEU-II-AI-050	ACETONE IC TABLE								
136-81-7C CL-LIEU-II-AI-051	H2SO4 IC TABLE								
136-81-7D CL-LIEU-II-AI-052	NAOH IC TABLE								
136-81-8A CL-LIEU-II-AI-055	H2SO4 IC TABLE								
136-81-8B CL-LIEU-II-AI-056	NAOH IC TABLE								
136-81-8C CL-LIEU-II-AI-057	H2O IC TABLE								

Receiving Remarks: Client's Chain of Custody differs from what the Sample IDs read: used the IDs on sample to log in.

Archive Remarks:

RAC05-Radian Corporation
CL-LIEU-II-AI-032
Project: 38656
136-81-4A

Filter #Q-3542

☑ Quartz-Ultra Pure

Test 5 Claremont Polychemical

Method 26A

Filter

Sample D

CL-LTEU-II-AI-032

RAC05-Radian Corporation
TEST 5 SAMPLE A
Project: 38656
136-81-4B

Test 5 Claremont Polychemical

Method 26A

Acetone Rinse probe nozzle filter

Sample A TARE 346.6
414.3

RAC05-Radian Corporation
CL-LIEU-II-AI-038
Project: 38656
136-81-5A

Test 6 Claremont Polychemical

Method 26A

Filter

Sample D

Teflon Filter

Filter #Q-3538

CL-LTEU-II-AI-038 ☑ Quartz-Ultra Pure

RAC06-Radian Corporation
TEST 6 SAMPLE A
Project: 38656
136-81-5B

Test 6 Claremont Polychemical

Method 26A TARE 346.9

Acetone Rinse Noncl 406.5
probe filter

Sample A

RAC05-Radian Corporation
CL-LIEU-II-AI-044
Project: 38656
136-81-6A

Test 7 Claremont Polychemical

Method 26A

Filter Filter #Q-3540

Sample D ☑ Quartz-Ultra Pure

CL-LTEU-II-AI-044

RAC05-Radian Corporation
TEST 7 SAMPLE A
Project: 38656
136-81-6B

Test 7 Claremont Polychemical

Method 26A TARE 345.5

Acetone Rinse 481.0
probe nozzle filter

Sample A

RAC06-Radian Corporation
CL-LIEU-II-AI-053
Project: 38656
136-81-7A

Filter #Q-3544

CL LTEU-II-AI-053 ☑ Quartz-Ultra Pure

Filter Blank

RAC06-Radian Corporation
CL-LIEU-II-AI-050
Project: 38656
136-81-7B

Acetone 169.9
241.8

CL LTEU-II-AI-050

RACOS-Radian Corporation
CL-LIEU-II-AI-010
Project: 38656
136-81-1A

Test 2 Claremont Polychemical
Method 26A 8/27
Filter
Good start/finish
Sample D
CL-LTEU-II-AI-010

RACOS-Radian Corporation
CL-LIEU-II-AI-007
Project: 38656
136-81-1B

Test 2 Claremont Polychemical
method 26A
Acetone Rinse
probe, nozzle, filter
sample A
CL-LTEU-II-AI-008
TARE 342.7
Final 470.3

RACOS-Radian Corporation
CL-LIEU-II-AI-016
Project: 38656
136-81-2A

Test 3 Claremont Polychemical
Method 26A
Filter
Sample D
CL-LTEU-II-AI-016

Filter #Q-3534
☑ Quartz-Ultra Pure

RACOS-Radian Corporation
CL-LIEU-II-AI-013
Project: 38656
136-81-2B

Test 3 Claremont Polychemical
Method 26A
Acetone Rinse
probe nozzle filter
Sample A
CL-LTEU-II-AI-013
TARE 342.0
451.2

RACOS-Radian Corporation
CL-LIEU-II-AI-024
Project: 38656
136-81-3A

Test 4 Claremont Polychemical
Method 26A
Filter
Sample D
CL LTEU-II-AI-024

Filter #Q-3536
☑ Quartz-Ultra Pure

RACOS-Radian Corporation
CL-LIEU-II-AI-021
Project: 38656
136-81-3B

Test 4 Claremont Polychemical
Method 26A
Acetone Rinse
probe, nozzle filter
Sample A
CL-LTEU-II-AI-021
TARE 34?
Final 469

Filter #Q-3532
☑ Quartz-Ultra Pure

3528	10/22/9	13:00	0.6769	10/31/9	11:15	0.6770
3530	10/22/9	13:00	0.6807	10/31/9	11:15	0.6805
3532	10/22/9	13:00	0.6772	10/31/9	11:15	0.6773
3534	10/22/9	13:00	0.6634	10/31/9	11:15	0.6633
3536	10/22/9	13:00	0.6754	10/31/9	11:15	0.6757
3538	10/22/9	13:00	0.6983	10/31/9	11:15	0.6982
3540	10/22/9	13:00	0.6940	10/31/9	11:15	0.6940
3542	10/22/9	13:00	0.7155	10/31/9	11:15	0.7155
3544	10/22/9	13:00	0.7143	10/31/9	11:15	0.7143
3546	10/22/9	13:00	0.6975	10/31/9	11:15	0.6975
3548	10/22/9	13:00	0.7155	10/31/9	11:15	0.7154
3550	10/22/9	13:00	0.6950	10/31/9	11:15	0.6949
3552	10/22/9	13:00	0.6999	10/31/9	11:15	0.7000
3554	10/22/9	13:00	0.7123	10/31/9	11:15	0.7123
3556	10/22/9	13:00	0.7092	10/31/9	11:15	0.7092
3558	10/22/9	13:00	0.7121	10/31/9	11:15	0.7120
3560	10/22/9	13:00	0.6715	10/31/9	11:15	0.6715
3562	11/6/95	14:30	0.5438	11/7/95	11:15	0.5439
3564	11/6/95	14:30	0.5527	11/7/95	11:15	0.5527
3566	11/6/95	14:30	0.5391	11/7/95	11:15	0.5393
3568	11/6/95	14:30	0.5433	11/7/95	11:15	0.5433
3570	11/6/95	14:30	0.5430	11/7/95	11:15	0.5429
3572	11/6/95	14:30	0.5360	11/7/95	11:15	0.5360
3574	11/6/95	14:30	0.5399	11/7/95	11:15	0.5399
3576	11/6/95	14:30	0.5473	11/7/95	11:15	0.5473
3578	11/6/95	14:30	0.5370	11/7/95	11:15	0.5370
3580	11/6/95	14:30	0.5368	11/7/95	11:15	0.5367
3582	11/6/95	14:30	0.5488	11/7/95	11:15	0.5488
3584	11/6/95	14:30	0.5513	11/7/95	11:15	0.5513
3586	11/6/95	14:30	0.5365	11/7/95	11:15	0.5366
3588	11/6/95	14:30	0.5365	11/7/95	11:15	0.5364
3590	11/6/95	14:30	0.5488	11/7/95	11:15	0.5489
3592	11/6/95	14:30	0.5410	11/7/95	11:15	0.5410
3594	11/6/95	14:30	0.5428	11/7/95	11:15	0.5428
3596	11/6/95	14:30	0.5468	11/7/95	11:15	0.5468
3598	11/6/95	14:30	0.5415	11/7/95	11:15	0.5415
3600	11/6/95	14:30	0.5371	11/7/95	11:15	0.5371
3602	11/6/95	14:30	0.5415	11/7/95	11:15	0.5416
3604	11/6/95	14:30	0.5347	11/7/95	11:15	0.5348
3606	11/6/95	14:30	0.5265	11/7/95	11:15	0.5265
3608	11/6/95	14:30	0.5381	11/7/95	11:15	0.5381
3610	11/6/95	14:30	0.5393	11/7/95	11:15	0.5390
3612	11/6/95	14:30	0.6253	11/7/95	11:15	0.6253
3614	11/6/95	14:30	0.6123	11/7/95	11:15	0.6125
3616	11/6/95	14:30	0.6154	11/7/95	11:15	0.6152
3618	11/6/95	14:30	0.6169	11/7/95	11:15	0.6169

TRIANGLE LABORATORIES, INC.

