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Prepared for:

Enterprise Lumber

Site Location:

19521 47th Avenue NE
Arlington, Washington

FINAL REPORT:

Phase III Environmental Assessment for Enterprise Lumber, 19521 47th Avenue NE Arlington, Washington

October 19, 1992 *920502.03*

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1.0 INTRODUCTION

1.1 Purpose and Objectives

On behalf of Enterprise Lumber Co., Inc. (Enterprise Lumber), Enviros, Inc. (Enviros) conducted a Phase III environmental assessment of two retention ponds used at the site for collection of storm water runoff. The Enterprise Lumber site is located at 19521 47th Avenue Northeast in Arlington, Washington (refer to Figure 1 for a vicinity map).

A Phase I environmental site audit was conducted in June 1992, which included the site history and a listing of areas of potential soil contamination. Based on the audit, a Phase II site assessment was conducted in July 1992. Soil samples were collected from areas of potential contamination, and water and sediment samples were collected from the two retention ponds (RP1 and RP2). Sampling results of the pond sediments indicated elevated concentrations of heavy oil hydrocarbons. Water samples collected from the pond water indicated low concentrations of heavy oil hydrocarbons. Based on analytical results and field observations from the Phase II assessment, additional sampling of the retention pond sediments and soils surrounding the ponds was warranted.

The primary objective of the Phase III assessment was to evaluate the nature and extent of petroleum hydrocarbons present in the two retention ponds. The site assessment was divided into several subtasks listed below:

- Additional analysis of the vertical extent of contamination in the pond sediments;
- Analysis of soils surrounding ponds RP1 and RP2 to assess whether lateral migration of contamination may have occurred;
- Analysis of the nature of contamination present at the site;
- Assessment of groundwater, if encountered in soil borings; and
- Recommendations for further actions, as appropriate.

Objectives were accomplished by collecting pond sediment samples from a test pit and a gravity core sampler, and by collecting soil samples from areas surrounding the ponds with a hollow stem auger drill rig. Samples were submitted for chemical analysis, and analytical results were evaluated. Recommendations on further actions are based on analytical results and field observations.

The following exceptions were made to the original scope of work submitted to Enterprise Lumber:

- Soil borings were to be installed with a van-mounted Geoprobe drilling system. Due to the gravelly nature of the soils in the vicinity of the retention ponds, Geoprobe was unable to collect samples at depth, and a truck-mounted hollow stem auger drill rig was used instead.

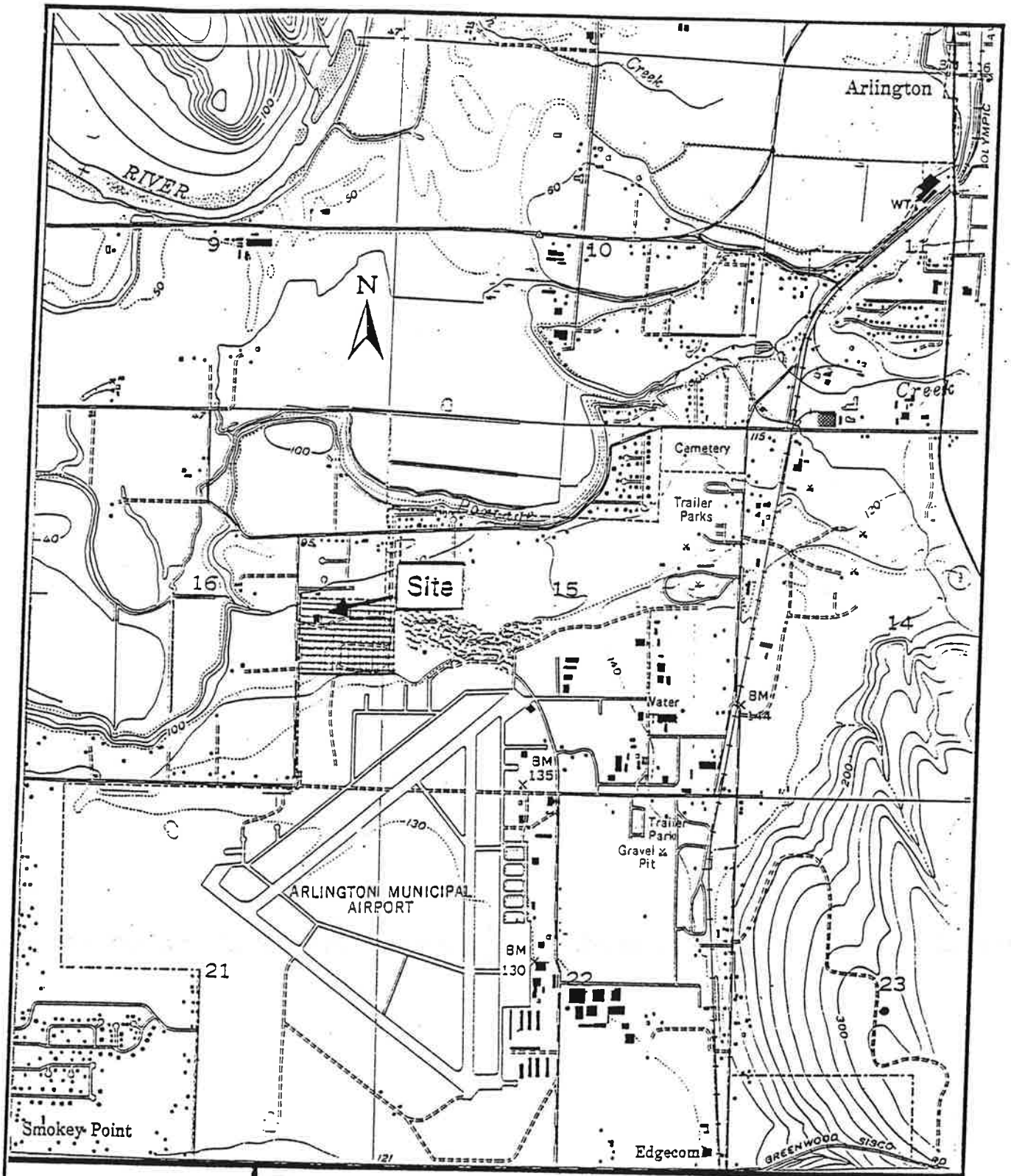

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Figure 1. Map of Site Vicinity - City of Arlington, Snohomish County, Washington. Source: U.S.G.S. 7.5 Minute Series, Arlington West Quadrangle, 1956, Photorevised 1981.

Drawn by: RJS Approved by: [illegible] Date: 7/2/92

- An 18-inch long, 2-inch inside diameter (ID) split-spoon sampler was used during drilling to collect soil samples at intervals of 1.5 feet.
- To better characterize the contamination, WTPH-Diesel Extended was performed on samples EL-SB4-3-4.5 and EL-SB5-3.5-5,. These samples were previously analyzed by Method WTPH-418.1 and found to be contaminated.
- Total organic carbon (TOC) analysis was performed on one pond sediment sample to determine the amount of carbon (i.e., wood) products in the sediments.

1.2 Site Description

The site is located in the NE 1/4 of the SE 1/4 of Section 16, and the NW 1/4 of the SW 1/4 of Section 15, Township 31 North, Range 5 East, of Snohomish County, Washington (Figure 1). It is situated on lands owned by the Arlington Municipal Airport. The local area consists of rural residential housing, cultivated farm land, and the Stillaguamish River valley.

The Enterprise Lumber site is situated on a southern terrace of the Stillaguamish River, which runs east-west along the northern border of the broad, Stillaguamish valley. Portage Creek lies on the south side of the Stillaguamish valley and is the closest drainage channel to Enterprise Lumber. Based on the topography, the assumed groundwater direction for the site is north-northwest towards Portage Creek and the Stillaguamish River.

Most of the surficial geology in the vicinity of the site consists of the Marysville Sand Member of the Vashon Drift (Fraser Glaciation), according to the Geologic Map of the Arlington West 7.5 Minute Quadrangle, Snohomish County, Washington. The Marysville Sand Member represents recessional outwash deposits and consists mostly of well-drained, stratified to massive outwash sand, some fine gravel, and some areas of silt and clay. The upper 5 feet of soil in the vicinity of the site are classified as Everett gravelly sandy loam. This soil forms on glacial outwash and terraces. Surface water runoff is slow, while permeability of the Everett soil is rapid. Seepage is common for Everett soils, which can present severe limitations for development.

1.3 Description of Retention Ponds

The two retention ponds (RP1 and RP2) are located outside of the leased section of land on the site's east side. They were built to receive surface runoff via underground drains (see Figure 2). The west pond (RP1), at its maximum extent of 95 feet wide and 156 feet long, was designed to hold up to approximately 12 vertical feet of water. Recommended storage capacity in RP1 is 36,000 cubic feet, and the maximum storage capacity is 136,800 cubic feet. The east pond (RP2), at its maximum extent of 65 feet wide and 170 feet long, was designed to hold up to 13 vertical feet of water. Recommended storage capacity in RP2 is 34,000 cubic feet, and the maximum storage capacity is 135,000 cubic feet.

A total of seven drains service the southwestern quarter of the site (although the site blueprints only indicate six). Water, wood pieces, and surface runoff flow into the drains during storm events, and are transported through an 18-inch diameter metal pipe that runs diagonally to the

ENTERPRISE LUMBER SITE

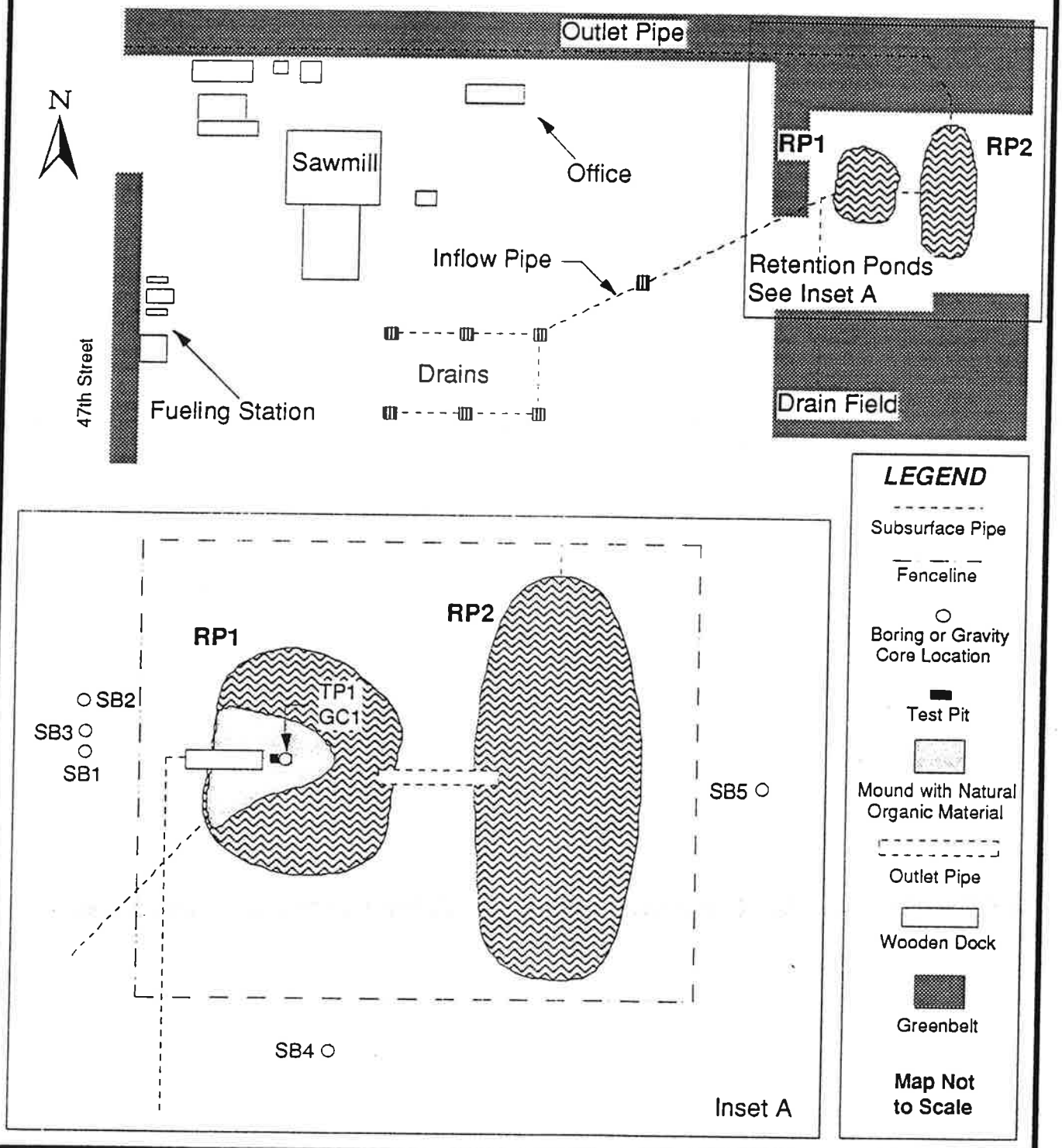

FIGURE 2: Site Map - Retention Pond Inset.
Enterprise Lumber, Arlington, Washington.

Drawn By: RAS **Date: 9/28/92** **Approved By:** JyB

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northeast and into RP1 (see Figure 2). This pipe enters RP1 on the southwest side at an approximate depth of 20 feet below the pond's bank.

At RP1, a wooden dock supported by wooden poles extends out over the pond surface. The dock houses a 6-inch suction pump, which may be used to direct pond water through a subsurface pipe that runs north-south directly west of the western bank of RP1. This pipe drains pond water into the subsurface of the greenbelt south of the ponds. Adjacent berms were designed to prevent surface migration of water discharged into this area.

RP1 and RP2 are connected by an outlet pipe. When the water in RP1 reaches the height of the pipe intake, the water flows into RP2. Wood pieces generally settle out in RP1, and surface water and sediment in suspension are transferred to RP2. Water from RP1 was recently drained through the subsurface pipe that runs west of the western bank and discharged into the greenbelt south of the ponds. The pond has been refilling since rains have occurred in the Arlington area. The water level in RP1 is currently lower than the water level in RP2, and water from RP2 occasionally flows to RP1 through the connecting outlet pipe.

Water stored in RP2 can be released through a 12-inch outlet pipe, located on the north side of RP2. A 12-inch gate valve on the pipe provides adjustment of outflow quantity. The outlet pipe leaving RP2 is connected to control outlet pipes that direct water flow northwest toward a 1,350-foot long, 12-inch, perforated pipe that runs along the northern site boundary. This perforated pipe is connected to 175 feet of 12-inch tightline pipe, which eventually intersects with drainage culverts that run north-south along the east side of 47th Avenue Northeast. The outlet pipes leaving RP2 were closed by the City of Arlington approximately 8 to 10 years ago. At that time, the city received complaints from nearby residents that runoff from the pipe was fouling the county ditch with a dark coffee-colored liquid.

