

**HYDROGEOLOGIC STUDY**  
**INDUSTRIAL WASTE SYSTEM (IWS)**  
**PLANT AND LAGOONS**  
**SEATTLE-TACOMA INTERNATIONAL AIRPORT**

**PREPARED FOR:**  
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## 1.0 INTRODUCTION

This hydrogeologic study report describes the tasks that were conducted at the Seattle-Tacoma International Airport (STIA) Industrial Waste System (IWS) facility treatment plant and lagoons area (hereafter referred to as the IWS P/L area) and presents the study results. The hydrogeologic study was conducted to satisfy Special Condition S15 of the STIA National Pollution Discharge Elimination System (NPDES) permit (WA-002465-1).

Associated Earth Sciences, Inc. (AESI) completed this study based on the April 8, 1999 work plan and amendment (AESI, 1999a and 1999b). The study focused on the vicinity of the IWS treatment plant and the adjacent three lagoons. The location of the project area is shown on Figure 1.1 and the IWS P/L area is shown on Figure 1.2. The study assessed the current condition of the hydrogeologic environment in the vicinity of the IWS P/L area and evaluated the effect wastewater management practices have had on ground water quality.

Early study activities included preparation of a study work plan (AESI, 1999a) for Washington State Department of Ecology (Ecology) review. To complete that work plan, AESI conducted a background review, which included evaluation and analysis of existing geologic, well log, and water quality data within a 1/4-mile radius of the site; review of existing environmental and engineering studies conducted at the study area; and review of existing wastewater quality and flow measurements.

The principal work elements established in the work plan, as amended, and performed in this study include:

- Establish a ground water monitoring network through the completion of a series of upgradient and downgradient monitoring wells at:
  - 1) Lagoons 1 and 2 / Treatment Plant area
  - 2) Lagoon 3 area
- Identify constituents of concern (COCs) and appropriate indicators to evaluate ground water quality
- Monitor and sample upgradient ground water wells to statistically establish background water quality (8 × during study)
- Monitor and sample downgradient ground water wells to determine potential water quality impacts from site operations (4 × during study)
- Establish a quality assurance/quality control (QA/QC) program to assure the validity and usability of data generated for this study
- Evaluate data to determine what, if any, additional ground water monitoring is appropriate.

This report outlines the site background, site geology, hydrogeology, and ground water quality results. The site background section (Section 2.0) provides information on the facility and a review of historic data. Section 2.0 of this report is reproduced from the study work plan (AESI, 1999a) with only minimal updating, including new facility expansion information and newly generated hydrogeologic information. A brief overview of the regional and site-specific geology based on the field work and existing data is presented in Section 3.0. Section 4.0 identifies the major hydrogeologic units and discusses the characteristics of the ground water systems, such as ground water flow direction and hydraulic gradients. Ground water quality is discussed in Section 5.0, which outlines the monitoring program, ground water sampling, identifies background water quality, and presents a summary of ground water chemistry results. Section 5.0 also describes the methods of data analysis and water quality evaluation used in this study. Section 6.0 presents study conclusions, including an evaluation of hydrogeologic and ground water quality data, and recommendations regarding future monitoring. Appendix A presents a summary of field methodologies, boring logs and well development information for monitoring wells completed at the IWS P/L area. Appendix B presents the ground water quality data collected during this investigation, as well as a summary of laboratory testing results and data validation reports.

## 2.0 SITE BACKGROUND

### 2.1 FACILITY DESCRIPTION

The IWS P/L area is part of a drainage system that was designed to manage industrial wastewater runoff that originates at STIA. The IWS collects and treats industrial wastewater (as defined in Special Condition S1 of the STIA NPDES permit), which may include accidental spills of fuel and other chemical substances used in the airport operations and maintenance areas, as well as storm water runoff from precipitation that may come in contact with industrial activities. The IWS drainage system collects liquids via a network of catch basins and flush gutters from the following areas at STIA: main terminal, parking garage area, north and south satellites, main hangars, air cargo area, and other areas of industrial activities. Liquids collected by the IWS are temporarily stored in the lagoons prior to being conveyed by piping to the IWS treatment plant for NPDES-permitted treatment and discharge. Treated wastewater leaves the treatment plant via a pipeline that joins the Des Moines sewer treatment plant outfall prior to discharge to Puget Sound.

Three lagoons (Lagoon 1, Lagoon 2 and Lagoon 3) store industrial wastewater from the airport terminal and selected operations areas prior to its treatment in the IWS treatment plant (Figure 1.2). The holding capacities of Lagoons 1, 2, and 3 are approximately 1.6 million gallons, 3.3 million gallons, and 20.2 million gallons, respectively. Lagoon 3 improvements are currently underway, which will include capacity expansion to approximately 72 million gallons.

Lagoons 1 and 2 are located at the southwestern end of STIA near the intersection of South 188<sup>th</sup> Street and South 188<sup>th</sup> Way. The lagoons are situated on the edge of the plateau that forms the airfield, at an approximate elevation of 345 feet, with Lagoon 1 positioned east of Lagoon 2. The treatment plant is situated at an approximate elevation of 325 feet and is located directly southeast of the side slope comprising Lagoon 1. Lagoon 1 has been used to store wastewater since 1965. Lagoon 2 was built in 1972 and is utilized during times of heavy rainfall events. During normal operations, wastewater is confined to Lagoons 1 and 2 until it is processed at the treatment plant.

Lagoon 3 is located approximately 500 feet south of South 188<sup>th</sup> Street. Lagoon 3 was constructed in 1979 and is used to provide excess storage capacity for industrial wastewater in the event that Lagoons 1 and 2 reach capacity. The existing lagoon is unlined, pending completion of the Lagoon 3 expansion and lining project (see below). The Lagoon 3 overflow elevation is about 346 feet and as-built bottom elevation is 260 feet. A pumping station is located approximately 50 feet northwest of the lagoon, which pumps wastewater from Lagoon 3 to the treatment plant.

Since 1996, the Port of Seattle (the Port) has performed leak detection monitoring on piping systems associated with the IWS plant, cleaned Lagoons 1 and 2 by removing accumulated sediment and impacted sub-sediment soil, and installed geomembrane liners in those lagoons as best management practices to protect the ground water resource. An engineering construction project is currently in progress for Lagoon 3; planned improvements include removing accumulated sediments (and any impacted sub-sediment soil) from the bottom of the existing lagoon, expanding the lagoon to increase its storage capacity, and installing a geomembrane liner and underdrain system. The liner systems constructed in Lagoons 1 and 2, and designed for Lagoon 3, are



substantial, consisting of an engineered foundation, 100-mil high-density polyethylene (HDPE), and an upper surface of a concrete reinforced geoweb, to allow vehicle traffic on the liner for periodic lagoon cleaning.

## 2.2 EXISTING ENVIRONMENTAL DATA

### 2.2.1 Materials Reviewed

The following paragraphs present a brief description of existing environmental information compiled from reports documenting ground water, geologic, and environmental conditions at the IWS P/L area. Information developed in this section was obtained from reports that are on file at the Port of Seattle and Ecology.

### 2.2.2 Summary of Existing Data - Waste Influent/Effluent

#### 2.2.2.1 Quantity

Daily flow measurements of wastewater processed at the IWS treatment plant (effluent) were compiled for 1997 and 1998. The flow ranges from zero gallons per minute (gpm) to the maximum flow allowed by the permit (4,800 gpm). A daily average of 826 gpm was processed at the treatment plant between 1997 and 1998. The daily average flow rate corresponds to a daily average volume of about 921,000 gallons. A maximum flow rate of 4,500 gpm with a corresponding maximum daily volume processed of about 6.5 million gallons occurred on November 27, 1998. The total volume of wastewater processed at the plant in the two-year period was approximately 615 million gallons.

Total monthly wastewater processed at the treatment plant was also compiled for 1997 and 1998. As expected, a good correlation exists between wastewater processed and rainfall. In general, the greatest volume of wastewater generated occurs during the wet season, which normally occurs between the fall through spring months. The rainfall data was obtained from the STIA weather station, as reported by the Western Regional Climate Center (1999). The lowest total monthly volume of wastewater processed was about 3 million gallons during the month of July 1998, which corresponded to a total monthly rainfall of 0.41 inch. The maximum total monthly volume of water processed occurred during November 1998 and was about 85 million gallons. The total amount of rainfall for November 1998 was 11.75 inches and represents the wettest November on record.

#### 2.2.2.2 Quality

Influent and effluent wastewater quality processed by the IWS was summarized by Kennedy/Jenks Consultants as part of an addendum to the IWS Engineering Report (Kennedy/Jenks Consultants, 1998b). Treated wastewater (effluent) is sampled on a weekly basis and reported to Ecology in satisfaction of the requirements of the STIA NPDES permit. Based on effluent testing at the plant, Kennedy/Jenks Consultants concluded that the treatment plant performance had significantly improved since the summer of 1995. The following table summarizes the effluent monitoring requirements:

Monitoring Frequency	Parameters
Daily	Flow
Weekly	Fats, oil & grease (FOG), total suspended solids (TSS), and pH
Monthly	Biological Oxygen Demand (BOD), total ammonia, total glycols, benzene, toluene, ethylbenzene, and xylene (BTEX), total phenolics, and total petroleum hydrocarbons (TPH)
Annually	Priority pollutants and fecal coliforms

Wastewater quality parameters that have been detected in effluent include: pH; fats, oil and grease (FOG); total suspended solids (TSS); biological oxygen demand (BOD); ammonia; ethylene glycol; propylene glycol; total petroleum hydrocarbons (TPH); and phenols. The detections are below the quantitative NPDES permit limits.

Priority pollutant compounds that have been detected in effluent are presented in the following table:

Priority Pollutant	Detected Analyte
Metals	copper, lead, zinc
Semi-Volatile Organic Compounds (SVOCs)	benzidine, bis(2-chloroethyl) ether, phenol, 2,4-dinitrotoluene, naphthalene, 2-methyl naphthalene, acenaphthene, fluorene, pyrene, phenanthrene, dimethyl phthalate, di-n-butylphthalate, butylbenzylphthalate, bis(2-ethylhexyl)phthalate, and di-n-octylphthalate
Volatile Organic Compounds (VOCs)	acetone, methylene chloride, 1,1-dichloroethane, 2-butanone, 1,1,1-trichloroethane, benzene, 4-methyl-2-pentanone, toluene, ethylbenzene, m,p-xylene, o-xylene, total xylenes, and styrene
Pesticides and Polychlorinated Biphenyls (PCBs)	none detected

Influent sampling is not required by the NPDES permit; however, an independent wastewater sampling program was implemented between January 17, 1997 and May 28, 1997 to further characterize influent wastewater to the treatment plant. Compounds detected in the influent included BOD, ethylene glycol, propylene glycol, TPH, total glycol, TSS, and FOG.

### 2.2.3 Summary of Existing Data - Lagoon Sludge/Sediments

Sludge/sediment samples have been collected for waste classification purposes from Lagoons 1, 2, and 3 during a number of investigations conducted from 1986 through 1999 (Parametrix, 1986; Reidel, 1992; Reidel, 1993; Landau, 1993; Landau, 1994; and Kennedy/Jenks Consultants, 2000a). In general, Lagoon 1 sludge/sediments appeared to have the highest concentrations of detected compounds followed by Lagoons 2 and 3, respectively. Compounds that have been detected in sludge/sediment samples collected from the lagoons include metals, VOCs, SVOCs, pesticides and PCBs, TPH, ethylene glycol, and sulfide. Lagoons 1 and 2 investigations concluded that the sludge/sediment material would not be designated as a Dangerous Waste.

From the time after Lagoons 1 and 2 were constructed until 1981, sludge/sediment was periodically removed from Lagoon 1 and placed in an Ecology-approved disposal area located north of Lagoons 1 and 2 (Parametrix, 1986). Shannon & Wilson completed five soil borings (F-1 through F-5) in the sludge disposal area in 1990. TPH was detected in each of the five borings, with the highest concentration detected between ground surface and 10 feet, which represents the disposal depth of the sludge material.

Sludge/sediment was removed from Lagoon 1 in 1996 and from Lagoon 2 in 1997 and transported to the Kitsap County Landfill for disposal (Kennedy/Jenks Consultants, 1997a and 1998a). Geomembrane liners were installed in Lagoons 1 and 2 in 1996 and 1997, respectively.

On September 16 and 17, 1999, five soil borings (LB-1 through LB-5) were completed through the bottom of Lagoon 3 (Kennedy/Jenks Consultants, 2000a). These borings ranged in depth from 5.5 to 12.75 feet below the bottom of the lagoon. The borings encountered a uniform 0.5-foot-thick interval of generally black sludge that exhibited a petroleum hydrocarbon odor and contained varying degrees of organic matter. Testing of the sludge at Lagoon 3 indicates that concentrations of TPH and polycyclic aromatic hydrocarbons (PAHs) exceed Model Toxics Control Act (MTCA) industrial soil cleanup levels (Kennedy/Jenks Consultants, 2000b). Metals, VOCs, and PCBs were detected but were below MTCA industrial soil cleanup levels.

### 2.2.4 Summary of Existing Data - Releases and Integrity Tests

#### 2.2.4.1 Releases and Non-Compliance Events

Incidents of noncompliance were compiled from a fact sheet for NPDES permit WA-002465-1. These incidents resulted either from operator error, IWS treatment plant equipment failure, or from large storm events. We understand these 1995-97 events are representative of worst-case noncompliance. The following table summarizes releases between August 1995 and January 1997:

Date	Summary
8/16/95	Approximately 135 gallons of an undefined petroleum product were discovered in a storm water detention structure at Outfall 015. Corrective measures were taken by the Port to remove the accumulation of product and prevent product release to the environment. An investigation into the source of the product determined that product came from an IWS lagoon during normal IWS operations via an emergency overflow pipe due to failure of a safety device. Surface and subsurface sampling and visual observation of soil around the detention structure indicated no release occurred from the detention structure. Subsurface sampling of piping influent to the detention structure suggested that limited subsurface contamination was introduced, with two samples elevated above Washington State Model Toxics Control Act (MTCA) TPH cleanup levels.
10/11/95	A bypass of IWS treatment plant influent occurred for about 20 minutes at the lagoon diversion manhole. The bypass was caused by operator error in failing to open on time a manual valve to Lagoon 3. The discharge flowed across perimeter road into a ditch that runs between the perimeter road and South 188 <sup>th</sup> Street, and then to Des Moines Creek via the Northwest Ponds detention system. Monitoring of the bypass did not detect elevated levels of petroleum hydrocarbons in Des Moines Creek.
12/3/95	Heavy rainfall caused a bypass to occur at the lagoon diversion manhole. The bypass was caused by operator error failure to monitoring rising water level in Lagoon 1 and to manually open the valve to Lagoon 3 on time. Sampling of bypass did not find elevated petroleum hydrocarbon levels in Des Moines Creek.
2/8/96	A bypass occurred from the lagoon diversion manhole when influent rates were greater than the capacity of IWS pipe to Lagoon 3, causing a weighted manhole lid to be lifted off by the outflow. The bypass resulted from a large storm event (5.10 inches of rainfall over 72 hours) and lasted less than 1.25 hours. Inspection of ditches did not detect petroleum hydrocarbons. The Port bolted the manhole shut to prevent future incident.
12/30/96 and 1/1/97	Two releases of storm water from Lagoon 3 resulted from a large 7-day storm (16 inches of snow and 5.1 inches of rain). The bypasses occurred when the operation of the IWS treatment plant was reduced to lower the discharge flow rate in accordance with the discharge agreement with the Midway Sewer District for Outfall 001. Samples of the bypass detected no petroleum hydrocarbons, however elevated BOD and glycols were detected.

#### 2.2.4.2 Integrity Tests

Visual inspection of sump structures contained in each of the skimmer houses for Lagoons 1 and 2 occurred in August and September 1997 (Kennedy/Jenks Consultants, 1997b). The skimmer house sumps serve as an oil/water separator for fluids skimmed from the lagoon as well as a chamber for settling some solids. Following installation of the Lagoon 2 liner, an inspection of the Lagoon 2 skimmer house sumps was conducted in August 1997. A small amount of corrosion

(less than 1 inch in depth) of the concrete was observed under the sluice gate valve connecting the center and outlet sump. It was recommended that during the next cleaning event of Lagoon 2 (scheduled for the summer of 1999) a concrete patch be placed under the sluice gate valve in the center of the sump at the Lagoon 2 skimmer house. The recommended patching is scheduled maintenance for summer 2000.

An inspection of the sludge sump was conducted in August 1997. The sludge sump is located near the southeast corner of the treatment plant and receives the floating material and some water skimmed from the top of the Dissolved Air Flotation (DAF) units inside the treatment plant. The sludge sump was originally designed as an oil/water separator (OWS); however, it was reported that it is no longer operated as an OWS as a result of the height of a weir, which leaves the sludge sump susceptible to overflow. The sludge sump currently serves for bulk storage of DAF float material. During inspection of the sludge sump, no damage was found in the either chamber of the structure.

Various lines of the IWS treatment facility were pressure-tested by SME Corporation in August 1997 (SME Corporation, 1997). The following two lines failed the pressure testing: line (3-inch-diameter) from Lagoon 1 skimmer house to waste oil tank valve box; and line (6-inch-diameter) from waste oil tank to Lagoon 1. Additional testing indicated that the 3-inch-diameter line failed near the valve box area associated with the above ground oil storage tanks and near a 90-degree elbow near the steps to Lagoon 1. Areas along the 3-inch-diameter line were exposed during improvements to the Lagoon 3 force main. Field observations did not indicate any soil staining associated with leaking waste oil in the vicinity of the area where the 3-inch-diameter line failed pressure testing (Kennedy/Jenks Consultants, 1999). Test results on the 6-inch-diameter line were inconclusive and it was recommended that areas along the line would need to be further isolated in order to obtain results that are more accurate. In the interim, however, facility operations modifications resulted in inactivation of both the 3-inch and 6-inch lines.

Appropriate repair, replacement activities or removal from service associated with the lines has been scheduled.

#### **2.2.5 Summary of Existing Data - Soil**

Previous reports indicated that the bottom of Lagoons 1 and 2 were composed of compacted gravelly sand and did not contain a clay liner (Landau, 1993). Clayey soil was observed, however, during lagoon cleanup and excavations in 1996 and 1997.

Soil samples were collected at Lagoons 1 and 2 to evaluate subsurface soil conditions and the extent of contamination beneath the lagoon bottoms and sidewalls (Shannon & Wilson, 1990; Kennedy/Jenks Consultants, 1996; Kennedy/Jenks Consultants, 1997a; and Kennedy/Jenks Consultants, 1998a).

As mentioned in Section 2.2.3, Shannon & Wilson completed five soil borings along an area north of Lagoons 1 and 2, which was used until 1981 with Ecology approval as a sludge disposal area. Soil samples collected from the underlying sand fill and native till soils were all below the MTCA TPH cleanup level of 200 parts per million, and exhibited decreasing levels of TPH with depth at about 10 feet below the bottom of the sludge deposit.

As part of the cleanup action for Lagoons 1 and 2, soil samples were collected from the bottom and sidewalls of the lagoons to evaluate the extent of contamination beneath the sludge/sediment layer. Sampling conducted at Lagoon 1 indicated that petroleum-contaminated soils (PCS) were restricted to the upper 3.5 feet of soil beneath the base of the lagoon. Soil beneath the sludge was excavated to meet liner subgrade design requirements. PCS were over-excavated based on field screening results. About 12 to 14 inches of PCS were removed from the Lagoon 1 bottom (resulting in a total excavation depth of about 1.5 to 2 feet) and 3 feet were removed from the Lagoon 1 sidewalls. Some PCS remain in place at Lagoon 1 sidewalls for a number of reasons, including: potential compromise of structural integrity of the side wall; installation of lagoon liner would provide an effective cap to PCS; PCS would be readily attenuated via biodegradation processes; and the use of institutional controls would prevent exposure to PCS soils.

Excavation of soils at Lagoon 2 included the removal of soil from the bottom and sidewalls of the lagoon to a depth of 12 inches and 6 inches, respectively, to meet liner subgrade requirements. Based on field screening results, an additional 3 inches to 2 feet of PCS were removed from select areas of Lagoon 2. Confirmation sampling indicated that PCS were completely excavated along the bottom and sidewalls of Lagoon 2.

Lagoon 3 sediments consisted of an organic mat of living and decayed roots and plant stems overlying gray sand with trace gravel and was relatively free of sludge (Landau, 1994). Below the sediments is an approximately 1-foot interval of reworked glacial till, overlying Vashon till (Kennedy/Jenks Consultants, 2000a).

As a part of the Lagoon 3 upgrade work, nine soil borings (S-1, S-2, S-3, S-4, S-5, S-6, S-7, S-8, and D-1) were drilled in the vicinity of Lagoon 3 from August 3 to 12, 1998 (Kennedy/Jenks Consultants, 1998c). These borings ranged in depth from 31.5 feet to 69 feet below ground surface.

As part of the 1999 Kennedy/Jenks Consultants investigation ten additional soil borings were drilled in the proposed Lagoon 3 expansion area between June 10 and 18, 1999 (Kennedy/Jenks Consultants, 2000a). Seven of the borings (KJ-1 through KJ-7) are located on the perimeter of the proposed lagoon expansion, with three borings (KJ-8 through KJ-10) located in the interior of the proposed Lagoon 3 footprint. Soil samples from KJ-8 were submitted for analysis. The results showed elevated levels of SVOCs. The detected SVOC concentrations ranged from dibenzofuran at 4,300 parts per billion to fluoranthene at a concentration of 170,000 parts per billion. These results were attributed to discarded treated wood piles identified by the Kennedy/Jenks investigation as present in the fill.

In January 2000, three additional Lagoon 3 soil borings (B-11, B-12, and B-13) were completed by Zipper Zeman Associates Inc. to provide additional geotechnical design information to Kennedy/Jenks Consultants (Zipper Zeman Associates Inc., 2000). Fill material observed in soil samples collected in these explorations contained a variety of materials including crushed asphalt, broken asphalt, concrete rubble, and wood debris.

#### 2.2.6 Summary of Existing Data - Ground Water

Beginning in September 1994, the Port initiated ground water monitoring in the area of Lagoons 1 and 2 using the three monitoring wells (MWE-1, MWE-2, and MWE-3) installed in the perched water-bearing zone by Shannon & Wilson in 1990 (Figure 1.2). The three monitoring wells have been sampled on a quarterly or semi-annual basis from 1994 through August 1998. Ground water has been sampled for TPH, BTEX, metals, PAHs, and PCBs. In general, no significant contaminant levels were observed in samples collected from MWE-2 and MWE-3.

MWE-1 has consistently been below the MTCA cleanup levels for benzene, toluene, ethylbenzene and xylenes. TPH in the diesel range have been detected in the perched zone above the MTCA cleanup level of 1 part per million (ppm) at levels ranging between 1.2 ppm to 1.9 ppm. Figures 2.1 through 2.3 present historical time trends diagrams for well MWE-1 for TPH, benzene/ethylbenzene, and toluene/total xylenes.

Elevated levels of arsenic were observed in MWE-1 during the August 1996 sample event, with a high difference between total and dissolved fractions. It was concluded that particulate matter introduced to samples because of sampling procedures could have biased arsenic reporting. Follow-up sampling using low-flow purge and sample techniques were conducted in December 1996 to re-evaluate the discrepancy between total and dissolved arsenic. Figure 2.4 shows the difference between samples collected by conventional bailer purging versus low-flow purge techniques. Arsenic concentrations observed in MWE-1 were attributed to dissolution of arsenic from the environment because of anaerobic conditions (Floyd & Snider, Inc. [FSI], 1997).

A series of ground water monitoring wells was installed in the vicinity of Lagoon 3 during August 1998 as part of a preliminary engineering design for an independent cleanup and expansion of Lagoon 3 (Kennedy/Jenks Consultants, 1998c). Four monitoring wells, S-1, S-2, S-3, and S-4 (renamed MW-101, MW-102, MW-103, and MW-104 for this investigation) were installed along the northwestern and northern side of Lagoon 3 and screened in the shallow aquifer. An additional monitoring well, S-6 (renamed MW-108 for this investigation) was installed in the eastern lagoon embankment. Soil borings KJ-3 and KJ-10 constructed during the 1999 investigation were converted to monitoring wells. KJ-10 was completed in the shallow aquifer while KJ-3 was screened within a perched water-bearing zone (predominantly fill) overlying the glacial till unit.

Ground water levels measured on September 18, 1998 (Kennedy/Jenks Consultants, 1998a) indicated that the ground water flow direction in the shallow aquifer north of Lagoon 3 is toward the southwest. Monitoring wells MW-103 and MW-104, located hydraulically upgradient of the lagoon, were sampled on August 14, 1998 for VOCs, SVOCs, priority pollutant metals, TPH, ethylene glycol, propylene glycol, and major cations and anions. Low levels of bis(2-ethyl-

hexyl)phthalate were detected in MW-103 and MW-104 at 3.1 micrograms per liter ( $\mu\text{g/L}$ ) and 5.0  $\mu\text{g/L}$ , respectively. Ethylene glycol was detected at MW-103 at 20 milligrams per liter ( $\text{mg/L}$ ).

Laboratory testing of glacial till samples collected in the area surrounding Lagoon 3 indicate a median vertical hydraulic conductivity of  $5.4 \times 10^{-6}$  centimeters per second ( $\text{cm/sec}$ ) (Kennedy/Jenks Consultants, 2000a). The following table summarizes the results of the Kennedy/Jenks vertical hydraulic conductivity testing at Lagoon 3.

Vertical Hydraulic Conductivity Data Lagoon 3 Seattle-Tacoma International Airport			
Location	Depth (feet below ground surface)	Material	Constant Head Permeability ( $\text{cm/s}$ )
MW-101	28	Native till	$3.8 \times 10^{-6}$
MW-105	22	Native till	$2.4 \times 10^{-6}$
MW-106	31	Native till	$1.4 \times 10^{-6}$
MW-108	13	Native till	$5.4 \times 10^{-6}$
D-1	28	Native till	$3.4 \times 10^{-6}$
KJ-1	40	Native till	$7.0 \times 10^{-6}$
KJ-3	60	Native till	$3.0 \times 10^{-6}$
KJ-7	24	Native till	$4.0 \times 10^{-6}$
KJ-10	40	Native till	$2.0 \times 10^{-6}$



### 3.0 GEOLOGY

Subsurface soil and ground water conditions at the IWS P/L area were evaluated based on a review of existing boring and well completions within a 1/4-mile radius of the study area. The locations of the subsurface explorations are shown on Figure 3.1. Geologic cross-section profiles are presented in Figures 3.2 through 3.6. Geologic profiles have been constructed using exploration logs generated during present and previous site investigations (Shannon & Wilson, 1990, 1998c; Kennedy/Jenks Consultants, 2000a; Geolabs, 1969; Dames & Moore, 1970; Zipper Zeman Associates Inc., 2000) and water well logs on file with Ecology.