Gravimetrics Sample Tracking & Management Form

Project: 38656A — Client: Radian Corporation (RAC05)

Sample Information

Method: 5 - Particulates — Start Date: 8/31/96

Solvent/Acids(): Acetone — Lot: #962211

	Weighing 1	Weighing 2	Weighing 3	Weighing 4
Temperature (hi/lo)	77°F → 77°F	77°F → 78°F	77°F → 77°F	78°F - 78°F
Humidity (hi/lo)	34% → 33%	39% → 36%	37% → 35%	37% - 38%
Initials	[signature]	CMR	CMR	DS
Date	9/1/96	09/01/96	09/~~02~~/96	9/2/96
Time	at 2:22 PM	at 23:30	at 05:30	at 12:00 AM Noon

Sample Weighings

Sample # crd	TLI SAMPLE ID	CLIENT SAMPLE ID	Baggie Weight (g)	Baggie Number	Filter No. & Tare Weight (g)	Solvent Volume (mL)	Weighing 1 (g)	Weighing 2 (g)	Weighing 3 (g)	Weighing 4 (g)
A 001	136-81-1A	CL-LIEU-II-AI-010	3.7159	477	Q-3534 0.6633		4.3808	4.3816	4.3815 ✓	
A 002	136-81-1B	CL-LIEU-II-AI-007	3.7052	478		225 * ~~250~~ EG 9/1/96	3.7129	3.7135	3.7126	3.7135
A 003	136-81-2A	CL-LIEU-II-AI-016	3.6451	479	Q-3532 0.6772		4.3215	4.3238 ✓	4.3242	
A 004	136-81-2B	CL-LIEU-II-AI-013	3.5899	480		200 *	3.5943	3.5953	3.5940 ✓	3.5945
A 005	136-81-3A	CL-LIEU-II-AI-024	3.6532	481	Q-3536 0.6754		4.3317	4.3314	4.3321	4.3313
A 006	136-81-3B	CL-LIEU-II-AI-021	3.4959	482		200 *	3.4991	3.4999	3.4998 ✓	
A 007	136-81-4A	CL-LIEU-II-AI-032	3.6598	483	Q-3542 0.7155		4.3824	4.3836 ✓	4.3837	
A 008	136-81-4B	CL-LIEU-II-AI-029	3.6838	484		125 *	3.6851	3.6855 ✓	3.6855	
A 009	136-81-5A	CL-LIEU-II-AI-038	3.7238	485	Q-3538 0.6982		4.4298	4.4296	4.4306	4.4296
A 010	136-81-5B	CL-LIEU-II-AI-035	3.8166	486		100 *	3.8174	3.8174 ✓	~~3.81~~ EG 9/3/96	
A 011	136-81-6A	CL-LIEU-II-AI-044	3.7868	487	Q-3540 0.6940		4.4904	4.4906	4.4914	4.4904
A 012	136-81-6B	CL-LIEU-II-AI-041	3.7439	488		200 *	3.7445	3.7449		

Comments: The plastic petri dish was accidently rinsed into the Acetone rinses for the first three samples (002, 004, and 006). This amount was ± 5 mls of the total solvent volume.

REV 07/19/96 (PSTMF 8)

* See 2nd page for Rinse weighing information (Temp, Humid, Date, etc.) 23

9/4/96

TRIANGLE LABORATORIES, INC.

Gravimetrics Sample Tracking & Management Form

Project: 38656A

Client: Radian Corporation (RAC05)

Sample Information

Method: 5 - Particulates Start Date: 8/31/96

Solvent/Acids(): Acetone Lot: #962211

		Sample Weighings			
Temperature (Filters)	77°F → 77°F	77°F → 77°F	77°F → 77°F		
Humidity (Filters)	34% → 33%	39% → 36%	37% → 35%		
Initials	DJ	CMR	CMR		
Sample # crd	TLI SAMPLE ID / CLIENT SAMPLE ID	Baggie Weight (g)	Baggie Number	Filter No. & Tare Weight (g)	Solvent Volume (mL)	9/1/96 at 2:22 PM (g)	09/01/96 at 23:30 (g)	09/02/96 at 05:30 (g)	__/__/__ at __:__ (g)
A 013	136-81-7A / CL-LIEU-II-AI-053	3.8253	489	Q-3544 0.7143		4.5398	4.5406	4.5406	
A 014	136-81-7B / CL-LIEU-II-AI-050	3.7647	490		125	3.7642 *	3.7642		
						Rinses →			
*	Rinses: Temperatures					77°F → 77°F	79°F → 77°F	77°F	78°F
	Humidity					37% → 38%	34% → 36%	37%	37%
	Initials					DS	CMR	V.P.	V.P.
	Date					9/2/96	9/3/96	9/3/96	9/3/96
	Time					12:30 PM	00:30 AM	8:20 AM	4:20 pm

Comments: _____

REV 07/19/96 (PSTMF 8)

TRIANGLE LABORATORIES, INC.

Gravimetrics Sample Tracking & Management Form

Project: 38656A | Client: Radian Corporation (RAC05)

Sample Information

Method: 5 Particulates | Start Date: 8/31/96

Solvent/Acids(): Acetone | Lot: #962211

Temperature	77°F	71°F	77°F	77F
Humidity	37%	38%	37%	38%
Initials	V.P.	V.P.	CMR	CMR

Sample # crd	TLI SAMPLE ID	CLIENT SAMPLE ID	Baggie Weight (g)	Baggie Number	Filter No.& Tare Weight (g)	Solvent Volume (mL)	Sample Weighings 9/3/96 at 09:34 (g) AM	_/_/_ at 04:35 (g) PM	09/03/96 at 10:32 (g) PM	09/04/96 at 05:45 (g) AM
A 001	136-81-1A	CL-LIEU-II-AI-010								
A 002	136-81-1B	CL-LIEU-II-AI-007							✓ 3.7130	
A 003	136-81-2A	CL-LIEU-II-AI-016								
A 004	136-81-2B	CL-LIEU-II-AI-013								
A 005	136-81-3A	CL-LIEU-II-AI-024	3.6532	481	Q-3536 0.6754		4.2430	4.3352	4.3324	✓ 4.3324
A 006	136-81-3B	CL-LIEU-II-AI-021								
A 007	136-81-4A	CL-LIEU-II-AI-032								
A 008	136-81-4B	CL-LIEU-II-AI-029								
A 009	136-81-5A	CL-LIEU-II-AI-038	3.7238	485	Q-3538 0.6932		4.4313 ✓ ~~4.4912~~	4.4317		
A 010	136-81-5B	CL-LIEU-II-AI-035								
A 011	136-81-6A	CL-LIEU-II-AI-044	3.7868	487	Q-3540 0.6940		4.4916	4.4924	✓ 4.4912	4.4913
A 012	136-81-6B	CL-LIEU-II-AI-041								