Potential sources for contribution of heavy oil hydrocarbons in the retention ponds can be observed during daily activities at a lumber mill. Hydraulic-powered equipment, such as forklifts and logsorters, operate continuously to carry logs and lumber. Hydraulic fluid leaks occasionally occur with this equipment. Trucks transporting logs and distributing lumber or wood chips are always present on-site and may leak oil occasionally. Sawmill equipment, such as the edger, are lubricated with an oil/water mist. This oil/water mixture has been observed to discharge from the sawmill to the greenbelt to the north. During rainstorms, runoff carries wood debris and petroleum from oil spills to the drains, which may eventually end up in the retention ponds.

2.0 EVALUATION OF POND SEDIMENTS

2.1 Previous Results and Observations

The Phase I audit indicated the presence of an oily sheen on the surface of both ponds.

During Phase II sampling in July 1992, pond sediment and water samples were collected and analyzed for total petroleum hydrocarbons (TPH) by Method WTPH-418.1 and WTPH-Diesel. Method WTPH-418.1 analysis determined that sediments from RP1 contained petroleum hydrocarbons concentrations ranging from 13,000 to 28,000 ppm. Based on more recent (Phase III) sampling and analysis, these anomalously high readings are likely to reflect the presence of naturally-occurring organic material rather than contamination. RP1 water samples collected from the surface and from the bottom of the pond had concentrations up to 1.2 ppm, as analyzed by Method WTPH-Diesel.

Based on these analytical results, a Phase III sampling was conducted to evaluate the vertical and lateral extent of contamination in the ponds and in the surrounding area. The Phase II assessment indicated that concentrations of heavy oil hydrocarbons in sediment samples from RP2 were lower than those collected from RP1. Based on that observation, Phase III sampling activities were conducted on RP1 only. Analytical results obtained for RP1 would be used to provide a worst-case scenario for RP2.

2.2 Sampling and Analysis Methods

Enviros conducted field sampling of the pond sediments on September 1, 1992. Since most of the water in the pond had been removed, a portion of the pond floor was directly accessible for sampling. An initial grab sample (EL-GB-3) was collected from the surface of the mound with a trowel. Although gravity core and hand auger techniques were attempted, both techniques failed because of the fibrous nature of the pond sediments. A test pit was installed in the pond sediments, and ten sediment samples were collected from various depths up to 33 inches into the pond, using a shovel and gravity core to work through the fibrous material.

Each sediment sample was transformed into a decontaminated, 4-ounce glass jar with a Teflon-lined lid, sealed, and placed on ice. They were transported under standard chain-of-custody procedures to Analytical Services, Inc. (ASI) and North Creek Analytical (North Creek) laboratories. Sampling equipment was decontaminated between each sample.

One sample was archived, one sample was analyzed for TOC, five samples were analyzed by Method WTPH-418.1, and three samples were analyzed by Method WTPH-Diesel Extended. As part of WTPH-Diesel Extended, WTPH-Diesel was performed. The results are presented in Tables 1 and 2.

2.3 Analytical Results of Retention Pond Sediment Samples

The analytical methods used were WTPH-418.1 and WTPH-Diesel Extended. Method WTPH-418.1 is a quantitative method used to determine the levels of heavier oils in samples. The State of Washington requires the use of this method for contaminants with a higher molecular weight than diesel fuel. Method WTPH-Diesel Extended was used to better characterize the hydrocarbon contamination. Both of these analytical techniques have limitations, in that natural organic material present in the sample may interfere. Silica gel cleanup, which reduces interferences from natural organic materials, may be only partially effective when samples contain extremely high amounts of natural oils, as may be the case at the Enterprise Lumber site.

Analytical testing for TPH concentrations in sediment samples was conducted by ASI and North Creek. Method WTPH-418.1 results for pond sediments are presented in Table 1.

Table 1. Method WTPH-418.1 Analytical Results of Pond Sediments

Client Sample ID	Sample Interval (inches)	Percent Moisture	Result (ppm)
EL-TP1-0-6"	0-6	72	**12,000**
EL-TP1-15"	15	72	**4,800**
EL-TP1-est. 28-30"	28-30	73	**9,100**
EL-GC1-22.5-25.5"	22.5-25.5	67	**11,000**
EL-GC1-29-33"	29-33	68	**13,000**

Concentrations in **BOLD** exceed MTCA Method A cleanup level of 200 ppm.

Concentrations for TPH by Method WTPH-418.1 exceeded the Model Toxics Control Act (MTCA) Method A cleanup criteria in all samples. Method WTPH-Diesel, WTPH-Diesel Extended, and TOC results for pond sediments are presented in Table 2.

Table 2. Analytical Results of Pond Sediments

Client Sample ID	Sample Interval (inches)	WTPH-Diesel* (ppm)	WTPH-Diesel* Extended (ppm)	TOC (percent by dry weight)
EL-TP1-6-12"	6-12	**740**	**1,800**	- -
EL-TP1-18-20"	18-20	**600**	**1,000**	- -
EL-GC1-25.5-29"	25.5-29	**1,000**	**1,400**	- -
EL-GC1-21-22.5"	21-22.5	- -	- -	60

* These results represent concentrations from WTPH-Diesel and WTPH-Diesel Extended analyses after silica gel cleanup was applied to the samples.

Concentrations in **BOLD** exceed MTCA Method A cleanup level of 200 ppm.

- - Not Analyzed

Concentrations for TPH by WTPH-Diesel and WTPH-Diesel Extended exceeded the MTCA Method A cleanup criteria in all samples. However, it is important to note that these analytical methods have significant limitations. The hydrocarbon concentrations could represent natural

organics that are possibly present in the pond sediments. This will be addressed in Section 4.0 of the report.

Total organic carbon in the pond sediment sample is 60 percent by dry weight. This indicates that the pond sediments contain a large percentage of wood products (i.e., natural organic material).

Analytical data reports provided by the laboratories are presented in Appendix B.

2.4 Pond Sediment Conclusions

Analytical results indicate the possibility of interference by natural organic materials (i.e., wood products). This possibility is supported by the following information:

- Results from the two different analytical methods (WTPH-418.1 and WTPH-Diesel Extended) used to quantify petroleum hydrocarbons in pond sediments revealed that a significant fraction of the hydrocarbons were able to be removed after several silica gel cleanup treatments were performed. This indicates that natural organics are interfering with the petroleum hydrocarbon analysis.

- The total organic carbon content of one pond sediment sample is 60 percent by dry weight.

- The gas chromatograph results from the WTPH-Diesel Extended analysis indicate the presence of organic oils, which may be extracted from wood products.

- Some natural organic materials found in an anaerobic (i.e., no oxygen) environment, such as the bottom of the pond, are not as readily removed by silica gel cleanup methods. These methods are most effective when applied to natural organic material found in an aerobic environment.

3.0 EVALUATION OF SOILS SURROUNDING RETENTION PONDS

3.1 Sampling and Analysis Methods

In order to evaluate the possibility that petroleum hydrocarbons may have migrated to surrounding soils, a total of five borings were installed in the soils adjacent to RP1 and RP2 (see Figure 2). Two soil borings (SB1 and SB2) were initiated on August 31, 1992, with the 1-inch ID Geoprobe van-mounted drilling system. SB1 was completed to a depth of 14 feet and SB2 to a depth of 5 feet. One sample from each boring (EL-SB1-3-5' and EL-SB2-3-5') was collected from the 3- to 5-foot depth using the Geoprobe system.

Three soil borings (SB3, SB4, and SB5) were installed on September 4, 1992, using a hollow stem auger drill rig, and 14 soil samples were collected. Hayes Drilling from Bow, Washington performed subcontracted drilling services. Boring SB3 was drilled to a depth of

25.5 feet, boring SB4 to a depth of 24.5 feet, and boring SB5 to a depth of 25 feet. The borings were located in gravel roads around the retention ponds. The types of users and frequency of use of these roads are uncertain. Groundwater was not encountered in any of the soil borings. The soil observed in borings is a poorly-graded sand. The material is generally light brown in color, composed of fine- to medium-grained sand, and contains occasional gravels (see Appendix A for soil boring logs).

Each soil sample was transferred into a decontaminated, 4-ounce glass jar with a Teflon-lined lid, sealed, and placed on ice. They were transported under chain-of-custody procedures to the ASI laboratory. Sampling equipment was decontaminated between each sample and between each boring. In addition, 75 feet of auger flights were steam-cleaned prior to use at the site.

Fourteen total samples were submitted to ASI, twelve samples of which were selected for analysis of TPH by Method WTPH-418.1 based on results of field screening using the sheen test (see Table 3). Sample EL-SB3-9-10.5 had a minor sheen. That sample and the samples immediately above and below that interval (EL-SB3-4-5.5 and EL-SB3-14-15.5) were analyzed. Due to the observed sheen present in most samples in SB4, all samples from SB4 were analyzed. A distinct sheen in sample EL-SB5-3.5-5 and a minor sheen in EL-SB5-18.5-20 were observed. All SB5 samples were analyzed. Two remaining samples were archived at the laboratory in the event that further analytical testing was required. Two samples (EL-SB4-3-4.5 and EL-SB5-3.5-5), originally analyzed by WTPH-418.1, were later submitted to North Creek for analysis by Method WTPH-Diesel Extended.

3.2 Analytical Results of Soils Surrounding Retention Ponds

Samples collected from soils surrounding the retention ponds were analyzed at ASI and North Creek. Results are presented in Table 3.

Table 3. Analytical Results for Soils Surrounding Retention Ponds

Client Sample ID	Sample Interval (feet)	Percent Moisture	Method WTPH-418.1 Results (ppm)	Method WTPH-Diesel Results (ppm)	Method WTPH-Diesel Extended Results (ppm)
EL-SB3-4-5.5	3-4.5	4	<26	--	--
EL-SB3-9-10.5	9-10.5	4	37	--	--
EL-SB3-14-15.5	14-15.5	4	26	--	--
EL-SB4-3-4.5	3-4.5	12	**1,100**	170	**640**
EL-SB4-13-14.5	13-14.5	3	<26	--	--
EL-SB4-18-19.5	18-19.5	5	<26	--	--
EL-SB4-23-24.5	23-24.5	5	<26	--	--
EL-SB5-3.5-5	3.5-5	14	**390**	80	**570**
EL-SB5-8.5-10	8.5-10	4	37	--	--
EL-SB5-13.5-15	13.5-15	10	36	--	--
EL-SB5-18.5-20	18.5-20	13	<29	--	--
EL-SB5-23.5-25	23.5-25	10	<28	--	--

Concentrations in **BOLD** exceed MTCA Method A cleanup level of 200 ppm.
-- Not Analyzed

Concentrations for TPH by method WTPH-418.1 and WTPH-Diesel Extended in two soil samples (EL-SB4-3-4.5 and EL-SB5-3.5-5) exceed the Model Toxics Control Act (MTCA) Method A cleanup criteria for TPH.

Analytical data reports provided by the laboratories are presented in Appendix B.

3.3 Surrounding Soil Conclusions

Based on the analytical findings for samples collected from soils from the gravel roads surrounding the retention ponds, it appears that contamination may be limited to a few feet above and below the 3- to 5-foot interval. The cause of contamination at these locations is unclear. The 3- to 5-foot interval is not level with the water in the pond and is well above the high water level. Enviros recommends further assessment to delineate the nature, extent, and cause of contamination in this area.

Contamination may also be present in the drain field associated with RP1, as well as along the infiltration pipe running through the north section of the greenbelt. This would occur if contamination was carried via discharge of pond water. However, analytical results from previous water sampling activities at the site indicated that the pond water samples contained concentrations of TPH that were below MTCA Method A cleanup criteria for groundwater, except for one sample with a concentration of 1.2 ppm. Enviros recommends assessing the possibility of contamination in the vicinity of subsurface drain fields areas prior to purchase of the lease option.

4.0 SUMMARY AND RECOMMENDATIONS

The first step toward remediating the site is controlling discharge of contaminants. Enterprise Lumber has already developed and implemented a Spill Prevention Control and Countermeasures Plan (Appendix C). According to Enterprise Lumber President, Herbert York, actions have already been implemented to control potential sources for contamination. All equipment operators and employees are required to immediately report any release of oil. In the case of hydraulic equipment leaks, operators must immediately stop their equipment and notify the supervisor.

4.1 Naturally-occurring Hydrocarbons

Based on available information known at this time, it is possible that the extent of contamination present in the retention ponds may not be as large as first suspected. Analytical results indicate the possibility of interference by natural organic materials. Prior to selection of an independent cleanup option, Enviros recommends that two additional pond sediment samples be collected and analyzed to evaluate the presence of natural organic materials using a gas chromatograph. In addition, a sample of clean cedar bark should be collected from the site and be analyzed using the gas chromatograph for comparison. This cost for this analysis is approximately $100 per sample. If the results appear to be similar, then this would suggest that the petroleum-based hydrocarbons either are not as extensive as previously thought, or may not be present. Two pond sediment samples should be collected for analysis of polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8310. These results can be used for determining MTCA Method B cleanup levels if it is concluded that the ponds sediments contain petroleum-based hydrocarbons. This cost for this analysis is approximately $240 per sample.

4.2 Petroleum-based Hydrocarbons

If it is determined that natural organics are not interfering with the analytical results, several remediation options for the retention ponds are available for the Enterprise Lumber site, such as landfilling and/or composting. A risk assessment through MTCA Method B also warrants discussion. These methods will be described briefly, and their advantages and disadvantages will be discussed.

4.2.1 Landfilling

The most common solution might be dredging the bottom of the ponds, and transporting petroleum-contaminated soils to a certified landfill. This solution may present a time-effective solution for dealing with the on-site contamination. However, this method is not always cost-effective. Based on an approximate estimate of aerial and vertical extent of contamination, there could be at least 2,300 cubic yards of contaminated soil present in the retention ponds. That volume is based on vertical extent of contamination of 3 feet and it is possible that contamination extends deeper. Disposal costs include excavation, transportation, and landfill tipping fees. Petroleum-contaminated soils in Snohomish County have to be disposed of at a landfill such as Regional Disposal Company's in eastern Washington. Because the site is not located in King County, the soils cannot be disposed of in the landfill utilized by King County. It is also important to consider that the pond sediments contain a significant amount of moisture. Laboratory results indicate samples contain up to 86 percent moisture, and because soils cannot be placed in a landfill wet, they will be required to dry out.

Dredged soils could be stockpiled on visqueen and bermed to prevent migration of contaminants. A system could be designed to control and contain run-off. Water collected from the stockpile soils may be evaporated or disposed of with a certified waste water disposal facility. To reduce the volume of water that will be required for disposal and to prevent the spread of contaminated soils, dredging of the pond sediments should be conducted in the dry season.

Reduction of the amount of soil that needs to be treated or disposed is important in minimizing remediation costs. Separating clean soils from contaminated soils as they are removed from the pond is one way to accomplish this. Confirmation samples could be collected from material that is being removed to determine whether soils should be placed in a clean or contaminated soil stockpile. Enviros could provide an on-site mobile lab to facilitate this process. Another approach would be to have three soil stockpiles: one stockpile for clean soil, one stockpile for contaminated soil, and a temporary stockpile for placement of soils that have not been analyzed. Confirmation samples would be collected from the temporary stockpile to determine final placement.

In addition, if the soils contain large volumes of natural organic material, the volume of soils could be reduced by processing the natural organic material for incineration in boilers such as those found at paper manufacturing plants for electricity and steam.