The geologic history of the Puget Sound Basin and the study area has been dominated by repeated glacial and non-glacial cycles. Sedimentary deposits associated with up to four of these cycles have been identified in the Des Moines Drift Plain. Sedimentary deposits identified within the IWS P/L area were deposited during at least two of these glacial and non-glacial cycles. The most recent glaciation in the project area occurred during the Vashon Stade of the Fraser Glaciation. Deposits from this glaciation are commonly identified with a "Vashon" or "Qv" prefix. All sediments deposited prior to the Vashon Stade, which include glacial and non-glacial deposits, are identified with a "Pre-Fraser" or "Qpf" prefix. The following sections outline the stratigraphic division of these soil units and a description of each soil type. The interpreted spatial distribution of each unit follows the unit descriptions.

#### 3.1 STRATIGRAPHY AND SOIL UNITS

An idealized stratigraphic sequence for the study area (starting with the onset of a glacial cycle) would consist, from the bottom up, of the following deposits.

- Glacio-lacustrine transition beds consist of fine sands, silts, and clays that were deposited in a glacially impounded lake. Deposition of these sediments mark the change from a non-glacial depositional environment (much like the Puget Sound region today) to a glacially dominated environment.
- Advance glacial outwash consists of fine to medium sands, and sands and gravels deposited by meltwater streams flowing from the margin of an advancing glacier.
- Glacial till consists of an unsorted to poorly stratified mixture of clays, silts, sands, and gravels deposited at the base of a moving glacier.
- Recessional glacial outwash consists of silty sands, sands, and sands and gravels deposited from meltwater streams issuing from a receding glacier.
- Interglacial sediments consist of interbedded clays, silts, sands and gravels, and peats that mark a return to non-glacial deposition in low-lying areas, and erosion of upland areas.

Typically, some or all of the deposits of an idealized sequence are missing in any specific location due to non-deposition, or erosion between successive deposits.

Wells within a 1/4-mile radius of the IWS P/L area are presented in Table A.1. Descriptions of stratigraphy (where available) for wells that do not have boring logs are presented in Appendix A.

### 3.1.1 Pre-Fraser Deposits

Pre-Fraser deposits are the deepest and oldest sediments observed in the study area. Several of the geotechnical and monitoring well logs in the IWS P/L area penetrated the Fraser section, which includes the Vashon Stade deposits, and entered Pre-Fraser non-glacial deposits. In this study, the Pre-Fraser deposits are subdivided into coarse-grained deposits and fine-grained deposits, based on the textural characteristics noted on the well logs.

Water supply well logs are the primary source of subsurface information on the deeper deposits in the study area, although Pre-Fraser deposits were encountered in borings completed for this investigation in the vicinity of IWS P/L area. Note, however, that drillers' water well logs typically lack the details necessary to distinguish between glacial and non-glacial deposits

Pre-Fraser deposits may be difficult to distinguish from overlying Fraser (Vashon) glacial deposits in well drillers' logs. Where possible, these deposits were identified by their stratigraphic location below known glacial soils and characteristics that are indicative of non-glacial sediments. Characteristics of non-glacial sediments include the presence of organic matter and wood, ash or pumice, color changes to darker brown, yellow or green, increased degree of interbedding, sediment sorting and grain sizes characteristics, and an increased proportion of volcanic clast lithologies. It appears that the shallow aquifer encountered beneath the glacial till unit at Lagoon 3 is composed of Vashon advance outwash and Pre-Fraser coarse-grained deposits.

#### 3.1.1.1 Pre-Fraser Fine-Grained Deposits

Pre-Fraser fine-grained deposits (Qpff) were identified in the water well boring logs in the southeast and southwest portions of the IWS P/L area. The fine-grained deposits are described as clay, sandy clay, and sand and clay. The reported colors (blue, gray, and brown) suggest both glacial and non-glacial origins for these units. The base of the Qpff unit occurs at elevation 140 feet in well 22/4/4C1 in the southeast corner of the study area (Figure 3.2, Section A-A') and at about elevation 115 feet in well 23/4/32R1 in the south-central portion of the study area (Figure 3.3, Section B-B'). The top of the unit is present at about elevations 210 to 190 feet in the southwest and southeast corners, respectively. This unit appears to be relatively thick, laterally discontinuous, and may constitute a regional aquitard where present. Regional analysis suggests that the Qpff unit is absent along a north to south trend that extends roughly parallel to the runways and extends south through the eastern side of Lagoon 3.

#### 3.1.1.2 Pre-Fraser Coarse-Grained Deposits

The uppermost Pre-Fraser deposits are coarse-grained and consist of interbedded sand and gravel with some cobbles, with variable amounts of silt and with silty interbeds. The coarse-grained deposits are up to 60 feet thick and possibly as much as 120 feet thick in the southeastern portion of the study area.

Pre-Fraser coarse-grained deposits (Qpfc) are present above about elevation 190 feet in the southern portion of the study area and generally thicken toward the north. The top of this unit is present at about elevation 240 feet in the southern portion and climbs to about elevation 290 feet in the northeast portion. Pre-Fraser coarse-grained deposits were encountered north of Lagoon 1 in MWE-5 at about 270 feet elevation. At MWE-5, the Qpfc unit was distinguished from overlying Vashon glacial deposits by a significant increase in the proportion of andesitic to basaltic clasts. South of Lagoon 3, the contact between the Vashon advance glacial outwash deposits and the Pre-Fraser coarse-grained deposits is increasingly uncertain. Older interbeds of Pre-Fraser coarse-grained deposits were identified about 100 feet below the Pre-Fraser fine-grained deposits.

### 3.1.2 Fraser (Vashon) Glacial and Recent Alluvial Deposits

#### 3.1.2.1 Advance Outwash

Glacial deposits of the Vashon Stage of the Fraser Glaciation were encountered in the majority of the borings in the study area. The lowest stratigraphic member of these deposits consists of advance glacial outwash (Qva), composed of dense, fine- and medium-grained sand, silty sand, and sand and gravel. This unit was encountered in the vicinity of Lagoons 1 and 2 and may be present below exploration depth elsewhere. Water well 22/4/4C1 located in the southeast portion of the study area encountered 100 feet of sand and gravel. The upper 53 feet has been interpreted as advance outwash deposits, acknowledging, however, the possibility that the upper 53 feet may also consist of Qpfc deposits.

Advance glacial outwash locally overlies the Pre-Fraser coarse-grained deposits. Cross-section G-G' (Figure 3.6) shows a thin and probably discontinuous stratum of Qva overlying and in direct contact with Qpfc. Where the Qva and Qpfc are in contact, these coarse-grained soils appear to form a regional aquifer that is partially confined below the overlying glacial till in the study area.

#### 3.1.2.2 Glacial Till

The majority of the monitoring wells and geotechnical borings in the IWS P/L area encountered glacial till, a very dense, low permeability soil composed of an unsorted to poorly sorted mixture of clay, silt, and sand with variable amounts of gravel. Lenses of stratified sandy and gravelly soils are commonly present within the till. These lenses typically have limited lateral extent and may transmit or contain minor amounts of perched ground water. Glacial till forms a relatively continuous, generally southward-dipping blanket about 5 to 45 feet thick below the IWS P/L area. The till appears to thin and pinch out on the hillside to the east of Lagoon 3.

#### 3.1.2.3 Recessional Outwash and Recent Alluvium

Recessional glacial outwash, recent alluvium, and fill overlie the glacial till. Recessional outwash forms the stratigraphic bottom of this group. Recessional outwash consists of medium dense to dense sand, silt, sand with gravel, and silty sand and gravel mixtures. Thin interbeds of silt are

common in coarse-grained recessional outwash deposits. Where lacking distinctive characteristics, some recent alluvium and fill may be included within the deposits classified as recessional outwash.

Recessional outwash is present as a discontinuous mantle above glacial till in upland areas and as a much thicker deposit that filled in regional low-lying areas and recessional meltwater drainage courses. Recessional outwash ranges from absent to about 20 feet thick in the vicinity of IWS P/L area, and up to 50 feet thick in well 23/4/32R1 located southwest of Lagoon 3. Some recent alluvium may be included within deposits classified as recessional outwash in modern-day drainage courses south and west of the lagoons. The hydrogeologic characteristics of the recessional outwash and coarser recent alluvium units are similar.

#### 3.1.2.4 Fill

Fill is the uppermost stratigraphic soil in most of the project area. Because of the nature of fill soils, many possible combinations of grain size and density or consistency are observed. If fill is not specifically identified on original soil logs, it is typically difficult to distinguish from in-place native soils. Identified fill soils consist of silty sand with gravel, silty gravelly sand, silty sand, and sand. A thin zone of lagoon sludge was also identified on several of the logs of borings located in the former sludge disposal area immediately north of Lagoons 1 and 2. Asphalt and concrete debris were observed incorporated in the fill at several locations in the vicinity of Lagoon 3.

Fill in the site area is present from grading activities for the IWS treatment plant, the lagoons, and the airport runway embankment. Identified fill thickness ranged from about 10 feet up to about 32 feet in the embankments for Lagoons 1 and 2. Fill may be up to about 40 feet thick in the embankment north of Lagoon 3 and up to 45 feet thick south of Lagoon 3 and north of the Northwest Ponds.

## 4.0 HYDROGEOLOGY

### 4.1 REGIONAL HYDROGEOLOGY

The stratigraphy in the region surrounding the IWS Plant and Lagoons consists of a system of layered water-bearing zones and aquitards that can be regionally continuous. The uppermost water-bearing zone consists of discontinuous units perched in recent alluvium and recessional outwash, and is separated from the underlying shallow aquifer by the Vashon glacial till deposits. The shallow aquifer is formed by the advanced glacial outwash deposit [unit Qva in the South King County Ground Water Management Plan System and USGS system] and is in a confined condition in the IWS P/L area. The Lawton Clay underlies the advanced glacial sediments and forms a discontinuous aquitard that separates the shallow aquifer from the underlying Pre-Fraser coarse-grained deposits [unit Qc(3) in the South King County Ground Water Management Plan system and Q(A)c in the USGS system]. The advanced glacial sediments and Pre-Fraser coarse grained sediments appear to be in contact where the Lawton Clay does not exist. The Pre-Fraser coarse grained deposit is isolated from deeper aquifers by thick Pre-Fraser fine grained deposits.

### 4.2 SITE HYDROGEOLOGY

Two principal water-bearing units have been identified in the IWS P/L area. The lower aquifer(s) consists of the Pre-Fraser coarse-grained and the overlying advance glacial outwash deposits. These units appear to be in contact with one another. They are isolated from the perched, discontinuous, unconfined upper water-bearing unit by the glacial till unit that appears present throughout the IWS P/L area. The upper water-bearing zones consist of recessional outwash, recent alluvium, and fill soils, and are perched on the low permeability glacial till.

#### 4.2.1 Summary of Monitoring Well Completions

Eight monitoring wells were installed as a part of the 1999 hydrogeologic investigation. The wells were designed to measure ground water levels and water quality from perched water south of Lagoon 3 and from the shallow aquifer in the vicinity of Lagoons 1 and 2. From April 28, 1999 to May 24, 1999, five monitoring wells (MWE-4, MWE-5, MWE-7, MWE-8, and MWE-9) were installed around Lagoons 1 and 2, and three monitoring wells (MW-105, MW-106, and MW-107) were installed south of Lagoon 3. All monitoring wells were constructed in accordance with Washington Administrative Code (WAC) Chapter 173-160, *Minimum Standards for Construction and Maintenance of Wells*. Well completion data, screen depth, and type of geological material surrounding each monitoring well installed during this investigation are summarized in Table 4.1. The locations of monitoring wells are shown on Figure 3.1. The completion details are shown on Figures A.2 through A.10.

Adjacent to Lagoons 1 and 2, five monitoring wells (MWE-4, MWE-5, MWE-7, MWE-8, and MWE-9) were completed in the shallow aquifer. Initially, MWE-6 was slated to be completed northeast of Lagoon 2 (AESI, 1999a). Monitoring wells MWE-4, MWE-5, MWE-7, and MWE-9 were completed first and ground water level measurements indicated a southwest ground water flow direction. This indicated that if MWE-6 was installed it would be located in a cross-gradient

position relative to Lagoon 2. Ecology agreed that it would not provide a downgradient monitoring point and therefore was unnecessary (AESI, 1999b). Completion depths in these wells ranged from approximately 40 to 90 feet below ground surface.

Three monitoring wells (MW-105, MW-106, and MW-107) were completed in the perched aquifer south of Lagoon 3. Completion depths for these monitoring wells were from approximately 25 to 32 feet below ground surface (bgs). Initial plans were to complete these monitoring wells in the shallow aquifer, but Ecology directed the Port to evaluate instead the potential impact from Lagoon 3 on the perched ground water zone. The well screen intervals were changed so the perched ground water table was intersected.

The preceding changes were submitted to Ecology on May 20, 1999 as an addendum to the work plan (AESI, 1999b) and were subsequently approved.

#### 4.3 GROUND WATER LEVELS AND FLOW DIRECTION

##### 4.3.1 Ground Water Level Measurements

MWE-4 and MWE-5 were installed upgradient of Lagoons 1 and 2 and were used to determine background ground water quality in the shallow aquifer. MWE-7, MWE-8, and MWE-9 are installed downgradient of Lagoons 1 and 2 and were used to evaluate the effects of the lagoon and treatment plant on the shallow aquifer. Monitoring wells MW-105, MW-106, and MW-107 are installed in the perched aquifer south of Lagoon 3. The locations of all monitoring wells are shown on Figure 3.1.

Water levels were measured with either a water level recorder or from a QED MicroPurge Water Level Meter. With the QED water level meter, compressed air is used in conjunction with a dedicated stainless steel probe. Compressed air is supplied at low rates to the probe and a transducer in the meter measures the pressure required to force bubbles of air out the end of the probe. This provides an accurate reading of probe submergence. A water level is calculated from this data. In September 1999, a Troll Model SP4000 datalogger was installed in MWE-7 to automatically record ground water levels every six hours. The Troll SP4000 downhole instrument is a pressure transducer that measures the height of water column to a specified datum in the monitoring well and converts this to a ground water elevation.

##### 4.3.1.1 Ground Water Levels - Lagoons 1 and 2

Hydrographs shown in Figures 4.1 through 4.8 summarize the ground water elevations for monitoring wells installed during this investigation and historic monitoring wells at Lagoons 1 and 2. The elevation data are plotted in time series with monthly precipitation.

The hydrographs for MWE-4 through MWE-9 show that the ground water levels in the shallow aquifer decrease through the summer months and begin to rise in the winter months. The ground water elevation fluctuates by approximately 0.5 foot to 0.75 foot during this time. Figure 4.6 shows the water level data for MWE-7. At the time of data compilation, 785 water level measurements were recorded with the Troll datalogger for MWE-7. Selected monthly water level

measurements were tabulated for presentation purposes. The hydrograph for MWE-7 contains all ground water level measurements available. The hydrograph shows that the ground water elevation begins to rise slowly around November 1999 through April 2000 in response to the wet season precipitation events. The small-scale fluctuations displayed in the data are likely due to the influence of barometric pressure changes on the aquifer.

Hydrographs were constructed for monitoring wells completed in the perched zone (MWE-1, MWE-2, and MWE-3). The water levels south of Lagoons 1 and 2 show an overall upward trend (Figure 4.1 through Figure 4.3). The ground water levels in these wells show a seasonal fluctuation that is tied to the precipitation record. The water level recorded on August 7, 1999 in monitoring well MWE-2 is anomalous due to an instrument malfunction.

Figure 4.20 is a plot that combines the hydrographs for the Lagoon 1 and 2 monitoring wells and shows the water level relationship between the perched water-bearing zone and the shallow aquifer. Ground water levels in wells screened in the shallow aquifer at Lagoons 1 and 2 are at a higher elevation than the base of the glacial till unit, suggesting confined aquifer conditions. Pressure heads ranging from about 11 feet to 32 feet have been measured around Lagoons 1 and 2 in monitoring wells MWE-4 and MWE-7. Static ground water levels in the perched water-bearing zone at Lagoons 1 and 2 are approximately 11 feet higher in elevation than water levels measured in the shallow aquifer at Lagoons 1 and 2. Water level measurements from the three perched wells (MWE-1, MWE-2, and MWE-3) completed at Lagoons 1 and 2 indicate that ground water appears to have ranged between about 18 to 25 feet beneath the bottom of the lagoons. The hydrographs for the perched water-bearing zone also show a seasonal response to precipitation, with generally lower water level elevations corresponding to drier months and higher water levels to wetter months. Water levels in the shallow aquifer also appear to respond to an increase in precipitation, although the magnitude of the response is dampened.

#### 4.3.1.2 Ground Water Levels - Lagoon 3

The ground water levels recorded for monitoring wells MW-101 through MW-104 (Figures 4.9 through 4.12) and KJ-10 (Figure 4.18), which are completed in the shallow aquifer, show a larger degree of variation in water level than those completed around Lagoons 1 and 2. MW-101 through MW-104 show a general peak in the water level surface in June/July and a slow decrease through to November. Lagoon 3 surface water level data were also plotted (Figure 4.19).

Ground water levels in the perched water zone south of Lagoon 3 also show a small fluctuation with seasonal precipitation. The measurements indicate that perched water levels fluctuate by approximately 2 feet in monitoring wells MW-105 and MW-106 over the course of the year. MW-107 water levels did not change significantly except on two occasions: on September 17, 1999 and November 8, 1999 the ground water level was below the bottom of the screen. Hydrographs for MW-105, MW-106, and MW-107 are shown on Figures 4.13 through 4.15.

Monitoring well MW-108 is completed in the lagoon embankment on the east side of Lagoon 3. MW-108 has been monitored since 1998 and the water levels seem to be independent of the seasonal precipitation. Water levels fall through the winter months and rise in the summer

months. This may be indicative of a time lag from increased water levels in Lagoon 3 in the winter until seepage through the embankment influences the water level in MW-108. The hydrograph for MW-108 is shown on Figure 4.16.

Monitoring well KJ-3 is located south of Lagoon 3 and is completed in the perched zone. The largest water level fluctuations were recorded at well KJ-3, with approximately 4 feet of change between November 8, 1999 and December 21, 1999 (Figure 4.17).

Figure 4.21 presents the combined hydrographs for Lagoon 3 monitoring wells and shows the water level relationship between the perched water-bearing zone and the shallow aquifer. Pressure heads ranging from about 30 feet to 22 feet above the base of the glacial till unit have been measured north of Lagoon 3 in shallow aquifer wells MW-101 and MW-104. The water levels in the perched water zone south of Lagoon 3 are approximately 20 feet lower than measured in the wells completed in the shallow aquifer north of the lagoon. The water level in KJ-10, which is completed in the shallow aquifer downgradient of Lagoon 3, is approximately 30 feet lower than the water levels in monitoring wells completed in the shallow aquifer north of Lagoon 3. The perched water level measured in the downgradient well KJ-3 has been approximately 17 feet lower than the perched water level just south of Lagoon 3.

In September 1999, Lagoon 3 was drained so test holes could be drilled in the lagoon bottom and soil samples recovered (Kennedy/Jenks Consultants, 2000a). This event is shown in the Lagoon 3 hydrograph as indicated by a drained lagoon level of approximately 261 feet (Figure 4.21). With the exception of one ground water level measurement at MW-107, the ground water elevation in the perched wells at Lagoon 3 apparently did not respond to the lagoon draining. Monitoring well MW-107 was dry at the same time Lagoon 3 was drained, and was dry again in November 1999 for a reason unknown at this time.

#### 4.3.2 Ground Water Flow Direction

The ground water flow direction in the shallow aquifer was evaluated for September 1999 and January/February 2000. The ground water elevations at these measurement periods correspond to drier summer conditions and wet winter conditions, respectively. Potentiometric maps were constructed for each period using ground water level measurements from monitoring wells MWE-4, MWE-5, MWE-7, MWE-8, and MWE-9 (shallow aquifer near Lagoons 1 and 2) and MW-101, MW-102, MW-103, MW-104, and KJ-10 (shallow aquifer near Lagoon 3).

Figure 4.22 shows the ground water elevation contours and flow directions for the September 1999 measurements. Ground water elevations range from a high of 304.8 feet at MWE-5 north of Lagoon 1 to a low of 260.6 feet south of Lagoon 3 at KJ-10. The predominant flow direction indicated by the data in the vicinity of Lagoons 1 and 2 is to the southwest. The flow direction around Lagoon 3 is to the south.

Using the potentiometric surface, the hydraulic gradient around the lagoons was calculated. The median hydraulic gradient around Lagoons 1 and 2 in September 1999 was estimated to be approximately 0.005 while the median hydraulic gradient around Lagoon 3 was estimated to be 0.04. The hydraulic gradient around Lagoon 3 is steep to the immediate north of Lagoon 3 and



appears to decrease to the south. The increased hydraulic gradient north of Lagoon 3 may be due to localized fining of sediments resulting in a lower permeability in the shallow aquifer.

Water levels measured from the shallow aquifer in January 2000 and February 2000 were used to compile the winter potentiometric surface (Figure 4.23). January 2000 water level data were available for monitoring wells completed in the shallow aquifer at Lagoon 3 (MW-101, MW-102, MW-103, MW-104, and KJ-10), and February 2000 water levels were available for monitoring well installed in the shallow aquifer at Lagoons 1 and 2 (MWE-4, MWE-5, MWE-7, MWE-8, and MWE-9). The January/February 2000 ground water flow directions are shown on Figure 4.23. The ground water elevations range from a high of 305 feet at MWE-5 northeast of Lagoon 2 to a low of 262.8 feet in KJ-10 south of Lagoon 3. The predominant flow direction around Lagoons 1 and 2 is to the southwest and to the south near Lagoon 3. The median hydraulic gradient around Lagoons 1 and 2 was calculated to be approximately 0.005. This indicates a lower hydraulic gradient than in the summer months. The median hydraulic gradient north of Lagoon 3 was calculated to be approximately 0.02. The potentiometric surface in the winter months also indicates a steeper hydraulic gradient to the north of Lagoon 3.

#### 4.3.3 Ground Water Flow - Conclusions

Ground water flow directions in the vicinity of Lagoons 1, 2, and 3 have been calculated for a dry period and a wet period. Water levels measured in September 2000 were used as dry period measurements where as January/February 2000 water levels represent wet period conditions. The calculated ground water flow directions for both of the measurement periods is a southwest direction at Lagoons 1 and 2 and a south direction at Lagoon 3.

A confined ground water condition was observed in the shallow aquifer underlying the IWS P/L area. Under these conditions ground water flow will be governed by pressure gradients where the primary direction of flow will be from areas of higher pressure gradients (higher ground water elevation heads) to areas of lower pressure gradients (lower ground water elevation heads). In general the water level surface of a confined aquifer system (potentiometric surface) will slope from recharge areas to discharge areas. For the shallow aquifer system the recharge area is situated along the central portion of the Des Moines upland and in the vicinity of the study area this aquifer eventually discharges along areas of Des Moines creek located about 800 feet south of Lagoon 3. Vertical ground water gradients in recharge areas are upwards in direction and would restrict the movement of ground water to deeper aquifer systems.

## 5.0 GROUND WATER QUALITY

Two networks of ground water monitoring wells (MWE-4, MWE-5, MWE-7, MWE-8, and MWE-9 for Lagoons 1 and 2, and MW-105, MW-106, MW-107, and MW-108 for Lagoon 3) were established for the IWS P/L area to provide upgradient and downgradient ground water quality data. The locations of these monitoring wells are shown on Figure 3.1. Background water quality was measured at MWE-4 and MWE-5 north of Lagoons 1 and 2. Ground water samples were obtained eight times from the background wells and four times from all other monitoring wells between June 1999 and March 2000. Laboratory results were validated by Saylor Data Solutions in Bothell, Washington. The data validation reports are provided in Appendix B.

### 5.1 WELL DEVELOPMENT

From May 12, 1999 through June 1, 1999, each monitoring well was developed to remove fine-grained material from inside the well casing and filter pack, and to develop hydraulic communication between the well screen and the surrounding aquifer formation. Well development was performed using a combination of the Waterra system, which consists of a length of high-density polyethylene (HDPE) tubing connecting to a foot valve, and a Grundfos submersible pump that was used for over-pumping. Also attached to the tubing is a mechanical surge block that loosens and removes fine-grained aquifer formation material lodged in the filter pack. Field parameters such as temperature, specific conductance, pH and turbidity were monitored throughout the development period. A complete description of field methodology and field measured parameters during well development can be found in Appendix A (Figures A.25 through A.32). The field-measured parameters recorded at specific monitoring wells are summarized in Tables A.2 through A.9 in Appendix A.

### 5.2 GROUND WATER SAMPLING

Ground water samples were obtained using dedicated QED Well Wizard Model P1101M sample pumps. The Well Wizard is an air-actuated bladder pump designed to allow for low-flow purge sampling. This technique relies on purging and sampling ground water at a very low flow rate (less than 1 liter/minute) in order to minimize disturbance of the monitoring well's water column and the aquifer surrounding the well. This results in consistent, low turbidity samples and minimizes the quantity of purge water requiring disposal. The Port's automated data management system was used to manage the field acquisition of purge parameters, chain-of-custody records, and sample labels.

Before sampling the ground water, the monitoring wells were purged in order to obtain a representative ground water sample. Ground water samples were not taken until the temperature, pH, specific conductance, dissolved oxygen, redox, and turbidity had stabilized to  $\pm 10$  percent. Figures B.1 through B.9 show the field measured parameters during each sampling event.

### 5.2.1 Field-Measured Parameters - Lagoons 1 and 2

Field-measured specific conductivity values in the vicinity of Lagoons 1 and 2 ranged from approximately 325  $\mu\text{s}/\text{cm}$  in MWE-5 to approximately 1,050  $\mu\text{s}/\text{cm}$  in MWE-9. Dissolved oxygen levels ranged from approximately 0.1 to 5.5 mg/L, with many of the measurements being below 2 mg/L, indicating a reducing environment around Lagoons 1 and 2.