Comments:

REV 07/19/96 (PSTMF 8)

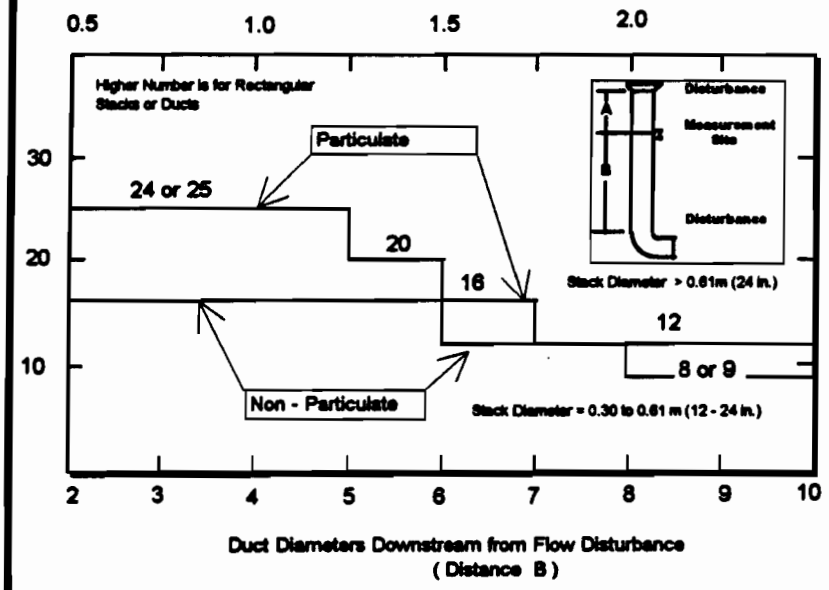
RADIAN INTERNATIONAL LLC

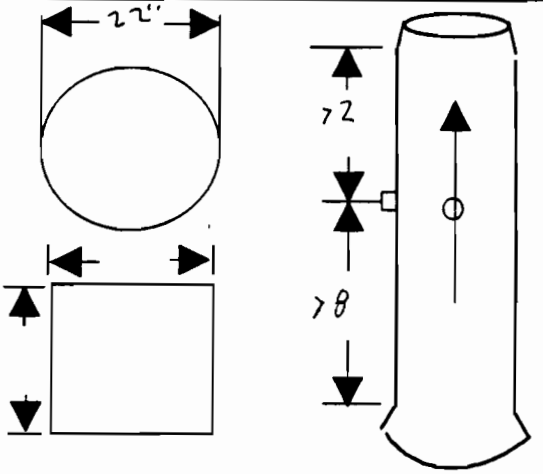
EPA Method 1

Sample and Velocity traverse for Stationary Sources

Firm	Claremont	Total Traverse Points Required	12
Date	9/25/96 Project No. 650 233 02 01	Number of Ports	2
Location	Inlet APC 0'5	Points Per Port	8
Diameters Upstream	> 2	Probe Traverses: Horizontal	
Diameters Downstream	> 8	Vertical	

MINIMUM NUMBER OF TRAVERSE POINTS FOR PARTICULATE AND NON-PARTICULATE TRAVERSE





$D_{eq} = 2LW / (L + W) =$ _____

Cross Sectional Layout For Rectangular Stacks	
Traverses	Matrix
9	3 x 3
12	4 x 3
16	4 x 4
20	5 x 4
25	5 x 5

Point on a Diameter	Location of Traverse Points in Circular Stacks* Number of Traverse Points on a Diameter					Traverse Point Location Distance From Wall	Nipple Size	Total Distance
	4	6	8	10	12			
1	6.7	4.4	3.2	2.6	2.1	.7	4	4.7
2	25.0	14.6	10.5	8.2	6.7	2.3		6.3
3	75.0	29.6	19.4	14.6	11.8	4.3		8.3
4	93.3	70.4	32.3	22.6	17.7	7.1		11.1
5		85.4	67.7	34.2	25.0	14.9		18.9
6		95.6	80.6	65.6	35.6	17.7		21.7
7			89.5	77.4	64.4	19.7		23.7
8			96.8	85.4	75.0	21.3		25.3
9				91.8	82.3			
10				97.4	88.2			
11					93.3			
12					97.9			

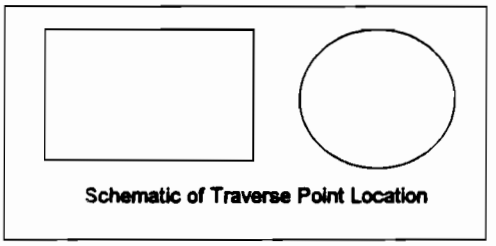
* Percent of Stack Diameter from Inside Wall to Traverse Point

RADIAN INTERNATIONAL LLC

EPA Method 2

Velocity Traverse and Flow Rate Determination

Firm	Claremont		
Date	9/26/96	Run No.	1
Location	Inlet		
Stack			
Diameter (in)	22	Area ft²	2.64
Length (in)		Area ft²	
Width (in)			
Barometric Pressure; P_{bar} =	30.1	in. Hg	
Stack Static Pressure: P_g =	-6	in. H_2O	
Stack Gas Moisture Content; % H_2O =		17.2	
Stack Gas Molecular Weight; (wet) M_s		27.27	
Pitot tube No.		C_p =	0.84
Field Tester			
Test Start Time :		Finish :	



Schematic of Traverse Point Location

Cyclonic Flow Angle
+ f Clockwise
Ë f Counterclockwise

Port	Point	pP	ÀpP	T_s (°F)	± f	Pitots Reversed	Radians	ÀpP cos f
1	1	0.15	0.39					
	2	0.17	0.41	245				
	3	0.18	0.42					
	4	0.15	0.39					
	5	0.19	0.44					
	6	0.24	0.49					
	7	0.28	0.53					
	8	0.28	0.53					
	1	0.23	0.48					
	2	0.39	0.62					
	3	0.41	0.64					
	4	0.18	0.42	248				
	5	0.17	0.41					
	6	0.17	0.41					
	7	0.18	0.42					
	8	0.22	0.47					
	Average		0.47	247			Average	

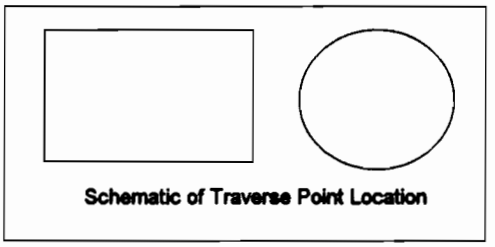
Absolute Gas Temperature; $T_{st} = T_s + 460°$	707	°R
Absolute Gas Pressure; $P_s = P_{bar} + P_g / 13.6$	29.66	in. Hg
Gas Velocity; $V_s = (85.49)\ C_p\ (Àp\ P \cos f\ )(\text{avg } À\ (T_{st\ avg}\ / P_s * M_s)))$	31.4	ft/sec
Actual Gas Flow Rate; $Q_a = (V_s)(60)(A)$	4971	acfm
Standard Gas Flow Rate; $Q_s = Q_a\ (528°R / T_{st})\ (P_s / 29.92)$	3683	scfm
Dry Standard Gas Flow Rate; $Q_{sd} = Q_s\ (528°R / T_{st})(P_s / 29.92)(\ (100 - \%H_2O)\ / 100)$	3049	dscfm

