Erler & Kalinowski, Inc.

Consulting Engineers and Scientists

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18 August 2010

To Potential Users of Electronic Files:

Erler & Kalinowski, Inc. ("EKI") has provided our CLIENTS, Novartis / Chiron, with an electronic copy of the Tank Closure Report for Two Former Bunker Oil Underground Storage Tanks at Building M, Chiron Life Sciences Project, Emeryville, California dated 7 March 1997, including text, table, figures, and appendices by electronic mail.

This electronic file is being provided at the request of our CLIENTS and for the convenience of our CLIENTS. The delivery of electronic media does not constitute the delivery of our professional work product or provide rights of reliance by First parties. Only the original paper print provided to, and for the sole benefit of, our CLIENTS constitutes our professional work product. Because the electronic media may be damaged during transfer or altered, the paper print shall control where there are any differences between the paper print and the electronic media. EKI makes no warranties, either express or implied, of the merchantability, applicability, compatibility with the recipients' computer equipment or software; of the fitness for any particular purpose for the electronic media; or that the electronic media contains no defect or is virus free.

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Sincerely,

ERLER & KALINOWSKI, INC.

Vera H. Nelson, P.E.
Project Manager

CLOSURE REPORT

Removal of the Chapman Underground Storage Tanks Located Near Building M

7 March 1997

Prepared for:
Chiron Corporation
4560 Horton Street
Emeryville, CA 94608-2916

Erler & Kalinowski, Inc.
Consulting Engineers and Scientists
1730 So. Amphlett Blvd., Suite 320
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ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RECEIVED
JUN 18 1997
E. H. & S.

ENVIRONMENTAL HEALTH SERVICES
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9335 (FAX)

June 13, 1997
STID # 801

Mr. Ric Notini
Manager, Environmental Health & Safety
Chiron Corporation
4560 Horton Street
Emeryville, California 94608-2916

Subject: Removal of Two Bunker Oil Underground Storage Tanks at Building M on the Chapman Property - 1400 53rd Street, Emeryville, California 94608

Dear Mr. Notini:

The Alameda County Department of Environmental Health, Environmental Protection Division has reviewed the Tank Closure Report dated March 7, 1997, prepared and submitted by Erler & Kalinowski, Inc. (EKI) for the above referenced site.

Two 6,800 gallon bunker oil underground storage tanks located on the east side of Building M on the Chapman property were removed on September 5, 1996. The removal of the former tanks were performed by Dillard Environmental Services for Chiron Corporation.

The concentration of contaminants detected in the soil samples collected prior to and during the removal of the former tanks are below the site remediation goals with the exception of Total Extractable Petroleum Hydrocarbon (TEPH). Up to 5,800 ppm TEPH was detected in the soil exceeding the 1,000 ppm TPH site remediation goal for general petroleum hydrocarbons. A grab groundwater sample was collected from the common excavation and analytical results indicated the presence of TEPH (130 ppm) and PCBs (0.75 ppb).

This office concurs with EKI's recommendation that the management of the residual soil and groundwater contamination left at the site should be incorporated in the Risk Management Plan. In addition, the stability of the dissolved TEPH plume should be verified in the future Long-Term Risk Management Plan for the Chiron property.

I have enclosed an Underground Storage Tank Unauthorized Release (Leak)/ Contamination Site Report (ULR) which must be completed and submitted to this office within five working days.

If you have any questions concerning this letter, please contact me at (510) 567-6780.

Sincerely,

Susan L. Hugo
Senior Hazardous Materials Specialist

enclosure

c: Mee Ling Tung, Director, Environmental Health
Gordon Coleman, Chief, Environmental Protection Division
Kevin Graves, San Francisco Bay RWQCB
Ravi Arunalantham, San Francisco Bay RWQCB
Vera Nelson, EKI, 1730 So. Amphlett Blvd., Suite 320
San Mateo, California 94402 (with enclosure)
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7 March 1997

Ms. Susan Hugo
Alameda County Health Care Services Agency
Department of Environmental Health
Division of Environmental Protection
1131 Harbor Bay Parkway, Room 250
Alameda, California 94502-6577

Subject: Tank Closure Report for Two Former Bunker Oil Underground Storage Tanks at Building M, Chiron Life Sciences Project, Emeryville, California (EKI 930028.60)

Dear Ms. Hugo:

On behalf of Chiron Corporation, ("Chiron") Erler & Kalinowski, Inc. is pleased to submit this Closure Report for two bunker oil underground storage tanks that were formerly located near Building M on the Chapman Property in Emeryville, California ("Building M Tanks"). The Building M Tanks were excavated and disposed off-site on 5 September 1996. Chiron currently leases the Chapman Property and is redeveloping this property as part of Chiron's Life Science Project. Management of environmental issues related to the redevelopment of the Chapman Property is addressed under Chiron's *Final Risk Management Plan for Construction of the Chiron Life Sciences Center Project for Properties North of 53rd Street*, dated 21 May 1996 ("Risk Management Plan"). The Alameda County Department of Public Health ("ACDEH") and the San Francisco Bay Regional Water Quality Control Board ("RWQCB") approved the Risk Management Plan in letters, dated 22 May 1996 and 21 June 1996, respectively.

The excavation and disposal of the Building M Tanks was completed pursuant to the Risk Management Plan, ACDEH requirements, and Chiron's Alameda County Underground Tank Closure Plan, submitted on 20 August 1996 and amended on 22 and 23 August 1996 ("Closure Plan").

If you have any questions, please do not hesitate to call.

Very truly yours,

ERLER & KALINOWSKI, INC.

Vera H. Nelson

Vera H. Nelson, P.E.
Project Manager

Michael T Beck

Michael T. Beck, P.E.
Project Engineer

cc: Mr. Ric Notini - Chiron Corporation
Mr. Sumadhu Arigala - California Regional Water Quality Control Board

Erler &
Kalinowski, Inc.

CLOSURE REPORT

Removal of the Chapman Underground Storage Tanks
Located near Building M

Chiron Corporation
Emeryville, California
(EKI 930028.60)

7 March 1996

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1. INTRODUCTION

On behalf of the Chiron Corporation ("Chiron"), Erler & Kalinowski, Inc. ("EKI") has prepared this report summarizing activities performed in association with the excavation and removal of two former 6,800-gallon bunker oil underground storage tanks ("Building M Tanks"). Excavation and disposal of these tanks was performed as part of the Chiron Life Sciences Project in Emeryville, California in September 1996 (see Figure 1). Prior to their removal in September 1996, the Building M Tanks were located on the east side of Building M on the Chapman Property in Emeryville, California (see Figure 2).

Tank removal activities were performed in accordance with the *Final Risk Management Plan for Construction of the Chiron Life Sciences Center Project for Properties North of 53rd Street*, dated 21 May 1996 ("Risk Management Plan"), Alameda County Department of Public Health ("ACDEH") requirements, and Chiron's Alameda County Underground Tank Closure Plan, submitted on 20 August 1996 and amended on 22 and 23 August 1996 ("Closure Plan"). The Closure Plan was verbally approved by ACEHD.

EKI personnel were on-site during construction activities in the vicinity of Building M to observe the removal of the Building M Tanks and to collect environmental samples in accordance with the Risk Management Plan and the Closure Plan.

Construction activities related to the excavation and disposal of the Building M Tanks are discussed in Section 2. Soil and groundwater sampling performed east of Building M in conjunction with the removal of the Building M Tanks is discussed in Section 3. Results from soil and groundwater samples are summarized in Section 4.

2. EXCAVATION AND DISPOSAL OF BUILDING M TANKS

Two 6,800-gallon underground bunker oil storage tanks, formerly located east of Building M ("Building M Tanks"), were excavated and disposed in September 1996. This work was performed for Chiron by Dillard Environmental Services, which is based in Byron, California ("Dillard") and O.C. Jones & Sons Engineering Contractors, which is based in Berkeley, California ("O.C. Jones"). Construction activities related to the excavation and disposal of the Building M Tanks are summarized below.

2.1 Building M Loading Dock Demolition

Prior to excavating the Building M Tanks, O.C. Jones demolished the former concrete loading dock on the east side of Building M (Figure 2). The demolition of this loading dock began on 22 August 1996 and was necessary to gain access to the Building M Tanks, which were located beneath the north end of the loading lock. To identify the vertical extent of the concrete loading dock footings, O.C. Jones excavated five small trenches east of the former Building M loading dock to a depth of approximately 7 feet below ground surface ("ft bgs") (locations M-1 through M-5 shown on Figure 4).

During the excavation of these trenches, water was encountered at the base of trenches M-2 and M-3 at a depth of approximately 7 ft bgs. Visibly stained and odorous soil was observed in trenches M-1 through M-5 within in the capillary fringe of the observed groundwater table (from approximately 5 to 7 ft bgs). Stained/odorous soil was not observed above approximately 5 ft bgs.

In accordance with the Risk Management Plan, EKI collected samples of visually impacted soil from trenches M-1 through M-5 at approximately 7 ft bgs using the methods described in Appendix A. These sampling activities are further described in Section 3.1.

ACDEH was notified of the observations described above during a telephone conversation with Chiron on or about 22 August 1996. Preliminary analytical results of soil samples M-1 through M-5 were discussed with ACDEH staff during a site visit on 27 August 1996.

To protect the structural integrity of Building M, O.C. Jones only demolished the above-grade portion of the concrete loading dock footings. The below-grade portion of these footings are scheduled to be excavated in conjunction with the future demolition of Building M, which is planned as part of Chiron's Life Sciences Project.

Concrete and soil excavated during the demolition of the Building M loading dock were temporarily stockpiled east of Building M. The disposal of these materials is discussed in Section 2.5.

2.2 Removal of Soil Surrounding the Building M Tanks

On 4 September 1996, in preparation for the Building M Tank Removal, O.C. Jones excavated approximately 400 cubic yards of soil surrounding the Building M Tanks. Soil surrounding the Building M Tanks was excavated with an excavator and temporarily stockpiled just east of the tank excavation to (a) allow for the placement of support cables which were used during the tank removal; and (b) generate a 1 to 1 slope on the east sidewall of the excavation such that construction personnel could safely enter the tank excavation. In addition, pipes associated with the Building M Tanks and other pipes uncovered during excavation activities (see Section 2.3) were disconnected, removed, or capped. Figure 3 depicts the approximate vertical and lateral extents of the Building M Tanks excavation.

2.3 Building M Tanks Excavation

On 5 September 1996, a ACEHD representative (Susan Hugo) and representatives of the Emeryville Fire Department ("CEFD") (George Warner and others) were on-site to observe the removal of the Building M Tanks. EKI personnel were also on-site to observe the tank removal and collect soil and groundwater samples from the Building M Tanks excavation. Observations made by EKI personnel during the removal of the Building M Tanks (Tank 18763 and Tank 18764 as shown on Figure 3) are described below.

Prior to excavating the Building M Tanks, each of the tanks was inerted with dry ice and water. Representatives of the Emeryville Fire Department ("CEFD") measured the lower explosive limit and oxygen content of the air within each of the Building M Tanks. After the CEFD indicated that the tanks had been properly inerted, Dillard removed the two Building M Tanks from the tank excavation with a crane and placed them on flat bed trucks.

Tank 18763 and Tank 18764 were approximately 31.5 feet long with a diameter of approximately 6 feet. Although some minor corrosion was observed on the top end of Tank 18763, this tank appeared to be structurally sound (no obvious holes were observed in the walls of the Tank 18763). A thick, black, tar-like material was observed on the surface of the bottom of the Tank 18763. Minor corrosion was observed at both ends of Tank 18764 and a small hole (approximately 1/4" inch in diameter) was observed near the top of this tank at its north end.

Upon removal of the tanks, two pipelines with diameters of approximately 1.5 inches were observed along the west wall of the Building M Tanks excavation. The pipes began at the west end of the excavation and extended west. Chiron representatives could not identify the purpose or the former contents of these pipelines, but the pipelines did not appear to be associated with the Building M Tanks. Because the pipelines traveled underneath Building M and could not be removed, ACEHD requested that they be capped. These pipes were capped by Dillard prior to backfilling the excavation to final grade.

As indicated on Figure 3, the excavation for the Building M Tanks extended to a depth of approximately 8 ft bgs (6 feet above mean sea level). A small amount of water (up to approximately three inches deep) was observed ponding over much of the excavation floor. The elevation of the water surface observed in the excavation (approximately 6 feet above mean sea level) is consistent with groundwater table elevations measured in nearby monitoring wells in August 1994. However, groundwater was not encountered in nearby excavations of similar depth completed during August and September 1996 (the Ramp Area excavation, excavations for pile caps between Building M and Hollis Street, and the nearby utility trench described in Section 2.5). Therefore, water observed in the Building M Tanks excavation and nearby trenches M-2 and M-3 may be the result of perched groundwater.

Visually stained and odorous soil was observed on the excavation floor and around the perimeter of the excavation (at depths extending from approximately 5 to 8 ft bgs). Globules of floating hydrocarbon product ("FHP") with 1 to 2 inch diameters were also present on portions of the water observed on the excavation floor. No stained or odorous soil was observed in surface soil in the vicinity of the former tanks above a depth of approximately 5 ft bgs.

Pursuant to the Closure Plan and at the request of the on-site ACDEH representative, EKI collected soil samples and a grab groundwater sample from the Building M Tanks excavation. These soil and groundwater sampling activities are discussed further in Section 3.

The excavation was left open overnight to see if additional FHP would accumulate in the Building M Tanks excavation. Such an accumulation would indicate that mobile FHP were present in the vicinity of the tanks and that provisions for the removal of such FHP would be necessary. However, no noticeable increase in the quantity of FHP in the excavation was observed the next morning. Therefore, in preparation for backfilling the excavation, Dillard removed the globules of floating hydrocarbon product from the surface of the water in the tank excavation using adsorbent material.

Consistent with the Risk Management Plan and discussions with ACDEH representatives, O.C. Jones backfilled the Building M Tanks excavation using soil from Area A of the Chiron property as defined in the *Health and Environmental Risk*

Assessment, Properties North of 53rd Street, dated 10 March 1995 ("Risk Assessment") (EKI, 1995). Backfilling was completed between 6 and 12 September 1996.

2.4 Disposal Activities

On 5 September 1996, the Building M tanks were transported to and disposed at the Erickson Incorporated Facility in Richmond, California ("Erickson") as hazardous waste. Erickson is permitted to receive hazardous wastes in accordance with facility permit number CAD009466392 from the California Department of Toxic Substances Control ("DTSC"). Copies of Hazardous Waste Manifests and Certificates of Disposal for the two former USTs are included as Appendices B and C, respectively.

On 6 September 1996, temporarily stockpiled soil and concrete from the demolition of the Building M loading dock and soil from the Building M Tank excavation were transported to and disposed at the Altamont Landfill and Resource Recovery Facility in Livermore, California ("Altamont") as a Class II waste. This soil was characterized for disposal on the basis of historic soil sampling results from the vicinity of the Building M Tanks (EKI, 1995). Altamont is permitted to receive California Class II wastes in accordance with facility permit number 01A0009 enforced by the ACEHD Office of Solid Medical Waste Management. Approximately 400 tons of soil from the Building M Tanks excavation and approximately 100 tons of concrete from the former Building M loading dock were disposed at Altamont.

2.5 Excavation of Storm Drain Trench

During 16 through 19 September 1996, O.C. Jones excavated a utility trench north from 53rd Street along the eastern side of Building M for the construction of a storm drain pipeline. This utility trench was excavated approximately 3 feet wide to a depth of approximately 9.5 feet bgs. This trench extended beyond the former Building M Tanks and was located approximately 18 ft east of the eastern wall of Building M, therefore outside of the Building M Tanks excavation. The location of this utility trench is shown on Figure 4. Visibly stained and odorous soil was not observed on the floor or sidewalls of this utility trench. No groundwater was observed in the trench. Four soil samples were collected from the locations indicated as SD-1 through SD-4 on Figure 4. These sampling activities are described further in Section 3.1.

As a precautionary measure to minimize potential migration of residual hydrocarbon free product along the new storm drain pipeline constructed in this in this area, Chiron installed three concrete cutoff walls at 100 foot intervals along this new pipeline corridor. The approximate locations of these concrete cutoff walls are shown on Figure 4.

3. SOIL AND GROUNDWATER SAMPLING AND ANALYSIS

As discussed in Section 2, a series of soil and groundwater sampling events were conducted in the vicinity of the Building M Tanks in August and September 1996. Soil and groundwater sampling activities are described in Section 3.1 and Section 3.2 below. Analytical results from these soil and groundwater samples are discussed in Section 4, and summarized in Table 2.

3.1 Soil Sample Collection and Analysis

In August and September 1996, thirteen soil samples were collected east of Building M near the former location of the Building M Tanks using the procedures outlined in Appendix A. These soil samples were collected to evaluate the extent and magnitude of chemical concentrations in soil surrounding the tanks. These samples were collected to (a) evaluate the concentrations of potential chemicals of concern in visibly impacted soil observed at depth (from 5 to 8 ft bgs); and (b) characterize the lateral extent of chemically impacted soil to the south and east of the Building M Tanks. The lateral extent of soil to the west of the former Building M Tanks could not be characterized at this time due to the presence of Building M. These thirteen soil samples include:

(a) five soil samples from trenches constructed during the demolition of the Building M Loading Dock (M-1 through M-5);

(b) four soil samples from the Building M Tanks excavation (M-6 through M-9); and

(c) four soil samples from a storm drain trench constructed east of Building M (SD-1 through SD-4).

The locations at which these soil samples were collected are depicted on Figure 4. The laboratory analyses performed on these samples are summarized in Table 1. Copies of laboratory data sheets for soil samples M-1 through M-9 and SD-1 through SD-4 are included as Appendix D. Detected compounds are summarized in Table 2. Soil sampling and analysis activities performed at each of these locations are summarized below.

3.1.1 Soil Sampling from Trenches Near the Former Building M Loading Dock

As discussed in Section 2.1, visibly stained and odorous soil was observed at the groundwater surface and capillary fringe (from approximately 5 to 7 ft bgs) on 22 August 1996 in trenches constructed near the former Building M loading dock (M-1 through M-5). In accordance with the Risk Management Plan, EKI collected five

samples of visually impacted soil (M-1 through M-5) from these trenches at approximately 7 ft bgs (Figure 4).

Soil samples M-1 through M-5 were analyzed for total extractable petroleum hydrocarbons ("TEPH") and total purgeable petroleum hydrocarbons ("TPPH") by EPA Method 8015m, VOCs by EPA Method 8010/8020, arsenic and cadmium by EPA Method 6010, and polychlorinated biphenyls ("PCBs") by EPA Method 8080 (see Table 1). In addition, the two soil samples collected closest to the Building M Tanks (i.e., M-2 and M-3) were analyzed for polycyclic aromatic hydrocarbons ("PAHs") by EPA Method 8100. Analytical results from these soil samples are discussed in Section 4.1.

3.1.2 Soil Sampling from the Building M Tanks Excavation

On 5 September 1996, pursuant to the Closure Plan and Risk Management Plan, three soil samples (M-6, M-7, and M-8) were collected from the floor of the Building M Tanks Excavation. A fourth soil sample (M-9) was also collected from the west sidewall of the excavation at a depth of approximately 6 ft bgs at the request of the ACEHD on-site representative.

The approximate locations of these samples are identified on Figure 3 and described below:

(a) soil sample M-6 was collected from the floor of the excavation near the south end of Tank 18763;

(b) soil sample M-7 was collected from the floor of the excavation near the south end of Tank 18764;

(c) soil sample M-8 was collected from the floor of the excavation near the north end of Tank 18764; and

(d) soil sample M-9 was collected from the west sidewall of the excavation near the south end of Tank 18764.

Pursuant to the Closure Plan, soil samples M-6 through M-9 were analyzed for TEPH by EPA Method 8015 and aromatic VOCs by EPA Method 8020 (see Table 1). Soil sample M-8, which was collected near the former location of a hole observed in the wall of Tank 18764 (see Section 2.3), was also analyzed for chlorinated VOCs by EPA Method 8010, semi-volatile organic compounds ("SVOCs") by EPA Method 8270, and PCBs by EPA Method 8080, at the request of the ACDEH inspector. Analytical results from these soil samples are discussed in Section 4.1.

3.1.3 Soil Sampling from a Storm Drain Trench

On 16 through 19 September 1996, four soil samples (SD-1 through SD-4) were collected from the storm drain trench constructed approximately 18 feet east of Building M (Figure 4). Soil samples SD-1 through SD-4 were collected from the floor of the excavation (approximately 9.5 ft bgs).

Soil samples SD-1 through SD-4 were collected for Chiron by Subsurface Consultants, Inc. based in Lafayette, California ("SCI"). These soil sampling locations are depicted on Figure 4 along with the approximate location of the storm drain trench. Soil samples SD-1 through SD-4 were analyzed for TEPH by EPA Method 8015m (see Table 1). Analytical results from these samples are discussed in Section 4.1.

3.2 Grab Groundwater Sampling from the Building M Tanks Excavation

As discussed in Section 2.3, a few inches of water with globules of FHP was observed on the floor of the Building M Tank excavation. As requested by the Alameda County inspector, EKI personnel collected a grab water sample (WM-1) using the methods described in Appendix A. Water sample WM-1 was analyzed for TEPH by EPA Method 8015 modified, VOCs by EPA Method 8010/8020, PCBs by EPA Method 8080, arsenic by EPA Method 7000 series, and chromium by EPA Method 6010. Laboratory data sheets for groundwater sample WM-1 are included as Appendix D. Analytical results for this groundwater samples are discussed in Section 4.2.

4. NATURE AND EXTENT OF CHEMICALS REMAINING IN SOIL AND GROUNDWATER NEAR BUILDING M

As discussed in Section 3, soil and groundwater sampling activities were conducted in the vicinity of the former Building M Tanks in August and September 1996. The analytical results for the soil and groundwater samples collected are summarized in Section 4.1 and Section 4.2, respectively.

Health risk-based soil remediation goals for compounds ("site remediation goals"), which are referenced herein, were established for properties north of 53rd street under development by Chiron ("Subject Properties") in the Risk Assessment (EKI, 1995), as approved by ACDEH and RWQCB. These remediation goals for covered/uncovered soil on the Subject Properties are summarized in Table 3 and represent concentrations of compounds below which no remediation is required. If chemical concentrations detected in soil exceed the established risk-based remediation goals, remedial options for chemically impacted soils need to be evaluated pursuant to the Risk Management Plan. The available options are dependent upon Chiron's construction schedule, future land use plans, the magnitude and extent of compounds detected, and potential impacts to human health and the environment.

4.1 Soil Sampling Analytical Results

A summary of the analytical results for compounds detected in soil near the former location of the Building M Tanks is included in Table 2.

As shown in Table 2, TPPH, TEPH, total xylenes, PCBs, and arsenic were detected in selected samples collected from the vicinity of the Building M Tanks. The range of concentrations of these compounds detected in soil samples are as follows:

TPPH	25 to 570 mg/kg,
TEPH	2.3 to 5,800 mg/kg,
total xylenes	4.5 mg/kg,
PCBs	0.020 to 0.087 mg/kg, and
arsenic	12 to 34 mg/kg.

The detected concentrations of these compounds are significantly below site remediation goals in covered and uncovered soil for the Subject Properties (1,000 mg/kg for TPPH,

125 mg/kg for total xylenes, 1.2 mg/kg for PCBs, and 66 mg/kg for arsenic) with the exception of TEPH. No PAHs, SVOCs, or chlorinated VOCs were detected in soil samples collected near the former Building M Tanks.

TEPH was detected above the site remediation goal for general petroleum hydrocarbons ("TPH") in five of the thirteen soil samples collected (i.e., samples M-2, M-4, M-7, M-8, M-9) (Table 3). All of these soil samples were collected from locations at and near the water surface and within 60 feet of the former Building M Tanks. The chromatographic description of the TEPH detected in these soil samples indicates that the petroleum hydrocarbons present in soil near Building M consist primarily of moderate to high molecular weight hydrocarbons (carbon chain lengths from 8 to 40). These moderate to high molecular weight compounds are likely weathered petroleum hydrocarbons associated with historic releases of bunker oil from the former Building M Tanks. Petroleum hydrocarbons such as bunker oil are complex mixtures of hundreds or thousands of discrete constituents, most of which have low toxicity. The known toxic constituents of petroleum hydrocarbons upon which the site remediation goals are based included PAHs, benzene, toluene, ethylbenzene, and xylenes ("BTEX compounds"). However, with the exception of xylenes, which were detected at low levels (4.5 mg/kg) in one of the soil samples, none of these compounds were detected above analytical detection limits in soil surrounding the Building M Tanks. Therefore, based on these results, the petroleum hydrocarbons detected in soil near the former Building M Tanks should not present an adverse risk to human health.

The nature and distribution of the moderate to high molecular weight hydrocarbons detected near the former Building M Tanks indicates that free phase hydrocarbons historically migrated along the top of the water table. However, due to the high viscosity and sorptive nature of these moderate to high molecular weight petroleum hydrocarbons, it is unlikely that mobile free phase petroleum hydrocarbons ("floating hydrocarbon product", "FHP") remain in the vicinity of the former tanks. The absence of FHP is evidenced by the lack of free product accumulation observed in the Building M Tanks excavation during the time that it was left open on 5 and 6 September 1996 (see Sections 2.3 and 2.4).

The extent of historic migration of TEPH on the groundwater surface, downgradient (southwest) of the former Building M Tanks, could not be investigated due to the existence of Building M. However, analytical results from downgradient CPT locations and monitoring well NBMW-4 (Figure 5), located between 200 and 350 feet south and west of the former Building M Tanks, respectively, indicate that the FHP does not extend to these locations. Low levels (400 ug/l and below) of dissolved TEPH have been detected downgradient of the former Building M Tanks (see Figure 5) as discussed in Section 4.2 below.

4.2 Groundwater Sampling Analytical Results

Historical releases of bunker oil from the former Building M Tanks have likely introduced some dissolved TEPH constituents into the groundwater below these tanks. As discussed in Section 3.2, one groundwater sample (WM-1) was collected during the Building M Tanks excavation. This sample was collected from the few inches of groundwater that collected at the base of the excavation. Analytical results from this sample indicated that TEPH was present in groundwater at a concentration of 130,000 ug/L and PCBs were present at a concentration of 0.75 ug/L. These chemical concentrations, however, are likely related to globules of FHP observed on the surface of the water table and are not representative of dissolved concentrations of these chemicals in local groundwater. Therefore, as discussed in Section 4.1 above, migration of these higher molecular weight hydrocarbon constituents as FHP is likely limited.

The magnitude and extent of migration of dissolved constituents of TEPH is likely limited due to:

(a) the low solubility of moderate to high molecular weight petroleum hydrocarbons present in soil near the former Building M Tanks;

(b) the affinity of dissolved petroleum hydrocarbons to organic carbon in soil; and

(c) the tendency for degradation of low levels of dissolved petroleum hydrocarbons.

The limited migration of dissolved TEPH constituents from the former building M tanks is evidenced by the relatively low TEPH concentrations (400 ug/l and below) detected in groundwater samples collected at various CPT locations and monitoring well NBMW-4, which were completed near and downgradient of the Building M Tanks, as shown on Figure 5. As discussed in the Risk Assessment, these dissolved TEPH concentrations are consistent with background TEPH concentrations found in the shallow aquifer in Emeryville.

5. CONCLUSIONS

Pursuant to the Risk Management Plan, results of the soil and groundwater investigations described herein were discussed with Alameda County representatives during meetings held at the Chiron Property on 27 August 1996 and 5 September 1996. During these meetings, the magnitude, distribution, and nature of the detected chemicals, primarily TEPH, were discussed as well as Chiron's future development plans for this area. Chiron's plans include (a) immediate construction of a new road and associated utilities over the area formerly occupied by the Building M Tanks and (b) demolition of Building M and construction of a new building at this location in approximately 10 to 20 years.

Potential exposure to chemically-impacted soil by on-site individuals should be limited by (a) the depth of the chemically-impacted soil below ground surface (greater than 5 ft bgs) and (b) the containment of the chemically-impacted soil by the existing building, planned new roadway, and future building. Potential exposures to chemically-impacted soil by contractors performing earthwork near the former Building M Tanks (before, during, and after the demolition of Building M) will be mitigated through the use of appropriate health and safety measures, as described in the Risk Management Plan. Further, as discussed in Section 4, the potential for significant migration of TEPH from the Building M area is not considered likely, as supported by available data for dissolved TEPH is shallow groundwater.

Based on these data and considerations, no additional soil or groundwater remediation is proposed near the Building M Tanks Excavation. The stability of the dissolved TEPH plume will be verified as part of a Long-Term Risk Management Plan, which will be completed in the future.

6. REFERENCES

EKI, 1995: Erler & Kalinowski, Inc., 10 March 1995, *Final Health and Environmental Risk Assessment for Properties North of 53rd Street*, Chiron Corporation, Emeryville, California.