### 5.2.2 Field Measured Parameters - Lagoon 3

The specific conductivity values in the perched water table around Lagoon 3 were slightly lower than those around Lagoon 1 and 2, with field measured values ranging from approximately 50 to 700  $\mu\text{s}/\text{cm}$ . The dissolved oxygen content of the perched ground water was more variable than those encountered in the ground water in the shallow aquifer around Lagoons 1 and 2. The dissolved oxygen content ranged from approximately 0.25 to 6.5 mg/L. pH values measured ranged from a low of 4.5 in monitoring wells MWE-4 and MWE-5 to a high of 11 in MW-107. Concrete debris noted in soil samples collected from a depth of 20 to 25 feet below ground surface in MW-107 may cause the pH conditions observed in ground water at this well location.

## 5.3 CONSTITUENTS OF CONCERN

Analysis of the types of analytes detected in lagoon sludge/sediment, soil, and ground water were compiled during the development of the work plan for this investigation (AESI, 1999a). Jet fuel and other hydrocarbon products are the principal contaminant constituents of IWS water. TPH has been detected in all three media (sludge/sediment, soil, and ground water). VOCs, principally aromatic hydrocarbons (BTEX), have also been detected in the sludge/sediment, soil, and ground water.

Ethylene and propylene glycol are components of aircraft deicing fluids, which are utilized periodically during airport operations and are included in runoff collected by the IWS system. In a prior monitoring event, low levels of ethylene glycol were tentatively identified in one sample obtained from well MW-105 and one sample from well MW-106, both screened in the shallow aquifer north of Lagoon 3.

All ground water samples collected for this study were analyzed for total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), and ethylene and propylene glycol. A Jet A Fuel standard was utilized to evaluate TPH. North Creek Analytical located in Bothell, Washington, performed all analytical testing for this investigation. Ground water samples were analyzed in accordance with the Ecology or United States Environmental Protection Agency (EPA) methods listed below:

- Total Petroleum Hydrocarbons - WA DOE Method NW-TPH-Dx
- Volatile Organic Compounds - EPA Method 8260B
- Ethylene and Propylene Glycol - EPA Method 8015

### 5.3.1 Monitoring - Lagoons 1 and 2

Monitoring wells MWE-4 and MWE-5, which are located north of Lagoons 1 and 2, were sampled eight times from June 2, 1999 to March 15, 2000. These wells are completed in the shallow aquifer and serve to monitor background ground water quality. MWE-7, MWE-8, and MWE-9 were completed in the shallow aquifer generally south and downgradient of Lagoons 1 and 2. Four ground water samples were collected from these monitoring wells from June 2, 1999 to February 17, 2000.

### 5.3.2 Monitoring - Lagoon 3

Monitoring wells MW-105, MW-106, and MW-107 were installed in the perched ground water zone downgradient from Lagoon 3 to evaluate its impact on perched ground water. As was discussed in the Work Plan Amendment, no background wells were completed due to the localized condition of the perched water-bearing zone (AESI, 1999b). Four ground water samples were collected from these monitoring wells from June 3, 1999 to February 17, 2000.

## 5.4 WATER QUALITY STANDARDS

Table 5.1 summarizes the data for detected analytes in ground water samples collected for this study. Table 5.1 also lists potentially applicable ground water quality standards, including Ground Water Quality Criteria (GWQC) and Model Toxics Control Act (MTCA) Method A and Method B cleanup levels. The MTCA Method A or B cleanup levels are used as standards for compounds for which a GWQC numerical standard has not been published.

## 5.5 GROUND WATER QUALITY

Table 5.1 summarizes all detected compounds recorded for each of the monitoring wells. A number of values in Table 5.1 are reported as qualified. If the result has a 'J' qualifier, it means the analyte was positively identified at a level below the laboratory reporting limit and that the associated numerical value is the approximate concentration of the analyte in the sample. When a 'B' qualifier is used, it indicates that the analyte was detected in the sample but there is suspected laboratory contamination. An 'N' qualifier is attached to the ethylene glycol detects and indicates that the analyte was detected on the primary column during the GC/FID analysis but was not detected in the second column. In this case, there is presumptive but not conclusive evidence that the compound was detected. In this study, over 60 percent of the reported detections were qualified by the laboratory as either contaminated in the laboratory or identified at so low a level that the reported concentration is only an estimate. In the following evaluation, for conservatism, we have included these low-concentration J-flag and N-flag estimated detections.

### 5.5.1 Background Water Quality

Monitoring wells MWE-4 and MWE-5 were completed in the shallow aquifer upgradient from Lagoons 1 and 2 to provide background water quality data. Ground water samples were collected in accordance with the *Implementation Guidance for the Ground Water Quality Standards* (Ecology, 1996). Eight ground water samples were collected and tested from June 2, 1999 to

March 15, 2000 from monitoring wells MWE-4 and MWE-5. No significant contaminant concentrations were detected in samples collected from these upgradient monitoring wells; most concentrations are an order of magnitude or more lower than the GWQC, MTCA Method A and MTCA Method B Cleanup levels.

#### 5.5.1.1 Volatile Organic Compounds (VOCs)

Several analytes were detected, but all data were qualified with J- or B-flags. No detection exceeded a published standard.

Low levels of 1,1,1-trichloroethane were detected in MWE-4 and MWE-5 at maximum concentrations of 0.52  $\mu\text{g/L}$  and 0.84  $\mu\text{g/L}$ , respectively, which are well below the GWQC of 200  $\mu\text{g/L}$ . Low levels of carbon disulfide were detected in both MWE-4 and MWE-5, with values of 0.68  $\mu\text{g/L}$  and 0.58  $\mu\text{g/L}$ , respectively. There is no GWQC for carbon disulfide, however, the MTCA Method B cleanup level is 800  $\mu\text{g/L}$ . Dichlorofluoromethane was detected in both MWE-4 and MWE-5 with concentrations of 0.46  $\mu\text{g/L}$  and 2.43  $\mu\text{g/L}$ , respectively. The MTCA Method B cleanup level for dichlorofluoromethane is 1,600  $\mu\text{g/L}$ . The only other VOC detected was 0.68  $\mu\text{g/L}$  of chloroform in MWE-4. The GWQC for chloroform is 7  $\mu\text{g/L}$ .

#### 5.5.1.2 Total Petroleum Hydrocarbon (TPH)

TPH as Jet Fuel was not detected in any of the background monitoring well samples.

#### 5.5.1.3 Ethylene Glycol

Ethylene glycol was not detected in any of the background samples.

#### 5.5.1.4 Statistical Analysis

Statistical analysis for determination of background water quality was calculated in accordance with *Implementation Guidance for the Ground Water Quality Standards* (Ecology, 1996). Table 5.2 presents the reported analytical data for all detected analytes for all sampling events at background wells MWE-4 and MWE-5. All detections are J-flagged, estimated concentrations below the laboratory reporting limit. Concentrations of 1,1,1-trichloroethane, carbon disulfide, chloroform, and dichlorofluoromethane were detected in MWE-4 and MWE-5 ground water samples. With the exception of 1,1,1-trichloroethane in MWE-5, only single detections of other analytes were reported in the eight sampling events. For the statistical analysis, the background water quality for 1,1,1-trichloroethane and chloroform in MWE-4, and carbon disulfide and dichlorofluoromethane in MWE-4 and MWE-5, was set at the laboratory reporting limit. Similarly, the background water quality for non-detected compounds was set to the laboratory reporting limit. A summary of the chemistry results is found in Appendix B.

Samples from monitoring well MWE-5 reported five detections of 1,1,1-trichloroethane throughout the sampling period. It should be noted that 1,1,1-trichloroethane was not detected in any of the monitoring wells located downgradient of Lagoons 1 and 2 or the wells completed in the perched zone at Lagoon 3.

Probability plots for the MWE-5 data show that the results do not conform to a normal distribution. If the fraction of values below the laboratory reporting limit is less than or equal to 50 percent, the Aitchison's adjustment can be used to provide a corrected estimate of sample mean and standard deviation. Using these values, the background water quality tolerance limit can be calculated. In this case non-parametric methods may be considered to determine the baseline concentration. However, because the sample size of eight samples at MWE-5 is small, the parametric calculation is preferred, even if the data do not exhibit normality (Ecology, 1996).

The Aitchison adjustment was used with the natural logarithmically transformed values for 1,1,1-trichloroethane. The Aitchison's adjustment assumes the detected values come from one distribution and the values below the detection limit have a concentration equal to zero. A corrected sample mean and standard deviation can be calculated using the following equations:

$$\bar{X} = \left(1 - \frac{d}{N}\right) \bar{X}^*$$

and

$$S = \frac{n - (d + 1)}{n - 1} (S^*)^2 + \frac{d}{n} \left(\frac{n - d}{n - 1}\right) (\bar{X}^*)^2$$

where:  $\bar{X}$  = corrected sample mean  
 $\bar{X}^*$  = sample mean of detected values  
 $S^*$  = standard deviation of the detected values  
 $S$  = corrected standard deviation  
 $d$  = number of nondetect values  
 $n$  = number of samples

Using the corrected sample mean and standard deviation the parametric tolerance is calculated with the following:

$$\text{Tolerance Interval} = \bar{X} + KS$$

where:  $\bar{X}$  = corrected sample mean  
 $S$  = corrected standard deviation  
 $K$  = from Table 13.7 (Ecology, 1996)

The parametric tolerance interval of 1.1  $\mu\text{g/L}$  for 1,1,1-trichloroethane at MWE-5 is the background water quality value for that compound.

The following table summarizes the background water quality for detected analytes at monitoring wells MWE-4 and MWE-5:

Detected Compound	Well	
	MWE-4	MWE-5
	Background value ( $\mu\text{g/L}$ )	Background value ( $\mu\text{g/L}$ )
1,1,1-trichloroethane	0.16	1.1 <sup>(1)</sup>
carbon disulfide	0.17	0.17
chloroform	0.21	0.21
Dichlorofluoromethane	0.26	0.26
<p>Notes:</p> <p><sup>(1)</sup>Background water quality based on the statistical method outlined in Ecology, 1996 guidance document. Calculated background value includes J-flagged estimated laboratory data. No non-qualified 1,1,1-trichloroethane data were reported.</p> <p>All other background values are reported at the laboratory reporting limit.</p>		

### 5.5.2 Lagoons 1 and 2 Ground Water Quality - Shallow Aquifer

Four ground water samples were taken from June 2, 1999 to February 17, 2000 from Lagoon 1 and 2 monitoring wells MWE-7, MWE-8, and MWE-9. Table 5.1 summarizes the compounds detected during the sampling period.

#### 5.5.2.1 Volatile Organic Compounds (VOCs)

Monitoring well MWE-7 reported single J-flagged detections of carbon disulfide and chloroform with concentrations of 0.54  $\mu\text{g/L}$  and 0.78  $\mu\text{g/L}$ , respectively. The MTCA Method B cleanup level for carbon disulfide is 800  $\mu\text{g/L}$ ; for chloroform the GWQC is 7  $\mu\text{g/L}$ .

Monitoring well MWE-8 had detections for acetone, chloroform, and dichlorodifluoromethane in the June 1999 or July 1999 sampling events. Concentrations for acetone were 7.7  $\mu\text{g/L}$  and 24.1  $\mu\text{g/L}$ , the chloroform concentration was 1.04  $\mu\text{g/L}$ , and the dichlorodifluoromethane concentration was 3.93  $\mu\text{g/L}$ . With the exception of one chloroform detection (1.04  $\mu\text{g/L}$ ), MWE-7 and MWE-8 detections were reported, as J-flagged, below the laboratory reporting limit. Acetone and chloroform both have MTCA Method B cleanup levels of 800  $\mu\text{g/L}$ , and dichlorodifluoromethane has a MTCA Method B cleanup level of 1600  $\mu\text{g/L}$ .

Samples from MWE-9 reported 1,1-dichloroethane concentrations that exceeded the GWQC value of 1 µg/L throughout the sampling period. Concentrations ranged from 1.28 µg/L to 1.77 µg/L. Figure 5.1 shows the levels of 1,1-dichloroethane detected during each of the sample events. However, the MTCA Method A and Method B cleanup levels for 1,1-dichloroethane is 200 µg/L and 800 µg/L, respectively. MWE-9 detections of carbon disulfide (0.23 µg/L), chloroform (0.41 µg/L), dichlorofluoromethane (0.86 µg/L), and multiple toluene values (0.46 to 0.76 µg/L) were reported, as J-flagged, sporadically throughout the sampling events. The GWQC for toluene is 1000 µg/L.

#### 5.5.2.2 Total Petroleum Hydrocarbon (TPH)

Moderate levels of Total Petroleum Hydrocarbons (TPH) as Jet Fuels were reported in MWE-8. Concentrations of TPH as Jet Fuels range from 623 µg/L to 809 µg/L and were all below the MTCA Method A cleanup level of 1000 µg/L.

Samples from monitoring well MWE-9 had TPH as Jet Fuels detected in each of the four sampling events, with values ranging from 264 µg/L to 706 µg/L. TPH levels measured in MWE-9 are less than the MTCA Method A cleanup level, 1000 µg/L.

#### 5.5.2.3 Ethylene Glycol

Ethylene glycol was not detected in any of the Lagoon 1 and 2 ground water samples.

#### 5.5.3 Lagoon 3 Ground Water Quality - Perched Water Zone

Four sampling events were completed for the monitoring wells completed in the perched water zone south of Lagoon 3 (MW-105, MW-106, and MW-107). Ground water samples were also taken from monitoring well MW-108, which is completed in the Lagoon 3 embankment.

##### 5.5.3.1 Volatile Organic Compounds (VOCs)

A number of VOCs were detected in the monitoring wells but none of the detected concentrations exceed the current GWQC, MTCA Method A or MTCA Method B cleanup levels. The VOC detections are at least an order of magnitude lower than the standards. About two-thirds of the detections were qualified by the laboratory.

The perched water table monitoring wells, with the exception of MW-108, reported low, qualified detections of toluene with values ranging from 0.46 µg/L to 0.76 µg/L, which are lower than the GWQC of 1000 µg/L.

Monitoring well MWE-105 samples had single VOC detections for acetone (21.5 µg/L), carbon disulfide (0.76 µg/L), and toluene (0.48 µg/L). Carbon disulfide was detected in MW-105, MW-106, MW-107, and MW-108 in only the November 1999 samples, with values ranging from 0.76 to 1.22 µg/L.



Samples from monitoring well MW-106 had the largest number of VOC detections. MW-106 was the only perched water table monitoring well that had detections for 1,2,4-trimethylbenzene. Of the four sampling events, 1,2,4-trimethylbenzene was detected in the June 1999, November 1999, and February 2000 analyses, with values of 1.75  $\mu\text{g/L}$ , 2.01  $\mu\text{g/L}$ , and 0.71  $\mu\text{g/L}$ , respectively. These values are all much lower than the MTCA Method B cleanup level of 800  $\mu\text{g/L}$ . One detection of 1,3,5-trimethylbenzene, at a concentration of 1.28  $\mu\text{g/L}$  was recorded in the June 1999 sample. The detected concentration of 1,3,5-trimethylbenzene is two orders of magnitude lower than the MTCA Method B cleanup level of 720  $\mu\text{g/L}$ . Low levels of xylenes (O-xylene, 0.7 to 1.44  $\mu\text{g/L}$  and P-, -xylene at 1.1  $\mu\text{g/L}$ ) and dichlorofluoromethane (0.54  $\mu\text{g/L}$ ) were measured. The GWQC for xylene is 10000  $\mu\text{g/L}$  and the MTCA Method B cleanup level for dichlorofluoromethane is 800  $\mu\text{g/L}$ .

Both MW-106 and MW-107 reported naphthalene detections in the August 1999, November 1999, and February 2000 samples. Concentrations in MW-106 ranged from 0.48  $\mu\text{g/L}$  to 0.67  $\mu\text{g/L}$  and from 2.55  $\mu\text{g/L}$  to 8.36  $\mu\text{g/L}$  in MW-107. The naphthalene concentration is lower than both the MTCA Method A (160  $\mu\text{g/L}$ ) and MTCA Method B (320  $\mu\text{g/L}$ ) cleanup levels.

Two compounds were detected in MW-107 that were not measured in the other monitoring wells. A low concentration of 1,2-dichlorobenzene was detected as J-flagged in the June 1999, August 1999, and February 2000 samples with concentrations ranging from 0.52  $\mu\text{g/L}$  to 0.68  $\mu\text{g/L}$ . The MTCA Method B cleanup level for 1,2-dichlorobenzene is 720  $\mu\text{g/L}$ . Samples obtained from June 1999 through November 1999 detected P-isopropyltoluene in low concentrations ranging from 0.40  $\mu\text{g/L}$  to 0.54  $\mu\text{g/L}$ . Neither GWQC nor MTCA standards exist for P-isopropyltoluene. In the June 1999 sample, acetone was detected with a concentration of 24.2  $\mu\text{g/L}$  and chloroform was detected with a concentration of 0.75  $\mu\text{g/L}$  (both detections qualified). Acetone has a MTCA Method B cleanup level of 800  $\mu\text{g/L}$  and chloroform has a GWQC value of 7  $\mu\text{g/L}$ .

#### 5.5.3.2 Total Petroleum Hydrocarbon (TPH)

TPH as Jet Fuel was detected in MW-106 and MW-107, but not in the other monitoring wells completed in the perched water table. All four samples for MW-106 had detectable levels that ranged in concentration from 274  $\mu\text{g/L}$  to 823  $\mu\text{g/L}$  and were lower than the MTCA Method A cleanup level of 1000  $\mu\text{g/L}$ . TPH as Jet Fuel was detected in only the August 1999 (710  $\mu\text{g/L}$ ) and November 1999 (843  $\mu\text{g/L}$ ) samples in MW-107, and both values were lower than the MTCA Method A cleanup level of 1,000  $\mu\text{g/L}$ .

#### 5.5.3.3 Ethylene Glycol

Ethylene glycol was reported with an N-qualifier (presumptively, but not conclusively detected) in the February 2000 sampling event in monitoring wells MW-105 and MW-106 with values from 4,800  $\mu\text{g/L}$  in MW-106 to 7,220 in MW-105. These concentrations do not exceed the MTCA Method B cleanup level of 32,000  $\mu\text{g/L}$ .

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

### 6.1 STUDY FINDINGS

The significant findings of the STIA IWS Plant and Lagoon Area Hydrogeologic Study are presented below.

- 1) The IWS Plant and Lagoon Area is underlain by a sequence of glacial and non-glacial sediments including, from uppermost to deepest:
  - Recent alluvium and fill deposits
  - Recessional Outwash
  - Vashon Till
  - Vashon Advanced Outwash
  - Glacio-lacustrine deposits
  - Pre-Fraser fine and coarse grained deposits
- 2) The recent alluvium and fill deposits form the uppermost (perched) water-bearing zone, which is separated from the underlying aquifers by the Vashon till. Data from three monitoring wells (MWE-1, MWE-2, and MWE-3) completed in the perched water-bearing zone around Lagoons 1 and 2 show an upward trend in ground water elevation with seasonal fluctuations. Ground water levels in monitoring wells completed in the perched water zone immediately south of Lagoon 3 (MW-105, MW-106, and MW-107) fluctuate only a small amount (less than 1 foot) with seasonal precipitation.

The ground water flow direction in the perched water zone was not evaluated as a part of this investigation. The perched zones appear isolated and discontinuous. Perched water movement is probably controlled by the surface topography of the top of the glacial till aquitard unit, and, therefore, may discharge into nearby surface water features.

- 3) A regional shallow aquifer underlies the Vashon till and is formed by the Vashon advanced glacial outwash and Pre-Fraser coarse-grained deposits. In the study area, the shallow aquifer exhibits properties indicating confined aquifer conditions. Five wells around Lagoons 1 and 2 (MWE-4, MWE-5, MWE-7, MWE-8, and MWE-9) are completed in the shallow aquifer. Monitoring data show that the ground water elevation fluctuates by approximately 0.5 foot to 0.75 foot seasonally and has a pressure head that ranges from 11 to 32 feet above the bottom of the glacial till. The ground water flow direction in the vicinity of Lagoons 1 and 2 is generally to the southwest with a hydraulic gradient of 0.005.

Five monitoring wells (MW-101, MW-102, MW-103, MW-104, and KJ-10) completed in the shallow aquifer in the vicinity of Lagoon 3 were used to evaluate the hydrogeologic conditions in this area. The ground water elevation in this region shows greater fluctuation than the monitoring wells completed around Lagoons 1 and 2. Pressure heads in these monitoring wells ranged from 22 to 30 feet above the bottom of the glacial till unit. The ground water flow direction is to the south with a hydraulic gradient just north of Lagoon 3 that ranges from 0.04 in the summer months to 0.02 in wet winter months.

- 4) Background water quality in the shallow aquifer was calculated using data from monitoring wells MWE-4 and MWE-5, which lie upgradient from Lagoons 1 and 2. No significant contaminant levels were detected in the samples collected from these wells. All detectable analytes in MWE-4 and MWE-5 had concentrations that were at least an order of magnitude lower than GWQC, MTCA Method A and MTCA Method B cleanup levels.

Statistical analysis was used to determine a background water quality value for 1,1,1-trichloroethane in MWE-5. This analyte was detected at low levels below the GWQC or MTCA standards in five of eight sampling events. None of the downgradient wells sampled at Lagoon 1 and 2 had detections of 1,1,1-trichloroethane. The background water quality for all other compounds was set at the laboratory reporting limit as very few analytes were detected in the study sampling events.

- 5) Samples from monitoring well MWE-9 slightly exceeded the GWQC for 1,1-dichloroethane in all sampling events (June 1999, August 1999, November 1999, and February 2000). The GWQC for this compound is 1  $\mu\text{g/L}$ ; the detected concentration ranged from 1.28  $\mu\text{g/L}$  to 1.77  $\mu\text{g/L}$ . However, reported 1,1-dichloroethane concentrations were two orders of magnitude below MTCA Method A and B cleanup levels.

Total Petroleum Hydrocarbon (TPH) as Jet Fuel was detected in monitoring wells MWE-8, MWE-9, MW-106, and MW-107. The concentrations of TPH as Jet Fuel in these monitoring wells were all below the MTCA Method A cleanup level of 1000  $\mu\text{g/L}$ .

## 6.2 STUDY CONCLUSIONS

Given the study data, data evaluations, and findings, the following conclusions as to hydrogeologic and ground water quality conditions in the IWS P/L area have been reached.

This hydrogeologic study was completed in the vicinity of the IWS P/L area and satisfies Section 15 of the NPDES permit No. WA-002465-1. The potential for the IWS facility to impact ground water quality was evaluated and the study documents the current hydrogeologic conditions at the facility.

The ground water quality observed during this study can be considered to be of good overall quality. This is a significant finding given that the site is located in an area that has been used for over 50 years for industrial operations associated with a major airport facility; in addition, for over 35 years the specific study area has been used for industrial waste lagoon and treatment plant operations.

Ground water quality data collected during this study demonstrates very little, if any, impact from lagoon and plant operations to ground water. Only one volatile organic compound (1,1-dichloroethane) was detected slightly elevated above the Ground Water Quality Standard, however the detections are two orders of magnitude below MTCA Ground Water Cleanup Standards. No other volatile organic compounds, total petroleum hydrocarbons or ethylene glycol were detected above Ecology ground water quality criteria standards or MTCA ground water cleanup levels.

Engineering controls in the form of the removal of impacted soil and installation of lagoon liners have been implemented at Lagoons 1 and 2. Likewise similar engineering controls are in the process of being initiated at Lagoon 3 and should be complete by 2001. These engineering controls have removed sources of contamination associated with any previous release that may have had a slight impact on ground water, and provide a significant degree of protection against future contaminant releases.

The geologic and hydrogeologic setting at the IWS P/L area provides additional protection from any past or future releases of impacted wastewater to the ground water resource. The three lagoons and the treatment plant area are situated on over glacial till. The till acts as a low permeability barrier that effectively limits the vertical movement of contaminants to the shallow aquifer system. Additionally the shallow aquifer exhibits confined ground water conditions which provide an upward vertical ground water gradient. This upward gradient would most likely prevent contaminant transport to deeper aquifer zones that provide beneficial ground water resources and public drinking water supplies.

### 6.3 RECOMMENDATIONS

Based on the findings and conclusion of this study it is recommended that no further ground water monitoring is necessary in the vicinity of Lagoon 3. Given the detection of 1,1-dichloroethane above the GWQC in well MWE-9, it is recommended that MWE-9 be monitored for VOCs semi-annually for two years, after which time if there is no significant increase in the current trends, monitoring will cease. These recommendations are supported by the following facts:

- Study findings show limited indication of ground water quality impacts. The majority of the ground water quality data were all less than applicable standards. This is a significant finding considering that the IWS facilities have been in operation for 35 years. The only reported detections above an applicable standard are those for 1,1-dichloroethane at MWE-9.
- Complete reconstruction of all three lagoons with leak prevention liner systems (Lagoon 1 - 1996, Lagoon 2 - 1997, Lagoon 3 - 2000-01), provides effective engineering control of further risk of release of contaminants to ground water.
- Completion of airport-wide MTCA ground water study in spring 2001 will provide additional data regarding the movement of ground water contaminant fate and transport in vicinity of airport, including within and beyond IWS P/L area.

Ground water monitoring wells at the Lagoon 3 area are scheduled for well abandonment during Summer 2000 as a result of construction activities related to liner installation. It is also recommended that the ground water monitoring wells installed around Lagoons 1 and 2 be abandoned in accordance with Ecology regulations governing water well construction, following the completion of ground water monitoring described above.