RADIAN INTERNATIONAL LLC

EPA Method 2

Velocity Traverse and Flow Rate Determination

Firm	Claremont		
Date	9/26/96	Run No.	2
Location	Inlet		
Stack			
Diameter (in)	22	Area ft^2	2.64
Length (in)		Area ft^2	
Width (in)			
Barometric Pressure; P_{bar} =	30.1	in. Hg	
Stack Static Pressure: P_g =	-6	in. H_2O	
Stack Gas Moisture Content; % H_2O =			17.2
Stack Gas Molecular Weight; (wet) M_s			27.27
Pitot tube No.		C_p =	0.84
Field Tester			
Test Start Time :	14:00	Finish :	



Schematic of Traverse Point Location

Cyclonic Flow Angle
+ Í Clockwise
Ë Í Counterclockwise

Port	Point	ÞP	ÀpP	T_s (°F)	± Í	Pitots Reversed	Radians	ÀpP cos Í
1	1	0.18	0.42	202				
	2	0.19	0.44	218				
	3	0.16	0.40	220				
	4	0.10	0.32	222				
	5	0.10	0.32	233				
	6	0.14	0.37	240				
	7	0.17	0.41	244				
	8	0.18	0.42	241				
	1	0.32	0.57	170				
	2	0.45	0.67	165				
	3	0.25	0.50	199				
	4	0.36	0.60	215				
	5	0.10	0.32	220				
	6	0.10	0.32	230				
	7	0.11	0.33	236				
	8	0.11	0.33	232				
	Average		0.42	218			Average	

Absolute Gas Temperature; $T_{st} = T_s + 460°$	678	°R
Absolute Gas Pressure; $P_s = P_{bar} + P_g / 13.6$	29.66	in. Hg
Gas Velocity; $V_s = (85.49)\ C_p\ (Àp\ P \cos Í)(\text{avg } À\ (T_{st\ avg} / P_s * M_s)))$	27.7	ft/sec
Actual Gas Flow Rate; $Q_a = (V_s)(60)(A)$	4384	acfm
Standard Gas Flow Rate; $Q_s = Q_a\ (528°R / T_{st})\ (P_s / 29.92)$	3384	scfm
Dry Standard Gas Flow Rate; $Q_{sd} = Q_a\ (528°R / T_{st})(P_s / 29.92)((100 - \%H_2O) / 100)$	2802	dscfm

SUMMA CANISTER ALKANE DATA CORRELATION

Sample No.	Report Run No.
CL-LTEV-II-AI-094	1-1
CL-LTEV-II-AI-095	1-2
CL-LTEV-II-AI-096	1-3
CL-LTEV-II-AI-101	2-1
CL-LTEV-II-AI-102	2-2
CL-LTEV-II-AI-103	2-3
CL-LTEV-II-AI-106	3-1
CL-LTEV-II-AI-107	3-2

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. AQ 2589993
Collected: 9/27/96

Submitted: 9/30/96 Reported: 10/ 8/96
Discard: 10/ 8/96

102 Summa Canister
LL LTEU-11-A1
Project: Claremont

Account No: 09379
Radian International
PO BOX 13000

RTP NC 27709

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
5651	TO-14 Volatile Organics in Air	see form I		
5652	TO-14 Volatile Organics (cont)	see form I		
5695	TO-14 Form 1			See Page 2
7056	Methane	20.	10.	ppm (v)
9001	Ethane	< 2.	2.	ppm(v)
9002	Propane	3.	2.	ppm(v)

1 COPY TO Radian International ATTN: Mr Andrew Weber

Questions? Contact your Client Services Representative
Kay G. Hower at (717) 656-2300
21:30:58 D 0001 8 0 127845 535501
320 70.00 00084800 DIS000

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. AQ 2589991
Collected: 9/27/96

Submitted: 9/30/96 Reported: 10/ 8/96
Discard: 10/ 8/96

100 Summa Canister
LL LTEU-11-A1
Project: Claremont

Account No: 09379
Radian International
PO BOX 13000

RTP NC 27709

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
5651	TO-14 Volatile Organics in Air	see form I		
5652	TO-14 Volatile Organics (cont)	see form I		
5695	TO-14 Form 1			See Page 2
7056	Methane	20.	10.	ppm (v)
9001	Ethane	< 2.	2.	ppm(v)
9002	Propane	4.	2.	ppm(v)

1 COPY TO Radian International ATTN: Mr Andrew Weber

Questions? Contact your Client Services Representative
Kay G. Hower at (717) 656-2300
21:30:18 D 0001 8 0 127845 535501
320 70.00 00084800 DIS000

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. AQ 2589992
Collected: 9/27/96

Submitted: 9/30/96 Reported: 10/ 8/96
Discard: 10/ 8/96

101 Summa Canister
LL LTEU-11-A1
Project: Claremont

Account No: 09379
Radian International
PO BOX 13000

RTP NC 27709

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
5651	TO-14 Volatile Organics in Air	see form I		
5652	TO-14 Volatile Organics (cont)	see form I		
5695	TO-14 Form 1			See Page 2
7056	Methane	30.	10.	ppm (v)
9001	Ethane	< 2.	2.	ppm(v)
9002	Propane	3.	2.	ppm(v)

1 COPY TO Radian International ATTN: Mr Andrew Weber

Questions? Contact your Client Services Representative
Kay G. Hower at (717) 656-2300
21:30:40 D 0001 8 0 127845 535501
320 70.00 00084800 DIS000

Respectfully Submitted
Michele McClarin, B.A.
Group Leader, GC/MS Volatiles

MEMBER ACIL

RADIAN ANALYTICAL SERVICES
FPAS REPORT
TABLE OF CONTENTS

Work Order # 9610[illegible]

Client DEI Clairmont

Facility Clairmont

Client Code V DEI CM

Certified By Linda Bendele Vaigt

Date 10/18/96

10/18/96 09:24:58

WORK ORDER SUMMARY

Report Radian Corporation
To 8501 Mo-Pac Blvd.
Austin, TX 78720
Attention Andy Weber

Client Code V DEI CM
Client DEI Clairmont
Facility Clairmont
Work ID Equipment & VOC Samp

Work Order # 9610175

RCN 650-233-02-01

Prepared Radian Analytical Services
By 14046 Summit Dr., Bldg. B
P. O. Box 201088
Austin, TX 78720-1088

CSC LABENDELE

Case # NA
SDG # NA
RAS # 61001ALAB

New York ELAP ID #: 10915

Project Sample ID/ Description	Lab Sample ID	Test Code(s)	Method Desciption
CL LTEV-11-AI 094	01A	CH4RAA00	METHANE GAS ANALYSIS
	01B	CH4RAA00	METHANE GAS ANALYSIS
CL LTEV-11-AI 095	02A	CH4RAA00	METHANE GAS ANALYSIS
CL LTEV-11-AI 096	03A	CH4RAA00	METHANE GAS ANALYSIS

FLAG DEFINITIONS

Flag	Definition
< DL	Result less than stated Detection Limit and greater than or equal to zero.
NA	Analyte concentration not available for this analysis.
NC	RPD and/or % Recovery not calculated. See Narrative for explanation.
ND	Not detected. No instrument response for analyte or result less than zero.
NR	Not reported. Result greater than or equal to stated Detection Limit and less than specified Reporting Limit.
NS	Analyte not spiked.
B	Analyte detected in method blank at concentration greater than the Reporting Limit (and greater than zero).
C	Confirming data obtained using second GC column or GCMS.
E	Analyte concentration exceeded calibration range.
F	Interference or coelution suspected. See Narrative for explanation.
H	Presence of analyte previously confirmed by historical data.
I	Analyte identification suspect. See Narrative for explanation.
J	Result is less than stated Detection Limit but greater than or equal to specified Reporting Limit.
K	Peak did not meet method identification criteria. Analyte not detected on other GC column.
M	Result modified from previous Report. See Narrative for explanation.
P	Analyte not confirmed. Results from primary and secondary GC columns differ by greater than a factor of 3.
Q	QC result does not meet tolerance in Protocol Specification.
R	Result reported elsewhere.
S	Analyte concentration obtained using Method of Standard Additions (MSA).
T	Second column confirmational analysis not performed.
X	See Narrative for explanation.
Y	See Narrative for explanation.
Z	See Narrative for explanation.