EKI, 1996a: Erler & Kalinowski, Inc., 21 May 1996, *Final Risk Management Plan for Construction of the Chiron Life Sciences Center Project, Properties North of 53rd Street*, Emeryville, California.

EKI, 1996b: 20 August 1996 Letter from Erler & Kalinowski, Inc. to the Alameda County Health Care Services Agency ("Alameda County") submitting an Underground Tank Closure Plan for the Building M Tanks ("Closure Plan").

EKI, 1996c: 22 August 1996 Memorandum from Erler & Kalinowski, Inc. to Alameda County amending the Closure Plan.

EKI, 1996d: 23 August 1996 Memorandum from Erler & Kalinowski, Inc. to Alameda County amending the Closure Plan.

RWQCB, 1994: 21 June 1994 Memorandum from the California Regional Water Quality Control Board to San Francisco Bay Area Agencies, Overseeing UST Cleanup recommending a 1,000 mg/kg cleanup level for diesel range petroleum hydrocarbons.

Table 1
Summary of Sample Designations and Analytical Methods

Building M Tanks Removal
Chiron Corporation
Emeryville, California

SAMPLE ID	MATRIX	DATE COLLECTED	TEPH (8015m)	Fuel Fingerprint	TPPH (8015m)	Aromatic VOCs (8020)	Chlorinated VOCs (8010)	Semi-VOCs (8270)	PAHs (8100)	PCBs (8080)	Metals (a)
M-1	SOIL	22-Aug-96	X (b)	X	X	X	X			X	X
M-2	SOIL	22-Aug-96	X	X	X	X	X			X	X
M-3	SOIL	22-Aug-96	X	X	X	X	X		X	X	X
M-4	SOIL	22-Aug-96	X	X	X	X	X		X	X	X
M-5	SOIL	22-Aug-96	X	X	X	X	X			X	X
M-6	SOIL	5-Sep-96	X	X		X					
M-7	SOIL	5-Sep-96	X	X		X					
M-8	SOIL	5-Sep-96	X	X		X	X	X		X	
M-9	SOIL	5-Sep-96	X	X		X					
SD-1	SOIL	17-Sep-96	X								
SD-2	SOIL	18-Sep-96	X								
SD-3	SOIL	19-Sep-96	X								
SD-4	SOIL	19-Sep-96	X								
MW-1	WATER	5-Sep-96	X	X		X	X			X	X

Notes:

(a) Metals analyzed include arsenic and cadmium using EPA 6010/7000 series Methods.

(b) "X" signifies that the sample was analyzed for the chemicals described in the column heading. The EPA Method is indicated in parentheses.

TEPH	Total Extractable Petroleum Hydrocarbons
TPPH	Total Purgeable Petroleum Hydrocarbons
VOCs	Volatile Organic Compounds
PAHs	Polynuclear Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls

Table 2
Summary of Compounds Detected in Soil Near the Former Location of the Building M Tanks

Building M Tanks Removal
Chiron Corporation
Emeryville, California

SAMPLE-ID	SAMPLE DEPTH (ft bgs)	SAMPLE DATE	Compound Concentration (mg/kg)						
			TEPH (8015m) (mg/kg)	CHROMATOGRAPHIC TEPH DESCRIPTION	TPPH (8015m) (mg/kg)	CHROMATOGRAPHIC TPPH DESCRIPTION	TOTAL PCBs (8080) (mg/kg)	TOTAL XYLENES (8020) (mg/kg)	ARSENIC (6010) (mg/kg)
M-1	7	8/22/96	**290**	**UNIDENTIFIED HC, C9 - C36**	**570**	**UNIDENTIFIED HC, C8 - C11**	**0.047**	<0.5	**15**
M-2	7	8/22/96	**1,200**	**UNIDENTIFIED HC, C9 - C36**	**490**	**UNIDENTIFIED HC, C8 - C12**	**0.087**	<1.2	**34**
M-3	7	8/22/96	**650**	**UNIDENTIFIED HC, C9 - C40**	**25**	**UNIDENTIFIED HC, C9 - C12**	ND	<0.020	**14**
M-4	7	8/22/96	**5,800**	**UNIDENTIFIED HC, C9 - C40**	**35**	**UNIDENTIFIED HC, C9 - C12**	ND	<0.050	**12**
M-5	7	8/22/96	<1.0		<1.0		**0.065**	<0.12	**13**
M-6	8	9/5/96	<1.0		--		--	<0.005	--
M-7	8	9/5/96	**2,000**	**UNIDENTIFIED HC, C9 - C40**	--		--	<0.005	--
M-8	8	9/5/96	**5,600**	**UNIDENTIFIED HC, C9 - C40**	--		**0.020**	**4.5**	--
M-9	6	9/5/96	**2,500**	**UNIDENTIFIED HC, C9 - C40**	--		--	<0.005	--
SD-1	9.5	9/17/96	**2.3**	**UNIDENTIFIED HC, C9 - C24**	--		--	--	--
SD-2	9.5	9/18/96	**310**	**WEATHERED DIESEL, C9 - C24**	--		--	--	--
SD-3	9.5	9/19/96	**42**	**UNIDENTIFIED HC, C9 - C24**	--		--	--	--
SD-4	9.5	9/19/96	<1.0		--		--	--	--

Notes:

(a) A less than symbol ("<") denotes that the indicated compound was not quantified above the analytical method reporting limit.
(b) ND - denotes that no PCB compounds were detected above the analytical method reporting limit.
(c) A dash ("--") denotes that the corresponding sample was not analyzed for the indicated compound.

TEPH - Total Extractable Petroleum Hydrocarbons (EPA Method 8015m)
TPPH - Total Purgeable Petroleum Hydrocarbons (EPA Method 8015m)
PCBs - Polychlorinated Biphenyls (EPA Method 8080)

Table 3
Health Risk-Based Soil Remediation Goals
For the Chiron North of 53rd Street Properties (a)

Chiron Corporation
Emeryville, California

Compound	Proposed Remediation Goal for Covered Soil (mg/kg) (b)	Proposed Remediation Goal for Uncovered Soil (mg/kg) (c)
PCBs	1.2	1.2
Arsenic	66	66
Cadmium	4	4
Benzene	1.5	0.24
Chlorobenzene	10	10
Ethylbenzene	100	100
Methylene Chloride	25	6.4
Toluene	25	25
Total Dichlorobenzenes (d)	10	1.6
Total Xylenes	2,000	125
Trichloroethene	10	0.95
TPH (e)	1,000	1,000
1,1-Dichloroethane* (f)	10	0.028
1,1-Dichloroethene*	0.05	0.014
Acetone*	300	300
c-1,2-Dichloroethene*	2	2
Chloroform*	2	2
Methyl Ethyl Ketone*	800	800
t-1,2-Dichloroethene*	2	2
Tetrachloroethene*	5	0.12
Vinyl Chloride*	0.05	0.05

Notes:

(a) Remediation goals obtained from the Risk Assessment (EKI, 1995). Remediation goals represent the 95 percent upper confidence limit of future average chemical concentrations measured in soil (or another appropriate statistical technique approved by U.S. EPA or DTSC to represent the average concentration), rather than maximum allowable concentrations on the Site.

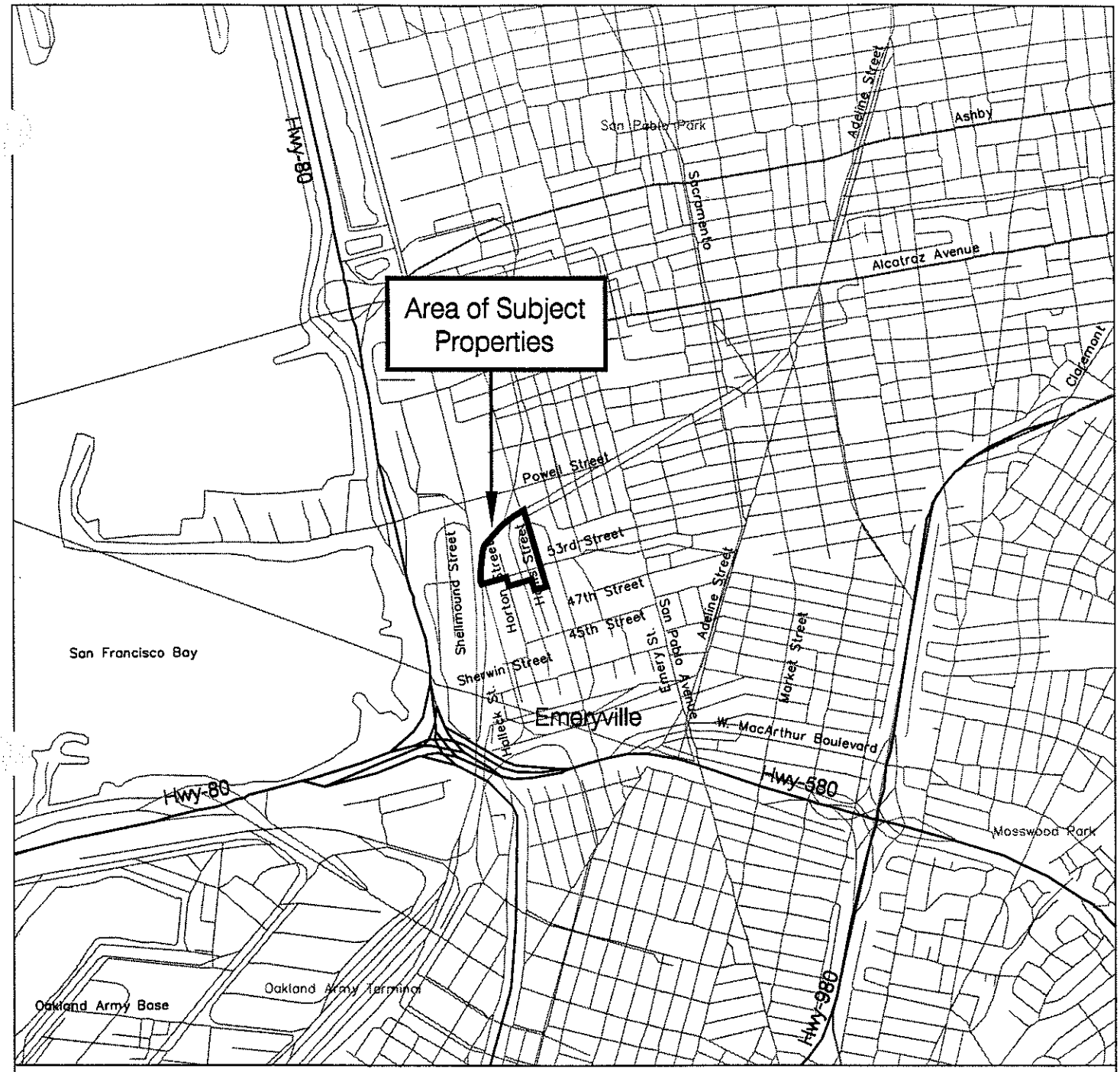
(b) Remediation goals for covered soil are derived from health-risk-based remediation goals for protected future on-site maintenance personnel. Covered soil includes soil capped with buildings, asphalt, and concrete.

(c) Remediation goals for uncovered soil (i.e., in landscaped areas) are assumed to equal the environmental risk-based remediation goal (calculated based on leaching potential) unless the health risk-based remediation goal is more stringent, in which case the lower value is used.

(d) Total dichlorobenzenes are represented as 1,4-dichlorobenzene, the most restrictive dichlorobenzene with respect to human health and ambient water quality.

(e) The soil remediation goal for total petroleum hydrocarbons ("TPH") was recommended for the Chapman Property by Alameda County staff. The recommendation of 1,000 mg/kg TPH is based on a RWQCB memorandum for residential heating oil tanks (RWQCB, 1994), and represents a manageable level for residuals of middle distillate petroleum compounds, such as home heating oil and diesel, in soil.

(f) Asterisk ("*") indicates that the compound has only been detected in groundwater on the Site.



Erler & Kalinowski, Inc.

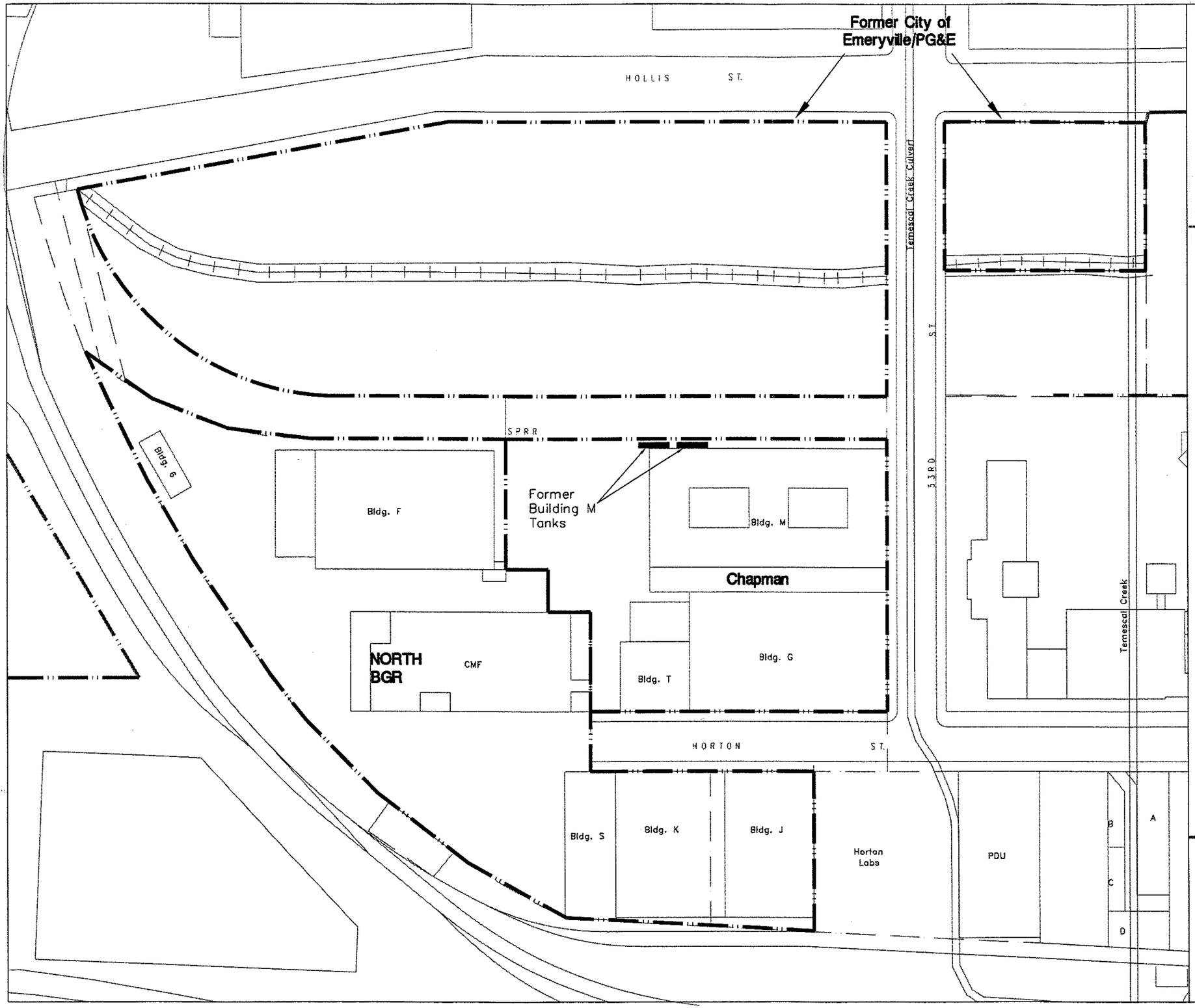
Site Location Map

Chiron Corporation
Emeryville, CA
March 1997
EKI 930028.60

Figure 1

Notes:

1. All locations are approximate.



Notes

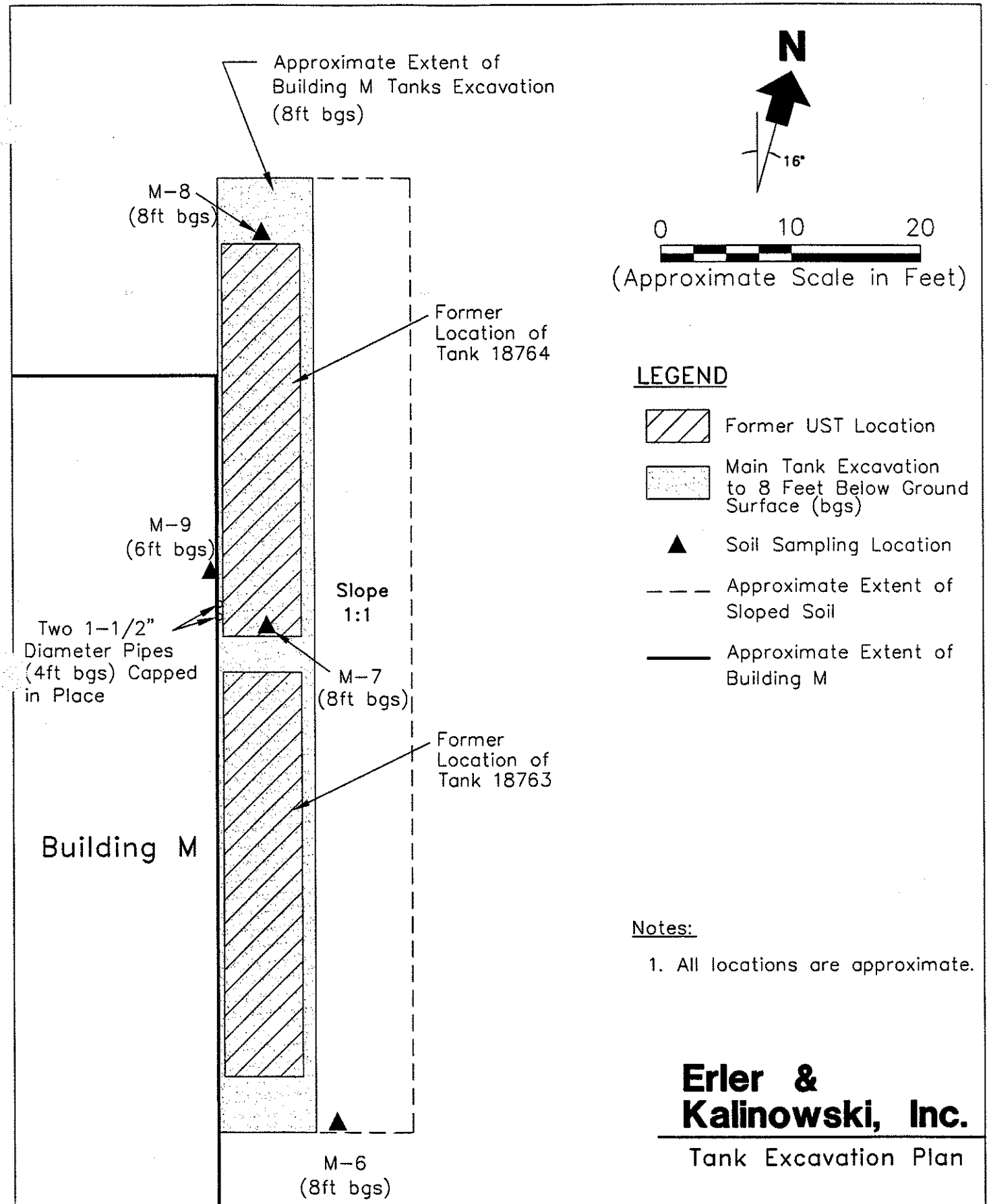
1. All locations are approximate.

Erler & Kalinowski, Inc.

Building M Tanks
Location Map

Chiron Corporation
Emeryville, CA
March 1997
EKI 930028.60
Figure 2

97 Mar 06 13:58:02 F:\930028.60\MAR97\MAR96-2



Notes:

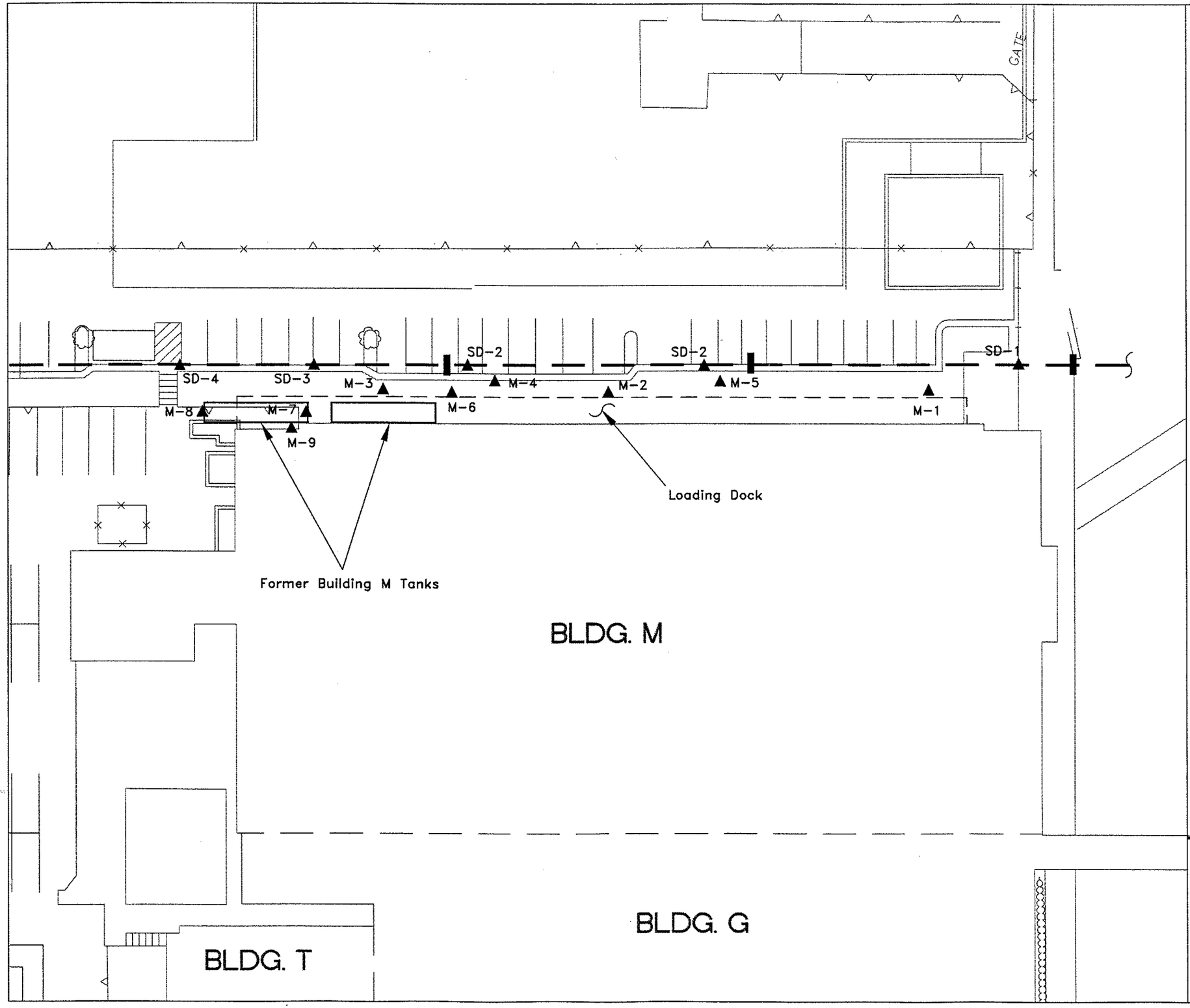
1. All locations are approximate.

Erler & Kalinowski, Inc.

Tank Excavation Plan

Chiron Corporation
Emeryville, CA
March 1997
EKI 930028.60
Figure 3

97 Mar 06 13:58:55 F:\930028.60\MAR97\MAR96-3



N 74°

0 30 60

(Approximate Scale in Feet)

LEGEND

- Extent of the Former Building M Loading Dock
- ▲ Recent Soil Sampling Location (August and September 1996)
- Concrete Cut-Off Wall
- Utility Trench Excavated for Installation of a Stormdrain Pipeline

Notes:

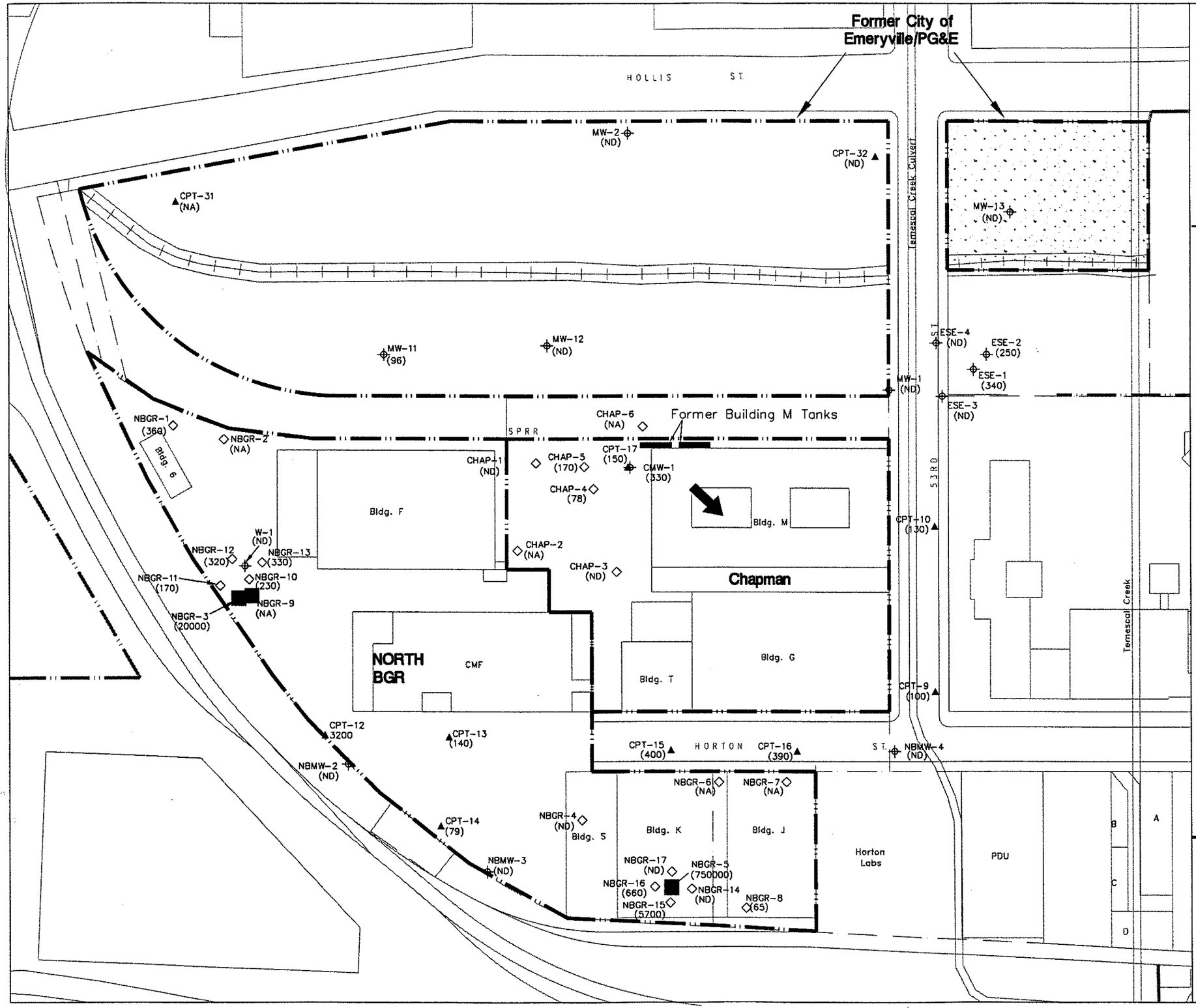
1. All locations are approximate.

Erler & Kalinowski, Inc.

Soil Sampling Locations at and Near the Former Building M Tanks (August & September 1996)

Chiron Corporation
Emeryville, CA
March 1997
EKI 930028.60
Figure 4

97 Mar 06 16:43:42 F:\930028.60\MAR97\MAR96-4



N 74°

0 100 200

(Approximate Scale in Feet)

LEGEND

- Property Line
- Concrete
- ▲ Historic CPT/Hydropunch Location by EKI
- ⌖ Monitoring Well Location
- ◇ Historic Soil Boring and/or Grab Groundwater Sampling Location by EKI
- ▬ Former Underground Storage Tank Location
- (100) TEPH Detected in in Shallow Groundwater
- (ND) TEPH Not Detected
- (NA) TEPH Not Analyzed
- ■ Hydrocarbon Free Product Observed
- ➘ Apparent Groundwater Flow Direction Based on Groundwater Potentiometric Surface Measurements on 31 August 1994

Notes

1. All locations are approximate.
2. TEPH is total extractable petroleum hydrocarbons.
3. Descrete peaks in the total volatile petroleum hydrocarbon (TVPH) range were also detected at NBGR-3 at 3,300 ug/l.
4. TEPH detected at NBGR-15 and NBGR-16 was was quantified as motor oil.
5. The posted TEPH data are from groundwater samples collected from July 1993 through August 1994.