4.2.2 Composting

Composting, a method that could be used in conjunction with landfilling, is a proven technology for achieving accelerated biodegradation of select industrial and municipal wastes under controlled conditions. Theoretically, all organic carbon waste is treatable using composting. Although there are different methods of composting, including windrow, static pile, and in-vessel, the windrow method will be discussed here. The windrow method involves setting up the contaminated material in long rows. The material to be composted is usually mixed with a bulking agent, such as wood chips, straw, sawdust, leaves, etc. For composting the pond sediments, a bulk agent of wood chips is already present on-site. The bulking agent serves as a source of carbon, nutrients, or microbes. In addition, the bulking agent increases porosity and aeration. Once the material to be composted is in-place, it undergoes a self-heating process caused by microbial activity.

Composting offers several advantages. First, the moisture in the sediments would be driven off, creating an approximately 70 percent volume reduction. In addition, based on the TOC analysis conducted on a pond sediment sample, up to 60 percent of the remaining sediment could be reduced. Composting could lead to significantly decreased disposal and transportation costs, possibly as much as a two-thirds reduction. In addition, the process may drive off some of the contaminants present in the sediments, thereby reducing the concentration of contaminants. Soils could be placed on-site on a paved, bermed area. The Enterprise Lumber site is large enough this could be accomplished with minimum disturbance to site operations, and the lumber mill possesses the large equipment that would be necessary for tilling the soils. Composting may require several years to successfully complete, but there could be a significant cost-savings.

4.2.3 MTCA Method B

Another approach to remediation of the retention pond sediments would be an evaluation of the contamination using MTCA Method B. PAHs are the primary constituent in heavy oils that present the greatest risk to human health and the environment. Additional sampling and analysis of pond sediments for PAHs could be conducted.

There are many cost-effective remediation options available for Enterprise Lumber. Enviros recommends carefully assessing all of the options prior to proceeding.

No warranty is expressly stated or implied in this report with regard to the condition of the substrate and groundwater below the surface of the property with the exception of the sampling and analysis of substrate assessed in this report. This report is not intended to, nor does it purport to encompass every record, report or document available on the site and the surrounding property. This report reflects our observations of the condition of the property on the days of field activities, and does not cover any other conditions found on the property that were not visible during these field activities.

We appreciate the opportunity to provide you with our environmental services. If you have any questions regarding the results of this report, please call us at your convenience.

Respectfully Submitted,

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cc: Files

APPENDIX A:

BOREHOLE LOGS

Log of Boring B1

Analytical Results	Blow Count	Sample Recovery (%)	Depth (ft)	Soil Profile	USCS Symbol	Soil Description	PID/ Remarks
NA			0		SW	Loose, light brown, fine to coarse SAND: gravel (40%), small gravels to 1/2", silt (20%); well-graded; moist.	Driller notes hard layer from approx. 5 ft. to 14 ft. OVM = 0.0 ppm End boring at 14 ft. Driller notes the probe behaved as if in wet clay upon reaching the 14 ft. mark. OVM= 0.0 ppm

5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

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Job No.: 920502.03 Appr.: JJB Date: 10/8/92

Date Drilled: August 31, 1992
Geologist/Engineer: R. Shaw
Equipment: Geoprobe, 1"
Ground Water Level When Drilling: NA
Project Name: Enterprise Lumber

A-1

Log of Boring B2

Analytical Results	Blow Count	Sample Recovery (%)	Depth (ft)	Soil Profile	USCS Symbol	Soil Description	PID/ Remarks
NA			0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75		SW	Loose, light brown, fine to coarse SAND: gravel (40%), small gravels to 1/2", silt (20%); well-graded; moist.	Driller notes hard drilling OVM = 0.0 ppm End boring at 5 ft.

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Job No.: 920502.03 Appr.: JGS Date: 10/8/92

Date Drilled: August 31, 1992
Geologist/Engineer: R. Shaw
Equipment: Geoprobe, 1"
Ground Water Level When Drilling: NA
Project Name: Enterprise Lumber

A-2

Log of Boring B3

Analytical Results	Blow Count	Sample Recovery (%)	Depth (ft)	Soil Profile	USCS Symbol	Soil Description	PID/ Remarks
			0		SP	top 5"-Medium dense, chestnut brown, fine SAND: silt (40%), small gravels (10%). next 6"-Medium dense, light brown, medium to coarse SAND: small gravels (10%); moderately poorly-graded; red 1" layer at bottom.	
EL-SB3-4-5.5 = <26 ppm	19-14-8	78%	5		ML	rest is Medium dense, light gray SILT: sand (45%); poorly-graded.	No sheen.
EL-SB3-9-10.5 = 37 ppm	18-13-12	78%	10		SP	Medium dense, brown, fine to medium SAND: silt (20%); poorly-graded; dry to moist; salt and pepper appearance; glacial outwash.	Very minor sheen.
EL-SB3-14-15.5 = 26 ppm	8-8-15	89%	15			Medium dense, brown, fine to medium SAND: silt (20%); poorly-graded; dry to moist; salt and pepper appearance; glacial outwash	No sheen.
EL-SB3-19-20.5 = archive	6-10-13	78%	20		SM	Medium dense, light brown, fine SAND: silt (40%); well-graded; dry to moist; salt and pepper appearance.	No sheen.
EL-SB3-24-25.5 = archive	18-23-20	50%	25			Dense, light brown, fine SAND: silt (30%), clay (20%); poorly-graded; dry to moist; salt and pepper appearance.	No sheen.
			30				End boring at 25.5 feet.
			35				
			40				
			45				
			50				
			55				
			60				
			65				
			70				
			75				

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Job No.: 920502.03 Appr.: JJS Date: 10/8/92

Date Drilled: September 4, 1992
Geologist/Engineer: R. Shaw
Equipment: 4 1/4" Hollow Stem Auger
Ground Water Level When Drilling: NA
Project Name: Enterprise Lumber

A-3

Log of Boring B4

Analytical Results	Blow Count	Sample Recovery (%)	Depth (ft)	Soil Profile	USCS Symbol	Soil Description	PID/ Remarks
EL-SB4-3-4.5 = 1100 ppm	7-10-15	44%	0–5		SW	Medium dense, chestnut brown, fine to coarse (mostly medium) SAND: gravel (30%) up to 1.5", silt (20%); well-graded; dry.	Tiny patches of sheen-"stringers"
	22-26-25	0%	5–10			No recovery	NA
EL-SB3-13-14.5 = <26 ppm	7-20-25	83%	10–15		SP	Dense, brown, fine to medium SAND: gravel (10%) up to 2", silt (20%); poorly-graded; dry to moist; salt and pepper appearance.	Tiny patches of sheen-"stringers"
EL-SB3-18-19.5 = <26 ppm	5-15-15	83%	15–20		SP	Medium dense, light brown, fine to medium SAND: silt (30%); poorly-graded; dry to moist; salt and pepper appearance.	Tiny patches of sheen-"stringers"
EL-SB3-23-24.5 = <26 ppm	6-9-12	83%	20–25		SM	Medium dense, light brown, fine SAND: silt (30%), clay (20%); poorly-graded; dry to moist; salt and pepper appearance.	No sheen.
			25–30				End boring at 24.5 feet.
			30–35				
			35–40				
			40–45				
			45–50				
			50–55				
			55–60				
			60–65				
			65–70				
			70–75				

enviros

Job No.: 920502.03 Appr.: JJS Date: 10/8/92

Date Drilled: September 4, 1992
Geologist/Engineer: R. Shaw
Equipment: 4 1/4" Hollow Stem Auger
Ground Water Level When Drilling: NA
Project Name: Enterprise Lumber

A-4

Log of Boring B5

Analytical Results	Blow Count	Sample Recovery (%)	Depth (ft)	Soil Profile	USCS Symbol	Soil Description	PID/ Remarks
EL-SB5-3.5-5 = 390 ppm	3-4-6	67%	0–5		SM	Loose, light brown and rust alternating, fine SAND: silt (30%), clay (10%); poorly-graded; dry; rust colorations intercalated throughout light brown; 1" band of green silt; 1" band of black, sandy silt with odor similar to petroleum at bottom of interval.	Distinct sheen, foamy.
EL-SB5-8.5-10 = 37 ppm	7-9-11	89%	5–10			Medium dense, light brown, fine to medium SAND: silt (20%); poorly-graded; dry; salt and pepper appearance.	No sheen.
EL-SB5-13.5-15 = 36 ppm	12-15-12	72%	10–15		SP	7" of Medium dense, light brown, medium SAND: fine sand (25%); coarse sand (20%); fine gravel (30%); well-graded; dry to moist. 3" of Medium dense, light brown, fine SAND: silt (30%), clay (10%); poorly-graded; dry to moist; salt and pepper appearance.	No sheen.
EL-SB5-18.5-20 = <29 ppm	5-8-5	78%	15–20		ML	Medium dense, light brown, SILT: minor clay layer present; coloration becomes lighter at bottom.	Tiny patches of sheen, foamy.
EL-SB5-23.5-25 = <28 ppm	6-12-12	78%	20–25		SP	Medium dense, light brown, fine SAND: silt (20%); poorly-graded; dry to moist; salt and pepper appearance.	No sheen.
			25–75				End boring at 25 feet.

enviros

Job No.: 920502.03 Appr.: JGB Date: 10/8/92

Date Drilled: September 4, 1992
Geologist/Engineer: R. Shaw
Equipment: 4 1/4" Hollow Stem Auger
Ground Water Level When Drilling: NA
Project Name: Enterprise Lumber

A-5

APPENDIX B:

ANALYTICAL DATA

Analytical Services, Inc.
12277 134th Court NE Redmond, Washington 98052
(206) 820-4551 (fax) 820-6337

September 14, 1992

Rochelle Shaw, Project Manager
Enviros Inc.
5808 Lk. WA Blvd. N.E.
Suite 100
Kirkland, WA 98033

Dear Rochelle:

Enclosed are the results of the analyses of samples submitted on September 1, 1992 from Project 920502.03.

We appreciate the opportunity to be of service to you on this project. If you have any questions regarding the reported results, please feel free to call me.

Sincerely,

Andrew A. Bay
Chemist

AAB:tmh

Enclosures

Date of Report: September 14, 1992
Samples Submitted: September 1, 1992
Project: 920502.03
Analysis: WTPH-418.1

Client: Enviros, Inc.
File ID: 09-002
Matrix: Soil

Lab ID #	Client ID	Percent Moisture	Result mg/kg
09-002-4	EL-TPI-0-6	72	12,000
09-002-5	EL-TPI-15	72	4,800
09-002-6	EL-TPI-ES128-30	73	9,100
09-002-8	EL-GCI-22.5-25.5	67	11,000
09-002-9	EL-GCI-29-33	68	13,000
Method Blank	----	--	<25
09-006-2	----	7	68
09-006-2 Duplicate	----	7	60

09-002

CHAIN OF CUSTODY RECORD

Project Name: FI

Project #: 920502.03

Send Report To: Rachelle Shaw Ext. #: 2522

Sample Disposal Method: X by laboratory ($5/sample)

___ to be returned to site

	Sample Identification	Date Sampled	Sample Type	ANALYSES REQUESTED: WTPH-HCID	WTPH-G	WTPH-D	WTPH-418.1 Freon extr.	Archive			
1	EL-SB1-3-5'	8/31/92	soil					X			
2	EL-SB2-3-5'	8/31/92						X			
3	EL-GB-3	9/1/92						X			
4	EL-TP1-0-6						X				
5	EL-TP1-15						X				
6	EL-TP1-est 28-30"						X				
7	EL-GC1-21-22.5'							X			
8	EL-GC1-22.5-25.5						X				
4	EL-GC1-29-33"						X				

1. RELINQUISHED BY:	Date: 9/1/92
Signature: [signature]	
Printed Name: Rachelle Shaw	Time: 12:15
Firm: Enviros	
1. RECEIVED BY:	Date: 9/1/92
Signature: [signature]	
Printed Name: Teresa Hanson	Time: 12:15
Firm: G.S.T.	

2. RELINQUISHED BY:	Date:
Signature:	
Printed Name:	Time:
Firm:	
2. RECEIVED BY:	Date:
Signature:	
Printed Name:	Time:
Firm:	

Enviros, Inc. (206) 827-5525 (fax) 827-3299
5808 Lake Washington Boulevard Northeast
Kirkland (Seattle) Washington 98033

NORTH CREEK ANALYTICAL

18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-2569
Phone (206) 481-9200 • FAX (206) 485-2992

Enviros	Client Project ID:	EI / # 920502.03	Sampled:	Sep 1, 1992
5808 Lk. Washington Blvd. NE	Matrix Descript:	Soil	Received:	Sep 1, 1992
Kirkland, WA 98033	Analysis Method:	WTPH-D Extended	Extracted:	Sep 4, 1992
Attention: Rochelle Shaw	First Sample #:	209-0070	Analyzed:	Sep 22, 1992
			Reported:	Sep 24, 1992

TOTAL PETROLEUM HYDROCARBONS - (WTPH-D EXTENDED)

Sample Number	Sample Description	Extractable Hydrocarbons mg/kg (ppm)	Surrogate Recovery %
209-0070	EL-TP1-6-12"	1,800	72
209-0071	EL-TP1-18-20"	1,000	95
209-0072	EL-GC1-25.5-29"	1,400	58
BLK090492	Method Blank	N.D.	105

Detection Limits:	25

Extractable Hydrocarbons are quantitated as Motor Oil Range Organics (nC24 - nC36). Surrogate recovery reported is for 2-Fluorobiphenyl.
Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc

Scot Cocanour (fw)
Laboratory Director

Please Note:
The above quantitated values are the result of a WTPH-Diesel / Extended analysis with a silica-gel clean-up performed on the extract.