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TABLE 4.1  
Ground Water Monitoring Well Completion Data Summary

IWS Plant and Lagoon Area Hydrogeologic Study  
Seattle-Tacoma International Airport

Well/Probe ID	Installation Date	Coordinates (feet)		Ground Surface Elevation (feet)	Top of PVC Elevation (feet)	PVC Slickup (feet)	Total Boring Depth (feet bgs)	Well Depth (feet bgs)	Screen Length (feet)	Screen Depth (feet bgs)		Screen Elevation (feet)	Geologic Material Surrounding Screen
		Northing	Easting										
Confined Aquifer (Shallow)													
MWE-4	5/8/99	10760.8	12706.87	353.624	353.22	-0.40	92.5	87.5	10	74.6	to 84.6	to 269.02	Sandy Gravel
MWE-5	4/29/99	11104.34	12350.79	355.59	357.59	2.00	92.7	92.7	10	80.0	to 90.0	to 265.59	Sandy Gravel
MWE-7	5/3/99	10697.85	11874.75	326.90	329.10	2.20	92.5	75	10	60.0	to 70.0	to 256.90	Sand and Gravel
MWE-8	5/24/99	10337.34	12340.38	320.56	320.38	-0.20	52.5	52.5	10	41.7	to 51.7	to 268.88	Sand
MWE-9	5/5/99	10310.14	12506.77	324.15	326.15	2.00	57.5	57.5	10	44.5	to 57.5	to 266.65	Sand with Gravel
Perched Water Table													
MW105	5/19/99	9373.61	125563.53	284.83	286.83	2.00	27.5	27.5	10	15.3	to 25.3	to 259.53	Silty Sand
MW-106	5/20/99	9262.72	12703.81	287.59	289.59	2.00	32.5	32.5	20	11.5	to 31.5	to 256.09	Silty Sand
MW-107	5/20/99	9124.54	12908.99	282.16	284.16	2.00	25	25	15	9.7	to 24.7	to 257.46	Sand and Gravel

Table 5.1  
Ground Water Quality Detects  
IWS Hydrogeologic Study  
Seattle-Tacoma International Airport

Volatile Organic Compounds															
Location	Sample Date	1,1,1-trichloroethane	1,1-dichloroethane	1,2,4-trimethylbenzene	1,2-dichlorobenzene	1,3,5-trimethylbenzene	Acetone	Carbon Disulfide	Chloroform	Dichlorodifluoromethane	Naphthalene	C-xylene	P-isopropyltoluene	Toluene (methylbenzene)	Xylene, P-, M-
Lagoons 1 and 2 Upgradient	IWSLG_MWE04	06/02/1999													
	IWSLG_MWE04	11/12/1999	0.52 J												
	IWSLG_MWE04	02/17/2000						0.68 J	0.40 J	0.46 JB					
	IWSLG_MWE05	06/02/1999	0.84 J												
	IWSLG_MWE05	08/29/1999	0.51 J												
Downgradient	IWSLG_MWE05	09/22/1999	0.60 J					0.58 J		2.43 B					
	IWSLG_MWE05	11/11/1999	0.47 J												
	IWSLG_MWE05	02/17/2000	0.49 J												
	IWSLG_MWE07	06/02/1999							0.78 J						
	IWSLG_MWE07	11/11/1999						0.54 J							
Lagoon 3 Downgradient	IWSLG_MWE08	06/02/1999					24.1 J		1.04	3.93 B					
	IWSLG_MWE08	08/16/1999					7.70 J								
	IWSLG_MWE09	06/02/1999	1.35						0.41 J	0.86 JB				0.46 J	
	IWSLG_MWE09	08/16/1999	1.87											0.58 J	
	IWSLG_MWE09	11/12/1999	1.77											0.76 J	
Lagoon 3 Downgradient	IWSLG_MWE09	02/17/2000	1.28					0.23 J							
	IWSLG_MW105	06/03/1999					21.5 J		1.08					0.48 J	
	IWSLG_MW105	11/12/1999						0.76 J							
	IWSLG_MW106	06/03/1999	1.75							0.54 JB		1.44			
	IWSLG_MW106	08/16/1999	2.01					1.08				0.70 J			
Lagoon 3 Downgradient	IWSLG_MW106	11/12/1999	0.71 J												
	IWSLG_MW107	06/03/1999							0.75 J				0.40 J		
	IWSLG_MW107	08/16/1999											0.51 J		
	IWSLG_MW107	11/12/1999											0.54 J		
	IWSLG_MW107	02/18/2000						1.22							
Lagoon 3 Downgradient	IWSLG_MW108	11/12/1999						0.83 J							
									7						
Lagoons 1 and 2 Downgradient	GWQC		200	1										1000	10000
	MTCA Method A		200	200										1000	1000
	MTCA Method B		7200	800	800	720	800	800	800	1600	1600	10000	10000	1000	16000

Ethylene Glycol Location	Ethylene Glycol
IWSLG_MW105	7220 N
IWSLG_MW106	4800 N

Total Petroleum Hydrocarbons			
Location	Sample Date	Pnc. As. Jet Fuels	
IWSLG_MWE08	08/16/1999	809	
IWSLG_MWE08	11/11/1999	781	
IWSLG_MWE08	02/17/2000	623	
IWSLG_MWE09	06/02/1999	264	
IWSLG_MWE09	08/16/1999	706	
IWSLG_MWE09	11/12/1999	664	
IWSLG_MWE09	02/17/2000	441	
IWSLG_MW106	06/03/1999	360	
IWSLG_MW106	08/16/1999	622	
IWSLG_MW106	11/12/1999	823	
IWSLG_MW106	02/18/2000	274	
IWSLG_MW107	08/16/1999	710	
IWSLG_MW107	11/12/1999	843 J	

MTCA Method B

LEGEND	
<b>BOLD / SHADE</b>	Value Exceeds GWQC Early Warning Standard WAC 173-200
Qualifier	
B	Suspected Laboratory Contamination
J	Estimated Value
N	No detection on second column - presumptive evidence to make a tentative identification

NOTE: 1) All values in the table are in ppb (µg/L)  
2) All study ground water samples were analyzed for TPH, volatile organic compounds, and glycols. This table identifies all analytes detected in any single sample during the study. Compounds tested for but not detected are not listed.

Table 5.2  
Background Water Quality Results  
IWS Hydrogeologic Study  
Seattle-Tacoma International Airport

Well Name	Sample Date	1,1,1-trichloroethane	Carbon Disulfide	Chloroform	Dichlorodifluoromethane
MWE-04	06/02/1999	0.52 J	0.17 U	0.21 U	0.46 JB
MWE-04	08/29/1999	0.16 U	0.17 U	0.21 U	0.26 U
MWE-04	08/18/1999	0.16 U	0.17 U	0.21 U	0.26 U
MWE-04	09/22/1999	0.16 U	0.17 U	0.21 U	0.26 U
MWE-04	11/12/1999	0.16 U	0.88 J	0.21 U	0.26 U
MWE-04	12/20/1999	0.16 U	0.17 U	0.21 U	0.26 U
MWE-04	02/17/2000	0.16 U	0.17 U	0.40 J	0.26 U
MWE-04	03/15/2000	0.16 U	0.17 U	0.21 U	0.26 U
MWE-05	06/02/1999	0.84 J	0.17 U	0.21 U	2.43 B
MWE-05	08/29/1999	0.51 J	0.17 U	0.21 U	0.26 U
MWE-05	08/18/1999	0.16 U	0.17 U	0.21 U	0.26 U
MWE-05	09/22/1999	0.80 J	0.17 U	0.21 U	0.26 U
MWE-05	11/11/1999	0.16 U	0.58 J	0.21 U	0.26 U
MWE-05	12/20/1999	0.16 U	0.17 U	0.21 U	0.26 U
MWE-05	02/17/2000	0.47 J	0.17 U	0.21 U	0.26 U
MWE-05	03/15/2000	0.49 J	0.17 U	0.21 U	0.26 U

Qualifier

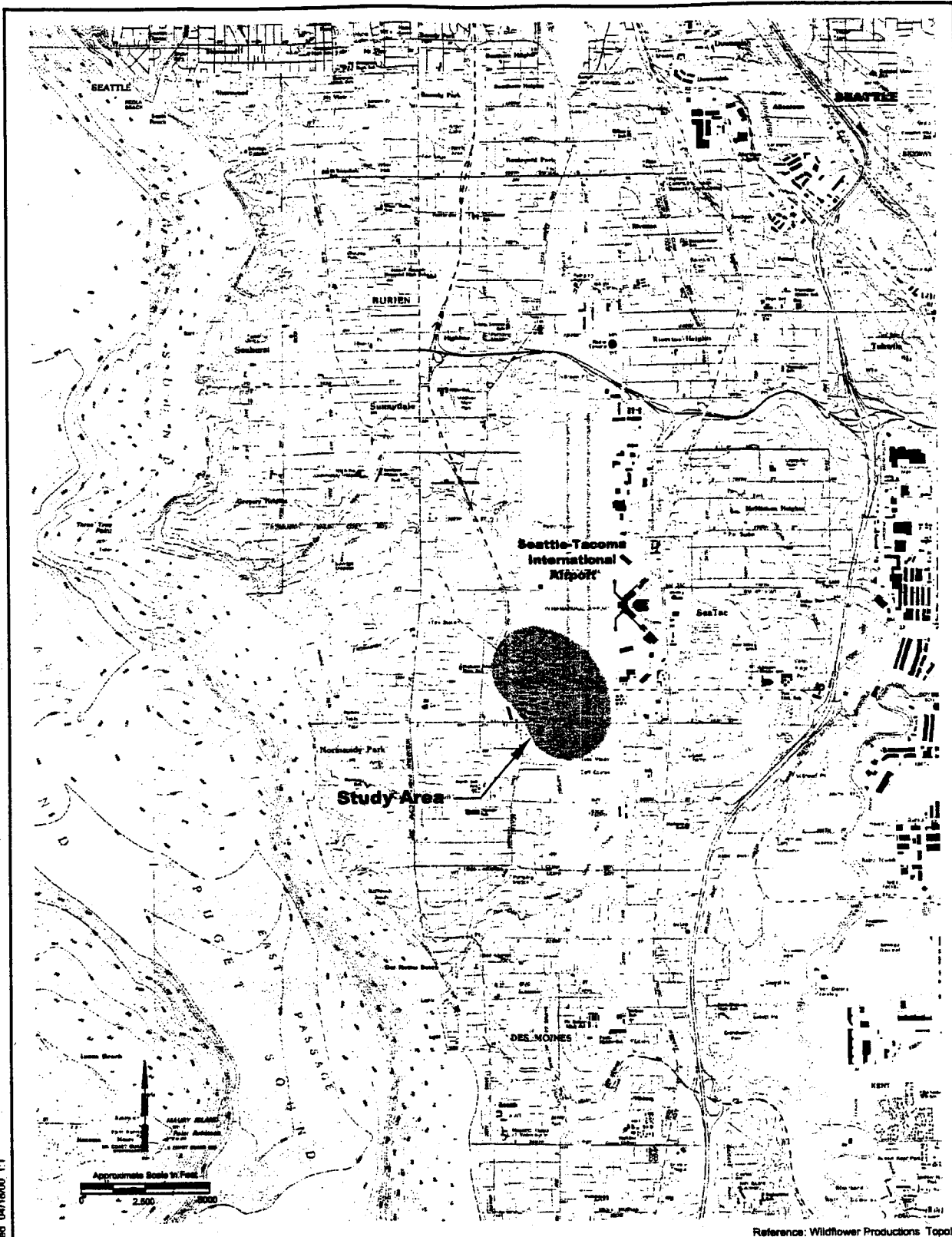
B Suspected Laboratory Contamination  
J Estimated Value

NOTE: All values in the table are in ppb (µg/L)

MWE-05 Calculated Background Level of 1,1,1-Trichloroethane  
Aitchison's Adjustment (using the logarithmically transformed values)

Number of Samples 8 Corrected Mean -0.21  
Number of Detects 5 Corrected Standard Deviation 0.10  
Standard Deviation of the Detected Values 0.24

Background Water Quality using Aitchison's Adjustment = 1.1 mg/L



VB98112-04.dwg \$remodded 04/18/00 1:1



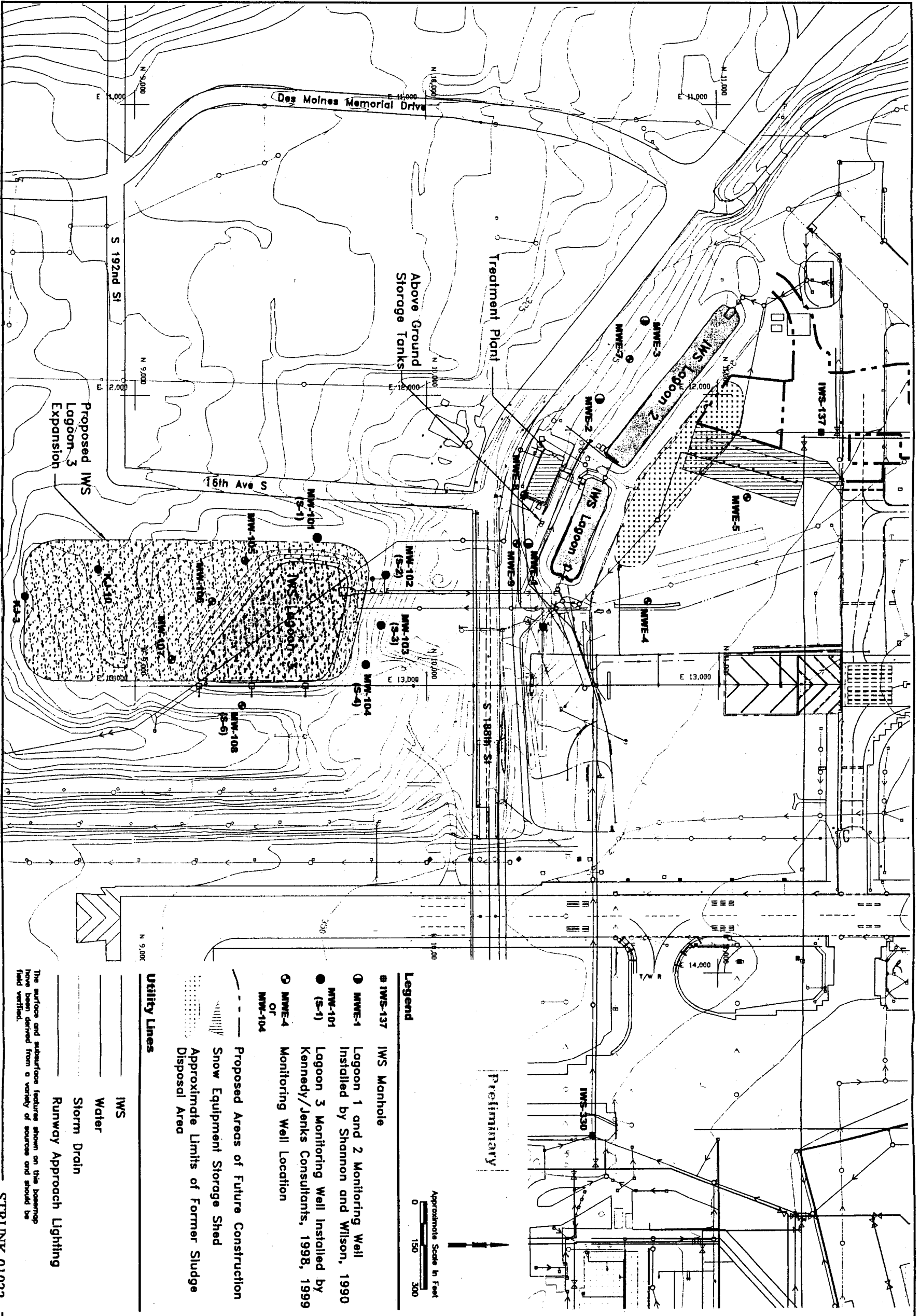
DATE	04/18/00
DESIGNED/DRAWN	JJS/TEAM

**Project Location Map**  
 IWS P/L Area Hydrogeologic Study Area  
 Seattle-Tacoma International Airport  
 Tacoma, Washington

PROJECT NO.	VB98112B
FIGURE NO.	1.1

STRUNK 01021

AR 023992



**Legend**

- IWS-137 IWS Manhole
- MW-101 Lagoon 1 and 2 Monitoring Well Installed by Shannon and Wilson, 1990
- (S-1) Lagoon 3 Monitoring Well Installed by Kennedy/Jenks Consultants, 1998, 1999
- MW-4 OR MW-104 Monitoring Well Location
- Proposed Areas of Future Construction
- Snow Equipment Storage Shed
- Approximate Limits of Former Sludge Disposal Area

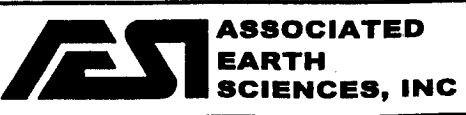
**Utility Lines**

- IWS
- Water
- Storm Drain
- Runway Approach Lighting

The surfaces and subsurface features shown on this base map have been derived from a variety of sources and should be field verified.

Approximate Scale in Feet  
0 150 300

STRUNK 01022



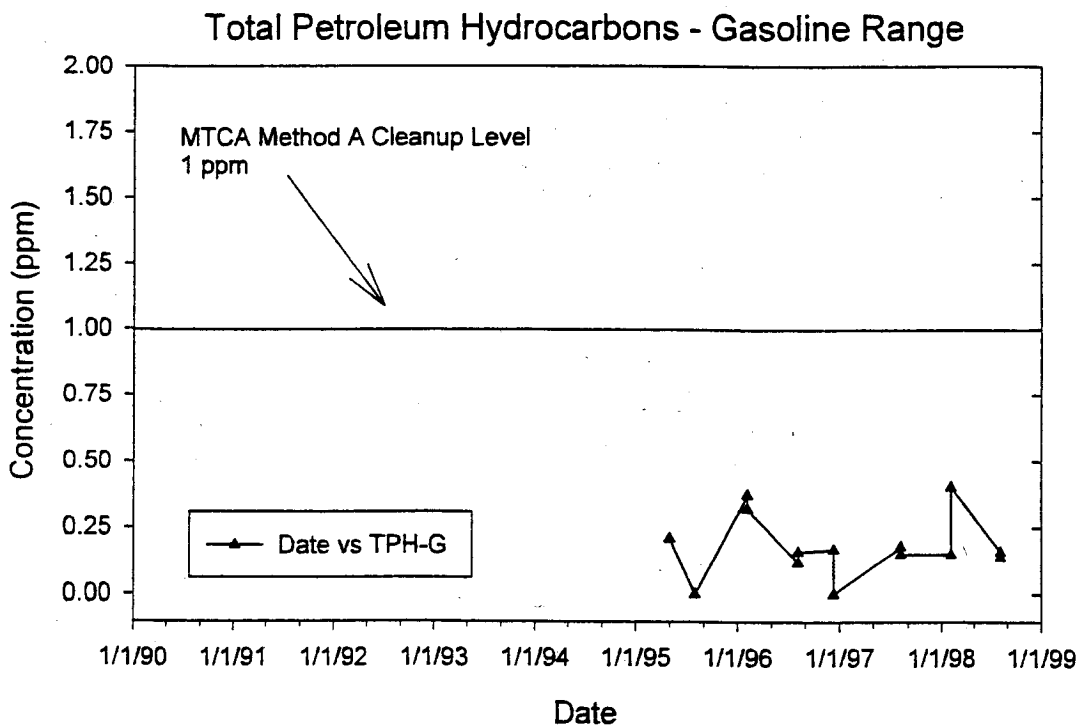
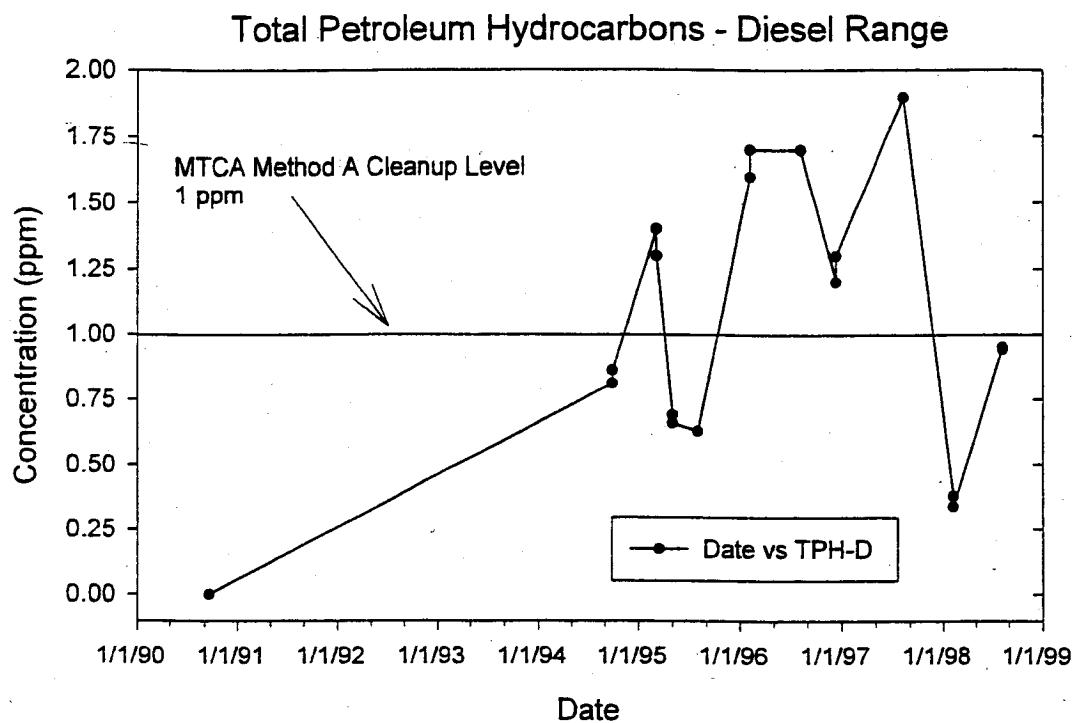
DATE:	04/19/00
DESIGNED/DWG:	JJS/HXT
SCALE:	1" = 300'

**Industrial Waste System Plant and Lagoons Area Map**  
IWS P/L Area Hydrogeologic Study  
Seattle - Tacoma International Airport

PROJECT NO.	BV98112
FIGURE NO.	1.2

AR 023993

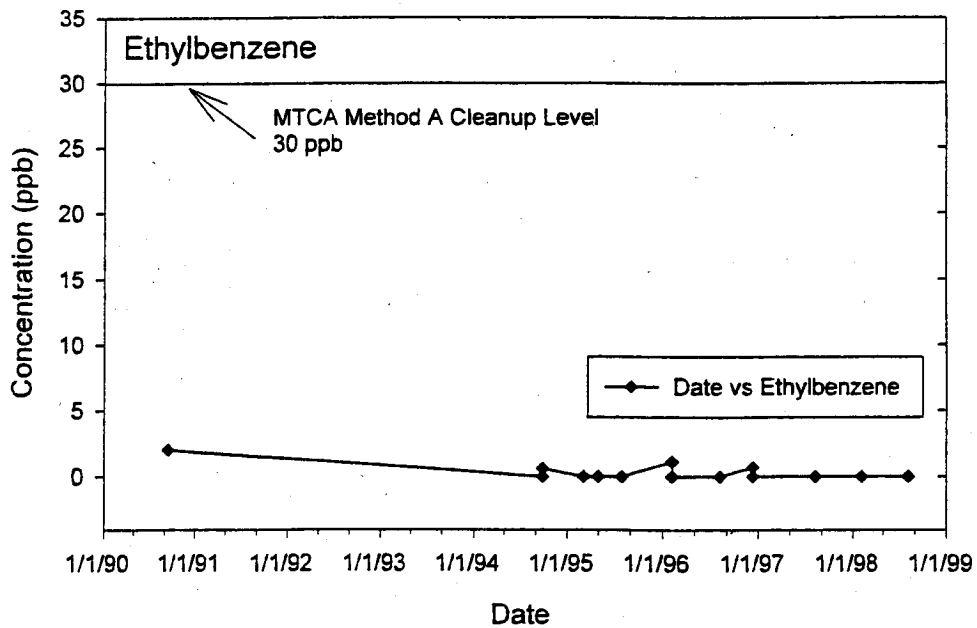
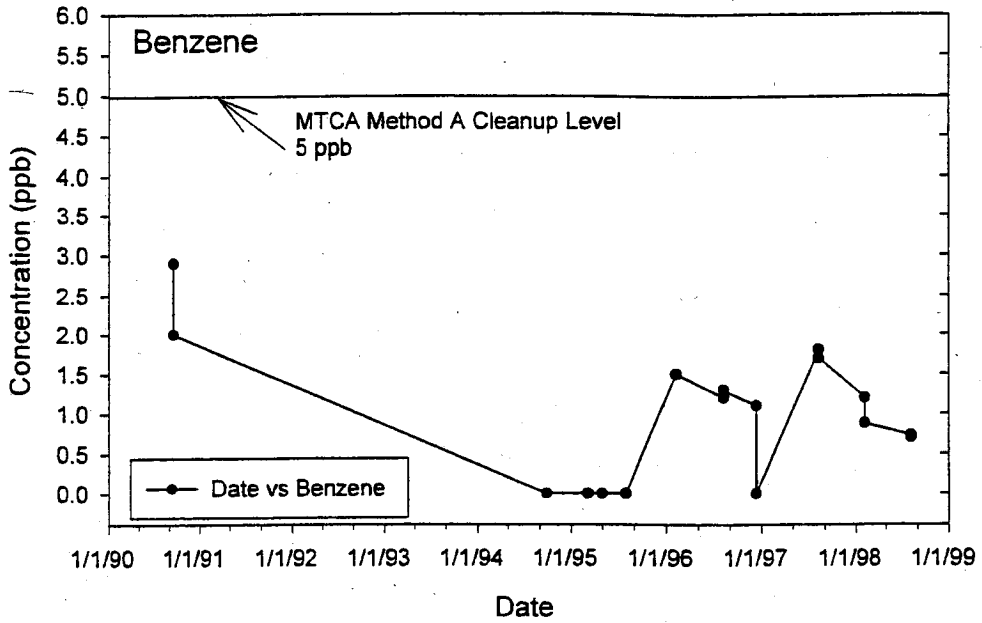
**FIGURE 2.1**  
**Historical Data - Total Petroleum Hydrocarbon Trend Diagram**  
**Lagoon 1 Perched Ground Water Monitoring Well MWE-1**  
**Seattle-Tacoma International Airport**