Erler & Kalinowski, Inc.

TEPH Detected in Shallow Groundwater

Chiron Corporation
Emeryville, CA
March 1997
EKI 930028.60
Figure 5

97 Mar 06 14:05:11 F:\930028.60\MAR97\MAR96-5

APPENDICES

APPENDIX A

PROCEDURES FOR COLLECTION AND ANALYSIS SOIL SAMPLES AND GRAB GROUNDWATER SAMPLES

APPENDIX A

PROCEDURES FOR COLLECTION AND ANALYSIS SOIL SAMPLES AND GRAB GROUNDWATER SAMPLES

Chiron Corporation, Emeryville, California
(EKI 930028.60)

Soil samples were collected from the floor and sidewalls of the Building M Tanks excavation, trenches constructed near the former Building M loading dock, and a utility trench constructed east of Building M for the installation of a storm drain. These soil samples were collected to evaluate the lateral extent of soil containing TEPH above site remediation criteria. In addition, a grab groundwater sample was collected from the Building M Tanks excavation. Procedures used for collecting and analyzing soil samples and the grab water sample near the former location of the Building M Tanks are outlined below.

SAMPLE COLLECTION PROCEDURES FOR SOIL SAMPLES

Soil samples were collected at several locations near the former the Building M Tanks using a backhoe. After the top few inches of soil contained in the backhoe bucket was scraped away, samples of soil were collected in clean 2-inch diameter stainless liners. After sample collection, the ends of each sample liner were sealed using Teflon® sheets and plastic end caps.

A sample label which included a unique sample identification number, the sample location, and the time and date of sample collection was attached to each liner. Sealed liners were then placed in zip-closure plastic bags, and placed on ice in a cooler for temporary storage and transport to the laboratory for chemical analysis. Chain-of-custody records were initiated at the time of sample collection. Soil samples were selectively analyzed for TEPH and TPPH by EPA Method 8015m, VOCs by EPA Methods 8010 and 8020, semi-volatile compounds by EPA Method 8270, PAHs by EPA 8100, arsenic and cadmium by EPA Method 6010, and PCBs by EPA Method 8080 as indicated in Table 1.

SAMPLE COLLECTION PROCEDURES FOR GRAB WATER SAMPLES

A grab groundwater sample was collected from the Building M Tanks excavation using a clean disposable Teflon® bailer. Upon retrieval of the bailer, the water was transferred directly to appropriate laboratory supplied sample containers. The grab groundwater sample was not filtered prior to analysis.

A sample label which included a unique sample identification number, the sample location, and the time and date of sample collection was attached to each sample container. Sealed sample containers were then placed in zip-closure plastic bags, and placed on ice in a cooler for temporary storage and transport to the laboratory for chemical analysis. Chain-of-custody records were initiated at the time of sample collection. The grab groundwater sample was analyzed for TEPH by EPA Method 8015m, VOCs by EPA Method 8010/8020, PCBs by EPA Method 8080, and arsenic and chromium by EPA Method 7000 series.

B

APPENDIX B

COPIES OF HAZARDOUS WASTE MANIFESTS FOR THE BUILDING M TANKS

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-96)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Contr
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAR000013904 — Manifest Document No. 81882 — 2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Chevron Corporation
4560 Horton Street
Emeryville, CA 94608
510 601-2428

4. Generator's Phone ( )

A. State Manifest Document Number 96148188

B. State Generator's ID

5. Transporter 1 Company Name: Dillard Trucking, Inc.

6. US EPA ID Number: CAD981692809

C. State Transporter's ID 60197

D. Transporter's Phone (510) 634-6850

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID 66209

F. Transporter's Phone

9. Designated Facility Name and Site Address
Erickson, Inc.
255 Parr Blvd.
Richmond, CA 94801

10. US EPA ID Number: CAD009466392

G. State Facility's ID

H. Facility's Phone (510) 235-1393

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. ~~(Empty Tanks once containing Number 6 Oil)~~ Non-RCRA Hazardous Waste Solid	001	TP	08000	P	State 512 / EPA/Other Non RCRA
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above: 4,500 gallon steel tank #18763 — ENG# 11

K. Handling Codes for Wastes Listed Above
a. b.
c. d.

L. Special Handling Instructions and Additional Information
(Gloves, rubber boots, protective clothing, respirator, goggles, etc.)
SITE: 53rd & Stanford

24-Hour Emergency Telephone#:
(510) 634-6850

JOB# 486-6 PO# 11-20066

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
		01	25	96

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
PHIL ROOSE		01	25	96

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (1/95)
EPA 8700—22

Yellow: GENERATOR RETAINS

GENERATOR

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-8[illegible]

[illegible]50

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-96)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Co
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAR000013495 — Manifest Document No. 04818 9
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
4560 Horton Street
Emeryville, CA 94608
510 601-2428

4. Generator's Phone ( )

A. State Manifest Document Number: 96148189

B. State Generator's ID:

5. Transporter 1 Company Name: Dillard Trucking, Inc.

6. US EPA ID Number: CAD981692809

C. State Transporter's ID:

D. Transporter's Phone: (510) 634-6850

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
Erickson, Inc.
255 Parr Blvd.
Richmond, CA 94801

10. US EPA ID Number: CAD009466392

G. State Facility's ID:

H. Facility's Phone: (510) 235-1393

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. (Empty Tanks once containing Bunker C Oil) Non-RCRA Hazardous Waste Solid	001	TP	05000	P	State 512 / EPA/Other Non RCI
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above: ERG# 11
4,500 gallon steel tank # 18764

K. Handling Codes for Wastes Listed Above
a. b.
c. d.

24-Hour Emergency Telephone#:
(510) 634-6850

15. Special Handling Instructions and Additional Information
Wear PPE (gloves, rubber gloves, rubber boots, protective clothing, respirator, goggles, etc.)
SITE: 53rd & Stanford

JOB# 486-6 PO# 11-20068

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
		8	1	

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
John Ducca	John Ducca	08	05	96

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL R NSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-8 50

96148189

DTSC 8022A (1/95)
EPA 8700—22

Yellow: GENERATOR RETAINS

C

APPENDIX C

COPIES OF CERTIFICATES OF DISPOSAL FOR THE BUILDING M TANKS

DAY OR NIGHT
TELEPHONE
(510) 235-1393

CERTIFICATE

CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 16035

CUSTOMER
DILLARD TRANSP
JOB NO.
96[illegible]

FOR: ERICKSON, INC. TANK NO. 10763

LOCATION: RICHMOND DATE: 96/09/13 TIME: 13:34

TEST METHOD VISUAL GASTECH/1314 SMPN LAST PRODUCT FO

This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE 6500 GALLON TANK CONDITION SAFE FOR FIRE

REMARKS: OXYGEN 20.9% LOWER EXPLOSIVE LIMIT LESS THAN 0.1%
ERICKSON, INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY.
ERICKSON, INC. HAS THE APPROPRIATE PERMITS FOR, AND HAS ACCEPTED THE TANK SHIPPED TO US FOR PROCESSING.

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

STANDARD SAFETY DESIGNATION

SAFE FOR MEN: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

SAFE FOR FIRE: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

Francisco Campos — Dave Soto

REPRESENTATIVE TITLE INSPECTOR

CP5995

DAY OR NIGHT
TELEPHONE
(510) 235-1393

CERTIFICATE

CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 16036

CUSTOMER DILLARD TRANSP

JOB NO. 969091

FOR: ERICKSON, INC. TANK NO. 18764

LOCATION: RICHMOND DATE: 96/09/13 TIME: 13:34

TEST METHOD VISUAL GASTECH/1314 SMPN LAST PRODUCT FC

This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE 6500 GALLON TANK CONDITION SAFE FOR FIRE

REMARKS: OXYGEN 20.9% LOWER EXPLOSIVE LIMIT LESS THAN 0.1%
ERICKSON, INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY.
ERICKSON, INC. HAS THE APPROPRIATE PERMITS FOR, AND HAS ACCEPTED THE TANK SHIPPED TO US FOR PROCESSING.

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

STANDARD SAFETY DESIGNATION

SAFE FOR MEN: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

SAFE FOR FIRE: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

Francisco Amezcua — REPRESENTATIVE

TITLE

Dave Sato — INSPECTOR

D

APPENDIX D

LABORATORY DATA SHEETS FOR SOIL SAMPLES AND GRAB GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF THE BUILDING M TANKS

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

COPY

Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steve Tarantino

Client Proj. ID: 930028.27/Chiron

Lab Proj. ID: 9608D48

Sampled: 08/22/96
Received: 08/22/96
Analyzed: see below

Reported: 08/27/96

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9608D48-01 *				
Sample Desc : **LIQUID,D-1**				
Arsenic	**mg/L**	**08/26/96**	**0.00030**	**0.039**
Cadmium	mg/L	08/24/96	0.010	N.D.
Lab No: 9608D48-03				
Sample Desc : **SOLID,M-3**				
Arsenic	**mg/Kg**	**08/23/96**	**5.0**	**14**
Cadmium	mg/Kg	08/23/96	0.50	N.D.
Lab No: 9608D48-04				
Sample Desc : **SOLID,M-4**				
Arsenic	**mg/Kg**	**08/23/96**	**5.0**	**12**
Cadmium	mg/Kg	08/23/96	0.50	N.D.

* SAMPLE D-1 NOT RELATED TO THE BUILDING M TANKS

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steve Tarantino

Client Proj. ID: 930028.27/Chiron

Lab Proj. ID: 9608D48

Sampled:
Received: 08/22/96
Analyzed: see below

Reported: 08/27/96

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9608D48-07				
Sample Desc : **LIQUID,Method Blank**				
Arsenic	mg/L	08/26/96	0.00030	N.D.
Cadmium	mg/L	08/24/96	0.010	N.D.
Lab No: 9608D48-08				
Sample Desc : **SOLID,Method Blank**				
Arsenic	mg/Kg	08/23/96	5.0	N.D.
Cadmium	mg/Kg	08/23/96	0.50	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-1	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/22/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/23/96
Attention: Steve Tarantino	Lab Number: 9608D48-02	Reported: 08/27/96

QC Batch Number: GC0819960HBPEXA
Instrument ID: GCHP5A

Fuel Fingerprint

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Extractable Hydrocarbons	10	290
Chromatogram Pattern:		
Unidentified HC		C9-C36

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	125

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-3	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/22/96
	Analysis Method: EPA 8010	Analyzed: 08/23/96
Attention: Steve Tarantino	Lab Number: 9608D48-03	Reported: 08/27/96

QC Batch Number: GC0822968010EXB
Instrument ID: GCHP08

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Bromodichloromethane	20	N.D.
Bromoform	20	N.D.
Bromomethane	20	N.D.
Carbon Tetrachloride	20	N.D.
Chlorobenzene	20	N.D.
Chloroethane	20	N.D.
2-Chloroethylvinyl ether	20	N.D.
Chloroform	20	N.D.
Chloromethane	20	N.D.
Dibromochloromethane	20	N.D.
1,2-Dichlorobenzene	20	N.D.
1,3-Dichlorobenzene	20	N.D.
,4-Dichlorobenzene	20	N.D.
,1-Dichloroethane	20	N.D.
1,2-Dichloroethane	20	N.D.
1,1-Dichloroethene	20	N.D.
cis-1,2-Dichloroethene	20	N.D.
trans-1,2-Dichloroethene	20	N.D.
1,2-Dichloropropane	20	N.D.
cis-1,3-Dichloropropene	20	N.D.
trans-1,3-Dichloropropene	20	N.D.
Methylene chloride	200	N.D.
1,1,2,2-Tetrachloroethane	20	N.D.
Tetrachloroethene	20	N.D.
1,1,1-Trichloroethane	20	N.D.
1,1,2-Trichloroethane	20	N.D.
Trichloroethene	20	N.D.
Trichlorofluoromethane	20	N.D.
Vinyl chloride	20	N.D.
Freon 113	20	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	79

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-3	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/22/96
	Analysis Method: EPA 8020	Analyzed: 08/23/96
Attention: Steve Tarantino	Lab Number: 9608D48-03	Reported: 08/27/96

QC Batch Number: GC0822968020EXB
Instrument ID: GCHP8

Aromatic Volatile Organics (EPA 8020)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Benzene	20	N.D.
Chlorobenzene	20	N.D.
1,2-Dichlorobenzene	20	N.D.
1,3-Dichlorobenzene	20	N.D.
1,4-Dichlorobenzene	20	N.D.
Ethyl benzene	20	N.D.
Toluene	20	N.D.
Total Xylenes	20	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	107

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-3	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/23/96
	Analysis Method: EPA 8100	Analyzed: 08/26/96
Attention: Steve Tarantino	Lab Number: 9608D48-03	Reported: 08/27/96

QC Batch Number: GC0821968100EXA
Instrument ID: GCHP11

Polynuclear Aromatic Hydrocarbons (EPA 8100)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Acenaphthene	250	N.D.
Acenaphthylene	250	N.D.
Anthracene	250	N.D.
Benzo(a)anthracene	250	N.D.
Benzo(a)pyrene	250	N.D.
Benzo(b)fluoranthene	250	N.D.
Benzo(g,h,i)perylene	250	N.D.
Benzo(k)fluoranthene	250	N.D.
Chrysene	250	N.D.
Dibenzo(a,h)anthracene	250	N.D.
Fluoranthene	250	N.D.
Fluorene	250	N.D.
ndeno(1,2,3-cd)pyrene	250	N.D.
aphthalene	250	N.D.
Phenanthrene	250	N.D.
Pyrene	250	N.D.

Surrogates	Control Limits %		% Recovery
2-Fluorobiphenyl	50	150	116

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-3	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/23/96
	Analysis Method: EPA 8080	Analyzed: 08/25/96
Attention: Steve Tarantino	Lab Number: 9608D48-03	Reported: 08/27/96

QC Batch Number: GC0823960PCBEXA
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	55

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-3	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/22/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/25/96
Attention: Steve Tarantino	Lab Number: 9608D48-03	Reported: 08/27/96

QC Batch Number: GC0819960HBPEXA
Instrument ID: GCHP5A

Fuel Fingerprint

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Extractable Hydrocarbons	20	650
Chromatogram Pattern:		
Unidentified HC		C9-C40

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	346 Q

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-3	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/22/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/23/96
Attention: Steve Tarantino	Lab Number: 9608D48-03	Reported: 08/27/96

QC Batch Number: GC082296BTEXEXB
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	**5.0**	**25**
Chromatogram Pattern:		
Unidentified HC		C9-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	97

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-4	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/22/96
	Analysis Method: EPA 8010	Analyzed: 08/23/96
Attention: Steve Tarantino	Lab Number: 9608D48-04	Reported: 08/27/96

QC Batch Number: GC0822968010EXB
Instrument ID: GCHP08

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Bromodichloromethane	50	N.D.
Bromoform	50	N.D.
Bromomethane	50	N.D.
Carbon Tetrachloride	50	N.D.
Chlorobenzene	50	N.D.
Chloroethane	50	N.D.
2-Chloroethylvinyl ether	50	N.D.
Chloroform	50	N.D.
Chloromethane	50	N.D.
Dibromochloromethane	50	N.D.
1,2-Dichlorobenzene	50	N.D.
1,3-Dichlorobenzene	50	N.D.
1,4-Dichlorobenzene	50	N.D.
,1-Dichloroethane	50	N.D.
,2-Dichloroethane	50	N.D.
1,1-Dichloroethene	50	N.D.
cis-1,2-Dichloroethene	50	N.D.
trans-1,2-Dichloroethene	50	N.D.
1,2-Dichloropropane	50	N.D.
cis-1,3-Dichloropropene	50	N.D.
trans-1,3-Dichloropropene	50	N.D.
Methylene chloride	500	N.D.
1,1,2,2-Tetrachloroethane	50	N.D.
Tetrachloroethene	50	N.D.
1,1,1-Trichloroethane	50	N.D.
1,1,2-Trichloroethane	50	N.D.
Trichloroethene	50	N.D.
Trichlorofluoromethane	50	N.D.
Vinyl chloride	50	N.D.
Freon 113	50	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	80

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-4	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/22/96
	Analysis Method: EPA 8020	Analyzed: 08/23/96
Attention: Steve Tarantino	Lab Number: 9608D48-04	Reported: 08/27/96

QC Batch Number: GC0822968020EXB
Instrument ID: GCHP8

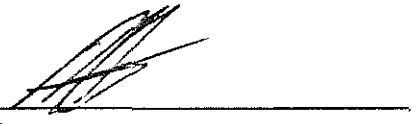
Aromatic Volatile Organics (EPA 8020)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Benzene	50	N.D.
Chlorobenzene	50	N.D.
1,2-Dichlorobenzene	50	N.D.
1,3-Dichlorobenzene	50	N.D.
1,4-Dichlorobenzene	50	N.D.
Ethyl benzene	50	N.D.
Toluene	50	N.D.
Total Xylenes	50	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	98

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Mike Gregory
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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-4	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/23/96
	Analysis Method: EPA 8100	Analyzed: 08/26/96
Attention: Steve Tarantino	Lab Number: 9608D48-04	Reported: 08/27/96

QC Batch Number: GC0821968100EXA
Instrument ID: GCHP11

Polynuclear Aromatic Hydrocarbons (EPA 8100)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Acenaphthene	2500	N.D.
Acenaphthylene	2500	N.D.
Anthracene	2500	N.D.
Benzo(a)anthracene	2500	N.D.
Benzo(a)pyrene	2500	N.D.
Benzo(b)fluoranthene	2500	N.D.
Benzo(g,h,i)perylene	2500	N.D.
Benzo(k)fluoranthene	2500	N.D.
Chrysene	2500	N.D.
Dibenzo(a,h)anthracene	2500	N.D.
Fluoranthene	2500	N.D.
Fluorene	2500	N.D.
Indeno(1,2,3-cd)pyrene	2500	N.D.
Naphthalene	2500	N.D.
Phenanthrene	2500	N.D.
Pyrene	2500	N.D.

Surrogates	Control Limits %		% Recovery
2-Fluorobiphenyl	50	150	97

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-4	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/23/96
	Analysis Method: EPA 8080	Analyzed: 08/25/96
Attention: Steve Tarantino	Lab Number: 9608D48-04	Reported: 08/27/96

QC Batch Number: GC0823960PCBEXA
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	58

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-4	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/22/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/25/96
Attention: Steve Tarantino	Lab Number: 9608D48-04	Reported: 08/27/96

QC Batch Number: GC0819960HBPEXA
Instrument ID: GCHP5B

Fuel Fingerprint

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Extractable Hydrocarbons	50	5800
Chromatogram Pattern:		
Unidentified HC		C9-C40

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	0 Q

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-4	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/22/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/23/96
Attention: Steve Tarantino	Lab Number: 9608D48-04	Reported: 08/27/96

QC Batch Number: GC082296BTEXEXB
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	20	35
Chromatogram Pattern:		
Unidentified HC		C9-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	99

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-2	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/22/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/25/96
Attention: Steve Tarantino	Lab Number: 9608D48-05	Reported: 08/27/96

QC Batch Number: GC0819960HBPEXA
Instrument ID: GCHP5B

Fuel Fingerprint

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Extractable Hydrocarbons	50	1200
Chromatogram Pattern:		
Unidentified HC		C9-C36

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	0 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

ke Gregory
ject Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-5	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/22/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/25/96
Attention: Steve Tarantino	Lab Number: 9608D48-06	Reported: 08/27/96

QC Batch Number: GC0819960HBPEXA
Instrument ID: GCHP5A

Fuel Fingerprint

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Extractable Hydrocarbons Chromatogram Pattern:	1.0	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	98

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 08/22/96
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 08/22/96
	Analysis Method: EPA 8080	Analyzed: 08/24/96
Attention: Steve Tarantino	Lab Number: 9608D48-07	Reported: 08/27/96

QC Batch Number: GC0822960PCBEXB
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/L	Sample Results ug/L
PCB-1016	0.50	N.D.
PCB-1221	2.0	N.D.
PCB-1232	0.50	N.D.
PCB-1242	0.50	N.D.
PCB-1248	0.50	N.D.
PCB-1254	0.50	N.D.
PCB-1260	0.50	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	50	150	137

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 08/22/96
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 08/22/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/22/96
Attention: Steve Tarantino	Lab Number: 9608D48-07	Reported: 08/27/96

QC Batch Number: GC0822960HBPEXA
Instrument ID: GCHP5A

Fuel Fingerprint

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable Hydrocarbons Chromatogram Pattern:	50	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	98

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/22/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/23/96
Attention: Steve Tarantino	Lab Number: 9608D48-08	Reported: 08/27/96

QC Batch Number: GC0819960HBPEXA
Instrument ID: GCHP5A

Fuel Fingerprint

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Extractable Hydrocarbons Chromatogram Pattern:	1.0	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	103

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/22/96
	Analysis Method: EPA 8010	Analyzed: 08/23/96
Attention: Steve Tarantino	Lab Number: 9608D48-08	Reported: 08/27/96

QC Batch Number: GC0822968010EXB
Instrument ID: GCHP08

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon Tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1-Dichloroethane	5.0	N.D.
,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	5.0	N.D.
Freon 113	5.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	90

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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819 Striker Avenue, Suite 3, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/22/96
	Analysis Method: EPA 8020	Analyzed: 08/23/96
Attention: Steve Tarantino	Lab Number: 9608D48-08	Reported: 08/27/96

QC Batch Number: GC0822968020EXB
Instrument ID: GCHP8

Aromatic Volatile Organics (EPA 8020)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Benzene	5.0	N.D.
Chlorobenzene	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
Ethyl benzene	5.0	N.D.
Toluene	5.0	N.D.
Total Xylenes	5.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	90

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/23/96
	Analysis Method: EPA 8080	Analyzed: 08/24/96
Attention: Steve Tarantino	Lab Number: 9608D48-08	Reported: 08/27/96

QC Batch Number: GC0823960PCBEXA
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	108

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/22/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/23/96
Attention: Steve Tarantino	Lab Number: 9608D48-08	Reported: 08/27/96

QC Batch Number: GC082296BTEXEXB
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	101

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/23/96
	Analysis Method: EPA 8100	Analyzed: 08/26/96
Attention: Steve Tarantino	Lab Number: 9608D48-08	Reported: 08/27/96

QC Batch Number: GC0821968100EXA
Instrument ID: GCHP11

Polynuclear Aromatic Hydrocarbons (EPA 8100)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Acenaphthene	250	N.D.
Acenaphthylene	250	N.D.
Anthracene	250	N.D.
Benzo(a)anthracene	250	N.D.
Benzo(a)pyrene	250	N.D.
Benzo(b)fluoranthene	250	N.D.
Benzo(g,h,i)perylene	250	N.D.
Benzo(k)fluoranthene	250	N.D.
Chrysene	250	N.D.
Dibenzo(a,h)anthracene	250	N.D.
Fluoranthene	250	N.D.
Fluorene	250	N.D.
Indeno(1,2,3-cd)pyrene	250	N.D.
Naphthalene	250	N.D.
Phenanthrene	250	N.D.
Pyrene	250	N.D.

Surrogates	Control Limits %		% Recovery
2-Fluorobiphenyl	50	150	72

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Received: 08/22/96
1730 South Amphlett, Ste 320		
San Mateo, CA 94402	Lab Proj. ID: 9608D48	Reported: 08/27/96
Attention: Steve Tarantino		

LABORATORY NARRATIVE

8010/8020: Samples #3 and #4 were run at dilution due to high boilers in PID.
DIESEL: SAMPLE D48-1 CONTAINS A HEAVY OIL.
SAMPLE D48-2 CONTAINS W-MINERAL SPIRITS @ 370 ppm.
SAMPLE D48-3 CONTAINS W-CRUDE OIL @ 960 ppm AND SURROGATE COELUTED.
SAMPLE D48-5 CONTAINS W-MINERAL SPIRITS @ 830 ppm AND SURROGATE DILUTED OUT.
SAMPLE D48-4 CONTAINS W-DIESEL @ 3400 ppm AND SURROGATE DILUTED OUT.

8100: SAMPLE WAS DILUTED (1:20) DUE TO HIGH HITS FOR HYDROCARBONS IN DIESEL RUN.
SURROGATE WAS DILUTED OUT.

SEQUOIA ANALYTICAL

Mike Gregory
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Erler & Kalinowski, Inc.	Client Project ID:	930028.27/Chiron		
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID		
San Mateo, CA 94402	Sample Descript:	BLK		
Attention: Steve Tarrantino	*Work Order #:*	9608D48	-01, -07	Reported: Sep 4, 1996

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	*GC0822960PCBEXB*
Analy. Method:	EPA 8080
Prep. Method:	EPA 3510

Analyst:	J. Miller
MS/MSD #:	BLK082296-BLK
Sample Conc.:	N.D.
Prepared Date:	08/22/96
Analyzed Date:	08/24/96
Instrument I.D.#:	GCHP12
Conc. Spiked:	2.5 ug/L
Result:	2.7
BS % Recovery:	108
Dup. Result:	3.0
BSD % Recov.:	120
RPD:	10
RPD Limit:	0-50

LCS #:	
Prepared Date:	
Analyzed Date:	
Instrument I.D.#:	
Conc. Spiked:	
LCS Result:	
LCS % Recov.:	

MS/MSD	40-140
LCS	
Control Limits	

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Mike Gregory
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.	Client Project ID:	930028.27/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	XSD	
Attention: Steve Tarrantino	Work Order #:	9608D48 -03, -04, -08	Reported: Sep 4, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0823966010MDE	ME0823966010MDE	ME0823966010MDE	ME0823966010MDE
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	R. Butler	R. Butler	R. Butler	R. Butler
MS/MSD #:	9608B20-01-XSD	9608B20-01-XSD	9608B20-01-XSD	9608B20-01-XSD
Sample Conc.:	0.64	N.D.	79	90
Prepared Date:	08/23/96	08/23/96	08/23/96	08/23/96
Analyzed Date:	08/23/96	08/23/96	08/23/96	08/23/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/kg	100 mg/kg	100 mg/kg	100 mg/kg
Result:	99	95	160	180
MS % Recovery:	98	95	81	90
Dup. Result:	100	95	130	190
MSD % Recov.:	99	95	51	100
RPD:	1.0	0.0	21	5.4
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	LCS082396-LCS	LCS082396-LCS	LCS082396-LCS	LCS082396-LCS
Prepared Date:	08/23/96	08/23/96	08/23/96	08/23/96
Analyzed Date:	08/23/96	08/23/96	08/23/96	08/23/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/kg	100 mg/kg	100 mg/kg	100 mg/kg
LCS Result:	100	100	100	100
LCS % Recov.:	100	100	100	100
MS/MSD LCS Control Limits	80-120	80-120	80-120	80-120

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Please Note:
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** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.	Client Project ID:	930028.27/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	LCS	
Attention: Steve Tarrantino	Work Order #:	9608D48 -03, -04, -08	Reported: Sep 4, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Naphthalene	Acenapthene	Pyrene
QC Batch#:	GC0821968100EXA	GC0821968100EXA	GC0821968100EXA
Analy. Method:	EPA 8100	EPA 8100	EPA 8100
Prep. Method:	EPA 3550	EPA 3550	EPA 3550
Analyst:	D. Nelson	D. Nelson	D. Nelson
MS/MSD #:			
Sample Conc.:			
Prepared Date:			
Analyzed Date:			
Instrument I.D.#:			
Conc. Spiked:			
Result:			
MS % Recovery:			
Dup. Result:			
MSD % Recov.:			
RPD:			
RPD Limit:			

LCS #:	LCS082396-LCS	LCS082396-LCS	LCS082396-LCS
Prepared Date:	08/23/96	08/23/96	08/23/96
Analyzed Date:	08/26/96	08/26/96	08/26/96
Instrument I.D.#:	GCHP11	GCHP11	GCHP11
Conc. Spiked:	2500 ug/kg	2500 ug/kg	2500 ug/kg
LCS Result:	1700	1700	1800
LCS % Recov.:	68	68	72
MS/MSD LCS Control Limits	30-120	30-120	30-120

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Mike Gregory
Project Manager

Please Note:
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** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.	Client Project ID:	930028.27/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID	
San Mateo, CA 94402	Sample Descript:	XSD	
Attention: Steve Tarrantino	Work Order #:	9608D48 -01, -07	Reported: Sep 4, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0822960HBPEXA
Analy. Method:	EPA 8015 M
Prep. Method:	EPA 3510
Analyst:	J. Minkel
MS/MSD #:	9608B15-02-XSD
Sample Conc.:	57
Prepared Date:	08/22/96
Analyzed Date:	08/22/96
Instrument I.D.#:	GCHP5A
Conc. Spiked:	1000 ug/L
Result:	1100
MS % Recovery:	104
Dup. Result:	990
MSD % Recov.:	93
RPD:	11
RPD Limit:	0-50