NORTH CREEK ANALYTICAL

18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-2569
Phone (206) 481-9200 • FAX (206) 485-2992

Enviros	Client Project ID:	EI / # 920502.03	Sampled:	Sep 1, 1992
5808 Lk. Washington Blvd. NE	Matrix Descript:	Soil	Received:	Sep 1, 1992
Kirkland, WA 98033	Analysis Method:	WTPH-D	Extracted:	Sep 4, 1992
Attention: Rochelle Shaw	First Sample #:	209-0070	Analyzed:	Sep 22, 1992
			Reported:	Sep 24, 1992

TOTAL PETROLEUM HYDROCARBONS (WTPH-D)

Sample Number	Sample Description	Extractable Hydrocarbons mg/kg (ppm)	Surrogate Recovery %
209-0070	EL-TP1-6-12"	740	72
209-0071	EL-TP1-18-20"	600	95
209-0072	EL-GC1-25.5-29"	1,000	58
BLK090492	Method Blank	N.D.	105

Detection Limits:	10.0

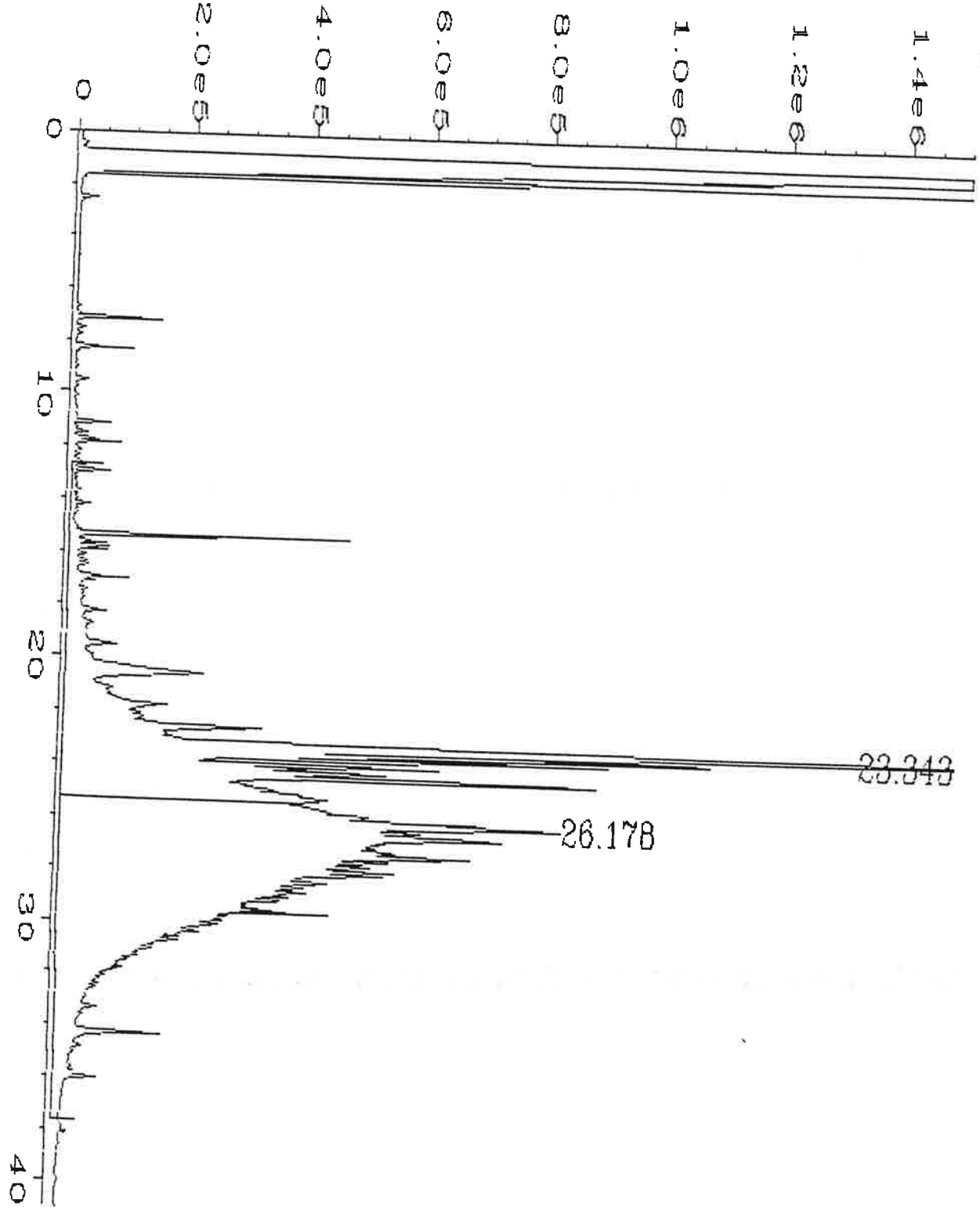
Extractable Hydrocarbons are quantitated as Diesel Range Organics (nC12 - nC24). Surrogate recovery reported is for 2-Fluorobiphenyl.
Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc

Todd Becherer (fax)

Scot Cocanour
Laboratory Director

Please Note:
The above quantitated values are the result of a WTPH-Diesel / Extended analysis with a silica-gel clean-up performed on the extract.



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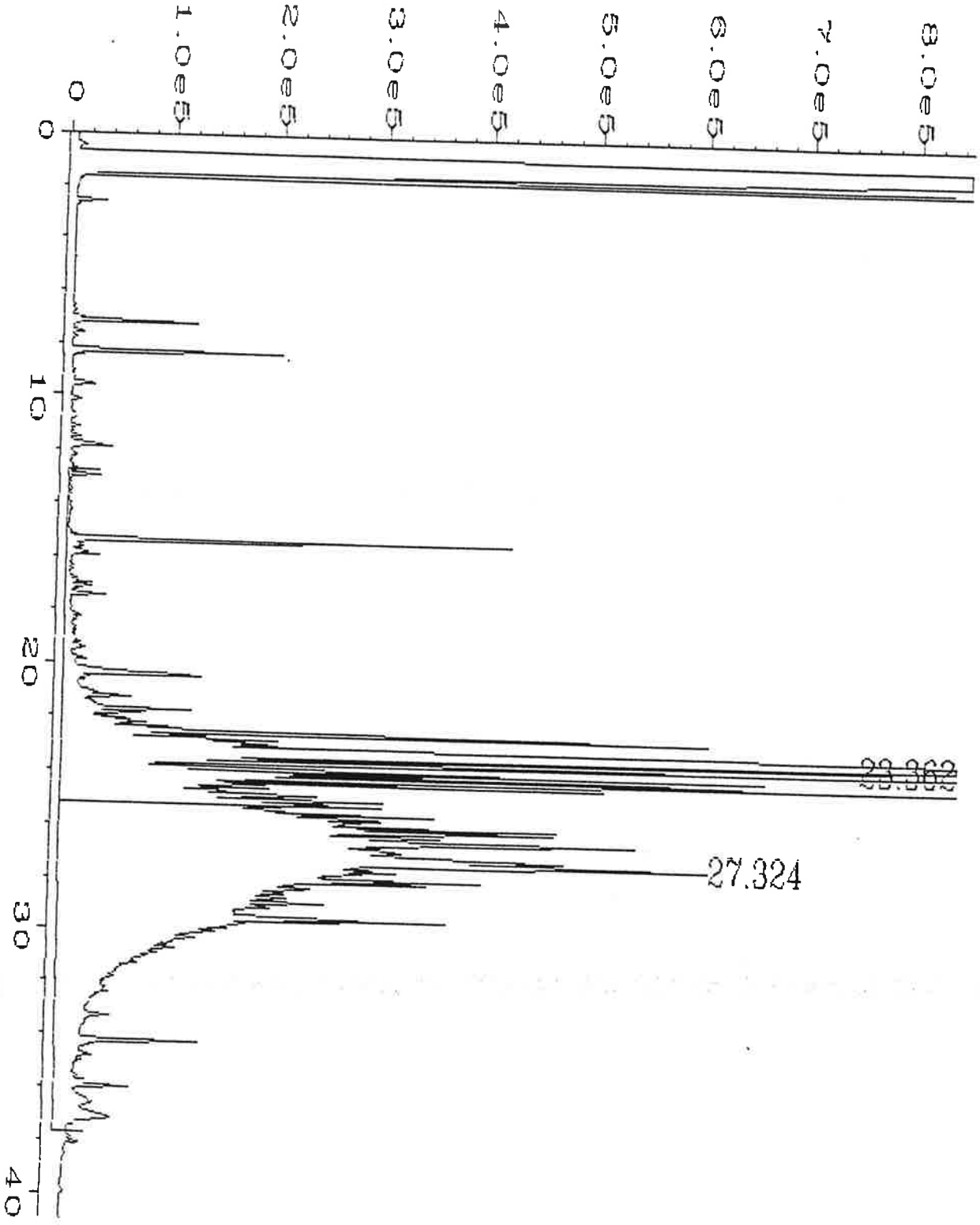
Operator : LAURA
Instrument : BOB
Sample Name : 209-0070SG
Run Time Bar Code:
Acquired on : 23 Sep 92 04:01 AM
Report Created on: 23 Sep 92 11:37 AM

Page Number : 1
Vial Number : 44
Injection Number : 1
Sequence Line : 7
Instrument Method: TPH3F.MTH
Analysis Method : DEFAULT.MTH



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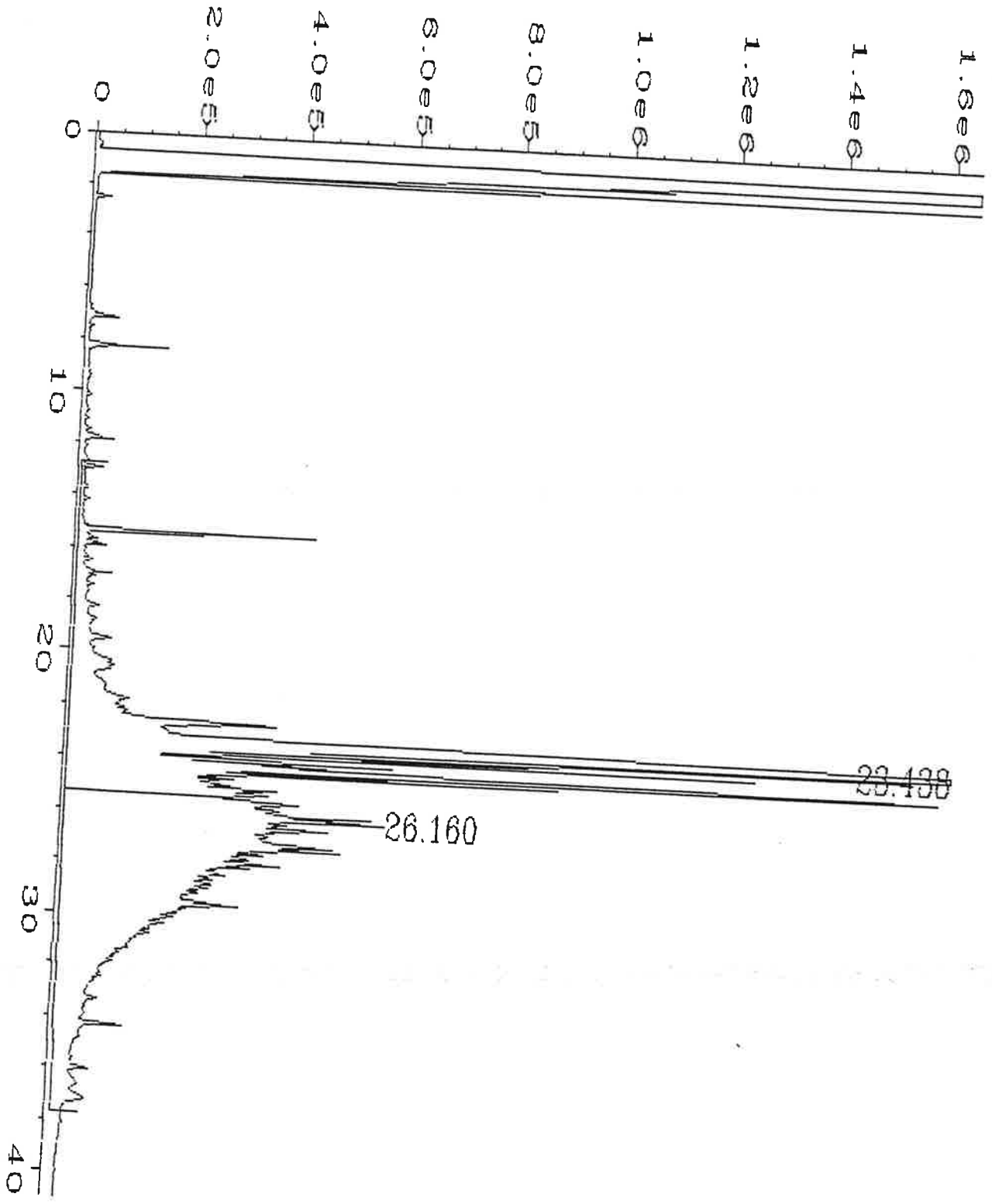
erator : LAURA
strument : BOB
mple Name : 209-0071SG
n Time Bar Code:
quired on : 23 Sep 92 04:52 AM
port Created on: 23 Sep 92 11:42 AM

Page Number : 1
Vial Number : 45
Injection Number : 1
Sequence Line : 7
Instrument Method: TPH3F.MTH
Analysis Method : DEFAULT.MTH



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ator	: LAURA		
rument	: BOB	Page Number	: 1
le Name	: 209-0072SG	Vial Number	: 46
Time Bar Code:		Injection Number	: 1
ired on	: 23 Sep 92 05:44 AM	Sequence Line	: 7
rt Created on:	23 Sep 92 11:46 AM	Instrument Method:	TPH3F.MTH
		Analysis Method	: DEFAULT.MTH

CHAIN OF CUSTODY RECORD

09-002

Project Name: EI
Project #: 920502.03
Send Report To: Rochelle Shaw Ext. #: 2522
Sample Disposal Method: X by laboratory ($5/sample)
___ to be returned to site

	Sample Identification	Date Sampled	Sample Type	ANALYSES REQUESTED: WTPH-HCID	WTPH-D	WTPH-G	WTPH-418.1 (continued)	Archive
1	EL-SB1-3-5'	8/31/92	soil					X
2	EL-SB2-3-5'	8/31/92						X
3	EL-GB-3	9/1/92						X
4	EL-TP1-0-6						X	
5	EL-TP-15						X	
6	EL-TP1-est 28-30'						X	
7	EL-GC1-21-22.5'						X	X
8	EL-GC1-22.5-25.5						X	
4	EL-GC1-29-33"						X	
*	EL-GC1-21-22.5	returned to Rochelle						9/21/92

1. RELINQUISHED BY:		Date:	9/1/92
Signature:	Rochelle Shaw	Time:	12:15
Printed Name:	Rochelle Shaw		
Firm:	Enviros		
1. RECEIVED BY:		Date:	9/1/92
Signature:	Teresa Hanson	Time:	12:15
Printed Name:	Teresa Hanson		
Firm:	G.S.T.		