**AR 023994**

**STRUNK 01023**

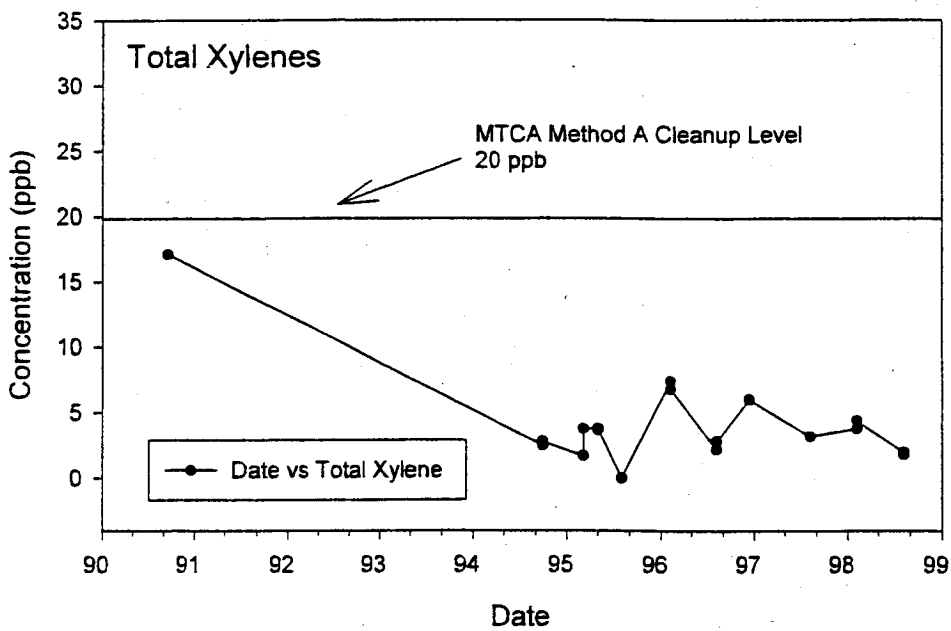
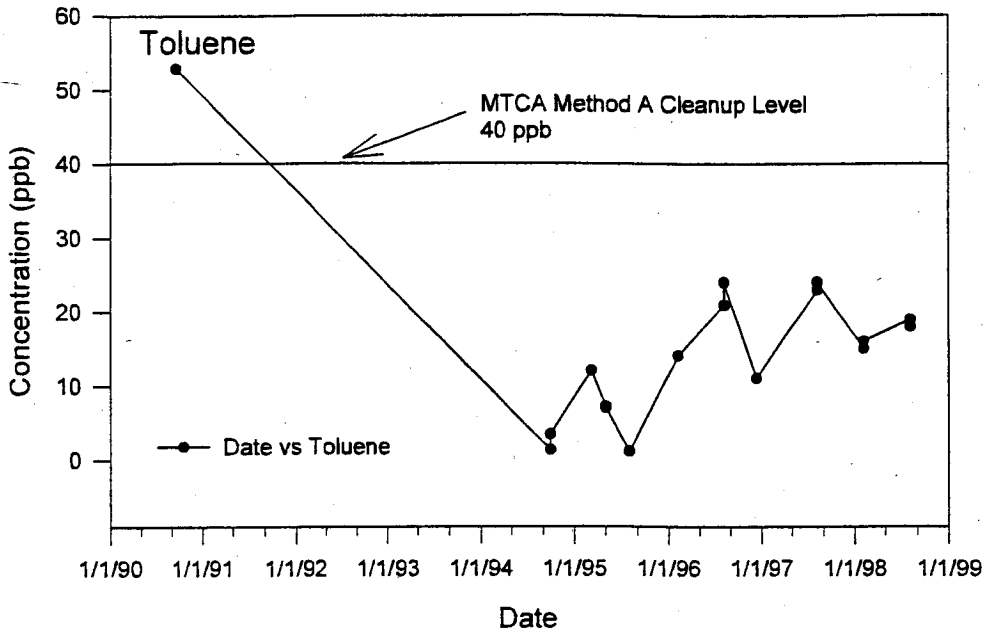
**FIGURE 2.2**  
**Historical Data - Benzene & Ethylbenzene Trend Diagram**  
**Lagoon 1 Perched Ground Water Monitoring Well -- MWE-1**  
**Seattle-Tacoma International Airport**



STRUNK 01024

AR 023995

FIGURE 2.3  
 Historical Data - Toluene & Total Xylenes Trend Diagram  
 Lagoon 1 Perched Ground Water Monitoring Well MWE-1  
 Seattle-Tacoma International Airport

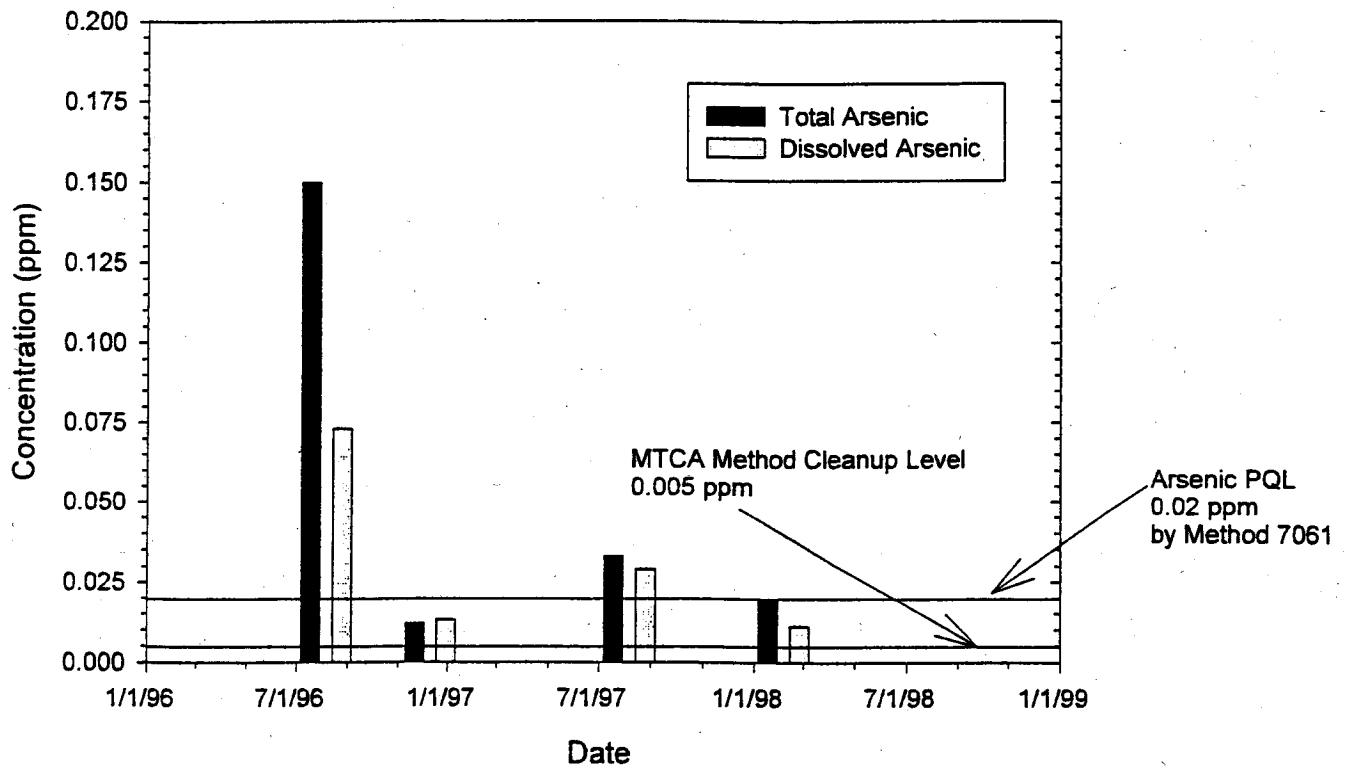


STRUNK 01025

AR 023996



**FIGURE 2.4**  
**Historical Data - Total vs. Dissolved Arsenic**  
**Lagoon 1 Perched Ground Water Monitoring Well MWE-1**  
**Seattle-Tacoma International Airport**

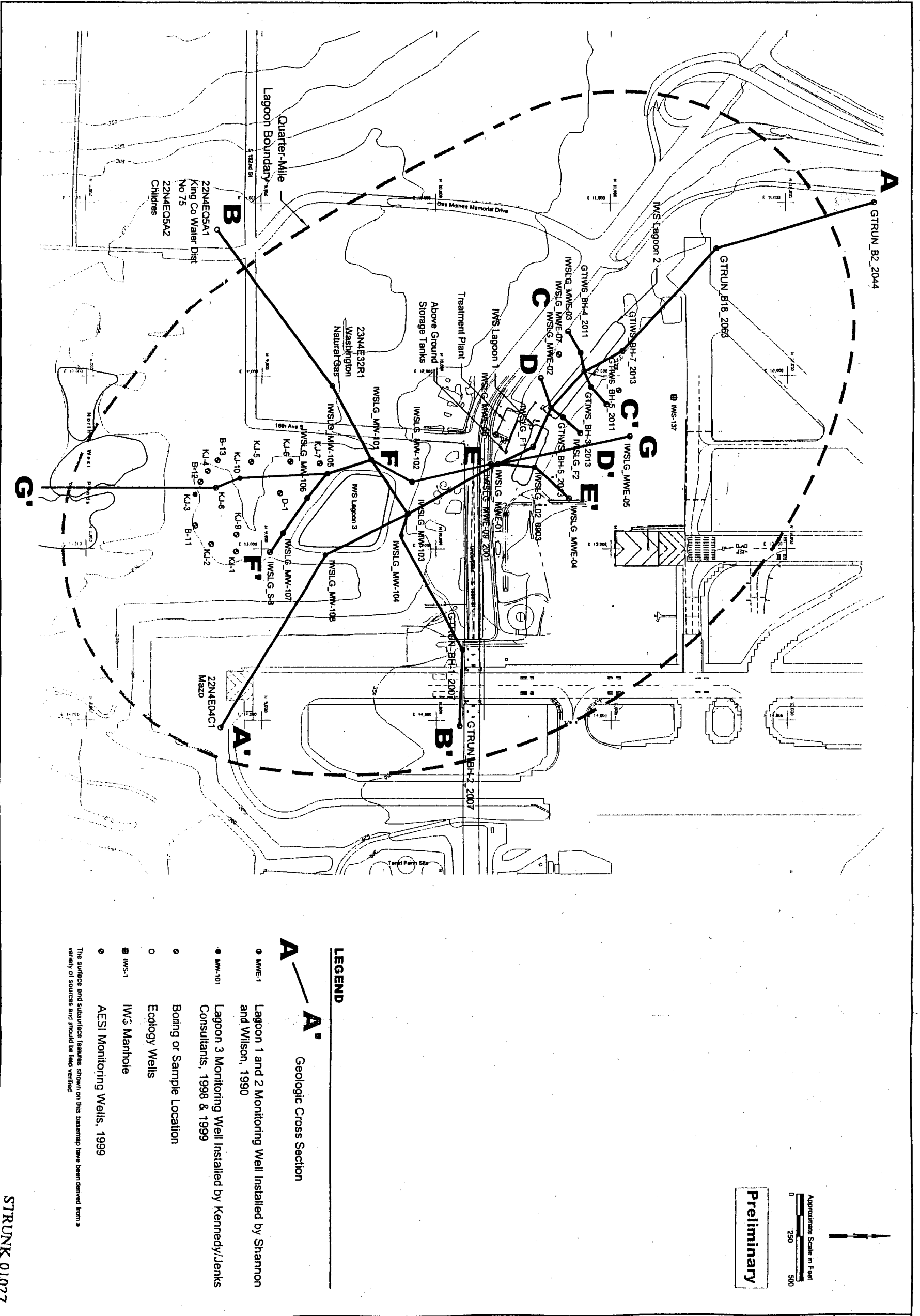


**Notes:**

- 1) 8/6/96 Sample Event Conducted via Conventional Purging Techniques Using a Bailer
- 2) 12/11/96 Sample Event Conducted via Low Flow Purging Techniques Using 2-inch Grunfos Pump
- 3) 8/7/97 & 2/5/98 Sample Events Conducted via Low Flow Purging Techniques Using Dedicated QED Micropurge Well Wizard System
- 4) Arsenic PQL = 0.02 ppm by Method 7061 analysis by gaseous hydride atomic absorption  
 MDL = 0.002 ppm (Ecology, 1993 Implementation Memo No. 3, PQLs as cleanup Standards)

**AR 023997**


**STRUNK 01026**

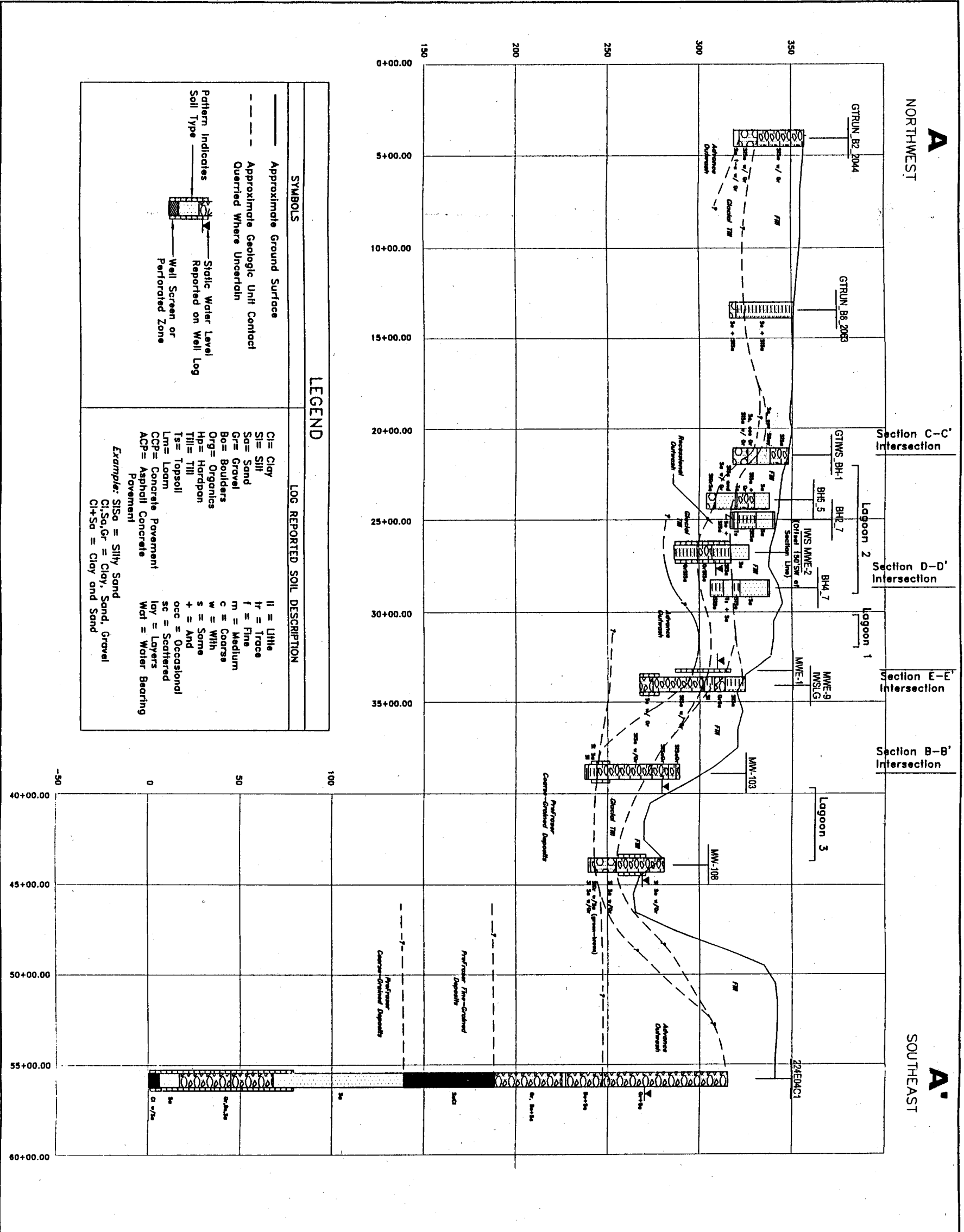


**LEGEND**

- A-A'** Geologic Cross Section
  - MWE-1 Lagoon 1 and 2 Monitoring Well Installed by Shannon and Wilson, 1990
  - MW-101 Lagoon 3 Monitoring Well Installed by Kennedy/Jenks Consultants, 1998 & 1999
  - Boring or Sample Location
  - Ecology Wells
  - IWS-1 IWS Manhole
  - AESI Monitoring Wells, 1999
- The surface and subsurface features shown on this basemap have been derived from a variety of sources and should be field verified.

STRUNK 01027

 <b>ASSOCIATED EARTH SCIENCES, INC</b>	DATE: 04/18/00	SCALE: 1" = 500'	<b>Location of Subsurface Explorations Within 1/4-Mile of IWS P/L Area</b> IWS P/L Area Hydrogeologic Study Seattle - Tacoma International Airport	PROJECT NO: BV98112
	DESIGNED/DOWN: DHM/TEAM			



SYMBOLS	
	Approximate Ground Surface
	Approximate Geologic Unit Contact
	Queried Where Uncertain
	Static Water Level Reported on Well Log
	Well Screen or Perforated Zone
	Soil Type

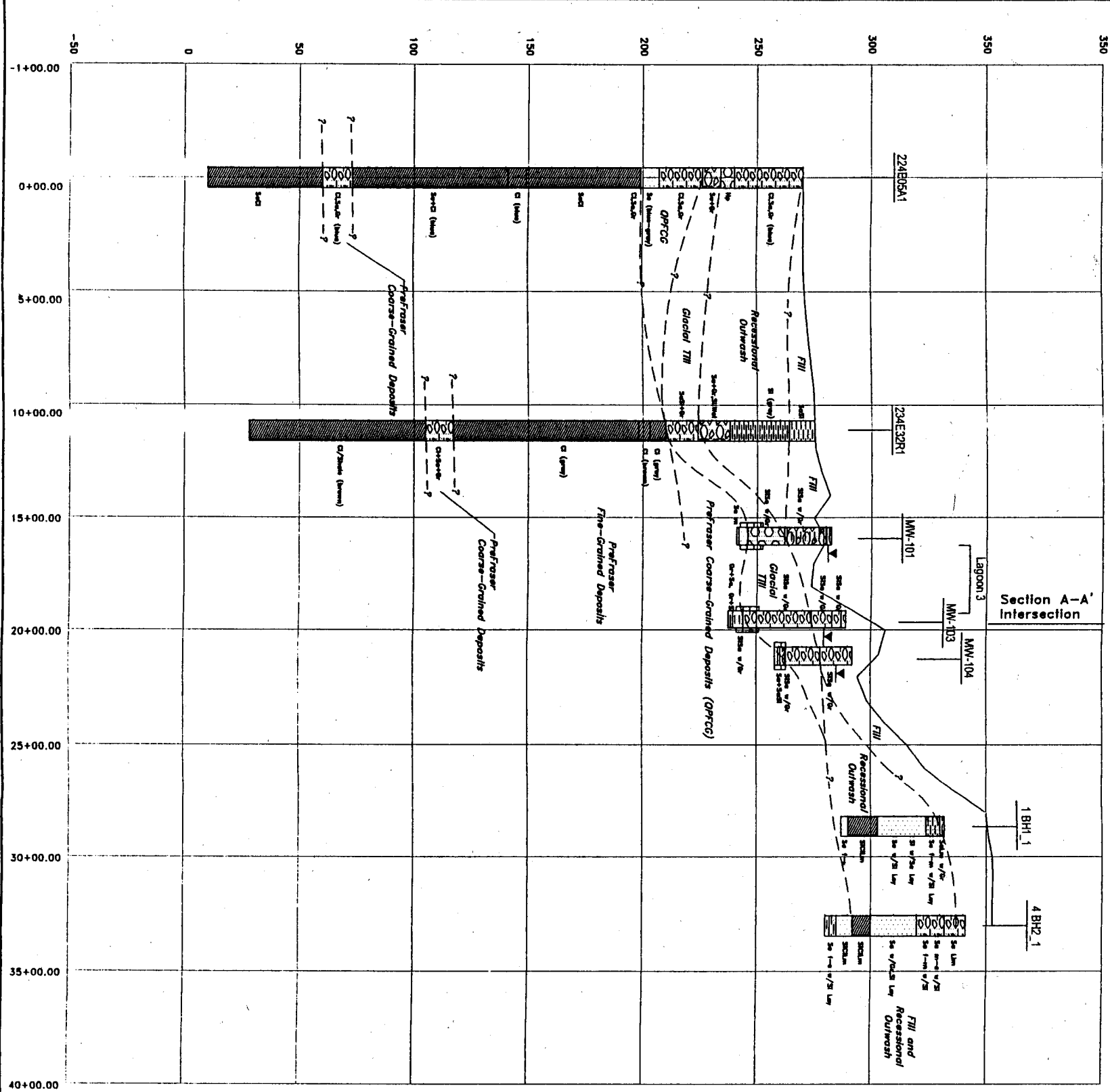
LEGEND	
Cl = Clay	ll = Little
Sl = Silt	tr = Trace
Sa = Sand	f = Fine
Gr = Gravel	m = Medium
Bo = Boulders	c = Coarse
Org = Organics	w = With
Hp = Hardpan	s = Some
Tll = Till	+ = And
Ts = Topsoil	occ = Occasional
Lm = Loom	sc = Scattered
CCP = Concrete Pavement	lay = Layers
ACP = Asphalt Concrete Pavement	Wat = Water Bearing
<i>Example:</i> Sls = Silty Sand Cl,Sa,Gr = Clay, Sand, Gravel Cl+Sa = Clay and Sand	

Preliminary

STRUNK 01028

	DATE: 04/18/00	APPROXIMATE SCALE Horizontal 1" = 500' Vertical 1" = 50'	<b>GEOLOGIC CROSS SECTION A-A'</b> IWS P/L Area Hydrogeologic Study Area Seattle - Tacoma International Airport	PROJECT NO. BV98112
	DESIGNED/DRAWN DHM/BLB			FIGURE NO. <b>3.2</b>

**B**  
 SOUTHWEST  
 NORTHEAST  
**B'**



SYMBOLS		LOG REPORTED SOIL DESCRIPTION	
—	Approximate Ground Surface	Cl = Clay	ll = Little
- - -	Approximate Geologic Unit Contact	Si = Silt	tr = Trace
⊠	Quarried Where Uncertain	Sa = Sand	f = Fine
▨	Pattern Indicates Soil Type	Gr = Gravel	m = Medium
⬆	Static Water Level Reported on Well Log	Ba = Boulders	c = Coarse
⬆	Well Screen or Perforated Zone	Org = Organics	w = With
		Hp = Hardpan	s = Some
		Tll = Till	+ = And
		Ts = Topsoil	occ = Occasional
		Lm = Loam	sc = Scattered
		CCP = Concrete Pavement	lay = Layers
		ACP = Asphalt Concrete Pavement	Wat = Water Bearing
		Example: SiSa = Silty Sand	
		Cl,Sa,Gr = Clay, Sand, Gravel	
		Cl+Sa = Clay and Sand	

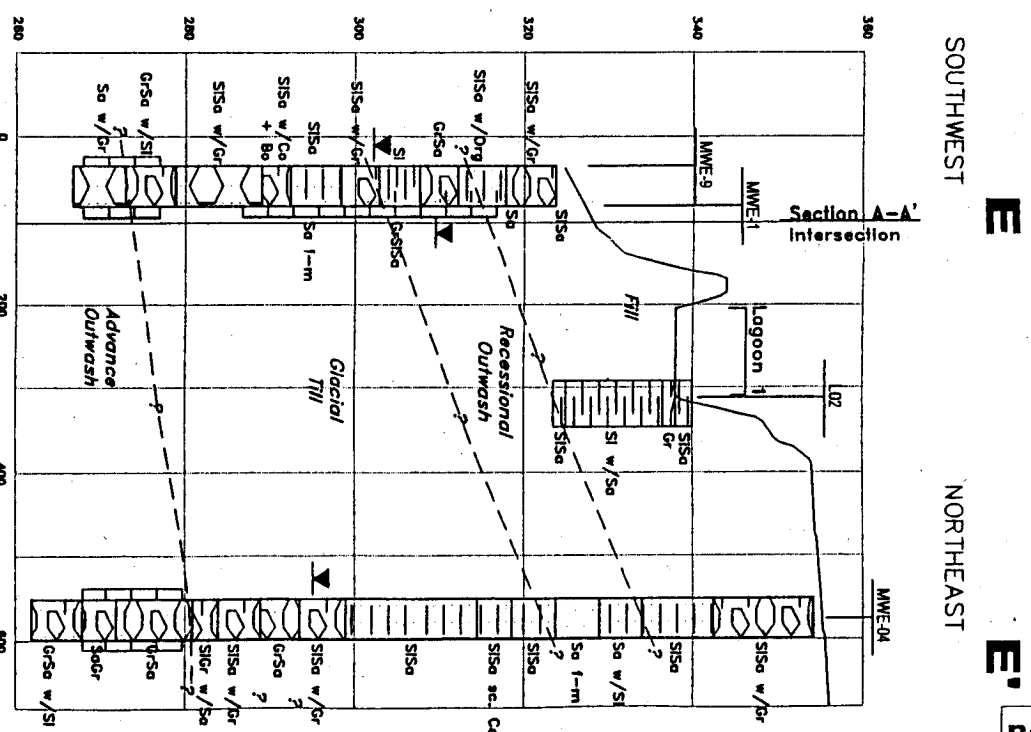
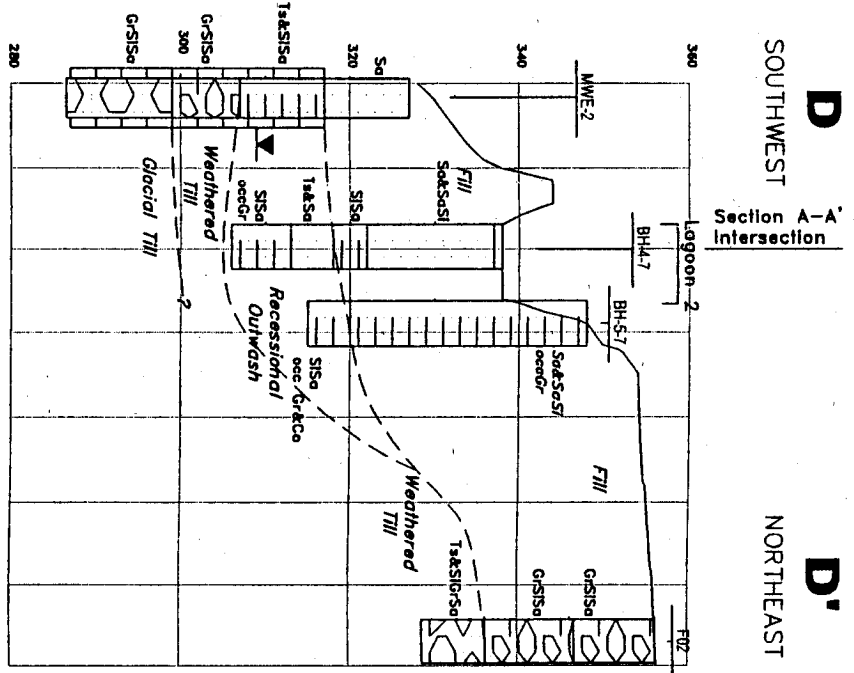
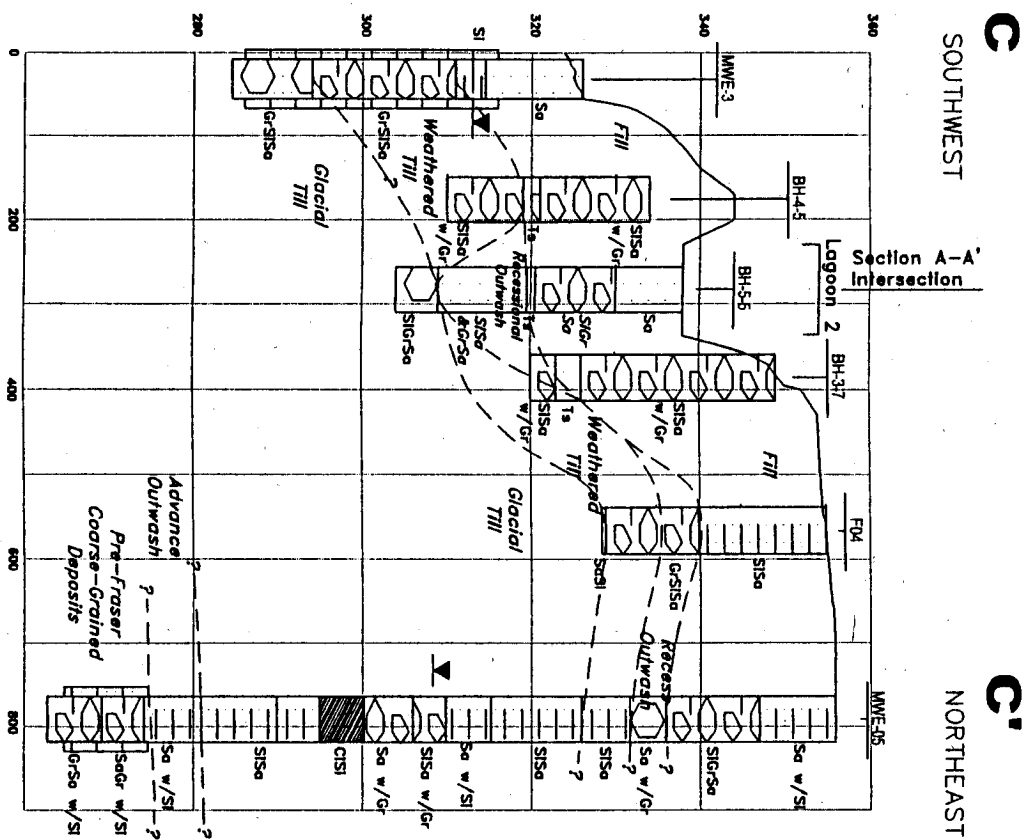
Preliminary