LCS #:	LCS082296-LCS
Prepared Date:	08/22/96
Analyzed Date:	08/22/96
Instrument I.D.#:	GCHP5A
Conc. Spiked:	1000 ug/L
LCS Result:	990
LCS % Recov.:	99

MS/MSD	60-140
LCS	50-150
Control Limits	

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Mike Gregory
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Project ID:	930028.27/Chiron		
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID		
San Mateo, CA 94402	Sample Descript:	XSD		
Attention: Steve Tarrantino	Work Order #:	9608D48	-02 -06, -08	Reported: Sep 4, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0819960HBPEXA
Analy. Method:	EPA 8015 M
Prep. Method:	EPA 3550

Analyst:	B. Sullivan
MS/MSD #:	9608A07-04-XSD
Sample Conc.:	670*
Prepared Date:	08/19/96
Analyzed Date:	08/20/96
Instrument I.D.#:	GCHP5B
Conc. Spiked:	25 mg/kg
Result:	730 *
MS % Recovery:	240
Dup. Result:	*
MSD % Recov.:	*
RPD:	*
RPD Limit:	0-50

* Matrix Interference

LCS #:	LCS082296-LCS
Prepared Date:	08/22/96
Analyzed Date:	08/23/96
Instrument I.D.#:	GCHP4B
Conc. Spiked:	25 mg/Kg
LCS Result:	24
LCS % Recov.:	96

MS/MSD	60-140
LCS	50-150
Control Limits	

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SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.27/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	XSD	
Attention: Steve Tarrantino	Work Order #:	9608D48 -03, -04, -08	Reported: Sep 4, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC082296BTEXEB	GC082296BTEXEB	GC082296BTEXEB	GC082296BTEXEB
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Heider	J. Heider	J. Heider	J. Heider
MS/MSD #:	9608D42-01-XSD	9608D42-01-XSD	9608D42-01-XSD	9608D42-01-XSD
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	08/20/96	08/20/96	08/20/96	08/20/96
Analyzed Date:	08/22/96	08/22/96	08/22/96	08/22/96
Instrument I.D.#:	GCHP07	GCHP07	GCHP07	GCHP07
Conc. Spiked:	0.20 mg/kg	0.20 mg/kg	0.20 mg/kg	0.60 mg/kg
Result:	0.20	0.24	0.22	0.71
MS % Recovery:	100	120	110	118
Dup. Result:	0.18	0.18	0.19	0.56
MSD % Recov.:	90	90	95	93
RPD:	11	29	15	24
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	LCS082296-LCS	LCS082296-LCS	LCS082296-LCS	LCS082296-LCS
Prepared Date:	08/20/96	08/20/96	08/20/96	08/20/96
Analyzed Date:	08/22/96	08/22/96	08/22/96	08/22/96
Instrument I.D.#:	GCHP07	GCHP07	GCHP07	GCHP07
Conc. Spiked:	0.20 mg/kg	0.20 mg/kg	0.20 mg/kg	0.60 mg/kg
LCS Result:	0.21	0.21	0.22	0.66
LCS % Recov.:	105	105	110	110

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.27/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	XSD	
Attention: Steve Tarrantino	Work Order #:	9608D48 -03, -04, -08	Reported: Sep 4, 1996

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-benzene
QC Batch#:	GC0822968010EXB	GC0822968010EXB	GC0822968010EXB
Analy. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Bou-Salman	R. Bou-Salman	R. Bou-Salman
MS/MSD #:	9608A22-01-XSD	9608A22-01-XSD	9608A22-01-XSD
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	08/22/96	08/22/96	08/22/96
Analyzed Date:	08/23/96	08/23/96	08/23/96
Instrument I.D.#:	GCHP09	GCHP09	GCHP09
Conc. Spiked:	25 ug/Kg	25 ug/Kg	25 ug/Kg
Result:	1.0	16	26
MS % Recovery:	5.0	64	104
Dup. Result:	4.5	19	24
MSD % Recov.:	18	76	96
RPD:	110	17	8.0
RPD Limit:	0-25	0-25	0-25

LCS #:	LCS082396-LCS	LCS082396-LCS	LCS082396-LCS
Prepared Date:	08/23/96	08/23/96	08/23/96
Analyzed Date:	08/23/96	08/23/96	08/23/96
Instrument I.D.#:	GCHP08	GCHP08	GCHP08
Conc. Spiked:	25 ug/Kg	25 ug/Kg	25 ug/Kg
LCS Result:	22	26	20
LCS % Recov.:	88	104	80

MS/MSD	60-140	60-140	60-140
LCS	65-135	70-130	70-130
Control Limits			

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SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID		
San Mateo, CA 94402	Sample Descript:	XSD		
Attention: Steve Tarrantino	Work Order #:	9608D48	-03, -04, -08	Reported: Sep 4, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Chloro-benzene
QC Batch#:	GC0822968020EXB	GC0822968020EXB	GC0822968020EXB
Analy. Method:	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Bou-Salman	R. Bou-Salman	R. Bou-Salman
MS/MSD #:	9608A22-01-XSD	9608A22-01-XSD	9608A22-01-XSD
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	08/22/96	08/22/96	08/22/96
Analyzed Date:	08/23/96	08/23/96	08/23/96
Instrument I.D.#:	GCHP09	GCHP09	GCHP09
Conc. Spiked:	25 ug/Kg	25 ug/Kg	25 ug/Kg
Result:	27	27	28
MS % Recovery:	108	108	112
Dup. Result:	26	25	26
MSD % Recov.:	104	100	104
RPD:	3.8	7.7	7.4
RPD Limit:	0-25	0-25	0-25

LCS #:	LCS082396-LCS	LCS082396-LCS	LCS082396-LCS
Prepared Date:	08/23/96	08/23/96	08/23/96
Analyzed Date:	08/23/96	08/23/96	08/23/96
Instrument I.D.#:	GCHP08	GCHP08	GCHP08
Conc. Spiked:	25 ug/Kg	25 ug/Kg	25 ug/Kg
LCS Result:	26	25	22
LCS % Recov.:	104	100	88

MS/MSD	60-140	60-140	60-140
LCS	70-130	70-130	70-130
Control Limits			

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SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

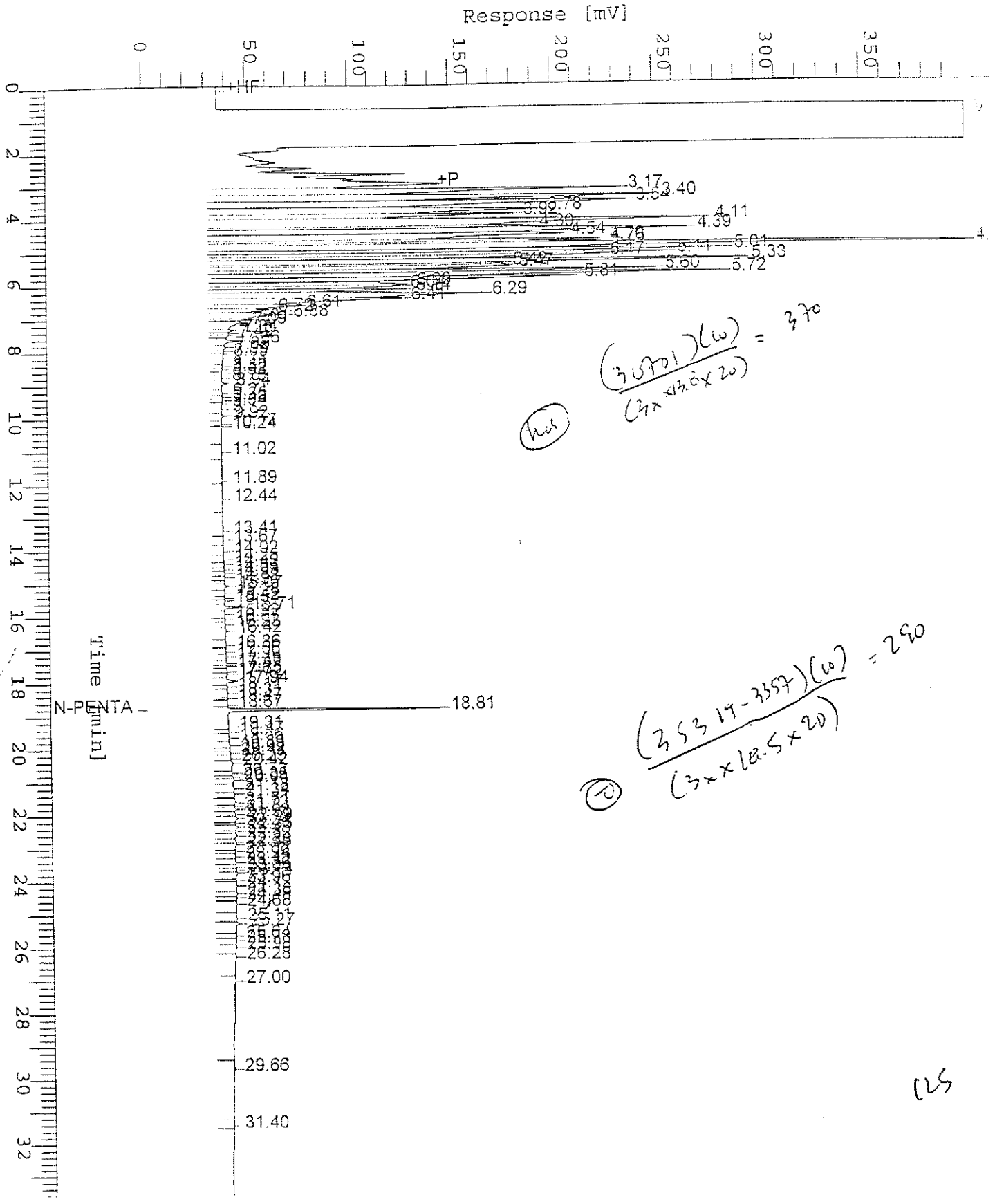
Chromatogram

Sample Name : DS9608D48-2 (20:1*10)
FileName : S:\GHP_05\0825\825A008.raw
Method : TPH05A
Start Time : 0.00 min
Scale Factor: 0.0

End Time : 33.65 min
Plot Offset: 0 mV

Sample #: M-1
Date : 8/25/96 18:53
Time of Injection: 8/25/96 18:19
Low Point : 0.00 mV
Plot Scale: 400.0 mV

High Point : 400.00 mV



$\frac{(3570)(\omega)}{(3\times 12.0\times 20)} = 370$

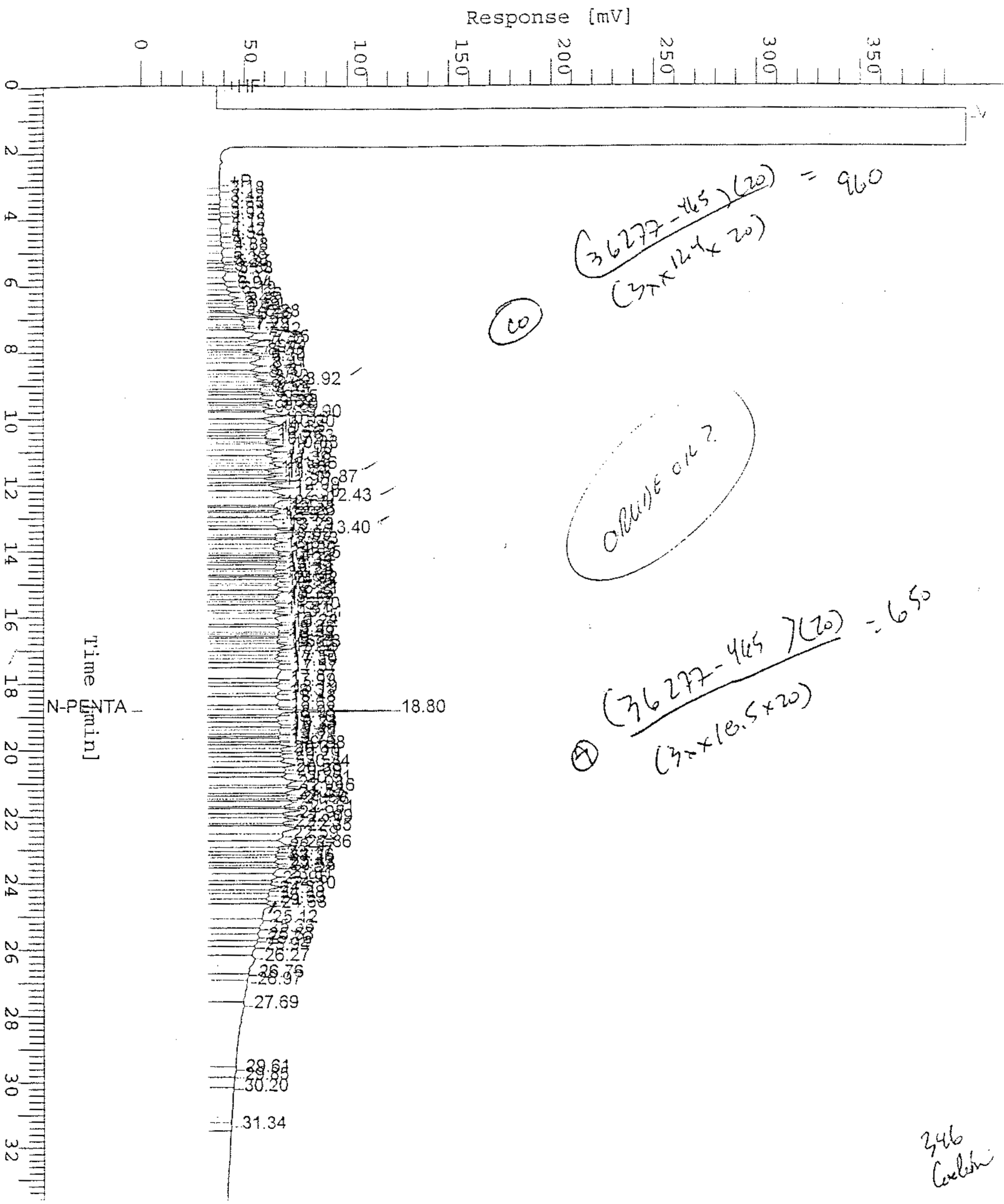
$\frac{(3539-3357)(\omega)}{(3\times 16.5\times 20)} = 290$

CLS

Chromatogram

Sample Name : DS9608D48-3 (20:1*20)
FileName : S:\GHP_05\0825\825A009.raw
Method : TPH05A
Start Time : 0.00 min
End Time : 33.65 min
Scale Factor: 0.0
Plot Offset: 0 mV

Sample #: M-3
Date : 8/25/96 19:34
Time of Injection: 8/25/96 19:01
Low Point : 0.00 mV
Plot Scale: 400.0 mV
High Point : 400.00 mV



(co) $\frac{(36277-465)(20)}{(37\times124\times20)} = 960$

CRUDE OIL?

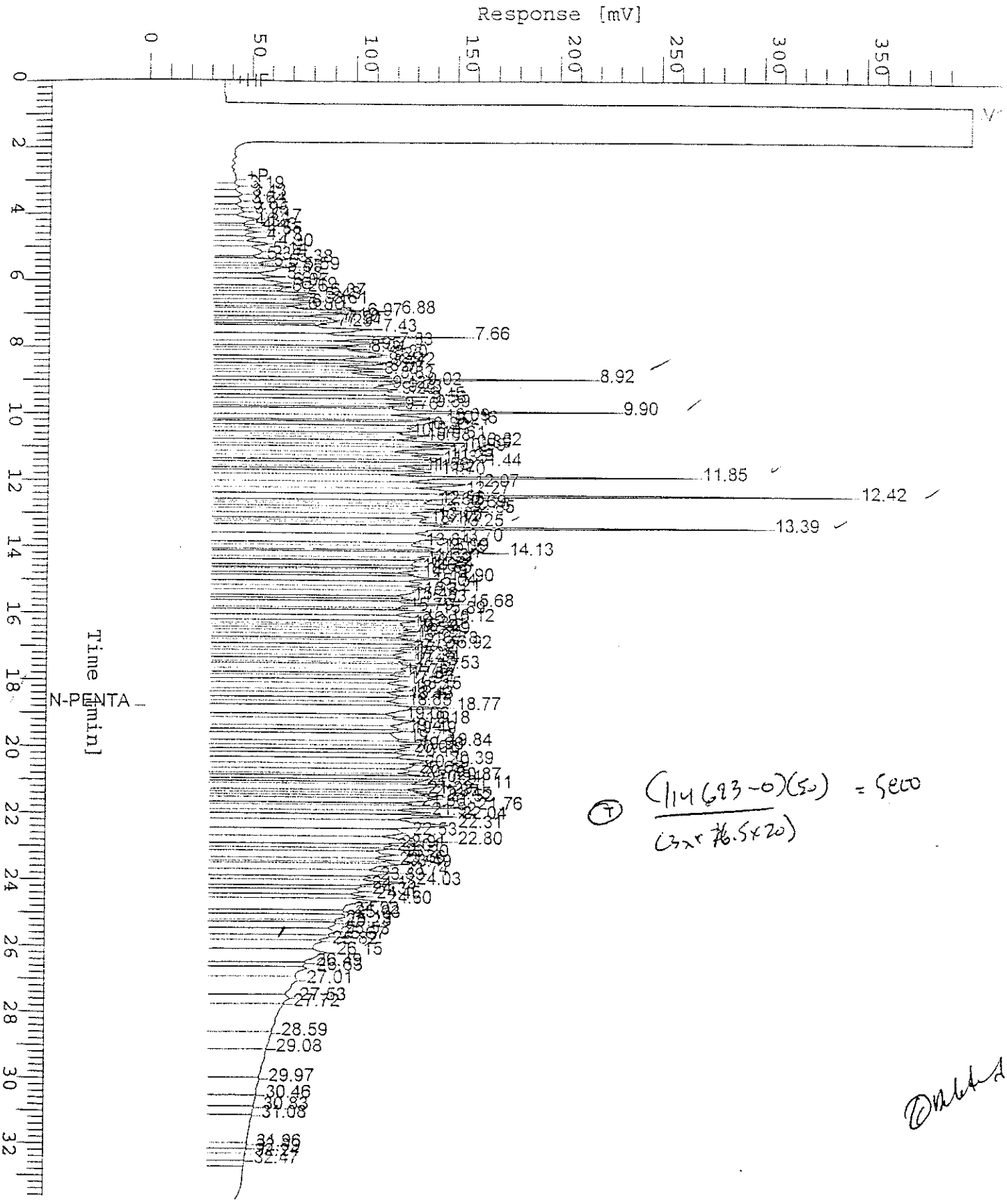
(4) $\frac{(36277-465)(20)}{(37\times16.5\times20)} = 650$

346
Coelho

Chromatogram

Sample Name : DS9608D48-4 (20:1*50)
FileName : S:\GHP_05\0825\8258008.raw
Method : TPH05A
Start Time : 0.00 min End Time : 33.65 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #: MW-4 Page 1 of 1
Date : 8/25/96 18:53
Time of Injection: 8/25/96 18:19
Low Point : 0.00 mV High Point : 400.00 mV
Plot Scale: 400.0 mV

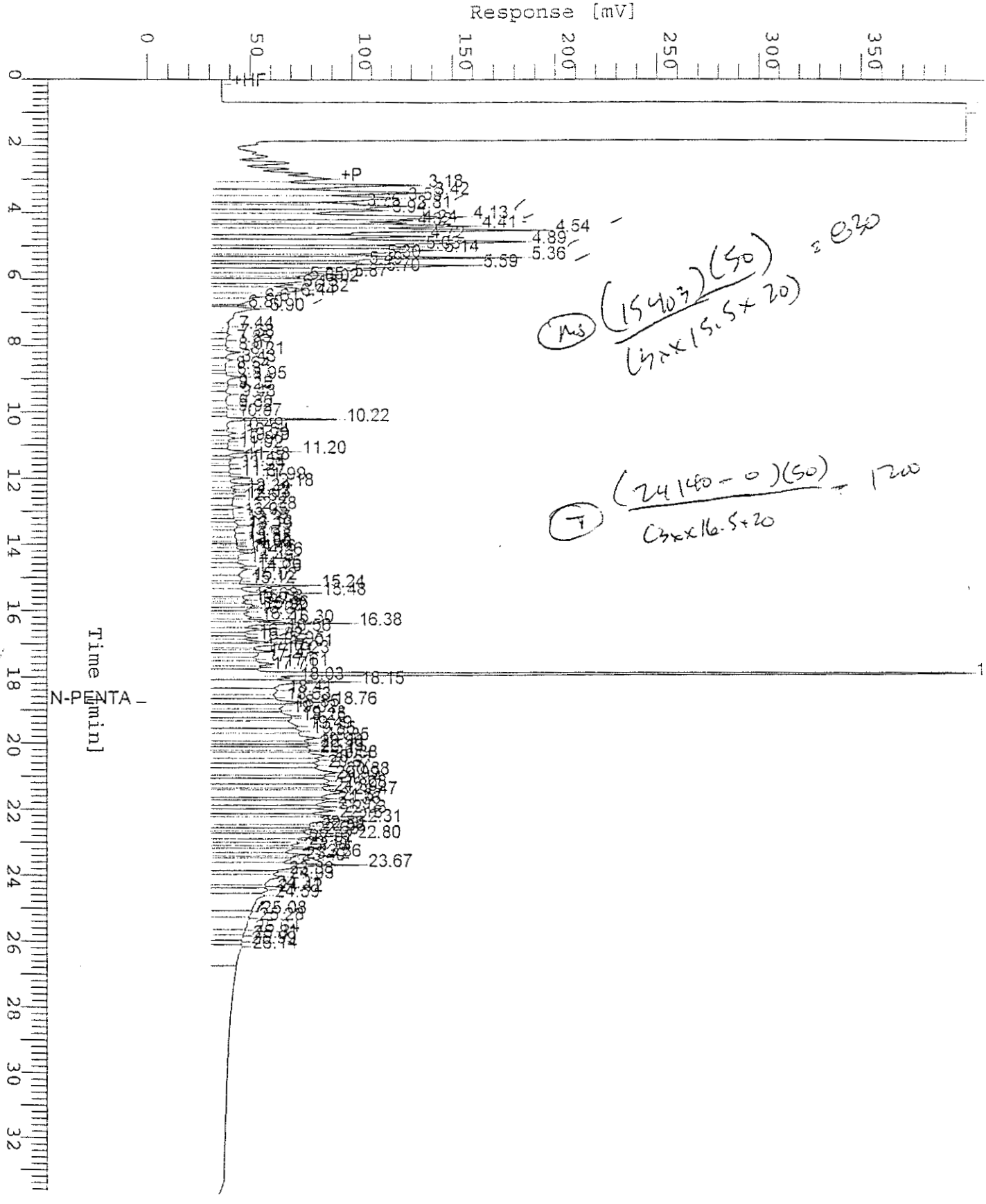


(7) $\frac{(114693-0)(50)}{(3x\ 76.5x20)} = 5ecco$

Chromatogram

Sample Name : DS9608D48-S (20:1*50)
FileName : S:\GHP_05\0825\825B007.raw
Method : TPH05A
Start Time : 0.00 min End Time : 33.65 min
Scale Factor: 0.0 Plot Offset: 0 mV

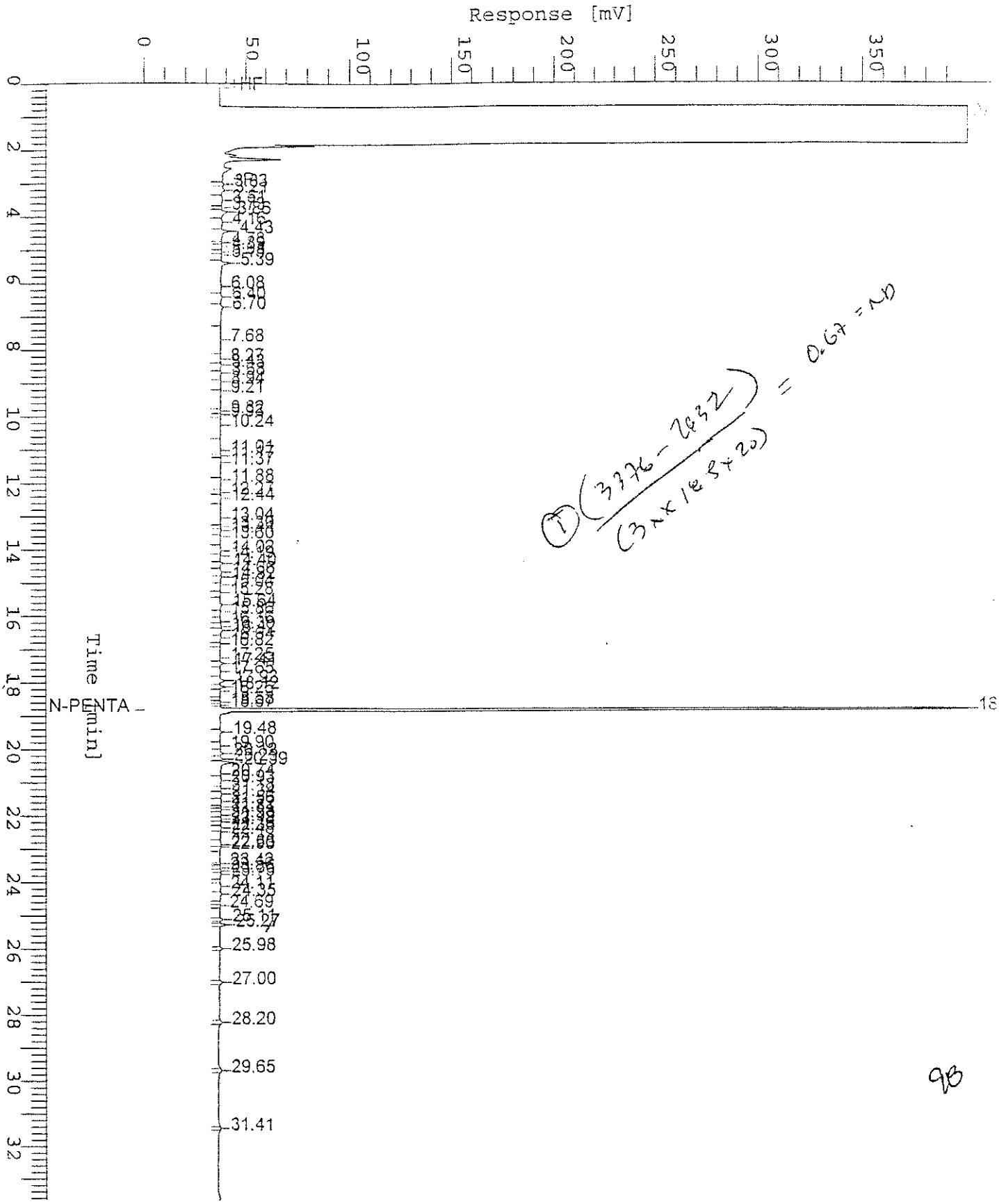
Sample #: M-2 Page 1 of 1
Date : 8/25/96 18:13
Time of Injection: 8/25/96 17:39
Low Point : 0.00 mV High Point : 400.00 mV
Plot Scale: 400.0 mV



Chromatogram

Sample Name : DS9608D48-6 (20:1)
FileName : S:\GHP_DS\0825\825A006.raw
Method : TPH05A
Start Time : 0.00 min End Time : 33.65 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #: M-5 Page 1 of 1
Date : 8/25/96 17:31
Time of Injection: 8/25/96 16:58
Low Point : 0.00 mV High Point : 400.00 mV
Plot Scale: 400.0 mV