Client DEI Clairmont Specification # CH4R
Facility Clairmont
Client Code V DEI CM
Method METHANE GAS ANALYSIS

Project Sample ID/Description	Lab Sample ID	Test Code(s)	Extraction/Digestion Batch #	Analysis Batch #
CL LTEV-11-AI 094	9610175-01A	CH4RAA00	NA	VOF1__61017092501
CL LTEV-11-AI 094	9610175-01B	CH4RAA00	NA	VOF1__61017092501
CL LTEV-11-AI 095	9610175-02A	CH4RAA00	NA	VOF1__61017092501
CL LTEV-11-AI 096	9610175-03A	CH4RAA00	NA	VOF1__61017092501

Method Source VOC - methane

Test Code CH4RAA00

Project Sample ID:	CL LTEV-11-AI 094		CL LTEV-11-AI 094		CL LTEV-11-AI 095		CL LTEV-11-AI 096	
Lab ID:	9610175-01A		9610175-01B		9610175-02A		9610175-03A	
File ID:	P101717		P101718		P101719		P101720	
Date Collected:	09/26/96		09/26/96		09/26/96		09/26/96	
Date Prepared:								
Date Analyzed:	10/17/96 19:40:00		10/17/96 20:05:00		10/17/96 20:27:00		10/17/96 20:50:00	
Dilution Factor:	.3819		.3819		.3137		.3249	
Matrix:	Air		Air		Air		Air	
Units:	ppmV		ppmV		ppmV		ppmV	
Report as:	received		received		received		received	
Column:								
Analyte	Conc.	DL	Conc.	DL	Conc.	DL	Conc.	DL
Methane	6.43	0.0560	6.55	0.0560	5.31	0.0682	6.26	0.0659

INITIAL CALIBRATION

Initial Calibration # F1961016010000

Sol'n # _____

Calibration Date 10/16/96 01:00:00

Method METHANE GAS ANALYSIS

Instrument F1

Analyst MEH

Test Code CH4RAA00

Reviewer JHC

Analytes	Response Area Counts / Reference Conc. ppmV	Response Area Counts / Reference Conc. ppmV	Response Area Counts / Reference Conc. ppmV	Response Area Counts / Reference Conc. ppmV	Response _____ / Reference Conc.	Response _____ / Reference Conc.	Response _____ / Reference Conc.	RF	% RSD	Correlation Coefficient
Methane	891 0.000525	1630 0.00105	8924 0.00525	16532 0.0105				0.000000614	4.82	0.999

Specification limits %RSD < 20% or correlation coefficient ≥ 0.995

ANALYSIS BATCH SUMMARY

Analysis Batch # VOF1 61017092501

Method METHANE GAS ANALYSIS
Test Code CH4RAA00
Initial Calibration # F1961016010000
Calibration Date 10/16/96

Analysis Start Date/Time 10/17/96 09:25:00
Analysis Stop Date/Time 10/17/96 20:50:00

Instrument F1
Analyst MEH
Reviewer JHC

Sequence/Analysis Time		Project Sample ID	Lab Sample ID	Sample Type	Analysis File #
1	10/17/96 09:25:00		CALCHECK	Continuing Calibration Verification	P101701
2	10/17/96 10:31:00		BLK963765	Blank, Method	P101702
3	10/17/96 11:02:00		BLK962933	Blank, Method	P101703
4	10/17/96 11:38:00		LCS967424	Lab Control Sample	P101704
5	10/17/96 12:22:00		LCS967414	Lab Control Sample	P101705
6	10/17/96 12:57:00		LCSD967414	Lab Control Sample Duplicate	P101706
7	10/17/96 13:47:00		LCS967414	Lab Control Sample	P101707
8	10/17/96 14:41:00		LCSD967414	Lab Control Sample Duplicate	P101708
9	10/17/96 19:40:00	CL LTEV-11-AI 094	9610175-01A	Sample	P101717
10	10/17/96 20:05:00	CL LTEV-11-AI 094	9610175-01B	Sample Duplicate	P101718
11	10/17/96 20:27:00	CL LTEV-11-AI 095	9610175-02A	Sample	P101719
12	10/17/96 20:50:00	CL LTEV-11-AI 096	9610175-03A	Sample	P101720

RESULTS

Analysis Batch # VOF1 61017092501

Project Sample ID CL LTEV-11-AI 094 | Date Collected 09/26/96 | Instrument F1 | Reporting Subset ___ | Matrix A
Lab Sample ID 9610175-01A | Date Received 10/03/96 | Column _____ | Spikes Subset ___ | Report As received
File # P101717 | Date Prepared _____ | Analyst MEH | Specs Subset ___ | % Moisture _____
Method Source VOC - methane | Date Analyzed 10/17/96 19:40:00 | Reviewer JHC
Test Code CH4RAA00

Analyte	CAS #	Aliquot Mass/Volume .005 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor .3819 — Measured Concentration ppmV	Detection Limit ppmV	Reporting Limit ppmV
Methane	74-82-8	6.45	0.0500	0

Analysis Batch # VOF1 61017092501

Project Sample ID CL LTEV-11-AI 094 Date Collected 09/26/96 Instrument F1 Reporting Subset ___ Matrix A

Lab Sample ID 9610175-01B Date Received 10/03/96 Column _____ Spikes Subset ___ Report As received

File # P101718 Date Prepared _____ Analyst MEH Specs Subset ___ % Moisture _____

Method Source VOC - methane Date Analyzed 10/17/96 20:05:00 Reviewer JHC

Test Code CH4RAA00

Analyte	CAS #	Aliquot Mass/Volume .005 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor .3819 Measured Concentration ppmV	Detection Limit ppmV	Reporting Limit ppmV
Methane	74-82-8	6.55	0.0560	0

Analysis Batch # VOF1 61017092501

Project Sample ID CL LTEV-11-AI 095 Date Collected 09/26/96 Instrument F1 Reporting Subset ___ Matrix A
Lab Sample ID 9610175-02A Date Received 10/03/96 Column _____ Spikes Subset ___ Report As received
File # P101719 Date Prepared _____ Analyst MEH Specs Subset ___ % Moisture _____
Method Source VOC - methane Date Analyzed 10/17/96 20:27:00 Reviewer JHC
Test Code CH4RAA00

Aliquot Mass/Volume
.005 (L)
Extract/Digestate Volume
1.0 (L)
Dilution Factor .3137

Analyte	CAS #	Measured Concentration ppmV	Detection Limit ppmV	Reporting Limit ppmV
Methane	74-82-8	5.31	0.0662	2

