INDEPENDENT REMEDIAL ACTION PROGRAM (IRAP)
REPORT OF
PHASE III INVESTIGATION AND REMEDIATION
ELLIOTT (GOODYEAR) TIRE CENTER
1 EAST LINCOLN STREET
YAKIMA, WASHINGTON

Prepared for:

Mr. Michael Lovering
4620-C 200th Street S.W
Lynnwood, WA 98036
Phone (800) 548-9064

Prepared by:

Maxim Technologies, Inc.
402 East Yakima Avenue Suite 750
P.O Box 2887 Yakima, Washington 98907
Phone (509) 577-8592

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EXECUTIVE SUMMARY

Maxim Technologies, Inc. completed an Independent Remedial Action Program (IRAP) under the Model Toxics Control Act at the Elliott (Goodyear) Tire Center in Yakima, Washington, a property owned by Mr. Lovering. Investigations by a previous consultant had discovered tetrachloroethylene (PCE) in a dry well at this site resulting in the naming of Mr. Lovering as a Potential Liable Party in the Yakima Railroad Area, an area of known PCE contamination. The IRAP included remedial activities and sampling of soils and groundwater. This report presents the results of all activities conducted under this IRAP.

Soil and groundwater at the Elliott (Goodyear) Tire Center were impacted with elevated concentrations of petroleum hydrocarbons. Minor tetrachloroethene (PCE) contamination was detected in the soil. Maxim Technologies, Inc., (Maxim) identified the contamination sources and successfully remediated the site soil pursuant to the IRAP. The contamination sources were identified through an extensive soil sampling plan both in the interior and the exterior of the Tire Center. The exterior was sampled by excavating numerous test pits and the interior was sampled through coreholes drilled beneath the concrete slab. Except for petroleum contamination left beneath the interior, all contamination sources were successfully removed. Groundwater will be remediated via natural attenuation processes. A two year quarterly groundwater sampling program including eight sampling events has been implemented for the site.

Elliott (Goodyear) Tire Center Findings and Remedial Actions are summarized below:

- The Elliott (Goodyear) Tire Center does not appear to be a contributing source to the tetrachloroethene (PCE) groundwater problem in the Yakima Railroad Area. Five groundwater sampling rounds were completed to date. The maximum concentrations of PCE measured in groundwater samples collected from these sampling rounds was 1 ppb, well below U.S EPA drinking water standards of 5 ppb. The PCE concentrations of 1 ppb was reported in one of the five sampling rounds and was measured in all the monitoring wells at the site. The uniform concentrations of PCE in all of the groundwater monitoring wells (both upgradient and downgradient) during that one sampling event indicates an off-site source for the PCE in groundwater.

- Of approximately 90 soil samples collected at the site and analyzed for PCE, only two small isolated areas in the interior bay reported low but detectable concentrations of PCE. The PCE contamination found was successfully removed. One additional sludge sample from the dry well (sump) contained PCE. The sump sludge and sump were also removed. Results from all of the 54 soil samples collected from beneath the parking lot and around the building reported PCE concentrations below detection limits (ND).

- Two abandoned gasoline underground storage tanks (USTs), discovered by Maxim while sampling, were excavated and removed. One hundred and eighty tons of petroleum contaminated soil (PCS) were transported to Anderson Rock (Anderson's) for landfarm remediation subsequent to approval by the Yakima County Health Department. Two-hundred and thirty one tons of clean material purchased from Central Pre-Mix were used to backfill the excavation.

- Two contaminated dry wells found at the site and adjacent soils were excavated and removed. Three hundred eight tons of PCS were transported to Anderson's. The PCE and petroleum contaminated sludge from the dry wells, along with the PCE from the interior, were contained in drums at the site, and transported for disposal by Phillips Environmental. A new dry well and catch basin were installed and 344 tons of clean material purchased from Central Pre-Mix were used to backfill the excavation.

- Petroleum contamination is present in the soil beneath the concrete floor in the bay area but is limited to the top 2 ft. This contaminated soil was not removed. A Restrictive Covenant was prepared and the PCS will be remediated in the future when the building will be demolished or replaced.

- Five rounds of groundwater sampling were completed. Petroleum contamination is present in one of the three groundwater monitoring wells adjacent to the old gas station and the dry wells. Groundwater will be assessed for PCE and petroleum hydrocarbon concentrations on a quarterly basis for two years in accordance with IRAP Guidelines. This assessment will include three additional sampling rounds.

The successful remediation of soil at the Elliott Tire Center should be followed by implementing corrective measures to prevent accidental spills into the newly installed dry well and onto the floors. Adsorbents presently installed in the new dry well should be regularly maintained and replaced to minimize the potential for new releases of contaminants to groundwater.

1.0 INTRODUCTION

Prior to selling the Elliott (Goodyear) Tire Center, Mr. Lovering, the property owner, requested Environmental Associates, Inc., to conduct Phase I and II Environmental Site Assessments (ESA) of the facility. These assessments revealed the presence of tetrachloroethene (PCE) and petroleum hydrocarbons at the site. Environmental Associates, Inc., found PCE in a single sludge sample collected from a dry well (sump) during the Phase II ESA. Because of the PCE contamination, Mr. Lovering was named by Ecology a Potential Liable Party (PLP) in the Yakima Railroad Area (YRRA).

Subsequently, Mr. Lovering negotiated with Ecology an Independent Remedial Action Program (IRAP) under the Model Toxics Control Act (MTCA). The IRAP consisted of a sampling and analysis plan (SAP) in accordance with IRAP guidelines. The SAP was implemented concurrently with remediation and groundwater monitoring activities at the site. Groundwater monitoring commenced during February 1995 and will continue for two years in accordance with the IRAP guidelines.

1.1 SITE HISTORY

A review of historical sources including Polk Directories and Sanborn Fire Insurance Maps indicates that service stations and residences were located on the property presently occupied by the Elliott Tire Center from 1921 to 1961. The Lovering's acquired the property in 1961. By 1968, the tire service center was constructed. A warehouse, presently occupied by Irwin Research was erected during 1972.

Environmental Associates, Inc. conducted the Phase I and Phase II environmental investigations during 1994 and 1995. The PCE concentration of 2.3 milligrams per kilogram (mg/kg) detected in the dry well sludge sample collected during the Phase II investigation exceeded the MTCA Method B/protective of groundwater criterion of 0.08 mg/kg (Environmental Associates, 1995). However, because soil samples collected during the Phase II investigation were not analyzed for PCE, the extent of the contamination at the site was unknown. In addition to PCE, petroleum hydrocarbon contamination, including gasoline and diesel contamination, was detected in soil and groundwater samples also collected during the Phase II investigation. The petroleum contamination in soil and groundwater appeared to be localized to an area of the site where historic gas/oil sales activities had been conducted. At the time of the Phase I ESA, a solvent sink for parts cleaning was present at the Elliott Tire Center. According to the Manager Mr. Clark Smith, Safety Kleen Corporation regularly pumps and replaces the solvents used. Waste oil, anti-freeze, and oil filters are regularly collected by the APEX Company for disposal/recycling.

1.2 SITE DESCRIPTION

The site occupies approximately a one-half city block at the northeast corner of East Lincoln Avenue and North Front Street, in Yakima, Washington (Figure 1). The site is bounded on the north by East "D" Street, on the west by North Front Street, on the south by East Lincoln Avenue, and on the east by an alleyway. An approximate legal description for the site is Lots 17 through 32, Block 7, Town of North Yakima, now Yakima, located within the northwest quarter of the northwest quarter of section 19, and the northeast quarter of the northeast quarter of Section 24, Township 13 north, Range 18 east of the Willamette Meridian,Yakima County, Washington. Based on the United States Geological Survey (USGS) 7.5 minute series topographic map of the area (Yakima West Quadrangle), the latitude is 46 degrees 35 minutes 57 seconds north and the longitude is 120 degrees 30 minutes 5 seconds west.

The Elliott Tire Service Center is a 19,200 square feet retail store and storage area constructed of concrete. The adjacent warehouse occupied by Irwin Research is a concrete tilt-up structure with a total footprint area of approximately 11,300 square feet located on the northern portion of the site.

Utilities at the site include water, sanitary sewer, electrical, and natural gas. Potable water supplies and sanitary sewer services are provided by the City of Yakima. A water line is located west of the site along Front Street. A sewer line is located east of the site beneath the alley. Natural gas services are provided by Cascade Natural Gas. Electricity and electrical utilities are provided by Pacific Power and Light.

1.3 AREA GEOLOGY

The city of Yakima is located in the western part of the Columbia Basin within the Yakima Fold Belt (YFB). The YFB is a series of anticlinal ridges and synclinal valleys in the western and central parts of the Basin. Structural trends range from northwest to northeast but are predominantly east-west. Two predominant anticlines, Umtanum and Yakima ridges, extend across the entire fold belt. Most of the anticlinal ridges are associated with faults. Although the faults are rarely exposed, nearly all the steep forelimbs of the asymmetrical anticlines are faulted.

Most of the rocks exposed in the western part of the Columbia Basin are the Columbia River Basalt Group (CRBG). The CRBG is Miocene in age and covers approximately 164,000 square km of eastern Washington Oregon and western Idaho with tholeiitic flood basalt flows. Intercalated with, and in some places overlying the CRBG, are sedimentary rocks of the Ellensburg Formation. Additional younger sedimentary rocks (Miocene-Pleistocene) include the Ringold Formation, Snipes Mountain conglomerate,

Thorp Gravel, the Hanford Formation (cataclysmic Pleistocene flood deposits), and other localized strata. Most post-CRBG sediments are confined to the synclinal valleys of the YFB. The sedimentary record is incomplete but is the direct reflection of the structural development of the Columbia Basin. The Thorp Gravel river terrace deposits record the post- CRBG history of the upper Yakima River. Except for local deposits (the "Plio-Pleistocene unit" and "early Palouse soil"), there is a hiatus in the stratigraphic record between the end of the Ringold (3.4 Ma) and Thorp Gravel (approx 3.7 Ma) deposition, and the Pleistocene (1.6 Ma) deposits. Pleistocene to Holocene sediments overlying the CRBG include flood gravels and slackwater sediments of the Hanford Formation, terrace gravels of the Columbia, Snake, and Yakima Rivers. In the YRRA the underlying localized strata are the Yakima Gravels. These gravels directly overly the Ellensburg Formation. The Yakima Gravels are locally derived open framework alluvial and colluvial deposits and range in thickness between 0 and 100 ft. The gravels are a laterally discontinues strata common on basin margins and uplifted ridges (Reidel and others, 1994).

1.4 SITE SOIL AND TOPOGRAPHY

The predominant soil type at the site has been classified as Naches Loam by the United States Department of Agriculture. This soil formed in old alluvium on stream terraces and in valleys (USDA, 1985). Drilling logs of monitoring wells installed during the Phase II investigation (Environmental Associates, 1995) indicate that the soil beneath the site consists of two distinct units, an upper fine-grained to impervious unit to a depth of approximately 5 feet below ground surface and a lower, porous gravelly unit. The upper unit consists of silty clay and is probably a slack water deposit within the Yakima Gravels alluvial system. Drilling logs of the monitoring wells are contained in Appendix A.

Topography at the site is generally flat. Elevation at the site is approximately 1060 to 1080 feet above mean sea level. The average annual precipitation of about 7 to 9 inches supports various grasses (USDA, 1985).

1.5 SURFACE AND GROUNDWATER HYDROLOGY

The nearest surface water is the southeasterly flowing Yakima River. The Yakima River is located about 1.8 miles east of the site.

Results of previous investigations and monitoring at the site indicate that groundwater occurs at depths of 10 to 20 feet below ground surface and flows toward the east/southeast (Environmental Associates, 1995). These depths and flow direction are consistent with the findings of other environmental investigations completed

within the YRRA (Roeder, 1995). The Yakima irrigation system, when opened annually during the spring and summer months is known to influence groundwater depth and flow directions in the area.

1.6 PROJECT OBJECTIVES AND REMEDIATION ALTERNATIVES

Three (3) adverse environmental conditions resulted in the IRAP:

(1) Insufficient subsurface characterization: Although a Sandborn Fire Map depicted the presence of a gas station, magnetic and ground penetrating radar surveys conducted by Environmental Associates, Inc., did not detect the USTs. Soil and groundwater samples collected from borings and monitoring wells indicated that both the soil and groundwater were contaminated with petroleum hydrocarbons. However, the subsurface characterization did not find the contamination sources for the site. The soil borings, well locations, and analytical results from Environmental Associates ESAs are presented in Appendix A.

(2) Presence of regulated materials at the site dry well: PCE, used as a de-greaser, was found in the parking lot dry well. Subsequent to detection of the PCE, no additional soil sampling was performed to confirm the presence or absence of PCE in the site soil. Although there is no historical evidence for the use of PCE at the site, prior disposal practices are not known.

(3) Location of the site immediately north of the YRRA: The YRRA is a mile-wide corridor extending from Lincoln Avenue on the north to Union Gap in southeastern Yakima. Groundwater within this area has been contaminated with PCE.

Maxim personnel developed objectives for the Phase III investigation and remediation project consistent with the IRAP guidelines and with consideration of the aforementioned environmental conditions. These objectives included the following:

- Investigate the site for the presence of PCE; and,
- Remediate soil and groundwater so that closing of a real estate transaction concerning this property will be possible.

Closing has been delayed due to the environmental condition of the property. Closing will be delayed until Ecology issues a *No Further Action (NFA)* (or equivalent) letter with regard to the environmental condition of the subject real premises. To obtain a

NFA letter Ecology requires "source control" or remediation of the impacted soil at the site and evaluation of groundwater quality through a monitoring program.

Maxim personnel evaluated remediation alternatives consistent with MTCA criteria (WAC 173-340-360(4)(a)) which include the following:

(i) Overall protectiveness of human health and the environment;
(ii) Long term effectiveness;
(iii) Short term effectiveness;
(iv) Permanent reduction of toxicity, mobility and volume;
(v) Ability to implement;
(vi) Cleanup costs; and,
(vii) Community concerns.

These criteria, along with the existing and proposed site use, were considered during evaluation of remediation alternatives. Alternatives evaluated by Maxim personnel included the following:

1. Excavation of contaminated soil and off-site disposal (landfill); and,
2. Solid phase, in-situ bioremediation.

The treatment methods involving bioremediation, were considered less feasible for the project conditions. First, soil removal options with treatment or disposal are preferable over in-situ treatment methods where business operations at the site will be disrupted during installation. Second, the time required to complete the alternative in-situ methods did not meet the project timetable. Therefore, the remediation method of excavation and disposal was chosen.

2.0 METHODS

Maxim developed a soil and groundwater Sampling Analysis Plan (SAP) to meet requirements of the IRAP and to guide the evaluation of soil and groundwater contamination suspected to be present beneath the Elliott Tire Center. The SAP consisted of sampling both the exterior and interior of the facility and included the following:

- Test Pit Investigation. 54 soil samples were collected from test pits as follows: 48 soil samples from 15 test pits in the parking lot area were collected at depths of 3, 6, and 10 ft below surface. Six exterior soils samples around the building were also collected at 3 ft below the surface.

- Dry Wells Investigation. 11 sludge/soil samples were collected from two dry wells.

- Interior Bay Investigation. 24 interior soil samples were collected at various depths during three sampling events inside the tire and automobile repair shop. Sampling was biased towards areas with likely contamination, adjacent hydraulic automotive equipment (hoists and jacks).

- Groundwater Investigation. 5 groundwater sampling events were conducted in February 1995, August 1995, November 1995, February 1996 and August 1996. The February 1995 sampling round was conducted by Environmental Associates. The remaining rounds were conducted by Maxim. The samples were analyzed for VOCs, gasoline diesel and heavy oil.

Maxim's project manager provided oversight of investigation and remediation activities at the site during August through October 1995. Remedial actions were conducted concurrent with the soil sampling activities. The following sections describe our methods used to complete these investigation and remediation activities.

2.1 TEST PIT INVESTIGATION AND SOIL REMOVAL

A Maxim field scientist supervised the excavation of test pits and conducted associated soil sampling at the Elliott Tire Center during August 1995. Tri-Valley Construction excavated test pits using a backhoe in the parking lot and around the perimeter of the building. Sampling began in the parking lot along Front Street with test pits excavated every 35 feet. Subsequent to the parking lot investigation, sampling continued around the building with test pits excavated every 70 feet. Test pit locations are presented in Figures 2 and 3 and logs of the test pits are contained

in Appendix B.

Test pits TP-1 through TP-15 were sampled at the parking lot at 3, 6, and 10 feet below ground surface or until groundwater contact was made at about 11 feet below surface (Figure 4). Test pits TP-3 and TP-12 were located above borings B-3 and B-2 respectively. Sampling of borings B-3 and B-2 by Environmental Associates in a prior investigation detected petroleum contamination. A location map of Environmental Associates' Site Investigation is located in Appendix A. The purpose of excavating test pits TP-3 and TP-12 in these locations was to confirm the presence of petroleum contamination. Test pits TP-16 through TP-20, located around the perimeter of the building (Figure 2), were sampled at 3 feet below surface. Transglobal Environmental Services (TEG) analyzed the soil samples collected from the test pits and hand borings on-site for volatile organic compounds (VOCs) using EPA Method 8010/8020, Total Petroleum Hydrocarbons (TPH) as gasoline using EPA Method WTPH-G, TPH as diesel using EPA Method WTPH-D, and TPH as heavy oil using EPA Method WTPH-D/extended.

Excavation of contaminated soil was completed concurrently with the test pit investigation. The on-site mobile laboratory was used to guide the excavation and segregate the excavated soils. The on-site mobile laboratory enabled extensive sampling to ensure and confirm proper site remediation. The areas of the site which were excavated included:

(1) Soil around and underlying the two gasoline underground storage tanks (USTs) in the parking lot (Figure 3); and,

(2) The soil around and underlying the two dry wells (Figure 3).

2.2 UNDERGROUND STORAGE TANK INVESTIGATION

During test pit sampling activities, Maxim discovered two 1000 gallon gasoline underground storage tanks (USTs) in the parking lot. The USTs were apparently filled with sand and abandoned in place by the prior gas station owners. The inspection of the removed tanks did not reveal any holes. The USTs were removed during August 1995, and 180 tons of petroleum contaminated soil were transported Anderson's Landfill in Yakima for remediation. An associated 231 tons of clean backfill were purchased (by the contractor) from Central Pre-Mix. The site assessment and UST decommissioning services were performed by Cayuse Environmental. The UST report is included in Appendix G, disposal and backfill documents are presented in Appendix D, and the approximate limits of the soil excavation are shown on Figures 3 and 4.

2.3 DRY WELLS (SUMPS) SAMPLING AND CLEANUP

Two dry wells were present on the parking lot of the Elliott Tire Center. The first well was a newer dry well which collected runoff from the parking lot. The second, older well was covered with concrete and asphalt. This older well was apparently connected to the roof drain. The roof drainpipe was plugged resulting in occasional flooding of the parking lot during heavy rain.

Test pits TP-13 and TP-14 (Figure 4) were excavated adjacent to the dry wells to investigate potential impacts to soil and groundwater. In addition, the sludge in both dry wells was visually examined and found to be very moist, dark, and "fatty looking" with a strong odor of petroleum hydrocarbons. Both wells appeared contaminated with petroleum hydrocarbons. On-site analysis of sludge samples collected from the two dry wells verified the presence of petroleum hydrocarbons and also indicated the presence of PCE at concentrations of 2.0 mg/kg in the newer dry well.

The dry wells and surrounding soil were excavated and removed (Figures 3 and 4). The depth of excavation was directly above the groundwater contact at 11 feet below ground surface. The dry wells sludge was placed in two drums for appropriate disposal with Phillips Environmental. Three-hundred and eight (308) tons of petroleum contaminated soil from the dry well areas were excavated and transported to Anderson's for remediation. An associated 344 tons of clean backfill material were purchased (by the contractor) from Central Pre-Mix to backfill the excavation. Documentation of PCS disposal and clean backfill are contained in Appendix D. A new dry well and a catch basin were subsequently installed to replace the contaminated dry wells. The dry well and catch basin design was approved by City of Yakima Engineering Department. A schematic diagram of the new dry well and catch basin is presented in Appendix H.

2.4 INTERIOR BAY INVESTIGATION

Unlike the parking lot area where soil sampling was conducted using a 35 ft grid, soil samples collected beneath the concrete floor in the bay area were biased. The locations of the soil borings in the interior bay area are shown on Figure 5. Samples were collected adjacent to each jack and hoist where a release was likely to occur (Figure 5). There were three rounds of sampling beneath the concrete floor. Prior to each round, holes were cut in the concrete floor. In the first round, five coreholes were drilled. Soil samples were collected with a post hole digger from 10 inch diameter holes at 1.5 feet below the surface. Subsequent to the discovery of PCE in

two coreholes, CH-4 and CH-5, a second round of sampling was planned to better delineate the PCE. For this round a "StrataProbe" coring devise was used. The StrataProbe can penetrate to deeper depths than a post hole digger. Seven 2 inch coreholes were sampled with the StrataProbe at depths ranging from 2 to 6 feet below surface.

Following these two rounds of sampling, the PCE in the soil was delineated. PCE contamination was found to be limited to the immediate area of coreholes CH-4 and CH-5. Approximately one cubic yard of contaminated soil was excavated from these areas and, in the third round of sampling, confirmational samples were collected subsequent to this removal. In this removal effort, two new 10 inch coreholes were cut overlapping both sides of the original coreholes CH-4 and CH-5. The concrete floor was than removed from all 3 coreholes, and PCE contaminated soil was excavated with a post hole digger. Subsequent to soil removal, confirmational soil samples were collected 2 ft below the concrete slab. In addition to PCE, the soil beneath the slab was found to be contaminated with petroleum hydrocarbons.

2.5 GROUNDWATER INVESTIGATION

Three groundwater monitoring wells (MW-1, MW-2 and MW-3), one located hydraulically up-gradient and two located hydraulically down-gradient, were installed at the site during February 1995 as part of the Phase II ESA conducted by Environmental Associates, Inc. (Figure 2). The location of the wells was based on petroleum contamination found in soil borings drilled during an earlier phase of the ESA. The drilling contractor, R&R drilling, installed the wells using an ODEX air rotary drill rig. The wells were cased using two inch diameter flush-threaded PVC, and completed from 10 to 25 ft below surface using factory slotted PVC screen (Environmental Associates, 1995). The wells were completed at the surface by setting a flush mount protective cover in concrete around the well casing (Appendix A).

Five rounds of groundwater sampling were completed during February 1995 (by Environmental Associates), August 1995, November 1995, February 1996 and August 1996 (by Maxim). Maxim personnel measured the static water level in the wells using a decontaminated electric well probe during each event. An adequate volume of groundwater was then removed from each well to ensure that the water being sampled was representative of the formation water. The volume of water purged prior to sampling was equivalent to three well bore volumes, or less if temperature, pH, and specific conductance measurements indicated a steady state condition had been achieved. Groundwater samples were collected using disposable

bailers or a decontaminated stainless steel bailer. The water samples were transferred to 40 milliliter vials and 1 liter amber bottles and preserved with hydrochloric acid. The samples were placed in an ice-filled cooler and hand delivered or shipped to a laboratory for analysis. Groundwater sampling field forms are contained in Appendix E. On-Site Environmental, Inc. laboratory analyzed the groundwater samples collected by Environmental Associates during February 1995.

Samples collected from all three wells were analyzed for TPH as gasoline and TPH as diesel. Additionally, during the February 1995 sampling round, only the sample collected from MW-1, the down-gradient well, was analyzed for VOCs according to EPA Method 8240. The full GC/MS VOCs scan used in EPA Method 8240 analyzes a wide range of potential contaminants in addition to PCE with a PCE reporting limit of 10 parts per billion (ppb). VOCs analysis of samples collected during later sampling events was conducted according to EPA method 8010/8020 which analyzes fewer parameters with lower reporting limits (PCE at 1 ppb). Maxim used TEG for all sampling rounds. Groundwater samples collected from all three wells were analyzed for VOCs using EPA Method 8010/8020, and petroleum hydrocarbons including TPH as gasoline using EPA Method WTPH-G, TPH as diesel using EPA Method WTPH-D, and heavy oil using EPA Method WTPH-D/D extended. In each sampling event, a duplicate groundwater sample was provided to the analytical laboratory for the purpose of quality assurance/quality control.

hydrocarbons. The PCE found in the sump is probably a result of an accidental discharge associated with runoff or the bay area.

3.3 NEW DRY WELL (SUMP) AND CATCH BASIN INSTALLATION

A new dry well (sump) installed in the parking lot replacing the two contaminated sumps was designed to adequately drain the parking lot and provide for better protection of groundwater than the previously installed sumps. The sump design and cross-section are presented in Appendix H. Because sumps are "open holes in the ground", they serve as a major conduits for contaminants entering the shallow aquifer. The City of Yakima sewer system is at capacity and the City engineer will not permit the connection of parking lot sumps to the City sewer system. Because the old sumps at the Elliott Tire Center were both contaminated with sludge and served as conduits for groundwater contamination, we tried to design a sump that will minimize any future contamination from entering the groundwater.

The sump system includes both a sump and a catch basin located approximately 80 feet southwest of the sump. The sump includes the following: a standard 48 inch diameter round culvert 10 feet deep set on a concrete base; a 25 foot diameter drain field containing 6518 cubic feet of 1 1/4 and 3/4 inch diameter washed rock to effectively drain the building roof (19,200 square feet) and the parking lot (12,100 square feet); perforations in the concrete culvert to allow water to flow out; 80 feet of PVC pipe connecting the sump and catch basin; and a 24 inch manhole frame and lid. In order to have a superior sump to the previous ones, the following steps were taken:

- Unlike the bottomless design of the old sumps, the new sump installed has a 6 inch thick concrete base.

- The base of the sump and the 25 foot perimeter of the drain field were underlain with a one-piece drainage fabric membrane. The drainage fabric membrane serves to prevent fines and other particulates from entering the groundwater.

- Both the sump and catch basin contain absorbent pillows to absorb accidental spills. The pillows are maintained and replaced on a regular basis.

The sump design was reviewed and approved by the City of Yakima Civil Engineering Division.

3.4 INTERIOR BAY ANALYTICAL RESULTS

PCE. Analytical results of soil samples collected from the bay area are presented in Table 5 and are also shown on Figure 5. Twenty four (24) soil samples were analyzed for PCE. PCE contamination was found in two samples CH-4 and CH-5, at concentrations of 0.29 mg/kg and 0.12 mg/kg, respectively. Coreholes CH-4 and CH-5 were located adjacent to the two automotive hydraulic jacks (Figure 5). The PCE was localized to these two areas and was limited to the upper 1.5 feet. Following the PCE discovery, four additional coreholes were drilled using the Strataprobe to further delineate the extent of PCE contamination. Eleven soil samples were collected around these two contaminated areas, from core holes GYI-1 through GYI-4 at depths ranging between 2 feet and 6 feet below surface. PCE concentrations measured in all 11 of the samples collected with the Strataprobe were below the method detection limits (ND). Following excavation of PCE contaminated soil, confirmational sampling reported PCE concentrations below detection limits near CH-4, and at 0.05 mg/kg near CH-5 which is below the MTCA Method B cleanup level.

The low PCE concentrations, the limited areal extent of contamination, and the shallow depth of contamination are probably attributable to the non-routine use of solvents at this site, the lack of floor drains and/or sumps in the bay area, and the presence of a relatively impermeable soil beneath the site. These factors have likely limited the lateral and downward migration of PCE contamination.

Petroleum Hydrocarbons. Petroleum contamination is present in the first 2 feet below the concrete surface in the bay area (Figure 5). TPH as diesel and heavy oil contamination ranges from 182 mg/kg to 3,230 mg/kg at 1.5 feet below the surface, and from 397 mg/kg to 1,230 mg/kg at 2 feet below surface. A petroleum hydrocarbon concentration of 36 mg/kg was measured at 5 feet below surface which is well below the MTCA Method A cleanup level of 200 mg/kg. These results indicate that petroleum contamination decreases rapidly with depth.

Petroleum in the bay area is likely the result of the automotive repair and maintenance at the shop. Leaks from the hydraulic jacks were noted during our investigation. Other occasional hydraulic leaks were reported to us by the personnel at the site. Cracks in the concrete floors and pathways associated with subfloor hydraulic lines served as conduits for petroleum contamination to the subsurface. The relatively higher viscosity of the oil and the presence of clay beneath the site, probably limited the downward migration of petroleum contamination.

3.5 LITHOLOGY AND GROUNDWATER OCCURRENCE

The borings drilled during the Phase II ESA and tests pits completed during the Phase III investigation encountered two distinct hydrogeologic units consisting of an upper relatively impermeable unit and a lower permeable unit. The top unit from the surface to a depth of about 5 feet consisted mostly of clay, silty clay, and silty sand. This unit is in the vadose zone, above the seasonal high water table. The underlying unit, mostly in the saturated zone, consisted of silty, sandy gravels, with groundwater intercepted at approximately 18 feet below ground surface during February 1995. Monitoring well and test pit logs are presented in Appendices A and B, respectively. An East-West geologic cross-section is presented in Figure 6.

Static water level measurements were recorded in all four monitoring wells during each quarterly sampling event (Table 6). Groundwater contour maps of each event are presented in Figures 7 through 10 and a hydrograph of all three wells for the period 1995 through 1996 is presented in Figure 11. The groundwater contour map for the August 1996 quarterly sampling event is presented in Figure 12 (a draft).

The hydrographs indicate that the highest water levels occur during late summer and the lowest water levels occur during the winter. Groundwater flow directions shifted 45 degrees from an easterly direction during the winter months (February 1995 and 1996), to a east/southeast direction during the summer and fall (August and November 1995). Groundwater gradient is relatively steep during irrigation season in the summer months. During the fall and the winter months the groundwater gradient is relatively flat which is consistent with the lack of irrigation waters.

3.6 GROUNDWATER QUALITY

Groundwater quality analysis results for the four monitoring events conducted at the Elliott Tire Center are summarized in Table 6. Laboratory analysis reports of the water samples are contained in Appendix E.

Detectable levels of PCE ranging from 0.64 parts per billion (ppb) to 1 ppb were reported in water samples collected from monitoring wells MW-1, MW-2 and MW-3 only during water table lows occurring in the winter (February 1995 and 1996). During the summer and fall months (August and November 1995) when the water table is high, PCE concentrations were all below method detection limits. Evaluation of this data suggests that during water table lows there is less dilution from irrigation waters resulting in these minor detectable concentrations of PCE in the groundwater. The presence of PCE in samples collected during February 1996 from all three

monitoring wells, including well MW-3 located hydraulically upgradient, suggests that this site is not a source of PCE groundwater contamination.

Concentrations of petroleum hydrocarbons have not been detected in groundwater samples collected from monitoring wells MW-1 and MW-2 during any of the monitoring events completed at the facility (Table 6). However, TPH as gasoline concentration of 2,420 ppb and a Total BTEX concentration of 189 ppb were measured in the groundwater sample collected from monitoring well MW-3 during February 1996 (Table 7). These results are relatively consistent with the results of the February 1995 monitoring event. MW-3 is located adjacent to the dry well and the two former USTs. TPH as gasoline at concentrations of 200 ppb (well below cleanup levels of 1000 ppb) was also measured in the groundwater sample collected from MW-3 in the August 1996 monitoring event.

The detection of contaminant concentrations in water samples collected from MW-3 may have been in response to the disruption of contaminated soil beneath the site during the excavation and removal of the nearby USTs and dry well, the presence of residual gasoline contamination, or in response to seasonal fluctuations of the water table. Concentrations below detection limits found in the two down gradient wells suggest that groundwater gasoline contamination is localized to area proximal to MW-3. The findings of future quarterly monitoring events may help explain the cause of these detected concentrations during February 1995 and 1996, and August 1996 monitoring events.

4.0 SUMMARY OF FINDINGS

Extensive sampling at the Elliott (Goodyear) Tire Center identified three areas of petroleum contamination and a small source area of PCE contamination. Petroleum contamination was associated with two abandoned USTs, contaminated dry wells, and the leaking of petroleum hydrocarbons beneath the concrete floor slab in the bay area.

Petroleum contamination was detected in the groundwater in MW-3, adjacent to the two USTs and dry wells. Because groundwater in the two down-gradient monitoring wells was not contaminated with petroleum hydrocarbons, the impacted area is limited. Since "source control" activities have been successful, the groundwater will be remediated naturally over time.

PCE contamination found in the parking lot dry well sludge during Phase II ESA was confirmed by our investigation. The PCE, however, was present only in the sludge and was not present in the soil beneath the dry well. PCE was not present anywhere else in the parking lot or on the perimeter of the property. PCE concentrations of 1 ppb in groundwater, well below U.S EPA drinking water standards of 5 ppb, were reported from the February 1996, sampling event.

Minor PCE contamination was present in two small and isolated "hot spots" beneath the bay area concrete floor slab. The presence of clay soil beneath the site probably prevented the PCE from migrating from these areas into the groundwater. The PCE contamination found was probably a result of accidental spills. Subsequent to extensive soil sampling, PCE contaminated soil was excavated and removed. The volume of contaminated soil was less than one cubic yard. The low concentrations of PCE, the small volume, and its limited areal extent are attributed to the non-routine use of solvents at the site, the impermeable nature of the underlying soil, and the lack of interior floor drains and other man-made and natural conduits. The absence of PCE above 1 ppb in the groundwater and the minor PCE contamination found in the soil suggest that this site did not contribute to the PCE problem in the YRRA.

5.0 RECOMMENDATIONS

Contaminated soil and sludge associated with former USTs and dry wells were identified and removed from the Elliott Tire Center. In addition, two small areas of PCE contamination beneath the bay area in the interior of the building were also delineated and removed. Because of these activities, potential sources of groundwater contamination appear to have been successfully removed from the site. Based on these findings and conclusions we provide the following recommendations for future activities and considerations at the site:

- Although PCE beneath the bay area was successfully delineated and removed, petroleum contamination remains beneath the floor slab. We recommend leaving this contamination in place until the building is demolished. A *Restrictive Covenant* and *Institutional Controls* should be implemented to address this contamination.

- We recommend that the quarterly groundwater monitoring program currently in progress would fulfill the *Institutional Control* requirements for the property. The groundwater monitoring should continue for two years. The groundwater samples will be analyzed for the contaminants of concern including PCE and petroleum hydrocarbons.

- Corrective measures to prevent accidental spills into the newly installed dry well and onto floors should be implemented at the site. Absorbents presently installed in the new dry well should be regularly maintained and replaced to minimize the potential for new releases of contaminants to groundwater.

6.0 LIMITATIONS

This work was performed in accordance with generally accepted practices of other consultants undertaking similar studies. Maxim observed a degree of care and skill generally exercised by other consultants under similar circumstances and conditions. Maxim's findings and conclusions must not considered as scientific certainties, but as opinions based on our professional judgement concerning the significance of the data gathered during the course of monitoring. Other than this, no warranty is implied or intended.

Prepared and submitted by:

Rachel Tauman,
Yakima Office Manager

Reviewed by:

_____

Bill Bucher
Helena Office Manager

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FIGURES

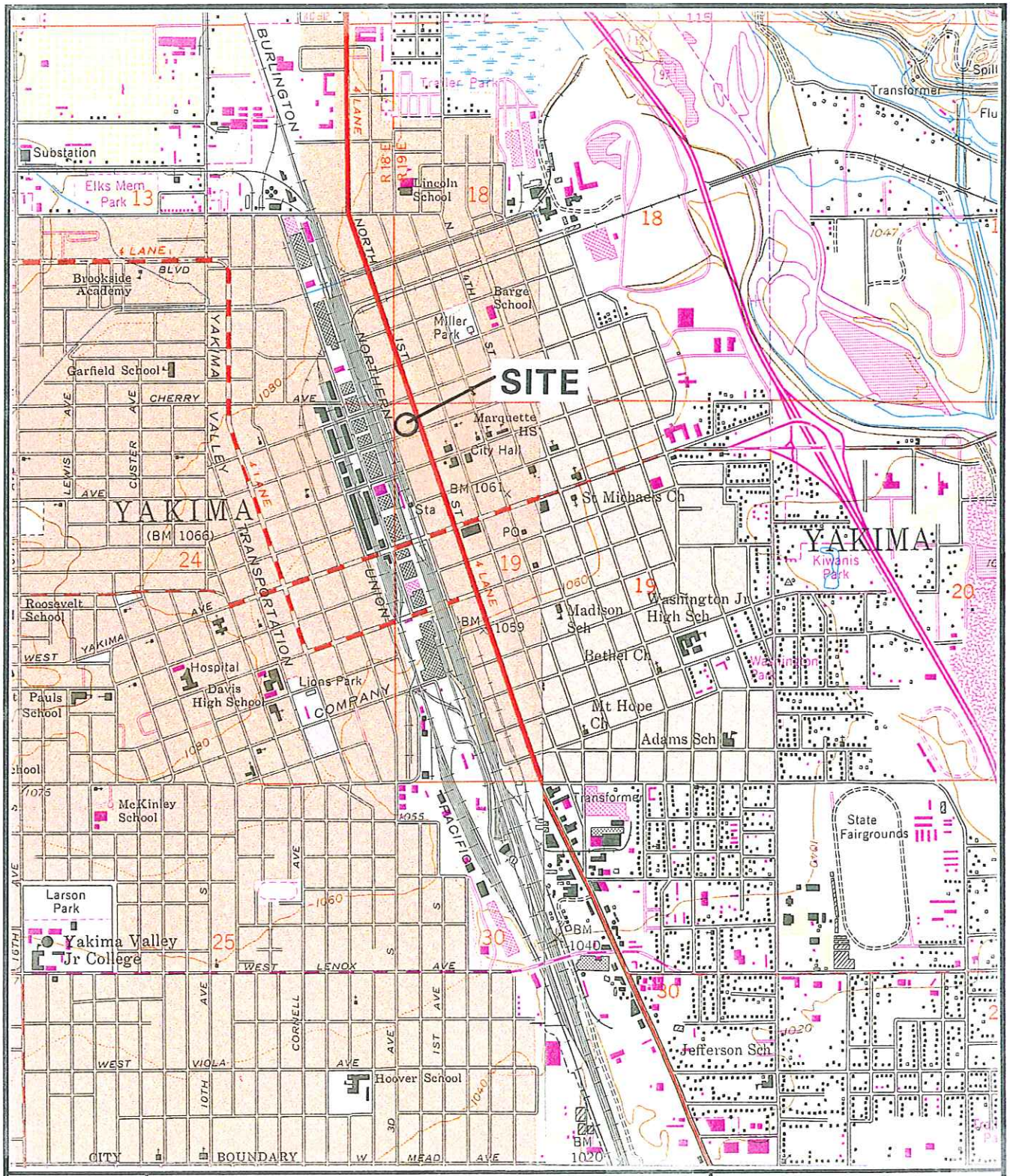

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FIGURE 1
SITE LOCATION PLAN

ELLIOT TIRE (GOODYEAR) RECLAMATION
N. FRONT STREET AND E. LINCOLN AVENUE
YAKIMA, WASHINGTON

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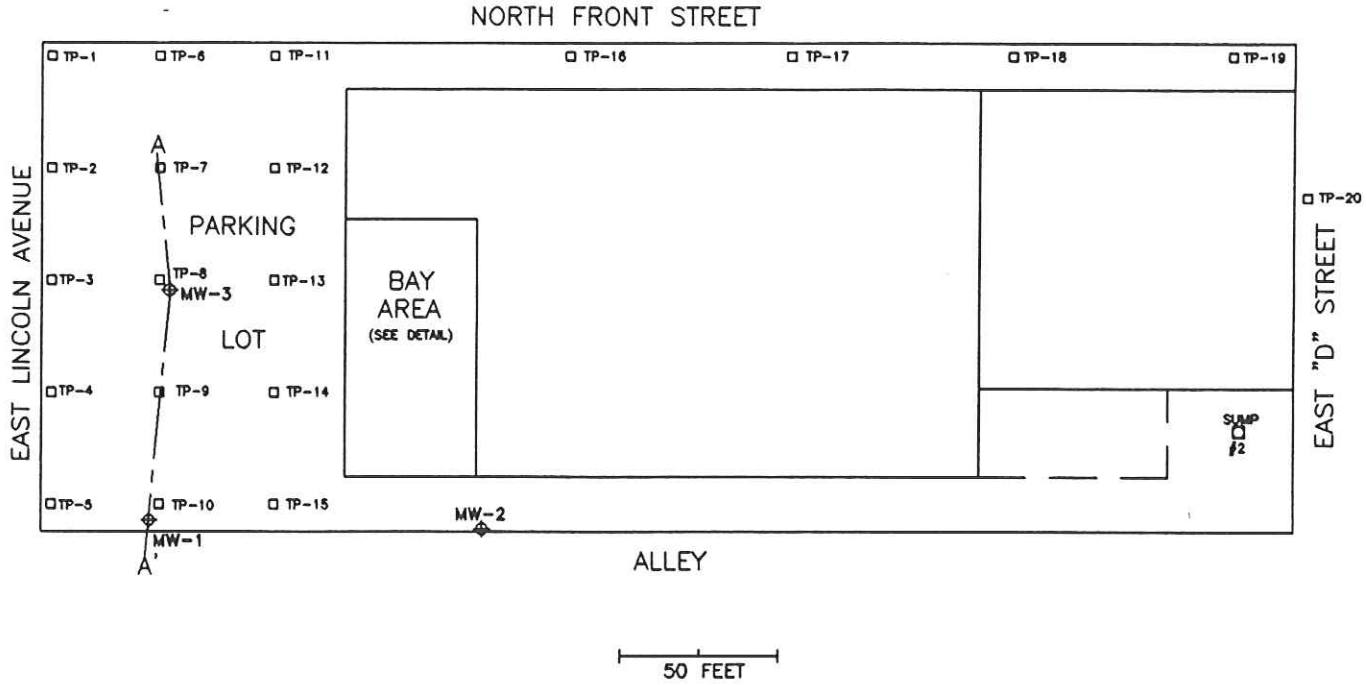

LEGEND

TP-1 TEST PIT

MW-2 MONITORING WELL

A—- - —A' GEOLOGIC CROSS-SECTION LINE

NOTE: Tetrachloroethene, Gasoline, Diesel, and Heavy Oil WERE NOT DETECTED in TP-16, TP-17, TP-18, TP-19, and Sump #2.