2. RELINQUISHED BY:		Date:	9/21/92
Signature:	Teresa Hanson	Time:	1:25
Printed Name:	Teresa Hanson		
Firm:	G.S.T.		
2. RECEIVED BY:		Date:	9/21/92
Signature:	Rochelle Shaw	Time:	1:25
Printed Name:	Rochelle Shaw		
Firm:	Enviros		

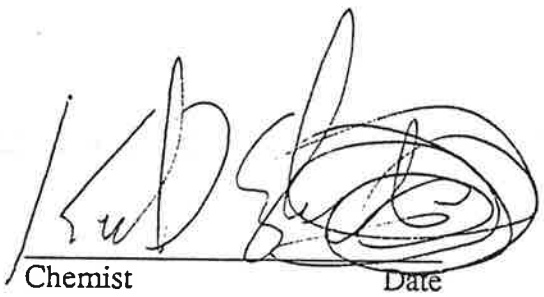
Enviros, Inc. (206) 827-5525 (fax) 827-3299
5808 Lake Washington Boulevard Northeast
Kirkland (Seattle) Washington 98033

Total Organic Carbon (TOC) Analysis

Date of Analysis: September 21, 1992
Enviros Project Name: Enterprise Lumber
Enviros Project Number: 920502
Enviros Project Manager: Jeanette Black
Analysis: TOC

Sample Identification: EL-GC-21-22.5"

Parameter	Result	Units
TOC	60	Percent



Chemist Date

Enviros, Inc. *5808 Lake Washington Boulevard Northeast* *Kirkland (Seattle), Washington 98033* *Tel 206 / 827-5525 Fax 206 / 827-3299*

CHAIN OF CUSTODY RECORD

Project Name: EL

Project #: 920502.03

Send Report To: Rochelle Shaw Ext. #:

Sample Disposal Method: x by laboratory ($5/sample)

____ to be returned to site

Sample Identification	Date Sampled	Sample Type	ANALYSES REQUESTED: WTPH-HCID	WTPH-G	WTPH-D	WTPH-418.1 modified	TOC			
EL-GC1-21.0-22.5"	9/1/92	Sediment					X			

1. RELINQUISHED BY:	Date:
Signature: Rochelle A. Shaw	9/21/92
Printed Name: Rochelle Shaw	Time:
Firm: Enviros	1417
1. RECEIVED BY:	Date:
Signature:	1417
Printed Name: Karl Eglick	Time:
Firm: Enviros	1417

2. RELINQUISHED BY:	Date:
Signature:	
Printed Name:	Time:
Firm:	
2. RECEIVED BY:	Date:
Signature:	
Printed Name:	Time:
Firm:	

Enviros, Inc. (206) 827-5525 (fax) 827-3299
5808 Lake Washington Boulevard Northeast
Kirkland (Seattle) Washington 98033

Analytical Services, Inc.
12277 134th Court NE Redmond, Washington 98052
(206) 820-4551 (fax) 820-6337

September 14, 1992

Rochelle Shaw, Project Manager
Enviros Inc.
5808 Lk. WA Blvd. N.E.
Suite 100
Kirkland, WA 98033

Dear Rochelle:

Enclosed are the results of the analyses of samples submitted on September 4, 1992 from Project 920502.03.

We appreciate the opportunity to be of service to you on this project. If you have any questions regarding the reported results, please feel free to call me.

Sincerely,

Andrew A. Bay
Chemist

AAB:tmh

Enclosures

09-010

CHAIN OF CUSTODY RECORD

Project Name: EL/920502.03

Project #: 920502.03

Send Report To: Rochelle Shaw

Sample Disposal Method: X by laboratory ($5/sample)

___ client pick-up

	Sample Identification	Date Sampled	Sample Type	ANALYSES REQUESTED: WTPH-HCID	WTPH-G	WTPH-D	WTPH-418.1 modified	Archive
1	EL-SB3-4-5.5'	9/4/92	Soil				X	
2	EL-SB3-9-10.5'	"	"				X	
3	EL-SB3-14-15.5'	"	"				X	
4	EL-SB3-19-20.5'	"	"					X
5	EL-SB3-24-25.5'	"	"					X
6	EL-SB4-3-4.5'	"	"				X	
7	EL-SB4-13-14.5'	"	"				X	
8	EL-SB4-18-19.5'	"	"				X	
9	EL-SB4-23-24.5'	"	"				X	
10	EL-SB5-3.5-5'	"	"				X	
11	EL-SB5-8.5-10'	"	"				X	
12	EL-SB5-13.5-15'	"	"				X	
13	EL-SB5-18.5-20'	"	"				X	
14	EL-SB5-23.5-25'	"	"				X	

1. RELINQUISHED BY:	Date:
Signature: Rochelle Shaw	9/4/92
Printed Name: Rochelle Shaw	Time:
Firm: Enviros	1452

2. RELINQUISHED BY:	Date:
Signature: Lisa Bartley	9/4/92
Printed Name: Lisa Bartley	Time:
Firm: ASI	1452

1. RECEIVED BY:	Date:
Signature:	
Printed Name:	Time:
Firm:	

2. RECEIVED BY:	Date:
Signature:	
Printed Name:	Time:
Firm:	

Enviros, Inc (206) 827-5525 (fax) 827-3299
5808 Lake Washington Boulevard Northeast
Kirkland (Seattle) Washington 98033

09-010

CHAIN OF CUSTODY RECORD

Project Name: EL/920502.03

Project #: 920502.03

Send Report To: Rochelle Shaw

Sample Disposal Method: X by laboratory ($5/sample)

___ client pick-up

	Sample Identification	Date Sampled	Sample Type	ANALYSES REQUESTED: WTPH-HCID	WTPH-D	WTPH-D	WTPH-418.1 modified	Archive
1	EL-SB3-4-5.5'	9/4/92	Soil				X	
2	EL-SB3-9-10.5'						X	
3	EL-SB3-14-15.5'						X	
4	EL-SB3-19-20.5'							X
5	EL-SB3-24-25.5'							X
*6	EL-SB4-3-4.5'						X	
7	EL-SB4-13-14.5'						X	
8	EL-SB4-18-19.5'						X	
9	EL-SB4-23-24.5'						X	
*10	EL-SB5-3.5-5'						X	
11	EL-SB5-8.5-10'						X	
12	EL-SB5-13.5-15'						X	
13	EL-SB5-18.5-20'						X	
14	EL-SB5-23.5-25'						X	

Soil

1. RELINQUISHED BY:	Date:
Signature: Rochelle Shaw	9/4/92
Printed Name: Rochelle Shaw	Time:
Firm: Enviros	1492

2. ~~RELINQUISHED~~ BY:	Date:
Signature: Lisa Burley	9/4/92
Printed Name: Lisa Burley	Time:
Firm: ASI	1452

relinquished

1. ~~RECEIVED~~ BY:	Date:
Signature: Lisa Burley	9/22/92
Printed Name: Lisa Burley	Time:
Firm: ASI	1030

2. RECEIVED BY:	Date:
Signature: Rochelle Shaw	9/22/92
Printed Name: Rochelle Shaw	Time:
Firm: Enviros	1030

Enviros, Inc (206) 827-5525 (fax) 827-3299
5808 Lake Washington Boulevard Northeast
Kirkland (Seattle) Washington 98033

Date of Report: September 14, 1992
Samples Submitted: September 4, 1992
Project: 920502.03

Client: Enviros, Inc.
File ID: 09-010
Matrix: Soil

Analysis: WTPH-418.1
Units: mg/kg (ppm)

Lab ID #	Client ID	Percent Moisture	Result*
09-010-1	EL-SB3-4-5.5	4	<26
09-010-2	EL-SB3-9-10.5	4	37
09-010-3	EL-SB3-14-15.5	4	26
09-010-6	EL-SB4-3-4.5	12	1,100
09-010-7	EL-SB4-13-14.5	3	<26
09-010-8	EL-SB4-18-19.5	5	<26
09-010-9	EL-SB4-23-24.5	5	<26
09-010-10	EL-SB5-3.5-5	14	390
09-010-11	EL-SB5-8.5-10	4	37
09-010-12	EL-SB5-13.5-15	10	36
09-010-13	EL-SB5-18.5-20	13	<29
09-010-14	EL-SB5-23.5-25	10	<28
Method Blank	--------	-	<25
09-010-2 Dup.	EL-SB3-9-10.5	4	37
09-010-14 Dup.	EL-SB5-23.5-25	10	<28

* Reported results are corrected for sample moisture.

NORTH CREEK ANALYTICAL

18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-2569
Phone (206) 481-9200 • FAX (206) 485-2992

ENVIROS	Client Project ID:	EL1920502.03	Sampled:	Sep 4, 1992
5808 Lk. Washington Blvd. NE	Matrix Descript:	Soil	Received:	Sep 22, 1992
Kirkland, WA 98033	Analysis Method:	WTPH-D	Extracted:	Sep 23, 1992
Attention: Rochelle Shaw	First Sample #:	209-0893	Analyzed:	Oct 2, 1992
			Reported:	Oct 5, 1992

TOTAL PETROLEUM HYDROCARBONS (WTPH-D)

Sample Number	Sample Description	Extractable Hydrocarbons mg/kg (ppm)	Surrogate Recovery %
209-0893	EL-SB4-3-4.5	170 D-2	103
209-0894	EL-SB5-3.5-5	80 D-2	103
BLK092392	Method Blank	N.D.	80

Detection Limits:	10

Extractable Hydrocarbons are quantitated as Diesel Range Organics (nC12 - nC24). Surrogate recovery reported is for 2-Fluorobiphenyl.
Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL Inc

Tod Becherer
Project Manager

Please Note:
Sample #209-0893 and #209-0894 underwent Silica Gel clean-up as requested on the Chain of Custody.

NORTH CREEK ANALYTICAL

18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-2569
Phone (206) 481-9200 • FAX (206) 485-2992

ENVIROS	Client Project ID:	EL1920502.03	Sampled:	Sep 4, 1992
5808 Lk. Washington Blvd. NE	Matrix Descript:	Soil	Received:	Sep 22, 1992
Kirkland, WA 98033	Analysis Method:	WTPH-D Extended	Extracted:	Sep 23, 1992
Attention: Rochelle Shaw	First Sample #:	209-0893	Analyzed:	Oct 2, 1992
			Reported:	Oct 5, 1992

TOTAL PETROLEUM HYDROCARBONS - (WTPH-D EXTENDED)

Sample Number	Sample Description	Extractable Hydrocarbons mg/kg (ppm)	Surrogate Recovery %
209-0893	EL-SB4-3-4.5	640 D-2	103
209-0894	EL-SB5-3.5-5	570 D-2	103
BLK092392	Method Blank	N.D.	80

Detection Limits:	25

Extractable Hydrocarbons are quantitated as Motor Oil Range Organics (nC24 - nC36). Surrogate recovery reported is for 2-Fluorobiphenyl. Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc

Tod Becherer

Tod Becherer
Project Manager

Please Note:
Sample #209-0893 and #209-0894 underwent Silica Gel clean-up as requested on the Chain of Custody.

NORTH CREEK ANALYTICAL

18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-2569
Phone (206) 481-9200 • FAX (206) 485-2992

HYDROCARBON ANALYSES FOOTNOTES

(8/92)

Code	Description

VOLATILE HYDROCARBONS - Gasoline Range Organics

G 1 This sample appears to contain extractable diesel range organics.

G 2 The chromatogram for this sample is not a typical gasoline fingerprint.

G 3 The total hydrocarbon result in this sample is primarily due to a peak(s) eluting in the volatile hydrocarbon range. Identification and quantitation by EPA 8010, 8021 or 8240 is recommended.

EXTRACTABLE HYDROCARBONS - Diesel Range Organics

D 1 This sample appears to contain volatile gasoline range organics.

D 2 The hydrocarbons present in this sample are primarily due to very heavy, non-resolvable oil range organics. Quantitation by EPA 418.1 is recommended.

D 3 The hydrocarbons present in this sample are a complex mixture of extractable diesel range and non-resolvable motor oil or other heavy oil range organics.

D 4 The hydrocarbon result shown is an estimated (greater than) value due to high concentration. Reanalysis is being performed to yield a quantitative result.

Oils & Lubricants

[----------]

T.R.P.H. (418.1)

Diesel & Fuel Oils

[----------]

Extractables (3550/8015)

Gasoline

[----------]

Volatiles (5030/8015)

HYDROCARBON BOILING POINT RANGE

LOW **LOW TO MEDIUM** **MEDIUM** **MEDIUM TO HIGH** **VERY HIGH**

CARBON RANGE:

5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 +

NORTH CREEK ANALYTICAL

CHAIN OF CUSTODY REPORT

18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-2569
Phone (206) 481-9200 • FAX (206) 485-2992

CLIENT: Enviros
ADDRESS: 5808 Lake Washington Blvd. Kirkland, WA 98033
PHONE: (206)828-2522 FAX: (206)827-3291
PROJECT NAME: EL/920502.03
PROJECT NUMBER: 920502.03
SAMPLED BY: Rochelle Shaw

REPORT TO: Rochelle Shaw
BILLING TO: Patty Smith
P.O. NUMBER:
NCA QUOTE #:

SAME DAY (2-8 HR.) RUSH	(+150%)
NEXT DAY RUSH	(+100%)
2 DAY RUSH	(+80%)
3 DAY RUSH	(+60%)
5 DAY RUSH	(+40%)
10 DAY STANDARD	(LIST PRICE) ✓

SAMPLE IDENTIFICATION: NUMBER OR DESCRIPTION	SAMPLING DATE / TIME	MATRIX (W,S,O)	# OF CONT.	NWTPH-D Extended	ANALYSIS REQUESTED	COMMENTS & PRESERVATIVES USED	LABORATORY NUMBER
1 EL-SB4-3-4.5	9/4/92	S	1	X		please use silica gel cleanup	2090893
2 EL-SB5-3.5-5	"	S	1	X		please use silica gel cleanup	2090894
3							
4							
5							
6							
7							
8							
9							
10							

RELINQUISHED BY: Rochelle A. Shaw DATE: 9/22/92
FIRM: Enviros TIME: 10:50
RECEIVED BY: [illegible] DATE: 9/22/92
FIRM: [illegible] TIME: 10:50

RELINQUISHED BY: DATE:
FIRM: TIME:
RECEIVED BY: DATE:
FIRM: TIME:

SAMPLE RECEIPT INFORMATION: CONTAINER CONDITION: GOOD VIOLATED COOL (4° C)? YES NO
CUSTODY SEALS? GOOD VIOLATED NOT USED HAZARDOUS SAMPLES?: NO YES; DESCRIBE ON BACK

PAGE OF

NORTH CREEK ANALYTICAL

18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-2569
Phone (206) 481-9200 • FAX (206) 485-2992

ENVIROS	Client Project ID:	EI/#920502.03		
5808 Lk. Washington Blvd. NE	Matrix:	Soil		
Kirkland, WA 98033	Analysis for:	Total Solids	Received:	Sep 1, 1992
Attention: Rochelle Shaw	First Sample #:	209-0070	Reported:	Sep 15, 1992

LABORATORY ANALYSIS FOR: Total Solids

Sample Number	Sample Description	Sample Result %
209-0070	EL-TP1-6-12"	26
209-0071	EL-TP1-18-20"	26
209-0072	EL-GC1-25.5-29"	31

North Creek Analytical routinely provides analytical results for soils, sediments or sludges on a WET WEIGHT "as received" basis.
To attain dry weight equivalents for regulatory compliance, divide the soil result by the decimal fraction of percent solids.
The results in this report apply only to the samples analyzed, as indicated on the custody document.
This analytical report is to be reproduced only in its entirety.