Analysis Batch # VOF1 61017092501

Project Sample ID CL LTEV-11-AI 096 | Date Collected 09/26/96 | Instrument F1 | Reporting Subset ___ | Matrix A
Lab Sample ID 9610175-03A | Date Received 10/03/96 | Column _____ | Spikes Subset ___ | Report As received
File # P101720 | Date Prepared _____ | Analyst MEH | Specs Subset ___ | % Moisture _____
Method Source VOC - methane | Date Analyzed 10/17/96 20:50:00 | Reviewer JHC
Test Code CH4RAA00

Analyte	CAS #	Aliquot Mass/Volume .005 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor .3249 — Measured Concentration ppmV	Detection Limit ppmV	Reporting Limit ppmV
Methane	74-82-8	6.26	0.0659	0

LABORATORY BLANK INFORMATION

Analysis Batch # VOF1 61017092501

Lab Sample ID BLK962933 | Date Prepared | Instrument F1 | Reporting Subset | Matrix A
File # P101703 | Date Analyzed 10/17/96 11:02:00 | Column | Spikes Subset
Method Source VOC - methane | | Analyst MEH | Specs Subset
Test Code CH4RAA00 | | Reviewer JHC |

Aliquot Mass/Volume 0.005 (L)
Extract/Digestate Volume 1.0 (L)
Dilution Factor 1.0

Analyte	Measured Conc. ppmV	Detection Limit ppmV	Reporting Limit ppmV
Methane	ND	0.0214	0

CONTINUING (OR DAILY) CALIBRATION VERIFICATION

Analysis Batch # VOF1 61017092501
Initial Calibration # F1961016010000

Lab Sample ID CALCHECK | Date Analyzed 10/17/96 09:25:00 | Reporting Subset ___ | Instrument F1
File # P101701 | Spikes Subset ___ | Analyst MEH
Method Source VOC - methane | Specs Subset ___ | Reviewer JHC
Test Code CH4RAA00

Analyte	Measured Concentration ppmV	Reference Concentration ppmV	Recovery %	Recovery Specification Limits	
				Low %	High %
Methane	0.00554	0.00525	106	70	130

LABORATORY CONTROL SAMPLE

Analysis Batch # VOF1 61017092501

Method Source VOC - methane
Test Code CH4RAA00
Date Prepared
Date Analyzed 10/17/96 12:57:00
Instrument F1
Column
Analyst MEH
Reviewer JHC
Reporting Subset
Spikes Subset
Specs Subset
Matrix A
Report As received
% Moisture
Aliquot Mass or Vol .005 (L)
Extract Mass or Vol 1.0 (L)

Control Std. #	Vol. Added	Surrogate Sol'n #	Vol. Added
LCS	5.0 mL		

LCS Lab Sample ID LCS967414 File ID P101705

LCS Duplicate Lab Sample ID LCSD967414 File ID P101706

Analyte	LCS Spiked Conc. ppmV	LCS Measured Conc. ppmV	LCS Rec. %	LCSD Spiked Conc. ppmV	LCSD Measured Conc. ppmV	LCSD Rec. %	Recovery Spec. Limits Low %	Recovery Spec. Limits High %	RPD Result %	RPD Spec. Limit %
Methane	0.00475	0.00606	128	0.00475	0.00565	119			7.3	

ANALYTICAL PROTOCOL SUMMARY
COMMENTS / NARRATIVE

Method METHANE GAS ANALYSIS Specification# _____

Lab Sample ID / File ID	Project Sample ID/Description	Analyte	Flag	Comment/Narrative	Corrective Action

SAMPLE DUPLICATES

Analysis Batch # VOF1_61017092501

Project Sample ID CL LTEV-11-AI 094
Method Source VOC - methane
Test Code CH4RAA00

Date Collected 09/26/96
Date Received 10/03/96
Date Prepared
Date Analyzed 10/17/96 20:05:00

Instrument F1
Column
Analyst MEH
Reviewer JHC

Reporting Subset
Spikes Subset
Specs Subset

Matrix A
Report As received

	Sample Lab Sample ID 9610175-01A Dil Fact. .3819	Duplicate Lab Sample ID 9610175-01B Dil Fact. .3819	RPD	
Analyte	Measured Conc. ppmV	Measured Conc. ppmV	Result	Specification Limit %
Methane	6.43	6.55	1.9	

LAB ID: _____ Page 1 of 1

Analysis Request and Chain of Custody Record

Sample submitted by: A. Weber

Project Name

Company	Address	Contact	Project Location and State	Project No.
Radian	1600 Perimeter	D Weber Phone 461 1390	Claremont	

Sample No. / Identification	Date and Time	Grab	Comp	Sample Container (Size/Type)	Sample Type (Water, Soil, Oil, Sludge, Etc.)	Preservative	ANALYSIS REQUESTED TEST	ANALYSIS REQUESTED METHOD	REMARKS
CLLTEV-11-AI					by [illegible] 10/3/96				Canister ID's PSR 10/3/96
091	9/26/96	*	X	Canister	Inlet		PCE	Top valve slightly loose tightened upon receipt ED	HL0825
092					Inlet		PCE		HL0780
093					Inlet		PCE		HL0866
094					Outlet		PCE		HL0610
095					Outlet		PCE		HL0955
096					Outlet		PCE		HL0842
097					Inlet		PCE		HL0807
098					Inlet		PCE		HL0857
099					Inlet		PCE		HL0828

Samplers: (Signature)	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
			R Reinhardt	10/3/96 0930	
Affiliation	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
			Received by: (Signature)	Date: Time:	Data Results to:
			Invoice to:		

~~SAMPLER REMARKS~~ PSR Received one extra canister (HL0846) without a canister tag. PSR which should be voided Airbill 261656250 2 as per Andy Weber on 9/30/96

Stored on Shelf A5-4 by SAR 10/3/96

Corrected

Analytical Group: HE_1961003172000
Prep Batch ID: VOHE_1610031720

VOC PREP ANALYTICAL RUN

PRwot 10-17-96

Instrument: HE_1

Test Code: DILUAA00

Workorder #	Customer ID	Test Code	Can Id	Lab Init. Pres.	Lab Final Pres.	Diluent Added	Batch #	Initial Dil Factor	Lab Delta Pres.	Field Delta Pres.	Primary Dilution Factor	Final Dilution Factor	Dilution Date
9610075-01A	CL LTEV-11-AI 094	DILUAA00	HL0610	-14.15	0.000	22.35	01		14.15		0.381916	0.381916	10/03/96 19:10:26
9610075-02A	CL LTEV-11-AI 095	DILUAA00	HL0955	-14.15	-2.259	23.20	01		11.891		0.313746	0.313746	10/03/96 19:10:45
9610075-03A	CL LTEV-11-AI 096	DILUAA00	HL0842	-14.15	-1.964	22.80	01		12.186		0.324960	0.324960	10/03/96 19:11:04
9610075-04A	CL LTEV-11-AI 091	DILUAA00	HL0825	-14.15	0.000	22.30	01		14.15		0.382432	0.382432	10/03/96 19:11:20
9610075-05A	CL LTEV-11-AI 092	DILUAA00	HL0780	-14.15	-.4420	22.90	01		13.708		0.364574	0.364574	10/03/96 19:11:46
9610075-06A	CL LTEV-11-AI 093	DILUAA00	HL0866	-14.15	0.000	22.60	01		14.15		0.379356	0.379356	10/03/96 19:12:06
9610075-07A	CL LTEV-11-AI 097	DILUAA00	HL0807	-14.15	-.5894	22.50	01		13.5606		0.364532	0.364532	10/03/96 19:12:22
9610075-08A	CL LTEV-11-AI 098	DILUAA00	HL0857	-14.15	-.3929	22.70	01		13.7571		0.367836	0.367836	10/03/96 19:12:38
9610075-09A	CL LTEV-11-AI 099	DILUAA00	HL0828	-14.15	-.7859	24.00	01		13.3641		0.345325	0.345325	10/03/96 19:12:56