FIGURE 2
SITE MAP, AND LOCATION OF TEST PITS AND MONITORING WELLS

ELLIOT TIRE (GOODYEAR) REMEDIATION
N. FRONT STREET & E. LINCOLN AVE.
YAKIMA, WASHINGTON

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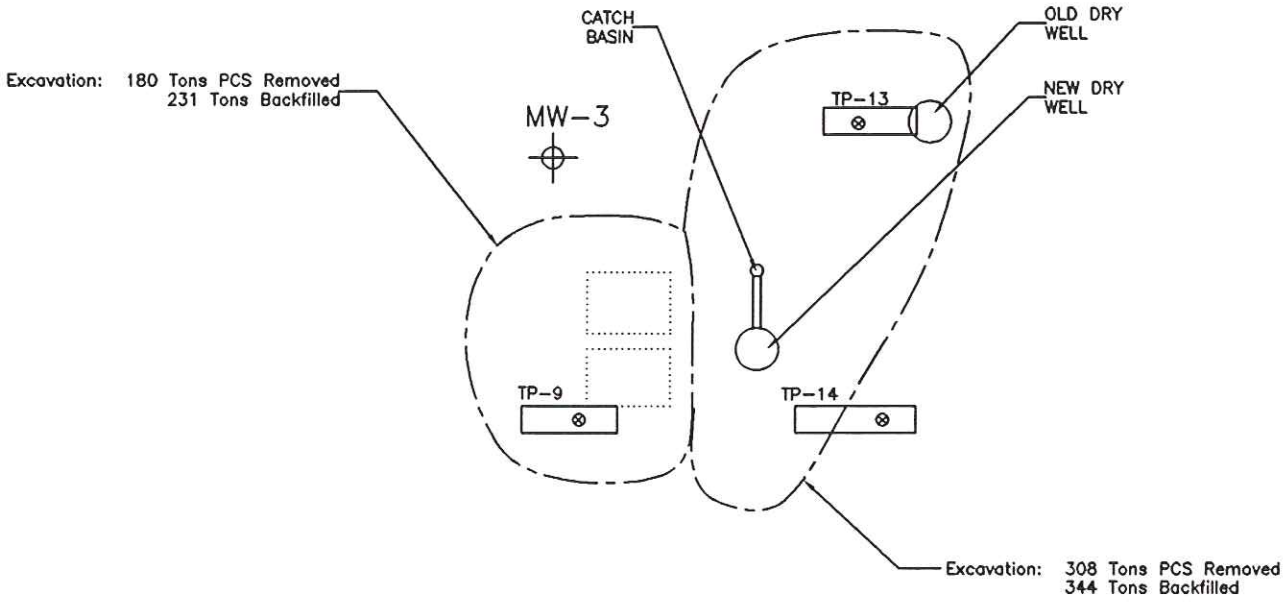

LEGEND

EXCAVATED UNDREGROUND STORAGE TANKS

OUTLINE OF EXCAVATION

MW-3 MONITORING WELL

TP-9 TEST PIT

FIGURE 3
UST AND SUMP EXCAVATION DETAIL

ELLIOT TIRE (GOODYEAR) REMEDIATION
N. FRONT STREET & E. LINCOLN AVE.
YAKIMA, WASHINGTON

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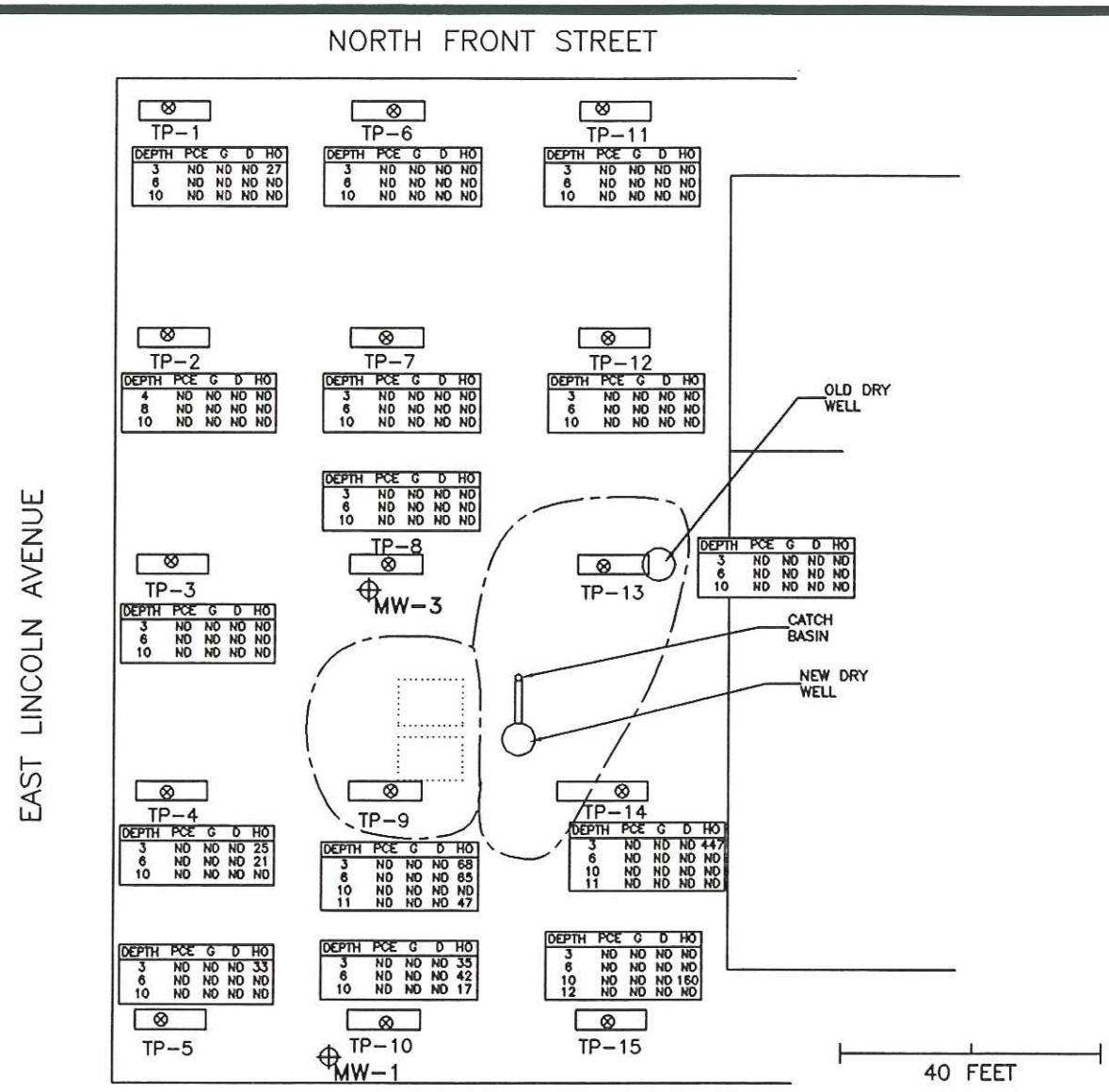

LEGEND

MW-1 — MONITORING WELL

TP-1 — TEST PIT

DEPTH — SAMPLE DEPTH (FEET)

PCE — TETRACHLOROETHENE (mg/kg)

G — GASOLINE (mg/kg)

D — DIESEL (mg/kg)

HO — HEAVY OIL (mg/kg)

OUTLINE OF EXCAVATION

EXCAVATED UNDERGROUND STORAGE TANKS

FIGURE 4
PARKING LOT SOIL SAMPLING (DETAIL)

ELLIOT TIRE (GOODYEAR) REMEDIATION
N. FRONT STREET & E. LINCOLN AVE.
YAKIMA, WASHINGTON

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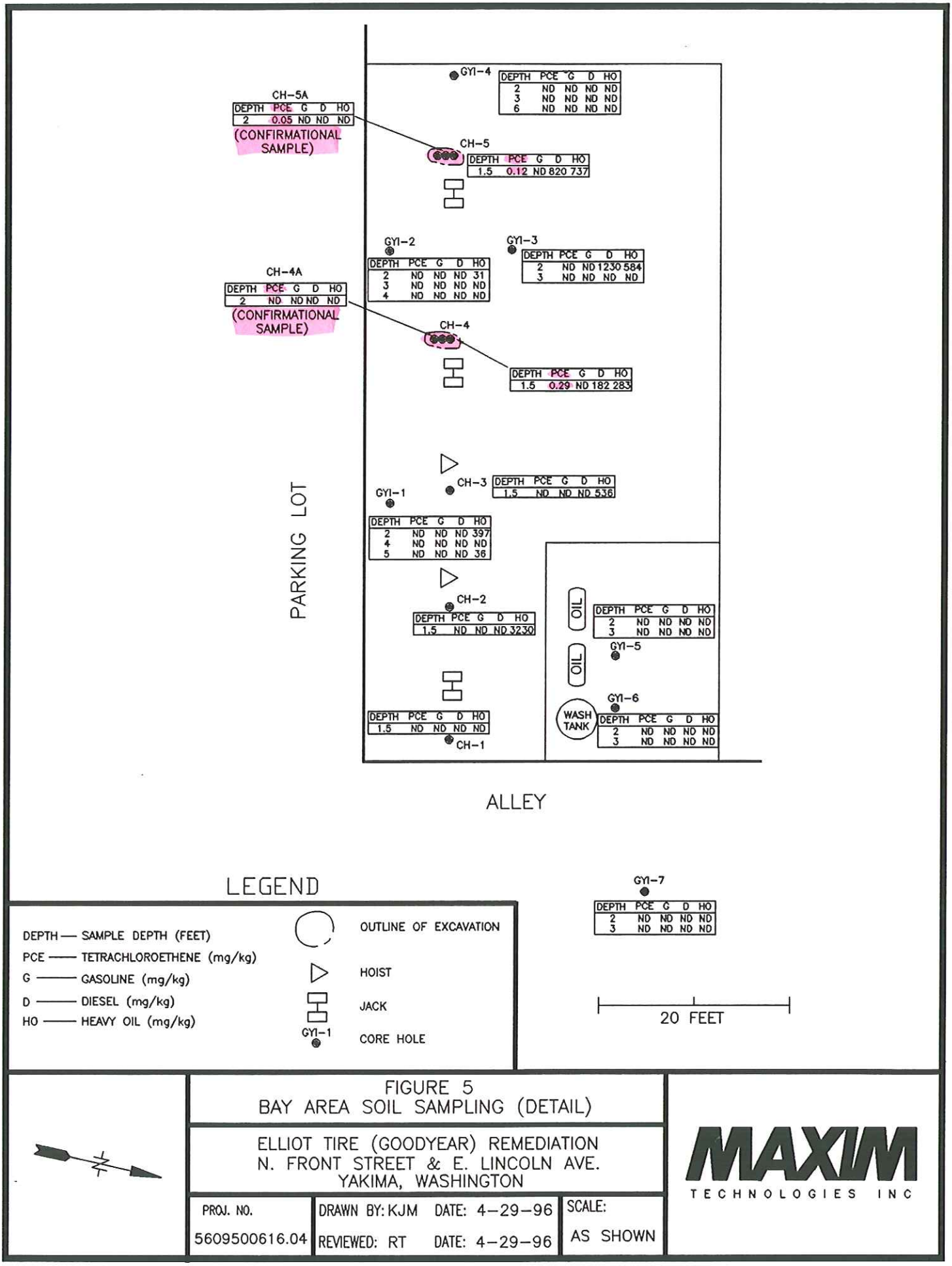

FIGURE 5
BAY AREA SOIL SAMPLING (DETAIL)

ELLIOT TIRE (GOODYEAR) REMEDIATION
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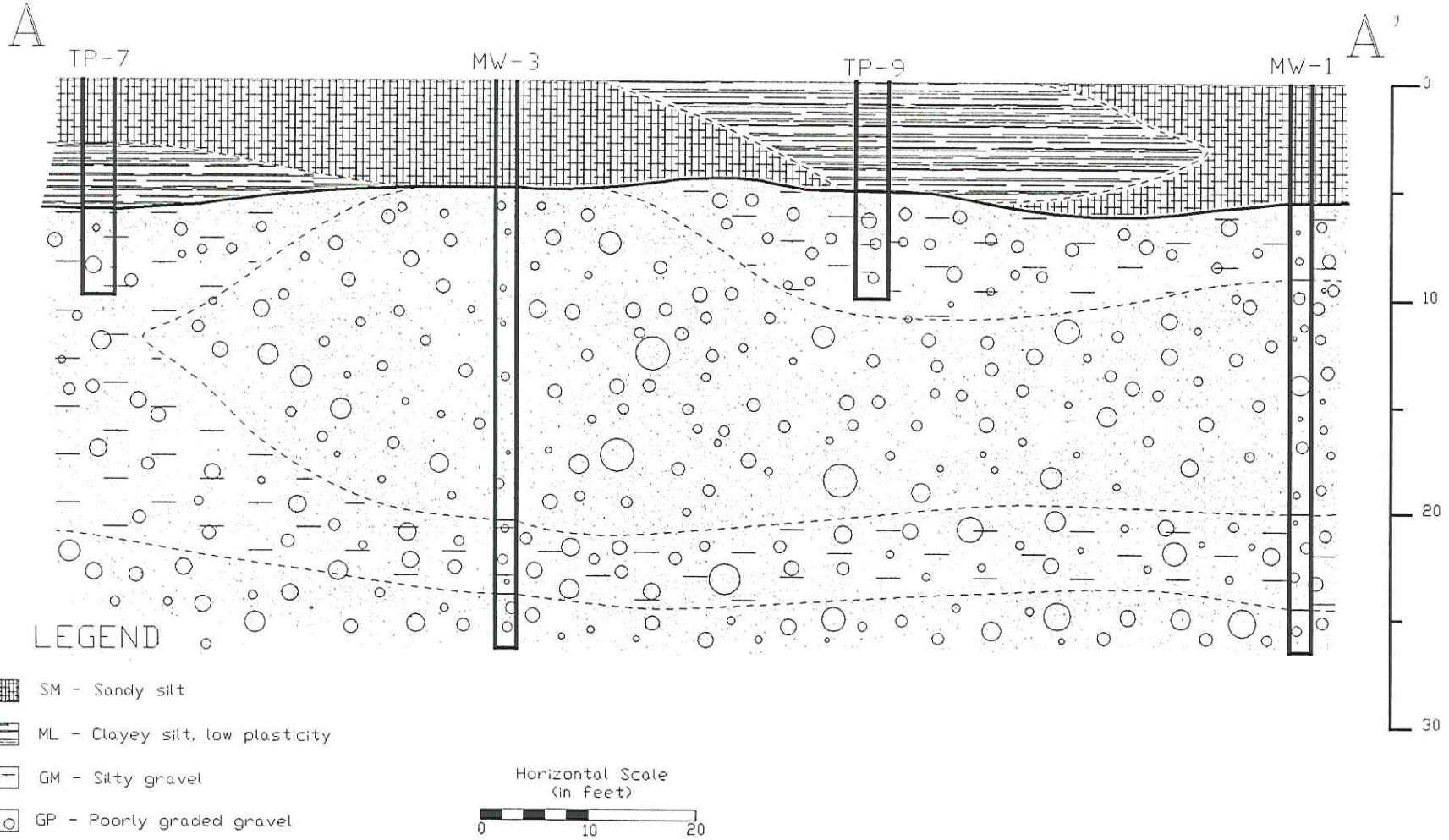

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FIGURE 6
GEOLOGIC CROSS-SECTION

ELLIOT TIRE (GOODYEAR) REMEDIATION
N. FRONT STREET & E. LINCOLN AVE.
YAKIMA, WASHINGTON

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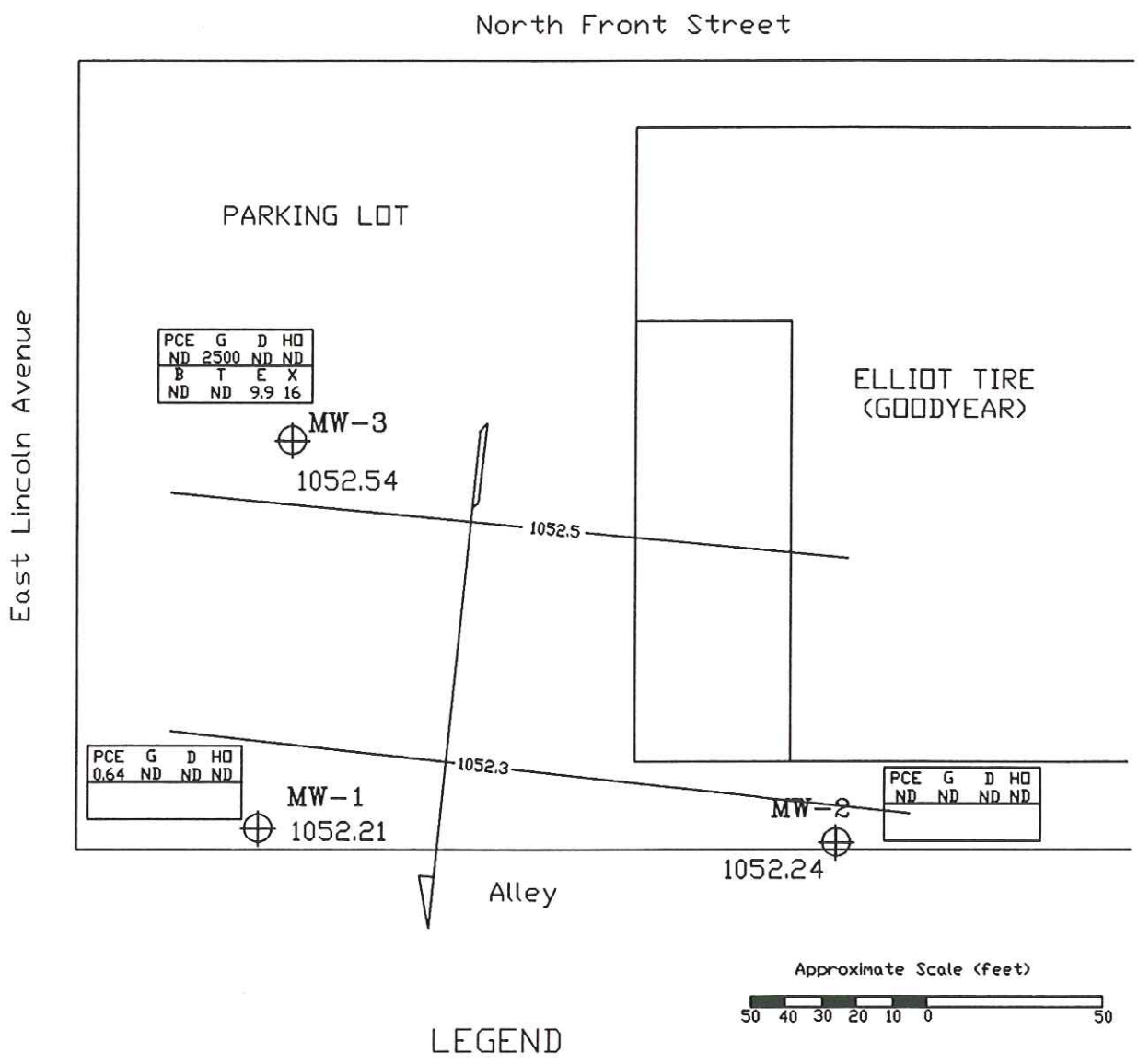

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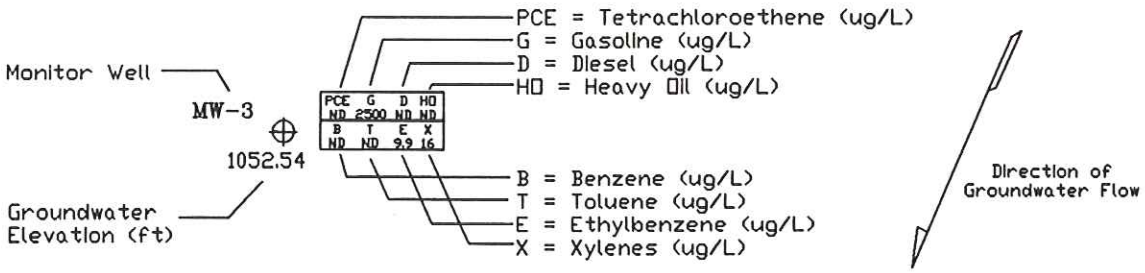

FIGURE 7
GROUNDWATER GRADIENT AND CONTAMINANT CONCENTRATIONS: FEBRUARY 21, 1995

ELLIOT TIRE (GOODYEAR) REMEDIATION
N. FRONT STREET & E. LINCOLN AVE.
YAKIMA, WASHINGTON

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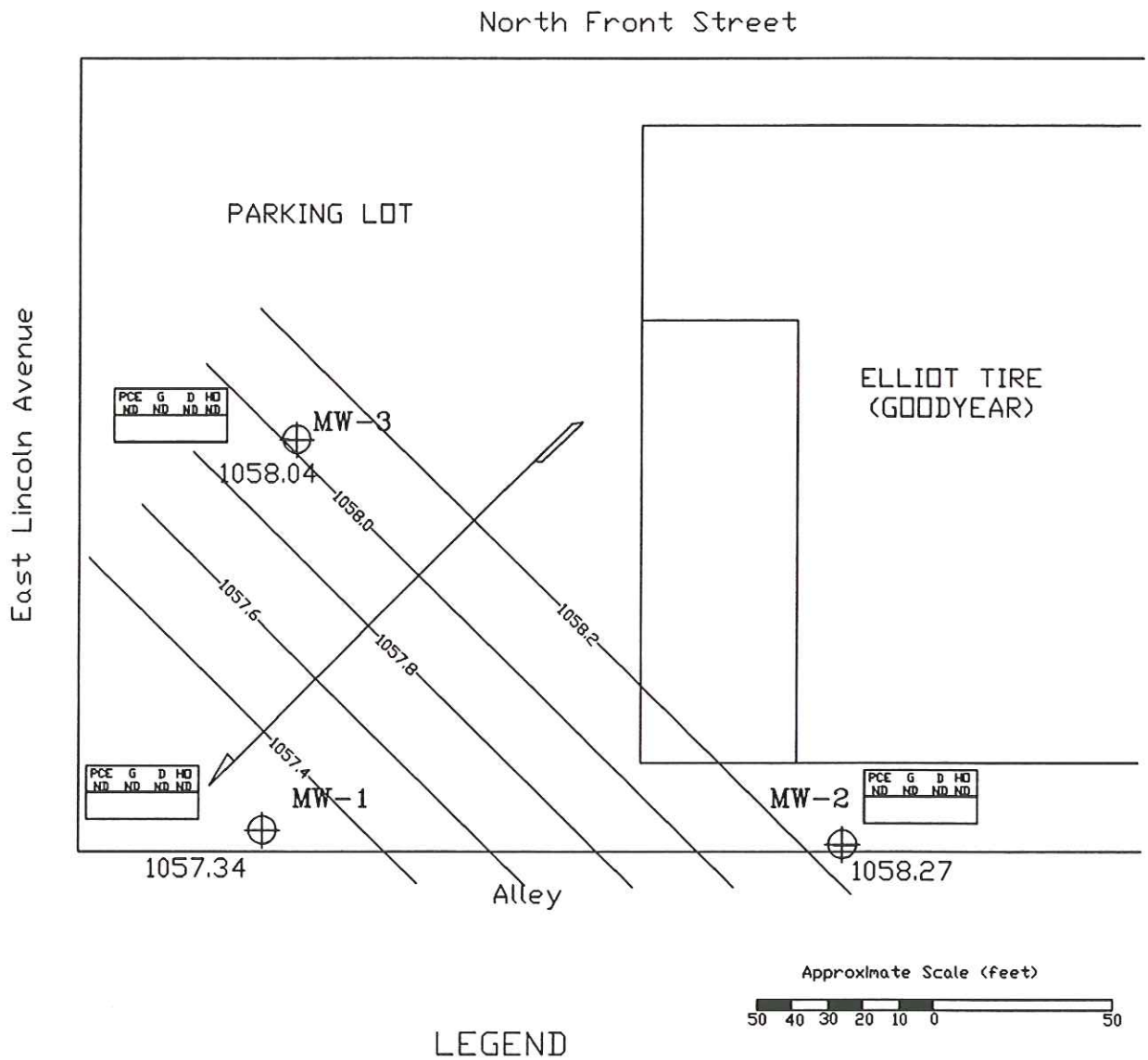

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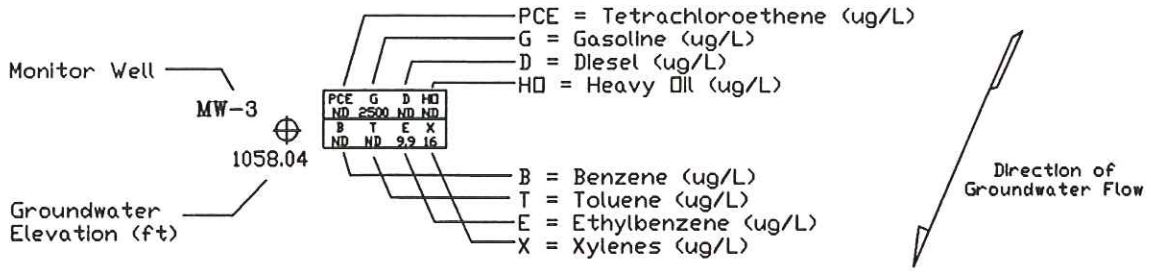

FIGURE 8
GROUNDWATER GRADIENT AND CONTAMINANT CONCENTRATIONS: AUGUST 15, 1995

ELLIOT TIRE (GOODYEAR) REMEDIATION
N. FRONT STREET & E. LINCOLN AVE.
YAKIMA, WASHINGTON

PROJ. NO.	DRAWN BY: KJM	DATE: 4-29-96	SCALE:
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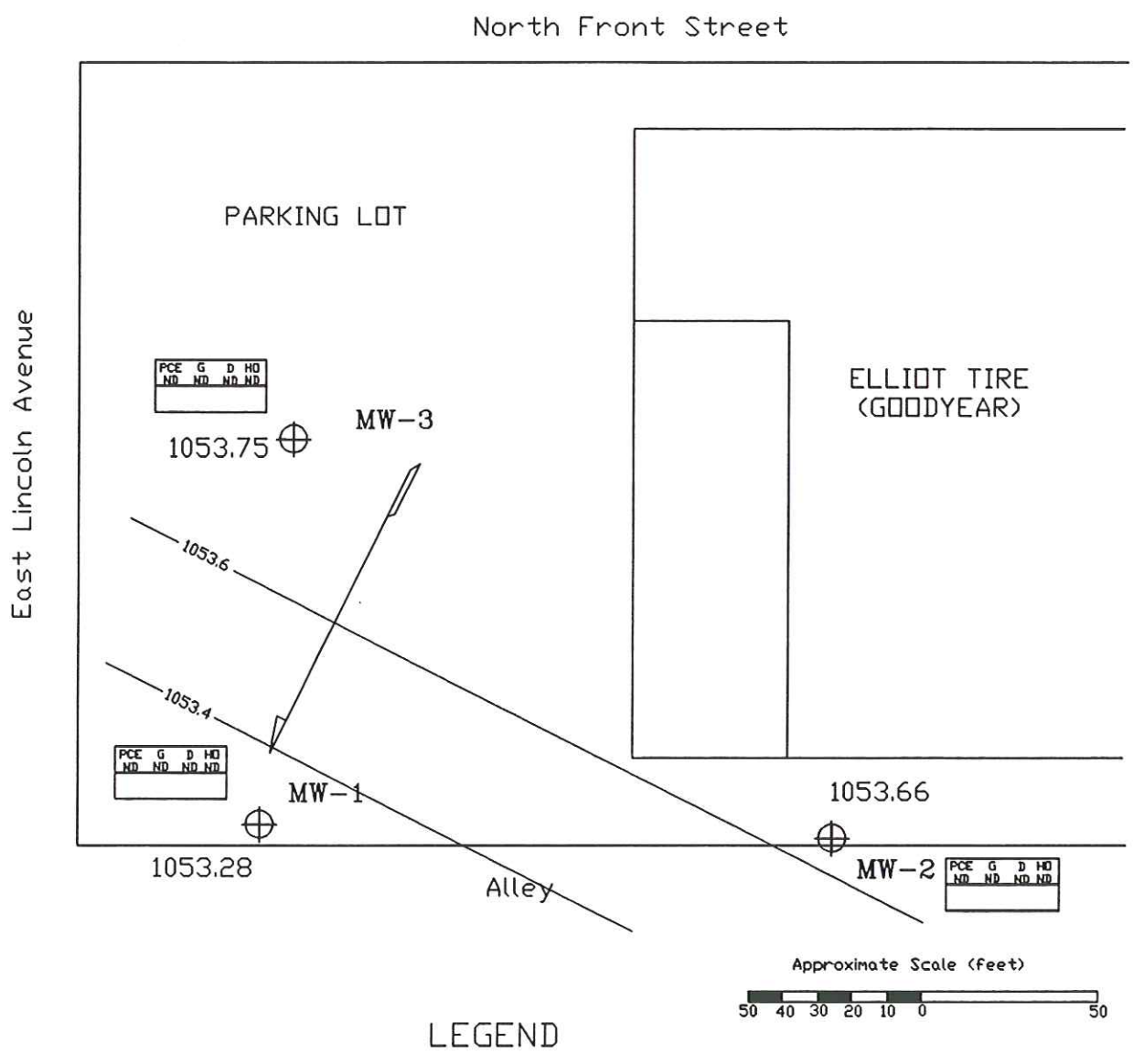

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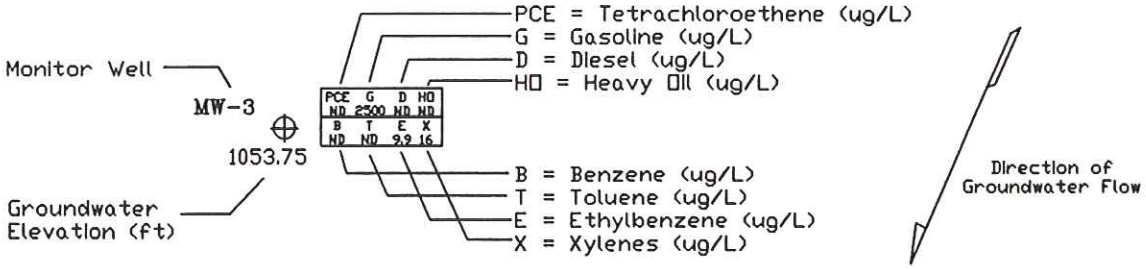

FIGURE 9
GROUNDWATER GRADIENT AND CONTAMINANT CONCENTRATIONS: NOVEMBER 20, 1995

ELLIOT TIRE (GOODYEAR) REMEDIATION
N. FRONT STREET & E. LINCOLN AVE.
YAKIMA, WASHINGTON

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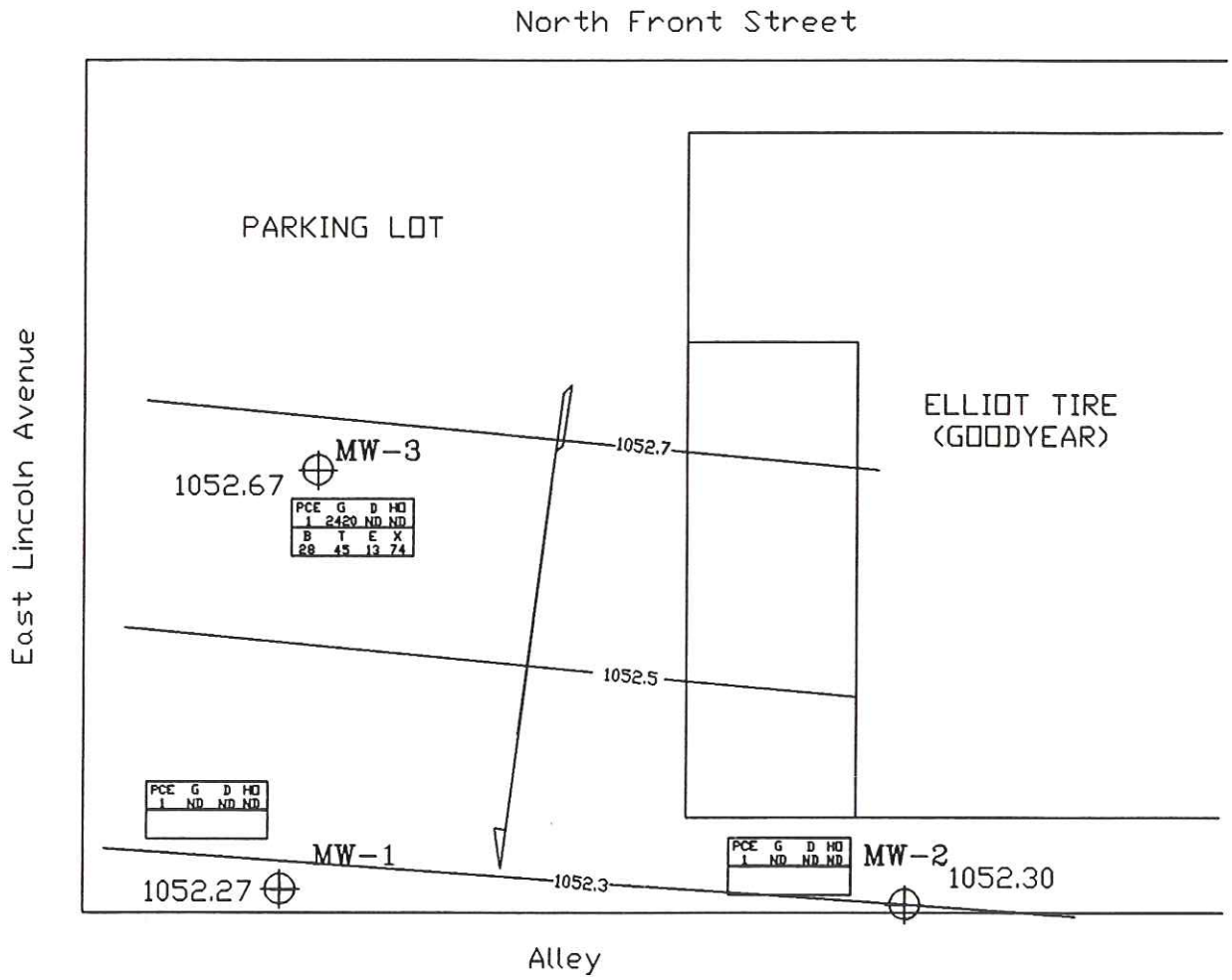

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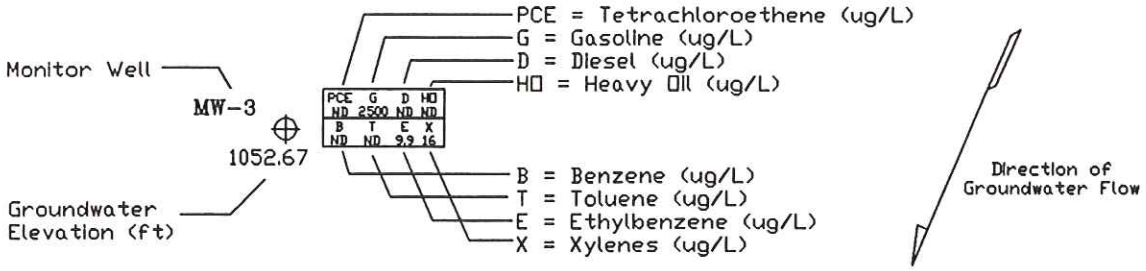

FIGURE 10
GROUNDWATER GRADIENT AND CONTAMINANT CONCENTRATIONS: FEBRUARY 20, 1996

ELLIOT TIRE (GOODYEAR) REMEDIATION
N. FRONT STREET & E. LINCOLN AVE.
YAKIMA, WASHINGTON

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Figure 11.
Groundwater Hydrograph

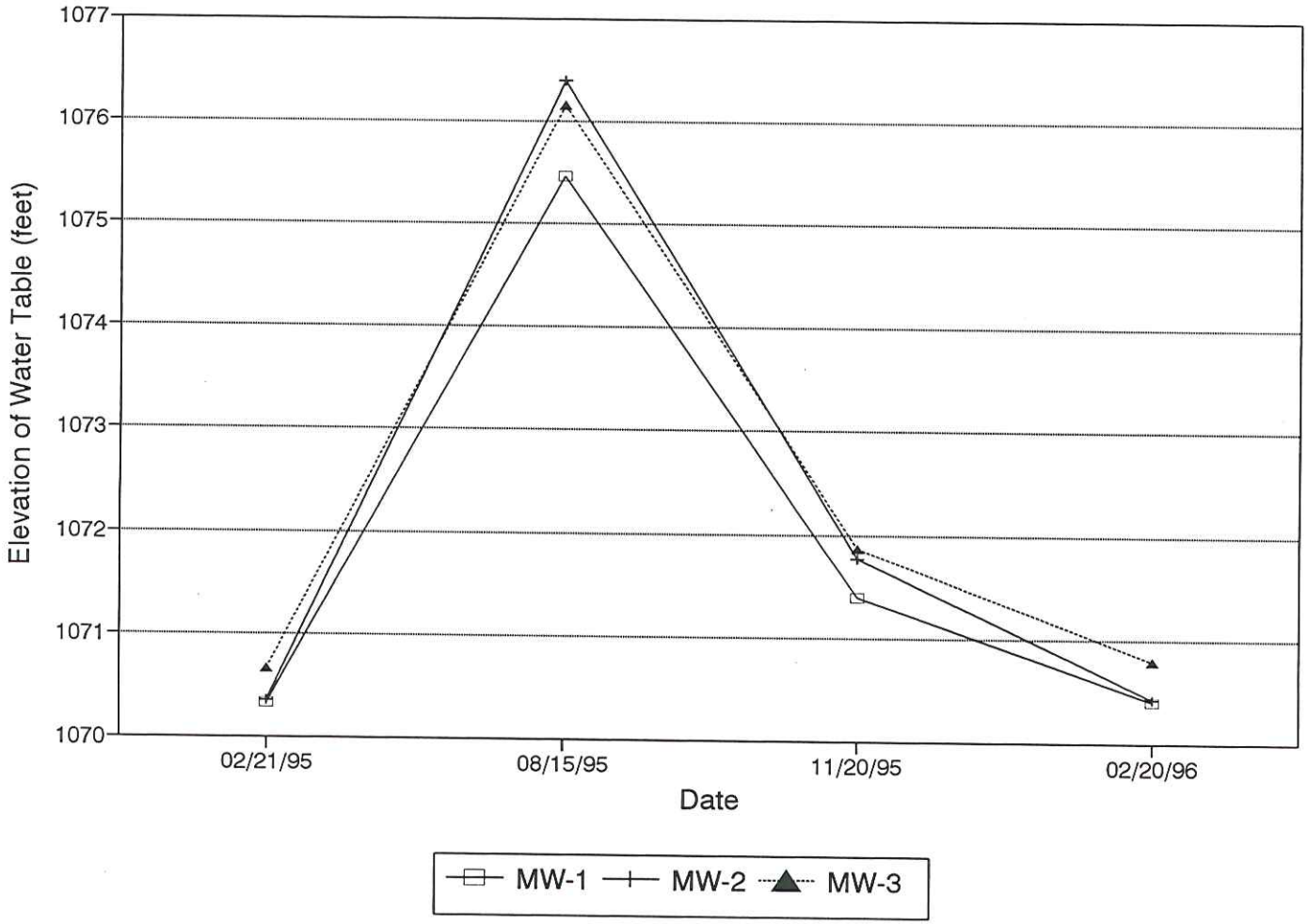

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FIGURE 11
GROUNDWATER HYDROGRAPH