DATE: 03/27/99  
 DESIGNED/DWN: DHM/BLB  
 APPROXIMATE SCALE  
 Horizontal 1" = 500'  
 Vertical 1" = 50'

**GEOLOGIC CROSS SECTION B-B'**  
 IWS P/L Area Hydrogeologic Study Area  
 Seattle - Tacoma International Airport

PROJECT NO. BV98112  
 FIGURE NO. 3.3



SYMBOLS		LEGEND	
---	Approximate Ground Surface	---	Approximate Geologic Unit Contact
---	Querrred Where Uncertain	---	Querrred Where Uncertain
---	Pattern Indicates Soil Type	---	Static Water Level Reported on Well Log
---		---	Well Screen or Parturbed Zone
LOG-REPORTED SOIL DESCRIPTION		LOG-REPORTED SOIL DESCRIPTION	
Cl = Clay	l = Fine	Cl = Clay	l = Fine
Sl = Silt	m = Medium	Sl = Silt	m = Medium
Sa = Sand	c = Coarse	Sa = Sand	c = Coarse
Gr = Gravel	tr = Trace	Gr = Gravel	tr = Trace
Co = Cobbles	ll = Little	Co = Cobbles	ll = Little
Bo = Boulders	w/ = With	Bo = Boulders	w/ = With
Org = Organics	s = Some	Org = Organics	s = Some
Hp = Hardpan	+ = And	Hp = Hardpan	+ = And
Tll = Till	occ = Occasional	Tll = Till	occ = Occasional
Ts = Topsoil	sc = Scattered	Ts = Topsoil	sc = Scattered
Lm = Loom	ly = Layers	Lm = Loom	ly = Layers
CCP = Concrete Pavement	Wrl = Water Bearing	CCP = Concrete Pavement	Wrl = Water Bearing
ACP = Asphalt Concrete Pavement		ACP = Asphalt Concrete Pavement	
Example: S15a = Silty Sand		Example: S15a = Silty Sand	
Cl, Sa, Gr = Clay, Sand, Gravel		Cl, Sa, Gr = Clay, Sand, Gravel	
Cl+Sd = Clay and Sand		Cl+Sd = Clay and Sand	

Preliminary

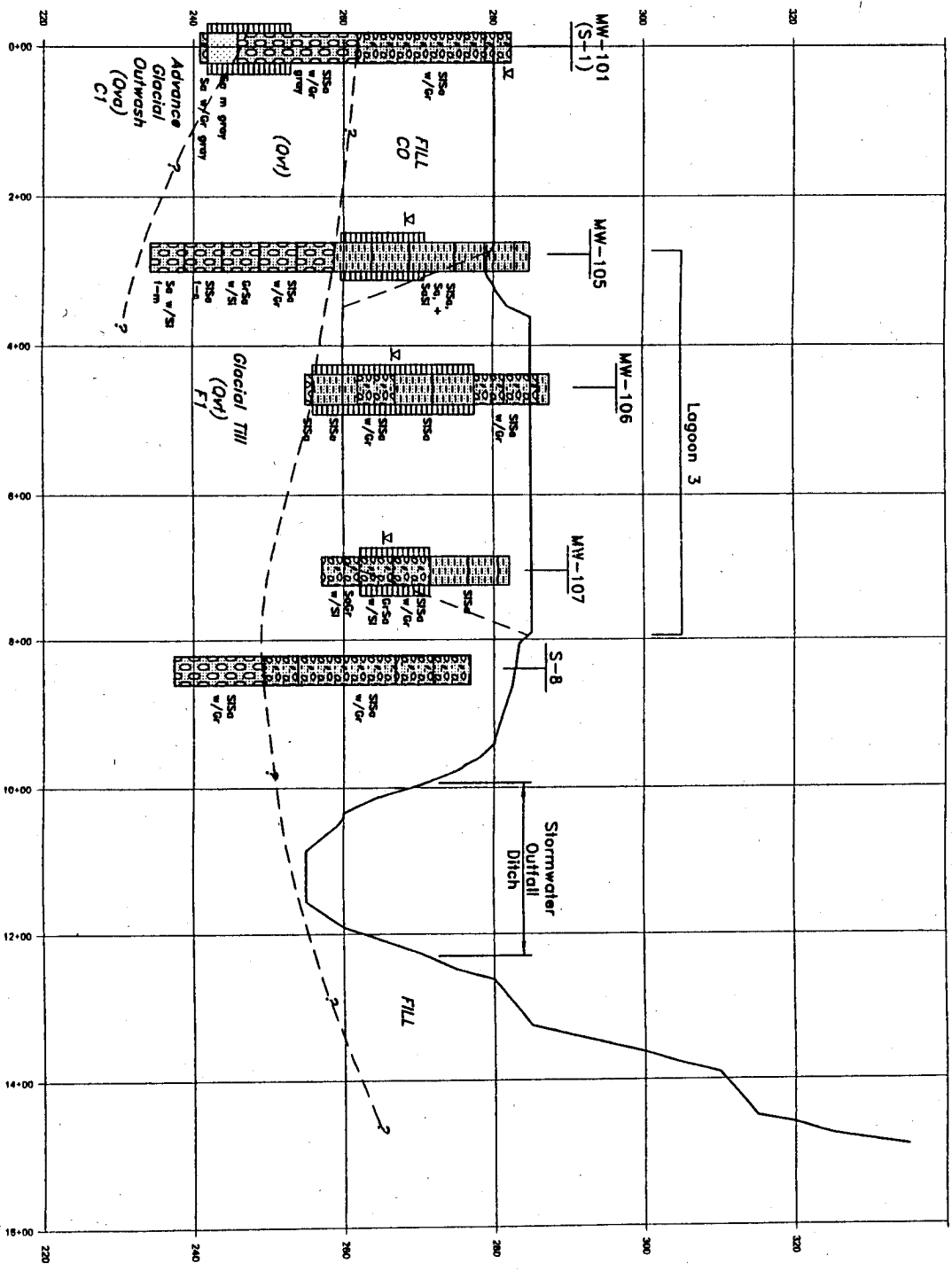
STRUNK 01030

	DATE: 04/18/00	APPROXIMATE SCALE Horizontal 1" = 200' Vertical 1" = 20'	<b>GEOLOGIC CROSS SECTION C-C', D-D', and E-E'</b> IWS P/L Area Hydrogeologic Study Area Seattle - Tacoma International Airport	PROJECT NO. BV98112
	DESIGNED BY: JJS/TEAM			FIGURE NO. 3.4

AR 024001

**F**  
NORTHWEST

**F'**  
SOUTHEAST



LEGEND	
<b>SYMBOLS</b>	
--- Approximate Ground Surface	
--- Approximate Geologic Unit Contact	
- - - - - Quoted Where Uncertain	
--- Slope Water Level Reported	
--- Slope Water Level Reported on Wall Log	
--- Wall Screen or Perforated Zone	
--- Intersected Hydrostratigraphic Unit	
--- Intersected Geologic Unit	
<b>REPORTED SOIL DESCRIPTION</b>	
Cl = Clay	fs = fine
Sl = silt	m = medium
Sh = silty shale	vs = very soft
Ss = sandy silt	st = stiff
Sc = clay shale	sc = sand
Co = calcareous	scw = silty sand
Dr = Drayton	oc = occasional
Hg = Highgate	ec = occasional
Lm = Lander	sc = sand
Pm = Puma	st = stiff
Wd = Wood	fr = friable
Ps = Pumas	hr = hard
Wv = Wood	ln = lower
Ps = Pumas	up = upper
Wv = Wood	int = interbedded
Ps = Pumas	vt = volcanic

STRUNK 01031

PRELIMINARY

AR 024002

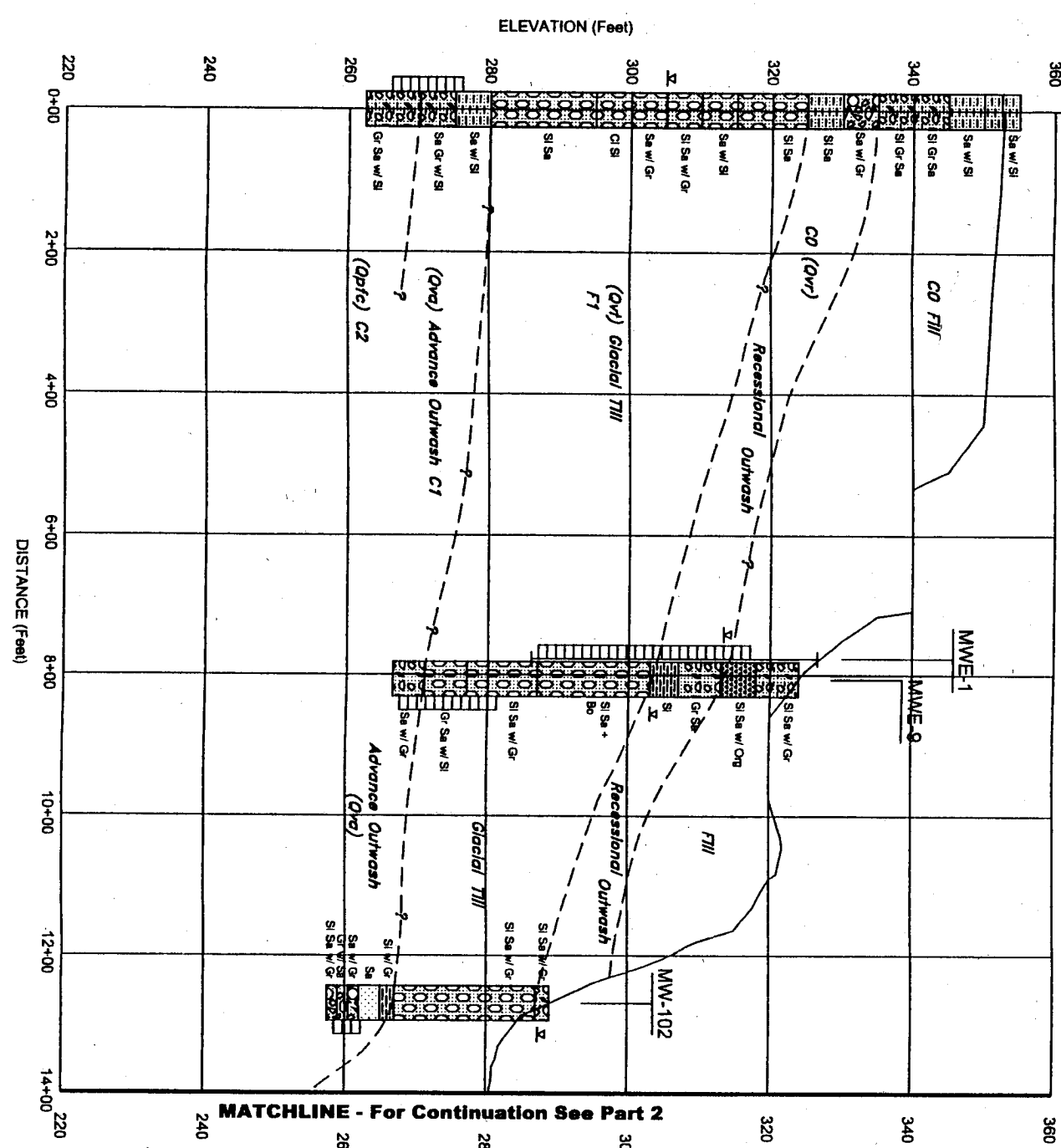


DATE: 04/18/00  
DESIGNED BY: DHM/TEAM

SCALE  
Horizontal 1" = 200'  
Vertical 1" = 20'

**REGIONAL GEOLOGIC CROSS SECTION F-F'**  
Study Area  
Seattle - Tacoma International Airport

PROJECT NO. BV98112  
FIGURE NO. 3.5



SYMBOLS		LEGEND	
---	Approximate Ground Surface	Cl = Clay	f = fine
- - -	Approximate Geologic Unit Contact	Sl = Silty	m = medium
---	Quarried When Uncertain	Sa = Sand	c = coarse
---	Problem Indicators	Gr = Gravel	w = with
---	Soil Type	Co = Cobble	s = some
---	Static Water Level Reported	Bo = Boulders	+ = and
---	Well Log	Dr = Driftstone	occ = occasional
---	Well Screen or Perforated Zone	Hp = Hardpan	sc = scattered
---	Well Screen or Perforated Zone	Til = Glacial Till	ll = little
---	Well Screen or Perforated Zone	Org = Organic	b = trace
---	Well Screen or Perforated Zone	Wo = Wood	lv = layers
---	Well Screen or Perforated Zone	Tr = Topsoil	lsm = laminations
---	Well Screen or Perforated Zone	Pum = Pumice	wrt = water
---	Well Screen or Perforated Zone		int = interbeds
---	Well Screen or Perforated Zone		volc = volcanic
F1	= Interpreted hydrostratigraphic Unit		
Qw	= Interpreted Geologic Unit		

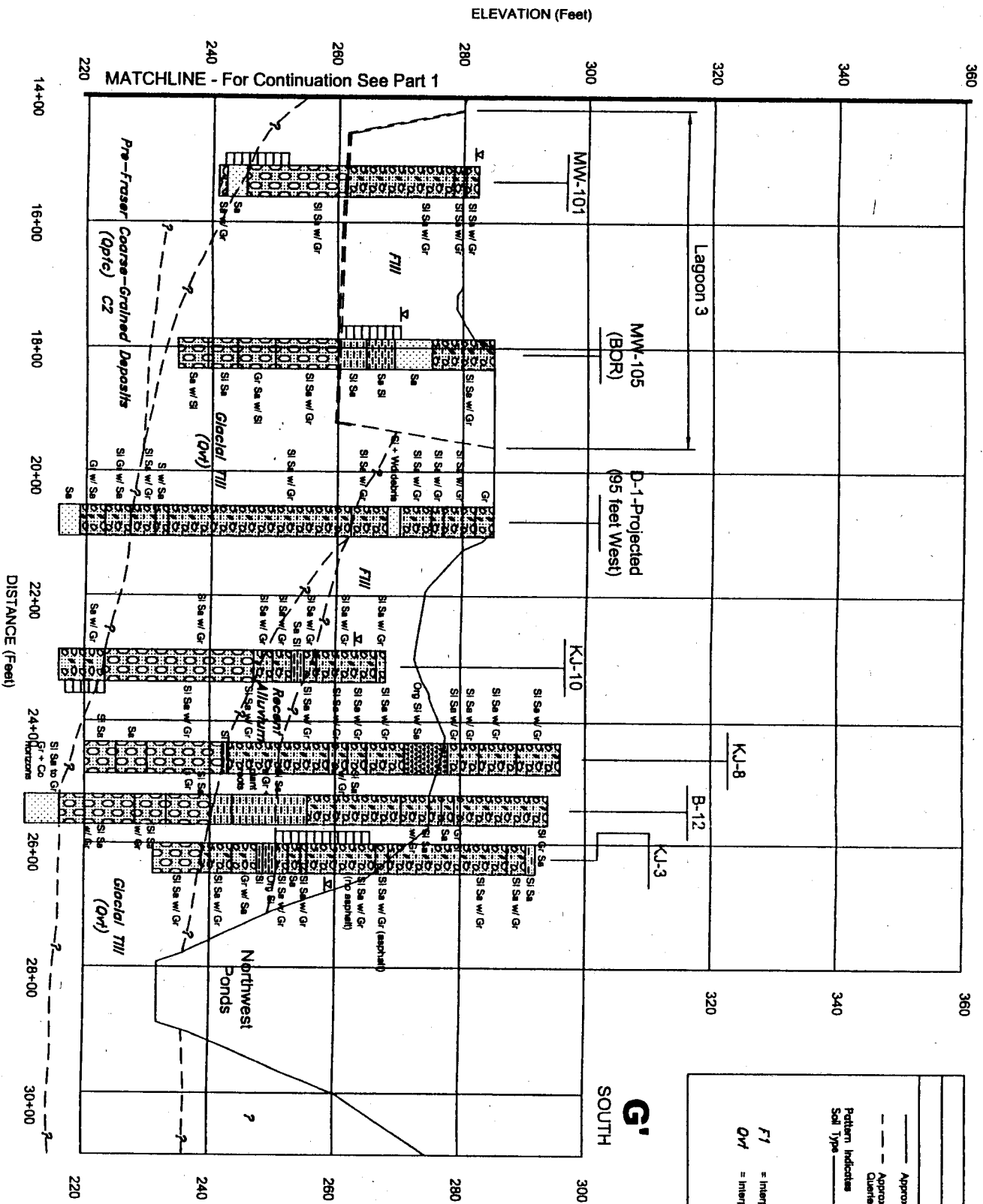
STRUNK 01032  
 Vertical Scale: 1" = 20'  
 Horizontal Scale: 1" = 200'



DATE: 04/19/00  
 DESIGNED/DRAWN: DHM/HXT

**GEOLOGIC CROSS SECTION G-G' PART 1**  
 IWS P/L Area Hydrogeologic Study  
 Seattle - Tacoma International Airport

PROJECT NO. BV99112  
 FIGURE NO. 3.6



SYMBOLS		LEGEND	
---	Approximate Ground Surface	CI = Clay	f = fine
- - -	Approximate Geologic Unit Contact	SI = Silt	m = medium
---	Quarried Where Uncertain	Gr = Sand	c = coarse
---	Pattern Indicates	Gr = Gravel	w/ = with
---	Soil Type	Co = Cobble	s = some
---	Static Water Level Reported on Well Log	Bp = Boulders	++ = and
---	Well Screen or Perforated Zone	Hip = Hangers	occ = occasional
---	Interpreted Hydrostratigraphic Unit	Till = Glacial Till	ac = aquifer
---	Interpreted Geologic Unit	Lm = Lamin	l = thin
		Org = Organic	ly = layers
		Wd = Wood	lmy = laminae
		Ts = Tephra	wt = water
		Pum = Pumice	ht = interbeds
			volc = volcanic

STRUNK 01033

Vertical Scale: 1" = 20'  
Horizontal Scale: 1" = 200'

AR 024004



DATE: 04/19/00  
DESIGNED BY: DHM/HXT

**GEOLOGIC CROSS SECTION G-G' PART 2**

IWS P/L Area Hydrogeologic Study  
Seattle - Tacoma International Airport

PROJECT NO: BV99112  
FIGURE NO: 3.6

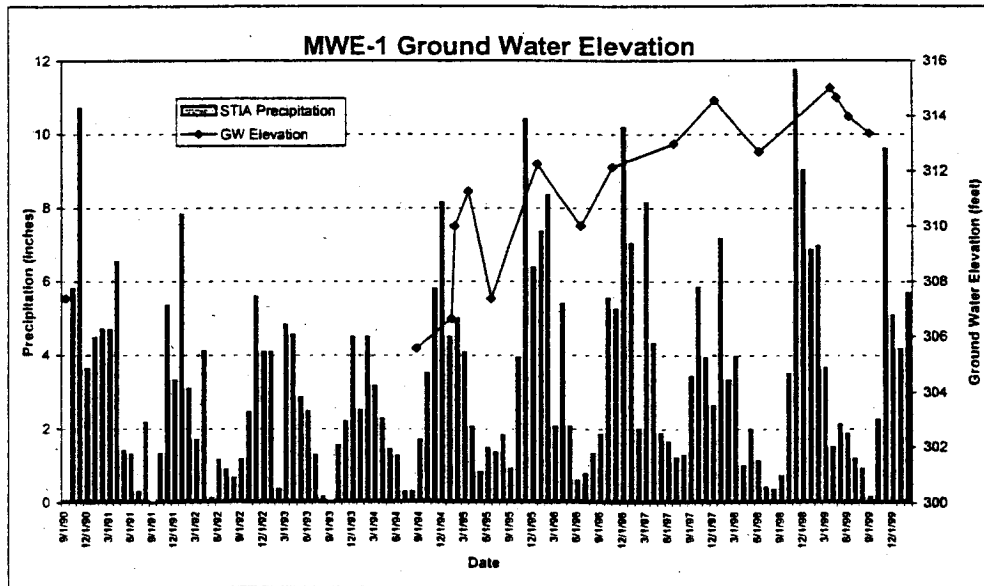


**Figure 4.1**  
**Ground Water Level Measurements**  
**Monitoring Well MWE-1**  
**IWS Lagoons 1 & 2**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2</sup>	QED Water Level Meter Reading (feet) <sup>3</sup>	Ground Water Elevation (feet)
09/18/90	326.92	326.37	326.37	19.00		307.37
09/29/94	326.92	326.37	326.37	20.80		305.57
02/21/95	326.92	326.37	326.37	19.75		306.62
03/06/95	326.92	326.37	326.37	16.38		309.99
05/01/95	326.92	326.37	326.37	15.09		311.28
07/31/95	326.92	326.37	326.37	19.01		307.36
02/05/96	326.92	326.37	326.37	14.13		312.24
08/06/96	326.92	326.37	326.37	16.37		310.00
12/11/96	326.92	326.37	326.37	14.23		312.14
8/19/97	326.92	326.37	303.88	13.39	9.10	312.98
2/5/98	326.92	326.37	303.88	11.81	10.68	314.56
08/07/98	326.92	326.37	303.88	13.69	8.80	312.68
06/01/99	326.92	326.37	326.77	13.77		315.00
06/28/99	326.92	326.37	326.77	14.13		314.64
8/16/99	326.92	326.37	326.77	14.80		313.97
11/11/99	326.92	326.37	326.77	15.41		313.36

**NOTE:**

- 1) Water levels from 9/18/90 thru 12/11/96 were measured with an electric water level indicator from the top of the monitoring well casing. Water levels measured since 8/19/97 were made using a QED MicroPurge 6400 Water Level Meter. Reference elevation for reading after 8/19/97 is the bottom of the QED probe.
- 2) "feet TOC" = feet from top of monitoring well casing
- 3) Water level obtained with QED MicroPurge 6400 Water Level Meter. Reading is the submergence depth in feet of the QED water level probe.