ANALYTICAL PROTOCOL SUMMARY

Client DEI Clairmont
Facility Clairmont
Client Code V DEI CM
Method SOURCE VOC - GC/MD

Specification # SDFR

Project Sample ID/Description	Lab Sample ID	Test Code(s)	Extraction/Digestion Batch #	Analysis Batch #
CL LTEV-11-AI 094	9610075-01A	SDFRAACM	NA	VOF1__61007113501
CL LTEV-11-AI 094	9610075-01B	SDFRAACM	NA	VOF1__61007113501
CL LTEV-11-AI 095	9610075-02A	SDFRAACM	NA	VOF1__61007113501
CL LTEV-11-AI 096	9610075-03A	SDFRAACM	NA	VOF1__61007113501

Method Source VOC - GC/MD FID
Test Code SDFRAACM

Project Sample ID:	CL LTEV-11-AI 094		CL LTEV-11-AI 094		CL LTEV-11-AI 095		CL LTEV-11-AI 096	
Lab ID:	9610075-01A		9610075-01B		9610075-02A		9610075-03A	
File ID:	P100705		P100706		P100707		P100708	
Date Collected:	09/26/96		09/26/96		09/26/96		09/26/96	
Date Prepared:								
Date Analyzed:	10/07/96 17:35:00		10/07/96 18:35:00		10/07/96 19:31:00		10/07/96 20:38:00	
Dilution Factor:	0.3819		0.3819		0.3137		0.3249	
Matrix:	Air		Air		Air		Air	
Units:	ppmV		ppmV		ppmV		ppmV	
Report as:	received		received		received		received	
Column:								
Analyte	Conc.	DL	Conc.	DL	Conc.	DL	Conc.	DL
C2 VOCs	20.9	1.06	21.4	1.06	17.8	1.29	31.5	1.25
C3 VOCs	62.3	0.932	61.9	0.932	36.8	1.13	109	1.10

INITIAL CALIBRATION

Initial Calibration # F1961001010000

Sol'n # _____

Calibration Date 10/01/96 01:00:00

Method SOURCE VOC - GC/MD

Instrument F1

Analyst MEH

Test Code SDFRAASS

Reviewer JHC

Analytes	Response Area Counts / Reference Conc. ppmV-C	Response Area Counts / Reference Conc. ppmV-C	Response Area Counts / Reference Conc. ppmV-C	Response / Reference Conc.	Response / Reference Conc.	Response / Reference Conc.	Response / Reference Conc.	RF	% RSD	Correlation Coefficient
C2 VOCs	8384 0.0205	726 0.00205	32988 0.082					0.00000258	8.04	1.000
C3 VOCs	12001 0.03060	1003 0.003060	48220 0.1224					0.00000271	10.8	1.000
Isobutane	14909 0.040	1331 0.0040	61465 0.16					0.00000276	7.70	1.000
n-Butane	14798 0.04060	1218 0.004060	60744 0.1624					0.00000292	12.4	1.000
Isopentane	18767 0.05025	1683 0.005025	75031 0.2010					0.00000278	6.38	1.000
n-Pentane	18687 0.0505	1615 0.00505	74289 0.202					0.00000285	8.44	1.000
n-Hexane	20647 0.060	1838 0.0060	83195 0.24					0.00000302	7.07	1.000
Benzene	20556 0.06030	1789 0.006030	81704 0.2412					0.00000309	8.01	1.000
n-Heptane	24235 0.07035	2122 0.007035	96955 0.2814					0.00000304	7.84	1.000
Toluene	22721 0.06930	1849 0.006930	89696 0.2772					0.00000330	11.9	1.000

Specification Limits %RSD < 20% or correlation coefficient ≥ 0.995

INITIAL CALIBRATION Cont'd

Initial Calibration # F1961001010000

Sol'n # _____

Calibration Date 10/01/96 01:00:00

Instrument F1

Method SOURCE VOC - GC/MD

Analyst MEH

Test Code SDFRAASS

Reviewer JHC

Analytes	Response Area Counts / Reference Conc. ppmV-C	Response Area Counts / Reference Conc. ppmV-C	Response Area Counts / Reference Conc. ppmV-C	Response / Reference Conc.	Response / Reference Conc.	Response / Reference Conc.	Response / Reference Conc.	RF	% RSD	Correlation Coefficient
Chlorobenzene	19130 0.05970	1625 0.005970	72824 0.2388					0.00000336	8.48	1.000
Ethylbenzene	26488 0.07920	2171 0.007920	101261 0.3168					0.00000326	10.7	1.000
m/p-Xylene/Bromoform	53104 0.1580	4185 0.01580	203110 0.632					0.00000329	13.0	1.000
Styrene	24483 0.07920	1851 0.007920	91786 0.3168					0.00000366	15.1	1.000
o-Xylene/1,1,2,2-TCEthane	32759 0.10020	2489 0.010020	117520 0.4008					0.00000350	14.0	0.999
n-Nonane	30674 0.08910	2564 0.008910	118929 0.3564					0.00000313	9.80	1.000
p-Ethyltoluene	26359 0.090	2118 0.0090	97372 0.36					0.00000379	11.2	1.000
1,3,5-Trimethylbenzene	31063 0.09045	2590 0.009045	110926 0.3618					0.00000322	9.07	0.999
1,2,4-TMBenzene/t-Butylbenzene	30106 0.090	2471 0.0090	108747 0.36					0.00000331	9.85	1.000
Benzyl chloride/m-DCBenzene	33986 0.13030	108994 0.5212	6354 0.02606					0.00000424	11.5	0.998

Specificati[illegible]mits %RSD < 20% or correlation coefficient ≥ 0.995

INITIAL CALIBRATION Cont'd

Initial Calibration # F1961001010000
Calibration Date 10/01/96 01:00:00

Sol'n # _____
Method SOURCE VOC - GC/MD
Test Code SDFRAASS

Instrument F1
Analyst MEH
Reviewer JHC

Analytes	Response Area Counts / Reference Conc. ppmV-C	Response Area Counts / Reference Conc. ppmV-C	Response Area Counts / Reference Conc. ppmV-C	Response / Reference Conc.	Response / Reference Conc.	Response / Reference Conc.	Response / Reference Conc.	RF	% RSD	Correlation Coefficient
n-Decane/p-Dichlorobenzene	55787 0.15840	4865 0.015840	202518 0.6336					0.00000307	6.94	1.000
o-Dichlorobenzene	20019 0.060	1569 0.0060	66801 0.24					0.00000347	12.3	0.998

Specification Limits %RSD < 20% or correlation coefficient ≥ 0.995

ANALYSIS BATCH SUMMARY

Analysis Batch # VOF1 61007113501

Method SOURCE VOC - GC/MD
Test Code SDFRAASS
Initial Calibration # F1961001010000
Calibration Date 10/01/96