NORTH CREEK ANALYTICAL inc

Scot Cocanour
Laboratory Director

NORTH CREEK ANALYTICAL

18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-2569
Phone (206) 481-9200 • FAX (206) 485-2992

ENVIROS	Client Project ID:	EI/#920502.03	Sampled:	Sep 1, 1992
5808 Lk. Washington Blvd. NE	Matrix Descript:	Soil	Received:	Sep 1, 1992
Kirkland, WA 98033	Analysis Method:	WTPH-D Extended	Extracted:	Sep 4, 1992
Attention: Rochelle Shaw	First Sample #:	209-0070	Analyzed:	Sep 12, 1992
			Reported:	Sep 15, 1992

TOTAL PETROLEUM HYDROCARBONS - (WTPH-D EXTENDED)

Sample Number	Sample Description	Extractable Hydrocarbons mg/kg (ppm)	Surrogate Recovery %
209-0070	EL-TP1-6-12"	5,900	Diluted Out
209-0071	EL-TP1-18-20"	3,000	109
209-0072	EL-GC1-25.5-29"	5,300	Diluted Out
BLK090492	Method Blank	N.D.	105

Detection Limits:	**25**

Extractable Hydrocarbons are quantitated as Motor Oil Range Organics (nC24 - nC36). Surrogate recovery reported is for 2-Fluorobiphenyl.
Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc

Scot Cocanour
Laboratory Director

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18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-2569
Phone (206) 481-9200 • FAX (206) 485-2992

ENVIROS	Client Project ID:	EI/#920502.03	Sampled:	Sep 1, 1992
5808 Lk. Washington Blvd. NE	Matrix Descript:	Soil	Received:	Sep 1, 1992
Kirkland, WA 98033	Analysis Method:	WTPH-D	Extracted:	Sep 4, 1992
Attention: Rochelle Shaw	First Sample #:	209-0070	Analyzed:	Sep 12, 1992
			Reported:	Sep 15, 1992

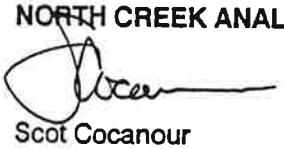
TOTAL PETROLEUM HYDROCARBONS (WTPH-D)

Sample Number	Sample Description	Extractable Hydrocarbons mg/kg (ppm)	Surrogate Recovery %
209-0070	EL-TP1-6-12"	1,400 D-2	Diluted Out
209-0071	EL-TP1-18-20"	760 D-2	109
209-0072	EL-GC1-25.5-29"	1,600 D-2	Diluted Out
BLK090492	Method Blank	N.D.	105

Detection Limits:	**10.0**

Extractable Hydrocarbons are quantitated as Diesel Range Organics (nC12 - nC24). Surrogate recovery reported is for 2-Fluorobiphenyl.
Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc



Scot Cocanour
Laboratory Director

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Phone (206) 481-9200 • FAX (206) 485-2992

HYDROCARBON ANALYSES FOOTNOTES

(8/92)

Code	Description

VOLATILE HYDROCARBONS - Gasoline Range Organics

G 1 This sample appears to contain extractable diesel range organics.

G 2 The chromatogram for this sample is not a typical gasoline fingerprint.

G 3 The total hydrocarbon result in this sample is primarily due to a peak(s) eluting in the volatile hydrocarbon range. Identification and quantitation by EPA 8010, 8021 or 8240 is recommended.

EXTRACTABLE HYDROCARBONS - Diesel Range Organics

D 1 This sample appears to contain volatile gasoline range organics.

D 2 The hydrocarbons present in this sample are primarily due to very heavy, non-resolvable oil range organics. Quantitation by EPA 418.1 is recommended.

D 3 The hydrocarbons present in this sample are a complex mixture of extractable diesel range and non-resolvable motor oil or other heavy oil range organics.

D 4 The hydrocarbon result shown is an estimated (greater than) value due to high concentration. Reanalysis is being performed to yield a quantitative result.

Oils & Lubricants

[----------]

T.R.P.H. (418.1)

Diesel & Fuel Oils

[----------]

Extractables (3550/8015)

Gasoline

[----------]

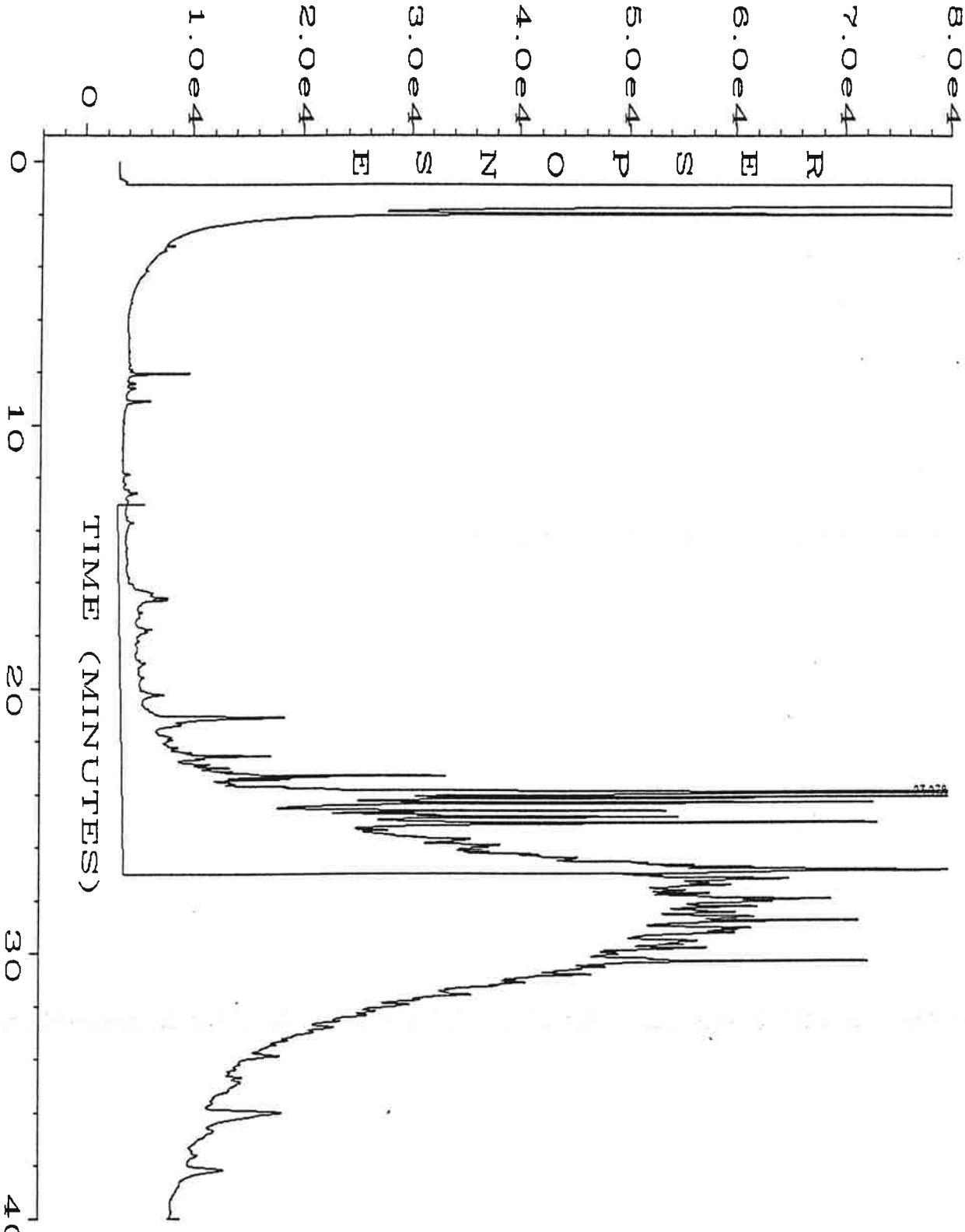
Volatiles (5030/8015)

HYDROCARBON BOILING POINT RANGE

LOW **LOW TO MEDIUM** **MEDIUM** **MEDIUM TO HIGH** **VERY HIGH**

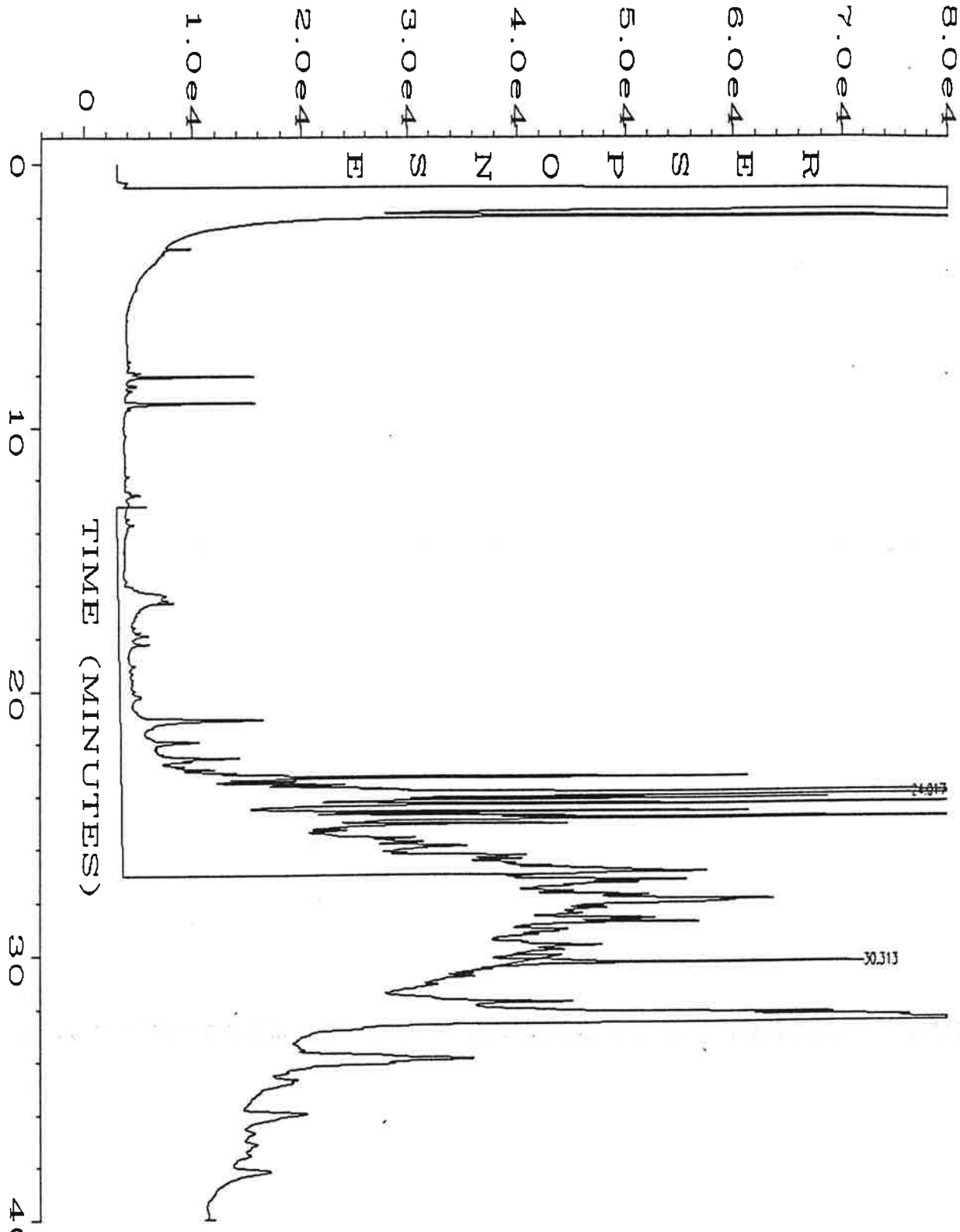
CARBON RANGE:

5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 +



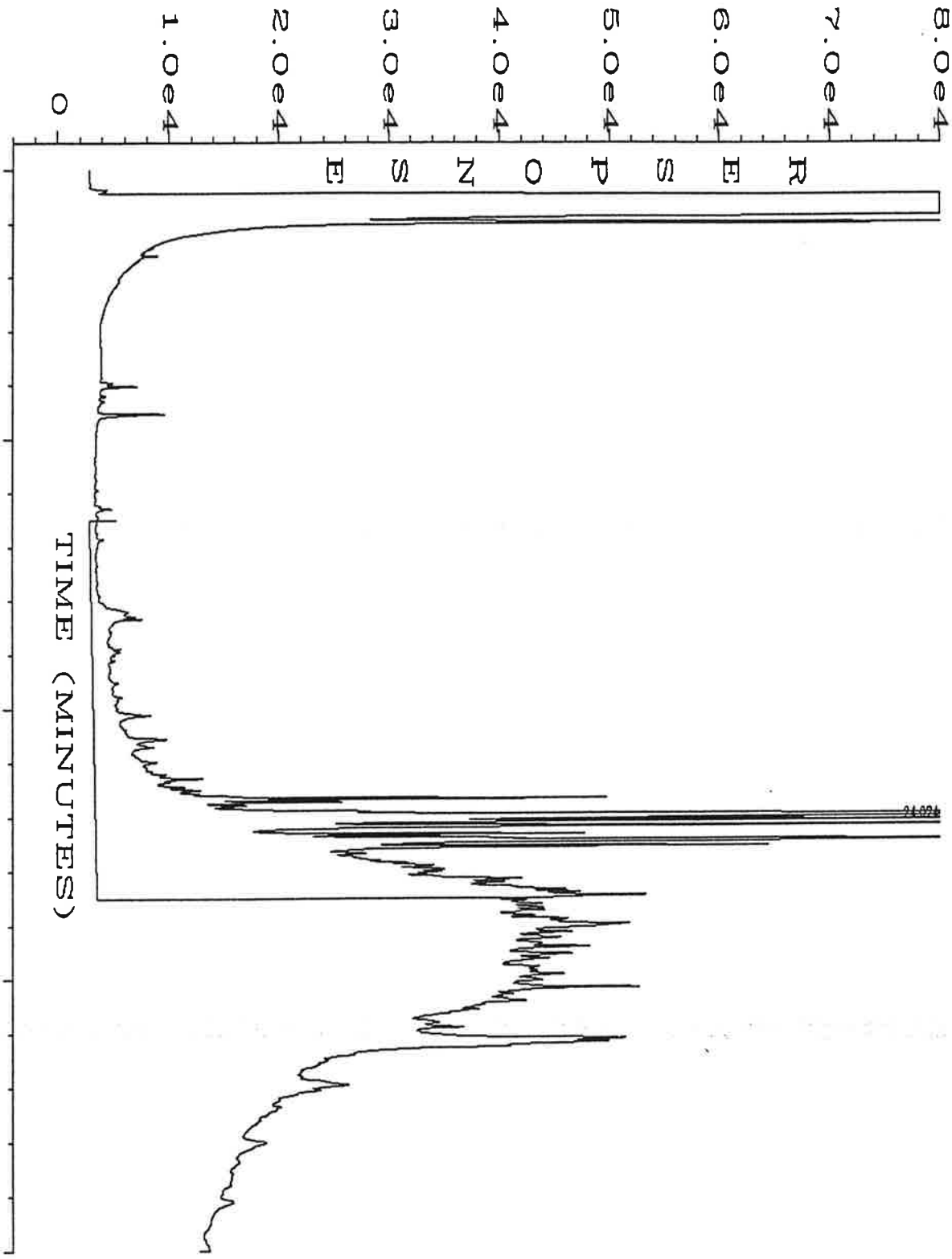
Data File Name : C:\HPCHEM\3\DATA\SEP12\076R0901.D
Operator : LAURA
Instrument : BOB
Sample Name : 209-0070 21X
Run Time Bar Code:
Acquired on : 12 Sep 92 11:50 AM
Report Created on: 12 Sep 92 12:40 PM

Page Number : 1
Vial Number : 76
Injection Number : 1
Sequence Line : 9
Instrument Method: TPH3R.MTH
Analysis Method : TPH3R.MTH



Data File Name : C:\HPCHEM\3\DATA\SEP12\078R0901.D
Operator : LAURA
Instrument : BOB
Sample Name : 209-0071 11X
Run Time Bar Code:
Acquired on : 12 Sep 92 01:32 PM
Report Created on: 12 Sep 92 02:25 PM