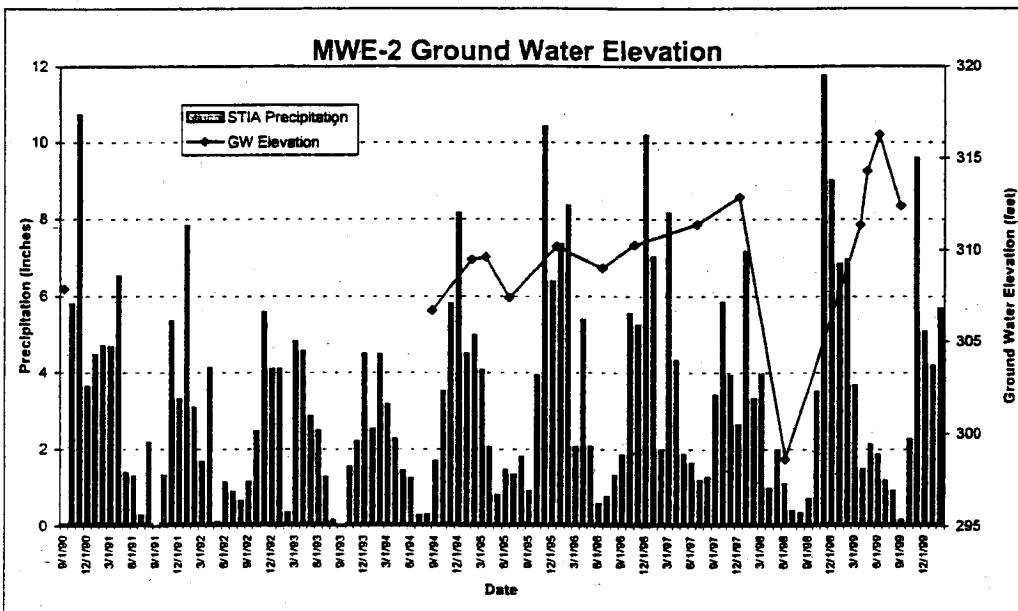


**Figure 4.2**  
**Ground Water Level Measurements**  
**Monitoring Well MWE-2**  
**IWS Lagoons 1 & 2**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2</sup>	QED Water Level Meter Reading (feet) <sup>3</sup>	Ground Water Elevation (feet)
9/18/90	328.01	327.49	327.49	19.6		307.89
9/29/94	328.01	327.49	327.49	20.8		306.69
3/6/95	328.01	327.49	327.49	17.99		309.50
5/1/95	328.01	327.49	327.49	17.86		309.63
7/31/95	328.01	327.49	327.49	20.09		307.40
2/5/96	328.01	327.49	327.49	17.31		310.18
8/6/96	328.01	327.49	327.49	18.48		309.01
12/11/96	328.01	327.49	327.49	17.22		310.27
8/19/97	328.01	327.49	298.49	16.12	12.88	311.37
2/5/98	328.01	327.49	298.49	14.62	14.38	312.87
08/07/98	328.01	327.49	298.49	28.84	0.16	298.65
06/01/99	328.01	327.49	327.49	16.14		311.35
06/28/99	328.01	327.49	327.49	13.19		314.30
8/16/99	328.01	327.49	329.86	13.83		316.23
11/11/99	328.01	327.49	329.86	17.47		312.39

**NOTE:**

- 1) Water levels from 9/18/90 thru 12/11/96 were measured with an electric water level indicator from the top of the monitoring well casing. Water levels measured since 8/19/97 were made using a QED MicroPurge 6400 Water Level Meter. Reference elevation for reading after 8/19/97 is the bottom of the QED probe.
- 2) 'feet TOC' = feet from top of monitoring well casing
- 3) Water level obtained with QED MicroPurge 6400 Water Level Meter. Reading is the submergence depth in feet of the QED water level probe.
- 4) 08/07/98 low water level due to an instrument malfunction

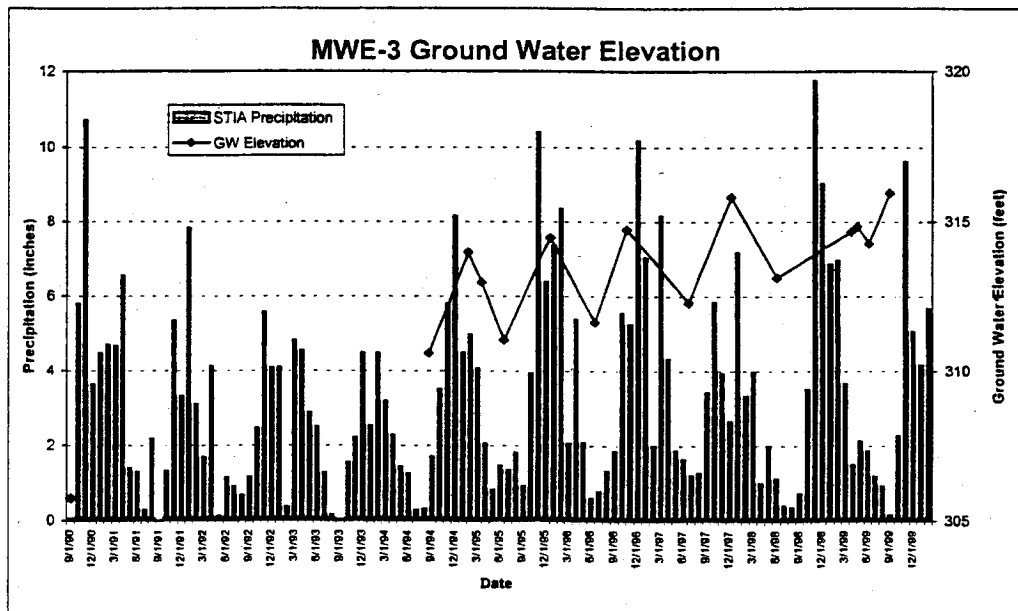


**Figure 4.3**  
**Ground Water Level Measurements**  
**Monitoring Well MWE-3**  
**IWS Lagoons 1 & 2**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2</sup>	QED Water Level Meter Reading (feet) <sup>3</sup>	Ground Water Elevation (feet)
9/18/90	321.62	321.03	321.03	15.3		305.73
9/29/94	321.62	321.03	321.03	10.45		310.58
3/6/95	321.62	321.03	321.03	7.08		313.95
5/1/95	321.62	321.03	321.03	8.07		312.96
7/31/95	321.62	321.03	321.03	10.01		311.02
2/5/96	321.62	321.03	321.03	6.58		314.45
8/6/96	321.62	321.03	321.03	9.41		311.62
12/11/96	321.62	321.03	321.03	6.29		314.74
8/19/97	321.62	321.03	304.54	8.75	7.74	312.28
2/5/98	321.62	321.03	304.54	5.21	11.28	315.82
08/07/98	321.62	321.03	304.54	7.92	8.57	313.11
06/03/99	321.62	321.03	323.47	8.82		314.85
06/28/99	321.62	321.03	323.47	8.63		314.84
8/16/99	321.62	321.03	323.47	9.22		314.25
11/11/99	321.62	321.03	323.47	7.52		315.95

**NOTE:**

- 1) Water levels from 9/18/90 thru 12/11/96 were measured with an electric water level indicator from the top of the monitoring well casing. Water levels measured since 8/19/97 were made using a QED MicroPurge 6400 Water Level Meter. Reference elevation for reading after 8/19/97 is the bottom of the QED probe.
- 2) "feet TOC" = feet from top of monitoring well casing
- 3) Water level obtained with QED MicroPurge 6400 Water Level Meter. Reading is the submergence depth in feet of the QED water level probe.

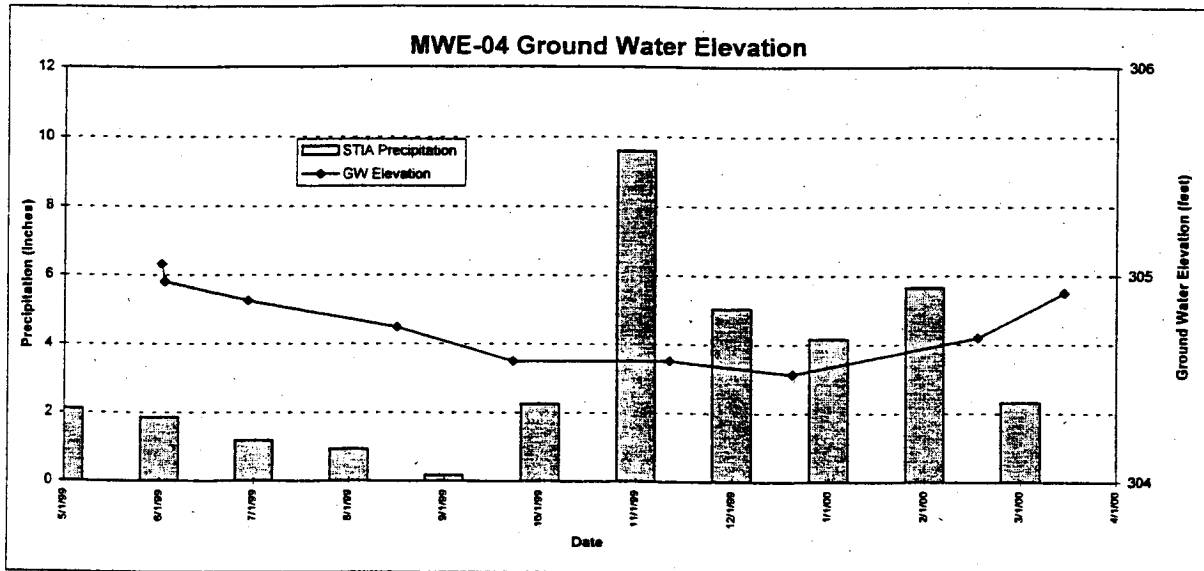


**Figure 4.4**  
**Ground Water Level Measurements**  
**Monitoring Well MWE-04**  
**IWS Lagoon 1 & 2**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2</sup>	QED Water Level Meter Reading (feet) <sup>3</sup>	Pressure Head (feet above bottom of till)	Ground Water Elevation (feet)
6/1/99	353.62	353.22	353.22	48.17		11.43	305.05
6/2/99	353.62	353.22	290.05	48.25	14.92	11.35	304.97
6/29/99	353.62	353.22	290.05	48.34	14.83	11.26	304.88
8/16/99	353.62	353.22	290.05	48.47	14.70	11.13	304.75
9/22/99	353.62	353.22	290.05	48.64	14.53	10.96	304.58
11/11/99	353.62	353.22	353.22	48.64		10.96	304.58
12/20/99	353.62	353.22	290.05	48.70	14.47	10.90	304.52
2/17/00	353.62	353.22	290.05	48.52	14.65	11.08	304.70
3/15/00	353.62	353.22	290.05	48.30	14.87	11.30	304.92

**NOTE:**

- 1) New measuring point elevation to accommodate well extension
- 2) feet TOC = feet from top of monitoring well casing
- 3) Water level obtained with QED MicroPurge 6400 Water Level Meter. Reading is the submergence depth in feet of the QED water level probe.

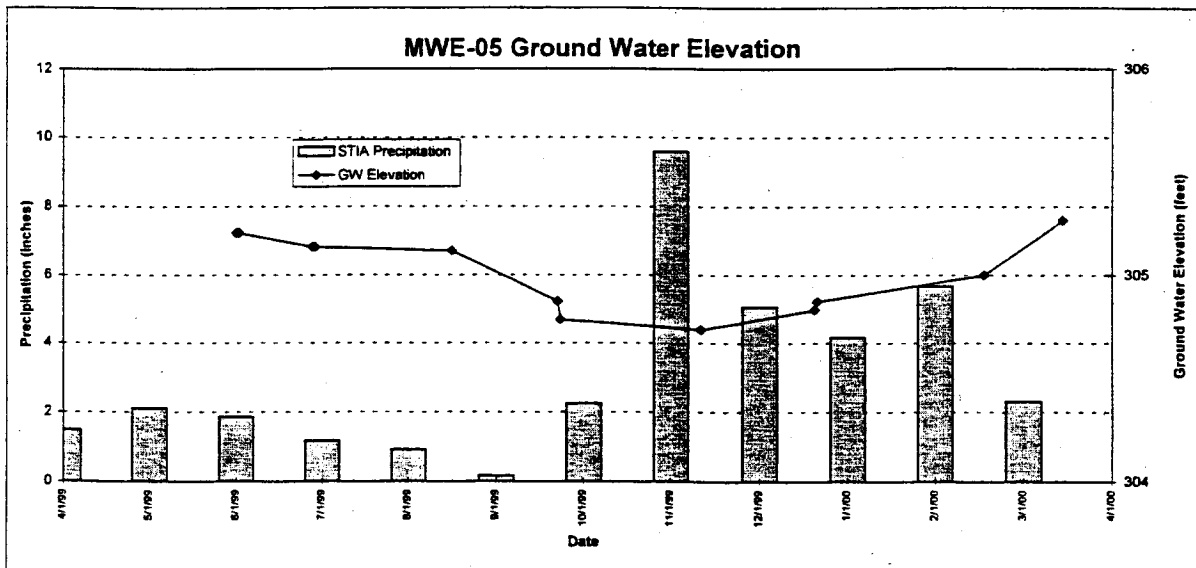


**Figure 4.5**  
**Ground Water Level Measurements**  
**Monitoring Well MWE-05**  
**IWS Lagoon 1 & 2**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2</sup>	QED Water Level Meter Reading (feet) <sup>3</sup>	Pressure Head (feet above bottom of till)	Ground Water Elevation (feet)
6/1/99	355.59	357.59	357.59	52.38		24.62	305.21
6/2/99	355.59	357.59	290.21	52.38	15.00	24.62	305.21
6/28/99	355.59	357.59	357.59	52.45		24.55	305.14
6/29/99	355.59	357.59	290.21	14.93	52.45	24.55	305.14
8/16/99	355.59	357.59	290.21	52.47	14.91	24.53	305.12
9/22/99	355.59	357.59	290.21	52.72	14.86	24.28	304.87
9/23/99	355.59	357.59	357.59	52.81		24.19	304.78
11/11/99	355.59	357.59	357.59	52.86		24.14	304.73
12/20/99	355.59	357.59	290.21	52.76	14.62	24.24	304.83
12/21/99	355.59	357.59	357.59	52.72		24.28	304.87
2/17/00	355.59	357.59	290.21	52.59	14.79	24.41	305.00
3/15/00	355.59	357.59	290.21	52.32	15.06	24.68	305.27

**NOTE:**

- 1) New measuring point elevation to accommodate well extension
- 2) feet TOC = feet from top of monitoring well casing
- 3) Water level obtained with QED MicroPurge 6400 Water Level Meter. Reading is the submergence depth in feet of the QED water level probe.

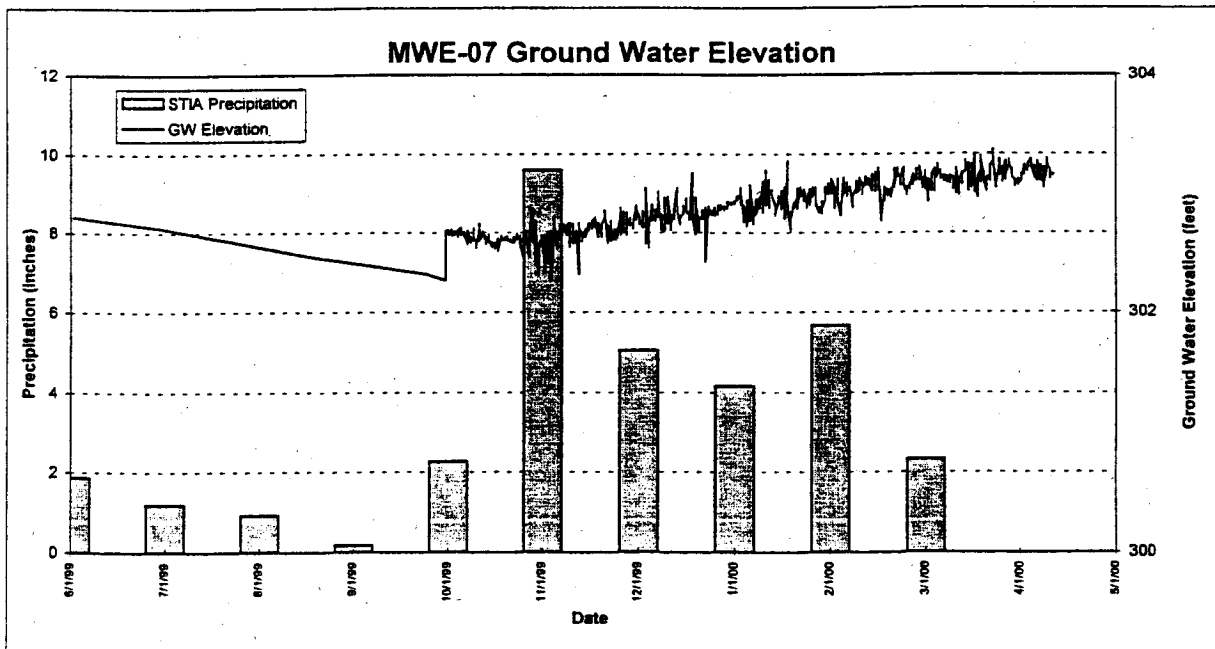


**Figure 4.6**  
**Ground Water Level Measurements**  
**Monitoring Well MWE-07**  
**IWS Lagoon 1 & 2**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2,3</sup>	Pressure Head (feet above bottom of till)	Ground Water Elevation (feet)
5/3/99	326.90	329.1	329.10	52.00	6.20	277.10
6/1/99	326.90	329.1	329.10	26.30	31.90	302.80
6/28/99	326.90	329.1	329.10	26.39	31.81	302.71
8/16/99	326.90	329.1	329.10	26.63	31.57	302.47
9/22/99	326.90	329.1	329.10	26.78	31.42	302.32
10/21/99	326.90	329.1	329.10	26.52	31.68	302.58
11/11/99	326.90	329.1	329.10	26.39	31.81	302.71
12/20/99	326.90	329.1	329.10	26.24	31.96	302.86
1/20/00	326.90	329.1	329.10	26.12	32.08	302.98
2/20/00	326.90	329.1	329.10	25.88	32.32	303.22
3/20/00	326.90	329.1	329.10	26.05	32.15	303.05
4/10/00	326.90	329.1	329.10	25.93	32.27	303.17

**NOTE:**

- 1) New measuring point elevation to accommodate well extension
- 2) feet TOC = feet from top of monitoring well casing
- 3) Water level obtained with Troll SP4000 down hole transducer



4/20/00

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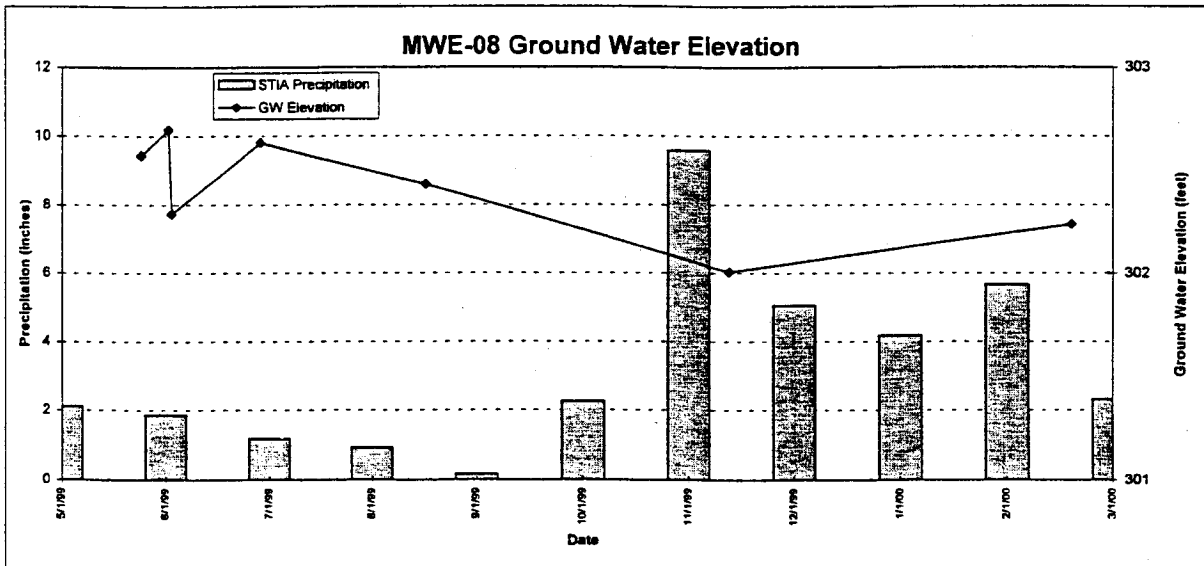
AR 024010

**Figure 4.7**  
**Ground Water Level Measurements**  
**Monitoring Well MWE-08**  
**IWS Lagoon 1 & 2**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2</sup>	QED Water Level Meter Reading (feet) <sup>3</sup>	Pressure Head (feet above bottom of till)	Ground Water Elevation (feet)
5/24/99	320.58	320.38	320.38	17.80		21.00	302.58
6/1/99	320.58	320.38	320.38	17.68		21.12	302.70
6/2/99	320.58	320.38	287.70	18.09	14.58	20.71	302.28
6/28/99	320.58	320.38	320.38	17.74		21.06	302.64
8/16/99	320.58	320.38	320.38	17.94		20.86	302.44
11/1/99	320.58	320.38	320.38	18.37		20.43	302.01
2/17/00	320.58	320.38	287.70	18.14	14.54	20.86	302.24

**NOTE:**

- 1) New measuring point elevation to accommodate well extension
- 2) feet TOC = feet from top of monitoring well casing
- 3) Water level obtained with QED MicroPurge 6400 Water Level Meter. Reading is the submergence depth in feet of the QED water level probe.

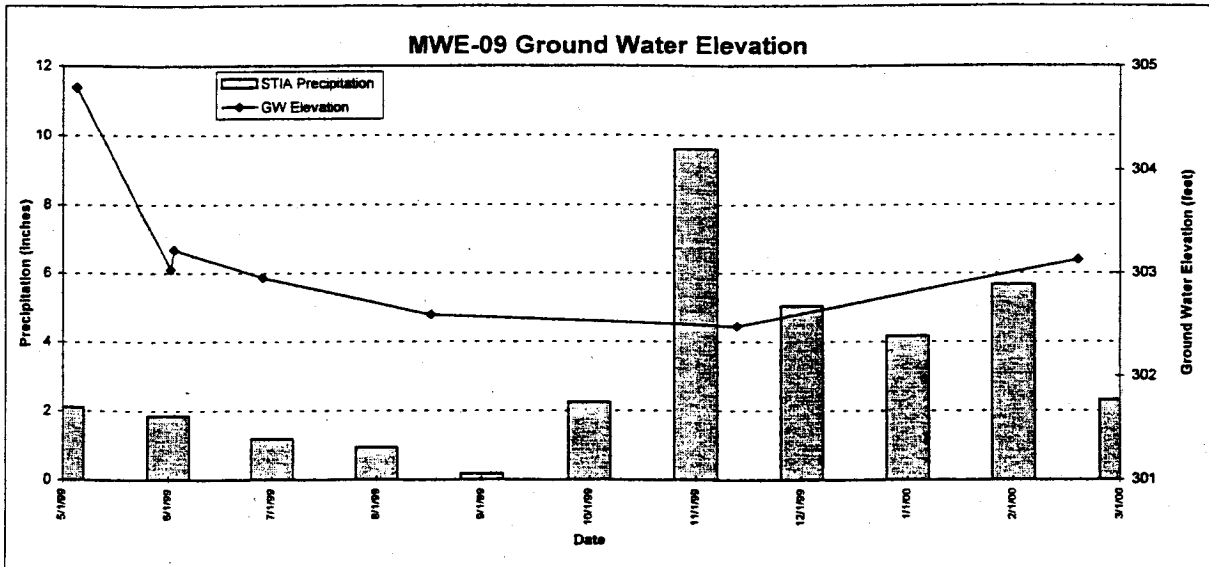


**Figure 4.8**  
**Ground Water Level Measurements**  
**Monitoring Well MWE-09**  
**IWS Lagoon 1 & 2**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2</sup>	QED Water Level Meter Reading (feet) <sup>3</sup>	Pressure Head (feet above bottom of till)	Ground Water Elevation (feet)
5/5/99	324.15	326.15	326.15	21.35		31.65	304.80
6/1/99	324.15	326.15	326.15	23.11		29.89	303.04
6/2/99	324.15	326.15	288.04	22.92	15.19	30.08	303.23
6/28/99	324.15	326.15	326.15	23.19		29.81	302.96
8/16/99	324.15	326.15	326.15	23.55		29.45	302.80
11/11/99	324.15	326.15	326.15	23.66		29.34	302.49
2/17/00	324.15	326.15	288.04	23.19	15.09	29.98	303.13

**NOTE:**

- 1) New measuring point elevation to accommodate well extension
- 2) feet TOC = feet from top of monitoring well casing
- 3) Water level obtained with QED MicroPurge 6400 Water Level Meter. Reading is the submergence depth in feet of the QED water level probe.