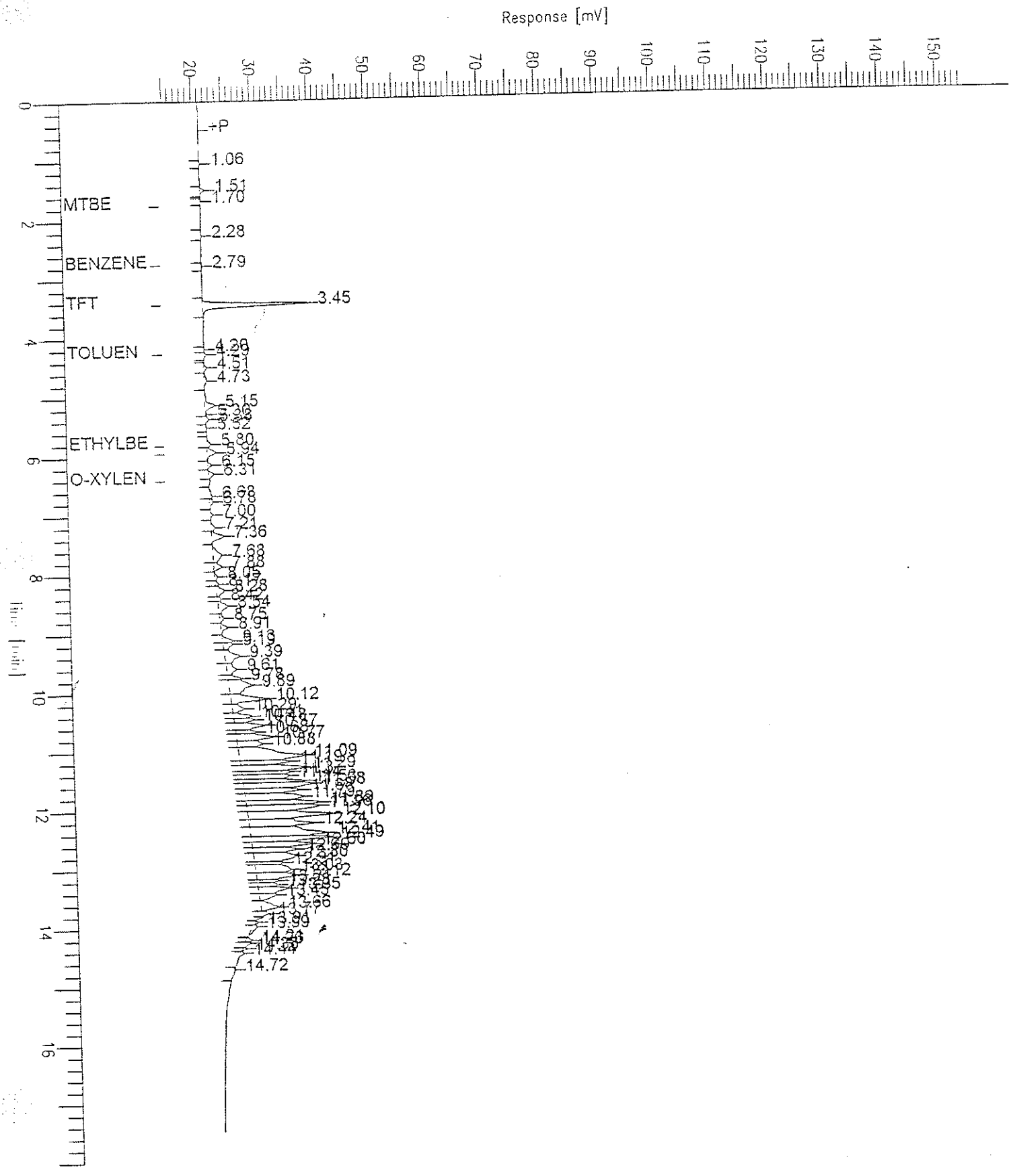


$$\frac{(3776 - 2632)}{(3 \times 1E8 \times 20)} = 0.64 = ND$$

98

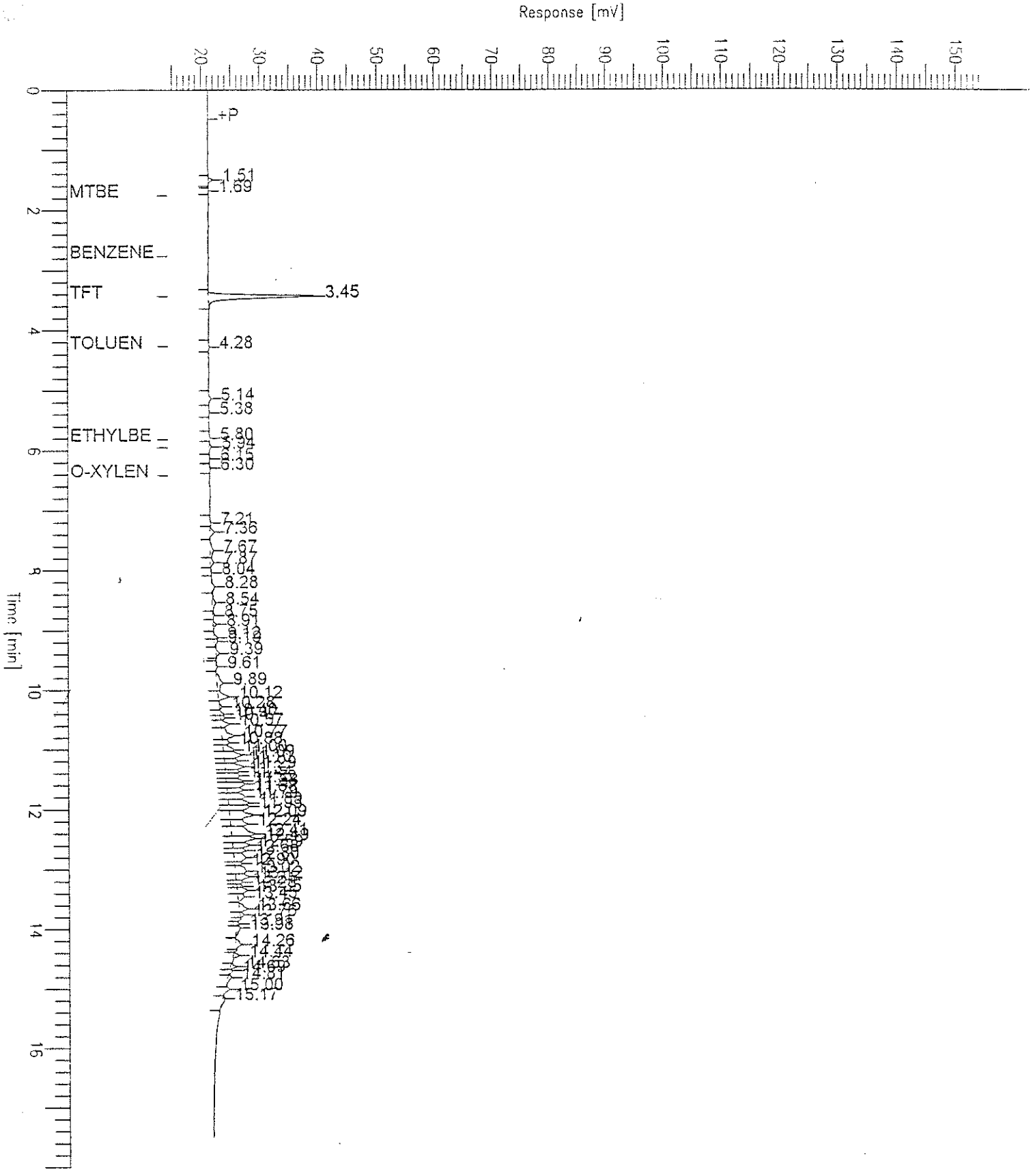
mple Name : GS9603D48-03
leName : S:\GHP_32\0825\323B007.raw
thod : TPH
art Time : 0.00 min End Time : 18.00 min
ale Factor: -1.0 Plot Offset: 14 mV

Sample #: M-3
Date : 3/23/96 11:39
Time of Injection: 3/23/96 11:31
Low Point : 14.20 mV High Point : 154.20 mV
Plot Scale: 140.0 mV



Sample Name : 9639006D48-04
FileName : S:\GHP_32\0825\823B008.raw
Method : TPH
Start Time : 0.00 min End Time : 18.00 min
Scale Factor: -1.0 Plot Offset: 14 mV

Sample #: M-4 Page 1 of 1
Date : 8/23/96 12:10
Time of Injection: 8/23/96 11:52
Low Point : 14.19 mV High Point : 154.19 mV
Plot Scale: 140.0 mV



CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Erler & Kalinowski, Inc.

Project Number: EKI 930028.27

Project Name: CHIRON

Source of Samples: ~~RAW SEWAGE~~

Location: EMERYVILLE, CA

Analytical Laboratory: SEQUOIA

Date Sampled: 8/22/96

Sampled By: MTB/CDH

Report Results To: Steve Tarantino

Phone Number: (415) 578-1172

96080D48

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
	B-J-1	~~SOIL~~	1 JAR	3:15p	PCB's (EPA 8080)	2 week TAT
01	D-1	LIQUID	1 AMBER LITER	3:40p	PCB's (EPA 8080)	24 hr TAT
01	D-1	LIQUID	1 AMBER LITER	3:40p	TEPH ~~w/ Fuel Fingerprint for Bunker Oil~~	24 hr TAT
01	D-1	LIQUID	1 PLASTIC METALS BOTTLE	3:40p	ARSENIC → Fuel Fingerprint	24 hr TAT
01	D-1	LIQUID	1 PLASTIC METALS BOTTLE	3:40p	CHROMIUM	24 hr TAT
	R-1	LIQUID	1 AMBER LITER	4:05p	PCB's (EPA 8080)	2 week TAT
	R-1	LIQUID	1 AMBER LITER	4:05p	TEPH	2 week TAT
	R-1	LIQUID	1 ~~AMBER~~ PLASTIC LITER	4:05p	ARSENIC	2 week TAT
	R-1	LIQUID	1 ~~AMBER~~ PLASTIC LITER	4:05p	CHROMIUM	2 week TAT
02	M-1	SOIL	1 stainless steel liner	2:05	TEPH w/ Fuel Fingerprint ~~for Bunker Oil~~ SOIL/8020, TVPH, 8080, Arsenic, Cadmium	TEPH 24 hr TAT others 2 week
03	M-3	SOIL	1 stainless steel liner	2:25	TEPH w/ Fuel Fingerprint ~~for Bunker Oil~~ SOIL/8020, TVPH, 8080, Arsenic, Cadmium	24 hr TAT

Special Instructions: M-1 & M-3: TEPH → look for Bunker Oil

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Michael T. Beck / Michael T. Beck EKI	8/22/96	18:16	
			Lisa DeCardenas / Lisa DeCardenas Sequoia 8-22-96 1816

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Erler & Kalinowski, Inc.

Analytical Laboratory: SEQUOIA

Project Number: 930028.27

Date Sampled: 8/22/96

Project Name: CHEVRON

Sampled By: MTB/CDH

Source of Samples:

Report Results To: Steve Tarantino

Location: EMERYVILLE, CA

Phone Number: 415) 578-1172

9608D48

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
04	M-4	Soil	1 stainless steel liner	2:48	TEPH w/ Fuel fingerprint to ~~Bunker Oil~~ 5010/8020, TVPH, 8080, Arsenic, Cadmium	24 hr TAT
05	M-2	Soil	1 stainless steel liner	2:15	↓	TEPH 24 hr Others 2 weeks
06	M-5	Soil	1 stainless steel liner	3:02	↓	TEPH 24 hr Others 2 weeks
	B-G-1	Soil	1 Jar	9:05	EPA 8080 PCBs only	2 Weeks

Special Instructions: M-2, M-4, and M-5: TEPH → look for Bunker oil

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Michael T Beck/Michael J Beck/EKI	8/22/96	18:13	
			8-22-96

Sequoia Analytical

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COPY

Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steve Tarantino

Client Proj. ID: 930028.27/Chiron

Lab Proj. ID: 9608D74

Sampled: 08/22/96
Received: 08/22/96
Analyzed: see below

Reported: 09/06/96

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9608D74-02 Sample Desc : **LIQUID,R-1** *				
Arsenic	**mg/L**	**08/26/96**	**0.0050**	**0.035**
Cadmium	mg/L	08/28/96	0.010	N.D.
Lab No: 9608D74-03 Sample Desc : **SOLID,M-1**				
Arsenic	**mg/Kg**	**08/29/96**	**5.0**	**15**
Cadmium	mg/Kg	08/29/96	0.50	N.D.
Lab No: 9608D74-04 Sample Desc : **SOLID,M-2**				
Arsenic	**mg/Kg**	**08/29/96**	**5.0**	**34**
Cadmium	mg/Kg	08/29/96	0.50	N.D.
Lab No: 9608D74-05 Sample Desc : **SOLID,M-5**				
Arsenic	**mg/Kg**	**08/29/96**	**5.0**	**13**
Cadmium	mg/Kg	08/29/96	0.50	N.D.

* SAMPLE R-1 NOT RELATED TO THE BUILDING M TANKS

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled:
1730 South Amphlett, Ste 320		Received: 08/22/96
San Mateo, CA 94402	Lab Proj. ID: 9608D74	Analyzed: see below
Attention: Steve Tarantino		Reported: 09/06/96

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9608D74-07				
Sample Desc : **SOLID,Method Blank**				
Arsenic	mg/Kg	09/29/96	5.0	N.D.
Cadmium	mg/Kg	09/29/96	0.50	N.D.
Lab No: 9608D74-08				
Sample Desc : **LIQUID,Method Blank**				
Arsenic	mg/L	08/26/96	0.0050	N.D.
Cadmium	mg/L	09/28/96	0.010	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-1	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/27/96
	Analysis Method: EPA 8010	Analyzed: 08/31/96
Attention: Steve Tarantino	Lab Number: 9608D74-03	Reported: 09/06/96

QC Batch Number: GC0827968010EXB
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Bromodichloromethane	500	N.D.
Bromoform	500	N.D.
Bromomethane	1000	N.D.
Carbon Tetrachloride	500	N.D.
Chlorobenzene	500	N.D.
Chloroethane	1000	N.D.
2-Chloroethylvinyl ether	1000	N.D.
Chloroform	500	N.D.
Chloromethane	1000	N.D.
Dibromochloromethane	500	N.D.
1,2-Dichlorobenzene	500	N.D.
1,3-Dichlorobenzene	500	N.D.
1,4-Dichlorobenzene	500	N.D.
1,1-Dichloroethane	500	N.D.
1,2-Dichloroethane	500	N.D.
1,1-Dichloroethene	500	N.D.
cis-1,2-Dichloroethene	500	N.D.
trans-1,2-Dichloroethene	500	N.D.
1,2-Dichloropropane	500	N.D.
cis-1,3-Dichloropropene	500	N.D.
trans-1,3-Dichloropropene	500	N.D.
Methylene chloride	5000	N.D.
1,1,2,2-Tetrachloroethane	500	N.D.
Tetrachloroethene	500	N.D.
1,1,1-Trichloroethane	500	N.D.
1,1,2-Trichloroethane	500	N.D.
Trichloroethene	500	N.D.
Trichlorofluoromethane	500	N.D.
Vinyl chloride	1000	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	96

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-1	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/27/96
	Analysis Method: EPA 8020	Analyzed: 08/31/96
Attention: Steve Tarantino	Lab Number: 9608D74-03	Reported: 09/06/96

QC Batch Number: GC0827968020EXB
Instrument ID: GCHP09

Aromatic Volatile Organics (EPA 8020)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Benzene	500	N.D.
Chlorobenzene	500	N.D.
1,2-Dichlorobenzene	500	N.D.
1,3-Dichlorobenzene	500	N.D.
1,4-Dichlorobenzene	500	N.D.
Ethyl benzene	500	N.D.
Toluene	500	N.D.
Total Xylenes	500	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	110

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-1	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/28/96
	Analysis Method: EPA 8080	Analyzed: 09/01/96
Attention: Steve Tarantino	Lab Number: 9608D74-03	Reported: 09/06/96

QC Batch Number: GC0828960PCBEXA
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	**20**	47

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	122

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-1	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/26/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/27/96
Attention: Steve Tarantino	Lab Number: 9608D74-03	Reported: 09/06/96

QC Batch Number: GC082696BTEXEXA
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	100	570
Chromatogram Pattern:		
Unidentified HC		C8-C11

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	89

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-2	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/27/96
	Analysis Method: EPA 8010	Analyzed: 08/31/96
Attention: Steve Tarantino	Lab Number: 9608D74-04	Reported: 09/06/96

QC Batch Number: GC0827968010EXB
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Bromodichloromethane	1200	N.D.
Bromoform	1200	N.D.
Bromomethane	2500	N.D.
Carbon Tetrachloride	1200	N.D.
Chlorobenzene	1200	N.D.
Chloroethane	2500	N.D.
2-Chloroethylvinyl ether	2500	N.D.
Chloroform	1200	N.D.
Chloromethane	2500	N.D.
Dibromochloromethane	1200	N.D.
1,2-Dichlorobenzene	1200	N.D.
1,3-Dichlorobenzene	1200	N.D.
1,4-Dichlorobenzene	1200	N.D.
1,1-Dichloroethane	1200	N.D.
1,2-Dichloroethane	1200	N.D.
1,1-Dichloroethene	1200	N.D.
cis-1,2-Dichloroethene	1200	N.D.
trans-1,2-Dichloroethene	1200	N.D.
1,2-Dichloropropane	1200	N.D.
cis-1,3-Dichloropropene	1200	N.D.
trans-1,3-Dichloropropene	1200	N.D.
Methylene chloride	12000	N.D.
1,1,2,2-Tetrachloroethane	1200	N.D.
Tetrachloroethene	1200	N.D.
1,1,1-Trichloroethane	1200	N.D.
1,1,2-Trichloroethane	1200	N.D.
Trichloroethene	1200	N.D.
Trichlorofluoromethane	1200	N.D.
Vinyl chloride	2500	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	101

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-2	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/27/96
	Analysis Method: EPA 8020	Analyzed: 08/31/96
Attention: Steve Tarantino	Lab Number: 9608D74-04	Reported: 09/06/96

QC Batch Number: GC0827968010EXB
Instrument ID: GCHP09

Aromatic Volatile Organics (EPA 8020)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Benzene	1200	N.D.
Chlorobenzene	1200	N.D.
1,2-Dichlorobenzene	1200	N.D.
1,3-Dichlorobenzene	1200	N.D.
1,4-Dichlorobenzene	1200	N.D.
Ethyl benzene	1200	N.D.
Toluene	1200	N.D.
Total Xylenes	1200	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	115

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

'ke Gregory
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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-2	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/28/96
	Analysis Method: EPA 8080	Analyzed: 09/01/96
Attention: Steve Tarantino	Lab Number: 9608D74-04	Reported: 09/06/96

QC Batch Number: GC0828960PCBEXA
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	**20**	**57**
PCB-1260	**20**	**30**

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	103

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-2	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/26/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/26/96
Attention: Steve Tarantino	Lab Number: 9608D74-04	Reported: 09/06/96

QC Batch Number: GC082696BTEXEXA
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	50	490
Chromatogram Pattern:		
Unidentified HC		C8-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	74

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-5	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/27/96
	Analysis Method: EPA 8010	Analyzed: 08/31/96
Attention: Steve Tarantino	Lab Number: 9608D74-05	Reported: 09/06/96

QC Batch Number: GC0827968010EXB
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Bromodichloromethane	120	N.D.
Bromoform	120	N.D.
Bromomethane	250	N.D.
Carbon Tetrachloride	120	N.D.
Chlorobenzene	120	N.D.
Chloroethane	250	N.D.
2-Chloroethylvinyl ether	250	N.D.
Chloroform	120	N.D.
Chloromethane	250	N.D.
Dibromochloromethane	120	N.D.
1,2-Dichlorobenzene	120	N.D.
1,3-Dichlorobenzene	120	N.D.
1,4-Dichlorobenzene	120	N.D.
1,1-Dichloroethane	120	N.D.
1,2-Dichloroethane	120	N.D.
1,1-Dichloroethene	120	N.D.
cis-1,2-Dichloroethene	120	N.D.
trans-1,2-Dichloroethene	120	N.D.
1,2-Dichloropropane	120	N.D.
cis-1,3-Dichloropropene	120	N.D.
trans-1,3-Dichloropropene	120	N.D.
Methylene chloride	1200	N.D.
1,1,2,2-Tetrachloroethane	120	N.D.
Tetrachloroethene	120	N.D.
1,1,1-Trichloroethane	120	N.D.
1,1,2-Trichloroethane	120	N.D.
Trichloroethene	120	N.D.
Trichlorofluoromethane	120	N.D.
Vinyl chloride	250	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	99

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-5	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/27/96
	Analysis Method: EPA 8020	Analyzed: 08/31/96
Attention: Steve Tarantino	Lab Number: 9608D74-05	Reported: 09/06/96

QC Batch Number: GC0827968010EXB
Instrument ID: GCHP09

Aromatic Volatile Organics (EPA 8020)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Benzene	120	N.D.
Chlorobenzene	120	N.D.
1,2-Dichlorobenzene	120	N.D.
1,3-Dichlorobenzene	120	N.D.
1,4-Dichlorobenzene	120	N.D.
Ethyl benzene	120	N.D.
Toluene	120	N.D.
Total Xylenes	120	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	95

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-5	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/28/96
	Analysis Method: EPA 8080	Analyzed: 08/30/96
Attention: Steve Tarantino	Lab Number: 9608D74-05	Reported: 09/06/96

QC Batch Number: GC0828960PCBEXA
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	**20**	**65**

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	120

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

"ke Gregory
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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled: 08/22/96
1730 South Amphlett, Ste 320	Sample Descript: M-5	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/26/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/27/96
Attention: Steve Tarantino	Lab Number: 9608D74-05	Reported: 09/06/96

QC Batch Number: GC082696BTEXEXA
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	88

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steve Tarantino

Client Proj. ID: 930028.27/Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9608D74-07

Sampled:
Received: 08/22/96
Extracted: 08/28/96
Analyzed: 08/30/96
Reported: 09/06/96

QC Batch Number: GC0828960PCBEXA
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	119

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/27/96
	Analysis Method: EPA 8010	Analyzed: 08/28/96
Attention: Steve Tarantino	Lab Number: 9608D74-07	Reported: 09/06/96

QC Batch Number: GC0827968010EXB
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	10	N.D.
Carbon Tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	10	N.D.
2-Chloroethylvinyl ether	10	N.D.
Chloroform	5.0	N.D.
Chloromethane	10	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	10	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	90

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/27/96
	Analysis Method: EPA 8020	Analyzed: 08/28/96
Attention: Steve Tarantino	Lab Number: 9608D74-07	Reported: 09/06/96

QC Batch Number: GC0827968010EXB
Instrument ID: GCHP09

Aromatic Volatile Organics (EPA 8020)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Benzene	5.0	N.D.
Chlorobenzene	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
Ethyl benzene	5.0	N.D.
Toluene	5.0	N.D.
Total Xylenes	5.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	88

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

"ike Gregory
oject Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 08/22/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 08/26/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/27/96
Attention: Steve Tarantino	Lab Number: 9608D74-07	Reported: 09/06/96

QC Batch Number: GC082696BTEXEXA
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	85

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 08/22/96
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 08/26/96
	Analysis Method: EPA 8080	Analyzed: 08/29/96
Attention: Steve Tarantino	Lab Number: 9608D74-08	Reported: 09/06/96

QC Batch Number: GC0822960PCBEXB
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/L	Sample Results ug/L
PCB-1016	0.50	N.D.
PCB-1221	2.0	N.D.
PCB-1232	0.50	N.D.
PCB-1242	0.50	N.D.
PCB-1248	0.50	N.D.
PCB-1254	0.50	N.D.
PCB-1260	0.50	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	50	150	199 Q

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.27/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 08/22/96
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 08/30/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/31/96
Attention: Steve Tarantino	Lab Number: 9608D74-08	Reported: 09/06/96

QC Batch Number: GC0830960HBPEXA
Instrument ID: GCHP5B

Fuel Fingerprint

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable Hydrocarbons Chromatogram Pattern:	50	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	117

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc. 1730 South Amphlett, Ste 320 San Mateo, CA 94402 Attention: Steve Tarantino	Client Proj. ID: 930028.27/Chiron Lab Proj. ID: 9608D74	Received: 08/22/96 Reported: 09/06/96

LABORATORY NARRATIVE

PCB_W NOTE: Recovery for surrogate DBC was high for both the method blank and the sample. Recovery for surrogate TMX was acceptable and can be reported. TMX(MB)= 69%, TMX(02)= 65%.

8010/8020: SAMPLES WERE RUN AT A DILUTION BECAUSE OF HIGH BOILERS IN THE PID.

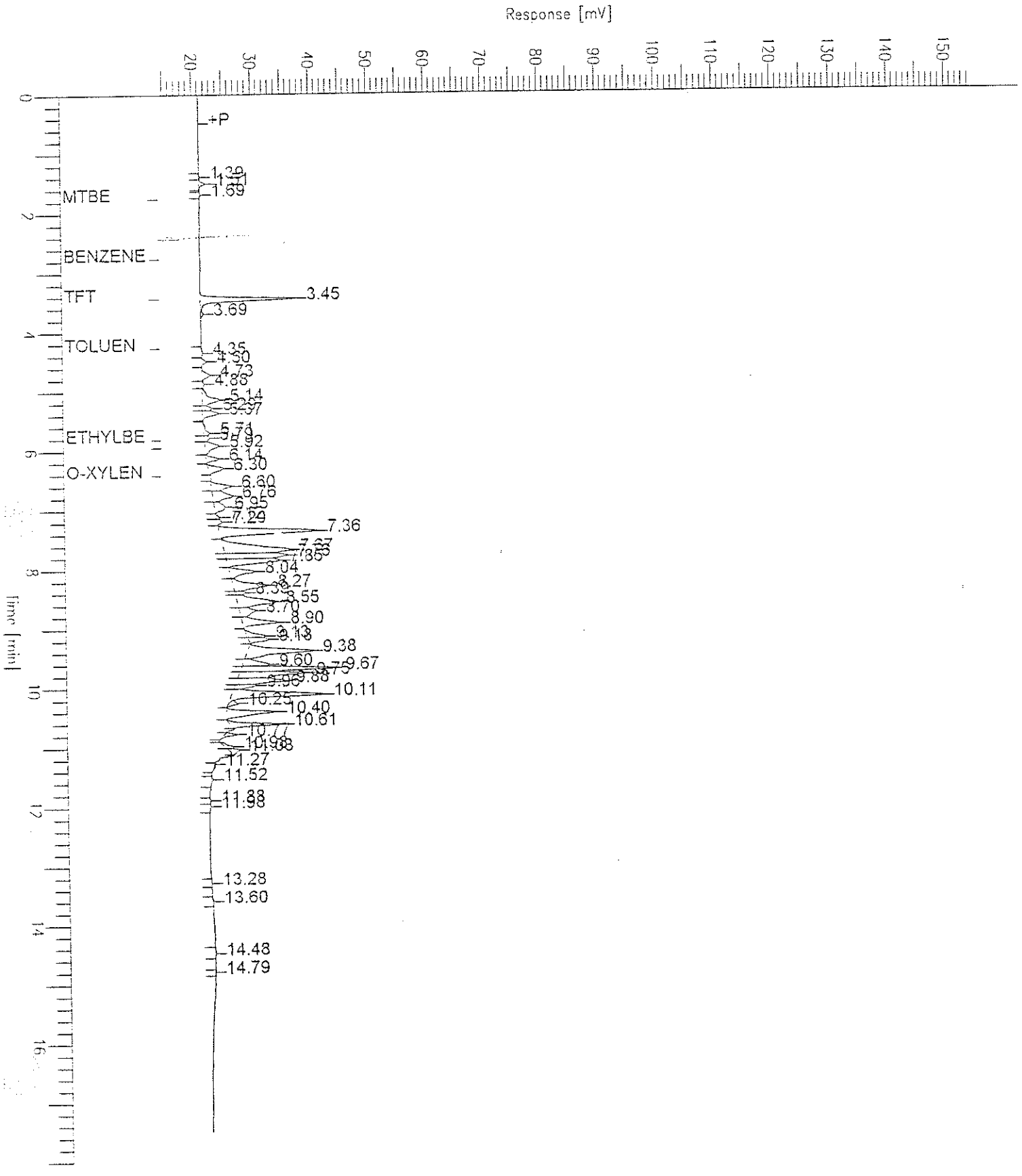
SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Chromatogram

Sample Name : GS960827-3
FileName : S:\GHP_32\0901\827B026.raw
Method : TPH
Start Time : 0.00 min End Time : 18.00 min
Scale Factor: -1.0 Plot Offset: 14 mV