ELLIOT TIRE (GOODYEAR) REMEDIATION
N. FRONT STREET & E. LINCOLN AVE.
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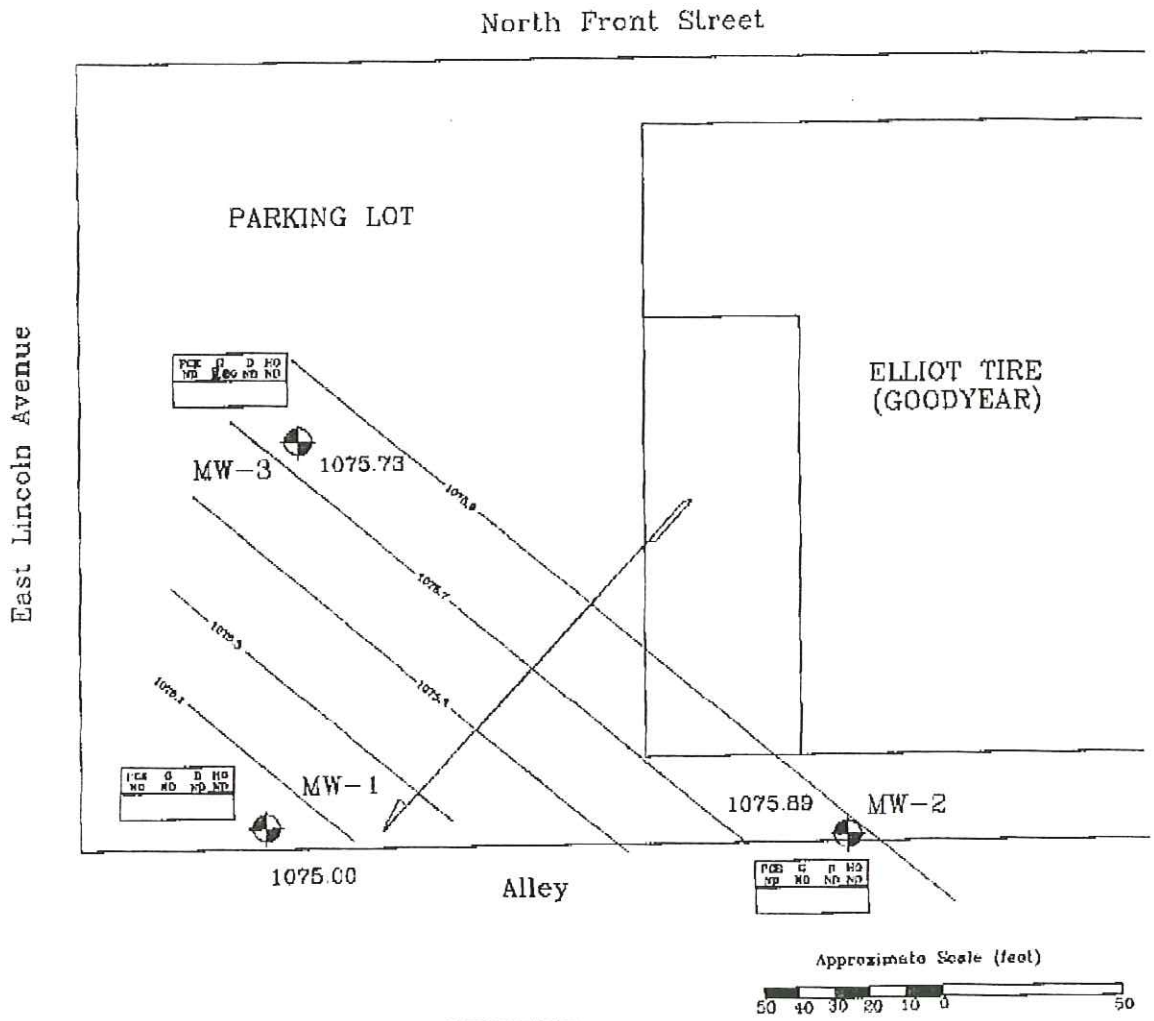

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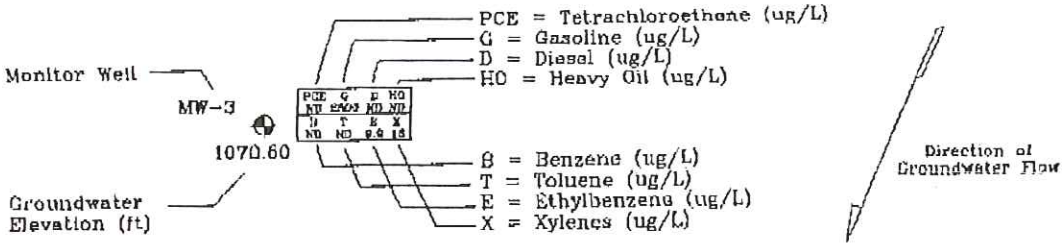

FIGURE 12
GROUNDWATER GRADIENT AND CONTAMINANT CONCENTRATIONS: AUGUST 5, 1996

ELLIOT TIRE (GOODYEAR) REMEDIATION
N. FRONT STREET AND E. LINCOLN AVENUE
YAKIMA, WASHINGTON

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Work Map 8/27/96

TABLES

TABLE 1
ELLIOT TIRE (GOODYEAR) REMEDIATION
Parking Lot Test Pit Soil Analyses Results
(Exterior Samples)

Test Pit No.	Depth (ft)	PCE (mg/kg)	Gasoline (mg/kg)	Diesel (mg/kg)	Heavy Oil (mg/kg)	Date Analyzed
1	3	ND	ND	ND	27	8/18/95
	6	ND	ND	ND	ND	8/18/95
	10	ND	ND	ND	ND	8/21/95
2	4	ND	ND	ND	ND	8/15/95
	8	ND	ND	ND	ND	8/15/95
	10	ND	ND	ND	ND	8/15/95
3	3	ND	ND	ND	ND	8/15/95
	6	ND	ND	ND	ND	8/15/95
	10	ND	ND	ND	ND	8/15/95
4	3	ND	ND	ND	25	8/17/95
	6	ND	ND	ND	21	8/17/95
	10	ND	ND	ND	ND	8/17/95
5	3	ND	ND	ND	33	8/18/95
	6	ND	ND	ND	ND	8/18/95
	10	ND	ND	ND	ND	8/18/95
6	3	ND	ND	ND	ND	8/21/95
	6	ND	ND	ND	ND	8/21/95
	10	ND	ND	ND	ND	8/21/95
7	3	ND	ND	ND	ND	8/15/95
	6	ND	ND	ND	ND	8/15/95
	10	ND	ND	ND	ND	8/15/95
8	3	ND	ND	ND	ND	8/16/95
	6	ND	ND	ND	ND	8/16/95
	10	ND	ND	ND	ND	8/17/95

TABLE 2
ELLIOT TIRE (GOODYEAR) REMEDIATION
Summary of Soil Sample Analyses Results Around the Building
(Exterior Samples)

Test Pit No.	Depth (ft)	PCE (mg/kg)	Gasoline (mg/kg)	Diesel (mg/kg)	Heavy Oil (mg/kg)	Date Analyzed
16	3	ND	ND	ND	ND	8/21/95
17	3	ND	ND	ND	ND	8/21/95
18	3	ND	ND	ND	ND	8/21/95
19	3	ND	ND	ND	ND	8/21/95
20	3	ND	ND	ND	ND	8/21/95
Sump #2	NA	ND	ND	ND	20	8/17/95

TABLE 3
ELLIOT TIRE (GOODYEAR) REMEDIATION
Old Dry Well Soil Samples Analyses Results

Dry Well	Matrix	TCE (mg/kg)	PCE (mg/kg)	Gasoline (mg/kg)	Diesel (mg/kg)	Heavy Oil (mg/kg)	Date Analyzed
Old Dry Well	Sludge	ND	ND	ND	ND	ND	8/16/95
Old Dry Well	Soil	ND	ND	ND	ND	3230	8/28/95
Old Dry Well, North Wall	Soil[1]	ND	ND	ND	ND	ND	9/5/95
Old Dry Well, South Wall	Soil[1]	ND	ND	ND	ND	ND	9/5/95

[1] Confirmational Sample

TABLE 4
ELLIOT TIRE (GOODYEAR) REMEDIATION
New Dry Well Soil Samples Analyses Results

Dry Well	Matrix	PCE (mg/kg)	Gasoline (mg/kg)	Diesel (mg/kg)	Heavy Oil (mg/kg)	Other Constituents (mg/kg)		Date Analyzed
New Dry Well	Sludge	2	ND	ND	277	DCE	43	8/18/95
						Benzene	8	
						TCE	1	
						Toluene	71	
						Ethylbenzene	40	
						Total Xylenes	146	
New Dry Well	Soil	ND	ND	ND	4408	DCE	0.10	8/18/95
						Toluene	0.14	
						Ethylbenzene	0.06	
						Total Xylenes	0.41	
New Dry Well, Base	Soil[1]	ND	ND	ND	ND	ND		9/5/95
New Dry Well, North Wall	Soil[1]	ND	ND	ND	ND	ND		9/5/95

TABLE 5
ELLIOT TIRE (GOODYEAR) REMEDIATION
Bay Area Core Holes Soil Analyses Results
(Interior Samples)

Core Hole No.	Depth (ft)	BTEX (mg/kg)	TCE (mg/kg)	PCE (mg/kg)	Gasoline (mg/kg)	Diesel (mg/kg)	Heavy Oil (mg/kg)	Date
CH-1[1]	1.5	ND[2]	ND	ND	ND	ND	ND	8/28/9
CH-2	1.5	ND	ND	ND	ND	ND	3230	8/28/95
CH-3	1.5	ND	ND	ND	ND	ND	536	8/28/95
CH-4	1.5	ND	ND	0.29	ND	182	283	8/28/95
CH-4A[3]	2	ND	ND	ND	ND	ND	ND	10/3/95
CH-5	1.5	ND	0.08	0.12	ND	820	737	8/28/95
CH-5A[3]	2	ND	ND	0.05	ND	ND	ND	10/3/95
GYI-1[4]	2	ND	ND	ND	ND	ND	397	9/11/95
	4	ND	ND	ND	ND	ND	ND	9/11/95
	5	ND	ND	ND	ND	ND	36	9/11/95
GYI-2	2	ND	ND	ND	ND	ND	31	9/11/95
	3	ND	ND	ND	ND	ND	ND	9/11/95
	4	ND	ND	ND	ND	ND	ND	9/11/95
GYI-3	2	ND	ND	ND	ND	1230	584	9/11/95
	3	ND	ND	ND	ND	ND	ND	9/11/95

TABLE 6
ELLIOT TIRE (GOODYEAR) REMEDIATION
Summary of Water Table Elevations and
Groundwater Sample Analysis Results

Well No.	Elevation of Reference Point (ft)	Depth to Groundwater (ft)	Elevation of Water Table (ft)	PCE (µg/L)	Gasoline (µg/L)	Diesel (µg/L)	Heavy Oil (µg/L)	Date Collected
MW-1	1088.51	18.18	1,070.33	0.64[3]	ND[1]	ND	NR[2]	2/21/95
		13.05	1,075.46	ND[4]	ND	ND	ND	8/15/95
		17.11	1,071.40	ND[4]	ND	ND	ND	11/20/95
		18.12	1,070.39	1[4]	ND	ND	ND	2/20/96
		13.51	1,075.00	ND[4]	ND	ND	ND	8/5/96
MW-2	1089.42	19.06	1,070.36	NR[3]	ND	ND	NR	2/21/95
		13.03	1,076.39	ND[4]	ND	ND	ND	8/15/95
		17.64	1,071.78	ND[4]	ND	ND	ND	11/20/95
		19.0	1,070.42	1[4]	ND	ND	ND	2/20/96
		13.53	1,075.89	ND[4]	ND	ND	ND	8/5/96
MW-3	1087.77	17.11	1,070.66	NR[3]	2500	ND	NR	2/21/95
		11.61	1,076.16	ND[4]	ND	ND	ND	8/15/95
		15.90	1,071.87	ND[4]	ND	ND	ND	11/20/95
		16.98	1,070.79	1[4]	2420	ND	ND	2/20/96
		12.04	1,075.73	ND[4]	200	ND	ND	8/5/96

NOTES: [1] ND = Not Detected
[2] NR = Analysis Not Performed
[3] Analyzed Using EPA Method 8240
[4] Analyzed Using EPA Method 8010/8020

TABLE 7
ELLIOT TIRE (GOODYEAR) REMEDIATION
SUMMARY OF PETROLEUM CONTAMINATION IN MONITORING WELL 3 and GROUNDWATER OF ENVIRONMENTAL ASSOCIATES' SOIL BORING B-1

Boring/Well No.	Date Collected	Benzene[1] (μg/L)	Toluene[2] (μg/L)	Ethylbenzene[3] (μg/L)	Xylenes[4] (μg/L)	Gasoline[5] (μg/L)	Diesel[5] (μg/L)
B-1	12/94	6.3	2.7	14	67	8400	6900
MW-1	8/5/96	ND	ND	ND	ND	ND	ND
MW-2	8/5/96	ND	ND	ND	ND	ND	ND
MW-3	2/22/95	ND[6]	ND	9.9	16	2500	ND
	2/20/96	28	45	13	103	2420	ND
	8/5/96	ND	ND	ND	ND	200	ND

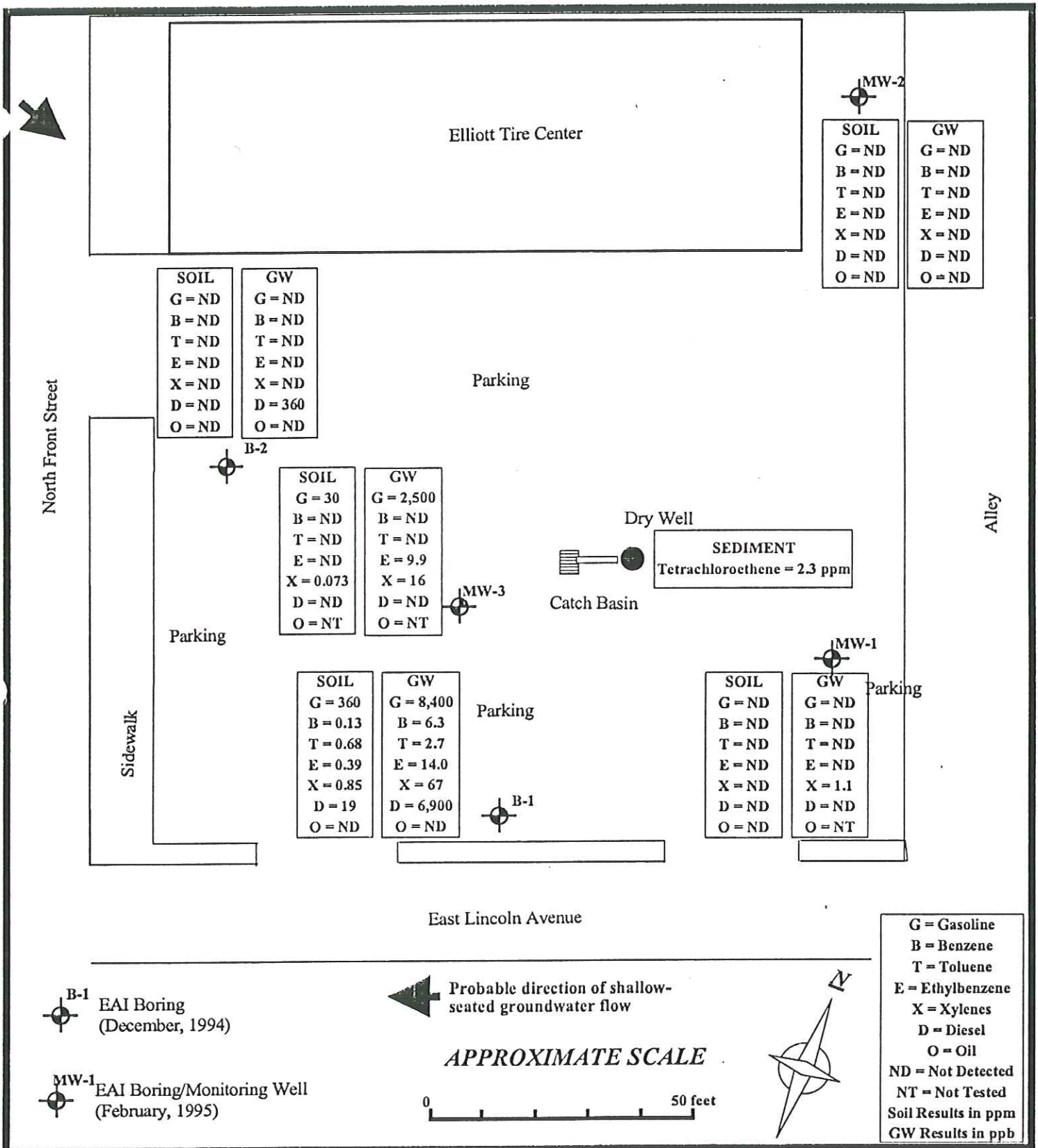
Notes:

[1] MTCA Method A Cleanup Level = 5.0 μg/L.
[2] MTCA Method A Cleanup Level = 40.0 μg/L.
[3] MTCA Method A Cleanup Level = 30.0 μg/L.
[4] MTCA Method A Cleanup Level = 20.0 μg/L.
[5] MTCA Method A Cleanup Level = 1000.0 μg/L for Total Petroleum Hydrocarbons.
[6] ND = Not Detected

APPENDICES

APPENDIX A

PHASE II INVESTIGATION SITE MAP AND WELL LOGS



ENVIRONMENTAL ASSOCIATES, INC.

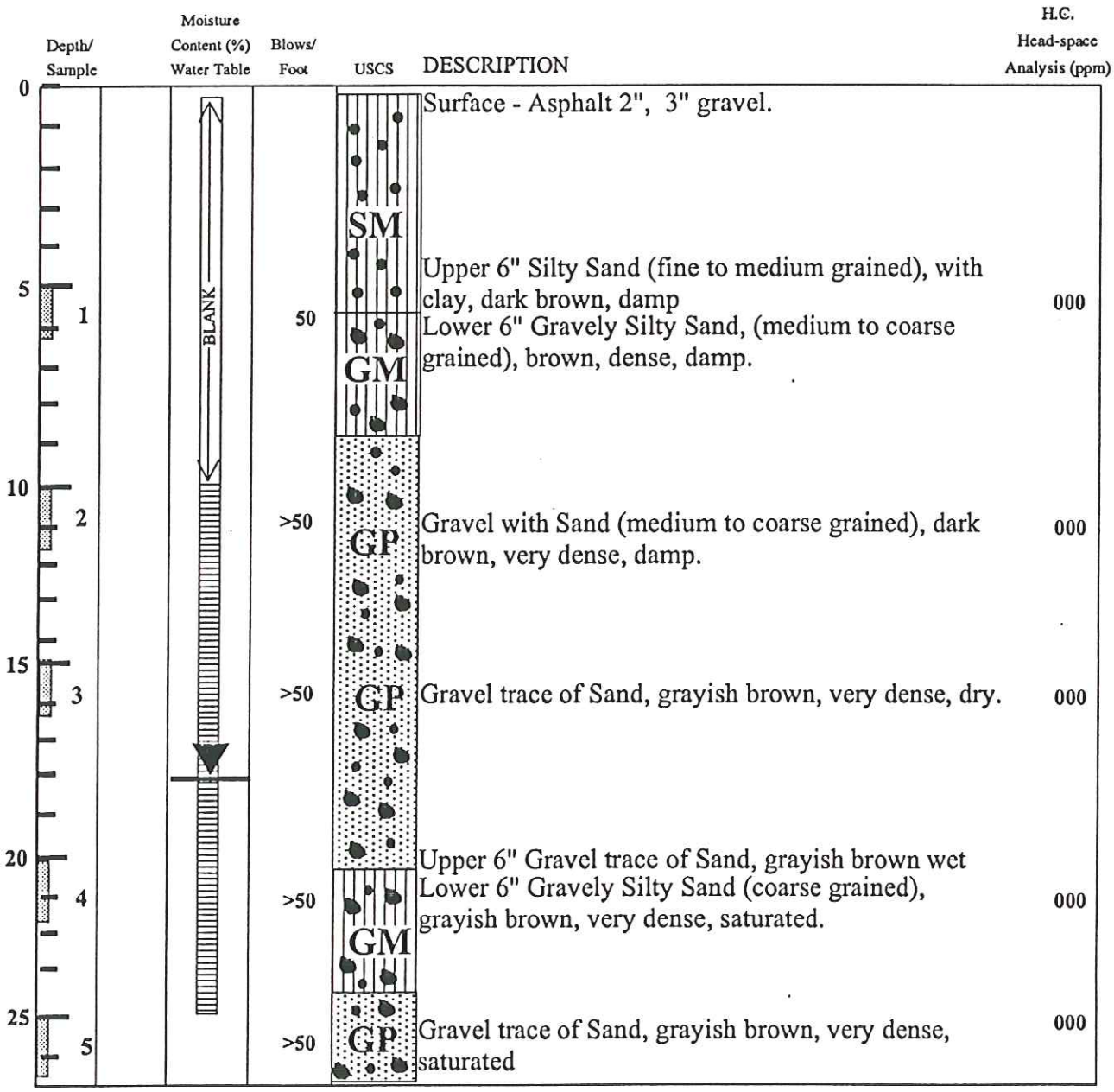
2122 - 112th Avenue N.E., Ste. B-100
Bellevue, Washington 98004

SITE EXPLORATION MAP

Elliott Tire Center
NEC East Lincoln Ave. & North Front Street
Yakima, Washington

Job Number:	Date:		Plate:
JN 4339-2	March 1995		4

MONITORING WELL MW-1



* Boring drilled to 25.0 feet, sampled to 26.5 feet on February 20, 1995.

* Depth to groundwater was measured at 18.18 feet below top of casing (TOC) on February 21, 1995.

* HC headspace analysis measured using Gastec GT 201 Organic Vapor Meter.

* No visual indications of contamination in soil or groundwater.

ENVIRONMENTAL ASSOCIATES, INC.

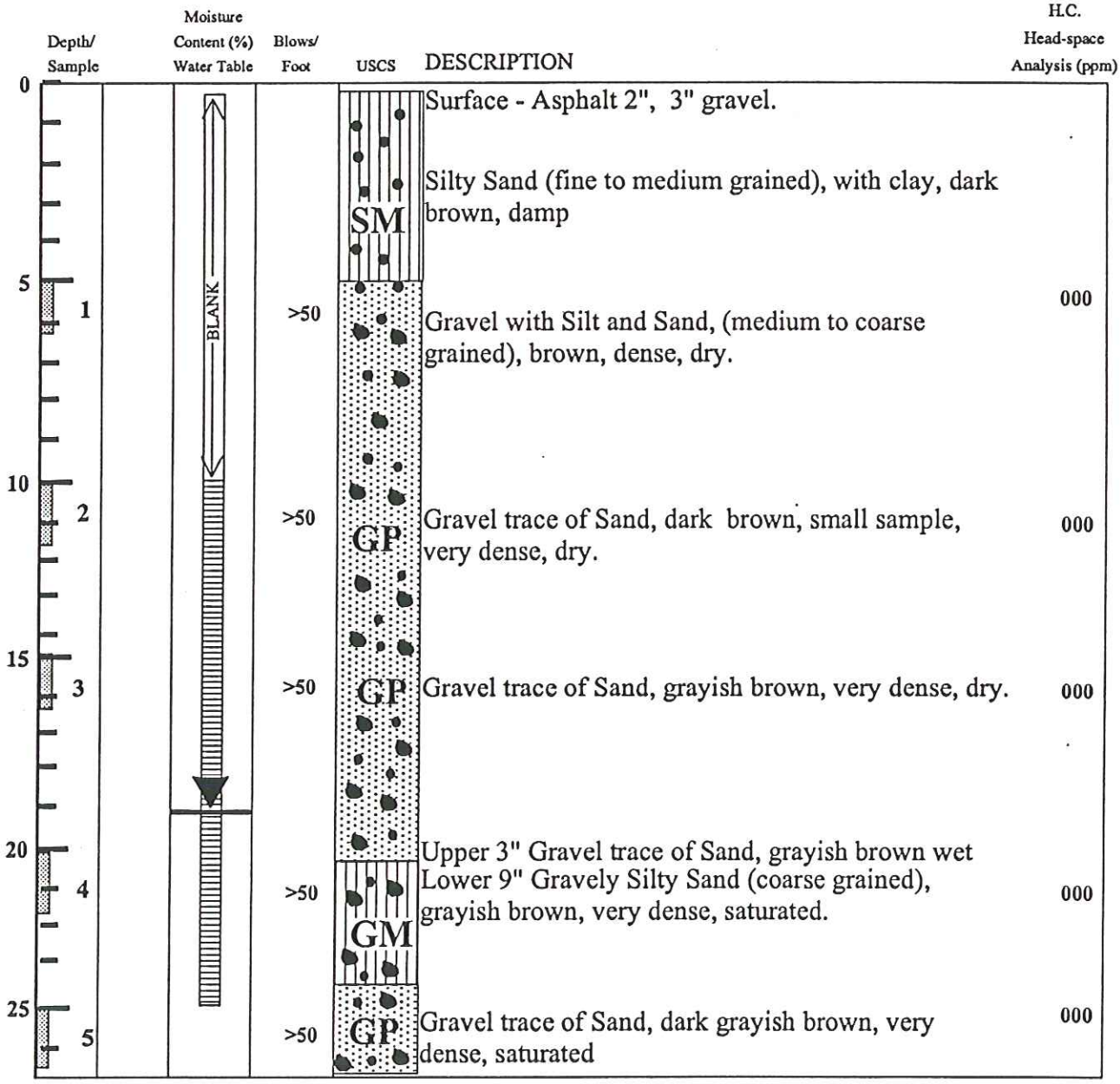
2122 - 112th Avenue N.E., Ste. B-100
Bellevue, Washington 98004

MONITORING WELL LOG

Elliott Tire Center
NEC East Lincoln Ave. & North Front Street
Yakima, Washington

Job Number:	*Date:*	*Logged by:*	*Plate:*
JN 4339-2	March 1995	T.A.J.	5

MONITORING WELL MW-2



* Boring drilled to 25.0 feet, sampled to 26.5 feet on February 20, 1995.
* Depth to groundwater was measured at 19.06 feet below top of casing (TOC) on February 21, 1995.
* HC headspace analysis measured using Gastec GT 201 Organic Vapor Meter.
* No visual indications of contamination in soil or groundwater.

ENVIRONMENTAL ASSOCIATES, INC.

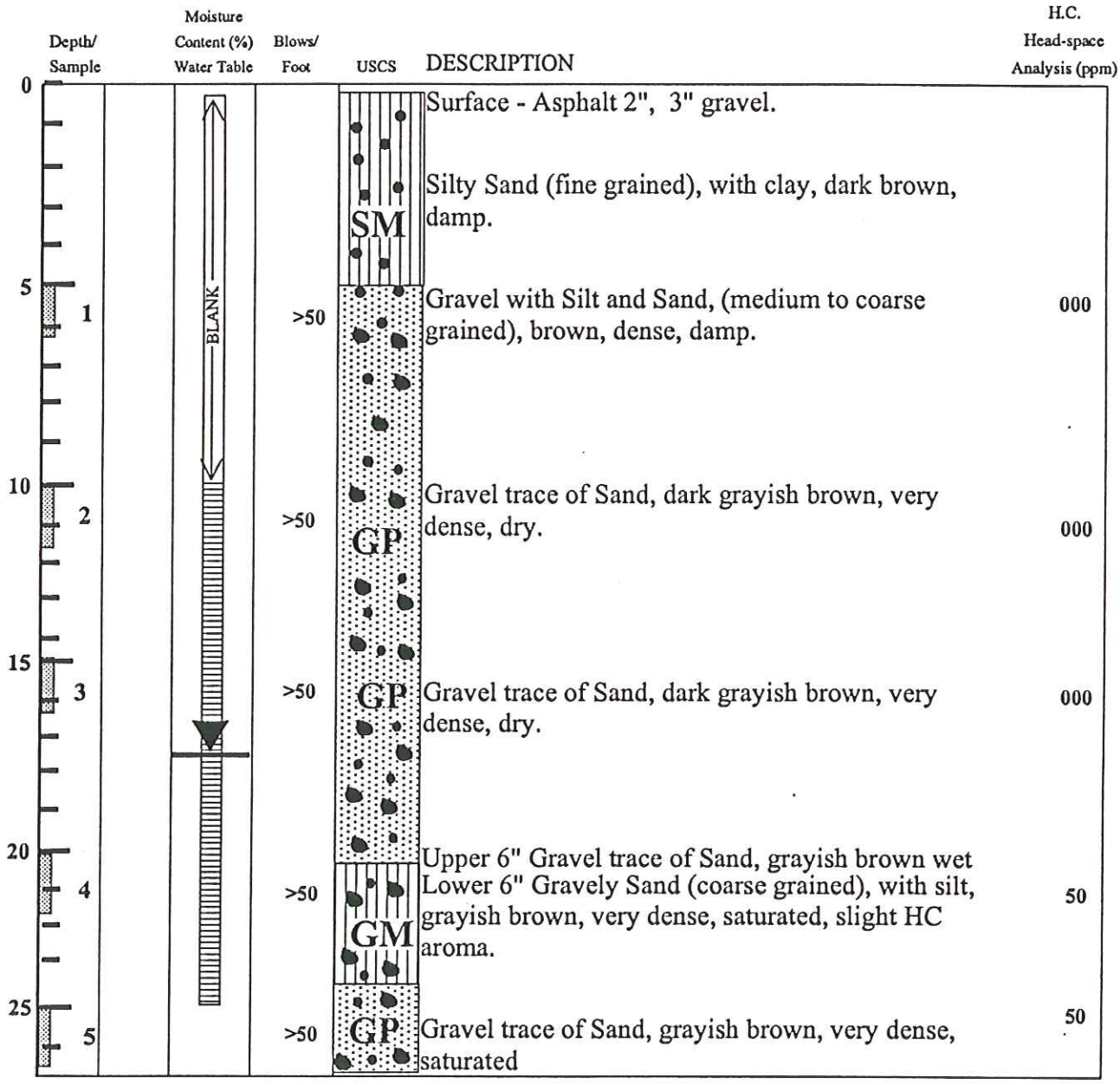
2122 - 112th Avenue N.E., Ste. B-100
Bellevue, Washington 98004

MONITORING WELL LOG

Elliott Tire Center
NEC East Lincoln Ave. & North Front Street
Yakima, Washington

Job Number:	*Date:*	*Logged by:*	*Plate:*
JN 4339-2	March 1995	T.A.J.	6

MONITORING WELL MW-3



* Boring drilled to 25.0 feet, sampled to 26.5 feet on February 21, 1995.

* Depth to groundwater was measured at 17.11 feet below top of casing (TOC) on February 21, 1995.

* HC headspace analysis measured using Gastec GT 201 Organic Vapor Meter.

* No visual indications of contamination in soil or groundwater, slight HC aroma noted in samples #4 and #5.

ENVIRONMENTAL ASSOCIATES, INC.

2122 - 112th Avenue N.E., Ste. B-100
Bellevue, Washington 98004

MONITORING WELL LOG

Elliott Tire Center
NEC East Lincoln Ave. & North Front Street
Yakima, Washington

Job Number:	*Date:*	*Logged by:*	*Plate:*
JN 4339-2	March 1995	T.A.J.	7

APPENDIX B

TEST PIT LOGS

MAXIM TECHNOLOGIES, INC.
LOG OF EXPLORATION TEST PIT

JOB NO: 5609500616 PROJECT NAME: Elliott Tire Center (Goodyear)

STATE: WA COUNTY: Yakima LOGGED BY: Rachel Tauman

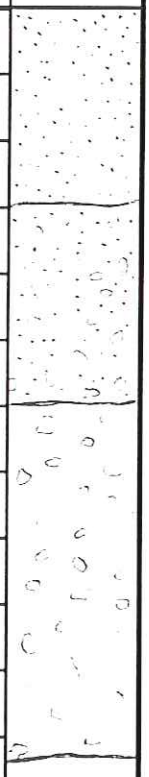
TEST PIT NO: 7 DESCRIPTIVE LOCATION: Parking Lot

DATE STARTED: 8/15/95 DATE COMPLETED: 8/15/95

EXCAVATION COMPANY: Tri Valley Construction, Inc.

TOTAL DEPTH: 10.3 ft

REMARKS:

Depth (ft)	Classification and Description	USCS Symbol	Cross Section
0	Sand: Brown and Orange	SM	
1			
2			
3	70 - 75% Sand, Silt, and Clay Mixture; 25 - 30% Gravel	ML	
4			
5			
6	60 - 70% Gravel; 30 - 40% Sand	GM	
7			
8			
9			
10			
11			
12			
13			
14			

MAXIM TECHNOLOGIES, INC.
LOG OF EXPLORATION TEST PIT

JOB NO: 5609500616 PROJECT NAME: Elliot Tire Center (Goodyear)

STATE: WA COUNTY: Yakima LOGGED BY: Rachel Tauman

TEST PIT NO: 9 DESCRIPTIVE LOCATION: Parking Lot

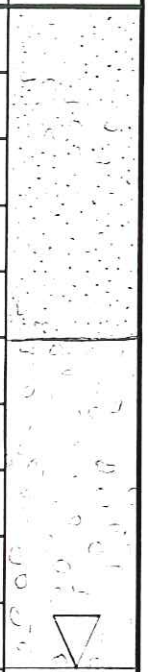
DATE STARTED: 8/17/95 DATE COMPLETED: 8/17/95

EXCAVATION COMPANY: Tri Valley Construction, Inc.

TOTAL DEPTH: 10 ft

REMARKS: Sharp break at 5 feet between the clay and underlying gravel.

This Test Pit intercepted the USTs. The pit was expanded to excavate the USTs. 180 tons of petroleum contaminated soil was removed.

Depth (ft)	Classification and Description	USCS Symbol	Cross Section
0	Clay; Sandy Clay; Silty Clay: Reddish Brown with some Gravel Strings. 95% Clay; 5% Gravel	ML	
1			
2			
3			
4			
5	60% Gravel; 40% Sand and Silt	GM	
6			
7			
8			
9			
10	Groundwater Encountered at 10 ft		
11			
12			
13			
14			

APPENDIX C

RESTRICTIVE COVENANT DOCUMENTS

MAXIM
TECHNOLOGIES INC

April 4, 1996

Mr. Tom Grahn, Attorney
Halverson & Applegate, P.S.
311 North Fourth Street
Yakima WA 98901

RE: Mike Lovering
Restrictive Covenant Elliot Tire Bay Area

Dear Tom:

In accordance with our telephone conversation on February 2, 1996 please find enclosed a map of the Bay Area showing the area underlain with petroleum contaminated soil left in place. In this area institutional controls will be implemented. In accordance with our meeting with Mr. Mark Peterschmidt from the Washington Department of Ecology (Ecology) on November 15, 1995 the institutional controls for this area will include groundwater monitoring. Because the contaminated area is beneath a concrete slab, and is inaccessible to the public, there will be no exposure to the public from this contamination. Therefore, additional institutional controls such as fences and signs will not be necessary for this site.

This covenant notifies future owners that there is approximately 100 cubic yards of petroleum contaminated soil left in place beneath the concrete slab. The areal extent of this contamination is approximately 1300 square ft. The maximum depth of contamination is two (2) ft below the concrete slab. The areal extent, volumes, and depth of contamination calculations are based on numerous soil samples collected in the Bay area. The location of the soil samples, their depth, and the areal extent of petroleum contamination are shown in the enclosed map (Figure 5). As shown on the map, petroleum contamination is the only contamination left beneath the concrete slab. All other contamination previously found has been excavated and removed from the Bay Area. Therefore, upon demolition of the Bay Area, Mike Lovering will be responsible for the excavation and disposal of approximately 100 cubic yards of petroleum contaminated soil.

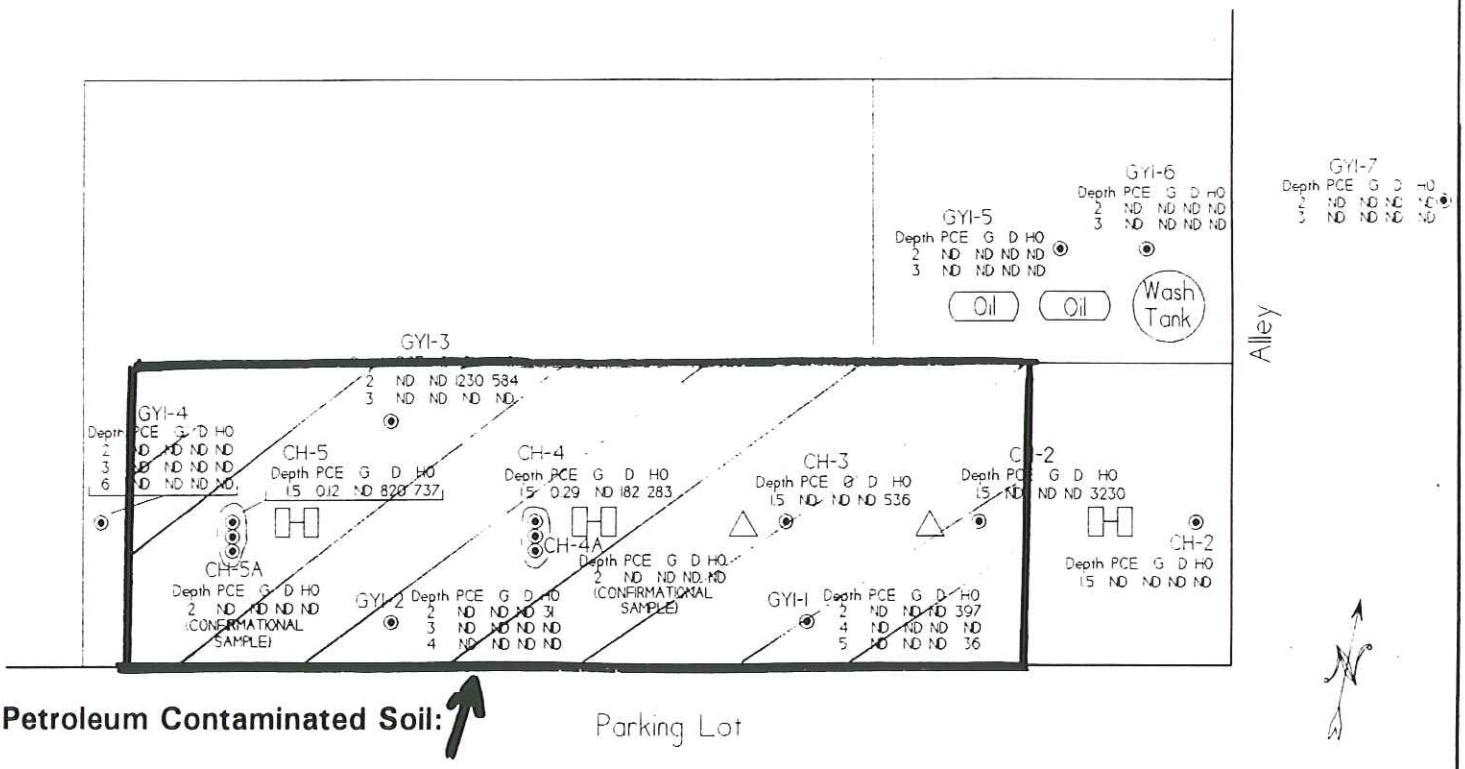
If you have any questions please do not hesitate to call.

Very truly yours,

Rachel Tauman

Rachel Tauman
Yakima Office Manager

P.O.Box 2887 Yakima, WA 98907 (509)577-8592 (509) 577-8520 FAX



Petroleum Contaminated Soil:

Area: **1300.50 feet.**

Maximum depth: **2.0 feet beneath the concrete slab.**

Volume: **≈ 100 cubic yards.**

20 Feet

Depth = Sample Depth (feet)
PCE = Tetrachloroethene (mg/kg)
G = Gasoline (mg.kg)
D = Diesel (mg/kg)
HO = Heavy Oil (mg/kg)

◉ Core Hole

Jack

△ Hoist

Outline of Excavation

Bay Area Detail
Elliot Tire (Goodyear) Remediation
N. Front St. & E. Linclon Ave.
Yakima. WA
Figure 5

RESTRICTIVE COVENANT

The property subject to this Restrictive Covenant ("site" herein) is the subject of an Independent Remedial Action Program ("IRAP" herein) undertaken by Maxim Technologies, Inc. on property known as the Goodyear Tire Center, 1 East Lincoln Avenue, Yakima, Washington, legally described as follows:

> Lots 17-32, inclusive, Block 7, TOWN OF NORTH YAKIMA, now Yakima, Washington, per Plat recorded in Volume E of Plats, page 1, records of Yakima County, Washington.