Page Number : 1
Vial Number : 78
Injection Number : 1
Sequence Line : 9
Instrument Method: TPH3R.MTH
Analysis Method : TPH3R.MTH



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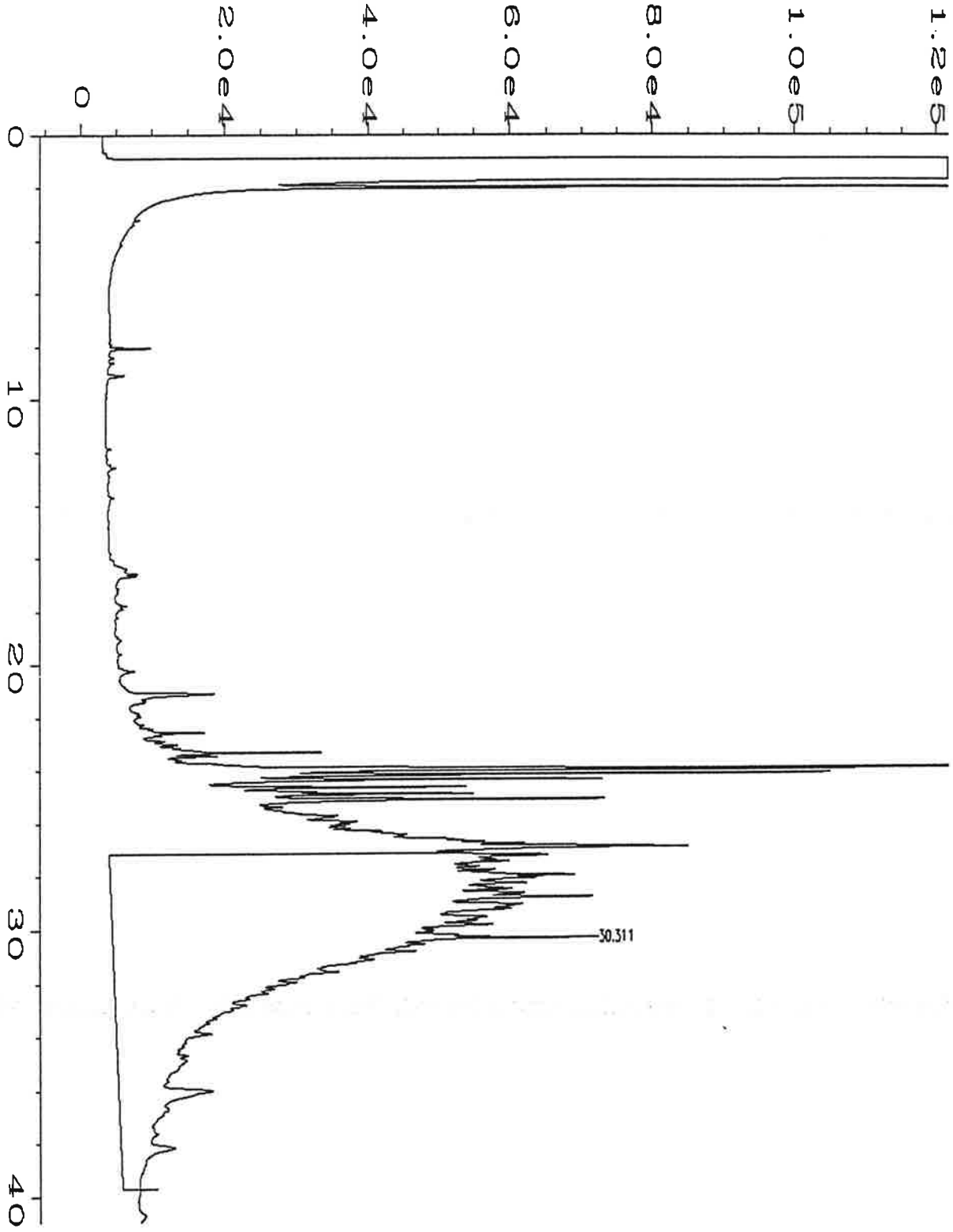
Operator : LAURA
Instrument : BOB
Sample Name : 209-0072 21X
Run Time Bar Code:
Acquired on : 12 Sep 92 03:14 PM
Report Created on: 12 Sep 92 04:04 PM

Page Number : 1
Vial Number : 80
Injection Number : 1
Sequence Line : 9
Instrument Method: TPH3R.MTH
Analysis Method : TPH3R.MTH



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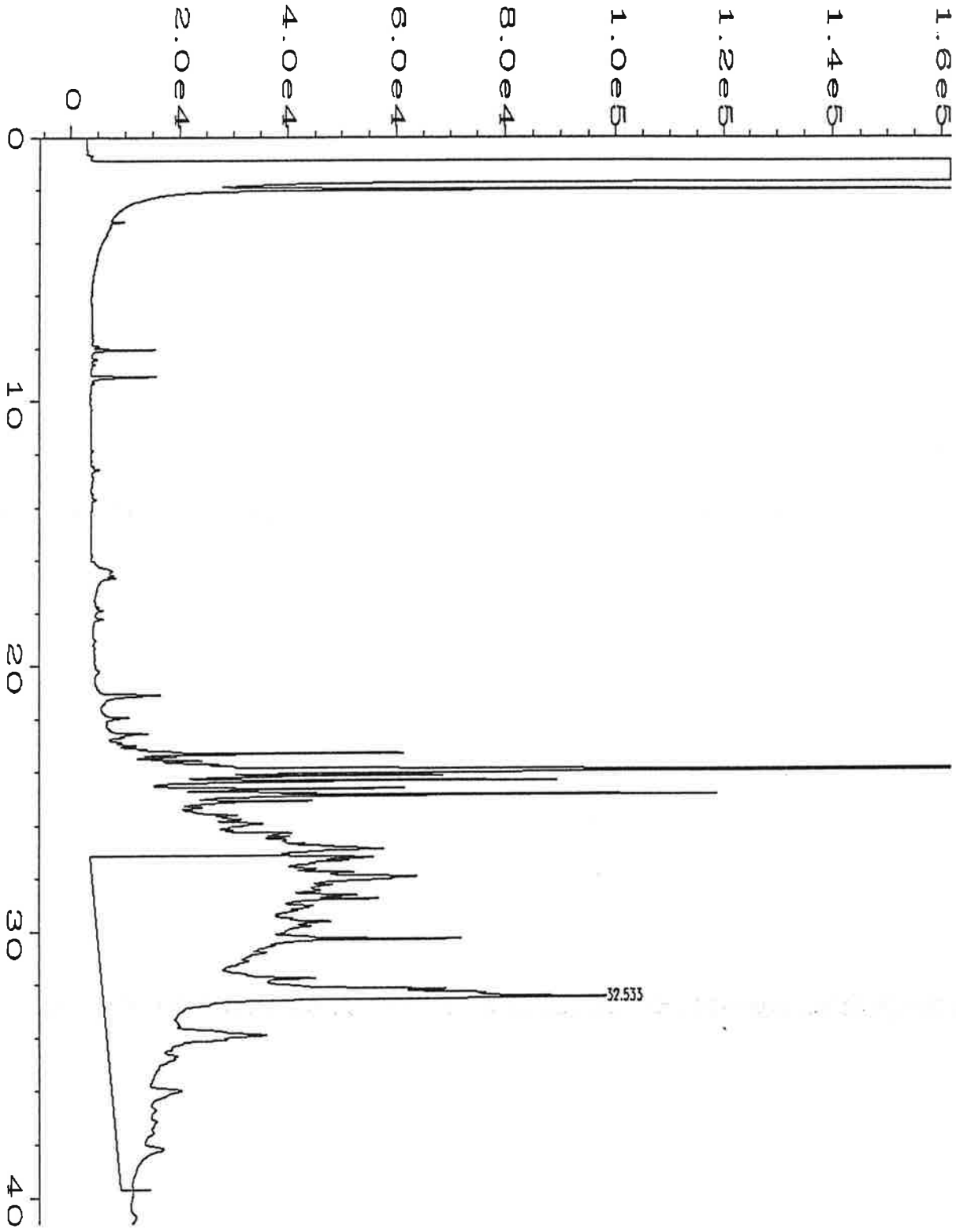
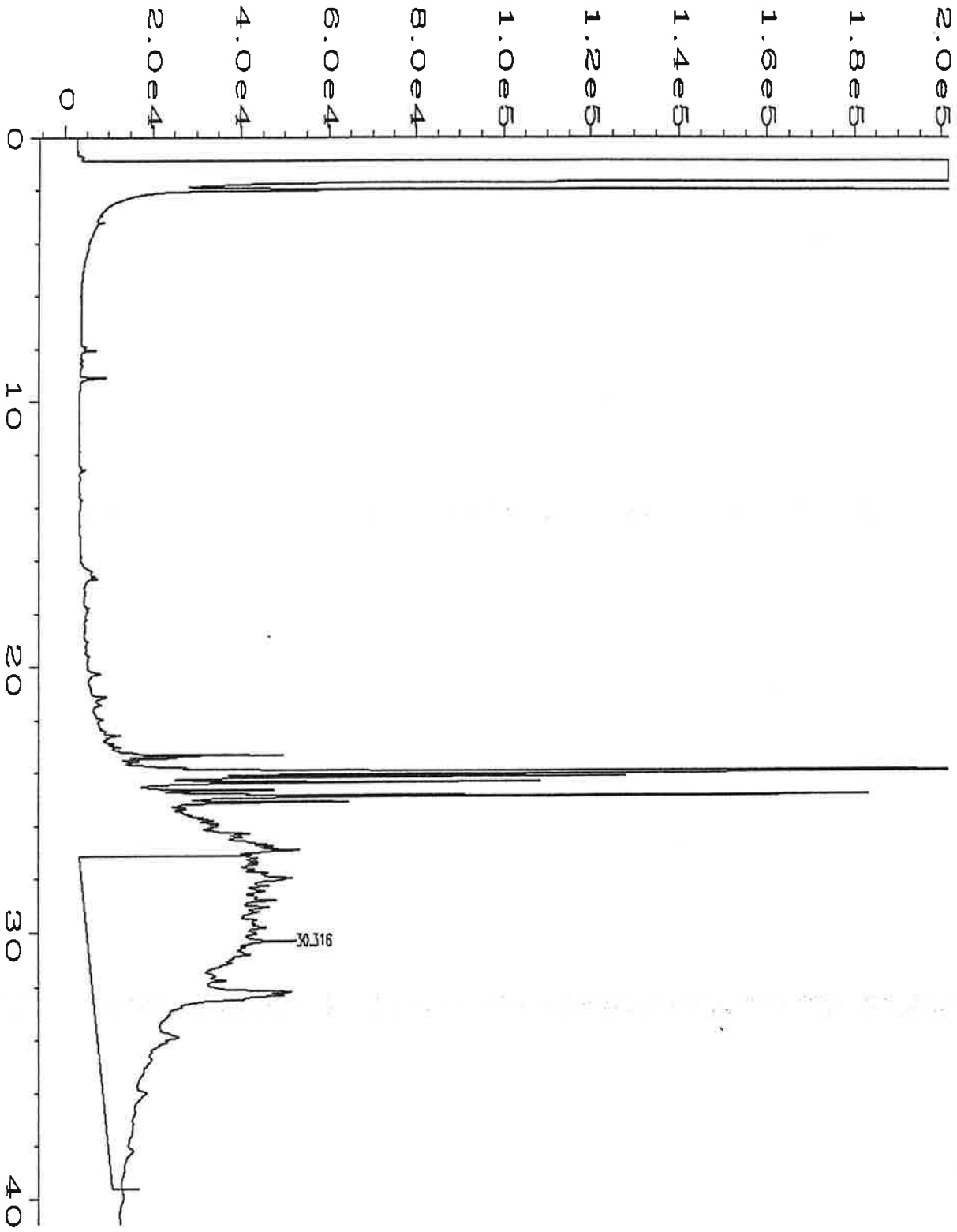
Operator : LAURA
Instrument : BOB
Sample Name : 209-0070 21X
Run Time Bar Code:
Acquired on : 12 Sep 92 11:50 AM
Report Created on: 13 Sep 92 08:27 PM

Page Number : 1
Vial Number : 76
Injection Number : 1
Sequence Line : 9
Instrument Method: TPH3R.MTH
Analysis Method : STD3R.MTH



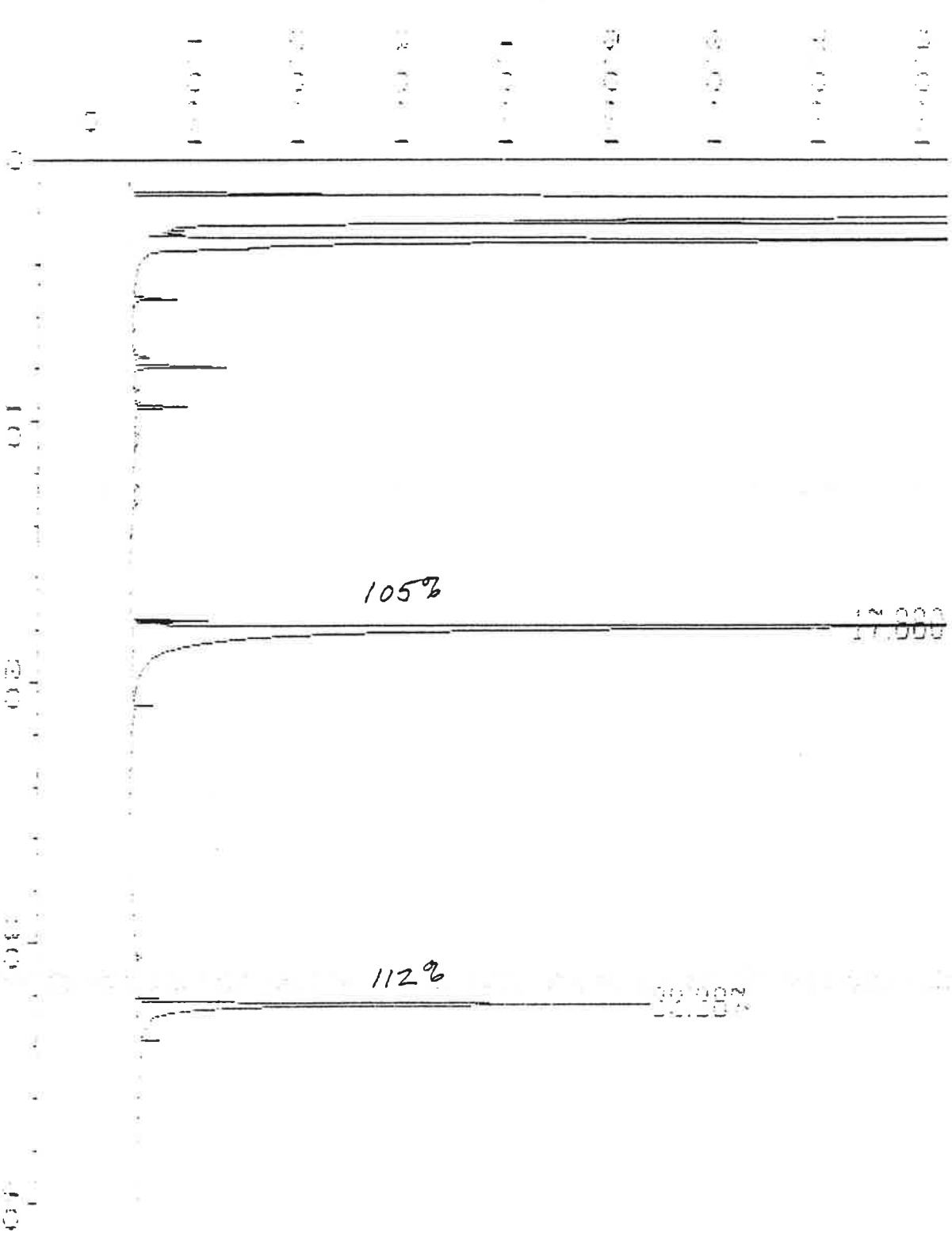
Data File Name : C:\HPCHEM\3\DATA\SEP12\078R0901.D
Operator : LAURA
Instrument : BOB
Sample Name : 209-0071 11X
Run Time Bar Code:
Acquired on : 12 Sep 92 01:32 PM
Report Created on: 13 Sep 92 08:28 PM