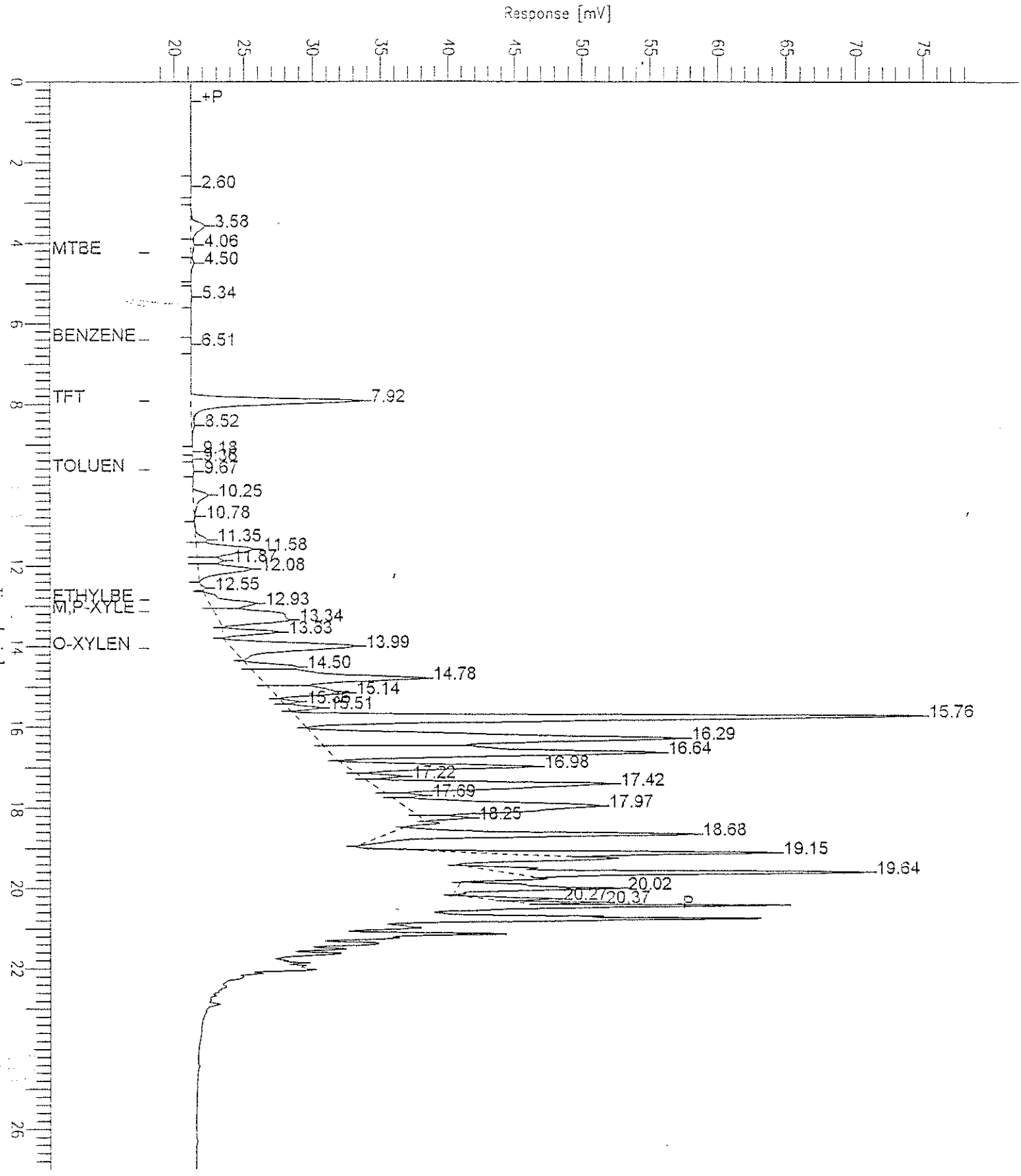
Sample #: M1 Page 1 of 1
Date : 8/27/96 22:42
Time of Injection: 8/27/96 22:24
Low Point : 14.21 mV High Point : 154.21 mV
Plot Scale: 140.0 mV



Chromatogram

Sample Name : GS9608D74-04
FileName : S:\GHP_18\0901\8268028.raw
[illegible] : TPH
[illegible] Time : 0.00 min End Time : 26.99 min
Scale Factor: -1.0 Plot Offset: 18 mV

Sample #: M-2 Page 1 of 1
Date : 8/27/96 02:00
Time of Injection: 8/27/96 01:32
Low Point : 18.19 mV High Point : 78.19 mV
Plot Scale: 60.0 mV



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Erler & Kalinowski, Inc.	Client Project ID:	930028.27/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	XSD	
Attention: Steve Tarrantino	Work Order #:	9608D74 -03 - 05, -07	Reported: Sep 10, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC082596BTEXEXA	GC082596BTEXEXA	GC082596BTEXEXA	GC082596BTEXEXA
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	Y. Arteaga	Y. Arteaga	Y. Arteaga	Y. Arteaga
MS/MSD #:	9608B26-14-XSD	9608B26-14-XSD	9608B26-14-XSD	9608B26-14-XSD
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	08/26/96	08/26/96	08/26/96	08/26/96
Analyzed Date:	08/26/96	08/26/96	08/26/96	08/26/96
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	0.20 mg/kg	0.20 mg/kg	0.20 mg/kg	0.60 mg/kg
Result:	0.18	0.19	0.19	0.56
MS % Recovery:	90	95	95	93
Dup. Result:	0.18	0.18	0.18	0.53
MSD % Recov.:	90	90	90	88
RPD:	0.0	5.4	5.4	5.5
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	LCS082696-LCS	LCS082696-LCS	LCS082696-LCS	LCS082696-LCS
Prepared Date:	08/26/96	08/26/96	08/26/96	08/26/96
Analyzed Date:	08/26/96	08/26/96	08/26/96	08/26/96
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	0.20 mg/kg	0.20 mg/kg	0.20 mg/kg	0.60 mg/kg
LCS Result:	0.20	0.21	0.21	0.63
LCS % Recov.:	100	105	105	105
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Please Note:
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** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.	Client Project ID:	930028.27/Chiron		
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID		
San Mateo, CA 94402	Sample Descript:	XSD		
Attention: Steve Tarrantino	Work Order #:	9608D74	-03 - 05, -07	Reported: Sep 10, 1996

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
QC Batch#:	GC0827968010EXB	GC0827968010EXB	GC0827968010EXB
Analy. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Bou-Salman	R. Bou-Salman	R. Bou-Salman
MS/MSD #:	9608D72-01-XSD	9608D72-01-XSD	9608D72-01-XSD
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	08/27/96	08/27/96	08/27/96
Analyzed Date:	08/28/96	08/28/96	08/28/96
Instrument I.D.#:	GCHP09	GCHP09	GCHP09
Conc. Spiked:	25 ug/Kg	25 ug/Kg	25 ug/Kg
Result:	29	29	26
MS % Recovery:	116	116	104
Dup. Result:	26	25	22
MSD % Recov.:	104	100	88
RPD:	11	15	17
RPD Limit:	0-25	0-25	0-25

LCS #:	LCS082796-LCS	LCS082796-LCS	LCS082796-LCS
Prepared Date:	08/27/96	08/27/96	08/27/96
Analyzed Date:	08/28/96	08/28/96	08/28/96
Instrument I.D.#:	GCHP09	GCHP09	GCHP09
Conc. Spiked:	25 ug/Kg	25 ug/Kg	25 ug/Kg
LCS Result:	28	27	23
LCS % Recov.:	112	108	92

MS/MSD	60-140	60-140	60-140
LCS	65-135	70-130	70-130
Control Limits			

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.27/Chiron		
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID		
San Mateo, CA 94402	Sample Descript:	XSD		
Attention: Steve Tarrantino	Work Order #:	9608D74	-03 - 05, -07	Reported: Sep 10, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Chloro-Benzene
QC Batch#:	GC0827968020EXB	GC0827968020EXB	GC0827968020EXB
Analy. Method:	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Bou-Salman	R. Bou-Salman	R. Bou-Salman
MS/MSD #:	9608D72-01-XSD	9608D72-01-XSD	9608D72-01-XSD
Sample Conc.:	N.D.	11	N.D.
Prepared Date:	08/27/96	08/27/96	08/27/96
Analyzed Date:	08/28/96	08/28/96	08/28/96
Instrument I.D.#:	GCHP09	GCHP09	GCHP09
Conc. Spiked:	25 ug/Kg	25 ug/Kg	25 ug/Kg
Result:	31	41	30
MS % Recovery:	124	120	120
Dup. Result:	27	37	26
MSD % Recov.:	108	104	104
RPD:	14	10	14
RPD Limit:	0-25	0-25	0-25
LCS #:	LCS082796-LCS	LCS082796-LCS	LCS082796-LCS
Prepared Date:	08/27/96	08/27/96	08/27/96
Analyzed Date:	08/28/96	08/28/96	08/28/96
Instrument I.D.#:	GCHP09	GCHP09	GCHP09
Conc. Spiked:	25 ug/Kg	25 ug/Kg	25 ug/Kg
LCS Result:	28	27	22
LCS % Recov.:	112	108	88
MS/MSD	60-140	60-140	60-140
LCS	70-130	70-130	70-130
Control Limits			

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.27/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID	
San Mateo, CA 94402	Sample Descript:	BLK	
Attention: Steve Tarrantino	Work Order #:	9608D74 -02, -08	Reported: Sep 10, 1996

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	GC0822960PCBEXB
Analy. Method:	EPA 8080
Prep. Method:	EPA 3510
Analyst:	J. Miller
MS/MSD #:	BLK082296-BLK
Sample Conc.:	N.D.
Prepared Date:	08/22/96
Analyzed Date:	08/24/96
Instrument I.D.#:	GCHP12
Conc. Spiked:	2.5 ug/L
Result:	2.7
MS % Recovery:	108
Dup. Result:	3.0
MSD % Recov.:	120
RPD:	10
RPD Limit:	0-50

LCS #:	LCS082696-LCS
Prepared Date:	08/26/96
Analyzed Date:	08/29/96
Instrument I.D.#:	GCHP12
Conc. Spiked:	2.5 ug/L
LCS Result:	3.0
LCS % Recov.:	120

MS/MSD LCS Control Limits	40-140

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.27/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID	
San Mateo, CA 94402	Sample Descript:	XSD	
Attention: Steve Tarrantino	Work Order #:	9608D74 -02, -08	Reported: Sep 10, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0830960HBPEXA
Analy. Method:	EPA 8015 M
Prep. Method:	EPA 3510
Analyst:	B. Sullivan
MS/MSD #:	9608F66-08-XSD
Sample Conc.:	N.D.
Prepared Date:	08/30/96
Analyzed Date:	09/01/96
Instrument I.D.#:	GCHP5A
Conc. Spiked:	1000 ug/L
Result:	930
MS % Recovery:	93
Dup. Result:	920
MSD % Recov.:	92
RPD:	1.1
RPD Limit:	0-50

LCS #:	LCS083096-LCS
Prepared Date:	08/30/96
Analyzed Date:	08/31/96
Instrument I.D.#:	GCHP5A
Conc. Spiked:	1000 ug/L
LCS Result:	920
LCS % Recov.:	92

MS/MSD	60-140
LCS	50-150
Control Limits	

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SEQUOIA ANALYTICAL

Mike Gregory
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Erler & Kalinowski, Inc.	Client Project ID:	930028.27/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	M-1	
Attention: Steve Tarrantino	Work Order #:	9608D74 -03 -05, -07	Reported: Sep 10, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0828966010MDF	ME0828966010MDF	ME0828966010MDF	ME0828966010MDF
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	R. Butler	R. Butler	R. Butler	R. Butler
MS/MSD #:	9608D74-03-MSD	9608D74-03-MSD	9608D74-03-MSD	9608D74-03-MSD
Sample Conc.:	N.D.	N.D.	37	35
Prepared Date:	08/28/96	08/28/96	08/28/96	08/28/96
Analyzed Date:	08/29/96	08/29/96	08/29/96	08/29/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/kg	100 mg/kg	100 mg/kg	100 mg/kg
Result:	96	89	120	120
MS % Recovery:	96	89	83	85
Dup. Result:	90	83	120	110
MSD % Recov.:	90	83	83	75
RPD:	6.4	7.0	0.0	8.7
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	LCS082896-LCS	LCS082896-LCS	LCS082896-LCS	LCS082896-LCS
Prepared Date:	08/28/96	08/28/96	08/28/96	08/28/96
Analyzed Date:	08/29/96	08/29/96	08/29/96	08/29/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/kg	100 mg/kg	100 mg/kg	100 mg/kg
LCS Result:	100	96	98	98
LCS % Recov.:	100	96	98	98

MS/MSD LCS Control Limits	80-120	80-120	80-120	80-120

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.27/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID	
San Mateo, CA 94402	Sample Descript:	XSD	
Attention: Steve Tarrantino	Work Order #:	9608D74 -02, -08	Reported: Sep 10, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0828966010MDA	ME0828966010MDA	ME0828966010MDA	ME0828966010MDA
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	R. Butler	R. Butler	R. Butler	R. Butler
MS/MSD #:	9608C30-01-XSD	9608C30-01-XSD	9608C30-01-XSD	9608C30-01-XSD
Sample Conc.:	N.D.	N.D.	37	35
Prepared Date:	08/28/96	08/28/96	08/28/96	08/28/96
Analyzed Date:	08/28/96	08/28/96	08/28/96	08/28/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
Result:	1.2	1.1	1.1	1.2
MS % Recovery:	120	110	110	120
Dup. Result:	1.1	1.0	1.0	1.1
MSD % Recov.:	110	100	100	110
RPD:	8.7	9.5	9.5	8.7
RPD Limit:	0-20	0-20	0-20	0-20
LCS #:	LCS082896-LCS	LCS082896-LCS	LCS082896-LCS	LCS082896-LCS
Prepared Date:	08/28/96	08/28/96	08/28/96	08/28/96
Analyzed Date:	08/28/96	08/28/96	08/28/96	08/28/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
LCS Result:	1.0	0.96	0.98	0.97
LCS % Recov.:	100	96	98	98
MS/MSD LCS Control Limits	80-120	80-120	80-120	80-120

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical

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819 Striker Avenue, Suite 3, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Project ID:	930028.27/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID	
San Mateo, CA 94402	Sample Descript:	XSD	
Attention: Steve Tarrantino	Work Order #:	9608D74 -02, -08	Reported: Sep 10, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Arsenic
QC Batch#:	ME0826967000MDA
Analy. Method:	EPA 206.2
Prep. Method:	EPA 3020
Analyst:	W. Thant
MS/MSD #:	9608C60-02-XSD
Sample Conc.:	N.D.
Prepared Date:	08/26/96
Analyzed Date:	08/26/96
Instrument I.D.#:	MTJA3
Conc. Spiked:	50 ug/L
Result:	47
MS % Recovery:	94
Dup. Result:	48
MSD % Recov.:	96
RPD:	2.1
RPD Limit:	0-20

LCS #:	LCS082696-LCS
Prepared Date:	08/26/96
Analyzed Date:	08/26/96
Instrument I.D.#:	MTJA3
Conc. Spiked:	50 ug/L
LCS Result:	50
LCS % Recov.:	100

MS/MSD	75-125
LCS	80-120
Control Limits	

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Erler & Kalinowski, Inc.

Project Number: EKI 930028.27

Project Name: CHIRON

Source of Samples: ~~Petroleum~~

Location: EMERYVILLE, CA

Analytical Laboratory: SEQUOIA

Date Sampled: 8/22/96

Sampled By: MTB/CDH

Report Results To: Steve Tarantino

Phone Number: 415) 578-1172

9608D74

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
01	B-J-1	~~SOIL~~	1 JAR	3:15p	PCB's (EPA 8080)	2 week TAT
	D-1	LIQUID	1 AMBER LITER	3:40p	PCB's (EPA 8080)	24 hr TAT
	D-1	LIQUID	1 AMBER LITER	3:40p	TEPH ~~w/ Fuel Fingerprint for Bunker Oil~~ ~~as Diesel~~ Fuel Fingerprint	24 hr TAT
	D-1	LIQUID	1 PLASTIC METALS BOTTLE	3:40p	ARSENIC	24 hr TAT
	D-1	LIQUID	1 PLASTIC METALS BOTTLE	3:40p	CHROMIUM	24 hr TAT
02	R-1	LIQUID	1 AMBER LITER	4:05p	PCB's (EPA 8080)	2 week TAT
02	R-1	LIQUID	1 AMBER LITER	4:05p	TEPH ~~as Diesel~~ EFW	2 week TAT
02	R-1	LIQUID	1 ~~AMBER~~ Plastic LITER	4:05p	ARSENIC	2 week TAT
02	R-1	LIQUID	1 ~~AMBER~~ Plastic LITER	4:05p	CHROMIUM Cd	2 week TAT
03	M-1	SOIL	1 stainless steel liner	2:05	TEPH w/ Fuel Fingerprint ~~for Bunker Oil~~ 8010/8020, TVPH, 8080, Arsenic, Cadmium	TEPH 24 hr TAT others 2 wk
	M-3	SOIL	1 stainless steel liner	2:25	TEPH w/ Fuel Fingerprint ~~for Bunker~~ 8010/8020, TVPH, 8080, Arsenic, Cadmium	24 hr TAT

Special Instructions: M-1 & M-3: TEPH → look for Bunker Oil

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Michael T. Beck / Michael T Beck EKI	8/22/96	18:16	
			Lisa DeCardenas/LDCardenas/Sequoia 8-22-96 1816

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Erler & Kalinowski, Inc.

Analytical Laboratory: SEQUOIA

Project Number: 130028.27

Date Sampled: 8/22/96

Project Name: CHIRON

Sampled By: MTB/CDH

Source of Samples:

Report Results To: Steve Tarantino

Location: EMERYVILLE, CA

Phone Number: 415) 578-1172

9608D74

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
	M-4	Soil	1 stainless steel liner	2:48	TEPH w/ fuel fingerprint ~~for Bunker Oil~~ 8010/8020, TVPH, 8080, Arsenic, Cadmium	24 hr TAT
04	M-2	Soil	1 stainless steel liner	2:15	↓	TEPH 24 hr Others 2 weeks
05	M-5	Soil	1 stainless steel liner	3:02	↓	TEPH 24 hr Others 2 weeks
06	B-6-1	Soil	1 Jar	9:05	EPA 8080 PCBs only	2 Weeks

Special Instructions: M-2, M-4, and M-5; TEPH → look for Bunker Oil

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Michael T Beck / Michael T Beck / EKI	8/22/96	18:13	
			Lisa DeCardenas / L DeCardenas / Sequoia 8-22-96 1813

Sequoia Analytical

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COPY

Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Client Proj. ID: 930028.60/Chiron
Lab Proj. ID: 9609301

Sampled: 09/05/96
Received: 09/05/96
Analyzed: see below

Attention: Mike Beck

Reported: 09/19/96

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9609301-05				
Sample Desc : **LIQUID,WM-1**				
Arsenic	mg/L	09/10/96	0.050	N.D.
Cadmium	mg/L	09/10/96	0.010	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Mike Beck

Client Proj. ID: 930028.60/Chiron

Lab Proj. ID: 9609301

Sampled:
Received: 09/05/96
Analyzed: see below

Reported: 09/19/96

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9609301-07				
Sample Desc : **LIQUID,Method Blank**				
Arsenic	mg/L	09/10/96	0.0050	N.D.
Cadmium	mg/L	09/10/96	0.010	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled: 09/05/96
1730 South Amphlett, Ste 320	Sample Descript: M-6	Received: 09/05/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/10/96
	Analysis Method: EPA 8020	Analyzed: 09/13/96
Attention: Mike Beck	Lab Number: 9609301-01	Reported: 09/19/96

QC Batch Number: GC0910968020EXA
Instrument ID: GCHP09

Aromatic Volatile Organics (EPA 8020)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Benzene	5.0	N.D.
Chlorobenzene	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
Ethyl benzene	5.0	N.D.
Toluene	5.0	N.D.
Total Xylenes	5.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	77

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled: 09/05/96
1730 South Amphlett, Ste 320	Sample Descript: M-6	Received: 09/05/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/10/96
	Analysis Method: EPA 8015 Mod	Analyzed: 09/14/96
Attention: Mike Beck	Lab Number: 9609301-01	Reported: 09/19/96

QC Batch Number: GC0910960HBPEXA
Instrument ID: GCHP5B

Fuel Fingerprint

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Extractable Hydrocarbons Chromatogram Pattern:	1.0	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	82

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled: 09/05/96
1730 South Amphlett, Ste 320	Sample Descript: M-7	Received: 09/05/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/10/96
	Analysis Method: EPA 8020	Analyzed: 09/13/96
Attention: Mike Beck	Lab Number: 9609301-02	Reported: 09/19/96

QC Batch Number: GC0910968020EXA
Instrument ID: GCHP09

Aromatic Volatile Organics (EPA 8020)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Benzene	5.0	N.D.
Chlorobenzene	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
Ethyl benzene	5.0	N.D.
Toluene	5.0	N.D.
Total Xylenes	5.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	76

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

ike Gregory
oject Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled: 09/05/96
1730 South Amphlett, Ste 320	Sample Descript: M-7	Received: 09/05/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/10/96
	Analysis Method: EPA 8015 Mod	Analyzed: 09/16/96
Attention: Mike Beck	Lab Number: 9609301-02	Reported: 09/19/96

QC Batch Number: GC0910960HBPEXA
Instrument ID: GCHP5A

Fuel Fingerprint

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Extractable Hydrocarbons	1.0	2000
Chromatogram Pattern:		
Unidentified HC		C9-C40

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	192 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled: 09/05/96
1730 South Amphlett, Ste 320	Sample Descript: M-8	Received: 09/05/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/10/96
	Analysis Method: EPA 8010	Analyzed: 09/13/96
Attention: Mike Beck	Lab Number: 9609301-03	Reported: 09/19/96

QC Batch Number: GC0910968010EXA
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	200	N.D.
Carbon Tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	200	N.D.
2-Chloroethylvinyl ether	200	N.D.
Chloroform	100	N.D.
Chloromethane	200	N.D.
Dibromochloromethane	100	N.D.
1,2-Dichlorobenzene	100	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Methylene chloride	1000	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl chloride	200	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	96

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled: 09/05/96
1730 South Amphlett, Ste 320	Sample Descript: M-8	Received: 09/05/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/10/96
	Analysis Method: EPA 8020	Analyzed: 09/13/96
Attention: Mike Beck	Lab Number: 9609301-03	Reported: 09/19/96

QC Batch Number: GC0910968020EXA
Instrument ID: GCHP09

Aromatic Volatile Organics (EPA 8020)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Benzene	100	N.D.
Chlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
Ethyl benzene	100	N.D.
Toluene	100	N.D.
Total Xylenes	**100**	4500

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	121

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled: 09/05/96
1730 South Amphlett, Ste 320	Sample Descript: M-8	Received: 09/05/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/13/96
	Analysis Method: EPA 8270	Analyzed: 09/15/96
Attention: Mike Beck	Lab Number: 9609301-03	Reported: 09/19/96

QC Batch Number: MS0913968270EXA
Instrument ID: H5

Semivolatile Organics (EPA 8270)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Acenaphthene	12000	N.D.
Acenaphthylene	12000	N.D.
Anthracene	12000	N.D.
Benzoic Acid	25000	N.D.
Benzo(a)anthracene	12000	N.D.
Benzo(b)fluoranthene	12000	N.D.
Benzo(k)fluoranthene	12000	N.D.
Benzo(g,h,i)perylene	12000	N.D.
Benzo(a)pyrene	12000	N.D.
Benzyl alcohol	12000	N.D.
Bis(2-chloroethoxy)methane	12000	N.D.
Bis(2-chloroethyl)ether	12000	N.D.
Bis(2-chloroisopropyl)ether	12000	N.D.
Bis(2-ethylhexyl)phthalate	25000	N.D.
4-Bromophenyl phenyl ether	12000	N.D.
Butyl benzyl phthalate	12000	N.D.
4-Chloroaniline	25000	N.D.
2-Chloronaphthalene	12000	N.D.
4-Chloro-3-methylphenol	12000	N.D.
2-Chlorophenol	12000	N.D.
4-Chlorophenyl phenyl ether	12000	N.D.
Chrysene	12000	N.D.
Dibenzo(a,h)anthracene	12000	N.D.
Dibenzofuran	12000	N.D.
Di-n-butyl phthalate	25000	N.D.
1,2-Dichlorobenzene	12000	N.D.
1,3-Dichlorobenzene	12000	N.D.
1,4-Dichlorobenzene	12000	N.D.
3,3-Dichlorobenzidine	25000	N.D.
2,4-Dichlorophenol	12000	N.D.
Diethyl phthalate	12000	N.D.
2,4-Dimethylphenol	12000	N.D.
Dimethyl phthalate	12000	N.D.
4,6-Dinitro-2-methylphenol	25000	N.D.
2,4-Dinitrophenol	25000	N.D.
2,4-Dinitrotoluene	12000	N.D.
2,6-Dinitrotoluene	12000	N.D.

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Mike Beck

Client Proj. ID: 930028.60/Chiron
Sample Descript: M-8
Matrix: SOLID
Analysis Method: EPA 8270
Lab Number: 9609301-03

Sampled: 09/05/96
Received: 09/05/96
Extracted: 09/13/96
Analyzed: 09/15/96
Reported: 09/19/96

QC Batch Number: MS0913968270EXA
Instrument ID: H5

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Di-n-octyl phthalate	12000	N.D.
Fluoranthene	12000	N.D.
Fluorene	12000	N.D.
Hexachlorobenzene	12000	N.D.
Hexachlorobutadiene	12000	N.D.
Hexachlorocyclopentadiene	25000	N.D.
Hexachloroethane	12000	N.D.
Indeno(1,2,3-cd)pyrene	12000	N.D.
Isophorone	12000	N.D.
2-Methylnaphthalene	12000	N.D.
2-Methylphenol	12000	N.D.
4-Methylphenol	12000	N.D.
Naphthalene	12000	N.D.
2-Nitroaniline	25000	N.D.
Nitroaniline	25000	N.D.
-Nitroaniline	25000	N.D.
Nitrobenzene	12000	N.D.
2-Nitrophenol	12000	N.D.
4-Nitrophenol	25000	N.D.
N-Nitrosodiphenylamine	12000	N.D.
N-Nitroso-di-n-propylamine	12000	N.D.
Pentachlorophenol	25000	N.D.
Phenanthrene	12000	N.D.
Phenol	12000	N.D.
Pyrene	12000	N.D.
1,2,4-Trichlorobenzene	12000	N.D.
2,4,5-Trichlorophenol	25000	N.D.
2,4,6-Trichlorophenol	12000	N.D.