The remedial action taken to clean up the site is described in the IRAP Report dated August 30, 1996, submitted to the Yakima County Department of Health and the Washington State Department of Ecology ("DOE" herein) at its Yakima, Washington Central Regional Office. The clean up action could not remediate approximately 1,300 square feet of petroleum contamination located up to a depth of two feet below the concrete slab floor of the existing building on the site. As that petroleum contamination does not result in any ground water contamination, however, and as the other potential sources of ground water contamination have been successfully removed from the site, it has been recommended that the under slab contamination be left in place until the existing building and slab are demolished, with remediation to be required at that point in time. The DOE is requesting this Restrictive Covenant to that effect, pursuant to WAC 173-340-440. Accordingly:

The undersigned owners of the site hereby make the following declaration which shall constitute a covenant to run with the land, as provided by law, and which shall be binding on all parties and all persons claiming under them,

LAW OFFICES OF
HALVERSON & APPLEGATE, P.S.
311 North Fourth Street — P. O. Box 22730
YAKIMA, WASHINGTON 98907-2715
Phone 575-6611

including all current and future owners of any portion of or any interest in the site, to-wit:

1. At such time as the improvements and slab on the site are demolished or removed, remediation, pursuant to then applicable standards, of any remaining petroleum contamination located under the slab shall be required.

2. The quarterly ground water monitoring program currently in progress shall be continued for an overall total of eight (8) samplings, and this shall fulfill the institutional control requirements for the site.

3. Corrective measures to prevent accidental spills in the newly installed dry well on the site and under the floors of the improvements on the site should be implemented. Absorbents presently installed and in the dry well should be regularly maintained and replaced to minimize the potential for new releases of contaminants to ground water.

4. The owners of the site shall give written notice to DOE, or to its successor agency, of any intent to convey any interest in the site. No conveyance of title, easement, lease, or other interest in the site shall be consummated by the property owners without adequate and complete provision for continued compliance with this Restrictive Covenant.

5. The owner or any successor owner of the site shall allow authorized representatives of DOE, or any successor agency, the right to enter the site at reasonable times for the purposes of evaluating compliance with the IRAP Report and this Restrictive Covenant, including the right to take samples, inspect any remedial action taken at the site, and to inspect records that are related thereto.

LAW OFFICES OF
HALVERSON & APPLEGATE, P.S.
311 North Fourth Street — P. O. Box 22730
YAKIMA, WASHINGTON 98907-2715
Phone 575-6611

6. The owner and successor owners of the site reserve the right under WAC 173-340-440 to record an instrument which provides that this Restrictive Covenant shall no longer be of any further force or effect. This Restrictive Covenant, however, shall be removed only if DOE, after public notice and opportunity for comment, concurs.

DATED this _____ day of _____, 1996.

_____
Pleas J. Green

_____
Paula J. Green

STATE OF WASHINGTON)
) ss:
County of _____)

On this day personally appeared before me PLEAS J. GREEN and PAULA J. GREEN, husband and wife, to me known to be the individuals described in and who executed the within and foregoing instrument, and acknowledged that they signed the same as their free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this _____ day of _____, 1996.

_____
NOTARY PUBLIC in and for the
State of Washington,
Residing at _____
My commission expires: _____

tbg\lovering\restric.co2
082896 tbg:pb

LAW OFFICES OF
HALVERSON & APPLEGATE, P.S.
311 North Fourth Street — P. O. Box 22730
YAKIMA, WASHINGTON 98907-2715
Phone 575-6611

APPENDIX D

CONTAMINATED SOIL DISPOSAL DOCUMENTS

ANDERSON
Rock & Demolition Pits
Petroleum Contaminated Soils Site

41 Rocky Top Road
Yakima, WA 98908

Bus. (509) 965-3621
Fax (509) 965-8656

Invoice

No. 3033

Please pay from invoice. No statement will be issued unless requested.

Terms: Net 10 days -- 1-1/2% per month on balance 30 days past due from date of invoice. $1.00 minimum.

TO: Russell Crane Ser.
595 Locust Ave
Yakima WA 98901

DATE 9-7-95

DATE	QUANTITY	DESCRIPTION	LOAD TICKET #	UNIT PRICE	TOTAL
8/16-8/17	- 179.64	Tons Petroleum Cont. Soil	4990		
			4993	$20.00	3,592.80
8/16-8/17	- 6 Yr Dmp	Teka Rup - Hauling		$70.00	455.00
9-5-95	1	Lump Asphalt Dump	5146	$50.00	50.00
9/5-9/6	- 308.22	Tons Petroleum Cont. Soil	5147		6,164.40
			5155		
					10,262.20
	From -				
	Goodyear Site				
	Front + Lincoln				
		ENTERED 9-5 SJ			
		BILLED		XX	10,262.20

Thank You!

ABBOTT'S PRINTING

Aug 29, 1996

Backfill for site

Greg Hoylae from Tri-Valley construction stated that the backfill for the Lovering site was bought from Central Pre-Mix (575 Tons).

Rachel Taeuber
8/29/96

***FOR 24 HOUR EMERGENCY RESPONSE INFORMATION, CALL (206) 872-7859 ***
(19720) 57189 04/12/96

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB no. 2050-0039. Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. WAD139392211 | Manifest Document No. 21296 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Goodyear Tire
N. Front & E. Lincoln
4. Generator's Phone Yakima, WA 98901 (509)575-6111

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: Burlington Environmental, Inc. | 6. US EPA ID Number: WAD000001743

C. State Transporter's ID

D. Transporter's Phone (206)883-3064

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
Burlington Environmental, Inc.
734 South Lucile Street
Seattle , WA 98108 | 10. US EPA ID Number: WAD000812909

G. State Facility's ID

H. Facility's Phone (206)767-3362

	11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	Hazardous waste, liquid, n.o.s. (Tetrachloroethylene) 9 NA9189 PGIII ERG#31	3	DM		G	
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
a) RQ 91972-09 - Non Sludge with tetrachloroethylene sub-parcel

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

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: F.M. MIKE LOVERING | Signature | Month 4 | Day 12 | Year 96

GENERATOR

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

TRANSPORTER

19. Discrepancy Indication Space

FACILITY

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

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

APPENDIX E

LABORATORY REPORTS OF GROUNDWATER SAMPLES AND SAMPLING FIELD FORMS

Maxim
600 South 25th Street
P O Box 30615
Billings, MT 59107
(406) 248-9161
FAX (406) 248-9282

TECHNICAL REPORT

REPORT TO: ATTN: RACHEL TAUMAN
MAXIM TECHNOLOGIES, INC.
P O BOX 2887
YAKIMA WA 98907

DATE: August 20, 1996
JOB NUMBER: 95-932
SHEET: 1 of 8
INVOICE NO.: 036042

REPORT OF: Water Analysis - Lovering - 616.04

SAMPLE IDENTIFICATION:

On August 7, 1996, these water samples (laboratory numbers 177412 through 177415) were received in our laboratory for analysis. Tests were conducted in accordance with SW-846 *"Test Methods for Evaluating Solid Waste,"* 3rd Edition, updates I, II, IIA, IIB; and State of Washington methods WTPH-G and WTPH-D.

The condition of the samples upon receipt at the laboratory is noted on the attached sample receipt checklist. Chain of custody documentation is enclosed. Chromatograms are attached for your reference.

The test results are shown on the following pages.

A < sign indicates the value reported was the practical quantitation limit for this sample using the method described. Concentrations of analyte, if present, below this were not quantifiable.

Reviewed by _____

Attachments: Sample Receipt Checklist
Chain of Custody
Chromatograms

ba

Client Name: MAXIM - Yakima
Project No.: 95-932
Laboratory No.: 177412
Sample Name: MW-1
Sample Date: 08/05/96
Collected by: RODNEY L. HEIT
Time Sampled: 1238
Sample Type: WATER

PARAMETER	MEASURED VALUE		METHOD NUMBER	DATE ANALYZED
EPA METHOD 8020				
Data File Number-BETX	0809961017			
Benzene as rec'd	<1	ug/l	8260	08/09/96
Ethylbenzene as rec'd	<1	ug/l	8260	08/09/96
Toluene as rec'd	<1	ug/l	8260	08/09/96
Total Xylenes as rec'd	<1	ug/l	8260	08/09/96
HALOGENATED VOLATILE ORGANICS				
Data File Number-Volatiles	0809961017			
Bromobenzene	<1	ug/l	8260	08/09/96
Bromodichloromethane	<1	ug/l	8260	08/09/96
Bromoform	<1	ug/l	8260	08/09/96
Bromomethane	<1	ug/l	8260	08/09/96
Carbon Tetrachloride	<1	ug/l	8260	08/09/96
Chlorobenzene	<1	ug/l	8260	08/09/96
Chloroethane	<1	ug/l	8260	08/09/96
Chloroform	1	ug/l	8260	08/09/96
Chloromethane (Methyl chloride)	<1	ug/l	8260	08/09/96
Dibromochloromethane	<1	ug/l	8260	08/09/96
Dibromomethane	<1	ug/l	8260	08/09/96
Dichlorodifluoromethane	<1	ug/l	8260	08/09/96
1,2-Dichlorobenzene	<1	ug/l	8260	08/09/96
1,3-Dichlorobenzene	<1	ug/l	8260	08/09/96
1,4-Dichlorobenzene	<1	ug/l	8260	08/09/96
1,1-Dichloroethane	<1	ug/l	8260	08/09/96
1,2-Dichloroethane	<1	ug/l	8260	08/09/96
1,1-Dichloroethene	<1	ug/l	8260	08/09/96
c-1,2-Dichloroethene	<1	ug/l	8260	08/09/96
t-1,2-Dichloroethene	<1	ug/l	8260	08/09/96
1,2-Dichloropropane	<1	ug/l	8260	08/09/96
c-1,3-Dichloropropene	<1	ug/l	8260	08/09/96
t-1,3-Dichloropropene	<1	ug/l	8260	08/09/96
Methylene chloride	<5	ug/l	8260	08/09/96
1,1,1,2-Tetrachloroethane	<1	ug/l	8260	08/09/96
1,1,2,2-Tetrachloroethane	<1	ug/l	8260	08/09/96
Tetrachloroethene	<1	ug/l	8260	08/09/96
1,1,1-Trichloroethane	<1	ug/l	8260	08/09/96
1,1,2-Trichloroethane	<1	ug/l	8260	08/09/96
Trichloroethene	<1	ug/l	8260	08/09/96
Trichlorofluoromethane	<1	ug/l	8260	08/09/96
1,2,3-Trichloropropane	<1	ug/l	8260	08/09/96
Vinyl Chloride	<1	ug/l	8260	08/09/96

Client Name: MAXIM - Yakima
Project No.: 95-932
Laboratory No.: 177412
Sample Name: MW-1
Sample Date: 08/05/96
Collected by: RODNEY L. HEIT
Time Sampled: 1238
Sample Type: WATER

PARAMETER	MEASURED VALUE		METHOD NUMBER	DATE ANALYZED
2-Chloroethyl vinyl ether	<10	ug/l	8260	08/09/96
1,2-Dichloroethane-d4 (Surrogate)	111	%	8260	08/09/96
Toluene-d8 (Surrogate)	103	%	8260	08/09/96
4-Bromofluorobenzene (Surrogate)	99	%	8260	08/09/96
TOTAL EXTRACTABLE HYDROCARBONS (DRO)				
Data File Number-TPH Extractable	81696058			
Extraction Date-TPH Extractable	8/12/96			
Total Extractable Hydrocarbons	<0.5	mg/l	DRO/8015	08/16/96
Diesel Range Organics	<0.3	mg/l	DRO	08/16/96
Diesel Range Organics as Diesel	<0.3	mg/l	DRO	08/16/96
TOTAL PURGEABLE HYDROCARBONS				
Data File Number-TPH Purgeable	fa703			
Total Purgeable Hydrocarbons	<0.2	mg/l	GRO/8015	08/15/96
Gasoline Range Organics	<0.2	mg/l	GRO	08/15/96
Gasoline Range Organics as Gasoline	<0.2	mg/l	GRO	08/15/96

Client Name: MAXIM - Yakima
Project No.: 95-932
Laboratory No.: 177413
Sample Name: MW-2
Sample Date: 08/05/96
Collected by: RODNEY L. HEIT
Time Sampled: 1330
Sample Type: WATER

PARAMETER	MEASURED VALUE		METHOD NUMBER	DATE ANALYZED
EPA METHOD 8020				
Data File Number-BETX	0809961015			
Benzene as rec'd	<1	ug/l	8260	08/09/96
Ethylbenzene as rec'd	<1	ug/l	8260	08/09/96
Toluene as rec'd	<1	ug/l	8260	08/09/96
Total Xylenes as rec'd	<1	ug/l	8260	08/09/96
HALOGENATED VOLATILE ORGANICS				
Data File Number-Volatiles	0809961015			
Bromobenzene	<1	ug/l	8260	08/09/96
Bromodichloromethane	<1	ug/l	8260	08/09/96
Bromoform	<1	ug/l	8260	08/09/96
Bromomethane	<1	ug/l	8260	08/09/96
Carbon Tetrachloride	<1	ug/l	8260	08/09/96
Chlorobenzene	<1	ug/l	8260	08/09/96
Chloroethane	<1	ug/l	8260	08/09/96
Chloroform	1	ug/l	8260	08/09/96
Chloromethane (Methyl chloride)	<1	ug/l	8260	08/09/96
Dibromochloromethane	<1	ug/l	8260	08/09/96
Dibromomethane	<1	ug/l	8260	08/09/96
Dichlorodifluoromethane	<1	ug/l	8260	08/09/96
1,2-Dichlorobenzene	<1	ug/l	8260	08/09/96
1,3-Dichlorobenzene	<1	ug/l	8260	08/09/96
1,4-Dichlorobenzene	<1	ug/l	8260	08/09/96
1,1-Dichloroethane	<1	ug/l	8260	08/09/96
1,2-Dichloroethane	<1	ug/l	8260	08/09/96
1,1-Dichloroethene	<1	ug/l	8260	08/09/96
c-1,2-Dichloroethene	<1	ug/l	8260	08/09/96
t-1,2-Dichloroethene	<1	ug/l	8260	08/09/96
1,2-Dichloropropane	<1	ug/l	8260	08/09/96
c-1,3-Dichloropropene	<1	ug/l	8260	08/09/96
t-1,3-Dichloropropene	<1	ug/l	8260	08/09/96
Methylene chloride	<5	ug/l	8260	08/09/96
1,1,1,2-Tetrachloroethane	<1	ug/l	8260	08/09/96
1,1,2,2-Tetrachloroethane	<1	ug/l	8260	08/09/96
Tetrachloroethene	<1	ug/l	8260	08/09/96
1,1,1-Trichloroethane	<1	ug/l	8260	08/09/96
1,1,2-Trichloroethane	<1	ug/l	8260	08/09/96
Trichloroethene	<1	ug/l	8260	08/09/96
Trichlorofluoromethane	<1	ug/l	8260	08/09/96
1,2,3-Trichloropropane	<1	ug/l	8260	08/09/96
Vinyl Chloride	<1	ug/l	8260	08/09/96

Client Name: MAXIM - Yakima
Project No.: 95-932
Laboratory No.: 177413
Sample Name: MW-2
Sample Date: 08/05/96
Collected by: RODNEY L. HEIT
Time Sampled: 1330
Sample Type: WATER

PARAMETER	MEASURED VALUE		METHOD NUMBER	DATE ANALYZED
2-Chloroethyl vinyl ether	<10	ug/l	8260	08/09/96
1,2-Dichloroethane-d4 (Surrogate)	99	%	8260	08/09/96
Toluene-d8 (Surrogate)	101	%	8260	08/09/96
4-Bromofluorobenzene (Surrogate)	97	%	8260	08/09/96
TOTAL EXTRACTABLE HYDROCARBONS (DRO)				
Data File Number-TPH Extractable	81696059			
Extraction Date-TPH Extractable	8/12/96			
Total Extractable Hydrocarbons	<0.5	mg/l	DRO/8015	08/16/96
Diesel Range Organics	<0.3	mg/l	DRO	08/16/96
Diesel Range Organics as Diesel	<0.3	mg/l	DRO	08/16/96
TOTAL PURGEABLE HYDROCARBONS				
Data File Number-TPH Purgeable	fa704			
Total Purgeable Hydrocarbons	<0.2	mg/l	GRO/8015	08/15/96
Gasoline Range Organics	<0.2	mg/l	GRO	08/15/96
Gasoline Range Organics as Gasoline	<0.2	mg/l	GRO	08/15/96

Client Name: MAXIM - Yakima
Project No.: 95-932
Laboratory No.: 177414
Sample Name: MW-3
Sample Date: 08/05/96
Collected by: RODNEY L. HEIT
Time Sampled: 1420
Sample Type: WATER

PARAMETER	MEASURED VALUE		METHOD NUMBER	DATE ANALYZED
EPA METHOD 8020				
Data File Number-BETX	0809961016			
Benzene as rec'd	<1	ug/l	8260	08/09/96
Ethylbenzene as rec'd	<1	ug/l	8260	08/09/96
Toluene as rec'd	<1	ug/l	8260	08/09/96
Total Xylenes as rec'd	<1	ug/l	8260	08/09/96
HALOGENATED VOLATILE ORGANICS				
Data File Number-Volatiles	0809961016			
Bromobenzene	<1	ug/l	8260	08/09/96
Bromodichloromethane	<1	ug/l	8260	08/09/96
Bromoform	<1	ug/l	8260	08/09/96
Bromomethane	<1	ug/l	8260	08/09/96
Carbon Tetrachloride	<1	ug/l	8260	08/09/96
Chlorobenzene	<1	ug/l	8260	08/09/96
Chloroethane	<1	ug/l	8260	08/09/96
Chloroform	1	ug/l	8260	08/09/96
Chloromethane (Methyl chloride)	<1	ug/l	8260	08/09/96
Dibromochloromethane	<1	ug/l	8260	08/09/96
Dibromomethane	<1	ug/l	8260	08/09/96
Dichlorodifluoromethane	<1	ug/l	8260	08/09/96
1,2-Dichlorobenzene	<1	ug/l	8260	08/09/96
1,3-Dichlorobenzene	<1	ug/l	8260	08/09/96
1,4-Dichlorobenzene	<1	ug/l	8260	08/09/96
1,1-Dichloroethane	<1	ug/l	8260	08/09/96
1,2-Dichloroethane	<1	ug/l	8260	08/09/96
1,1-Dichloroethene	<1	ug/l	8260	08/09/96
c-1,2-Dichloroethene	<1	ug/l	8260	08/09/96
t-1,2-Dichloroethene	<1	ug/l	8260	08/09/96
1,2-Dichloropropane	<1	ug/l	8260	08/09/96
c-1,3-Dichloropropene	<1	ug/l	8260	08/09/96
t-1,3-Dichloropropene	<1	ug/l	8260	08/09/96
Methylene chloride	<5	ug/l	8260	08/09/96
1,1,1,2-Tetrachloroethane	<1	ug/l	8260	08/09/96
1,1,2,2-Tetrachloroethane	<1	ug/l	8260	08/09/96
Tetrachloroethene	<1	ug/l	8260	08/09/96
1,1,1-Trichloroethane	<1	ug/l	8260	08/09/96
1,1,2-Trichloroethane	<1	ug/l	8260	08/09/96
Trichloroethene	<1	ug/l	8260	08/09/96
Trichlorofluoromethane	<1	ug/l	8260	08/09/96
1,2,3-Trichloropropane	<1	ug/l	8260	08/09/96
Vinyl Chloride	<1	ug/l	8260	08/09/96

Client Name: MAXIM - Yakima
Project No.: 95-932
Laboratory No.: 177414
Sample Name: MW-3
Sample Date: 08/05/96
Collected by: RODNEY L. HEIT
Time Sampled: 1420
Sample Type: WATER

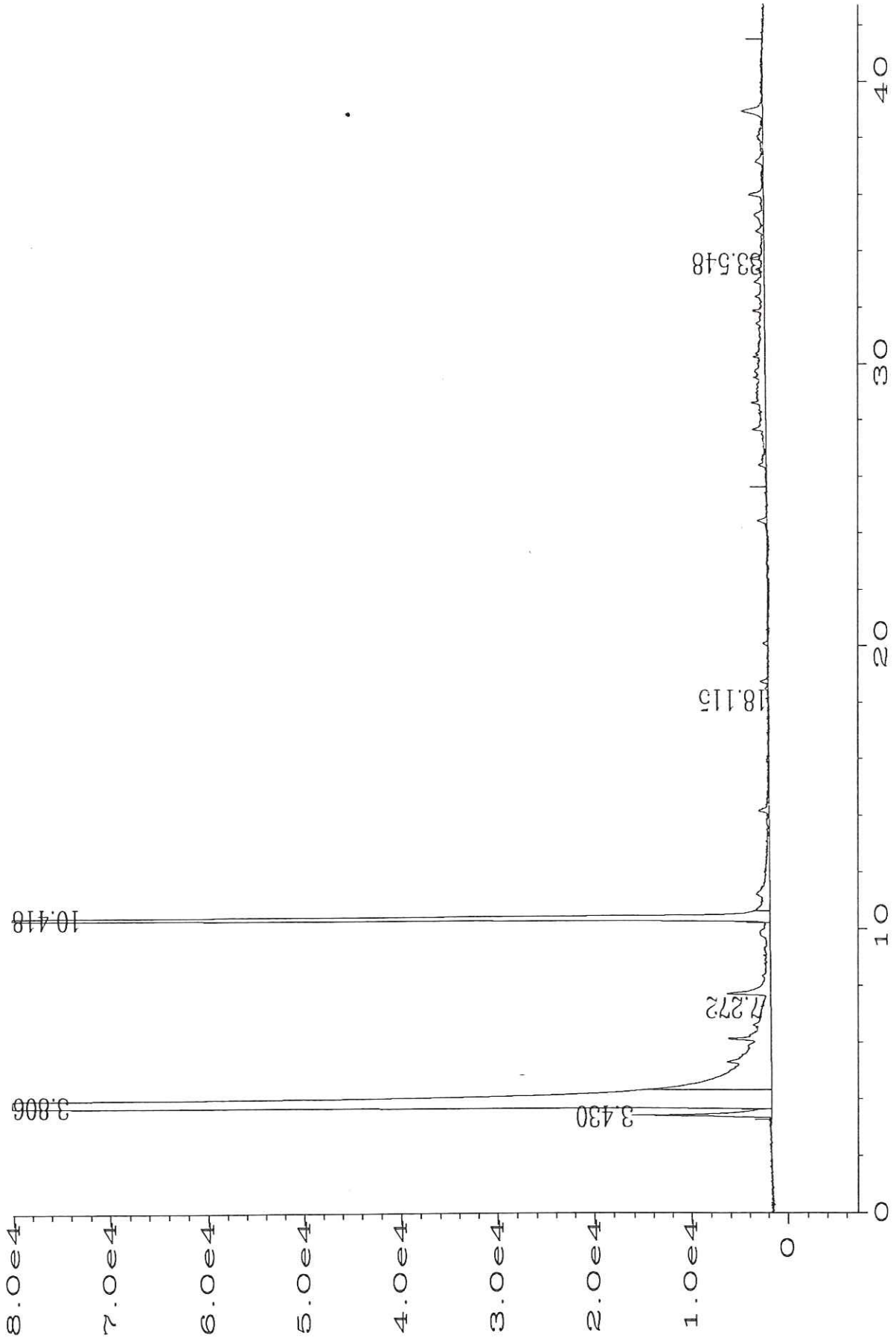
PARAMETER	MEASURED VALUE		METHOD NUMBER	DATE ANALYZED
2-Chloroethyl vinyl ether	<10	ug/l	8260	08/09/96
1,2-Dichloroethane-d4 (Surrogate)	97	%	8260	08/09/96
Toluene-d8 (Surrogate)	102	%	8260	08/09/96
4-Bromofluorobenzene (Surrogate)	96	%	8260	08/09/96
TOTAL EXTRACTABLE HYDROCARBONS (DRO)				
Data File Number-TPH Extractable	81696060			
Extraction Date-TPH Extractable	8/12/96			
Total Extractable Hydrocarbons	<0.5	mg/l	DRO/8015	08/16/96
Diesel Range Organics	<0.3	mg/l	DRO	08/16/96
Diesel Range Organics as Diesel	<0.3	mg/l	DRO	08/16/96
TOTAL PURGEABLE HYDROCARBONS				
Data File Number-TPH Purgeable	fa705			
Total Purgeable Hydrocarbons	0.3	mg/l	GRO/8015	08/15/96
Gasoline Range Organics	0.2	mg/l	GRO	08/15/96
Gasoline Range Organics as Gasoline	0.2	mg/l	GRO	08/15/96

Client Name: MAXIM - Yakima
Project No.: 95-932
Laboratory No.: 177415
Sample Name: TRAVEL BLANK
Sample Date: 08/05/96
Collected by: RODNEY L. HEIT
Time Sampled: 1155
Sample Type: WATER

PARAMETER	MEASURED VALUE		METHOD NUMBER	DATE ANALYZED
EPA METHOD 8020				
Data File Number-BETX	f9462			
Benzene as rec'd	<1	mg/l	8020	08/15/96
Ethylbenzene as rec'd	<1	mg/l	8020	08/15/96
Toluene as rec'd	<1	mg/l	8020	08/15/96
Total Xylenes as rec'd	<3	mg/l	8020	08/15/96
TOTAL PURGEABLE HYDROCARBONS				
Data File Number-TPH Purgeable	fa706			
Total Purgeable Hydrocarbons	<0.2	mg/l	GRO/8015	08/15/96
Gasoline Range Organics	<0.2	mg/l	GRO	08/15/96
Gasoline Range Organics as Gasoline	<0.2	mg/l	GRO	08/15/96

ATTACHMENTS

Sig. 1 in C:\HPCHEM\1\DATA\NV-Fa703.D



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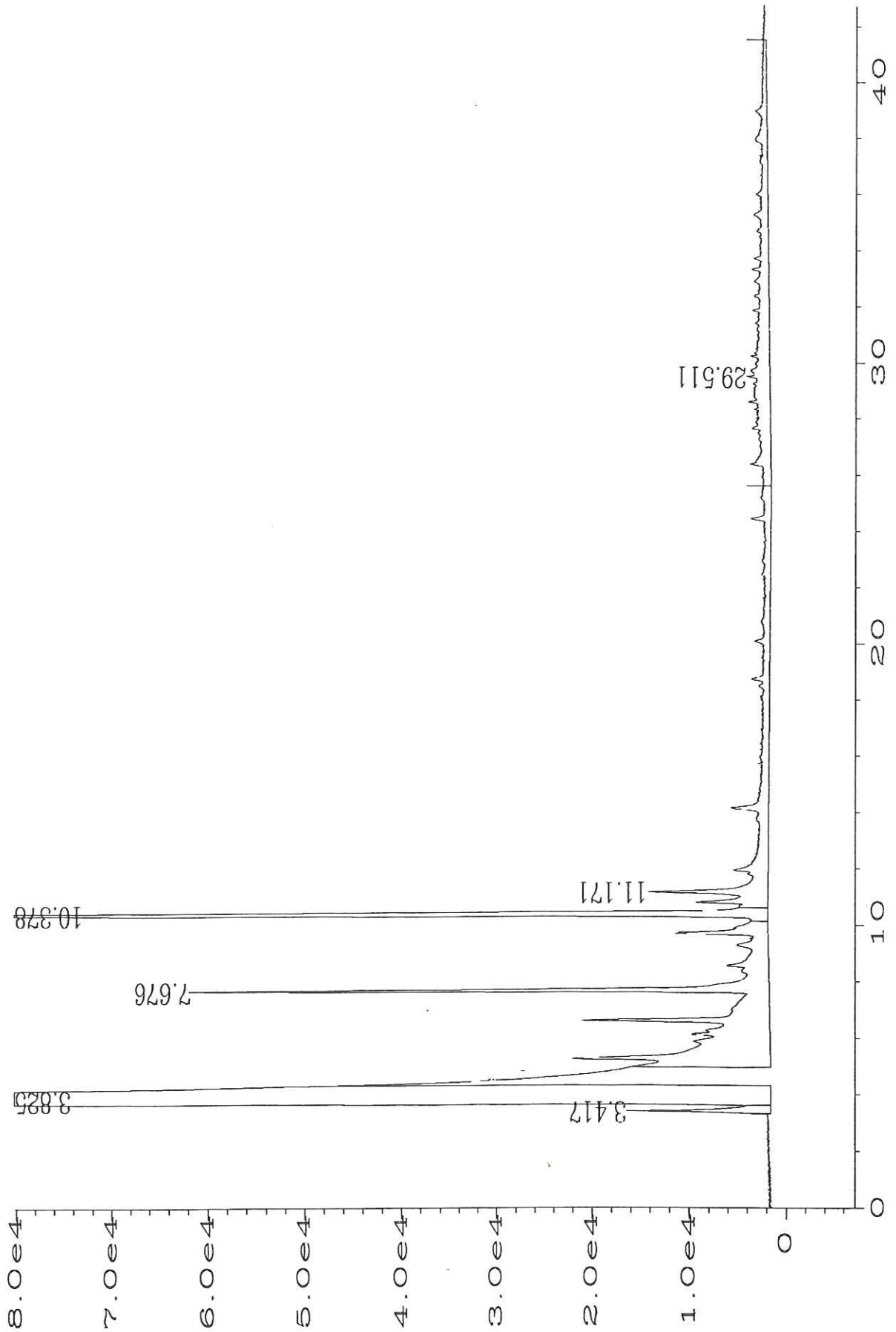
Sig. 1 in C:\HPCHEM\1\DATA\NV-FA705.D



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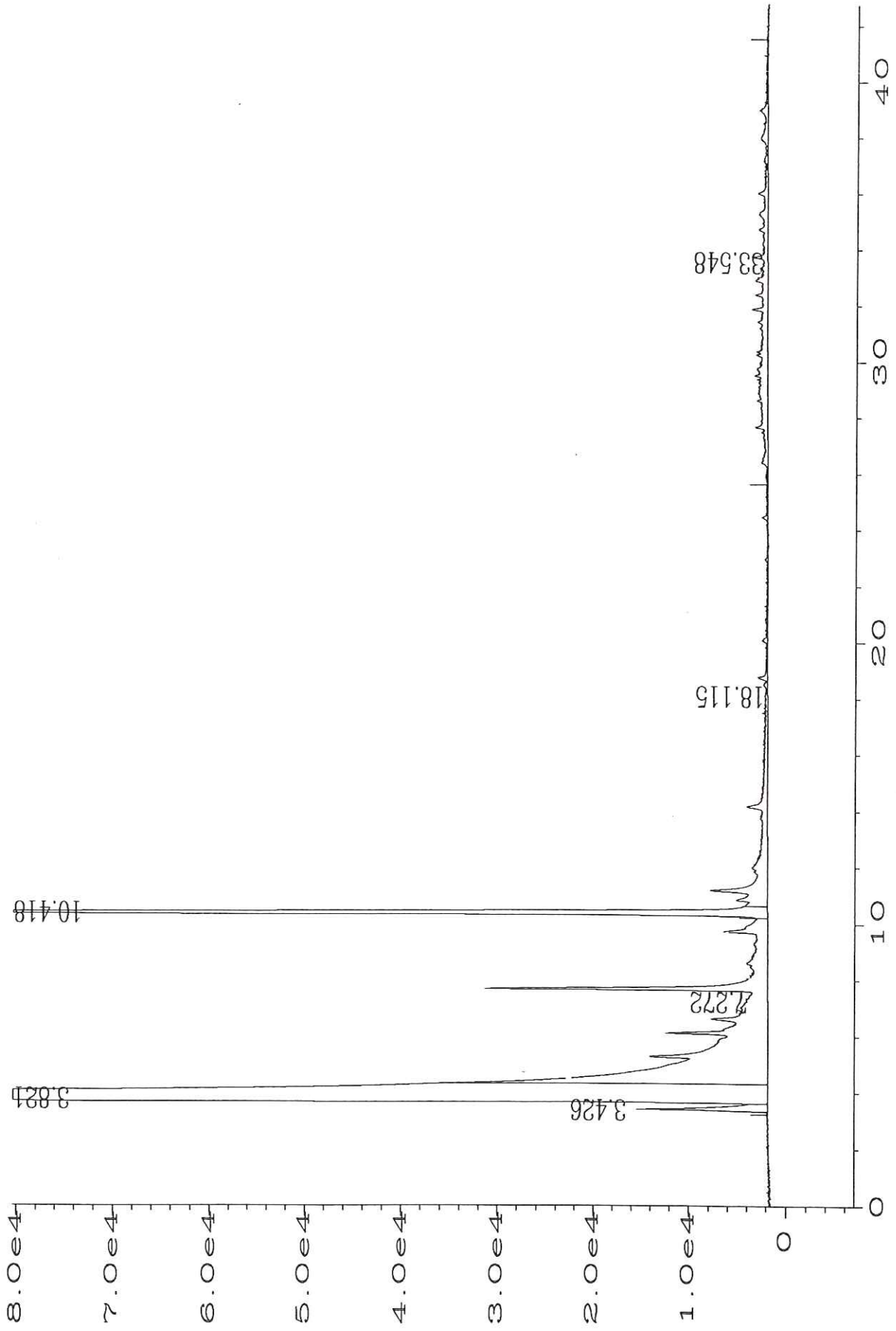

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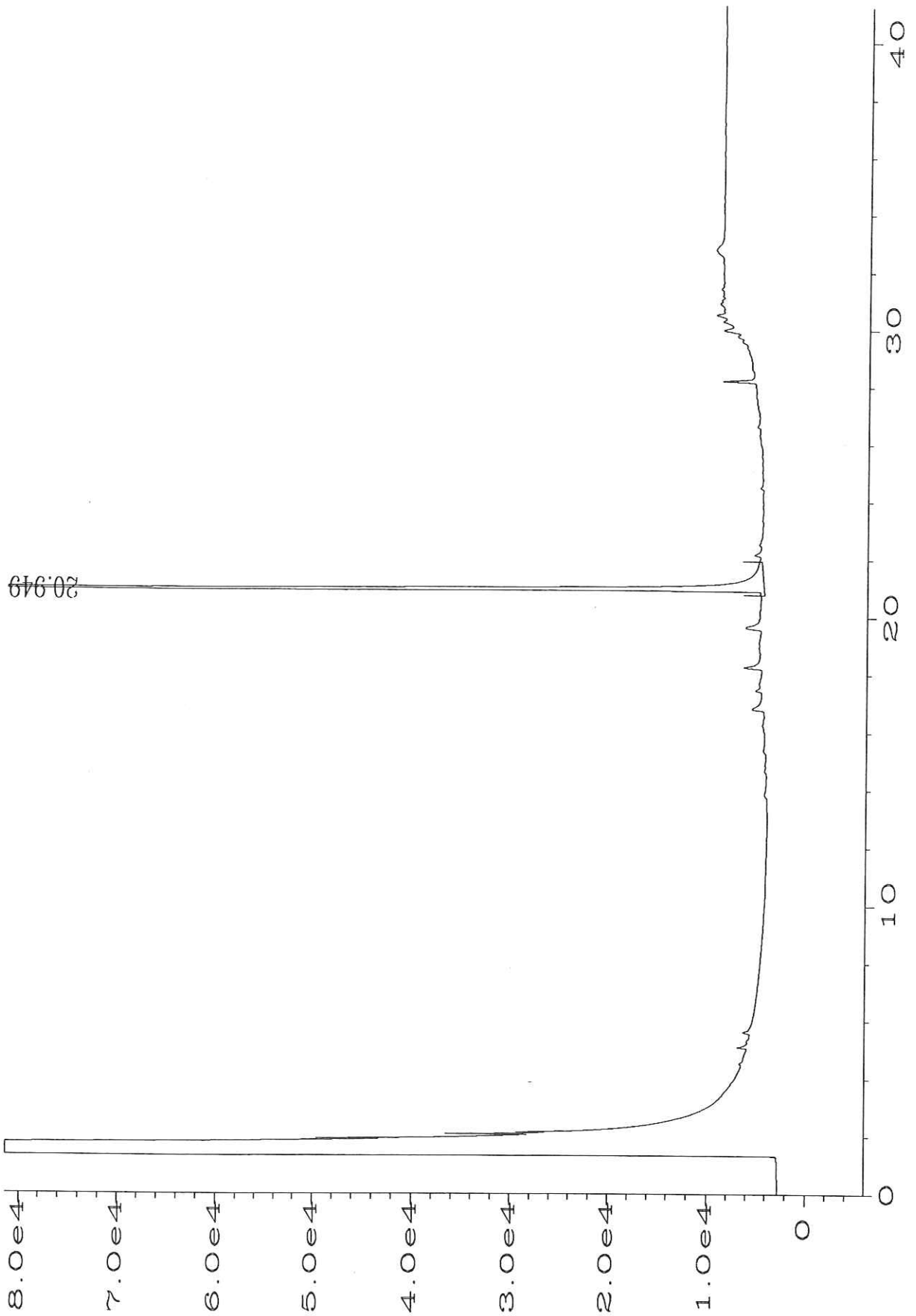
Sig. 1 in C:\HPCHEM\1\DATA\081696\060F0101.D

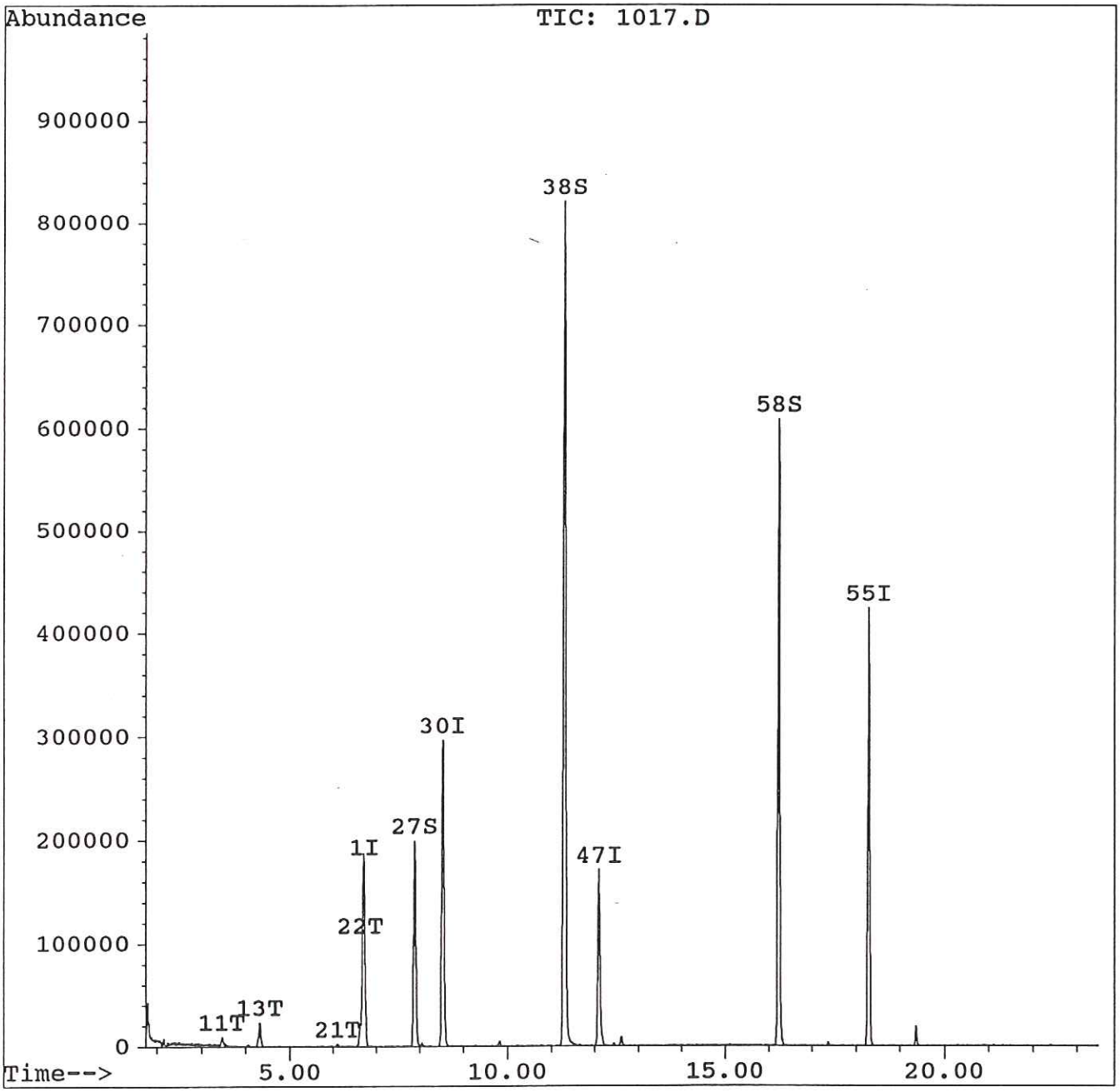


Quantitation Report

Data File : C:\HPCHEM\1\DATA\080996\1017.D
Acq Time : 9 Aug 96 6:22 pm
Sample : 177412 RE
Misc :
Quant Time: Aug 9 18:49 1996

Operator: GHP
Inst : GC/MS
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\82600808.M
Title : 8260
Last Update : Fri Aug 09 10:45:39 1996
Response via : Single Level Calibration