Analysis Start Date/Time 10/07/96 11:35:00
Analysis Stop Date/Time 10/07/96 20:38:00

Instrument F1
Analyst CLS
Reviewer JHC

Sequence/Analysis Time	Project Sample ID	Lab Sample ID	Sample Type	Analysis File #
1 10/07/96 11:35:00		CALCHECK	Continuing Calibration Verification	P100701
2 10/07/96 12:33:00		BLK963531	Blank, Method	P100702
3 10/07/96 13:34:00		LCS966528	Lab Control Sample	P100703
4 10/07/96 16:15:00		LCSD966528	Lab Control Sample Duplicate	P100704
5 10/07/96 17:35:00	CL LTEV-11-AI 094	9610075-01A	Sample	P100705
6 10/07/96 18:35:00	CL LTEV-11-AI 094	9610075-01B	Sample Duplicate	P100706
7 10/07/96 19:31:00	CL LTEV-11-AI 095	9610075-02A	Sample	P100707
8 10/07/96 20:38:00	CL LTEV-11-AI 096	9610075-03A	Sample	P100708

Analysis Batch # VOF1 61007113501

Project Sample ID CL LTEV-11-AI 094 | Date Collected 09/26/96 | Instrument F1 | Reporting Subset ___ | Matrix A

Lab Sample ID 9610075-01A | Date Received 10/03/96 | Column _____ | Spikes Subset ___ | Report As received

File # P100705 | Date Prepared _____ | Analyst CLS | Specs Subset ___ | % Moisture _____

Method Source VOC - GC/MD FID | Date Analyzed 10/07/96 17:35:00 | Reviewer JHC

Test Code SDFRAACM

Analyte	CAS #	Aliquot Mass/Volume 0.0010 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor 0.3819 Measured Concentration ppmV	Detection Limit ppmV	Reporting Limit ppmV
C2 VOCs		20.9	1.06	0
C3 VOCs		62.3	0.932	0

Analysis Batch # VOF1 61007113501

Project Sample ID CL LTEV-11-AI 094 Date Collected 09/26/96 Instrument F1 Reporting Subset ___ Matrix A
Lab Sample ID 9610075-01B Date Received 10/03/96 Column _____ Spikes Subset ___ Report As received
File # P100706 Date Prepared _____ Analyst CLS Specs Subset ___ % Moisture _____
Method Source VOC - GC/MD FID Date Analyzed 10/07/96 18:35:00 Reviewer JHC
Test Code SDFRAACM

Analyte	CAS #	Aliquot Mass/Volume 0.0010 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor 0.3819 Measured Concentration ppmV	Detection Limit ppmV	Reporting Limit ppmV
C2 VOCs		21.4	1.06	0
C3 VOCs		61.9	0.932	0

Analysis Batch # VOF1 61007113501

Project Sample ID CL LTEV-11-AI 095 | Date Collected 09/26/96 | Instrument F1 | Reporting Subset ___ | Matrix A

Lab Sample ID 9610075-02A | Date Received 10/03/96 | Column _____ | Spikes Subset ___ | Report As received

File # P100707 | Date Prepared _____ | Analyst CLS | Specs Subset ___ | % Moisture _____

Method Source VOC - GC/MD FID | Date Analyzed 10/07/96 19:31:00 | Reviewer JHC

Test Code SDFRAACM

Analyte	CAS #	Aliquot Mass/Volume 0.0010 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor 0.3137 Measured Concentration ppmV	Detection Limit ppmV	Reporting Limit ppmV
C2 VOCs		17.8	1.29	0
C3 VOCs		36.8	1.13	0

RESULTS

Analysis Batch # VOF1 61007113501

Project Sample ID CL LTEV-11-AI 096 | Date Collected 09/26/96 | Instrument F1 | Reporting Subset ___ | Matrix A
Lab Sample ID 9610075-03A | Date Received 10/03/96 | Column _____ | Spikes Subset ___ | Report As received
File # P100708 | Date Prepared _____ | Analyst CLS | Specs Subset ___ | % Moisture _____
Method Source VOC - GC/MD FID | Date Analyzed 10/07/96 20:38:00 | Reviewer JHC
Test Code SDFRAACM

Aliquot Mass/Volume 0.0010 (L)
Extract/Digestate Volume 1.0 (L)
Dilution Factor 0.3249

Analyte	CAS #	Measured Concentration ppmV	Detection Limit ppmV	Reporting Limit ppmV
C2 VOCs		31.5	1.25	0
C3 VOCs		109	1.10	0

LABORATORY BLANK INFORMATION

Analysis Batch # VOF1 61007113501

Lab Sample ID BLK963531 | Date Prepared | Instrument F1 | Reporting Subset | Matrix A
File # P100702 | Date Analyzed 10/07/96 12:33:00 | Column | Spikes Subset
Method Source VOC - GC/MD FID | | Analyst CLS | Specs Subset
Test Code SDFRAACM | | Reviewer JHC |

Analyte	Aliquot Mass/Volume 0.005 (L) Extract/Digestate Volume 1.0 (L) Dilution Factor 1.0 — Measured Conc. ppmV	Detection Limit ppmV	Reporting Limit ppmV
C2 VOCs	ND	0.0812	0
C3 VOCs	ND	0.0712	0

CONTINUING (OR DAILY) CALIBRATION VERIFICATION

Analysis Batch # VOF1_61007113501
Initial Calibration # F1961001010000

Lab Sample ID CALCHECK Date Analyzed 10/07/96 11:35:00 Reporting Subset ___ Instrument F1
File # P100701 Spikes Subset ___ Analyst CLS
Method Source VOC - GC/MD FID Specs Subset ___ Reviewer JHC
Test Code SDFRAACM

Analyte	Measured Concentration ppmV	Reference Concentration ppmV	Recovery %	Recovery Specification Limits	
				Low %	High %
C2 VOCs	0.0100	0.0102	98	70	130
C3 VOCs	0.0108	0.0102	106	70	130

SAMPLE DUPLICATES

Analysis Batch # VOF1 61007113501

Project Sample ID CL LTEV-11-AI 094
Method Source VOC - GC/MD FID
Test Code SDFRAACM

Date Collected 09/26/96
Date Received 10/03/96
Date Prepared
Date Analyzed 10/07/96 18:35:00

Instrument F1
Column
Analyst CLS
Reviewer JHC

Reporting Subset
Spikes Subset
Specs Subset

Matrix A
Report As received

	Sample Lab Sample ID 9610075-01A Dil Fact. 0.3819	Duplicate Lab Sample ID 9610075-01B Dil Fact. 0.3819	RPD	
Analyte	Measured Conc. ppmV	Measured Conc. ppmV	Result	Specification Limit %
C2 VOCs	20.9	21.4	2.4	
C3 VOCs	62.3	61.9	0.58	

ANALYTICAL PROTOCOL SUMMARY
COMMENTS/NARRATIVE

Method SOURCE VOC - GC/MD Specification# _____

Lab Sample ID / File ID	Project Sample ID/Description	Analyte	Flag	Comment/Narrative	Corrective Action

PERFORMANCE TEST REPORT
for the
LOW TEMPERATURE ENHANCED VOLATILIZATION SYSTEM

at the

CLAREMONT POLYCHEMICAL SUPERFUND SITE
OLD BETHPAGE, NEW YORK

PREPARED FOR:

USACE
New York District

PREPARED BY:

DOW ENVIRONMENTAL

October 1996