Surrogates	Control Limits %		% Recovery
2-Fluorophenol	25	121	Q
Phenol-d5	24	113	Q
Nitrobenzene-d5	23	120	Q
2-Fluorobiphenyl	30	115	Q
2,4,6-Tribromophenol	19	122	Q
p-Terphenyl-d14	18	137	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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oject Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled: 09/05/96
1730 South Amphlett, Ste 320	Sample Descript: M-8	Received: 09/05/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/10/96
	Analysis Method: EPA 8080	Analyzed: 09/13/96
Attention: Mike Beck	Lab Number: 9609301-03	Reported: 09/19/96

QC Batch Number: GC0910960PCBEXA
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	**20**	**20**
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	69

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled: 09/05/96
1730 South Amphlett, Ste 320	Sample Descript: M-8	Received: 09/05/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/10/96
	Analysis Method: EPA 8015 Mod	Analyzed: 09/14/96
Attention: Mike Beck	Lab Number: 9609301-03	Reported: 09/19/96

QC Batch Number: GC0910960HBPEXA
Instrument ID: GCHP5A

Fuel Fingerprint

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Extractable Hydrocarbons	50	5600
Chromatogram Pattern:		
Unidentified HC		C9-C40

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled: 09/05/96
1730 South Amphlett, Ste 320	Sample Descript: M-9	Received: 09/05/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/10/96
	Analysis Method: EPA 8020	Analyzed: 09/13/96
Attention: Mike Beck	Lab Number: 9609301-04	Reported: 09/19/96

QC Batch Number: GC0910968020EXA
Instrument ID: GCHP09

Aromatic Volatile Organics (EPA 8020)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Benzene	5.0	N.D.
Chlorobenzene	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
Ethyl benzene	5.0	N.D.
Toluene	5.0	N.D.
Total Xylenes	5.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	88

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled: 09/05/96
1730 South Amphlett, Ste 320	Sample Descript: M-9	Received: 09/05/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/10/96
	Analysis Method: EPA 3015 Mod	Analyzed: 09/14/96
Attention: Mike Beck	Lab Number: 9609301-04	Reported: 09/19/96

QC Batch Number: GC0910960HBPEXA
Instrument ID: GCHP5A

Fuel Fingerprint

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Extractable Hydrocarbons	50	2500
Chromatogram Pattern:		
Unidentified HC		C9-C40

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Mike Beck

Client Proj. ID: 930028.60/Chiron
Sample Descript: WM-1
Matrix: LIQUID
Analysis Method: EPA 8010
Lab Number: 9609301-05

Sampled: 09/05/96
Received: 09/05/96

Analyzed: 09/13/96
Reported: 09/19/96

QC Batch Number: GC091196801009A
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	70

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled: 09/05/96
1730 South Amphlett, Ste 320	Sample Descript: WM-1	Received: 09/05/96
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: EPA 8020	Analyzed: 09/14/96
Attention: Mike Beck	Lab Number: 9609301-05	Reported: 09/19/96

QC Batch Number: GC091196802009A
Instrument ID: GCHP09

Aromatic Volatile Organics (EPA 8020)

Analyte	Detection Limit ug/L	Sample Results ug/L
Benzene	0.50	N.D.
Chlorobenzene	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
Ethyl benzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	0.50	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	93

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled: 09/05/96
1730 South Amphlett, Ste 320	Sample Descript: WM-1	Received: 09/05/96
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 09/12/96
	Analysis Method: EPA 8080	Analyzed: 09/15/96
Attention: Mike Beck	Lab Number: 9609301-05	Reported: 09/19/96

QC Batch Number: GC0912960PCBEXA
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/L	Sample Results ug/L
PCB-1016	0.50	N.D.
PCB-1221	2.0	N.D.
PCB-1232	0.50	N.D.
PCB-1242	0.50	N.D.
PCB-1248	0.50	N.D.
PCB-1254	**0.50**	**0.75**
PCB-1260	0.50	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	50	150	127

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled: 09/05/96
1730 South Amphlett, Ste 320	Sample Descript: WM-1	Received: 09/05/96
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 09/13/96
	Analysis Method: EPA 8015 Mod	Analyzed: 09/15/96
Attention: Mike Beck	Lab Number: 9609301-05	Reported: 09/19/96

QC Batch Number: GC0912960HBPEXA
Instrument ID: GCHP5B

Fuel Fingerprint

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable Hydrocarbons	2500	130000
Chromatogram Pattern:		
Unidentified HC		C9-C40

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	0 Q

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 09/05/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/10/96
	Analysis Method: EPA 8015 Mod	Analyzed: 09/11/96
Attention: Mike Beck	Lab Number: 9609301-06	Reported: 09/19/96

QC Batch Number: GC0910960HBPEXA
Instrument ID: GCHP4B

Fuel Fingerprint

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Extractable Hydrocarbons Chromatogram Pattern:	1.0	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	79

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 09/05/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/10/96
	Analysis Method: EPA 8010	Analyzed: 09/12/96
Attention: Mike Beck	Lab Number: 9609301-06	Reported: 09/19/96

QC Batch Number: GC0910968010EXA
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	10	N.D.
Carbon Tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	10	N.D.
2-Chloroethylvinyl ether	10	N.D.
Chloroform	5.0	N.D.
Chloromethane	10	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	10	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	60	130	96

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 09/05/96
San Mateo, CA 94402	*Matrix: SOLID*	Extracted: 09/10/96
	Analysis Method: EPA 8020	Analyzed: 09/12/96
Attention: Mike Beck	Lab Number: 9609301-06	Reported: 09/19/96

QC Batch Number: GC0910968020EXA
Instrument ID: GCHP09

Aromatic Volatile Organics (EPA 8020)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Benzene	5.0	N.D.
Chlorobenzene	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
Ethyl benzene	5.0	N.D.
Toluene	5.0	N.D.
Total Xylenes	5.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	*60*	*130*	*97*

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 09/05/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/13/96
	Analysis Method: EPA 8270	Analyzed: 09/14/96
Attention: Mike Beck	Lab Number: 9609301-06	Reported: 09/19/96

QC Batch Number: MS0913968270EXA
Instrument ID: H5

Semivolatile Organics (EPA 8270)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Acenaphthene	250	N.D.
Acenaphthylene	250	N.D.
Anthracene	250	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	250	N.D.
Benzo(b)fluoranthene	250	N.D.
Benzo(k)fluoranthene	250	N.D.
Benzo(g,h,i)perylene	250	N.D.
Benzo(a)pyrene	250	N.D.
Benzyl alcohol	250	N.D.
Bis(2-chloroethoxy)methane	250	N.D.
Bis(2-chloroethyl)ether	250	N.D.
Bis(2-chloroisopropyl)ether	250	N.D.
is(2-ethylhexyl)phthalate	500	N.D.
+-Bromophenyl phenyl ether	250	N.D.
Butyl benzyl phthalate	250	N.D.
4-Chloroaniline	500	N.D.
2-Chloronaphthalene	250	N.D.
4-Chloro-3-methylphenol	250	N.D.
2-Chlorophenol	250	N.D.
4-Chlorophenyl phenyl ether	250	N.D.
Chrysene	250	N.D.
Dibenzo(a,h)anthracene	250	N.D.
Dibenzofuran	250	N.D.
Di-n-butyl phthalate	500	N.D.
1,2-Dichlorobenzene	250	N.D.
1,3-Dichlorobenzene	250	N.D.
1,4-Dichlorobenzene	250	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	250	N.D.
Diethyl phthalate	250	N.D.
2,4-Dimethylphenol	250	N.D.
Dimethyl phthalate	250	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.
2,4-Dinitrotoluene	250	N.D.
2,6-Dinitrotoluene	250	N.D.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 09/05/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/13/96
	Analysis Method: EPA 8270	Analyzed: 09/14/96
Attention: Mike Beck	Lab Number: 9609301-06	Reported: 09/19/96

QC Batch Number: MS0913968270EXA
Instrument ID: H5

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Di-n-octyl phthalate	250	N.D.
Fluoranthene	250	N.D.
Fluorene	250	N.D.
Hexachlorobenzene	250	N.D.
Hexachlorobutadiene	250	N.D.
Hexachlorocyclopentadiene	500	N.D.
Hexachloroethane	250	N.D.
Indeno(1,2,3-cd)pyrene	250	N.D.
Isophorone	250	N.D.
2-Methylnaphthalene	250	N.D.
2-Methylphenol	250	N.D.
4-Methylphenol	250	N.D.
Naphthalene	250	N.D.
2-Nitroaniline	500	N.D.
-Nitroaniline	500	N.D.
+-Nitroaniline	500	N.D.
Nitrobenzene	250	N.D.
2-Nitrophenol	250	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	250	N.D.
N-Nitroso-di-n-propylamine	250	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	250	N.D.
Phenol	250	N.D.
Pyrene	250	N.D.
1,2,4-Trichlorobenzene	250	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	250	N.D.

Surrogates	Control Limits %		% Recovery
2-Fluorophenol	25	121	58
Phenol-d5	24	113	66
Nitrobenzene-d5	23	120	57
2-Fluorobiphenyl	30	115	62
2,4,6-Tribromophenol	19	122	53
p-Terphenyl-d14	18	137	71

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 09/05/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/10/96
	Analysis Method: EPA 8080	Analyzed: 09/11/96
Attention: Mike Beck	Lab Number: 9609301-06	Reported: 09/19/96

QC Batch Number: GC0910960PCBEXA
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	144

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 3, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 09/05/96
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 09/11/96
	Analysis Method: EPA 8015 Mod	Analyzed: 09/13/96
Attention: Mike Beck	Lab Number: 9609301-07	Reported: 09/19/96

QC Batch Number: GC0912960HBPEXA
Instrument ID: GCHP5A

Fuel Fingerprint

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable Hydrocarbons Chromatogram Pattern:	50	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	113

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

"ke Gregory
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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 09/05/96
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: EPA 8010	Analyzed: 09/13/96
Attention: Mike Beck	Lab Number: 9609301-07	Reported: 09/19/96

QC Batch Number: GC091196801009A
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
,1-Dichloroethane	0.50	N.D.
,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	92

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 09/05/96
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: EPA 8020	Analyzed: 09/13/96
Attention: Mike Beck	Lab Number: 9609301-07	Reported: 09/19/96

QC Batch Number: GC091196802009A
Instrument ID: GCHP09

Aromatic Volatile Organics (EPA 8020)

Analyte	Detection Limit ug/L	Sample Results ug/L
Benzene	0.50	N.D.
Chlorobenzene	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
Ethyl benzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	0.50	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	93

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 09/05/96
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 09/12/96
	Analysis Method: EPA 8080	Analyzed: 09/13/96
Attention: Mike Beck	Lab Number: 9609301-07	Reported: 09/19/96

QC Batch Number: GC0912960PCBEXA
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/L	Sample Results ug/L
PCB-1016	0.50	N.D.
PCB-1221	2.0	N.D.
PCB-1232	0.50	N.D.
PCB-1242	0.50	N.D.
PCB-1248	0.50	N.D.
PCB-1254	0.50	N.D.
PCB-1260	0.50	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	50	150	144

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

'ke Gregory
ject Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402
Attention: Mike Beck

Client Proj. ID: 930028.60/Chiron
Lab Proj. ID: 9609301

Received: 09/05/96
Reported: 09/19/96

LABORATORY NARRATIVE

8270 Note: Sample -03 (M-8) was diluted because of high late eluting compounds.

Q - Surrogate diluted out.

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.60/Chiron		
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID		
San Mateo, CA 94402	Sample Descript:	M-3		
Attention: Mike Beck	Work Order #:	9609301	-03, -06	Reported: Sep 18, 1996

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
QC Batch#:	GC0910968010EXA	GC0910968010EXA	GC0910968010EXA
Analy. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	E. Cunanan	E. Cunanan	E. Cunanan
MS/MSD #:	9608301-03-MSD	9608301-03-MSD	9608301-03-MSD
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	09/10/96	09/10/96	09/10/96
Analyzed Date:	09/13/96	09/13/96	09/13/96
Instrument I.D.#:	GCHP09	GCHP09	GCHP09
Conc. Spiked:	25 ug/Kg	25 ug/Kg	25 ug/Kg
Result:	13	25	21
MS % Recovery:	52	100	84
Dup. Result:	11	19	16
MSD % Recov.:	44	76	64
RPD:	17	27	27
RPD Limit:	0-25	0-25	0-25

LCS #:	LCS091096-LCS	LCS091096-LCS	LCS091096-LCS
Prepared Date:	09/10/96	09/10/96	09/10/96
Analyzed Date:	09/13/96	09/13/96	09/13/96
Instrument I.D.#:	GCHP09	GCHP09	GCHP09
Conc. Spiked:	25 ug/Kg	25 ug/Kg	25 ug/Kg
LCS Result:	26	28	25
LCS % Recov.:	104	112	100

MS/MSD	60-140	60-140	60-140
LCS	65-135	70-130	70-130
Control Limits			

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.	Client Project ID:	930028.60/Chiron		
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID		
San Mateo, CA 94402	Sample Descript:	M-8		
Attention: Mike Beck	Work Order #:	9609301	-01 - 04, -06	Reported: Sep 18, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Chloro-Benzene
QC Batch#:	GC0910968020EXA	GC0910968020EXA	GC0910968020EXA
Analy. Method:	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	E. Cunanan	E. Cunanan	E. Cunanan
MS/MSD #:	9608301-03-MSD	9608301-03-MSD	9608301-03-MSD
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	09/10/96	09/10/96	09/10/96
Analyzed Date:	09/13/96	09/13/96	09/13/96
Instrument I.D.#:	GCHP09	GCHP09	GCHP09
Conc. Spiked:	25 ug/Kg	25 ug/Kg	25 ug/Kg
Result:	35	77	5400 *
MS % Recovery:	140	308	21600
Dup. Result:	29	91	2300 *
MSD % Recov.:	116	364	9200
RPD:	19	17	81
RPD Limit:	0-25	0-25	0-25

* - Matrix Interference

LCS #:	LCS091096-LCS	LCS091096-LCS	LCS091096-LCS
Prepared Date:	09/10/96	09/10/96	09/10/96
Analyzed Date:	09/13/96	09/13/96	09/13/96
Instrument I.D.#:	GCHP09	GCHP09	GCHP09
Conc. Spiked:	25 ug/Kg	25 ug/Kg	25 ug/Kg
LCS Result:	32	30	31
LCS % Recov.:	128	120	124

MS/MSD	60-140	60-140	60-140
LCS	65-135	70-130	70-130
Control Limits			

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Project ID:	930028.60/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID	
San Mateo, CA 94402	Sample Descript:	XSD	
Attention: Mike Beck	Work Order #:	9609301 -05, -07	Reported: Sep 18, 1996

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
QC Batch#:	GC091196801009A	GC091196801009A	GC091196801009A
Analy. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Bou-Salman	R. Bou-Salman	R. Bou-Salman
MS/MSD #:	9608J33-01-XSD	9608J33-01-XSD	9608J33-01-XSD
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	09/11/96	09/11/96	09/11/96
Analyzed Date:	09/11/96	09/11/96	09/11/96
Instrument I.D.#:	GCHP09	GCHP09	GCHP09
Conc. Spiked:	25 ug/L	25 ug/L	25 ug/L
Result:	24	22	25
MS % Recovery:	96	88	100
Dup. Result:	23	22	24
MSD % Recov.:	92	88	96
RPD:	4.3	0.0	4.1
RPD Limit:	0-25	0-25	0-25

LCS #:	LCS091396-LCS	LCS091396-LCS	LCS091396-LCS
Prepared Date:	09/13/96	09/13/96	09/13/96
Analyzed Date:	09/13/96	09/13/96	09/13/96
Instrument I.D.#:	GCHP09	GCHP09	GCHP09
Conc. Spiked:	25 ug/L	25 ug/L	25 ug/L
LCS Result:	21	22	22
LCS % Recov.:	84	88	88

MS/MSD	60-140	60-140	60-140
LCS	70-130	70-130	70-130
Control Limits			

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.60/Chiron		
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID		
San Mateo, CA 94402	Sample Descript:	XSD		
Attention: Mike Beck	Work Order #:	9609301	-05, -07	Reported: Sep 18, 1996

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
QC Batch#:	GC091196802009A	GC091196802009A	GC091196802009A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Bou-Salman	R. Bou-Salman	R. Bou-Salman
MS/MSD #:	9608J33-01-XSD	9608J33-01-XSD	9608J33-01-XSD
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	09/11/96	09/11/96	09/11/96
Analyzed Date:	09/11/96	09/11/96	09/11/96
Instrument I.D.#:	GCHP09	GCHP09	GCHP09
Conc. Spiked:	25 ug/L	25 ug/L	25 ug/L
Result:	25	26	29
MS % Recovery:	100	104	116
Dup. Result:	25	25	28
MSD % Recov.:	100	100	112
RPD:	0.0	3.9	3.5
RPD Limit:	0-25	0-25	0-25

LCS #:	LCS091396-LCS	LCS091396-LCS	LCS091396-LCS
Prepared Date:	09/13/96	09/13/96	09/13/96
Analyzed Date:	09/13/96	09/13/96	09/13/96
Instrument I.D.#:	GCHP09	GCHP09	GCHP09
Conc. Spiked:	25 ug/L	25 ug/L	25 ug/L
LCS Result:	23	21	22
LCS % Recov.:	92	84	88

MS/MSD	60-140	60-140	60-140
LCS	65-135	70-130	70-130
Control Limits			

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.60/Chiron		
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID		
San Mateo, CA 94402	Sample Descript:	XSD		
Attention: Mike Beck	Work Order #:	9609301	-01 - 04, -06	Reported: Sep 18, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0910960HBPEXA
Analy. Method:	EPA 8015 M
Prep. Method:	EPA 3550

Analyst:	N. Herrera
MS/MSD #:	9609279-01-XSD
Sample Conc.:	57 *
Prepared Date:	09/10/96
Analyzed Date:	09/13/96
Instrument I.D.#:	GCHP5A
Conc. Spiked:	25 mg/Kg
Result:	43 *
MS % Recovery:	-56
Dup. Result:	71
MSD % Recov.:	56
RPD:	49
RPD Limit:	0-50

* Matrix Interference

LCS #:	LCS091096-LCS
Prepared Date:	09/10/96
Analyzed Date:	09/13/96
Instrument I.D.#:	GCHP5A
Conc. Spiked:	25 mg/Kg
LCS Result:	31
LCS % Recov.:	124

MS/MSD	60-140
LCS	50-150
Control Limits	

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Sequoia Analytical

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Erler & Kalinowski, Inc.	Client Project ID:	930028.60/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID	
San Mateo, CA 94402	Sample Descript:	WM-1	
Attention: Mike Beck	Work Order #:	9609301 -05, -07	Reported: Sep 18, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0912960HBPEXA
Analy. Method:	EPA 8015 M
Prep. Method:	EPA 3510

Analyst:	J. Minkel
MS/MSD #:	9609301-05-MSD
Sample Conc.:	57000*
Prepared Date:	09/12/96
Analyzed Date:	09/15/96
Instrument I.D.#:	GCHP5B
Conc. Spiked:	1000 ug/L
Result:	57000 *
MS % Recovery:	0.0
Dup. Result:	61000 *
MSD % Recov.:	400
RPD:	6.8
RPD Limit:	0-50

* Matrix Interference

LCS #:	LCS091296-LCS
Prepared Date:	09/12/96
Analyzed Date:	09/13/96
Instrument I.D.#:	GCHP5A
Conc. Spiked:	1000 ug/L
LCS Result:	1200
LCS % Recov.:	120

MS/MSD	60-140
LCS	50-150
Control Limits	

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.60/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	M-8	
Attention: Mike Beck	Work Order #:	9609301 -03, -06	Reported: Sep 19, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Phenol	2-Chlorophenol	1,4-Dichloro-benzene	N-Nitroso-Di-N-propylamine
QC Batch#:	MS0913968270EXA	MS0913968270EXA	MS0913968270EXA	MS0913968270EXA
Analy. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3550	EPA 3550	EPA 3550	EPA 3550
Analyst:	B. Pitamah	B. Pitamah	B. Pitamah	B. Pitamah
MS/MSD #:	9609301-03-MSD	9609301-03-MSD	9609301-03-MSD	9609301-03-MSD
Sample Conc.:				
Prepared Date:				
Analyzed Date:				
Instrument I.D.#:				
Conc. Spiked:				
Result:				
MS % Recovery:				
Dup. Result:				
MSD % Recov.:				
RPD:				
RPD Limit:	0-40	0-40	0-40	0-40
LCS #:	LCS091396-LCS	LCS091396-LCS	LCS091396-LCS	LCS091396-LCS
Prepared Date:	09/13/96	09/13/96	09/13/96	09/13/96
Analyzed Date:	09/14/96	09/14/96	09/14/96	09/14/96
Instrument I.D.#:	H5	H5	H5	H5
Conc. Spiked:	3300 ug/kg	3300 ug/kg	3300 ug/kg	3300 ug/kg
LCS Result:	2100	2200	1700	2100
LCS % Recov.:	64	67	52	64
MS/MSD Control Limits	39-119	32-117	36-103	27-132
LCS Control Limits	47-107	59-97	54-93	55-114

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Project ID:	930028.60/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	M-8	
Attention: Mike Beck	Work Order #:	9609301 -03, -06	Reported: Sep 19, 1996

QUALITY CONTROL DATA REPORT

Analyte:	1,2,4-Trichloro-benzene	4-Chloro-3-Methylphenol	Acenaphthene	4-Nitrophenol
QC Batch#:	MS0913968270EXA	MS0913968270EXA	MS0913968270EXA	MS0913968270EXA
Analy. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3550	EPA 3550	EPA 3550	EPA 3550
Analyst:	B. Pitamah	B. Pitamah	B. Pitamah	B. Pitamah
MS/MSD #:	9609301-03-MSD	9609301-03-MSD	9609301-03-MSD	9609301-03-MSD
Sample Conc.:				
Prepared Date:				
Analyzed Date:				
Instrument I.D.#:				
Conc. Spiked:				
Result:				
MS % Recovery:				
Dup. Result:				
MSD % Recov.:				
RPD:				
RPD Limit:	0-40	0-40	0-40	0-40
LCS #:	LCS091396-LCS	LCS091396-LCS	LCS091396-LCS	LCS091396-LCS
Prepared Date:	09/13/96	09/13/96	09/13/96	09/13/96
Analyzed Date:	09/14/96	09/14/96	09/14/96	09/14/96
Instrument I.D.#:	H5	H5	H5	H5
Conc. Spiked:	3300 ug/kg	3300 ug/kg	3300 ug/kg	3300 ug/kg
LCS Result:	2000	2100	2200	1700
LCS % Recov.:	61	64	67	52
MS/MSD Control Limits	40-108	40-109	27-125	7-108
LCS Control Limits	60-95	54-100	51-96	21-114

SEQUOIA ANALYTICAL

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Erler & Kalinowski, Inc.	Client Project ID:	930028.60/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	M-3	
Attention: Mike Beck	Work Order #:	9609301 -03, -06	Reported: Sep 19, 1996

QUALITY CONTROL DATA REPORT

Analyte:	2,4-Dinitro-toluene	Pentachloro-phenol	Pyrene
QC Batch#:	MS0913968270EXA	MS0913968270EXA	MS0913968270EXA
Analy. Method:	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3550	EPA 3550	EPA 3550
Analyst:	B. Pitamah	B. Pitamah	B. Pitamah
MS/MSD #:	9609301-03-MSD	9609301-03-MSD	9609301-03-MSD
Sample Conc.:			
Prepared Date:			
Analyzed Date:			
Instrument I.D.#:			
Conc. Spiked:			
Result:			
MS % Recovery:			
Dup. Result:			
MSD % Recov.:			
RPD:			
RPD Limit:	0-40	0-40	0-40

LCS #:	LCS091396-LCS	LCS091396-LCS	LCS091396-LCS
Prepared Date:	09/13/96	09/13/96	09/13/96
Analyzed Date:	09/14/96	09/14/96	09/14/96
Instrument I.D.#:	H5	H5	H5
Conc. Spiked:	3300 ug/kg	3300 ug/kg	3300 ug/kg
LCS Result:	1900	2100	2300
LCS % Recov.:	58	64	70

MS/MSD	32-97	DL-102	18-136
LCS	45-100	22-117	50-114
Control Limits			

SEQUOIA ANALYTICAL

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3419 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Project ID:	930028.60/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	M-8	
Attention: Mike Beck	Work Order #:	9609301 -03, -06	Reported: Sep 19, 1996

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	GC0910960PC8EXA
Analy. Method:	EPA 8080
Prep. Method:	EPA 3550
Analyst:	M. Mistry
MS/MSD #:	9609301-03-MSD
Sample Conc.:	N.D.
Prepared Date:	09/10/96
Analyzed Date:	09/11/96
Instrument I.D.#:	GCHP12
Conc. Spiked:	83 ug/Kg
Result:	136
MS % Recovery:	164
Dup. Result:	87
MSD % Recov.:	105
RPD:	44
RPD Limit:	0-50

LCS #:	LCS091096-LCS
Prepared Date:	09/10/96
Analyzed Date:	09/11/96
Instrument I.D.#:	GCHP12
Conc. Spiked:	83 ug/Kg
LCS Result:	72
LCS % Recov.:	87

MS/MSD LCS Control Limits	40-140

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.60/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID	
San Mateo, CA 94402	Sample Descript:	BLK	
Attention: Mike Beck	Work Order #:	9609301 -05, -07	Reported: Sep 19, 1996

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	GC0912960PCBEXA
Analy. Method:	EPA 8080
Prep. Method:	EPA 3510
Analyst:	M. Mistry
MS/MSD #:	BLK091296-BLK
Sample Conc.:	N.D.
Prepared Date:	09/12/96
Analyzed Date:	09/13/96
Instrument I.D.#:	GCHP12
Conc. Spiked:	2.5 ug/L
Result:	2.8
MS % Recovery:	112
Dup. Result:	3.5
MSD % Recov.:	140
RPD:	22
RPD Limit:	0-50

LCS #:	
Prepared Date:	
Analyzed Date:	
Instrument I.D.#:	
Conc. Spiked:	
LCS Result:	
LCS % Recov.:	

MS/MSD LCS Control Limits	40-140

SEQUOIA ANALYTICAL

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Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.60/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID	
San Mateo, CA 94402	Sample Descript:	WM-1	
Attention: Mike Beck	Work Order #:	9609301 -05, -07	Reported: Sep 19, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0910966010MDA	ME0910966010MDA	ME0910966010MDA	ME0910966010MDA
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3010	EPA 3010	EPA 3010	EPA 3010
Analyst:	R. Butler	R. Butler	R. Butler	R. Butler
MS/MSD #:	9609301-05-MSD	9609301-05-MSD	9609301-05-MSD	9609301-05-MSD
Sample Conc.:	N.D.	N.D.	2.5	3.6
Prepared Date:	09/10/96	09/10/96	09/10/96	09/10/96
Analyzed Date:	09/10/96	09/10/96	09/10/96	09/10/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
Result:	0.77	0.81	3.4	4.5
MS % Recovery:	77	81	110	90
Dup. Result:	0.74	0.76	3.2	4.4
MSD % Recov.:	74	76	70	80
RPD:	4.0	6.4	6.1	2.2
RPD Limit:	0-20	0-20	0-20	0-20
LCS #:	LCS091096-LCS	LCS091096-LCS	LCS091096-LCS	LCS091096-LCS
Prepared Date:	09/10/96	09/10/96	09/10/96	09/10/96
Analyzed Date:	09/10/96	09/10/96	09/10/96	09/10/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
LCS Result:	1.1	1.0	1.0	1.0
LCS % Recov.:	110	100	100	100
MS/MSD LCS Control Limits	80-120	80-120	80-120	80-120

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.60/Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID	
San Mateo, CA 94402	Sample Descript:	XSD	
Attention: Mike Beck	Work Order #:	9609301 -05, -07	Reported: Sep 19, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Arsenic
QC Batch#:	ME0910967000MD
Analy. Method:	EPA 206.2
Prep. Method:	EPA 3020
Analyst:	J. Jencks
MS/MSD #:	9609349-01-XSD
Sample Conc.:	N.D.
Prepared Date:	09/10/96
Analyzed Date:	09/10/96
Instrument I.D.#:	MTJA3
Conc. Spiked:	50 ug/L
Result:	37
MS % Recovery:	74
Dup. Result:	40
MSD % Recov.:	80
RPD:	7.8
RPD Limit:	0-20

LCS #:	LCS091096-LCS
Prepared Date:	09/10/96
Analyzed Date:	09/10/96
Instrument I.D.#:	MTJA3
Conc. Spiked:	50 ug/L
LCS Result:	45
LCS % Recov.:	90

MS/MSD	75-125
LCS	80-120
Control Limits	

SEQUOIA ANALYTICAL

Mike Gregory
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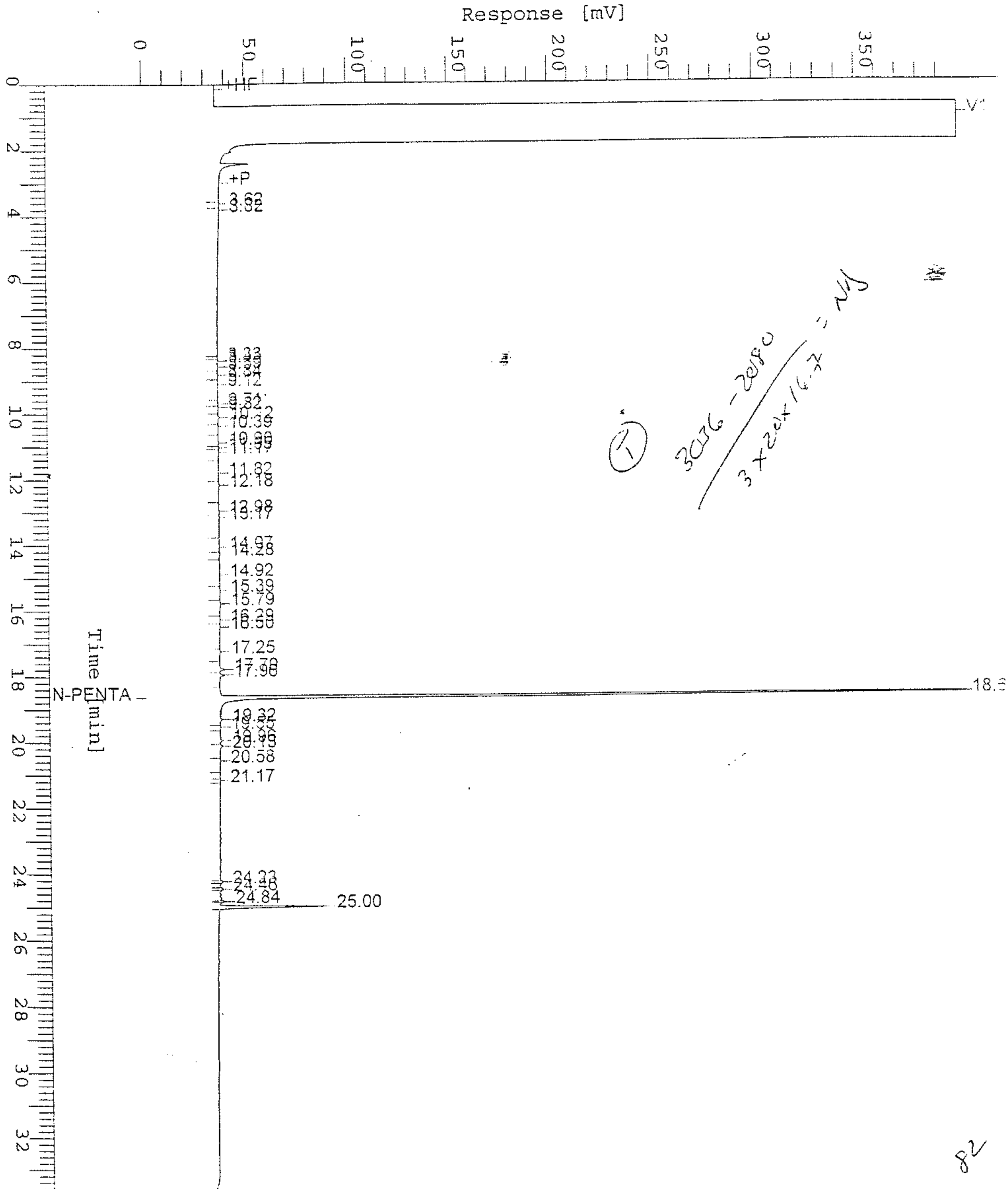
Chromatogram