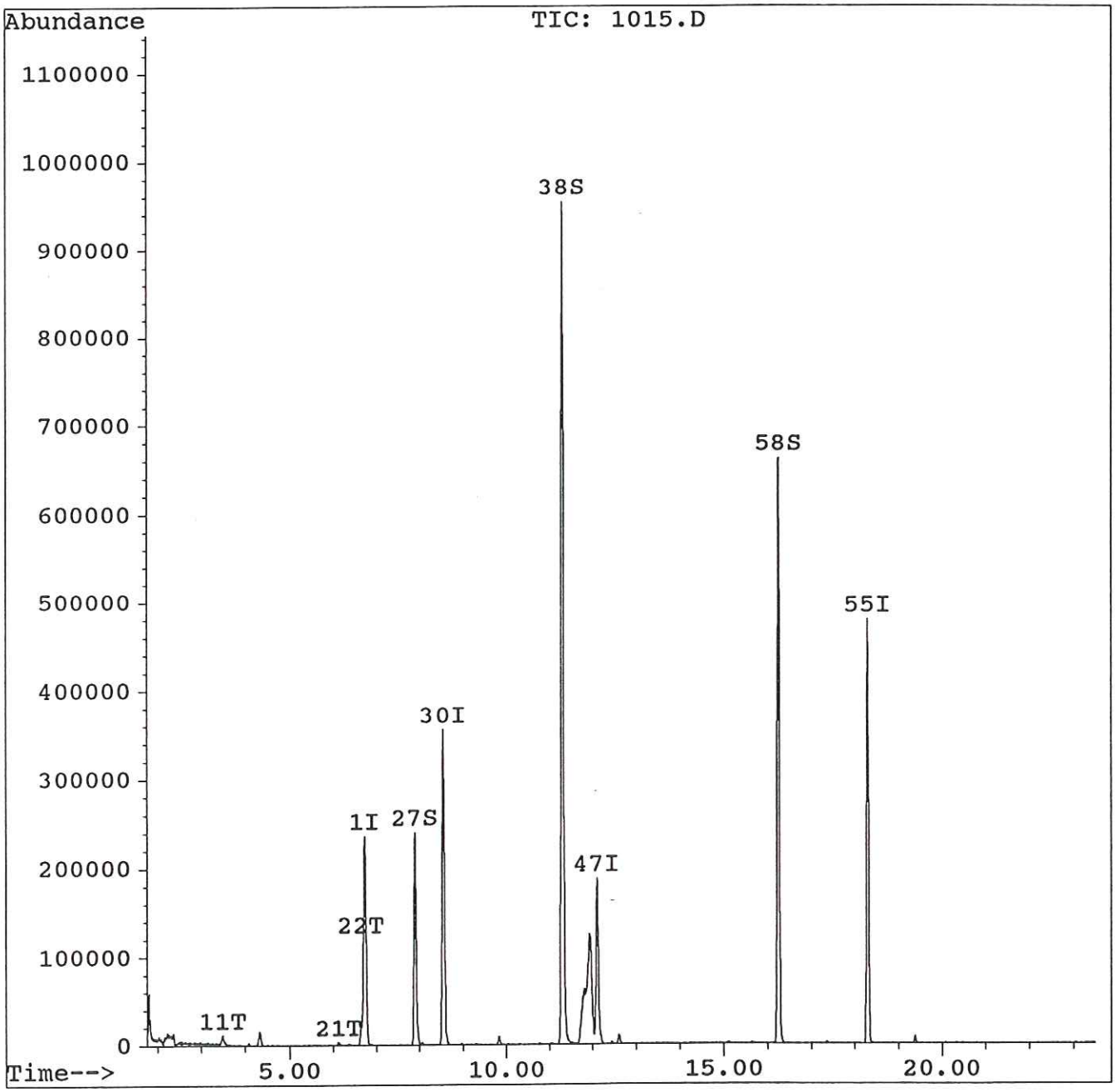


Quantitation Report

Data File : C:\HPCHEM\1\DATA\080996\1015.D
Acq Time : 9 Aug 96 5:18 pm
Sample : 177413
Misc :
Quant Time: Aug 9 17:45 1996

Operator: GHP
Inst : GC/MS
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\82600808.M
Title : 8260
Last Update : Fri Aug 09 10:45:39 1996
Response via : Single Level Calibration

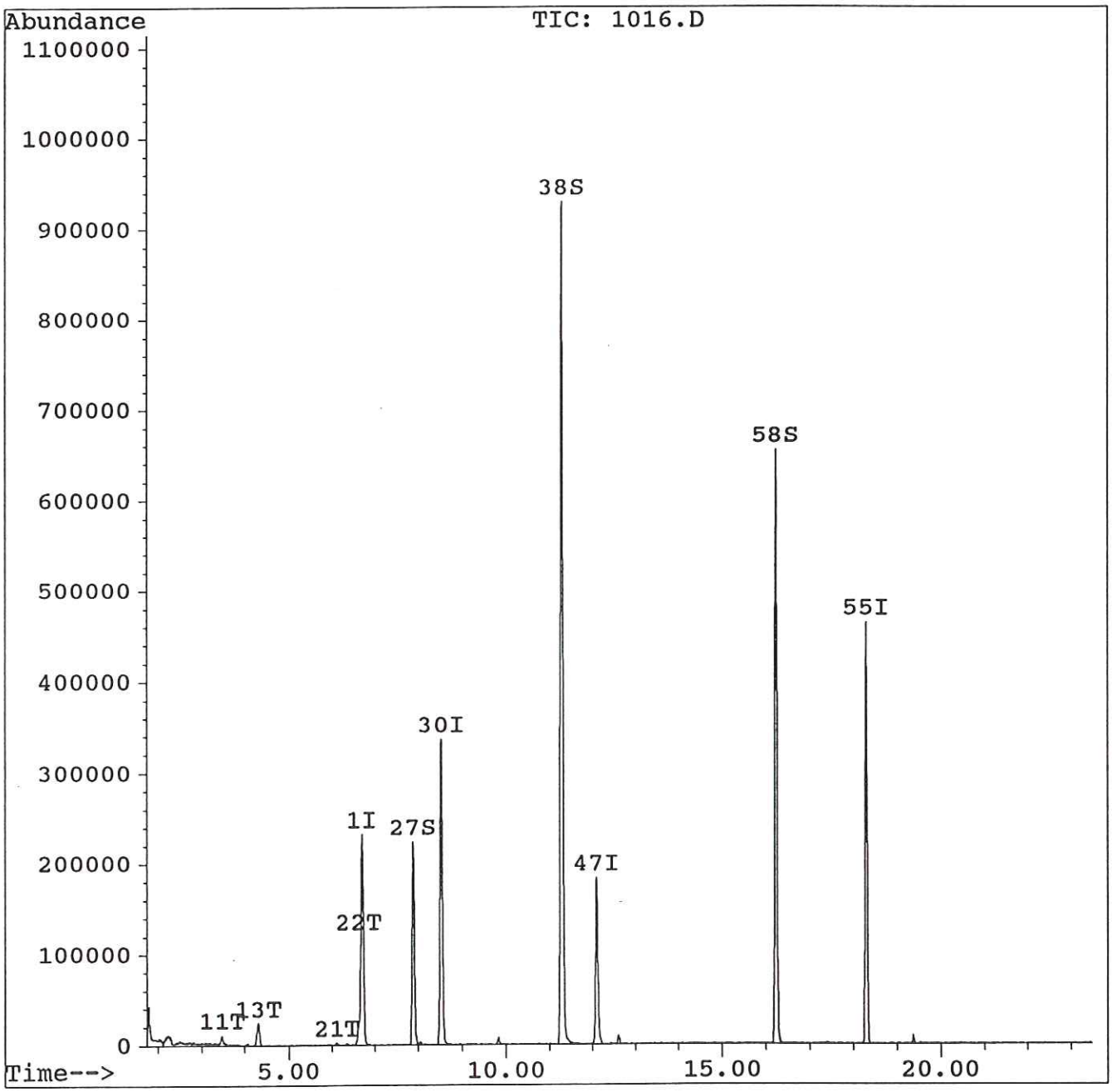


Quantitation Report

Data File : C:\HPCHEM\1\DATA\080996\1016.D
Acq Time : 9 Aug 96 5:50 pm
Sample : 177414
Misc :
Quant Time: Aug 9 18:17 1996

Operator: GHP
Inst : GC/MS
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\82600808.M
Title : 8260
Last Update : Fri Aug 09 10:45:39 1996
Response via : Single Level Calibration



LOVERING

GROUNDWATER SAMPLING REPORT

Field Personnel Rodney Hext Date 8-5-96

Site Name LOVERING TIRE Site Location FRONT STREET & LINCOLN AVE

Weather: Cool Partial Sun

Time	Description
9:25	Leave ZILLAH OFFICE FOR MAXIM OFFICE YAKIMA, WA
	meet Rachael discuss Sampling protocal
	Visit Police Station Site observe wells 1-4
	Locations
	ARRIVE at Lovering Tire site Front street
	and Lincoln Ave observe well locations
	Purchase Ice from Conoco Station
	Return to site move car atop mw#1
12:05	Remove mw#1 Cover measure S.W.L
12:18	Bail mw#1 Partial Cloudy NO odors observed
12:30	FINISH Bail OF (5 gallons)
12:38	Sample mw#1 2-40 ml VIALS FOR WTPH G
	2-40 ml VIALS FOR 8010
	1-liter FOR WTPH-D/418.1
12:40	Prepare labels and Pack ice
12:56	Close mw#1 move to mw#2
1:05	Open mw#2 Take H2O SWL measurment
1:09	Bail mw#2 (5 gallons) Partial Cloudy
1:30	Sample mw#2 NO odors observed

Well Measurements

Time	Well Number	SWL	Temperature	pH	Conductivity
12:10	mw#1	13.51	—	—	—
12:38	mw#1	—	62°F	7.7	200µS
[illegible]	—				
1:08	mw#2	13.53	—	—	—
1:30	mw#2	—	61°F	8.0	180µS

GROUNDWATER SAMPLING REPORT

Field Personnel Rodney Heil Date 8/05/96

Site Name Lovering Tire Site Location Front Street & Lincoln Ave.

Weather: Cool, Partial Sun

Time	Description
1:35	Cable Samples Collected from mw #2
	take Ph and Conductivity
1:50	Close mw #2 move Counter Clockwise
1:50	to mw #3 in Lovering parking lot
1:58	Open mw #3 take H_2O measurment
2:05	Prepare and Bail mw #3 Bail 5 gallons
	NO odors observed, partial Cloudy to Clear.
2:20	Sample MW #3 Prepare sample labels
	Finish Sample Packing for Transport
2:50pm	LEAVE LOVERING SITE FOR ZILLAH OFFICE
	(owner of Site Wants to B.S.
	I know What your talking about
	Rocheal. Thank you very much you sure
	have some interesting sites!!!!!

Rodney L Heil

Well Measurements

Time	Well Number	SWL	Temperature	pH	Conductivity
1:58	MW #3	12.04	———	———	———
2:20	MW #3	———	61°F	8.0	180 µS

MAXIM TECHNOLOGIES INC

SAMPLE RECEIPT CHECKLIST

Client Name: M-Yakima

Project: Lovering

Laboratory number(s): _____

Checklist completed by: SE 8/7/96 (Initials / Date)

Date/Time Received: 8/7/96 (Date) 1010 (Time)

Received by: GC

Carrier name: UPS

Sample Type: Water

		YES	NO
1.	Shipping container in good condition?	✓	
2.	Custody seals present on shipping container?	✓	
3.	Condition: Intact ✓ Broken ____		
4.	Chain of custody present?	✓	
5.	Chain of custody signed when relinquished and received?	✓	
6.	Chain of custody agrees with sample labels?	✓	
7.	Custody seals on sample bottles?		
8.	Condition: Intact _____ Broken _____		
9.	Samples in proper container/bottle?		
10.	Samples intact?		
11.	Sufficient sample volume for indicated test?		
12.	VOA vials have zero headspace?		
13.	Trip Blank received?		
14.	Ice/Frozen Blue Ice present in shipping container? (circle one)		
15.	Container temperature 1. _____ 2. _____ 3. _____		

		YES	NO
16.	All samples rec'd within holding time?		
	Preservation		
17.	pH check performed by: CJ		
18.	Metals bottle(s) pH <2?	NA	
19.	Nutrient bottle(s) pH <2?		
20.	Cyanide bottle(s) pH >12?		
21.	Sulfide bottle(s) pH >9?		
22.	Oil & grease bottle(s) pH <2?		
23.	TOC bottle(s) pH <2?		
24.	DRO/418.1 bottle(s) pH <2?	✓	CJ
25.	Phenolics bottle(s) pH <2?	NA	
26.	Volatiles (VOA) pH <2? (VOA pH checked by analyst)	✓	
27.	Client contacted?		
28.	Person contacted	_____	
29.	Date contacted	_____	
30.	Contacted by	_____	
31.	Regarding?	_____	

Note: Samples may be affected when not transported at the temperature recommended by the EPA for the test you've selected. Please contact the lab if you have concerns about the temperature of your samples.

COMMENTS: _____

CHAIN OF CUSTODY RECORD

MAXIM TECHNOLOGIES INC

Project or Site Name: Loveling
Project Number: 616.04
Sampler Name (Printed): RODNEY L HEIT

- [ ] Billings, MT
- [ ] Boise, ID
- [ ] Great Falls, MT
- [ ] Helena, MT
- [ ] Missoula, MT
- [x] Yakima, WA

Contact or Report to: Rachel Tauman PH
Contact Address or Location: (509) 577-8592
Sampler Signature: Rodney L Heit

DATE COLLECTED	TIME COLLECTED	SAMPLE LOCATION OR DESCRIPTION	COMP OR GRAB	SAMPLE MATRIX	NO. OF CONTAINERS	ANALYSIS REQUIRED: 8010	TPH-G	TPH-D/Dext			8020	NOTES	LAB NUMBER
8/05/96	12:38PM	MW-1	Grab	Water	~~4~~ Liter 40 ML V	X	X	X			X	~~No VOA's rec'd~~	177412
8/05/96	1:30PM	MW-2	↓	↓		X	X	X			X		13
8/05/96	2:20PM	MW-3	↓	↓		X	X	X			X		14
8/05/96	11:55AM	Travel blank	↓	↓	2 40ML		X				X	* per R Tauman on 8/7/96	15

~~Blind Duplicate sent in with Cooke billed Police Station Project~~ RH

Relinquished by:	Date	Time	Received by:
Rodney L Heit	8/6/96	11:30	UPS AIR ~~Rachel Tauman~~
UPS	8/7/96	1010	[signature]

Remarks: Analysis
8010 - 2 40 ML
TPH-G 2 40 ML
TPH-D/Dext. 1 Liter
Travel blank - 2 40ML

Cooler 4.7°C HCL - Added

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

LOVERING GOODYEAR PROJECT
Yakima, Washington
Maxim Technologies, Inc.
Project#: 5609500616

Gasoline, Diesel and Oil in Water by WTPH-G and WTPH-D/D-Extended

Sample Number		Date	Recovery %	Gasoline ug/l	Diesel ug/l	Heavy Oil ug/l
Meth. Blank		02/22/96	97	nd	nd	nd
MW-1		02/22/96	97	nd	nd	nd
MW-1 Dup		02/22/96	99	nd	nd	nd
MW-2		02/22/96	103	nd	nd	nd
MW-3		02/22/96	101	2420	nd	nd
MDL				100	200	400

"nd" Indicates not detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

LOVERING GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies
Project#: 5609500616

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Water

Sample-Number	MDL	Method Blank	MW-01	MW-02	MW-03
Date		02/23/96	02/23/96	02/23/96	02/23/96
	ug/l	ug/l	ug/l	ug/l	ug/l
Vinylchloride	1	nd	nd	nd	nd
1,1 Dichloroethene	1	nd	nd	nd	nd
Trans-1,2 Dichloroethene	1	nd	nd	nd	nd
Cis-1,2 Dichloroethene	1	nd	nd	nd	nd
Benzene	1	nd	nd	nd	28
Trichloroethene	1	nd	nd	nd	nd
Toluene	1	nd	nd	nd	45
Tetrachloroethene	1	nd	1	1	1
Ethylbenzene	1	nd	nd	nd	13
m,p-Xylene	1	nd	nd	nd	74
o-Xylene	1	nd	nd	nd	29
Dichloromethane	1	nd	nd	nd	nd
1,1 Dichloroethane	1	nd	nd	nd	nd
1,2 Dichloroethane	1	nd	nd	nd	nd
Chloroform	1	nd	2	2	2
Carbon Tetrachloride	1	nd	nd	nd	nd
1,1,1 Trichloroethane	1	nd	nd	nd	nd
1,1,2 Trichloroethane	1	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1	nd	nd	nd	nd
Spike Recovery (%)		90	99	91	106

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

LOVERING GOODYEAR PROJECT
Yakima, Washington
Maxim Technologies, Inc.
Project#: 5609500616

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Water

Sample-Number	MDL	50 PPB MS	50 PPB MSD
Date		02/23/96	02/23/96
	ug/l	ug/l	ug/l
Vinylchloride	1	43	43
1,1 Dichloroethene	1	57	55
Trans-1,2 Dichloroethene	1	51	47
Cis-1,2 Dichloroethene	1	48	55
Benzene	1	54	53
Trichloroethene	1	44	49
Toluene	1	57	55
Tetrachloroethene	1	51	55
Ethylbenzene	1	55	45
m,p-Xylene	1	85	83
o-Xylene	1	50	51
Dichloromethane	1	49	43
1,1 Dichloroethane	1	48	47
1,2 Dichloroethane	1	55	48
Chloroform	1	45	50
Carbon Tetrachloride	1	57	45
1,1,1 Trichloroethane	1	54	52
1,1,2 Trichloroethane	1	52	52
1,1,1,2-Tetrachloroethane	1	57	53
1,1,2,2-Tetrachloroethane	1	52	53
Spike Recovery (%)		104	89

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GROUNDWATER SAMPLING LOG

Project: Lovering Goodyear Date/Time: 2-20-96/0930 Station No. MW-1

Narrative Description: Near southeast corner of parking lot.

Personnel: Rob Farrell Weather: Cool & windy; sunny

Well Locked? Yes [X] No [ ] Well Log? Yes [ ] No [X]

Condition of Well: Good

Casing Type: PVC Casing Diameter: 2"

Casing Stickup: Flush mount Measuring Point Description: TOC

Aquifer:

Depth to Water (feet below measuring point): 18.12 ft

WELL EVACUATION

Method: Positive Displacement Pump [ ] Hand-Lift Pump [ ] Submersible Pump [X] SST Bailer [ ] PVC Bailer [ ] Teflon Bailer [ ] Other:
One Bore Volume = 1.05 Gallons

Remarks:

EVACUATION DATA

Time	Cumulative Gallons	Temp	pH	SC	Other
1000 hrs	3.25	15°C	6.9	240 µs	

WELL SAMPLING

Sampling Method: Stainless Steel Bailer Sample Type: Natural [X] Replicate [ ] X-Contam [ ] Trip Blank [ ] Blind Field Sta. [ ]

SC DATA

Water Temp. (1)	Observed SC (µmhos) (2)	Temp. Correction Factor (3)	Cell Factor (4)	SC = (2) x (3) x (4) µmhos/cm @ 25°C Compensated SC

Temperature pH: Other:

Sample Container	Parameters	Preservative
MW-1	TPH-G	HCl
MW-1	TPH-D + Dext	↓
Blind Duplicate	8010/8020	

Laboratory: TEG Lab Chain-of-Custody: Yes [X] No [ ]

Sample Analysis Request Form: Yes [ ] No [ ]

Meter	Serial No.	Calibration Date
pH		
SC		
M-Scope		

Decontamination

Steam: Yes [ ] No [ ] Potable Water: Yes [X] No [ ]

Scrub: Yes [X] No [ ] Liquinox: Yes [X] No [ ]

Methanol: Yes [ ] No [ ] Acetone: Yes [ ] No [ ]

Nitic Acid: Yes [ ] No [ ]

Comments:

GROUNDWATER SAMPLING LOG

Project: Lovering Goodyear Date/Time: 2-20-96/1100 Station No. MW-2

Narrative Description: At edge of alley on east side of building

Personnel: Rob Farrell Weather: Cool & Windy, Sunny

Well Locked? Yes [X] No [ ] Well Log? Yes [ ] No [X]

Condition of Well: Good

Casing Type: PVC Casing Diameter: 2"

Casing Stickup: Flush Mount Measuring Point Description: TOC

Aquifer:

Depth to Water (feet below measuring point): 19.0 ft

WELL EVACUATION

Method: Positive Displacement Pump [ ] Hand-Lift Pump [ ] Submersible Pump [X] SST Bailer [ ] PVC Bailer [ ] Teflon Bailer [ ] Other:

One Bore Volume = 0.90 Gallons

Remarks:

EVACUATION DATA

Time	Cumulative Gallons	Temp	pH	SC	Other
1115 hrs	2.75	14°C	6.9	340 µS	

WELL SAMPLING

Sampling Method: Stainless Steel Bailer Sample Type: Natural [X] Replicate [ ] X-Contam [ ] Trip Blank [ ] Blind Field Sta. [ ]

SC DATA

Water Temp. (1)	Observed SC (µmhos) (2)	Temp. Correction Factor (3)	Cell Factor (4)	SC = (2) x (3) x (4) µmhos/cm @ 25°C Compensated SC

Temperature pH: Other:

Sample Container	Parameters	Preservative
MW-2	TPH-G	HCl
MW-2	TPH-D & Dest	↓
	8010/8020	

Laboratory: TEC Lab Chain-of-Custody: Yes [X] No [ ]

Sample Analysis Request Form: Yes [ ] No [ ]

Meter	Serial No.	Calibration Date
pH		
SC		
M-Scope		

Decontamination

Steam: Yes [ ] No [ ] Potable Water: Yes [X] No [ ]

Scrub: Yes [X] No [ ] Liquinox: Yes [X] No [ ]

Methanol: Yes [ ] No [ ] Acetone: Yes [ ] No [ ]

Nitic Acid: Yes [ ] No [ ]

Comments:

GROUNDWATER SAMPLING LOG

Project: Lovering Goodyear Date/Time: 2-20-96/1030 Station No. MW-3

Narrative Description: Near Center of Parking Lot

Personnel: Rob Farrell Weather: Cool & Windy; Sunny

Well Locked? Yes [X] No [ ] Well Log? Yes [ ] No [X]

Condition of Well: Good

Casing Type: PVC Casing Diameter: 2"

Casing Stickup: Flush Mount Measuring Point Description: TOC

Aquifer:

Depth to Water (feet below measuring point): 16.98

WELL EVACUATION

Method: Positive Displacement Pump [ ] Hand-Lift Pump [ ] Submersible Pump [X] SST Bailer [ ] PVC Bailer [ ] Teflon Bailer [ ] Other:

One Bore Volume = 1.22 Gallons

Remarks:

EVACUATION DATA

Time	Cumulative Gallons	Temp	pH	SC	Other
1045 hrs	3.75	14°C	7.1	210 µS	

WELL SAMPLING

Sampling Method: Stainless Steel Bailer Sample Type: Natural [X] Replicate [ ] X-Contam [ ] Trip Blank [ ] Blind Field Sta. [ ]

SC DATA

Water Temp. (1)	Observed SC (µmhos) (2)	Temp. Correction Factor (3)	Cell Factor (4)	SC = (2) x (3) x (4) µmhos/cm @ 25°C Compensated SC

Temperature pH: Other:

Sample Container	Parameters	Preservative
MW-3	TPH-G	
MW-3	TPH-D & Diesel	
	8010 / 8020	

Laboratory: TEG Lab Chain-of-Custody: Yes [X] No [ ]

Sample Analysis Request Form: Yes [ ] No [ ]

Meter	Serial No.	Calibration Date
pH		
SC		
M-Scope		

Decontamination

Steam: Yes [ ] No [ ] Potable Water: Yes [X] No [ ]

Scrub: Yes [X] No [ ] Liquinox: Yes [X] No [ ]

Methanol: Yes [ ] No [ ] Acetone: Yes [ ] No [ ]

Nitic Acid: Yes [ ] No [ ]

Comments:

CHAIN OF CUSTODY RECORD

Huntingdon
Consulting Engineers Environmental Scientists

Lovering Goodyear
Project or Site Name

560950061G
Project Number

Rob Farrell
Sampler Name (Printed)

☐ Chen-Northern, Inc., Division
☐ Thomas-Hartig & Associates, Inc., Division
☐ Schaefer Dixon Associates, Inc., Division
☐ Herzog Associates, Inc., Division

Rachel Tarman
Contact or Report to

PO Box 2887 Yakima WA 98907
Contact Address or Location

Rob Farrell
Sampler Signature

DATE COLLECTED	TIME COLLECTED	SAMPLE LOCATION OR DESCRIPTION	COMP OR GRAB	SAMPLE MATRIX	NO. OF CONTAINERS	ANALYSIS REQUIRED: TPH-G	TPH-D/D ext 8010/8020					NOTES	LAB NUMBER
2-20-96	1000	MW-1	Grab	H2O	3	X	X	X					
↓	1115	MW-2	↓	↓	2	↓	↓	↓					
↓	1045	MW-3	↓	↓	2	↓	↓	↓					

Relinquished by: Rob Farrell	Date 2-21-96	Time 1500	Received by:
Relinquished by:	Date 2-22-96	Time 1130	Received by: Eric Kurst
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:

Remarks: Shipped w/ Police Station
TPH-G
TPH-D & Diesel
8010/8020
Trip blank + blind dup on Policestation Job

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

LOVERING GOODYEAR PROJECT
Yakima, Washington
Maxim Technology, Inc.
Project No.: 5609500616

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Water

Sample-Number	MDL	Method Blank	MW-1	MW-2	MW-3	MW-3 Dup
Date	ug/l	11/22/95 ug/l	11/22/95 ug/l	11/22/95 ug/l	11/22/95 ug/l	11/22/95 ug/l
Vinylchloride	1	nd	nd	nd	nd	nd
1,1 Dichloroethene	1	nd	nd	nd	nd	nd
Trans-1,2 Dichloroethene	1	nd	nd	nd	nd	nd
Cis-1,2 Dichloroethene	1	nd	nd	nd	nd	nd
Benzene	1	nd	nd	nd	nd	nd
Trichloroethene	1	nd	nd	nd	nd	nd
Toluene	1	nd	nd	nd	nd	nd
Tetrachloroethene	1	nd	nd	nd	nd	nd
Ethylbenzene	1	nd	nd	nd	nd	nd
m,p-Xylene	1	nd	nd	nd	nd	nd
o-Xylene	1	nd	nd	nd	nd	nd
Dichloromethane	1	nd	nd	nd	nd	nd
1,1 Dichloroethane	1	nd	nd	nd	nd	nd
1,2 Dichloroethane	1	nd	nd	nd	nd	nd
Chloroform	1	nd	nd	nd	nd	nd
Carbon Tetrachloride	1	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	1	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	1	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1	nd	nd	nd	nd	nd
Spike Recovery (%)		106	103	102	89	86

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

LOVERING GOODYEAR PROJECT
Yakima, Washington
Maxim Technology, Inc.
Project No.: 5609500616

Gasoline, Diesel and Oil in Water by WTPH-G and WTPH-D/D-Extended

Sample Number	Date	Recovery %	Gasoline ug/l	Diesel ug/l	Heavy Oil ug/l
Meth. Blank	11/22/95	110	nd	nd	nd
MW-1	11/22/95	107	nd	nd	nd
MW-2	11/22/95	95	nd	nd	nd
MW-3	11/22/95	92	nd	nd	nd
MW-3 Dup	11/22/95	94	nd	nd	nd
MDL			100	200	400

"nd" Indicates not detected at the listed detection Limit.
"int" Indicates that interference peaks prevent determination.

GROUNDWATER SAMPLING LOG

Project: [illegible] Date/Time: 1-20-05, [illegible] Station No. MW-1

Narrative Description: [illegible]

Personnel: [illegible] Weather: Sunny / cool

Well Locked? Yes [X] No [ ] Well Log? Yes [ ] No [ ]

Condition of Well: Good

Casing Type: PVC Casing Diameter: 2"

Casing Stickup: [illegible] Measuring Point Description: TOC

Aquifer: [illegible]

Depth to Water (feet below measuring point): 17.11 ft total depth 24.55 ft

WELL EVACUATION

Method: Positive Displacement Pump [ ] Hand-Lift Pump [ ] Submersible Pump [X] SST Bailer [ ] PVC Bailer [ ] Teflon Bailer [ ] Other: _____

One Bore Volume = 1.21 Gallons

Remarks: Evacuated 16 bailers; tested parameters, removed another gal & retested parameters

EVACUATION DATA

Time	Cumulative Gallons	Temp	pH	SC	Other
1202					
1215	3.63	15	6.9	2000 us	
1230	4.63	15	6.8	1900	

WELL SAMPLING

Sampling Method: Stainless Steel Bailer Sample Type: Natural [X] Replicate [ ] X-Contam [ ] Trip Blank [ ] Blind Field Sta. [ ]

SC DATA

Water Temp. (1)	Observed SC (µmhos) (2)	Temp. Correction Factor (3)	Cell Factor (4)	SC = (2) x (3) x (4) µmhos/cm @ 25°C Compensated SC

Temperature _____ pH: _____ Other: _____

Sample Container	Parameters	Preservative
4 MW-1	VOC	HCl
2 MW-1	VOC	↓
1 MW-1	TPH-G	↓
1 MW-1	TPH-Dsqt	↓

Laboratory: _____ Chain-of-Custody: Yes [X] No [ ]

Sample Analysis Request Form: Yes [ ] No [ ]

Meter	Serial No.	Calibration Date
pH		
SC		
M-Scope		

Decontamination

Steam: Yes [ ] No [ ] Potable Water: Yes [X] No [ ]

Scrub: Yes [X] No [ ] Liquinox: Yes [X] No [ ]

Methanol: Yes [ ] No [ ] Acetone: Yes [ ] No [ ]

Nitic Acid: Yes [ ] No [ ]

Comments: _____

GROUNDWATER SAMPLING LOG

Project: [illegible] Date/Time: 11-20-95 9:45 Station No. MW-2

Narrative Description:

Personnel: [illegible] Weather: Sunny / cool

Well Locked? Yes [X] No [ ] Well Log? Yes [ ] No [ ]

Condition of Well: Good

Casing Type: 2" PVC Casing Diameter: 2"

Casing Stickup: flush mount Measuring Point Description: TOC

Aquifer:

Depth to Water (feet below measuring point): 17.64 ft total depth 24.5' ft

WELL EVACUATION

Method: Positive Displacement Pump [ ] Hand-Lift Pump [ ] Submersible Pump [X] SST Bailer [ ] PVC Bailer [ ] Teflon Bailer [ ] Other:

One Bore Volume = 1.12 Gallons

Remarks: Evacuated 14 bailers = 3.84 gal; tested parameters; removed another gal & verified parameters

EVACUATION DATA

Time	Cumulative Gallons	Temp	pH	SC	Other
1045				~~200~~ uS	
1115	~~3.84~~ 3.36	16°C	7.2	200 uS	
	4.36	16°C	7.2	200	

WELL SAMPLING

Sampling Method: Stainless Steel Bailer Sample Type: Natural [X] Replicate [ ] X-Contam [ ] Trip Blank [ ] Blind Field Sta. [ ]

SC DATA

Water Temp. (1)	Observed SC (μmhos) (2)	Temp. Correction Factor (3)	Cell Factor (4)	SC = (2) x (3) x (4) μmhos/cm @ 25°C Compensated SC

Temperature ______ pH: ______ Other: ______

Sample Container	Parameters	Preservative
MW-2	VOC	HCl
MW-2	VOC	HCl
MW-2	TPH-Diesel	HCl
MW-2	TPH-G	HCl

Laboratory: Chain-of-Custody: Yes [X] No [ ]

Sample Analysis Request Form: Yes [ ] No [ ]

Meter	Serial No.	Calibration Date
pH		
SC		
M-Scope		

Decontamination

Steam: Yes [ ] No [ ] Potable Water: Yes [X] No [ ]

Scrub: Yes [X] No [ ] Liquinox: Yes [X] No [ ]

Methanol: Yes [ ] No [ ] Acetone: Yes [ ] No [ ]

Nitic Acid: Yes [ ] No [ ]

Comments: water standing in well mount casing, but did not appear to be above top of capped casing

GROUNDWATER SAMPLING LOG

Project: Weiss Hudson Inc   Date/Time: 11-20-95, 10 15   Station No. MW-3

Narrative Description:

Personnel: Rob Jarrell   Weather: sunny/cool

Well Locked? Yes [ ] No [X]   Well Log? Yes [ ] No [ ]

Condition of Well: Good

Casing Type: PVC   Casing Diameter: 2"

Casing Stickup: flush mount   Measuring Point Description: TOC

Aquifer:

Depth to Water (feet below measuring point): 15.9 ft   24.45 ft total depth

WELL EVACUATION

Method: Positive Displacement Pump [ ] Hand-Lift Pump [ ] Submersible Pump [X] SST Bailer [ ] PVC Bailer [ ] Teflon Bailer [ ] Other: ______

One Bore Volume = 1.4 Gallons

Remarks: Removed 18 bailers; tested parameters; evacuated another gal & verified parameters

EVACUATION DATA

Time	Cumulative Gallons	Temp	pH	SC	Other
1300					
1315	4.2	15°C	7.2	190 us	
1325	5.2	15°	7.3	190 us	

WELL SAMPLING

Sampling Method: Stainless Steel Bailer   Sample Type: Natural [X] Replicate [ ] X-Contam [ ] Trip Blank [ ] Blind Field Sta. [ ]

SC DATA

Water Temp. (1)	Observed SC (µmhos) (2)	Temp. Correction Factor (3)	Cell Factor (4)	SC = (2) x (3) x (4) µmhos/cm @ 25°C Compensated SC

Temperature ______   pH: ______   Other: ______

Sample Container	Parameters	Preservative
MW-3	VOC	HCl
MW-3	VOC	↓
MW-3	TPH-G	↓
MW-3	TPH-Dsl	↓

Laboratory: ______   Chain-of-Custody: Yes [X] No [ ]

Sample Analysis Request Form: Yes [ ] No [ ]

Meter	Serial No.	Calibration Date
pH		
SC		
M-Scope		

Decontamination

Steam: Yes [ ] No [ ]   Potable Water: Yes [X] No [ ]

Scrub: Yes [X] No [ ]   Liquinox: Yes [X] No [ ]

Methanol: Yes [ ] No [ ]   Acetone: Yes [ ] No [ ]

Nitic Acid: Yes [ ] No [ ]

Comments: well cap off casing when first opened

CHAIN OF CUSTODY RECORD

Huntingdon
Consulting Engineers Environmental Scientists

- ☐ Chen-Northern, Inc., Division
- ☐ Thomas-Hartig & Associates, Inc., Division
- ☐ Schaefer Dixon Associates, Inc., Division
- ☐ Herzog Associates, Inc., Division

Lovering Goodyear
Project or Site Name

5609500616
Project Number

Rob Farrell
Sampler Name (Printed)

Rachel Tauman
Contact or Report to

PO Box 2887 Yakima, WA 98907
Contact Address or Location

Rob Farrell
Sampler Signature

DATE COLLECTED	TIME COLLECTED	SAMPLE LOCATION OR DESCRIPTION	COMP OR GRAB	SAMPLE MATRIX	NO. OF CONTAINERS	ANALYSIS REQUIRED: 8010/8020	TPH-G	TPH-D Extended					NOTES	LAB NUMBER
11-20-95	1230	MW-1	C-Grab	Water	4	X	X	X						
11-20-95	1115	MW-2	Grab	Water	4	X	X	X						
11-20-95	1330	MW-3	Grab	Water	4	X	X	X						

Relinquished by: Rob Farrell	Date 11-21-95	Time 1550	Received by: Michael A Herman 11/22/95 9:45	Remarks: VOC's 8010/8020 (8021) TPH-G TPH D – D extended
Relinquished by:	Date	Time	Received by:	
Relinquished by:	Date	Time	Received by:	
Relinquished by:	Date	Time	Received by:	

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Water

Sample-Number	MDL	Method Blank	MW-1	MW-2	MW-3	MW-3 Dup	Dry Well
Date		08/16/95	08/16/95	08/16/95	08/16/95	08/16/95	08/16/95
	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
1,1 Dichloroethene	1	nd	nd	nd	nd	nd	nd
Cis-1,2 Dichloroethene	1	nd	nd	nd	nd	nd	nd
Trans-1,2 Dichloroethene	1	nd	nd	nd	nd	nd	nd
Benzene	1	nd	nd	nd	nd	nd	nd
Trichloroethene	1	nd	nd	nd	nd	nd	nd
Toluene	1	nd	nd	nd	nd	nd	nd
Tetrachloroethene	1	nd	nd	nd	nd	nd	nd
Ethylbenzene	1	nd	nd	nd	nd	nd	nd
Total Xylenes	1	nd	nd	nd	nd	nd	nd
1,1 Dichloroethane	1	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	1	nd	nd	nd	nd	nd	nd
Chloroform	1	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	1	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	1	nd	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	1	nd	nd	nd	nd	nd	nd
Tetrachloroethane	1	nd	nd	nd	nd	nd	nd
Recovery (%)		102	111	99	94	95	80

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Gasoline, Diesel and Oil in Water by WTPH-G and WTPH-D/D-Extended

Sample Number	Date	Recovery %	Gasoline ug/l	Diesel ug/l	Heavy Oil ug/l
Meth. Blank	08/16/95	93	nd	nd	nd
MW-1	08/16/95	80	nd	nd	nd
MW-2	08/16/95	121	nd	nd	nd
MW-3	08/16/95	102	nd	nd	nd
MW-3-Dup	08/16/95	121	nd	nd	nd
Dry Well	08/16/95	120	nd	nd	nd
MDL			100	100	200

"nd" Indicates not detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GROUNDWATER LEVEL DATA SHEET

PROJECT: Yakima Goodyear

PROJECT NO.:

DATE: 8-15-95

MEASUREMENTS TAKEN BY: P. Dauricson

MEASURING DEVICE: W. L. Indicator

WEATHER CONDITIONS: Partly Cloudy 70°F

Well No.	Time	Reference Elevation	Depth to Groundwater	Groundwater Elevation	Reference Point	Well Depth	Comments
MW-2	10:15		13.03'				60°F, PH 7.0, 200 µs
MW-3	11:00		11.61'				64°F, PH 6.6, 210 µs
MW-1	12:00		13.05				62°F, PH 6.6, 230 µs

NOTES:

The chain of custody foe August, 1995 GroundWateR Sampling event is enclosed and togethee with Laboratoey repoets of Soil Samples.

OnSite Environmental Inc.

February 24, 1995
Lab Traveler #:02-054

Timothy Johnson
Environmental Associates, Inc.
2227 112th Avenue NE, Suite 120
Bellevue, WA 98004

Dear Tim:

Enclosed are the results of the analyses of samples submitted on February 22, 1995 from Project 4339-2.

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

Sincerely,

Catherine A. Macchio

Catherine A. Macchio
Project Chemist

Enclosures

14924 NE 31st Circle • Redmond, WA 98052 • (206) 883-3881 • Fax (206) 885-4603

Date of Report: February 24, 1995
Samples Submitted: February 22, 1995
Lab Traveler: 02-054
Project: 4339-2

EPA 602 & WTPH-G

Date Extracted: 2-22-95
Date Analyzed: 2-22&23-95

Matrix: Water
Units: ug/L (ppb)

Lab ID	02-054-5	02-054-6	02-054-7	
Client ID	**4339-2 MW1**	**4339-2 MW2**	**4339-2 MW3**	Method PQL
Dilution Factor	1	1	1	
Benzene	**ND**	**ND**	**ND**	1.00
Toluene	**ND**	**ND**	**ND**	1.00
Ethyl Benzene	**ND**	**ND**	**9.9**	1.00
m,p-Xylene	**1.1**	**ND**	**16**	1.00
o-Xylene	**ND**	**ND**	**ND**	1.00
TPH-Gas	**ND**	**ND**	**2500**	100
4-BFB Surrogate Recovery	82%	89%	95%	

Note: Sample PQL(practical quantitation limit)= Method PQL x dilution factor

Date of Report: February 24, 1995
Samples Submitted: February 22, 1995
Lab Traveler: 02-054
Project: 4339-2

EPA 602 & WTPH-G
QUALITY CONTROL

Date Extracted: 2-22-95
Date Analyzed: 2-22-95

Matrix: Water
Units: ug/L (ppb)

Lab ID	MB 0222W1	02-054-5	02-054-5	
	Blank	**Original**	**Duplicate**	**RPD**
Dilution Factor	1	1	1	
Benzene	**ND**	**ND**	**ND**	NA
Toluene	**ND**	**ND**	**ND**	NA
Ethyl Benzene	**ND**	**ND**	**ND**	NA
m,p-Xylene	**ND**	**1.10**	**ND**	NA
o-Xylene	**ND**	**ND**	**ND**	NA
TPH-Gas	**ND**	**ND**	**ND**	NA
4-BFB Surrogate Recovery	78%	82%	84%	

Date of Report: February 24, 1995
Samples Submitted: February 22, 1995
Lab Traveler: 02-054
Project: 4339-2

EPA 602 & WTPH-G
QUALITY CONTROL

Date Extracted: 2-22-95
Date Analyzed: 2-22-95

Matrix: Water
Units: ug/L (ppb)

Lab ID	02-054-5		02-054-5		
spiked @ 50 ppb	**MS**	Percent	**MSD**	Percent	
Dilution Factor	1	Recovery	1	Recovery	RPD
Benzene	**49.3**	**99%**	**46.6**	**93%**	5.7
Toluene	**48.4**	**97%**	**45.9**	**92%**	5.3
Ethyl Benzene	**49.5**	**99%**	**46.4**	**93%**	6.5
m,p-Xylene	**48.9**	**98%**	**46.1**	**92%**	5.8
o-Xylene	**49.6**	**99%**	**46.8**	**94%**	5.9
4-BFB Surrogate Recovery	79%		88%		

Date of Report: February 24, 1995
Samples Submitted: February 22, 1995
Lab Traveler: 02-054
Project: 4339-2

WTPH-D

Date Extracted: 2-22-95
Date Analyzed: 2-22-95

Matrix: Water
Units: mg/L (ppm)

Client ID	Dilution Factor	TPH	o-terphenyl Surrogate Recovery
4339-2MW1	0.020	<0.5	95%
4339-2 MW2	0.020	<0.5	90%
4339-2 MW3	0.020	<0.5[C]	88%

C-Hydrocarbons in the gasoline range (C7-toluene) present in the sample.