Page Number : 1
Vial Number : 78
Injection Number : 1
Sequence Line : 9
Instrument Method: TPH3R.MTH
Analysis Method : STD3R.MTH



Data File Name : C:\HPCHEM\3\DATA\SEP12\080R0901.D
Operator : LAURA
Instrument : BOB
Sample Name : 209-0072 21X
Run Time Bar Code:
Acquired on : 12 Sep 92 03:14 PM
Report Created on: 13 Sep 92 08:30 PM

Page Number : 1
Vial Number : 80
Injection Number : 1
Sequence Line : 9
Instrument Method: TPH3R.MTH
Analysis Method : STD3R.MTH



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Operator	: LAURA	Page Number	: 1
Instrument	: PHIL	Vial Number	: 18
ample Name	: BLK0904S 8015	Injection Number	: 1
an Time Bar Code:		Sequence Line	: 8
Acquired on	: 10 Sep 92 00:55 AM	Instrument Method	: SUR.MTH
Report Created on	: 14 Sep 92 02:53 PM	Analysis Method	: DEFAULT.MTH

NORTH CREEK ANALYTICAL

18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-2569
Phone (206) 481-9200 • FAX (206) 485-2992

ENVIROS	Client Project ID: EI/#920502.03	Analyst:	L. Dutton
5808 Lk. Washington Blvd. NE	EPA Method: WTPH-D		
Kirkland, WA 98033	Sample Matrix: Soil	Extracted:	Sep 4, 1992
Attention: Rochelle Shaw	Units: mg/kg (ppm)	Analyzed:	Sep 12, 1992
		Reported:	Sep 15, 1992

HYDROCARBON QUALITY CONTROL DATA REPORT

ACCURACY ASSESSMENT
Laboratory Control Sample

Diesel

Spike Conc. Added:	67
Spike Result:	80
% Recovery:	119
Upper Control Limit %:	120
Lower Control Limit %:	80

PRECISION ASSESSMENT
Sample Duplicate

Extractable Hydrocarbons

Sample Number:	208-1662
Original Result:	N.D.
Duplicate Result:	N.D.
Relative % Difference	0
Maximum RPD:	50

NORTH CREEK ANALYTICAL inc

Scot Cocanour
Laboratory Director

% Recovery: $\frac{\text{Spike Result}}{\text{Spike Concentration Added}} \times 100$

Relative % Difference: $\frac{\text{Original Result - Duplicate Result}}{(\text{Original Result + Duplicate Result}) / 2} \times 100$

CHAIN OF CUSTODY RECORD

Project Name: EL/920502.03
Project #: 920502.03
Send Report To: Rochelle Shaw Ext. #: 828-2522
Sample Disposal Method: ___ by laboratory ($5/sample)
___ to be returned to site

Sample Identification	Date Sampled	Sample Type	WTPH-HCID	WTPH-G	WTPH-D	WTPH-418.1 modified	WTPH - Extended			
EL-TP1-6-12"	9/1/92	soil					X		209070	
EL-TP1-18-20"	9/1/92	"					X		209071	
EL-GC1-25.5-29"	9/1/92	"					X		209072	

(*) Silica Gel Cleanup - likely to be natural organic interference
(*) If Contaminant present - is likely to be lubricating oil, use that as standard.

1. RELINQUISHED BY:	Date: 9/1/92
Signature: Rochelle Shaw	Time: 1640
Printed Name: Rochelle Shaw	
Firm: Enviros	

1. RECEIVED BY:	Date: 9/1/92
Signature: Dana Heinz	Time: 1640
Printed Name: DANA HEINZ	
Firm: NCA	

2. RELINQUISHED BY:	Date:
Signature:	Time:
Printed Name:	
Firm:	

2. RECEIVED BY:	Date:
Signature:	Time:
Printed Name:	
Firm:	

Enviros, Inc. (206) 827-5525 (fax) 827-3299
5808 Lake Washington Boulevard Northeast
Kirkland (Seattle) Washington 98033

APPENDIX C:

SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN
9/25/92

ENTERPRISE LUMBER COMPANY

Spill Prevention Control and Countermeasures Plan (SPCC)
9/26/92

Enterprise Lumber Company is a producer of cedar lumber products located at 19521 47th Ave. N.E., Arlington, Washington 98223. The process requires the use of a combination of rolling stock and fixed assets which utilize petroleum based products as prime movers. As such the storage of petroleum based products on site is a necessity to achieve an adequate level of efficiency to maintain the company at a financially viable level.

TYPE AND QUANTITY OF PETROLEUM BASED PRODUCT STORAGE

The type and quantity of stored petroleum based products is as follows:

Petroleum Product	Tank Capacity (gallons)
A) Fixed Assets	
1) Diesel fuel	2000
2) Gasoline	250
3) L.P. Gas Tank	100
4) Lubricating Oils/Hydraulic Fluids	55 Gallon Drums (22)
5) Drillube 100 - Edger Saw Lube	275
6) Guardol SAE 30 Motor Oil	250
7) Hydraulic Oil VG 32	250
8) Waste Oil	200
9) Waste Oil	160
10) Hydraulic Power Packs	
a) Barker	130
b) Log Turner	135
c) Headrig Carriage Drive	100
d) Headrig Knees	115
e) Scragg	88
f) Resaw Line Bar/Edger LP's	118
g) Edger Sawguide Oil	70
h) Trimmer Fence	50
i) End Stacker	65
j) Chip Bin	37
k) Hog Fuel Bin	25
Sub-total	5618
B) Rolling Stock	
1) Komatsu WA600	
a) Hydraulic Tank	109
b) Crankcase Engine Oil	17
c) Fuel Tank	161
d) Differentials	58

e) Transmission	32
Sub-total	377
2) John Deere 892D Log Stacker	
a) Hydraulic Tank & System	111
b) Crankcase Engine Oil	6
c) Fuel Tank	82
d) Gearboxes	4
Sub-total	203
3) Cat V180	
a) Hydraulic Tank	39
b) Crankcase Engine Oil	3.5
c) Fuel Tank	30
d) Transmission	6
e) Differential	6
Sub-total	84.5
4) Cat V180	
a) Hydraulic Tank	39
b) Crankcase Engine Oil	3.5
c) Fuel Tank	30
d) Transmission	6
e) Differential	6
Sub-total	84.5
5) M-F Tractor	
a) Crankcase Engine Oil	1.5
b) Fuel Tank	10
c) Transmission/Diff.	8
d) Torque Converter	3
Sub-total	22.5
6) Maintenance Forklift - Cat T50B	
a) Crankcase Engine Oil	2
b) Fuel Tank	n/a
Sub-Total	2
Total	6391.5

SITE DRAINAGE

The hydraulic power packs are located at floor level inside the mill and should a leak or rupture of the tank or accompanying piping occur the spill would be confined to the concrete floor area and would be absorbed and cleaned up by the use of absorbent pads as well as sawdust. The residual would be disposed of in an appropriate and acceptable manner.

The ground area to the north of the mill slopes in a

northern direction toward a green belt separating the mill site from a residential area. A spill of petroleum products in this area of the mill site poses a risk of contamination to the soils and groundwater in the green belt area. Mill activities that could result in a spill include:

1) Waste oils storage (350 gal.),
2) Lubricating oil storage (1270 gal), and
3) Rolling stock repair and maintenance (up to 377 gal).

The paved mill site to the south and east of the sawmill is serviced by an underground storm water drainage system. A spill of petroleum products in this area would lead to oils being directed to one of two storm water surge/retention ponds. Mill activities that could result in a spill include:

1) Rolling stock equipment failures (up to 377 gal),
2) Rupture of hydraulic system at the end stacker (65 gal),
3) Rupture or spill at fuel loading area (2000 gal)

SPILL CONTAINMENT PROGRAM

To control or minimize the effect of a spill from any of these potential sources the following actions have taken place or will take place:

1) The diesel fuel and gasoline storage tanks will be surrounded by a secondary containment tank (8000 gallons) larger than the total capacity of all tanks combined. Periodically the storage tanks are visually inspected for any signs of loss of their integrity and the secondary containment tank is inspected for water or petroleum product build up. Should any be found the contents are pumped out into portable containment drums and are appropriately disposed.

2) Approximately two (2) lubricating oil barrels are stored on the mill floor. Should a rupture or spill occur from any of these drums the contents will be contained internally to the mill. Absorption pads and sawdust will be used to cleanup the spill. After collection, the pads and sawdust will be appropriately disposed.

3) The remaining lubricating oil barrels (approximately 6) are stored in a rack inside the oil storage building ("Sealand Container") which is located along the northeast wall of the sawmill building. The spill control mechanism for these barrels consists of a drip pan measuring 6"deep by 12" wide by 12' long. This drip pan is capable of containing the simultaneous leakage or rupture of one (1) of the stored 55 gallon drums. Furthermore, the building storing the drums is self contained and will hold the entire capacity of the drums under a catastrophic event. Periodically the oil level will be monitored in the drip

pan and appropriately removed.

4) The barker area drains to the northwest where a sawdust and bark pile has been created to capture and absorb any spill caused by a line, pipe, or tank rupture. Should such an occurrence happen the sawdust will be collected and appropriately removed.

5) The chip bin hydraulic tank has a 12" deep by 36" wide by 36" long secondary spill containment tank surrounding it to capture leakage or a rupture. Periodically the accumulated oil will be removed from the containment tank and disposed of in an acceptable manner.

6) The hog fuel hydraulic tank has a 12" deep by 20"wide by 36" long secondary spill containment tank surrounding it to capture leakage or a rupture. Periodically the accumulated oil will be removed from the containment tank and disposed of in an acceptable manner.

7) The hydraulic power packs within the mill (log turner, headrig carriage drive, headrig knees/setworks, scragg, and resaw linebar) as well as the edger sawguide lube system spills will be contained within the mill by berming the exits. Periodically, the accumulated oil will be removed and disposed of in an acceptable manner. The only exception is that the along with the scragg hydraulic power packs the resaw linebar hydraulic power pack has a 8" deep by 3' wide by 6' long secondary spill containment tank surrounding it due to its elevated position.

8) The trimmer fence hydraulic power pack has been surrounded by a secondary containment tank measuring 12" deep by 36" wide by 36"long. Periodically the accumulated oil will be removed from the containment tank and disposed of in an acceptable manner.

9) The end stacker hydraulic power pack and system has been contained by creating a secondary containment tank from its supporting super structure. Periodically the accumulated oil will be removed from the containment tank and disposed of in an acceptable manner.

10) The waste oil tanks will be taken out of service and disposed of in a proper manner. The three sided building to the northwest of the maintenance building has been converted into a waste oil storage and recycle building complete with a secondary containment tank installed inside. 55 gallon barrels will be used for the waste oil storage and recycle.

11) The Sealand Container building were the Drillube, Guardol SAE 30, Hydraulic Oil VG 32, and oil drums are stored has been fitted with a 3" berm at the entrance to convert the entire building into

its own secondary containment vessel. All drums of oil exterior to this building will be removed and located inside.

12) As of September 7, 1992 all rolling stock supervisors and operators have been instructed that petroleum based product leaks or spills will be given priority. Should such occur the operators are to react as follows:

a) Shutdown their equipment immediately.
b) Assess the likelihood of the spill flowing from the mill site in to the retention ponds or green belts:
    1) If probable, take immediate corrective action to contain the spill and then seek maintenance assistance to repair the cause.
    2) If improbable, seek maintenance assistance to repair the cause and organize the cleanup and proper disposal of the oil.
c) In all cases, the cause of the leak shall be repaired at the location that the equipment was disabled by the operator unless this location poses an imminent threat to the environment. In such a case the equipment will be carefully relocated to an appropriate site.
d) In all cases, any spilled petroleum based product is to be promptly and appropriately cleaned up and disposed of in a proper manner.

EMERGENCY CONTAINMENT PROCEDURES

Should a spill occur that is of significant magnitude the following energency action plans will go into effect:

The progress of the spill will be immediately impeded with the use of sawdust, hog fuel, and/or absorbent pads. Once contained and absorbed the petroleum soaked material will be immediately removal from the mill site for incineration or disposal into a certified landfill.

In all such cases, the personnel below will be immediately notified.

SECURITY

The mill site is not fenced due to the difficulty and cost. However, operating or security personnel are present seven (7) days a week, twenty-four (24) hours per day. During non-operating hours the systems are de-energized and the fuel tanks are locked.

PERSONNEL TRAINING

The designated individual accountable for the oil spill

prevention program is Vern Baker, Operations Manager.

Several members of the mill operating personnel have been trained in the use and deployment of absorption pads and booms. The crew is periodically briefed concerning the SPCC plan and the proper procedures to follow in the event of a spill. These meetings are also utilized to describe known spill events, discuss improvements or modifications to the prevention system, and review the emergency response procedures.

SPILL CONTAINMENT EQUIPMENT AND MATERIAL

The mill keeps an adequate supply of absorbent pads and booms in storage at all times. The storage location is the "Sealand Container" oil storage room. Also, rolling stock and hand tools are available to assist in containment and cleanup.

CONTACT IN CASE OF EMERGENCY

Should a spill occur that threatens to escape the mill site or enter the storm water drainage system the following personnel are to be notified immediately:

Vern Baker	(home)	1-206-436-1174
	(mobile)	1-206-339-7383
Mark Hecker		1-206-435-3618
Franklin Goforth		1-206-436-1880
Lynn Britt		1-206-436-1240
Rob Pardo		1-206-435-8391

ENTERPRISE LUMBER COMPANY
(OILREPRT)

OIL SPILL REPORT FORM

Date: _____

Location: _____

Equipment Involved: _____

Type of Oil Spilled: _____

Approximate Quantity of Spill (gals.) _____

Description of Cause: _____

_____

_____

Action(s) Taken to Contain Spill: _____

_____

_____

_____

How were the Contaminated Material(s) Disposed/Removed ?:_____

_____

_____

_____

Individual(s) Involved: _____

_____

Did any oil leave the mill site or enter the storm drains? If so, how much?:

_____

Signed: _____ Dated: _____