Sample Name : DS9609301-1 (20:1)
FileName : S:\GHP_05\0915\914B006.raw
Method : TPH05A
Start Time : 0.00 min End Time : 33.55 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #: M-6
Date : 9/14/96 14:19
Time of Injection: 9/14/96 13:23
Low Point : 0.00 mV High Point : 400.00 mV
Plot Scale: 400.0 mV



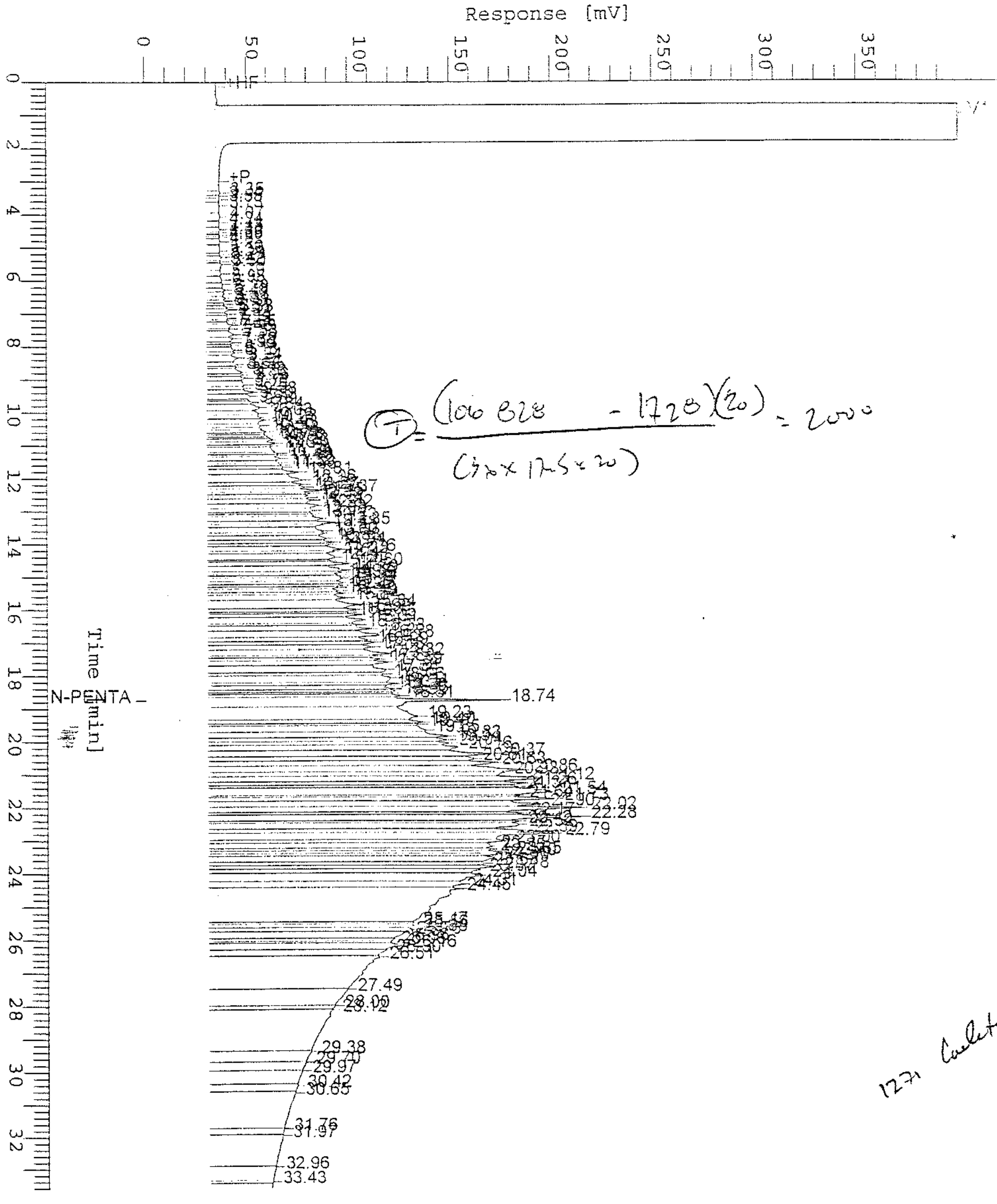
Chromatogram

Sample Name : DS9609301-2 (20:1*20) RS1
FileName : S:\GHP_05\0915\915A025.raw
Method : TPH05A
Start Time : 0.00 min
Scale Factor: 0.0

End Time : 33.65 min
Plot Offset: 0 mV

Sample #: M-7
Date : 9/16/96 03:50
Time of Injection: 9/16/96 03:16
Low Point : 0.00 mV
Plot Scale: 400.0 mV

High Point : 400.00 mV



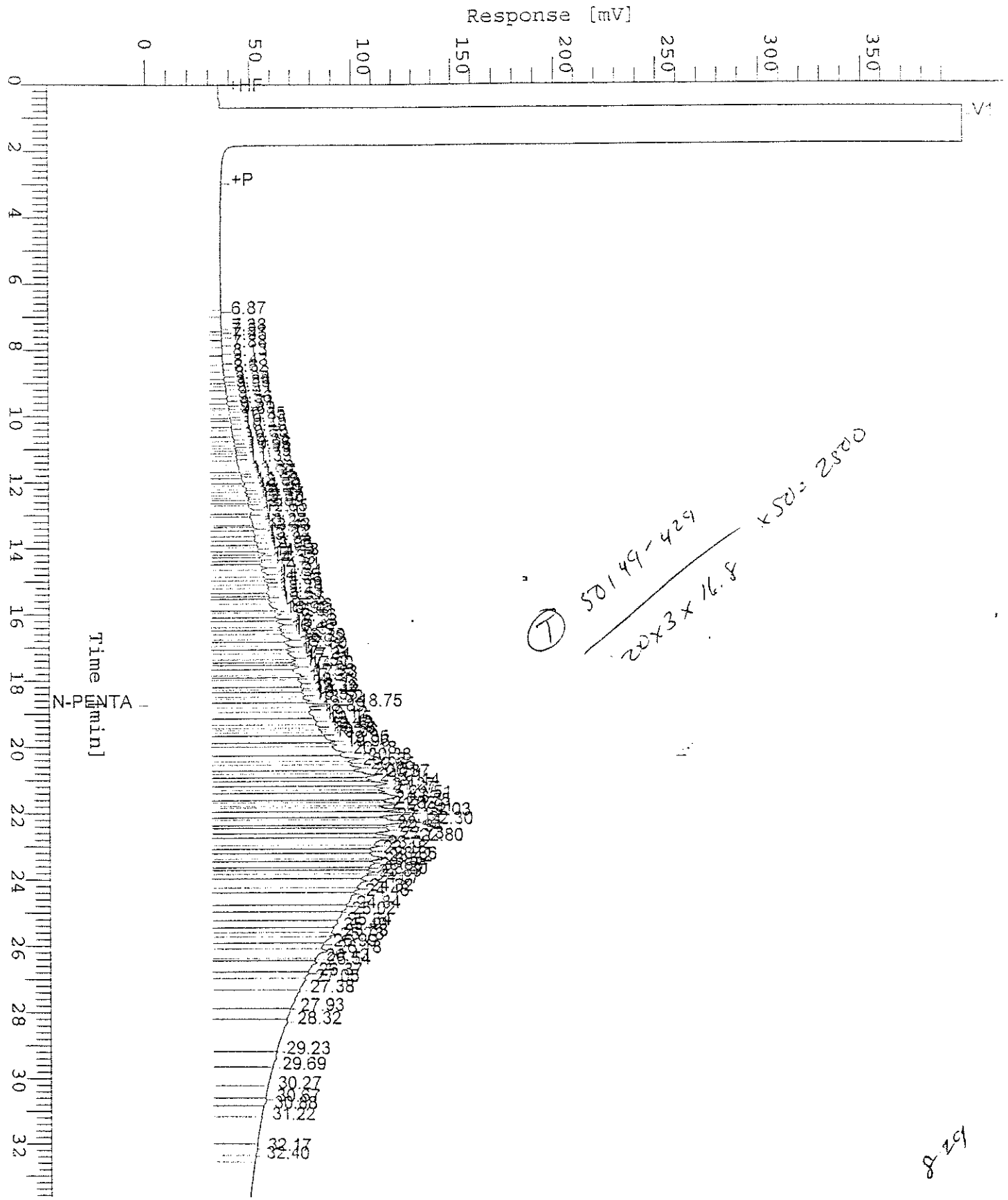
(T) = (106 828 − 1720)(20) / (32 × 17.5 × 20) = 2000

1271 Carlotta

Chromatogram

Sample Name : DS9609301-4 (20:1*50)
FileName : S:\GHP_05\0915\914A016.raw
Method : TPH05A
Start Time : 0.00 min End Time : 33.65 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #: M-9 Page 1 of 1
Date : 9/14/96 20:53
Time of Injection: 9/14/96 20:19
Low Point : 0.00 mV High Point : 400.00 mV
Plot Scale: 400.0 mV



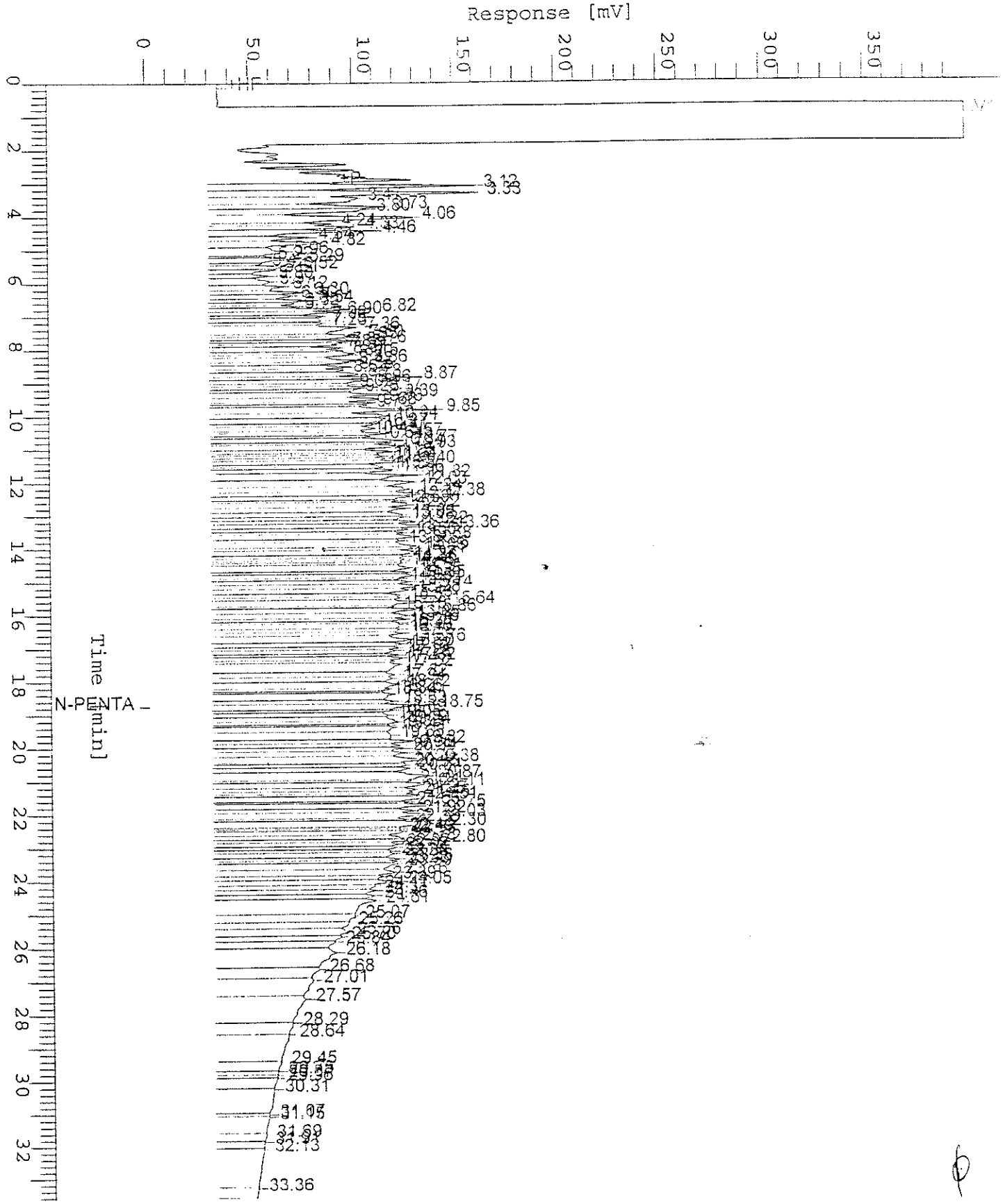
(T) 5014.9 - 429 / 22 x 3 x 16.8 x 50 = 2500

8 129

Chromatogram

Sample Name : DS9609301-3 (20:1*50)
FileName : S:\GHP_05\0915\914A020.raw
Method : TPH05A
Start Time : 0.00 min End Time : 33.65 min
Scale Factor: 0.0 Plot Offset: 0 mV

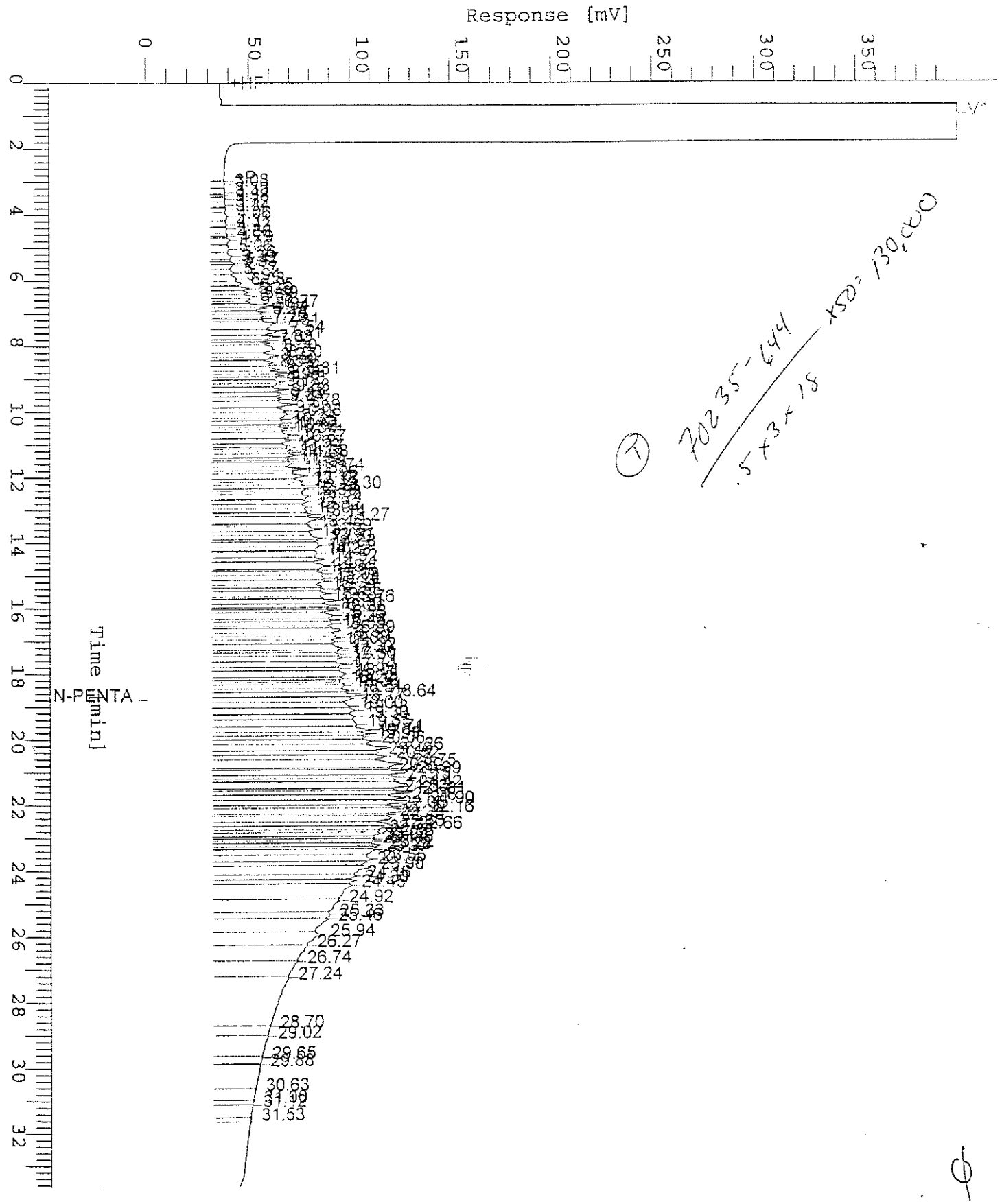
Sample #: M-3 Page 1 of 1
Date : 9/14/96 23:37
Time of Injection: 9/14/96 23:03
Low Point : 0.00 mV High Point : 400.00 mV
Plot Scale: 400.0 mV



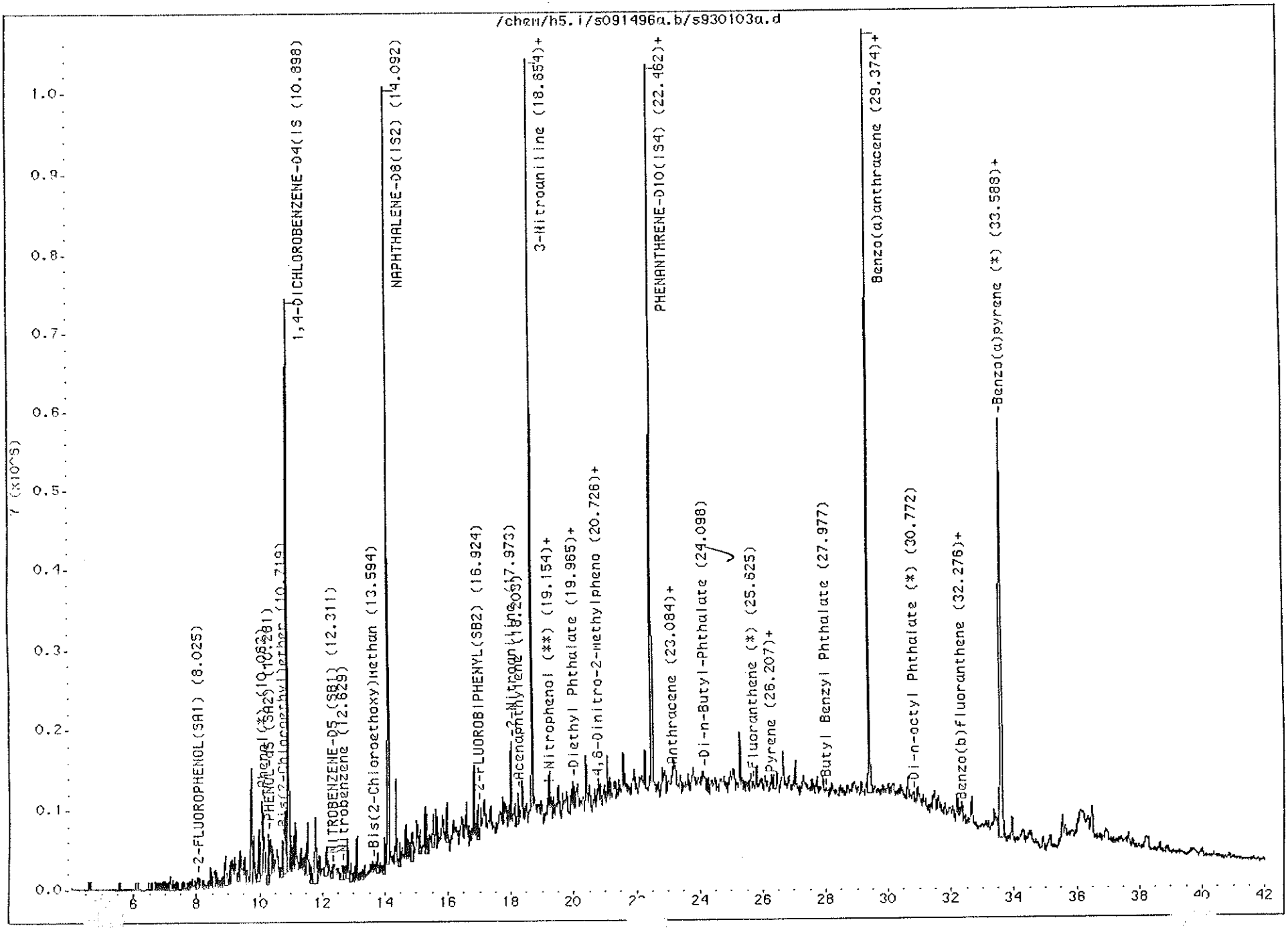
Chromatogram

Sample Name : DW9609301-5 (500:1*50) RS1
FileName : S:\GHP_05\0915\915B008.raw
Method : TPH05A
Start Time : 0.00 min End Time : 33.65 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #: WM-1 Page 1 of 1
Date : 9/15/96 16:10
Time of Injection: 9/15/96 15:36
Low Point : 0.00 mV High Point : 400.00 mV
Plot Scale: 400.0 mV



(T) 20235-644 / .5 x 3 x 15 x 52 = 130,000


/chem/h5.i/s091496a.b/s930103a.d
Y (x10^5)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
2-FLUOROPHENOL(SA1) (8.025)
PHENOL(SA2) (10.281)
Bis(2-Chloroethyl)ether (10.719)
1,4-DICHLOROBENZENE-D4(IS (10.898)
Nitrobenzene (12.829)
NITROBENZENE-D5 (SB1) (12.311)
Bis(2-Chloroethoxy)methan (13.594)
NAPHTHALENE-D8(IS2) (14.092)
2-FLUOROBIPHENYL(SB2) (16.924)
Acenaphthylene (18.205)
Acenaphthene (17.973)
3-Nitroaniline (18.854)+
Nitrophenol (**) (19.154)+
Diethyl Phthalate (19.965)+
4,6-Dinitro-2-methylphena (20.726)+
PHENANTHRENE-D10(IS4) (22.462)+
Anthracene (23.084)+
Di-n-Butyl-Phthalate (24.098)
Fluoranthene (*) (25.625)
Pyrene (26.207)+
Butyl Benzyl Phthalate (27.977)
Benzo(a)anthracene (29.374)+
Di-n-octyl Phthalate (*) (30.772)
Benzo(b)fluoranthene (32.276)+
Benzo(a)pyrene (*) (33.588)+

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Erler & Kalinowski, Inc.

Analytical Laboratory: Sequoia Analytical

Project Number: 930028.60

Date Sampled: 9/5/96

Project Name: CHIRON

Sampled By: Mike Beck

Source of Samples: BUILDING M TANKS

Report Results To: Mike Beck

Location: TANK EXCAVATION

Phone Number: 415) 578-1172

9609301

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
1	M-6	Soil	1 - Stainless Steel liner	1250	TEPH - FUEL FINGERPRINT EPA 8020	2 WEEKS
2	M-7	Soil	↓	1252	TEPH - FUEL FINGERPRINT EPA 8020	↓
3	M-8	Soil	↓	1300	TEPH - FUEL FINGERPRINT EPA 8010/8020, 8270, 8080 (PCBs only)	
4	M-9	Soil	↓	1310	TEPH - FUEL FINGERPRINT EPA 8020	
5	WM-1	WATER	6 - VOAs w/ HCl 2 - 1 liter Ambers 1 liter plastic w/ HNO3	1320	TEPH - FUEL FINGERPRINT EPA 8020, 8080 PCBs only Arsenic Cadmium 8010	↓

Special Instructions:

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Michael Beck / Michael J Beck/EKI	9/5/96	1640	
	9-5-96	1640	Scot Ross Sequoia Anal.

Sequoia Analytical

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/ Chiron-Bldg M	Sampled: 09/17/96
1730 South Amphlett, Ste 320	Sample Descript: SD-1@9.5	Received: 09/20/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/26/96
	Analysis Method: EPA 8015 Mod	Analyzed: 09/30/96
Attention: Steve Tarantino	Lab Number: 9609D12-01	Reported: 10/02/96

QC Batch Number: GC0926960HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	2.3
Chromatogram Pattern:		
Unidentified HC		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	108

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

'ke Gregory
)ject Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steve Tarantino

Client Proj. ID: 930028.60/ Chiron-Bldg M
Sample Descript: SD-2@9.5
Matrix: SOLID
Analysis Method: EPA 8015 Mod
Lab Number: 9609D12-02

Sampled: 09/18/96
Received: 09/20/96
Extracted: 09/26/96
Analyzed: 09/30/96
Reported: 10/02/96

QC Batch Number: GC0926960HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	20	310
Chromatogram Pattern:	C9-C24	W-Diesel
Unidentified HC		+C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	446 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

'ke Gregory
oject Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 3, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/ Chiron-Bldg M	Sampled: 09/19/96
1730 South Amphlett, Ste 320	Sample Descript: SD-3@9.5	Received: 09/20/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/26/96
	Analysis Method: EPA 3015 Mod	Analyzed: 10/01/96
Attention: Steve Tarantino	Lab Number: 9609D12-03	Reported: 10/02/96

QC Batch Number: GC0926960HBPEXA
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	42
Chromatogram Pattern:		
Unidentified HC		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	179 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

'ke Gregory
)ject Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/ Chiron-Bldg M	Sampled: 09/19/96
1730 South Amphlett, Ste 320	Sample Descript: SD-4@9.5	Received: 09/20/96
San Mateo, CA 94402	Matrix: SOLID	Extracted: 09/26/96
	Analysis Method: EPA 8015 Mod	Analyzed: 09/30/96
Attention: Steve Tarantino	Lab Number: 9609D12-04	Reported: 10/02/96

QC Batch Number: GC0926960HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	85

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 3, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.60/ Chiron-Bldg M	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 09/20/96
San Mateo, CA 94402	Matrix: *SOLID*	*Extracted:* 09/26/96
	Analysis Method: EPA 8015 Mod	Analyzed: 09/30/96
Attention: Steve Tarantino	Lab Number: 9609D12-05	Reported: 10/02/96

QC Batch Number: GC0926960HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	79

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

'ke Gregory
)ject Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Project ID:	930028.60/Chiron-Bldg. M	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SD-1 @ 9.5	
Attention: Steve Tarrantino	Work Order #:	9609D12 -01 -05	Reported: Oct 2, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0926960HBPEXA
Analy. Method:	EPA 8015 M
Prep. Method:	EPA 3550
Analyst:	B. Sullivan
MS/MSD #:	9609D12-01-MSD
Sample Conc.:	2.3
Prepared Date:	09/26/96
Analyzed Date:	09/30/96
Instrument I.D.#:	GCHP5A
Conc. Spiked:	25 mg/Kg
Result:	23
MS % Recovery:	83
Dup. Result:	22
MSD % Recov.:	79
RPD:	4.4
RPD Limit:	0-50

LCS #:	LCS092696-LCS
Prepared Date:	09/26/96
Analyzed Date:	09/30/96
Instrument I.D.#:	GCHP5A
Conc. Spiked:	25 mg/Kg
LCS Result:	26
LCS % Recov.:	104

MS/MSD	60-140
LCS	50-150
Control Limits	

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

Sequoia Analytical

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819 Striker Avenue, Suite 3, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc. 1730 South Amphlett, Ste 320 San Mateo, CA 94402 Attention: Steve Tarantino	Client Proj. ID: 930028.60/ Chiron-Bldg M Lab Proj. ID: 9609D12	Received: 09/20/96 Reported: 10/02/96

LABORATORY NARRATIVE

#Q - Surrogate coelution was confirmed.

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

9609D12

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Erler & Kalinowski, Inc.

Project Number: 930028.60 Page of

Project Name: CHIRON - BLDG M TANKS

Source of Samples: S

Location: EMERYVILLE, CA

Analytical Laboratory: SEQUOIA LAB

Date Sampled: 9/17/96, 9/18/96, 9/19/96

Sampled By: FERNANDO VELEZ/Jaime H.

Report Results To: STEVE TARANTINO

Phone Number: (415) 578 1172

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time/DATE Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
1	SD-1@9.5	SOIL	1 TUBE	9/17/96 8:00 AM	TPHd 8015 m	10 DAY
2	SD-2@9.5	SOIL	1 TUBE	9/18/96 (8:00AM)	TPHd 8015 m.	10 DAY
3	SD-3@9.5	Soil	1 Tube	9/19/96 (9:25AM)	"	10 Day
4	SD-4@9.5	Soil	1 Tube	9/19/96 (11:30AM)	"	10 Day

Special Instructions:

Relinquished By: Name / Signature / Affiliation

Date: 9/20/96 Time: 12:50

Received By: Name / Signature / Affiliation

Carl PDQ

9-20-96