Date of Report: February 24, 1995
Samples Submitted: February 22, 1995
Lab Traveler: 02-054
Project: 4339-2

WTPH-D
QUALITY ASSURANCE

Date Extracted: 2-22-95
Date Analyzed: 2-22-95

Matrix: Water
Units: mg/L (ppm)

	Dilution Factor	TPH	o-terphenyl Surrogate Recovery
Method Blank	0.020	<0.5	84%
Sample: 02-054-7	0.020	0.529	88%
Duplicate	0.020	0.601	94%
RPD		NA	

Date of Report: March 8, 1995
Samples Submitted: February 22, 1995
Lab Traveler: 02-054
Project: 4339-2

EPA 624 (modified)
Page 1 of 2

Date Extracted:	3-03-95
Date Analyzed:	3-03-95
Sample Matrix:	Water
Units:	ug/L
Lab ID:	02-054-5
Client id:	**4339-2 mw1**
Dilution Factor:	1

Compound	RESULTS		PQL
Dichlorodifluoromethane	ND		10
Chloromethane	ND		10
Vinyl Chloride	ND		10
Bromomethane	ND		10
Chloroethane	ND		10
Trichlorofluoromethane	ND		10
1,1-Dichloroethene	ND		10
Acetone	4.84	J,B	10
Iodomethane	ND		10
Carbon disulfide	ND		10
Methylene Chloride	ND		10
(trans) 1,2-Dichloroethene	ND		10
Acrylonitrile	ND		10
1,1-Dichloroethane	ND		10
Vinyl Acetate	ND		10
2-Butanone	19.80		10
Chloroform	1.12	J	10
1,1,1-Trichloroethane	ND		10
Carbon Tetrachloride	ND		10
Benzene	ND		10
1,2-Dichloroethane	ND		10
Trichloroethene	ND		10
1,2-Dichloropropane	ND		10

J-The value reported was below the practical quantitation limit. The value is an estimate.
B-The analyte indicated was also found in the blank sample.

Date of Report: March 8, 1995
Samples Submitted: February 22, 1995
Lab Traveler: 02-054
Project: 4339-2

EPA 624 (modified)
Page 2 of 2

Lab ID: 02-054-5
Client id: 4339-2 mw1

Dilution Factor: 1

Compound	RESULTS		PQL
Dibromomethane	ND		10
Bromodichloromethane	ND		10
2-Chloroethyl vinyl ether	ND		10
(cis) 1,3-Dichloropropene	ND		10
4-Methyl-2-pentanone	ND		10
Toluene	0.34	J,B	10
(trans) 1,3-Dichloropropene	ND		10
Ethyl methacrylate	ND		10
1,1,2-Trichloroethane	ND		10
Tetrachloroethene	0.64	J	10
2-Hexanone	ND		10
Dibromochloromethane	ND		10
Chlorobenzene	ND		10
Ethylbenzene	ND		10
m,p-Xylene	ND		20
o-Xylene	ND		10
Styrene	ND		10
Bromoform	ND		10
cis-1,4-Dichloro-2-butene	ND		10
1,1,2,2-Tetrachloroethane	ND		10
1,2,3-Trichloropropane	ND		10
trans-1,4-Dichloro-2-butene	ND		10

SURROGATE	% RECOVERY	CONTROL LIMITS
1,2-Dichloroethane-d4	110	76-114
Toluene-d8	105	88-110
4-Bromofluorobenzene	107	86-115

J-The value reported was below the practical quantitation limit. The value is an estimate.
B-The analyte indicated was also found in the blank sample.

Date of Report: March 8, 1995
Samples Submitted: February 22, 1995
Lab Traveler: 02-054
Project: 4339-2

EPA 624
Page 1 of 2

Date Extracted:	3-03-95
Date Analyzed:	3-03-95
Sample Matrix:	Water
Units:	ug/L
Lab ID:	mb0303w1
Client id:	**Method Blank**
Dilution Factor:	1

Compound	RESULTS		PQL
Dichlorodifluoromethane	ND		10
Chloromethane	ND		10
Vinyl Chloride	ND		10
Bromomethane	ND		10
Chloroethane	ND		10
Trichlorofluoromethane	ND		10
1,1-Dichloroethene	ND		10
Acetone	5.50	J	10
Iodomethane	ND		10
Carbon disulfide	ND		10
Methylene Chloride	0.86	J	10
(trans) 1,2-Dichloroethene	ND		10
Acrylonitrile	ND		10
1,1-Dichloroethane	ND		10
Vinyl Acetate	ND		10
2-Butanone	ND		10
Chloroform	ND		10
1,1,1-Trichloroethane	ND		10
Carbon Tetrachloride	ND		10
Benzene	ND		10
1,2-Dichloroethane	ND		10
Trichloroethene	ND		10
1,2-Dichloropropane	ND		10

J-The value reported was below the practical quantitation limit. The value is an estimate.

Date of Report: March 8, 1995
Samples Submitted: February 22, 1995
Lab Traveler: 02-054
Project: 4339-2

EPA 624

Page 2 of 2

Lab ID: mb0303w1
Client id: Method Blank

Dilution Factor: 1

Compound	RESULTS		PQL
Dibromomethane	ND		10
Bromodichloromethane	ND		10
2-Chloroethyl vinyl ether	ND		10
(cis) 1,3-Dichloropropene	ND		10
4-Methyl-2-pentanone	ND		10
Toluene	0.39	J	10
(trans) 1,3-Dichloropropene	ND		10
Ethyl methacrylate	ND		10
1,1,2-Trichloroethane	ND		10
Tetrachloroethene	ND		10
2-Hexanone	ND		10
Dibromochloromethane	ND		10
Chlorobenzene	ND		10
Ethylbenzene	ND		10
m,p-Xylene	ND		20
o-Xylene	ND		10
Styrene	ND		10
Bromoform	ND		10
cis-1,4-Dichloro-2-butene	ND		10
1,1,2,2-Tetrachloroethane	ND		10
1,2,3-Trichloropropane	ND		10
trans-1,4-Dichloro-2-butene	ND		10

SURROGATE	% RECOVERY	CONTROL LIMITS
1,2-Dichloroethane-d4	97	76-114
Toluene-d8	94	88-110
4-Bromofluorobenzene	94	86-115

J-The value reported was below the practical quantitation limit. The value is an estimate.

Date of Report: March 8, 1995
Samples Submitted: February 22, 1995
Lab Traveler: 02-054
Project: 4339-2

EPA 624
MS/MSD QUALITY CONTROL

Date Extracted: 3-03-95
Date Analyzed: 3-03-95

Matrix: Water
Units: ug/L

Dilution Factor: 1

Lab ID: 02-054-5 ms 02-054-5 ms

Compound	Spike Amt.	MS	% Rec.	MSD	% Rec.	RPD
1,1-Dichloroethene	50	54.3	109	50.6	101	7.0
Benzene	50	49.2	98.4	46.5	92.9	5.8
Trichloroethene	50	48.3	96.7	46.0	91.9	5.0
Toluene	50	48.3	95.9	46.1	91.4	4.7
Chlorobenzene	50	49.7	99.2	47.1	94.0	5.3

COMPANY Environmental Associates

PROJECT # 4339-2

PROJECT NAME

MANAGER Timothy A Johnson

PM Em

OnSite Environmental Inc.
14924 NE 31st Circle, Redmond, WA 98052
Phone (206) 883-3881 Fax (206) 885-4603

REQUESTED TURNAROUND? Rush

TRAVELER # 02-054

Dash	Sample Number	Date Sampled	Time Sampled	Type	# Jars	WTPH-HCID Stoddard & Kero	WTPH-G/BTEX	WTPH-8 8270	WTPH-D	WTPH-418.1	modified 8270	Ethylene Glycol	DRY WEIGHT	Comments
1	4339-2 B1 (MW1) @ 20'	2-20	12:10	S	1		X		X				X	
2	4339-2 B2 (MW2) @ 20'	2-20	4:15	S	1		X		X				X	
3	4339-2 B3 (MW3) @ 20'	2-21	8:10	S	1		X		X				X	Call with results
4	4339-2 DryWell PCE 2.3	2-21	11:10	S	4			X			X	X	X	Additional analyses ground water based on dry well sample Analysis results may be highly contaminated
5	4339-2 MW1	2-22	7:30	W	6L 6 VOA		X		X		(X)			
6	4339-2 MW2	2-22	8:05	W	2L 4 VOA		X		X					additional analyses
7	4339-2 MW3	2-22	8:35	W	6L 6 VOA		X		X					based upon dry well results
														(X) added 3/3 as per
														Dave Cep

Submitted Timothy A Johnson Date 2-22-95 Received by [signature] Date 2/22/95

Firm Environmental Associates Time 12:50 Firm OnSite Environmental Time 12:50

Submitted _____ Date _____ Received by _____ Date _____

Firm _____ Time _____ Firm _____ Time _____

APPENDIX F

LABORATORY REPORTS OF SOIL SAMPLES

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

7110 38th Drive SE
Lacey, Washington 98503

Mobile Environmental Laboratories
Environmental Sampling Services

Telephone: **360-459-4670**
Fax: **360-459-3432**

October 4, 1995

Rachel Tauman
Maxim Technologies
201 E. D Street
Yakima, WA 98901

Dear Ms. Tauman:

Please find enclosed the data report for off-site analyses of soil samples conducted October 3, 1995, from the Goodyear Project in Yakima, Washington. The soil samples were analyzed for BTEX by EPA Method 8020 and EPA Method 8010 and Gasoline, Diesel and Oil by WTPH-G and WTPH-D/D Extended.

The results of the analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. An invoice for this work is also enclosed.

TEG Northwest appreciates the opportunity to have provided analytical services to Maxim Technologies for this project. It was a pleasure working with you, and we are looking forward to the next opportunity to work together.

Sincerely,

Michael A Korosec

Michael A. Korosec
President

CHAIN OF CUSTODY RECORD

Huntingdon
Consulting Engineers Environmental Scientists

- ☐ Chen-Northern, Inc., Division
- ☐ Thomas-Hartig & Associates, Inc., Division
- ☐ Schaefer Dixon Associates, Inc., Division
- ☐ Herzog Associates, Inc., Division

Goodyear (Elliot) Tire Center
Project or Site Name

95-3891
Project Number

RACHEL TAUMAN
Sampler Name (Printed)

RACHEL TAUMAN
Contact or Report to

(509) 577-8592
Contact Address or Location

Rachel Tauman
Sampler Signature

DATE COLLECTED	TIME COLLECTED	SAMPLE LOCATION OR DESCRIPTION	COMP OR GRAB	SAMPLE MATRIX	NO. OF CONTAINERS	ANALYSIS REQUIRED: TPH-G	TPH-D Ext	Solvents				NOTES	LAB NUMBER
Aug 29	8:40	OLD SUMP		Sludge	1	X	X	X					

Relinquished by: Rachel Tauman	Date Aug 29	Time 2:40	Received by: Michael Mercer	8:40 8/30
Relinquished by:	Date	Time	Received by:	
Relinquished by:	Date	Time	Received by:	
Relinquished by:	Date	Time	Received by:	

Remarks:
TPH-G
TPH-D Extended
VOC
8010/8020

QA/QC FOR ANALYTICAL METHODS

GENERAL

The TEG Northwest Laboratory quality assurance and quality control (QA/QC) procedures are conducted following the guidelines and objectives which meet or exceed certification/-accreditation requirements of California DOHS, Washington DOE, and Oregon DEQ. The Quality Control Program is a consistent set of procedures which assures data quality through the use of appropriate blanks, replicate analyses, surrogate spikes, and matrix spikes, and with the use of reference standards that meet or exceed EPA standards.

When analyses are taking place on-site with the mobile lab, the need for Field Blanks or Travel/Trip Blanks is eliminated. If there is going to be a delay before sample preparation for analysis, the sample is stored at 4° C.

ANALYTICAL METHODS

TEG Northwest Labs use analytical methodologies which are in conformity with U. S. Environmental Protection Agency (EPA), Washington DOE, and Oregon DEQ methodologies. When necessary and appropriate due to the nature or composition of the sample, TEG may use variations of the methods which are consistent with recognized standards or variations used by the industry and government laboratories.

TPH-Gasoline, TPH-Diesel
(Gasoline and/or Diesel, Modified EPA 8015, WTPH-G and WTPH-D)

A blank and a calibration standard are run at the beginning of the day. The standard must be within 15% of the continuing calibration curve value. The standard is rerun at the end of the day. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135%. A duplicate sample is run at a rate of 1 per 10 samples (or a matrix spike sample is prepared and analyzed). At least 1 method blank is run per 10 samples analyzed.

Purgeable Volatile Aromatics
(BTEX, EPA 602/8020)

A blank and a calibration standard are run at the beginning of the day. The standard must be within 15% of the continuing calibration curve value. The standard is rerun at the end of the day if more than 10 samples have been run. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135%. At least 1 method blank is run per day.

Purgeable Volatile Halocarbons
(Chlorinated Hydrocarbons, EPA 601/8010,8021)

A blank and a calibration standard are run at the beginning of the day. The standard must be within 15% of the continuing calibration curve value. The standard is rerun at the end of the day if more than 10 samples have been run. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135%. At least 1 method blank is run per day.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	Method Blank	N. Sump Base	N. Sump Catchm.	O. Sump S. Wall	O. Sump Base	O. Sump N. Wall	N. Sump N. Wall
Date	mg/kg	09/05/95 mg/kg	09/05/95 mg/kg	09/05/95 mg/kg	09/05/95 mg/kg	09/05/95 mg/kg	09/05/95 mg/kg	09/05/95 mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Trans-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Benzene	0.05	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	0.05	nd	nd	nd	nd	nd	nd	nd
1,1 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1,2 Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2,2 Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Recovery (%)		97	94	86	104	105	109	106

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	N. Sump S. Wall	Stockpile	Stockpile Dup
Date		09/05/95	09/05/95	09/05/95
	mg/kg	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd	nd
Trans-1,2 Dichloroethene	0.05	nd	nd	nd
Benzene	0.05	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd
Toluene	0.05	nd	nd	nd
Tetrachloroethene	0.05	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd
Total Xylenes	0.05	nd	nd	nd
1,1 Dichloroethane	0.05	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd
Chloroform	0.05	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd
1,1,1,2 Tetrachloroethane	0.05	nd	nd	nd
1,1,2,2 Tetrachloroethane	0.05	nd	nd	nd
Recovery (%)		108	98	104

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Gasoline, Diesel and Oil in Soil by WTPH-G and WTPH-D/D-Extended

Sample Number	Date	Recovery %	Gasoline mg/kg	Diesel mg/kg	Heavy Oil mg/kg
Meth. Blank	09/05/95	99	nd	nd	nd
Old Sump, Base	09/05/95	89	nd	nd	nd
Old Sump, North Wall	09/05/95	108	nd	nd	nd
Old Sump, South Wall	09/05/95	93	nd	nd	nd
New Sump, Base	09/05/95	104	nd	nd	nd
New Sump, North Wall	09/05/95	113	nd	nd	nd
New Sump, South Wall	09/05/95	112	nd	nd	nd
New Sump, Catchment	09/05/95	103	nd	nd	nd
Stockpile	09/05/95	99	nd	nd	109
Stockpile-Dup	09/05/95	109	nd	nd	109
MDL			10	10	20

"nd" Indicates not detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

	MDL	Method Blank	GYI-1 2'	GYI-2 2'	GYI-3 2'	GYI-3 2'-Dup	GYI-4 2'
Date		09/08/95	09/08/95	09/08/95	09/08/95	09/08/95	09/08/95
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
cis-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
Benzene	0.05	nd	nd	nd	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd
Tetrachloroethene	0.05	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd
Total Xylenes	0.05	nd	nd	nd	nd	nd	nd
1,1 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd
1,1,1,2 Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd
1,1,2,2 Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd
Recovery (%)		82	95	108	99	103	85

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

	MDL	Method Blank	GYI-1 4'	GYI-1 5'	GYI-2 3'	GYI-2 4'	GYI-3 3'	GYI-4 4'	GYI-5 2'
Date		09/11/95	09/11/95	09/11/95	09/11/95	09/11/95	09/11/95	09/11/95	09/11/95
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
cis-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Benzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2 Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2 Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Recovery (%)		92	93	99	98	97	94	93	106

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

	MDL	GYI-5 2'-Dup	GYI-5 3'	GYI-6 2'	GYI-6 3'	GYI-7 2'	GYI-7 3'	GYI-7 3'-Dup
Date		09/11/95	09/11/95	09/11/95	09/11/95	09/11/95	09/11/95	09/11/95
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
trans-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
cis-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Benzene	0.05	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	0.05	nd	nd	nd	nd	nd	nd	nd
1,1 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1,2 Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2,2 Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Recovery (%)		97	97	96	95	107	97	107

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Gasoline, Diesel and Oil in Soil by WTPH-G and WTPH-D/D-Extended

Sample Number	Date	Recovery %	Gasoline mg/kg	Diesel mg/kg	Heavy Oil mg/kg
Meth. Blank	09/11/95	97	nd	nd	nd
GYI-1-2'	09/11/95	95	nd	nd	397
GYI-1-4'	09/11/95	100	nd	nd	nd
GYI-1-5'	09/11/95	117	nd	nd	36
GYI-2-2'	09/11/95	100	nd	nd	31
GYI-2-3'	09/11/95	83	nd	nd	nd
GYI-2-4'	09/11/95	90	nd	nd	nd
GYI-3-2'	09/11/95	107	nd	1230	584
GYI-3-2'-Dup	09/11/95	128	nd	1480	763
GYI-3-3'	09/11/95	75	nd	nd	nd
GYI-4-2'	09/11/95	97	nd	nd	nd
GYI-4-4'	09/11/95	103	nd	nd	nd
GYI-4-6'	09/11/95	104	nd	nd	nd
GYI-5-2'	09/11/95	103	nd	nd	nd
GYI-5-3'	09/11/95	116	nd	nd	nd
GYI-5-3'-Dup	09/11/95	116	nd	nd	nd
GYI-6-2'	09/11/95	109	nd	nd	nd
GYI-6-3'	09/11/95	99	nd	nd	nd
GYI-7-2'	09/11/95	111	nd	nd	nd
GYI-7-3'	09/11/95	107	nd	nd	nd
MDL			10	10	20

"nd" Indicates not detected at the listed detection limit.

"int" Indicates that interference peaks prevent determination.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC

GOODYEAR TIRE CENTER PROJECT
Yakima, Washington
Maxim Technology, Inc.
Project No. 95-3891

Total Lead Analyses (EPA 7420) for Soils

SAMPLE Number	Date Analyzed	Lead (mg/kg)
Meth. Blank	09/07/95	nd
Old Sump	09/07/95	275

Method Detection Limit = 5.0 mg/kg
"nd" Indicates Not Detected at the listed MDL.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

GOODYEAR PROJECT
Yakima, Washington
Maxim Technologies, Inc.

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	Method Blank	GYI-4 6'
Date		09/11/95	09/11/95
	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd
1,2 Dichloroethene	0.05	nd	nd
Benzene	0.05	nd	nd
Trichloroethene	0.05	nd	nd
Toluene	0.05	nd	nd
Tetrachloroethene	0.05	nd	nd
Ethylbenzene	0.05	nd	nd
Total Xylenes	0.05	nd	nd
1,1 Dichloroethane	0.05	nd	nd
1,2 Dichloroethane	0.05	nd	nd
Chloroform	0.05	nd	nd
Carbon Tetrachloride	0.05	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd
Tetrachloroethane	0.05	nd	nd
Spike Recovery (%)		92	86

"nd" Indicates Not Detected at the listed detection limit.

"int" Indicates that interference peaks prevent determination.

teg TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

CHAIN-OF-CUSTODY RECORD

CLIENT: Maxim Technologies
ADDRESS:
PHONE   FAX:
CLIENT PROJECT #:   PROJECT MANAGER: Rachel Tanimura

DATE: 9/08/95 PAGE 1 OF
PROJECT NAME: Goodyear Project
LOCATION: Yakima, Washington
COLLECTOR: Kevin Vanderhey/[illegible] DATE OF COLLECTION 9/08.

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (gasoline)	TPH (8015 (diesel)	TPH 8015 (g & d)	PAH 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TOTAL LEAD	pH	ASBESTOS	FIELD NOTES	Total Number of Containers	Laboratory Note Number
G/I-1	2'		Soil	4oz jar	X	X				↓											1	
G/I-1	4'		↓	↓	↓	↓				↓											1	
G/I-1	5'																				1	
G/I-2	2'																				1	
G/I-2	4'																				1	
G/I-2	~~5'~~ 3'																				1	
G/I-3	2'																				1	
G/I-3	3'																				1	
G/I-4	2'																				1	
G/I-4	4'																				1	
G/I-4.	6'																				1	
G/I-5	2'																				1	
G/I-5	3'																				1	
G/I-6	2'																				1	
G/I-6	3'																				1	
G/O-7	2'																				1	
G/O-7	3'		↓	↓	↓	↓				↓											1	

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
[signature]		[signature]	9/8/95 16:00.
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT

TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

teg TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

CHAIN-OF-CUSTODY RECORD

CLIENT: Maxim Technologies, Inc.
ADDRESS:
PHONE FAX:
CLIENT PROJECT #: PROJECT MANAGER: Rachel Tavernier

DATE: 9/05/95 PAGE OF
PROJECT NAME: Goodyear
LOCATION: Yakima, WA
COLLECTOR: DATE OF COLLECTION 9/04.

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (gasoline)	TPH (8015 (diesel)	TPH 8015 (g & d)	PAH 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TOTAL LEAD	pH	ASBESTOS	FIELD NOTES	Total Number of Containers	Laboratory Note Number
base of excavation	new sump near path		soil	4 oz jar	X	X				X	X										1	
base of excavation	beneath new sump		soil	4 oz jar	X	X				X	X										1	
new sump	north wall		soil	4 oz jar	X	X				X	X										1	
new sump	south wall		soil	4 oz jar	X	X				X	X										1	
old sump	base		soil	4 oz jar	X	X				X	X										1	
old sump	N. wall		soil	4 oz jar	X	X				X	X										1	
old sump	S. wall		soil	4 oz jar	X	X				X	X										1	
stockpile			soil	4 oz jar	X	X				X	X										1	

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
Rachel Tavernier			9/05/95 16:15
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

7110 38th Drive SE
Lacey, Washington 98503

Mobile Environmental Laboratories
Environmental Sampling Services

Telephone: **360-459-4670**
Fax: **360-459-3432**

September 1, 1995

Rachel Tauman
Maxim Technologies
201 E. D Street
Yakima, WA 98901

Dear Ms. Tauman:

Please find enclosed the data report for analyses conducted off-site August 30, 1995, for soil samples from the Goodyear (Elliot) Tire Center Project in Yakima, Washington. The soil samples were analyzed for Specific Halogenated Hydrocarbons and BTEX by Modified EPA Method 8010/8020 and Gasoline, Diesel and Oil by WTPH-G and WTPH-D/D Extended.

The results of these analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also enclosed.

TEG Northwest appreciates the opportunity to have provided analytical services to Maxim Technologies for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Michael A Korosec

Michael A. Korosec
President

QA/QC FOR ANALYTICAL METHODS

GENERAL

The TEG Northwest Laboratory quality assurance and quality control (QA/QC) procedures are conducted following the guidelines and objectives which meet or exceed certification/-accreditation requirements of California DOHS, Washington DOE, and Oregon DEQ. The Quality Control Program is a consistent set of procedures which assures data quality through the use of appropriate blanks, replicate analyses, surrogate spikes, and matrix spikes, and with the use of reference standards that meet or exceed EPA standards.

When analyses are taking place on-site with the mobile lab, the need for Field Blanks or Travel/Trip Blanks is eliminated. If there is going to be a delay before sample preparation for analysis, the sample is stored at 4° C.

ANALYTICAL METHODS

TEG Northwest Labs use analytical methodologies which are in conformity with U. S. Environmental Protection Agency (EPA), Washington DOE, and Oregon DEQ methodologies. When necessary and appropriate due to the nature or composition of the sample, TEG may use variations of the methods which are consistent with recognized standards or variations used by the industry and government laboratories.

TPH-Gasoline, TPH-Diesel
(Gasoline and/or Diesel, Modified EPA 8015, WTPH-G and WTPH-D)

A blank and a calibration standard are run at the beginning of the day. The standard must be within 15% of the continuing calibration curve value. The standard is rerun at the end of the day. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135%. A duplicate sample is run at a rate of 1 per 10 samples (or a matrix spike sample is prepared and analyzed). At least 1 method blank is run per 10 samples analyzed.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

GOODYEAR (ELLIOT) TIRE CENTER PROJECT
Yakima, Washington
Maxim Technology, Inc.
Project No.: 95-3891

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	Method Blank	OLD SUMP
Date		08/30/95	08/30/95
	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd
1,2 Dichloroethene	0.05	nd	nd
Benzene	0.05	nd	nd
Trichloroethene	0.05	nd	nd
Toluene	0.05	nd	nd
Tetrachloroethene	0.05	nd	nd
Ethylbenzene	0.05	nd	nd
Total Xylenes	0.05	nd	nd
1,1 Dichloroethane	0.05	nd	nd
1,2 Dichloroethane	0.05	nd	nd
Chloroform	0.05	nd	nd
Carbon Tetrachloride	0.05	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd
Tetrachloroethane	0.05	nd	nd
Spike Recovery (%)		100	90

"nd" Indicates Not Detected at the listed detection limit.

"int" Indicates that interference peaks prevent determination.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

GOODYEAR (ELLIOT) TIRE CENTER PROJECT
Yakima, Washington
Maxim Technology, Inc.
Project No.: 95-3891

Gasoline, Diesel and Oil in Soil by WTPH-G and WTPH-D/D-Extended

Sample Number	Date	Recovery %	Gasoline mg/kg	Diesel mg/kg	Heavy Oil mg/kg
Meth. Blank	08/30/95	90	nd	nd	nd
Old Sump	08/30/95	94	nd	nd	10000
MDL			10	20	20

"nd" Indicates not detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

QA/QC FOR ANALYTICAL METHODS

GENERAL

The TEG Northwest Laboratory quality assurance and quality control (QA/QC) procedures are conducted following the guidelines and objectives which meet or exceed certification/-accreditation requirements of California DOHS, Washington DOE, and Oregon DEQ. The Quality Control Program is a consistent set of procedures which assures data quality through the use of appropriate blanks, replicate analyses, surrogate spikes, and matrix spikes, and with the use of reference standards that meet or exceed EPA standards.

When analyses are taking place on-site with the mobile lab, the need for Field Blanks or Travel/Trip Blanks is eliminated. If there is going to be a delay before sample preparation for analysis, the sample is stored at 4° C.

ANALYTICAL METHODS

TEG Northwest Labs use analytical methodologies which are in conformity with U. S. Environmental Protection Agency (EPA), Washington DOE, and Oregon DEQ methodologies. When necessary and appropriate due to the nature or composition of the sample, TEG may use variations of the methods which are consistent with recognized standards or variations used by the industry and government laboratories.

Purgeable Volatile Aromatics (BTEX, EPA 602/8020)

A blank and a calibration standard are run at the beginning of the day. The standard must be within 15% of the continuing calibration curve value. The standard is rerun at the end of the day if more than 10 samples have been run. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135%. At least 1 method blank is run per day.

Purgeable Volatile Halocarbons
(Chlorinated Hydrocarbons, EPA 601/8010,8021)

A blank and a calibration standard are run at the beginning of the day. The standard must be within 15% of the continuing calibration curve value. The standard is rerun at the end of the day if more than 10 samples have been run. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135%. At least 1 method blank is run per day.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

BTEX (EPA 8020), Trichlorethene & Tetrachloroethene (EPA 8010) Analyses for Soils

Sample Number	Date Analyzed	Benzene mg/kg	Toluene mg/kg	Eth Benz mg/kg	Xylene mg/kg	TCE mg/kg	PCE mg/kg	Recovery (%)
Meth. Blank	10/03/95	nd	nd	nd	nd	nd	nd	89
4-A Near Hoist	10/03/95	nd	nd	nd	nd	nd	nd	102
5-A Near Hoist	10/03/95	nd	nd	nd	nd	nd	0.05	98
Detection Limits		0.05	0.05	0.05	0.05	0.05	0.05	

"nd" Indicates not detected at the listed detection limits.

"int" Indicates that interferences prevent determination.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Gasoline, Diesel and Oil in Soil by WTPH-G and WTPH-D/D-Extended

Sample Number	Date	Recovery %	Gasoline mg/kg	Diesel mg/kg	Heavy Oil mg/kg
Meth. Blank	10/03/95	93	nd	nd	nd
4-A Near Hoist	10/03/95	106	nd	nd	nd
5-A Near Hoist	10/03/95	108	nd	nd	nd
MDL			10	20	40

"nd" Indicates not detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

Goodyear

Mike Lovejoy Elliot Tire

Project or Site Name

Project Number

RACHEL TAUMAN

Sampler Name (Printed)

CHAIN OF CUSTODY RECORD

Huntingdon

Consulting Engineers Environmental Scientists

- ☐ Chen-Northern, Inc., Division
- ☐ Thomas-Hartig & Associates, Inc., Division
- ☐ Schaefer Dixon Associates, Inc., Division
- ☐ Herzog Associates, Inc., Division

RACHEL TAUMAN

Contact or Report to

(509) 577-8592

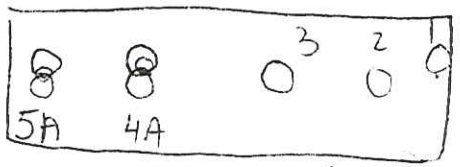
Contact Address or Location

Sampler Signature

DATE COLLECTED	TIME COLLECTED	SAMPLE LOCATION OR DESCRIPTION	COMP OR GRAB	SAMPLE MATRIX	NO. OF CONTAINERS	ANALYSIS REQUIRED 8010/8020	TPH-D	TPH-G				NOTES	LAB NUMBER
oct 2	1:30	5A near Horst	Grab	Soil	1	X	X	X					
	2:00	4A near Horst	Grab	Soil	1	X	X	X					
							H	F	+1	N			

	Date	Time	Received by:
Relinquished by: Rachel Tauman	oct 2, 1995	2:30	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date 10/3/95	Time 10:20 AM	Received by: Patricia A Kovacs
Relinquished by:	Date	Time	Received by:

Remarks:



VOCs 8010/8020

TPH D - Extended

TPH - G

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

7110 38th Drive SE
Lacey, Washington 98503

Mobile Environmental Laboratories
Environmental Sampling Services

Telephone: **360-459-4670**
Fax: **360-459-3432**

September 13, 1995

Rachel Tauman
Maxim Technologies
201 E. D Street
Yakima, WA 98901

Dear Ms. Tauman:

Please find enclosed the data reports for on-site collection and analyses of soil samples conducted September 5 and 8, 1995, at the Goodyear Project in Yakima, Washington. Additional samples were analyzed off-site September 11, 1995. The soil samples were analyzed for Specific Halogenated Hydrocarbons and BTEX by Modified EPA Method 8010/8020 and Gasoline, Diesel and Oil by WTPH-G and WTPH-D/D Extended.

The results of the analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. An invoice for this work is also enclosed.

TEG Northwest appreciates the opportunity to have provided analytical and geosampling services to Maxim Technologies for this project. It was a pleasure working with you, and we are looking forward to the next opportunity to work together.

Sincerely,

Michael A. Korosec

Michael A. Korosec
President

GOODYEAR PROJECT
Yakima, Washington
Maxim Technologies, Inc.

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	CH-4 Interior	CH-5 Interior
Date		08/28/95	08/28/95
	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd
1,2 Dichloroethene	0.05	nd	nd
Benzene	0.05	nd	nd
Trichloroethene	0.05	nd	0.08
Toluene	0.05	nd	nd
Tetrachloroethene	0.05	0.29	0.12
Ethylbenzene	0.05	nd	nd
Total Xylenes	0.05	nd	nd
1,1 Dichloroethane	0.05	nd	nd
1,2 Dichloroethane	0.05	nd	nd
Chloroform	0.05	nd	nd
Carbon Tetrachloride	0.05	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd
Tetrachloroethane	0.05	nd	nd
Spike Recovery (%)		103	118

"nd" Indicates Not Detected at the listed detection limit.

"int" Indicates that interference peaks prevent determination.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

GOODYEAR PROJECT
Yakima, Washington
Maxim Technologies, Inc.

Gasoline, Diesel and Oil in Soil by WTPH-G and WTPH-D/D-Extended

Sample Number	Date	Recovery %	Gasoline mg/kg	Diesel mg/kg	Heavy Oil mg/kg
Meth. Blank	08/28/95	107	nd	nd	nd
Old Dry Well	08/28/95	122	nd	nd	3230
Old Dry Well Dup	08/28/95	98	nd	nd	3880
CH-1 Interior	08/28/95	82	nd	nd	nd
CH-2 Interior	08/28/95	84	nd	nd	3230
CH-3 Interior	08/28/95	82	nd	nd	536
CH-4 Interior	08/28/95	107	nd	182	283
CH-5 Interior	08/28/95	84	nd	820	737
MDL			10	20	20

"nd" Indicates not detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

Goodyear Site - Yorktown

CHAIN OF CUSTODY RECORD

Huntingdon
Consulting Engineers Environmental Scientists

RACHEL TAUMAN

Project or Site Name

95-3891

Project Number

Rachel Tauman

Sampler Name (Printed)

- [x] Chen-Northern, Inc., Division
- [ ] Thomas-Hartig & Associates, Inc., Division
- [ ] Schaefer Dixon Associates, Inc., Division
- [ ] Herzog Associates, Inc., Division

Contact or Report to

Contact Address or Location

Sampler Signature

DATE COLLECTED	TIME COLLECTED	SAMPLE LOCATION OR DESCRIPTION	COMP OR GRAB	SAMPLE MATRIX	NO. OF CONTAINERS	ANALYSIS REQUIRED: TPH-G	ANALYSIS REQUIRED: TPH-D (EXTENDED)	ANALYSIS REQUIRED: 8021	NOTES	LAB NUMBER
Aug 24	9:00	~~SOIL~~ OLD DRY WELL		Soil	1	X	X	X	All get	
	10:00	CH-1 Interval			1	X	X	X	① TPH-G	
	10:10	CH-2 Interval			1	X	X	X	② D extended	
	10:20	CH-3 Interval			1	X	X	X	③ 8021	
	10:30	CH-4 Interval			1	X	X	X		
	11:40	CH-5 Interval			1	X	X	X		

Relinquished by: Rachel Tauman	Date Aug 24	Time 11:15	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:

Remarks:

old dry well is the reg drain drywell

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Total Lead Analyses (EPA 7420) for Soils

SAMPLE Number	Date Analyzed	Lead (mg/kg)
Meth. Blank	08/22/95	nd
G1-01	08/22/95	nd
G1-01 Dup.	08/22/95	nd
G1-02	08/22/95	nd
G1-03	08/22/95	nd
G2-01	08/22/95	nd
G2-02	08/22/95	nd

Method Detection Limit = 8.0 mg/kg
"nd" Indicates Not Detected at the listed MDL.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

7110 38th Drive SE
Lacey, Washington 98503

Mobile Environmental Laboratories
Environmental Sampling Services

Telephone: 360-459-4670
Fax: 360-459-3432

August 22, 1995

Rachel Tauman
Maxim Technologies
201 E. D Street
Yakima, WA 98901

Dear Ms. Tauman:

Please find enclosed the data report for analyses conducted on-site August 15-18, and off-site August 21, 1995, for soil and water samples from the Goodyear Project in Yakima, Washington. The samples were analyzed for Gasoline, Diesel and Oil by WTPH-G and WTPH-D/D Extended, and Specific Halogenated Hydrocarbons and BTEX by Modified EPA Method 8010/8020.

The results of these analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also enclosed.

TEG Northwest appreciates the opportunity to have provided analytical services to Maxim Technologies for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Michael A. Korosec

Michael A. Korosec
President

QA/QC FOR ANALYTICAL METHODS

GENERAL

The TEG Northwest Laboratory quality assurance and quality control (QA/QC) procedures are conducted following the guidelines and objectives which meet or exceed certification/-accreditation requirements of California DOHS, Washington DOE, and Oregon DEQ. The Quality Control Program is a consistent set of procedures which assures data quality through the use of appropriate blanks, replicate analyses, surrogate spikes, and matrix spikes, and with the use of reference standards that meet or exceed EPA standards.

When analyses are taking place on-site with the mobile lab, the need for Field Blanks or Travel/Trip Blanks is eliminated. If there is going to be a delay before sample preparation for analysis, the sample is stored at 4° C.

ANALYTICAL METHODS

TEG Northwest Labs use analytical methodologies which are in conformity with U. S. Environmental Protection Agency (EPA), Washington DOE, and Oregon DEQ methodologies. When necessary and appropriate due to the nature or composition of the sample, TEG may use variations of the methods which are consistent with recognized standards or variations used by the industry and government laboratories.

TPH-Gasoline, TPH-Diesel
(Gasoline and/or Diesel, Modified EPA 8015, WTPH-G and WTPH-D)

A blank and a calibration standard are run at the beginning of the day. The standard must be within 15% of the continuing calibration curve value. The standard is rerun at the end of the day. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135%. A duplicate sample is run at a rate of 1 per 10 samples (or a matrix spike sample is prepared and analyzed). At least 1 method blank is run per 10 samples analyzed.

Purgeable Volatile Aromatics
(BTEX, EPA 602/8020)

A blank and a calibration standard are run at the beginning of the day. The standard must be within 15% of the continuing calibration curve value. The standard is rerun at the end of the day if more than 10 samples have been run. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135%. At least 1 method blank is run per day.

Purgeable Volatile Halocarbons
(Chlorinated Hydrocarbons, EPA 601/8010,8021)

A blank and a calibration standard are run at the beginning of the day. The standard must be within 15% of the continuing calibration curve value. The standard is rerun at the end of the day if more than 10 samples have been run. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135%. At least 1 method blank is run per day.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	Method Blank	TP2-4'	TP2-4' Dup	TP2-8'	TP2-10	TP7-3'	TP7-6'
Date		08/15/95	08/15/95	08/15/95	08/15/95	08/15/95	08/15/95	08/15/95
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Trans-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Benzene	0.05	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	0.05	nd	nd	nd	nd	nd	nd	nd
1,1 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Recovery (%)		113	110	111	87	81	84	105

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	TP7-10'	TP12-3'	TP12-6'	TP12-10'	TP3-3'	TP3-6'	TP3-6' Dup
Date		08/15/95	08/15/95	08/15/95	08/15/95	08/15/95	08/15/95	08/15/95
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Trans-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Benzene	0.05	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	0.05	nd	nd	nd	nd	nd	nd	nd
1,1 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Recovery (%)		111	105	98	87	91	106	101

"nd" Indicates Not Detected at the listed detection limit.

"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	TP-3-10'	Stockpile #1
Date		08/15/95	08/15/95
	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd
Trans-1,2 Dichloroethene	0.05	nd	nd
Benzene	0.05	nd	nd
Trichloroethene	0.05	nd	nd
Toluene	0.05	nd	nd
Tetrachloroethene	0.05	nd	nd
Ethylbenzene	0.05	nd	nd
Total Xylenes	0.05	nd	nd
1,1 Dichloroethane	0.05	nd	nd
1,2 Dichloroethane	0.05	nd	nd
Chloroform	0.05	nd	nd
Carbon Tetrachloride	0.05	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd
Tetrachloroethane	0.05	nd	nd
Recovery (%)		94	107

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Gasoline, Diesel and Oil in Soil by WTPH-G and WTPH-D/D-Extended

Sample Number	Date	Recovery %	Gasoline mg/kg	Diesel mg/kg	Heavy Oil mg/kg
Meth. Blank	08/15/95	114	nd	nd	nd
TP2-4'	08/15/95	86	nd	nd	nd
TP2-4'-Dup	08/15/95	87	nd	nd	nd
TP2-8'	08/15/95	98	nd	nd	nd
TP2-10'	08/15/95	105	nd	nd	nd
TP7-3'	08/15/95	95	nd	nd	nd
TP7-6'	08/15/95	101	nd	nd	nd
TP7-10'	08/15/95	89	nd	nd	nd
TP12-3'	08/15/95	87	nd	nd	nd
TP12-6'	08/15/95	93	nd	nd	nd
TP12-10'	08/15/95	105	nd	nd	nd
TP3-3'	08/15/95	94	nd	nd	nd
TP3-6'	08/15/95	92	nd	nd	nd
TP3-6'-Dup	08/15/95	81	nd	nd	nd
TP3-9'	08/15/95	105	nd	nd	nd
Stockpile #1	08/15/95	87	nd	nd	nd
MDL			10	10	20

"nd" Indicates not detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	G1-01	G1-02	G1-03	G2-01	G2-02	G2-02 Dup	TP13-3'
Date		08/16/95	08/16/95	08/16/95	08/16/95	08/16/95	08/16/95	08/16/95
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Trans-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Benzene	0.05	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	0.07	nd
Tetrachloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	0.07	nd
Total Xylenes	0.05	nd	nd	nd	nd	0.35	0.59	nd
1,1 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Recovery (%)		88	120	94	91	81	88	100

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	TP13-6'	TP13-10'	TP8-3'
Date		08/16/95	08/16/95	08/16/95
	mg/kg	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd	nd
Trans-1,2 Dichloroethene	0.05	nd	nd	nd
Benzene	0.05	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd
Toluene	0.05	nd	nd	nd
Tetrachloroethene	0.05	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd
Total Xylenes	0.05	nd	nd	nd
1,1 Dichloroethane	0.05	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd
Chloroform	0.05	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd
Tetrachloroethane	0.05	nd	nd	nd
Recovery (%)		98	98	80

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Gasoline, Diesel and Oil in Soil by WTPH-G and WTPH-D/D-Extended

Sample Number	Date	Recovery %	Gasoline mg/kg	Diesel mg/kg	Heavy Oil mg/kg
Meth. Blank	08/16/95	93	nd	nd	nd
G1-01	08/16/95	99	nd	nd	nd
G1-02	08/16/95	85	nd	nd	nd
G1-03	08/16/95	95	nd	nd	nd
G2-01	08/16/95	89	nd	nd	nd
G2-02	08/16/95	86	115	nd	nd
G2-02-Dup	08/16/95	80	95	nd	nd
TP13-3'	08/16/95	89	nd	nd	nd
TP13-6'	08/16/95	97	nd	nd	nd
TP13-10'	08/16/95	87	nd	nd	nd
TP8-3'	08/16/95	92	nd	nd	nd
MDL			10	10	20

"nd" Indicates not detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	Method Blank	G2-03	G2-04	G2-04 Dup	G2-05	G2-06	Sump #2
Date		08/17/95	08/17/95	08/17/95	08/17/95	08/17/95	08/17/95	08/17/95
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Trans-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Benzene	0.05	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	0.05	nd	nd	nd	nd	nd	nd	nd
1,1 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Recovery (%)		87	106	103	100	82	82	121

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	TP8-6'	TP8-10'	TP9-3'	TP9-6'	TP9-11'	TP4-3'	TP4-6'
Date		08/17/95	08/17/95	08/17/95	08/17/95	08/17/95	08/17/95	08/17/95
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Trans-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Benzene	0.05	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	0.05	nd	nd	nd	nd	nd	nd	nd
1,1 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Recovery (%)		114	101	95	95	84	80	81

"nd" Indicates Not Detected at the listed detection limit.

"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	TP4-10'	TP14-3'	TP14-3' Dup
Date		08/17/95	08/17/95	08/17/95
	mg/kg	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd	nd
Trans-1,2 Dichloroethene	0.05	nd	nd	nd
Benzene	0.05	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd
Toluene	0.05	nd	nd	nd
Tetrachloroethene	0.05	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd
Total Xylenes	0.05	nd	nd	nd
1,1 Dichloroethane	0.05	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd
Chloroform	0.05	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd
Tetrachloroethane	0.05	nd	nd	nd
Recovery (%)		80	114	116

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Gasoline, Diesel and Oil in Soil by WTPH-G and WTPH-D/D-Extended

Sample Number	Date	Recovery %	Gasoline mg/kg	Diesel mg/kg	Heavy Oil mg/kg
Meth. Blank	08/17/95	99	nd	nd	nd
G2-03	08/17/95	97	nd	nd	nd
G2-04	08/17/95	101	nd	nd	nd
G2-04-Dup	08/17/95	105	nd	nd	nd
G2-05	08/17/95	93	nd	nd	nd
G2-06	08/17/95	102	nd	nd	nd
Sump #2	08/17/95	98	nd	nd	20
TP8-6'	08/17/95	100	nd	nd	nd
TP8-10'	08/17/95	116	nd	nd	nd
TP9-3'	08/17/95	99	nd	nd	68
TP9-6'	08/17/95	99	nd	nd	65
TP9-10'	08/17/95	108	nd	nd	47
TP4-3'	08/17/95	118	nd	nd	25
TP4-6'	08/17/95	110	nd	nd	21
TP4-10'	08/17/95	97	nd	nd	nd
TP14-3'	08/17/95	91	nd	nd	447
TP14-3'-Dup	08/17/95	89	nd	nd	442
MDL			10	10	20

"nd" Indicates not detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	Method Blank	TP14-6'	TP14-10'	TP5-3'	TP5-3' Dup	TP5-6'	TP5-10'
Date		08/18/95	08/18/95	08/18/95	08/18/95	08/18/95	08/18/95	08/18/95
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Trans-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Benzene	0.05	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	0.05	nd	nd	nd	nd	nd	nd	nd
1,1 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Recovery (%)		101	107	120	107	120	80	84

"nd" Indicates Not Detected at the listed detection limit.

"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	TP10-3'	TP10-6'	TP10-10'	TP1-3'	TP1-10'	TP1-10' Dup	2' Below Sump
Date		08/18/95	08/18/95	08/18/95	08/18/95	08/18/95	08/18/95	08/18/95
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	0.10
Trans-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Benzene	0.05	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	0.14
Tetrachloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	0.06
Total Xylenes	0.05	nd	nd	nd	nd	nd	nd	0.41
1,1 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Recovery (%)		94	97	89	107	116	106	110

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Sludge

Sample-Number	MDL	Drum 2	Sump Sludge
Date		08/18/95	08/18/95
	ug/l	ug/l	ug/l
1,1 Dichloroethene	1	402	nd
Cis-1,2 Dichloroethene	1	nd	43
Trans-1,2 Dichloroethene	1	nd	nd
Benzene	1	35	8
Trichloroethene	1	nd	1
Toluene	1	271	71
Tetrachloroethene	1	3	2
Ethylbenzene	1	179	40
Total Xylenes	1	2230	146
1,1 Dichloroethane	1	nd	nd
1,2 Dichloroethane	1	nd	nd
Chloroform	1	nd	nd
Carbon Tetrachloride	1	nd	nd
1,1,1 Trichloroethane	1	25	nd
1,1,2 Trichloroethane	1	nd	nd
Tetrachloroethane	1	nd	nd
Recovery (%)		80	113

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	Method Blank	TP1-6	TP1-10	TP1-10 Dup	TP6-3	TP6-6	TP6-10
Date		08/21/95	08/21/95	08/21/95	08/21/95	08/21/95	08/21/95	08/21/95
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Trans-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Benzene	0.05	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	0.05	nd	nd	nd	nd	nd	nd	nd
1,1 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Recovery (%)		98	102	96	99	102	97	99

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	TP9-10	TP11-3	TP11-6	TP11-10	TP14-11	TP15-3	TP15-6
Date		08/21/95	08/21/95	08/21/95	08/22/95	08/21/95	08/21/95	08/21/95
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Trans-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Benzene	0.05	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	0.05	nd	nd	nd	nd	nd	nd	nd
1,1 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
	0.05							
Recovery (%)		102	102	98	105	93	98	105

"nd" Indicates Not Detected at the listed detection limit.

"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	TP15-12	TP16-13	TP17-3	TP18-3	TP19-3	TP19-3 Dup	TP20-3
Date		08/21/95	08/21/95	08/22/95	08/22/95	08/21/95	08/21/95	08/21/95
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Trans-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Benzene	0.05	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	0.05	nd	nd	nd	nd	nd	nd	nd
1,1 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
	0.05							
Recovery (%)		103	105	97	92	98	98	100

"nd" Indicates Not Detected at the listed detection limit.

"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Gasoline, Diesel and Oil in Soil by WTPH-G and WTPH-D/D-Extended

Sample Number	Date	Recovery %	Gasoline mg/kg	Diesel mg/kg	Heavy Oil mg/kg
Meth. Blank	08/18/95	111	nd	nd	nd
TP14-6'	08/18/95	84	nd	nd	nd
TP14-10'	08/18/95	94	nd	nd	nd
Drum 1	08/18/95	int	nd	nd	1040000
Drum 2	08/18/95	int	3560	188	326
TP5-3'	08/18/95	104	nd	nd	33
TP5-3'-Dup	08/18/95	91	nd	nd	21
TP5-6'	08/18/95	103	nd	nd	nd
TP5-10'	08/18/95	106	nd	nd	nd
TP10-3'	08/18/95	110	nd	nd	35
TP10-6'	08/18/95	105	nd	nd	42
TP10-10'	08/18/95	101	nd	nd	17
TP1-3'	08/18/95	120	nd	nd	27
TP1-6'	08/18/95	104	nd	nd	nd
2' Below Sump	08/18/95	int	nd	nd	4408
Sump Sludge	08/18/95	int	nd	nd	277
MDL			10	10	20

"nd" Indicates not detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Gasoline, Diesel and Oil in Soil by WTPH-G and WTPH-D/D-Extended

Sample Number	Date Analyzed	Recovery %	Gasoline mg/kg	Diesel mg/kg	Heavy Oil mg/kg
Meth. Blank	08/21/95	98	nd	nd	nd
TP1-6	08/21/95	102	nd	nd	nd
TP1-10	08/21/95	96	nd	nd	nd
TP1-10 Dup	08/21/95	99	nd	nd	nd
TP6-3	08/21/95	102	nd	nd	nd
TP6-6	08/21/95	97	nd	nd	nd
TP6-10	08/21/95	99	nd	nd	nd
TP9-10	08/21/95	102	nd	nd	nd
TP11-3	08/21/95	102	nd	nd	nd
TP11-6	08/21/95	98	nd	nd	nd
TP11-10	08/21/95	105	nd	nd	nd
TP14-11	08/22/95	93	nd	nd	nd
TP15-3	08/21/95	98	nd	nd	nd
TP15-6	08/21/95	105	nd	nd	140
TP15-12	08/21/95	103	nd	nd	nd
TP16-13	08/21/95	105	nd	nd	nd
TP17-3	08/21/95	97	nd	nd	nd
TP18-3	08/22/95	92	nd	nd	nd
TP19-3	08/21/95	98	nd	nd	nd
TP19-3 Dup	08/21/95	98	nd	nd	nd
TP20-3	08/21/95	100	nd	nd	nd
MDL			10	10	20

"nd" Indicates not detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Gasoline, Diesel and Oil in Water by WTPH-G and WTPH-D/D-Extended

Sample Number	Date	Recovery %	Gasoline ug/l	Diesel ug/l	Heavy Oil ug/l
Meth. Blank	08/21/95	94	nd	nd	nd
Wtr. Barrel	08/21/95	105	nd	nd	nd
Sump Water	08/21/95	111	nd	nd	nd
MDL			200	200	500

"nd" Indicates not detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Sludge

Sample-Number	MDL	Method Blank	Wtr. Barrel	Sump Water	
Date		08/21/95	08/21/95	08/21/95	
	ug/l	ug/l	ug/l	ug/l	
1,1 Dichloroethene	1	nd	nd	nd	
Cis-1,2 Dichloroethene	1	nd	nd	28	
Trans-1,2 Dichloroethene	1	nd	nd	nd	
Benzene	1	nd	nd	5	
Trichloroethene	1	nd	nd	nd	
Toluene	1	nd	nd	65	
Tetrachloroethene	1	nd	nd	nd	
Ethylbenzene	1	nd	nd	35	
Total Xylenes	1	nd	nd	122	
1,1 Dichloroethane	1	nd	nd	nd	
1,2 Dichloroethane	1	nd	nd	nd	
Chloroform	1	nd	nd	nd	
Carbon Tetrachloride	1	nd	nd	nd	
1,1,1 Trichloroethane	1	nd	nd	nd	
1,1,2 Trichloroethane	1	nd	nd	nd	
Tetrachloroethane	1	nd	nd	nd	
Recovery (%)		91	102	109	

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

teg TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

CHAIN-OF-CUSTODY RECORD

CLIENT: MAXIM Technologies

ADDRESS: 201 East "D" St. Yakima, WA.

PHONE 509 577-8592 FAX: 509-248-1967.

CLIENT PROJECT #: PROJECT MANAGER: Rachel Tarwater

DATE: 8/15/05 PAGE 1 OF

PROJECT NAME: Goodyear

LOCATION: Yakima, WA.

COLLECTOR: DATE OF COLLECTION 8/15.

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PAH 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TOTAL LEAD	pH	ASBESTOS	FIELD NOTES	Total Number of Containers	Laboratory Note Number
TP2 -	4'		Soil	4oz	X	X				X	X										1	X
TP2 -	8'		Soil	"	X	X				X	X										1	.
TP2 -	10'		Soil	"	X	X				X	X										1	X
TP7	3'		Soil	"	X	X				X	X										1	X
TP7	6'		Soil	"	X	X				X	X										1	X
TP7	10.3'		Soil	"	X	X				X	X										1	X
MW-2		10:15	H_2O	3 x 40ml vials	X	X				X	X										4	
TP12	3'		Soil	4oz jar	X	X				X	X										1	.
TP12	6'		Soil	"	X	X				X	X										1	X
TP12	10'		Soil	"	X	X				X	X										1	X
MW-1.		12:05	Wat	3 x 40ml vials	X	X				X	X										4	
MW-3		12:05	Wat	3 x 40ml vials	X	X				X	X										4	
TP3	3'		Soil	4oz jar	X	X				X	X										1	X
TP3	6'		Soil	"	X	X				X	X										1	X
TP3	10'		Soil	"	X	X				X	X										1	X
Stockpile #1			Soil	"	X	X				X	X										1	X
TP8	3'		Soil	"	X	X				X	X										1	
TP8	6'		Soil	"	X	X				X	X										1	

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
Rachel Tarwater			8/15/05 18:00
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
(AD)			

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

teg

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

CHAIN-OF-CUSTODY RECORD

CLIENT: Maxim Technologies

ADDRESS: 201 East "D" Str. Yakima, WA

PHONE 509 577-8540 FAX: 509-248-1367

CLIENT PROJECT #: PROJECT MANAGER: Rachel Tavenner

DATE: 8/15/95 PAGE 2 OF

PROJECT NAME: Goodyear

LOCATION: Yakima, Washington

COLLECTOR: DATE OF COLLECTION 8/15

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (gasoline)	TPH (8015 (diesel)	TPH 8015 (g & d)	PAH 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TOTAL LEAD	pH	ASBESTOS	FIELD NOTES	Total Number of Containers	Laboratory Note Number
TP #8	10'		Soil	40z jr	X	X				X	X										1	
TP #12	3'		Soil	4oz jr	X	X				X	X										1	
TP #12	6'		Soil	4oz jr	X	X				X	X										1	
TP #10	9'		Soil	4oz jr	X	X				X	X										1	
TP #14	3'		Soil	4oz jr	X	X				X	X										1	
TP #14	7'		Soil	4oz jr	X	X				X	X										1	
TP #14	10'		Soil	4oz jr	X	X				X	X										1	
TP #9	3'		Soil	4oz jr	X	X				X	X										1	
TP #9	6'		Soil	4oz jr	X	X				X	X										1	
TP #9	10'		Soil	4oz jr	X	X				X	X										1	
TP #9	11'		Soil	4oz jr	X	X				X	X										1	

RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (Signature) DATE/TIME

Rachel Tavenner 8/15 18:00

RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (Signature) DATE/TIME

11

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

teg TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

CHAIN-OF-CUSTODY RECORD

CLIENT: MAXIM Technologies
ADDRESS: 201 East "D" St. Yakima, Wa
PHONE 509-577-8592 FAX: 509-248-1967.
CLIENT PROJECT #: Goodyear PROJECT MANAGER: Rachel Tamisin.

DATE: 8/16/95 PAGE 1 OF
PROJECT NAME: Goodyear
LOCATION: Yakima, Wa.
COLLECTOR: DATE OF COLLECTION 8/16.

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (gasoline)	TPH (8015 (diesel)	TPH 8015 (g & d)	PAH 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TOTAL LEAD	pH	ASBESTOS	FIELD NOTES	Total Number of Containers	Laboratory Note Number
TP14	3'		soil	4oz jar	X	X				X	X										1	
TP14	6'		soil	4oz jar	X	X				X	X										1	
TP14	10'		soil	4oz jar	X	X				X	X										1	
TP14	11'		soil	4oz jar	X	X				X	X										1	
G1-01	West		soil	4oz jar	X	X				X	X					X					1	
G1-02	South		soil	4oz jar	X	X				X	X					X					1	
G1-03	East		soil	4oz jar	X	X				X	X					X					1	
G2-01			soil	4oz jar	X	X				X	X					X					1	
TP#5	3'		soil	4oz jar	X	X				X	X										1	
TP#5	6'		soil	4oz jar	X	X				X	X										1	
TP#5	10'		soil	4oz jar	X	X				X	X										1	
G2-02			soil	4oz jar	X	X				X	X					X					1	
TP#10	3'		soil	4oz jar	X	X				X	X										1	
TP#10	6'		soil	4oz jar	X	X				X	X										1	
TP#10	10'		soil	4oz jar	X	X				X	X										1	
TP#15	3'		soil	4oz jar	X	X				X	X										1	
TP#15	6'		soil	4oz jar	X	X				X	X										1	
TP#15	10'		soil	4oz jar	X	X				X	X										1	

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
			8/16/95
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
(17)			

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

teg TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

CHAIN-OF-CUSTODY RECORD

CLIENT: Maxim Technologies

ADDRESS: 201 East "D" str. Yakima, WA

PHONE 509 577 8592 FAX: 509-248-1167 Rachel

CLIENT PROJECT #: PROJECT MANAGER: Tammara

DATE: 8/18/05 PAGE 1 OF 2

PROJECT NAME: Goodyear

LOCATION: Yakima, WA

COLLECTOR: DATE OF COLLECTION 8/17

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (gasoline)	TPH (8015 (diesel)	TPH 8015 (g & d)	PAH 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TOTAL LEAD	pH	ASBESTOS	FIELD NOTES	Total Number of Containers	Laboratory Note Number
Sump #2			soil	4 oz jar	X	X				X	X										1	
G2-03			soil	4 oz jar	X	X				X	X										1	
G2-04			soil	4 oz jar	X	X				X	X										1	
G2-05			soil	4 oz jar	X	X				X	X										1	
G2-06			soil	4 oz jar	X	X				X	X										1	
Drum #1			oil	4 oz jar						X	X										1	
Drum #2			liq.	4 oz jar						X	X										1	
Tp#1-	3'		soil	4 oz jar	X	X				X	X										1	
Tp#1-	6'		soil	4 oz jar	X	X				X	X										1	
Tp#1	10'		soil	4 oz jar	X	X				X	X										1	
Tp#6	3'		soil	4 oz jar	X	X				X	X										1	
Tp#6	6'		soil	4 oz jar	X	X				X	X										1	
Tp#6	10'		soil	4 oz jar	X	X				X	X										1	
TP#11	3'		soil	4 oz jar	X	X				X	X										1	
TP#11	6'		soil	4 oz jar	X	X				X	X										1	
Tp#11	9'		soil	4 oz jar	X	X				X	X										1	

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
			17:00 8/17/05
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
(10)			

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

teg TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

CHAIN-OF-CUSTODY RECORD

CLIENT: MAXIM Technologies

ADDRESS: 201 Gas "D" St. Yakima, Wa

PHONE 509 577 8592 FAX: 509 248 1967

CLIENT PROJECT #: PROJECT MANAGER: Rachel Tumlinson

DATE: 8/17/05 PAGE 2 OF 2

PROJECT NAME: Grocheck

LOCATION: Yakima, Wa

COLLECTOR: DATE OF COLLECTION 8/17

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (gasoline)	TPH (8015 (diesel)	TPH 8015 (g & d)	PAH 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TOTAL LEAD	pH	ASBESTOS	FIELD NOTES	Total Number of Containers	Laboratory Note Number
TP #16	3		Soil		X	X				X	X										1	
TP #17	3		Soil		X	X				X	X										1	
TP #18	3		Soil		X	X				X	X										1	
TP #19	3		Soil		X	X				X	X										1	
TP #20	3		Soil		X	X				X	X										1	

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
(5)			

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

Date of Report: February 24, 1995
Samples Submitted: February 22, 1995
Lab Traveler: 02-054
Project: 4339-2

EPA 8020 & WTPH-G

Date Extracted: 2-22-95
Date Analyzed: 2-22-95

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID	02-054-1	02-054-2	02-054-3	
Client ID	**4339-2 B1/MW1 @ 20'**	**4339-2 B2/MW2 @ 20'**	**4339-2 B3/MW3 @ 20'**	Method PQL
Dilution Factor	50	50	50	
Benzene	**ND**	**ND**	**ND**	.001
Toluene	**ND**	**ND**	**ND**	.001
Ethyl Benzene	**ND**	**ND**	**ND**	.001
m,p-Xylene	**ND**	**ND**	**0.073**	.001
o-Xylene	**ND**	**ND**	**ND**	.001
TPH-Gas	**ND**	**ND**	**30**	.100
4-BFB Surrogate Recovery	83%	79%	81%	

Note: Sample PQL(practical quantitation limit)= Method PQL x dilution factor

Date of Report: February 24, 1995
Samples Submitted: February 22, 1995
Lab Traveler: 02-054
Project: 4339-2

EPA 8020 & WTPH-G
QUALITY CONTROL

Date Extracted: 2-22-95
Date Analyzed: 2-22-95

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID	mb 0222s1	02-054-1	02-054-1	
	Blank	**Original**	**Duplicate**	**RPD**
Dilution Factor	50	50	50	
Benzene	**ND**	**ND**	**ND**	NA
Toluene	**ND**	**ND**	**ND**	NA
Ethyl Benzene	**ND**	**ND**	**ND**	NA
m,p-Xylene	**ND**	**ND**	**ND**	NA
o-Xylene	**ND**	**ND**	**ND**	NA
TPH-Gas	**ND**	**ND**	**ND**	NA
4-BFB Surrogate Recovery	91%	83%	81%	

Date of Report: February 24, 1995
Samples Submitted: February 22, 1995
Lab Traveler: 02-054
Project: 4339-2

EPA 8020 & WTPH-G
QUALITY CONTROL

Date Extracted: 2-22-95
Date Analyzed: 2-22-95

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID	02-054-1		02-054-1		
spiked @ 1 ppm	**MS**	Percent	**MSD**	Percent	
Dilution Factor	50	Recovery	50	Recovery	RPD
Benzene	**0.865**	**86%**	**0.826**	**83%**	4.5
Toluene	**0.853**	**85%**	**0.818**	**82%**	4.2
Ethyl Benzene	**0.867**	**87%**	**0.835**	**84%**	3.8
m,p-Xylene	**0.769**	**77%**	**0.722**	**72%**	6.3
o-Xylene	**0.864**	**86%**	**0.834**	**83%**	3.6
4-BFB Surrogate Recovery	83%		78%		

APPENDIX G

UST REMOVAL REPORT

GOODYEAR TIRE SERVICE

YAKIMA, WASHINGTON

PREPARED FOR
MIKE LOVERING
ELLIOT TIRE CENTER
LINCOLN AVENUE
YAKIMA, WA

PREPARED BY
CAYUSE ENVIRONMENTAL
60 OLDEN WAY
TOPPENISH, WA 98948

AUGUST 28, 1995

PROJECT DESCRIPTION

1.1 Introduction.

At the request of Maxim Technologies Inc. of Yakima, Washington Cayuse Environmental performed a tank closure and site assessment for two abandon underground storage tanks discovered during a site investigation of the property. This report presents our findings on the decommissioning and removal of two 1, 000 gallon underground tanks (ust's) tank removal activities were completed in August 1995.

1.2 Purpose and Scope.

The purpose of this project was to assist responsible parties in complying with current Washington State Department of Ecology (WDOE) regulations and guidelines for the safe removal and decommissioning of USTS (Ecology's October 1991). Site specifics objectives include : 1.) Safety excavating and removing the existing ust's from the ground for proper disposal, 2.) Assessing the presence of petroleum hydrocarbons in soils by using field observation and confirmational laboratory sampling, and 3.) Evaluating the magnitude and extent of and discovered petroleum hydrocarbon contamination based on the assessment findings.

The following scope of service was performed for this assessment:

- An environmental professional was mobilize to the site with appropriate equipment to perform the required site assessment. The environmental professional was registered with the WDOE to perform ust site assessment and had current health and safety training.
- The ust's was removed from the ground by a state licensed excavation and ust firm using proper drafty and excavation techniques. The tank and residual product were transported from the site for proper disposal.
- The removed ust's was inspected for areas of severe rusting, perforations, and seam failure. Dimensions, appearance were noted and documented.
- The tank excavation was evaluated by our environmental professional for signs of contamination including visible free product, soil discoloration, and odor.
- Soil samples were collected form the excavation boundaries and given to a Washington State approved laboratory for selective analysis of total petroleum hydrocarbons as set forth by WDOE guildlines for gasoline WTPH-G and for diesel WTPH-D. Sampling locations were chosen on evidence of petroleum hydrocarbon contamination and at pre-specified points described by WDOE guide lines (Ecology 1991).
- This report was prepared and to summarize the field activities proformed and the findings of the environmental assessment. The report also renders our evaluation concerning petroleum hydrocarbon contamination at the site.

1.3 Project background.

The ust's was discovered during a site investigation at Elliot Tire Center, the tanks were encountered on a test pit excavated to evaluate the presence of soil contaminated with solvent in the parking lot of Elliot Tire Center. Product was still present in the tanks and appeared to indicate the tanks were used as part of an abandon service station. Tri-Valley Construction of Yakima, Washington did the excavating and Cayuse Environmental, a licensed tank decommissioning firm was contacted by Maxim Technology to complete tank removal and recommendation at the site.

2.0 SITE CHARACTERISTICS

2.1 Site Description.

The site is identified as Elliot Tire Center and is located on the corner of E. Lincoln and Front Ave., Yakima, WA. in Yakima County, Washington. The present property is owned by Mike Lovering.

The approximate location is descriptoñ on the site location map (Appendix 1). An approximate description for the site is Southeast quarter of the Northwest quarter of Section 19, Township 13 North Range 19 East of the Willamette Meridian, Yakima County, Washington. The site is in the center of Yakima business district. The site is know a tire service center but a review of aerial photos from the 1940 and interviews with older people in the area we discovered the site used to be a coal distributor plant and gasoline station.

The tanks were located in the center of the sites parking lot, until the tanks discovery their presents were unknown to either the owner or the operator at the site.

2.2 Geology.

The city of Yakima is situated on the western margin of the Columbia River Plateau Physrographic provine and near the eastern foothills of the Cascade Range. The Cascade Range and adjacent highland are primarily composed of basalts and andesites. The Columbia Plateau is composed of a series of flood basalts which cover most of Central and Eastern Washington. The basalts flows of the Columbia basalt group are miocene in age, forming an extends volcanic plateau (camp-et-al, 1982). The Columbia River flood basalts are overlain by a alluvial deposits within the study area.

The predominated surfercial soil type at the site has been classified as a nuches loam by the United States Department of Agriculture. This soil formed in old alluviam on stream terraces and in valleys (USDA, 1985).

The subsurface profile over most of the site consists of a layer of silty gravel (fill material) extending to depths ranging from about 0.5 to 5.0 feet. The silty gravels are underlain by dense basett gravel of alluvial origin. Topography at the site is level. Elevations of the site range between 1,060 and 1,090 feet above mean sea level. The average annual precipitation of about 7 to 9 inches supports various graddrs (USDA, 1985).

2.3 Hydrology.

The nearest surface water is the southeasterly flowing Yakima River. The Yakima River is located about 1.4 miles east of the site. Ground water was encountered at a dept of about 15 feet BGS. An easterly ground water flow component was established at the site from ground water data collected during field activities.

3.0 ASSESSMENT PROCEDURES

The ust's was carefully uncovered. The tanks had been fill with sand though unfortunately they hadn't been cleaned first. The sand from both tanks was contaminated. The tank weighed so much that when we tried to pull them out they split open. Sand was dumped into the excavation. Once removed from the excavation, the tank is inspected for signs of leakage. The tank was examined for visible cracks, seam failures, severe rusting, and staining. Holes were found in the bottoms of both tanks.

Product piping was removed from the excavation. The product pipe ran toward a suspected old island but no evidence of a release was found.

After the tank was safely removed from the ground, the excavation is surveyed for stained and/or odorous soil. Dark discoloration was observed in the excavation and is suggestive of soil contaminated by petroleum products.

Soil samples were retained for laboratory analysis based on field observations strong odor or discoloration soil samples were also collected from areas in the excavation associated with signs of leaking noted on the tanks. Soil samples were collected from pre-specified locations including the base of the excavation and the three side walls.

Stockpiled soil removed from the excavation was also sampled. Sample locations are randomly selected with an emphasis on obtaining samples from areas of highs observable contamination.

The soil as,[les were analyzed in accordance with WDOE guidelines at a analytical laboratory. An on-site laboratory was retained to complete the scan for solvent in test pits. The mobile laboratory had the capability of performing total petroleum hydrocarbon analysis. Identified (WTPH-G and WTPH-D Washington State modified method) to qualify and partially qualified and gasoline or diesel contamination which may be present. Laboratory results indicated petroleum contamination on the soil under the east tank.

Details of field procedures and sampling protocols used by Maxim are out lined in our "standard operation procedures for ust site assessment, Washington State (Maxim 1994) manual kept on file at Maxim's office. An deviation from the described assessment procedures are described in the following sections.

4.0 ASSESSMENT FINDINGS

4.1 Field Observations.

An environmental professional from Cayuse arrived at the site to observe ust's removal activities and to perform a lust site assessment. The tanks had been uncovered it was observe at this time that the excavation had petroleum contamination. It was decided to rip open he tanks and dump sand inside into excavation. At which time the soil would be excavated and transported to Anderson's Rock and Demolition Pit of Yakima, Washington.

Other excavation activities were initiated, due to the presence of stained and odorous soil. The excavation was extended to the North and East to a depth of 12 feet below ground surface. Evidence of staining or odorous soil was not apparent after the over excavation activities were complete . The final dimensions of the excavation are despatched on the detailed site map (Appendix 2).

4.2 Analytical Results.

Representative soil samples were obtained from the boundaries of the tank excavation after over excavation was completed. The sample exhibiting the worst staining and odor was analyzed for total petroleum hydrocarbon identification and found to be in the gasoline range. All samples were analyze by Transglobal Environmental Geosciences Northwest Inc. Analytical results are summarized in the pages of Appendix 3 along with laboratory reports.

4.3 Material Disposal and Backfill.

The removed tank were transported and disposed of by Cayuse Environmental. Approximately 180 tons of petroleum contaminated soil was disposed of at Anderson Pit in Yakima, WA after approval of the Yakima County Health District.

Tri-Valley Construction provided backfill to complete this project.

5.0 DISCUSSION CONCLUSIONS

Petroleum hydrocarbon contamination exceeding WDOE actions. levels in the soil surrounding the underground storage tanks and confirmed a release had occurred. Overexcavation activities were successful in reducing the concentration of total petroleum hydrocarbons to acceptable levels stockpile soil was approved for transportation and treatment at the Anderson Landfill in Yakima, WA.

Based on our field observation and the analytical results the tank site appears suitable for permanent closure. Ground water dose not appear to have bee impacted by the underground storage tank release based upon the analytical results for samples collected from on-site monitoring wells.

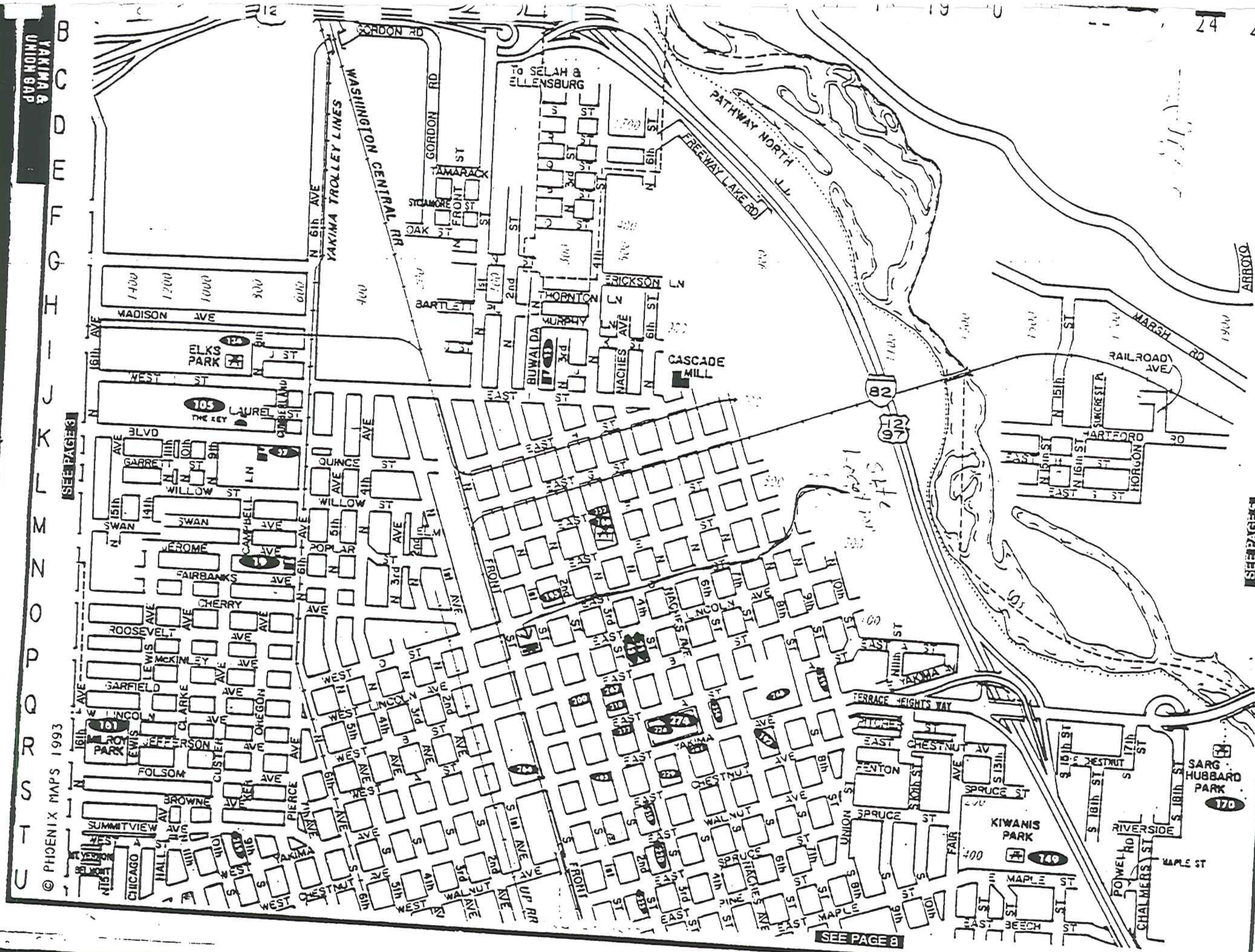
6.0 REPORTING REQUIREMENTS

In accordance with Washington Administrative Codes (WDC) Chapter 173-340-450 for underground storage tanks, this report and supporting documentation (j.e. ust permanent closure and site assessment notice, ust site check/site assessment checklist, etc.) is required to be submitted to the ust spectrum at the WDOG main office in Olympia, Washington. Copies of seppertory ust closure and assessment documentation are included in Appendix 4.

7.0 LIMITATIONS

In performing our professional services, CE uses a degree of care ordinarily exercised under similar circumstances by members of our profession. No warranty, expressed or implied, is made or intended. Our conclusions and recommendations developed from our field and laboratory investigation reported herein are based upon this firm's understanding of the project and are in concurrence with generally accepted practice.

APPENDIX 1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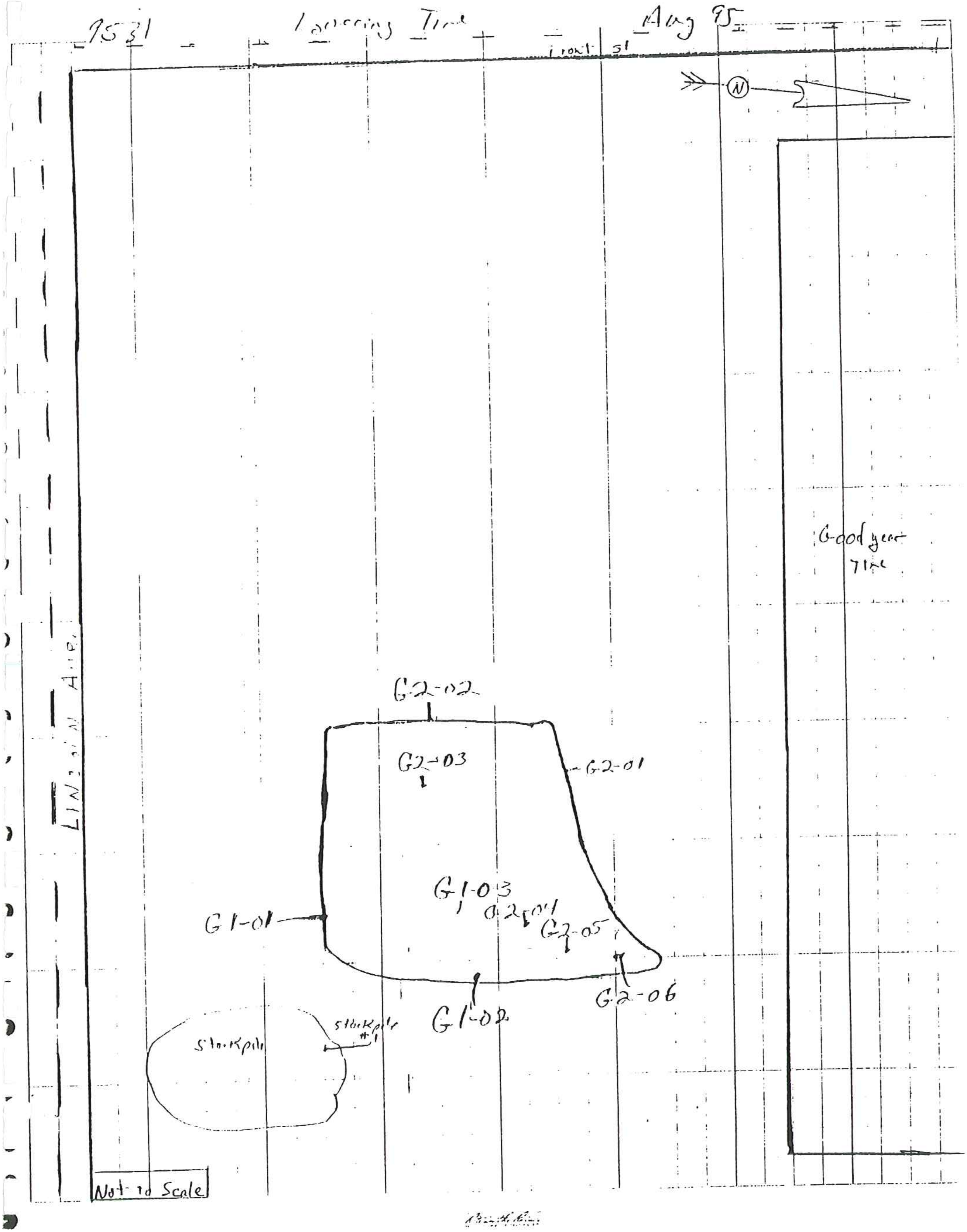
© PHOENIX MAPS 1993
SEE PAGE 3
SEE PAGE 8
WASHINGTON CENTRAL RR
YAKIMA TROLLEY LINES
To SELAH & ELLENSBURG
PATHWAY NORTH
FREEWAY LAKE RD
CASCADE MILL
ELKS PARK
MILROY PARK
KIWANIS PARK
SARG HUBBARD PARK
TERRACE HEIGHTS WAY
MARSH RD
RAILROAD AVE
ARROYO
GORDON RD
MADISON AVE
NACHES AVE
UP RR
82
12
97

APPENDIX 2

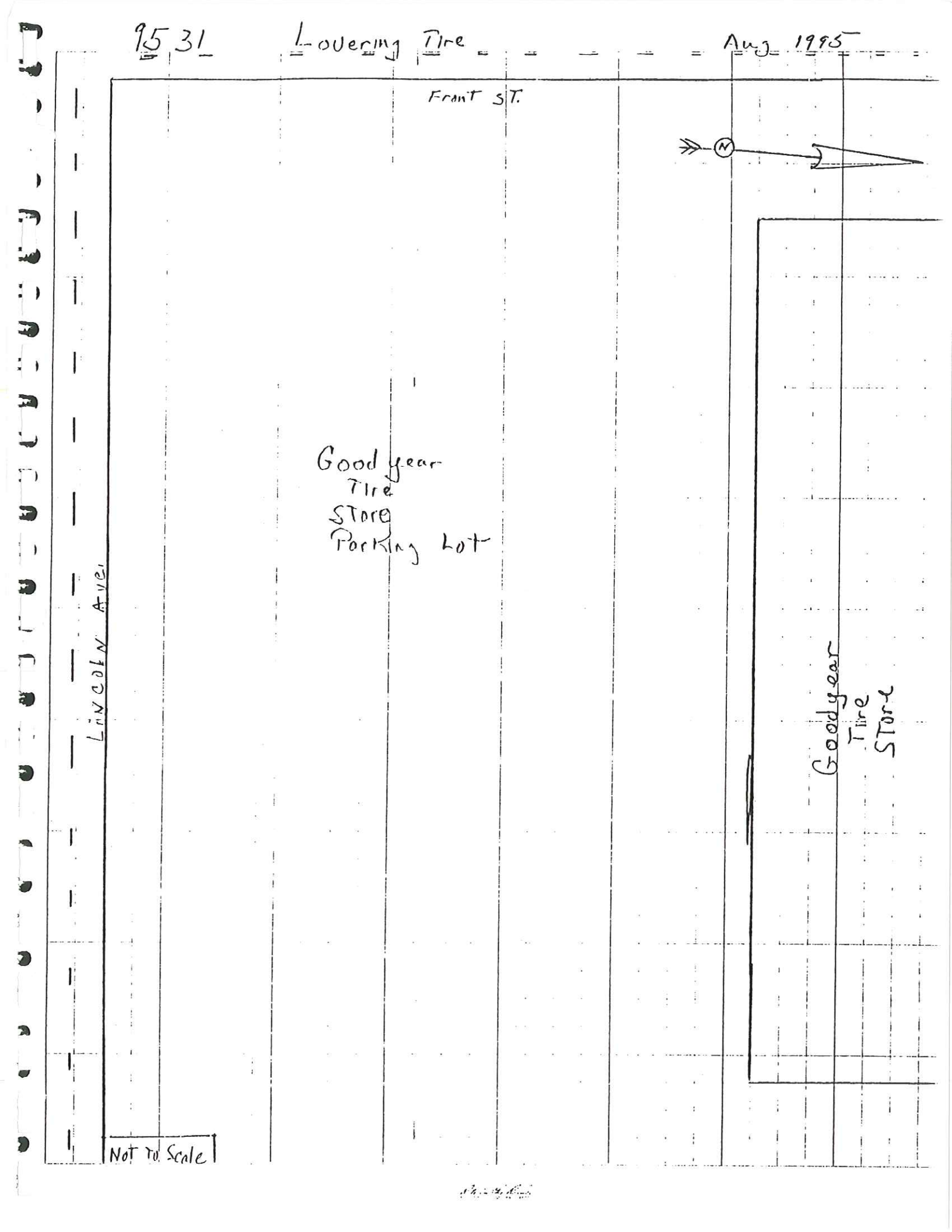
9531 Towers Inc. Aug 95

Samples	Location	Depth	Matrix	odor	Headspace	TLC
1	South Wall	'	Soil	NO	—	—
G1-2	East Wall	8'	Soil	NO	—	—
G1-3	Bottom	16'	Soil	NO	—	—
G2-01	North Wall	8'	Soil	NO	—	—
G2-02	West Wall	8'	Soil	NO	—	—
G2-03	Bottom	16'	Soil	NO	—	—
G2-04	Bottom	12'	Soil	NO	—	—
G2-05	Bottom	12'	Soil	NO	—	—
G2-06	Bottom	12'	Soil	NO	—	—
Stockpile	Stockpile	6"	Soil	NO		



9531
Lancering Tire
Aug 95
N
Goodyear Tire
LINCOLN Ave.
G2-02
G2-03
G2-01
G1-03
G2-04
G2-05
G1-01
G2-06
G1-02
Stockpile
Stockpile #1
Not to Scale

9531 Lovering Tire Aug 1995



APPENDIX 3

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Gasoline, Diesel and Oil in Soil by WTPH-G and WTPH-D/D-Extended

Sample Number	Date	Recovery %	Gasoline mg/kg	Diesel mg/kg	Heavy Oil mg/kg
Meth. Blank	08/15/95	114	nd	nd	nd
TP2-4'	08/15/95	86	nd	nd	nd
TP2-4'-Dup	08/15/95	87	nd	nd	nd
TP2-8'	08/15/95	98	nd	nd	nd
TP2-10'	08/15/95	105	nd	nd	nd
TP7-3'	08/15/95	95	nd	nd	nd
TP7-6'	08/15/95	101	nd	nd	nd
TP7-10'	08/15/95	89	nd	nd	nd
TP12-3'	08/15/95	87	nd	nd	nd
TP12-6'	08/15/95	93	nd	nd	nd
TP12-10'	08/15/95	105	nd	nd	nd
TP3-3'	08/15/95	94	nd	nd	nd
TP3-6'	08/15/95	92	nd	nd	nd
TP3-6'-Dup	08/15/95	81	nd	nd	nd
TP3-9'	08/15/95	105	nd	nd	nd
Stockpile #1	08/15/95	87	nd	nd	nd
MDL			10	10	20

"nd" Indicates not detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	TP-3-10'	Stockpile #1
Date		08/15/95	08/15/95
	mg/kg	mg/kg	mg/kg
1,1 Dichloroethene	0.05	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd
Trans-1,2 Dichloroethene	0.05	nd	nd
Benzene	0.05	nd	nd
Trichloroethene	0.05	nd	nd
Toluene	0.05	nd	nd
Tetrachloroethene	0.05	nd	nd
Ethylbenzene	0.05	nd	nd
Total Xylenes	0.05	nd	nd
1,1 Dichloroethane	0.05	nd	nd
1,2 Dichloroethane	0.05	nd	nd
Chloroform	0.05	nd	nd
Carbon Tetrachloride	0.05	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd
Tetrachloroethane	0.05	nd	nd
Recovery (%)		94	107

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	G1-01	G1-02	G1-03	G2-01	G2-02	G2-02 Dup	TP13-3'
Date	mg/kg	08/16/95 mg/kg	08/16/95 mg/kg	08/16/95 mg/kg	08/16/95 mg/kg	08/16/95 mg/kg	08/16/95 mg/kg	08/16/95 mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Trans-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Benzene	0.05	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	0.07	nd
Tetrachloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	0.07	nd
Total Xylenes	0.05	nd	nd	nd	nd	0.35	0.59	nd
1,1 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Recovery (%)		88	120	94	91	81	88	100

"nd" Indicates Not Detected at the listed detection limit.

"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Gasoline, Diesel and Oil in Soil by WTPH-G and WTPH-D/D-Extended

Sample Number	Date	Recovery %	Gasoline mg/kg	Diesel mg/kg	Heavy Oil mg/kg
Meth. Blank	08/16/95	93	nd	nd	nd
G1-01	08/16/95	99	nd	nd	nd
G1-02	08/16/95	85	nd	nd	nd
G1-03	08/16/95	95	nd	nd	nd
G2-01	08/16/95	89	nd	nd	nd
G2-02	08/16/95	86	115	nd	nd
G2-02-Dup	08/16/95	80	95	nd	nd
TP13-3'	08/16/95	89	nd	nd	nd
TP13-6'	08/16/95	97	nd	nd	nd
TP13-10'	08/16/95	87	nd	nd	nd
TP8-3'	08/16/95	92	nd	nd	nd
MDL			10	10	20

"nd" Indicates not detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Specific Halogenated Hydrocarbons and BTEX (Mod. EPA 8010/8020) in Soil

Sample-Number	MDL	Method Blank	G2-03	G2-04	G2-04 Dup	G2-05	G2-06	Sump #2 (NE CORNER)
Date	mg/kg	08/17/95 mg/kg	08/17/95 mg/kg	08/17/95 mg/kg	08/17/95 mg/kg	08/17/95 mg/kg	08/17/95 mg/kg	08/17/95 mg/kg
1,1 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Cis-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Trans-1,2 Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Benzene	0.05	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	0.05	nd	nd	nd	nd	nd	nd	nd
1,1 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2 Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
Recovery (%)		87	106	103	100	82	82	121

"nd" Indicates Not Detected at the listed detection limit.
"int" Indicates that interference peaks prevent determination.

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Gasoline, Diesel and Oil in Soil by WTPH-G and WTPH-D/D-Extended

Sample Number	Date	Recovery %	Gasoline mg/kg	Diesel mg/kg	Heavy Oil mg/kg
Meth. Blank	08/17/95	99	nd	nd	nd
G2-03	08/17/95	97	nd	nd	nd
G2-04	08/17/95	101	nd	nd	nd
G2-04-Dup	08/17/95	105	nd	nd	nd
G2-05	08/17/95	93	nd	nd	nd
G2-06	08/17/95	102	nd	nd	nd
Sump #2	08/17/95	98	nd	nd	20
TP8-6'	08/17/95	100	nd	nd	nd
TP8-10'	08/17/95	116	nd	nd	nd
TP9-3'	08/17/95	99	nd	nd	68
TP9-6'	08/17/95	99	nd	nd	65
TP9-10'	08/17/95	108	nd	nd	47
TP4-3'	08/17/95	118	nd	nd	25
TP4-6'	08/17/95	110	nd	nd	21
TP4-10'	08/17/95	97	nd	nd	nd
TP14-3'	08/17/95	91	nd	nd	447
TP14-3'-Dup	08/17/95	89	nd	nd	442
MDL			10	10	20

"nd" Indicates not detected at the listed detection limit.

"int" Indicates that interference peaks prevent determination.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC

GOODYEAR PROJECT
Yakima, Washington
MAXIM Technologies

Total Lead Analyses (EPA 7420) for Soils

SAMPLE Number	Date Analyzed	Lead (mg/kg)
Meth. Blank	08/22/95	nd
G1-01	08/22/95	nd
G1-01 Dup.	08/22/95	nd
G1-02	08/22/95	nd
G1-03	08/22/95	nd
G2-01	08/22/95	nd
G2-02	08/22/95	nd

Method Detection Limit = 8.0 mg/kg
"nd" Indicates Not Detected at the listed MDL.

APPENDIX 4

UNDERGROUND STORAGE TANK
Permanent Closure/Change-In-Service Checklist

The purpose of this form is to certify the proper closure/change-in-service of underground storage tank (UST) systems. These activities must be conducted in accordance with Chapter 173.360 WAC. Washington State UST rules require the tank owner or operator to notify Ecology in writing 30 days prior to closure or change-in-service of tanks. This must be done by completing the 30 Day Notice form (ECY 010-155).

This Permanent Closure Checklist shall be completed and signed by a **Licensed Decommissioning Supervisor**. The supervisor shall be on site when all tank permanent closure/change-in-service activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a **Service Provider**. If any of the activities listed below have been supervised by a different licensed supervisor, a separate checklist must be filled out and signed by the licensed supervisor performing those activities.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping), except that UST systems at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of the completion of the closure or change-in-service.

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

Site Owner/Operator: Mike Lovering

Owners Address: 15406 25th Lane SE (Street) P.O. Box

Mill Creek (City) WA (State) 98102 (ZIP-Code)

Telephone: ( )

Site ID Number (on invoice or available from Ecology if tank is registered):

Site/Business Name: Elliot Tire Center

Site Address: W Front and E. Lincoln (Street) Yakima (County)

Yakima (City) WA (State) 98901 (ZIP-Code)

2. TANK PERMANENT CLOSURE/CHANGE-IN-SERVICE PERFORMED BY:

Firm: Cayuse Environmental License Number:

Address: 60 Alder Way (Street) P.O. Box

Toppenish (City) WA (State) 98948 (ZIP-Code)

Telephone: (509) 865-5086

Licensed Supervisor: Bryan Mull Decommissioning License Number: 32-US-32000796

This page must be completed separately for each tank permanently closed (decommissioned) or change-in-service at the site. For additional tanks you may photocopy this form prior to completing.

3. TANK CLOSURE/CHANGE-IN-SERVICE INFORMATION

1. Tank ID Number (as registered with Ecology): 01-02
2. Year installed: unknown
3. Tank capacity in gallons: 1000 Gallon / 1000 Gallon
4. Date of last use: unknown
5. Last substance stored: Gasoline / Diesel
6. Date of closure/change-in-service: Aug 95
7. Type of closure: Closure with Tank Removal [X] In-place Closure [ ] Change-in-Service [ ]
8. If in-place closure is used, the tank has been filled with the following substance:
9. If change-in-service, indicate new substance stored in tank:
10. Local permit(s) (if any) obtained from:

Always contact local authorities regarding permit requirements.

11. Has a site assessment been completed? Yes [X] No [ ]

Unless an external release detection system is operating at the time of closure or change in service, and a report is provided as specified in WAC 173-360-390, a site assessment must be conducted. This site assessment must be conducted by a person registered with the Department of Ecology to perform site assessments. Results of the site assessment must be included with the Site Assessment Checklist (ECY 010-158).

4. CHECKLIST

Each item of the following checklist shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has all liquid been removed from product lines?	X		
2. Has all product piping been capped or removed?	X		
3. Have all non-product lines been capped or removed?	X		
4. Have all liquid and accumulated sludges been removed from the tank?	X		
5. Has the tank been properly purged or inerted?	X		
6. Have the drop tube, fill pipe, gauge pipe, pumps and other tank fixtures been removed?	X		
7. Have all tank openings been plugged or capped? NOTE: One plug should have 1/8 inch vent hole.	X		
8. Have all sludges removed from the tank been designated and disposed of in accordance with the state of Washington's dangerous waste regulations (Chapter 173-303 WAC)?	X		
9. If removed, was tank properly labeled and disposed of in accordance with all applicable local, state and federal regulations?	X		

*Item not applicable

I hereby certify that I have been the licensed supervisor present on site during the above listed permanent closure activities and to the best of my knowledge they have been conducted in compliance with all applicable state and federal laws, regulations and procedures pertaining to underground storage tanks.

Persons submitting false information are subject to penalties under Chapter 173-360 WAC.

Aug 95
Date

Signature of Licensed Supervisor

5. ADDITIONAL REQUIRED SIGNATURES

Date

Signature of Licensed Service Provider (firm) Owner or Authorized Representative

Date

Signature of Tank Owner or Authorized Representative

UNDERGROUND STORAGE TANK
Site Check/Site Assessment Checklist

The purpose of this form is to certify the proper investigation of an UST site for the presence of a release. These activities shall be conducted in accordance with Chapter 173.360 WAC. A description of the various situations requiring a site check or site assessment is provided in the guidance document for UST site checks and site assessments.

This Site Check/Site Assessment Checklist shall be completed and signed by a person registered with the Department of Ecology to perform site assessments.

Two copies of the results of the site check or site assessment should be included with this checklist according to the reporting requirements in the guidance document for UST site checks and site assessments.

For further information about completing this form, please contact the Department of Ecology UST Program.

The completed checklist should be mailed to the following address:

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: Mike Lovering

Owners Address: 15406 (Street) 25th Lane S.E.

Mill Creek (City) WA. (State) 98012 (P.O. Box / ZIP Code)

Telephone: ( )

Site ID Number (on invoice or available from Ecology if tank is registered):

Site/Business Name: Elliot Tire. Corp

Site Address: N. Front and E. Lincoln (Street) Yakima (County)

Yakima (City) WA. (State) 98902 (ZIP Code)

2. SITE CHECK/SITE ASSESSMENT CONDUCTED BY:

Registered Person: Dan Mull

Address: 60 Olden Way (Street)

Tupperish (City) WA. (State) 98948 (P.O. Box / ZIP Code)

Telephone: (509) 865-5086

3. TANK INFORMATION

1. Tank ID Number (as registered with Ecology): 01 - 02
2. Year Installed: unknown
3. Tank capacity in gallons: 1000 gallon / 1000 Gallon
4. Last substance stored: Gasoline / Diesel

4. REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT

Check one:

_____ Investigate suspected release due to on-site environmental contamination

_____ Investigate suspected release due to off-site environmental contamination

_____ Extend temporary closure of UST system for more than 12 months

_____ UST system undergoing change-in-service

_____ UST system permanently closed-in-place

X UST system permanently closed with tank removed

_____ Required by Ecology or delegated agency for UST system closed before December 22, 1988

_____ Other (describe): _____

5. CHECKLIST

Each item of the following checklist shall be initialed by the person registered with the Department of Ecology whose signature appears below.

	Yes	No
1. Has the site check/site assessment been conducted according to applicable procedures specified in the UST site check/site assessment guidance issued by the Department of Ecology?	X	
2. Has a release from the UST system been confirmed? *NOTE: Owners/operators must report all confirmed releases to the Department of Ecology or delegated agency within 24 hours.*	X	
3. Are the results of the site check/site assessment enclosed with this checklist? *NOTE: Two copies of the site check/site assessment results must be submitted to the Department of Ecology according to the reporting requirements specified in the UST site check/site assessment guidance.*	X	

I hereby certify that I have been in responsible charge of performing the site check/site assessment described above. Persons submitting false information are subject to penalties under Chapter 173.360 WAC.

Aug 1995
Date

Signature of Person Registered with Ecology

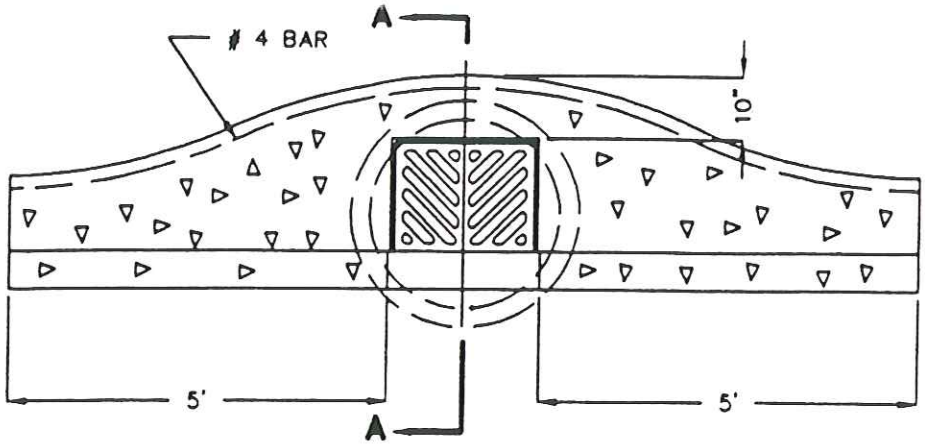
6. OWNER'S SIGNATURE

Date

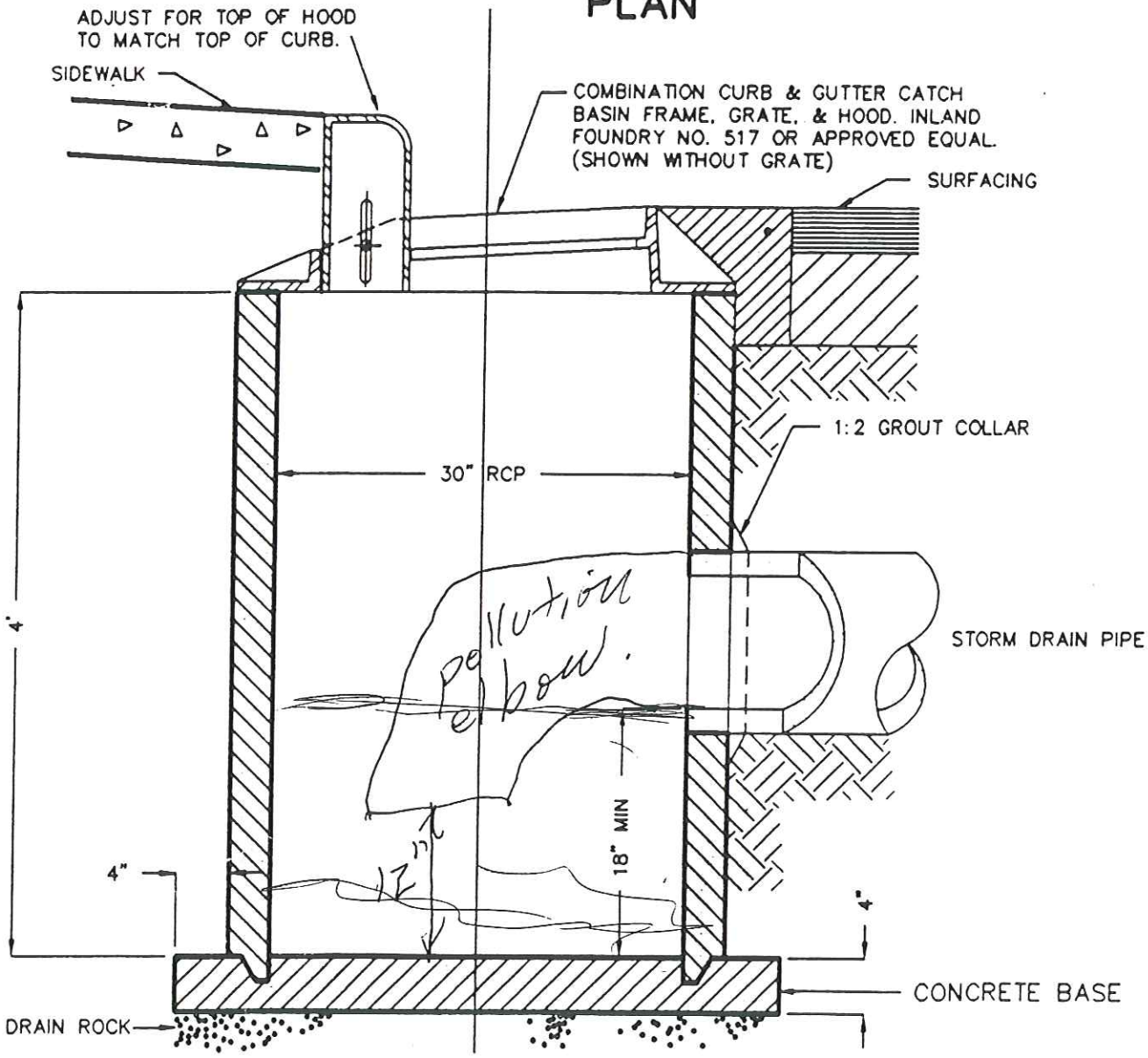
Signature of Tank Owner or Authorized Representative

APPENDIX H

NEW SUMP CONSTRUCTION



PLAN



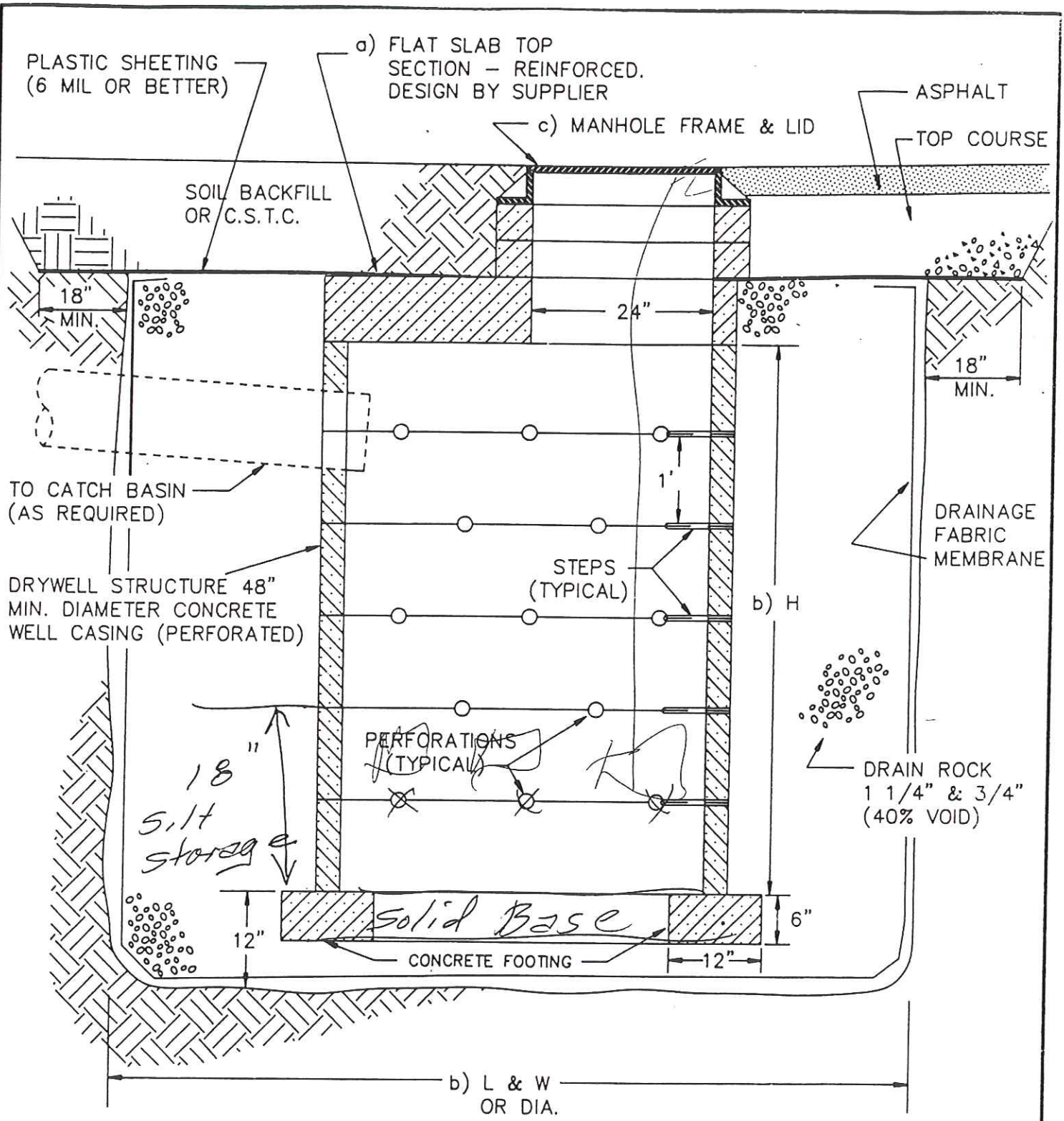
SECTION A – A

NOTE:

ONLY THE LATEST DETAIL, AS APPROVED BY THE CITY ENGINEER, SHALL BE USED.

Revision	Date	Description	Appr
1	1-24-95	REMOVE HOLE IN BASE AND ADD "CONCRETE BASE" NOTE.	
ORIG.	3-7-90		

CITY OF YAKIMA – STANDARD DETAIL	CATCH BASIN	D1



NOTES:

a) OPTIONAL ECCENTRIC CONE.
b) DIMENSION AS REQUIRED
FOR 1" RAINFALL OVER DRAINAGE AREA, OR 10-YEAR STORM USING RATIONAL METHOD.
c) OPTIONAL SLOTTED GRATE
MANHOLE LID.

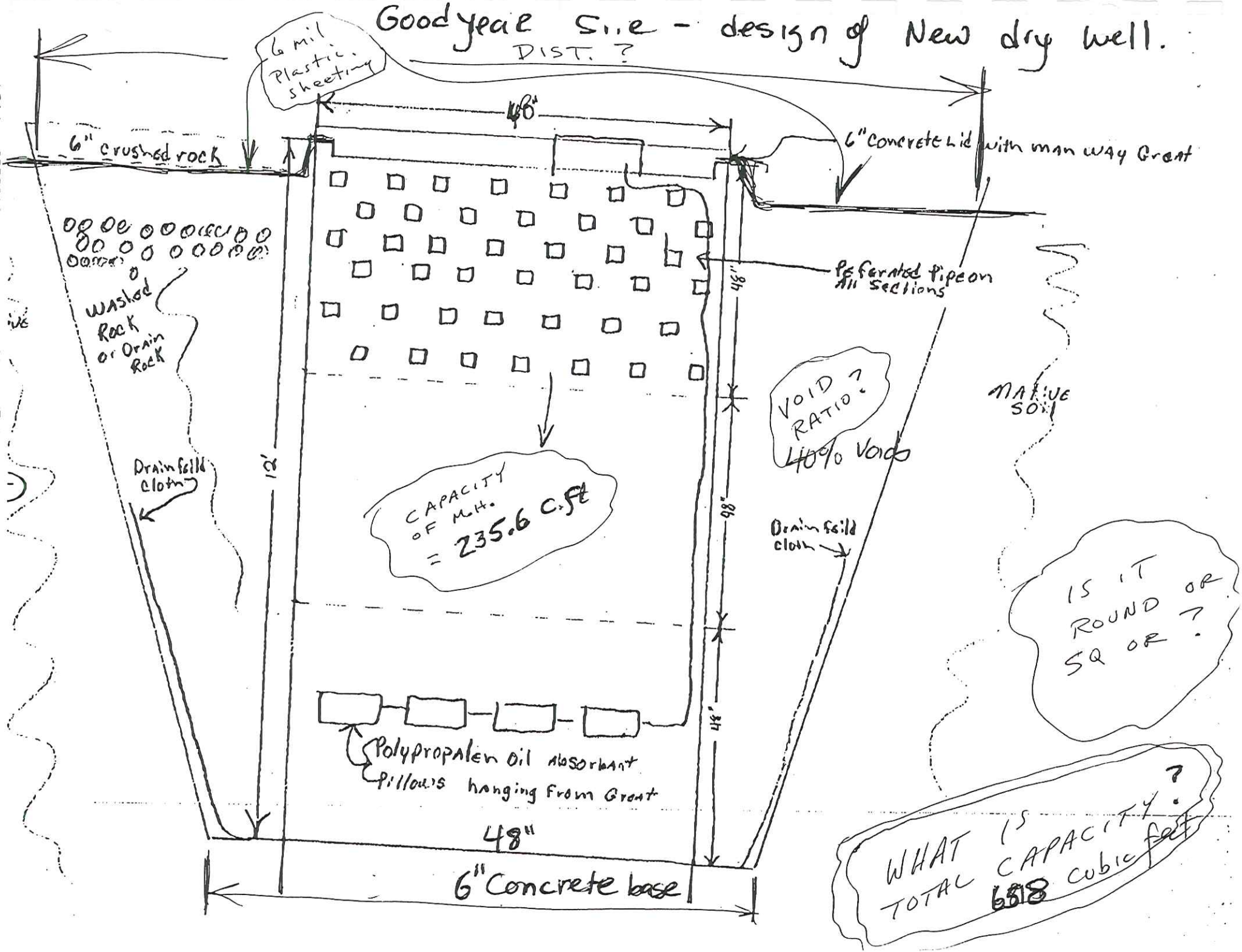
NOTE:

ONLY THE LATEST DETAIL, AS APPROVED BY THE CITY ENGINEER, SHALL BE USED.

Revision	Date	Description	Appr
ORIG.	3-7-90		

CITY OF YAKIMA–STANDARD DETAIL	DRYWELL	D3

Goodyear Site - design of New dry well.



Elliott (Goodyear) Tire Center

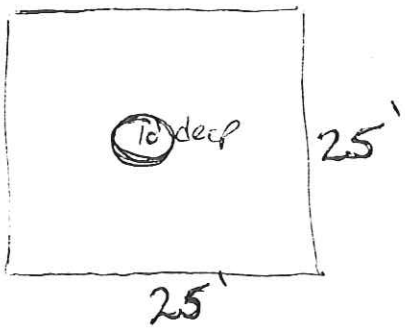
19,200 + 12,100 = 31,300' square feet
roof Parking Lot

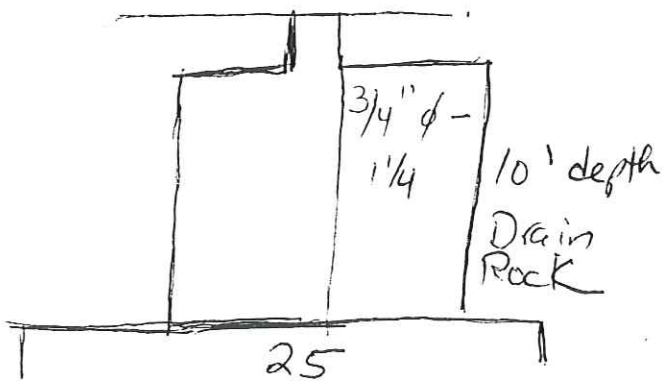
31,300 X 0.0833 = 2607 cubic feet (Volume)

Assume:
40% Voids = (0.4)

$$\frac{2607 \text{ cubic ft}}{0.4 \quad \%\text{Voids}} = 6518 \text{ cubic feet Total.}$$

$$\frac{6518}{10' \text{ depth}} = \sqrt{651.8} = 25 \times 25 \times 10$$



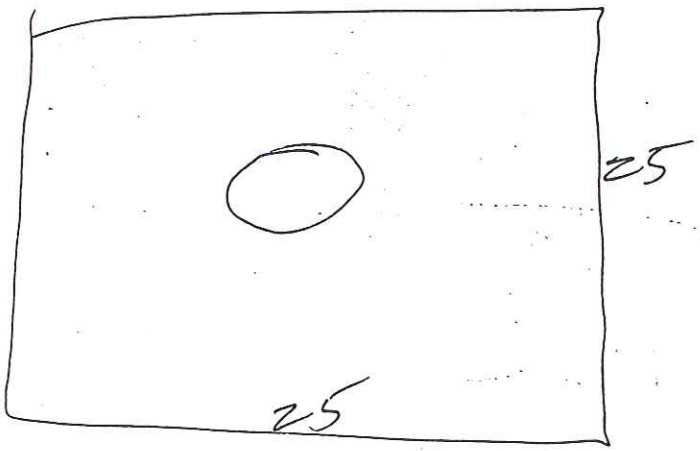


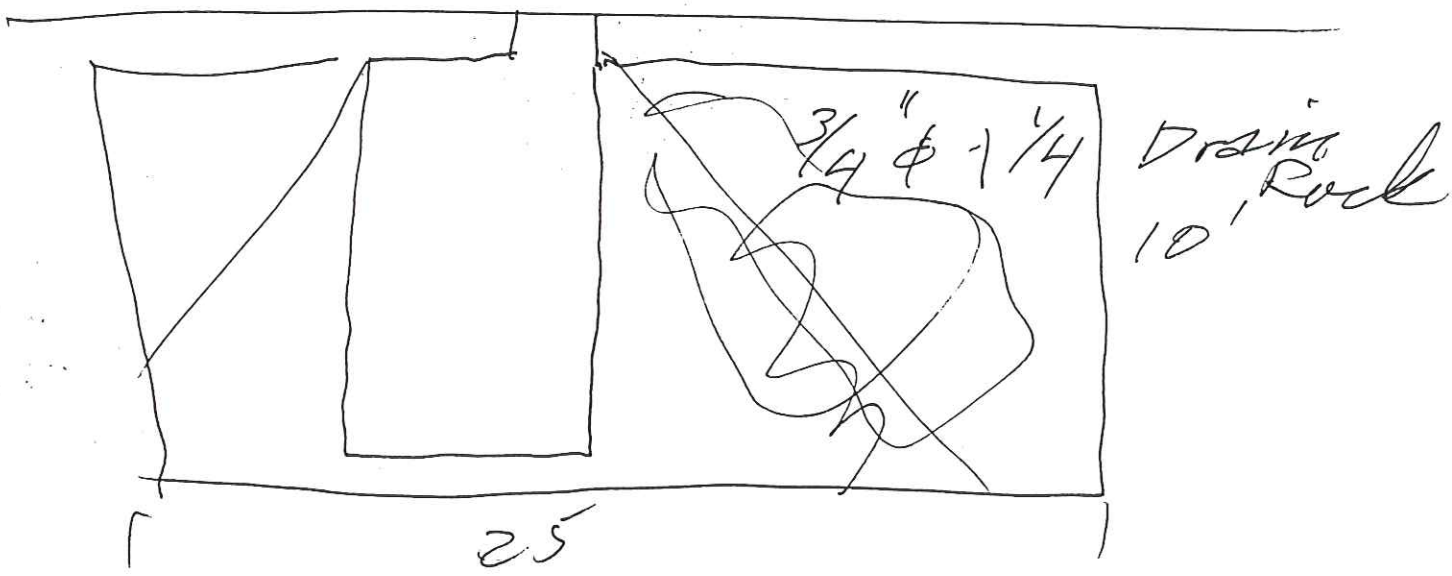
Kevin Callow
525-6120

19,200
12,100
31,300 x 0.0833' = 2607 cf
0.4 = 40% Voids Volume

$\frac{2607}{.4}$ = 6518 cf Total

$\frac{6518}{10} = \sqrt{651.8} = 25 \times 25 \times 10$





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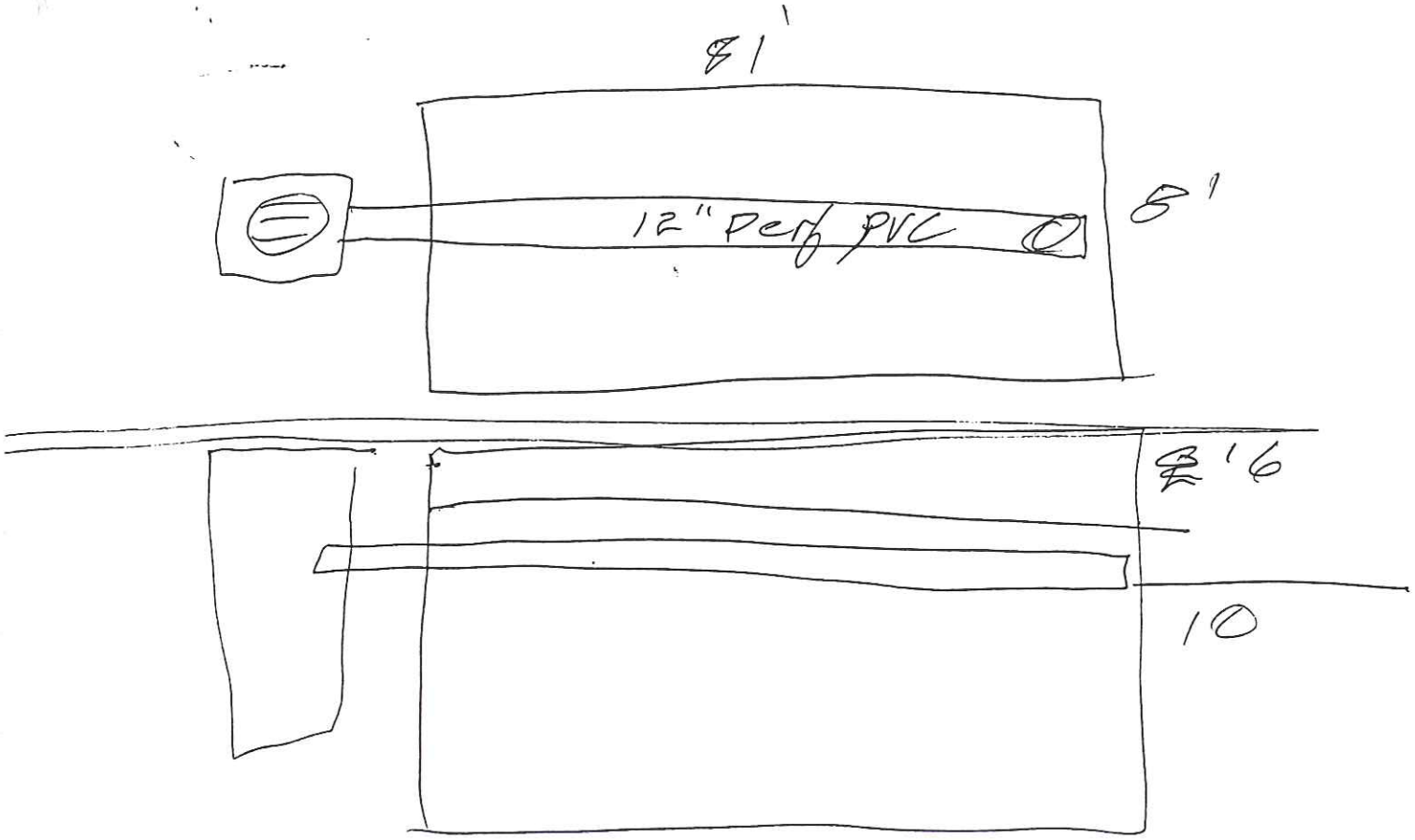

81 x 8 x 10 = 6480 CF