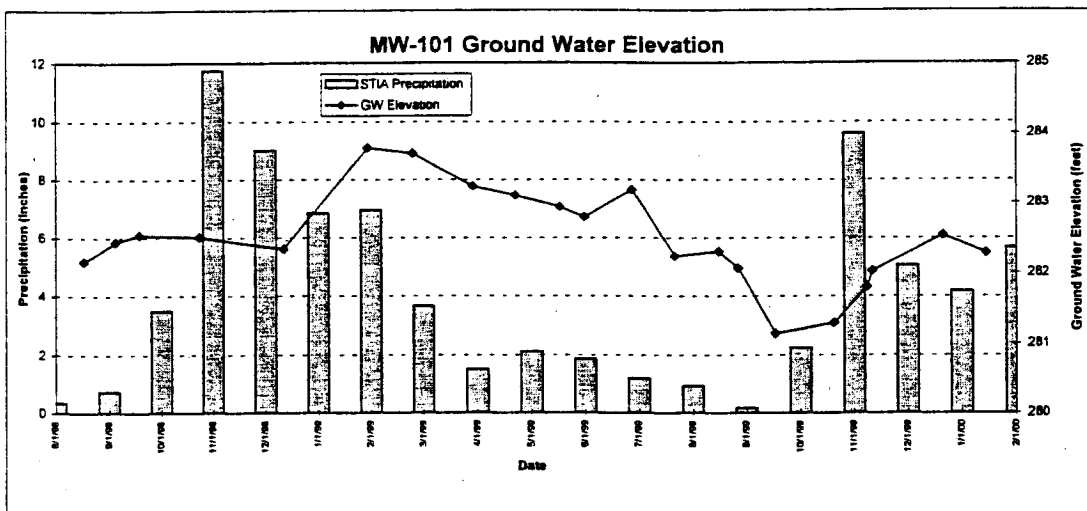




**Figure 4.9**  
**Ground Water Level Measurements**  
**Monitoring Well MW-101**  
**IWS Lagoon 3**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2</sup>	Pressure Head (feet above bottom of fill)	Ground Water Elevation (feet)
8/17/98	282.44	282.44	282.44	0.28	36.22	282.16
9/4/98	282.44	282.44	282.44	0.00	36.50	282.44
9/18/98	282.44	286.26	286.26	3.72	36.78	282.54
10/23/98	282.44	286.26	286.26	3.75	36.75	282.51
12/11/98	282.44	286.26	286.26	3.92	36.58	282.34
1/29/99	282.44	286.26	286.26	2.47	38.03	283.79
2/24/99	282.44	286.26	286.26	2.55	37.95	283.71
3/30/99	282.44	286.26	286.26	3.02	37.48	283.24
4/23/99	282.44	286.26	286.26	3.15	37.35	283.11
5/18/99	282.44	286.26	286.26	3.32	37.18	282.94
6/1/99	282.44	286.26	286.26	3.47	36.85	282.79
6/28/99	282.44	286.26	286.26	3.07	37.25	283.19
7/22/99	282.44	286.26	286.26	4.02	36.30	282.24
8/16/99	282.44	286.26	286.26	3.95	36.37	282.31
8/27/99	282.44	286.26	286.26	4.19	36.13	282.07
9/17/99	282.44	286.26	286.26	5.12	35.20	281.14
10/20/99	282.44	286.26	286.26	4.97	35.35	281.29
11/8/99	282.44	286.26	286.26	4.46	35.86	281.80
11/11/99	282.44	286.26	286.26	4.23	36.09	282.03
12/21/99	282.44	286.26	286.26	3.72	36.60	282.54
1/14/00	282.44	286.26	286.26	3.97	36.35	282.29

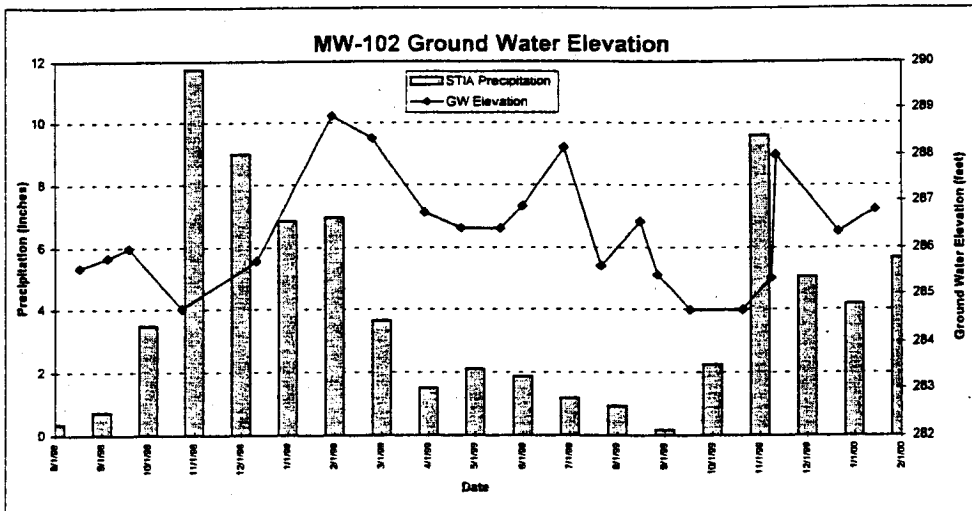
NOTE:  
 1) New measuring point elevation to accommodate well extension  
 2) feet TOC = feet from top of monitoring well casing



**Figure 4.10**  
**Ground Water Level Measurements**  
**Monitoring Well MW-102**  
**IWS Lagoon 3**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2</sup>	Pressure Head (feet above bottom of tile)	Ground Water Elevation (feet)
08/17/98	289.21	289.21	289.21	3.65	27.35	285.56
9/4/98	289.21	289.21	289.21	3.43	27.57	285.78
9/18/98	289.21	289.21	289.21	3.22	27.78	285.99
10/23/98	289.21	289.21	289.21	4.54	26.46	284.67
12/1/98	289.21	289.21	289.21	3.50	27.50	285.71
1/29/99	289.21	289.21	289.21	0.39	30.61	288.82
2/24/99	289.21	289.21	289.21	0.87	30.13	288.34
3/30/99	289.21	289.21	289.21	2.47	28.53	286.74
4/23/99	289.21	289.21	289.21	2.80	28.20	286.41
5/18/99	289.21	289.21	289.21	2.81	28.19	286.40
6/1/99	289.21	289.21	289.21	2.34	28.66	286.87
6/28/99	289.21	289.21	289.21	1.07	29.93	288.14
7/22/99	289.21	289.21	289.21	3.81	27.39	285.80
8/16/99	289.21	289.21	289.21	2.86	28.34	286.55
8/27/99	289.21	289.21	289.21	3.8	27.20	285.41
9/17/99	289.21	289.21	289.21	4.56	26.44	284.65
10/20/99	289.21	289.21	289.21	4.56	26.44	284.65
11/8/99	289.21	289.21	289.21	3.87	27.13	285.34
11/11/99	289.21	289.21	289.21	1.22	29.78	287.99
12/21/99	289.21	289.21	289.21	2.88	28.12	286.33
1/14/00	289.21	289.21	289.21	2.41	28.59	286.80

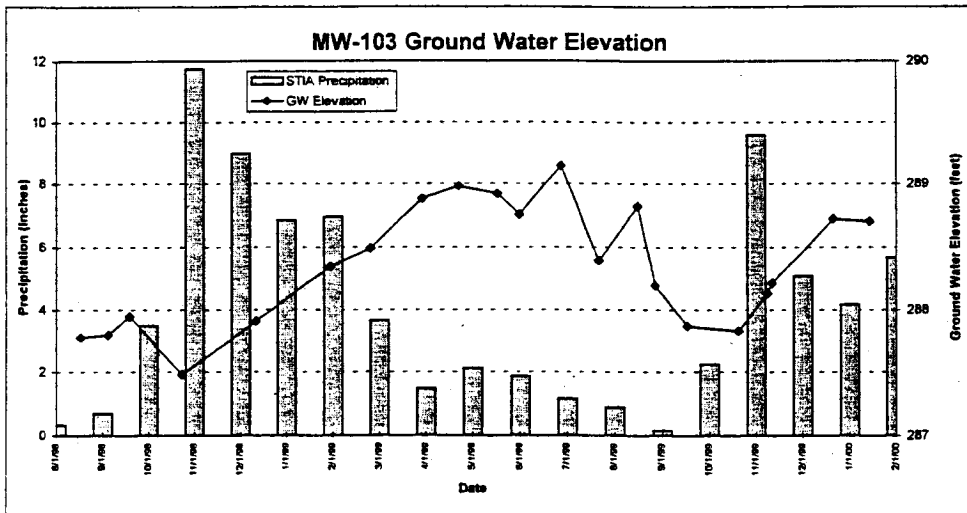
NOTE:  
1) New measuring point elevation to accommodate well extension  
2) feet TOC = feet from top of monitoring well casing



**Figure 4.11**  
**Ground Water Level Measurements**  
**Monitoring Well MW-103**  
**IWS Lagoon 3**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2</sup>	Pressure Head (feet above bottom of till)	Ground Water Elevation (feet)
08/17/98	297.32	297.32	297.32	9.54	34.46	287.78
9/4/98	297.32	297.32	297.32	9.52	34.48	287.80
9/18/98	297.32	297.32	297.32	9.37	34.83	287.95
10/23/98	297.32	297.32	297.32	9.84	34.16	287.48
12/11/98	297.32	297.32	297.32	9.41	34.59	287.91
1/29/99	297.32	297.32	297.32	8.98	35.02	288.34
2/24/99	297.32	297.32	297.32	8.83	35.37	288.49
3/30/99	297.32	297.32	297.32	8.44	35.56	288.88
4/23/99	297.32	297.32	297.32	8.34	35.66	288.98
5/18/99	297.32	297.32	297.32	8.40	35.60	288.92
6/1/99	297.32	297.32	297.32	8.57	35.43	288.75
6/28/99	297.32	297.32	297.32	8.17	35.83	289.15
7/22/99	297.32	297.32	297.32	8.93	35.07	288.39
8/16/99	297.32	297.32	297.32	8.5	35.50	288.82
8/27/99	297.32	297.32	297.32	9.13	34.87	288.19
9/17/99	297.32	297.32	297.32	9.45	34.55	287.87
10/20/99	297.32	297.32	297.32	9.49	34.51	287.83
11/8/99	297.32	297.32	297.32	9.19	34.81	288.13
11/11/99	297.32	297.32	297.32	9.11	34.89	288.21
12/21/99	297.32	297.32	297.32	8.6	35.40	288.72
1/14/00	297.32	297.32	297.32	8.62	35.38	288.70

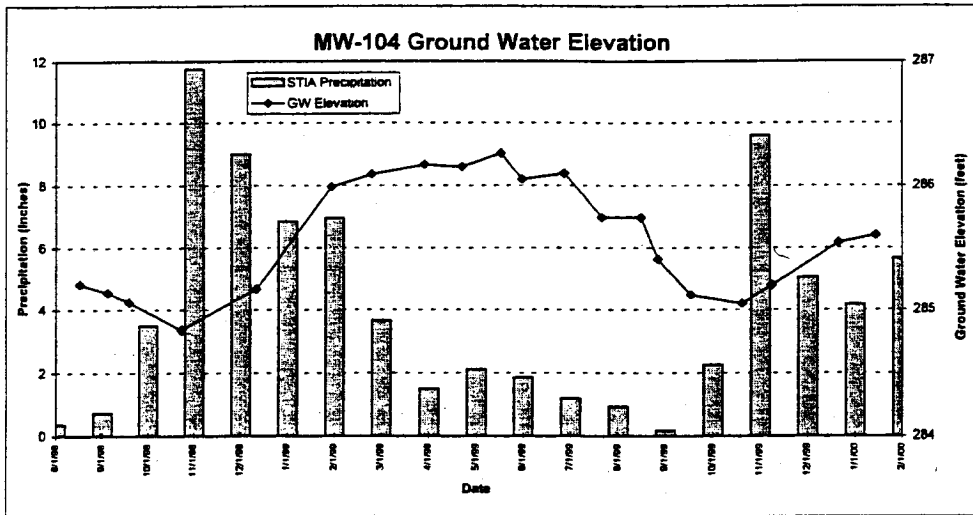
NOTE:  
 1) New measuring point elevation to accommodate well extension  
 2) feet TOC = feet from top of monitoring well casing



**Figure 4.12**  
**Ground Water Level Measurements**  
**Monitoring Well MW-104**  
**IWS Lagoon 3**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2</sup>	Pressure Head (feet above bottom of USI)	Ground Water Elevation (feet)
08/17/98	291.78	291.78	291.78	6.57	22.43	285.21
9/4/98	291.78	291.78	291.78	6.64	22.36	285.14
9/18/98	291.78	291.78	291.78	6.72	22.28	285.06
10/23/98	291.78	291.78	291.78	6.94	22.06	284.84
12/1/98	291.78	291.78	291.78	6.61	22.39	285.17
1/29/99	291.78	291.78	291.78	5.79	23.21	285.99
2/24/99	291.78	291.78	291.78	5.69	23.31	286.09
3/30/99	291.78	291.78	291.78	5.61	23.39	286.17
4/23/99	291.78	291.78	291.78	5.63	23.37	286.15
5/18/99	291.78	291.78	291.78	5.52	23.48	286.26
6/1/99	291.78	291.78	291.78	5.73	23.27	286.05
6/28/99	291.78	291.78	291.78	5.88	23.32	286.10
7/22/99	291.78	291.78	291.78	6.04	22.96	285.74
8/16/99	291.78	291.78	291.78	6.04	22.96	285.74
8/27/99	291.78	291.78	291.78	6.37	22.63	285.41
9/17/99	291.78	291.78	291.78	6.66	22.34	285.12
10/20/99	291.78	291.78	291.78	6.73	22.27	285.05
11/8/99	291.78	291.78	291.78	6.58	22.42	285.20
12/21/99	291.78	291.78	291.78	6.24	22.76	285.54
1/14/00	291.78	291.78	291.78	6.18	22.82	285.60

NOTE:  
1) New measuring point elevation to accommodate well extension  
2) feet TOC = feet from top of monitoring well casing

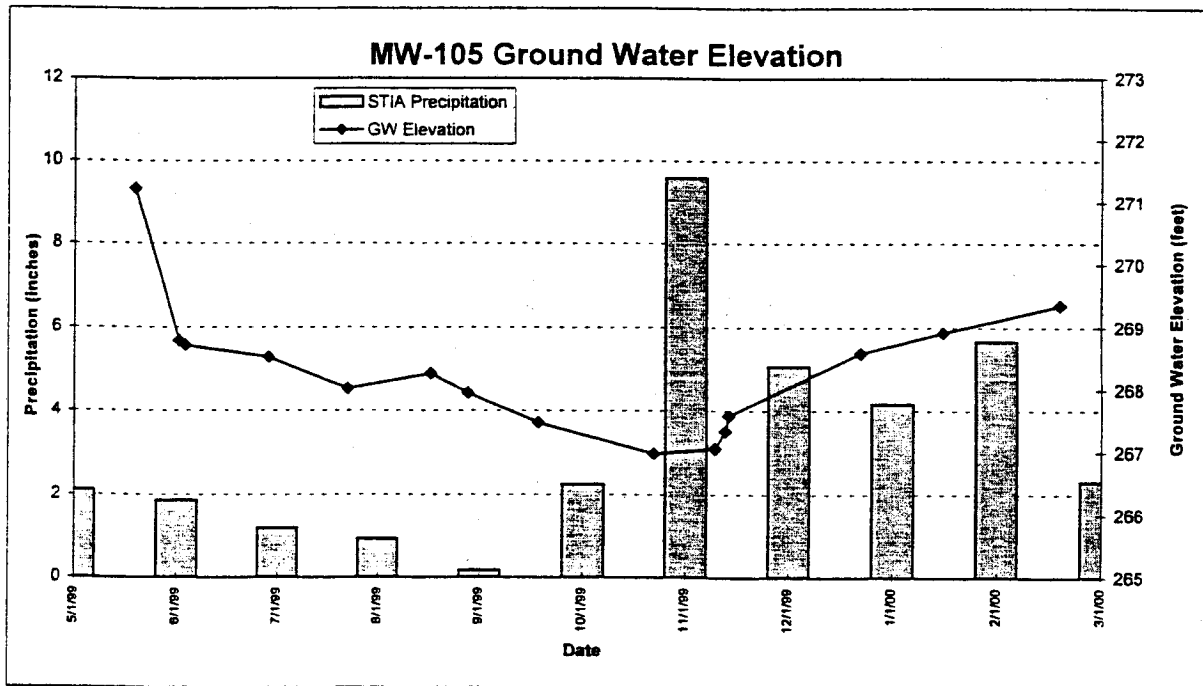


**Figure 4.13**  
**Ground Water Level Measurements**  
**Monitoring Well MW-105**  
**IWS Lagoon 3**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2</sup>	QED Water Level Meter Reading (feet) <sup>3</sup>	Ground Water Elevation (feet)
5/19/99	284.83	286.83	286.83	15.60		271.23
6/1/99	284.83	286.83	286.83	18.04		268.79
6/3/99	284.83	286.83	286.83	18.12		268.71
6/28/99	284.83	286.83	286.83	18.31		268.52
7/22/99	284.83	286.83	286.83	18.81		268.02
8/16/99	284.83	286.83	286.83	18.57		268.26
8/27/99	284.83	286.83	286.83	18.88		267.95
9/17/99	284.83	286.83	286.83	19.35		267.48
10/21/99	284.83	286.83	286.83	19.85		266.98
11/8/99	284.83	286.83	286.83	19.77		267.06
11/11/99	284.83	286.83	286.83	19.49		267.34
11/12/99	284.83	286.83	264.83	19.24	2.76	267.59
12/21/99	284.83	286.83	286.83	18.24		268.59
1/14/00	284.83	286.83	286.83	17.91		268.92
2/17/00	284.83	286.83	264.83	17.47	4.53	269.36

**NOTE:**

- 1) New measuring point elevation to accommodate well extension
- 2) feet TOC = feet from top of monitoring well casing
- 3) Water level obtained with QED MicroPurge 6400 Water Level Meter. Reading is the submergence depth in feet of the QED water level probe.



4/20/00

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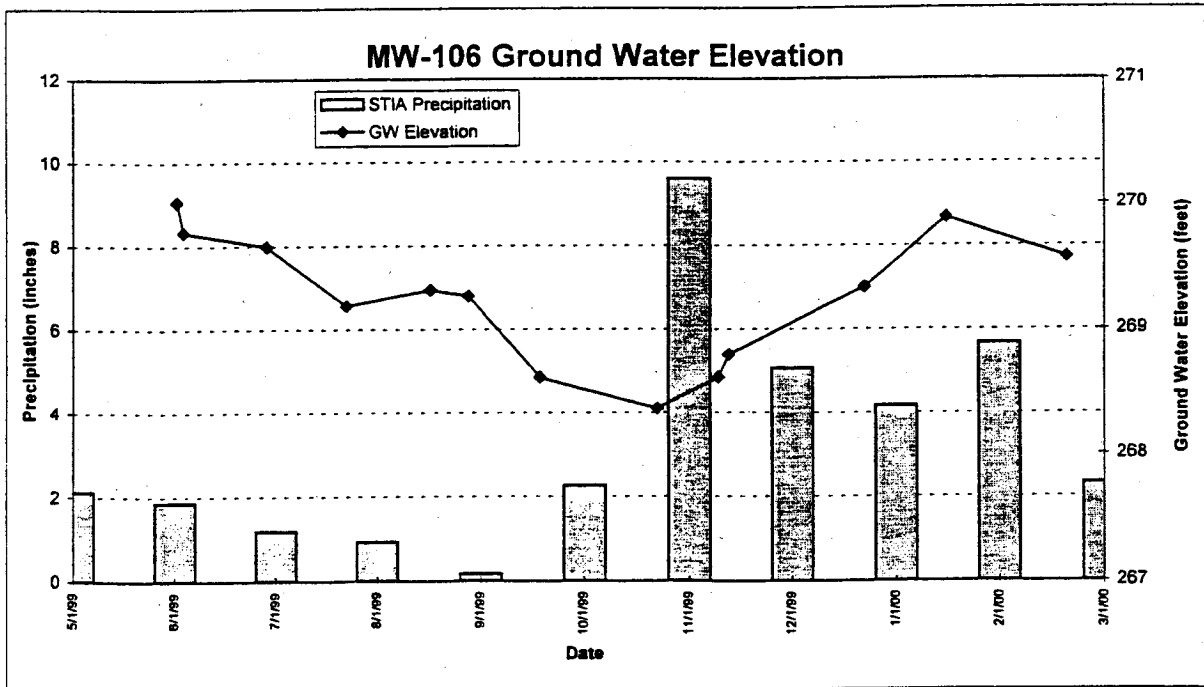
AR 024017

**Figure 4.14**  
**Ground Water Level Measurements**  
**Monitoring Well MW-106**  
**IWS Lagoon 3**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2</sup>	QED Water Level Meter Reading (feet) <sup>3</sup>	Ground Water Elevation (feet)
6/1/99	287.59	289.59	289.59	19.57		270.02
6/3/99	287.59	289.59	289.59	19.81		269.78
6/28/99	287.59	289.59	289.59	19.92		269.67
7/22/99	287.59	289.59	289.59	20.40		269.19
8/16/99	287.59	289.59	289.59	20.27		269.32
8/27/99	287.59	289.59	289.59	20.32		269.27
9/17/99	287.59	289.59	289.59	20.97		268.62
10/21/99	287.59	289.59	289.59	21.22		268.37
11/8/99	287.59	289.59	289.59	20.97		268.62
11/11/99	287.59	289.59	289.59	20.79		268.80
12/21/99	287.59	289.59	289.59	20.25		269.34
1/14/00	287.59	289.59	289.59	19.70		269.89
2/18/00	287.59	289.59	264.59	20.01	4.99	269.58

**NOTE:**

- 1) New measuring point elevation to accommodate well extension
- 2) feet TOC = feet from top of monitoring well casing
- 3) Water level obtained with QED MicroPurge 6400 Water Level Meter. Reading is the submergence depth in feet of the QED water level probe.



4/24/00

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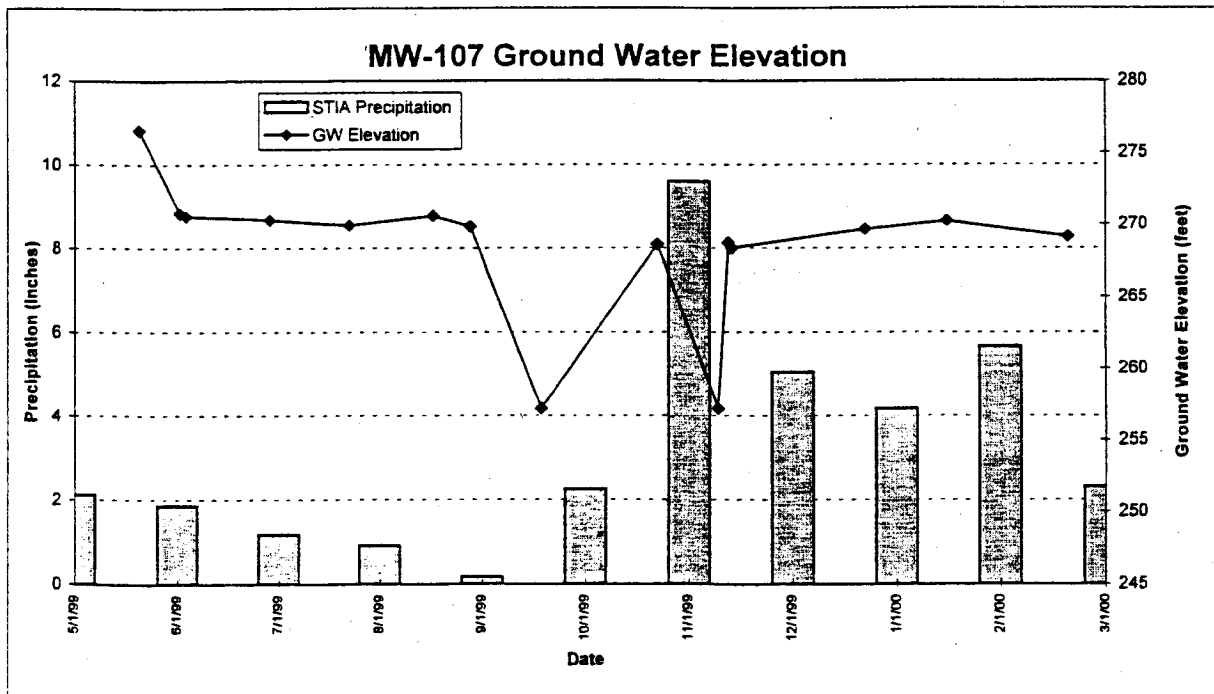
AR 024018

**Figure 4.15**  
**Ground Water Level Measurements**  
**Monitoring Well MW-107**  
**IWS Lagoon 3**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2</sup>	QED Water Level Meter Reading (feet) <sup>3</sup>	Ground Water Elevation (feet)
5/20/99	282.16	284.16	284.16	7.62		276.54
6/1/99	282.16	284.16	284.16	13.37		270.79
6/3/99	282.16	284.16	284.16	13.59		270.57
6/28/99	282.16	284.16	284.16	13.85		270.31
7/22/99	282.16	284.16	284.16	14.23		269.93
8/16/99	282.16	284.16	268.16	13.54	2.46	270.62
8/27/99	282.16	284.16	284.16	14.31		269.85
9/17/99	282.16	284.16	284.16	dry <sup>4</sup>		257.16
10/21/99	282.16	284.16	284.16	15.57		268.59
11/8/99	282.16	284.16	284.16	dry <sup>4</sup>		257.16
11/11/99	282.16	284.16	284.16	15.46		268.70
11/12/99	282.16	284.16	268.16	15.834	0.166	268.33
12/21/99	282.16	284.16	284.16	14.52		269.64
1/14/00	282.16	284.16	284.16	13.93		270.23
2/18/00	282.16	284.16	268.16	15.04	0.96	269.12

**NOTE:**

- 1) New measuring point elevation to accommodate well extension
- 2) feet TOC = feet from top of monitoring well casing
- 3) Water level obtained with QED MicroPurge 6400 Water Level Meter. Reading is the submergence depth in feet of the QED water level probe.
- 4) Water levels for dry holes were set at bottom of hole elevation.



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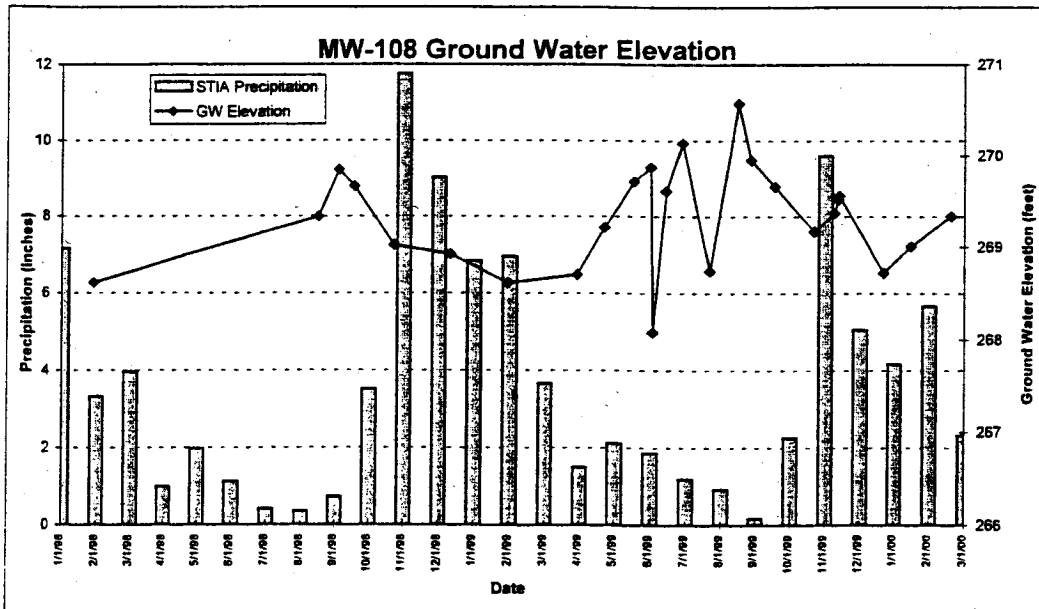
AR 024019

**Figure 4.16**  
**Ground Water Level Measurements**  
**Monitoring Well MW-108**  
**IWS Lagoon 3**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2</sup>	QED Water Level Meter Reading (feet) <sup>3</sup>	Ground Water Elevation (feet)
1/29/98	281.36	281.36	281.36	12.75		268.61
8/17/98	281.36	281.36	281.36	12.03		269.33
9/4/98	281.36	281.36	281.36	11.52		269.84
9/18/98	281.36	281.36	281.36	11.70		269.66
10/23/98	281.36	281.36	281.36	12.34		269.02
12/11/98	281.36	281.36	281.36	12.44		268.92
1/29/99	281.36	281.36	281.36	12.75		268.61
3/30/99	281.36	264.59	281.36	12.66		268.70
4/23/99	281.36	281.36	281.36	12.15		269.21
5/18/99	281.36	281.36	281.36	11.85		269.71
6/1/99	281.36	281.36	281.52	11.85		269.87
6/3/99	281.36	281.36	281.52	13.44		268.08
6/14/99	281.36	289.59	281.36	11.75		269.61
6/28/99	281.36	281.36	281.52	11.38		270.14
7/22/99	281.36	281.36	281.36	12.62		268.74
8/16/99	281.36	281.36	281.52	10.95		270.57
8/27/99	281.36	281.36	281.36	11.41		269.95
9/17/99	281.36	281.36	281.36	11.70		269.66
10/21/99	281.36	281.36	281.36	12.19		269.17
11/8/99	281.36	281.36	281.36	11.99		269.37
11/11/99	281.36	281.36	281.52	12.00		269.52
11/12/99	281.36	281.36	261.52	11.80	8.04	269.56
12/21/99	281.36	281.36	281.36	12.64		268.72
1/14/00	281.36	281.36	281.36	12.35		269.01
2/18/00	281.36	281.36	261.52	12.02	7.82	269.34

**NOTE:**

- 1) New measuring point elevation to accommodate well extension
- 2) feet TOC = feet from top of monitoring well casing
- 3) Water level obtained with QED MicroPurge 6400 Water Level Meter. Reading is the submergence depth in feet of the QED water level probe.



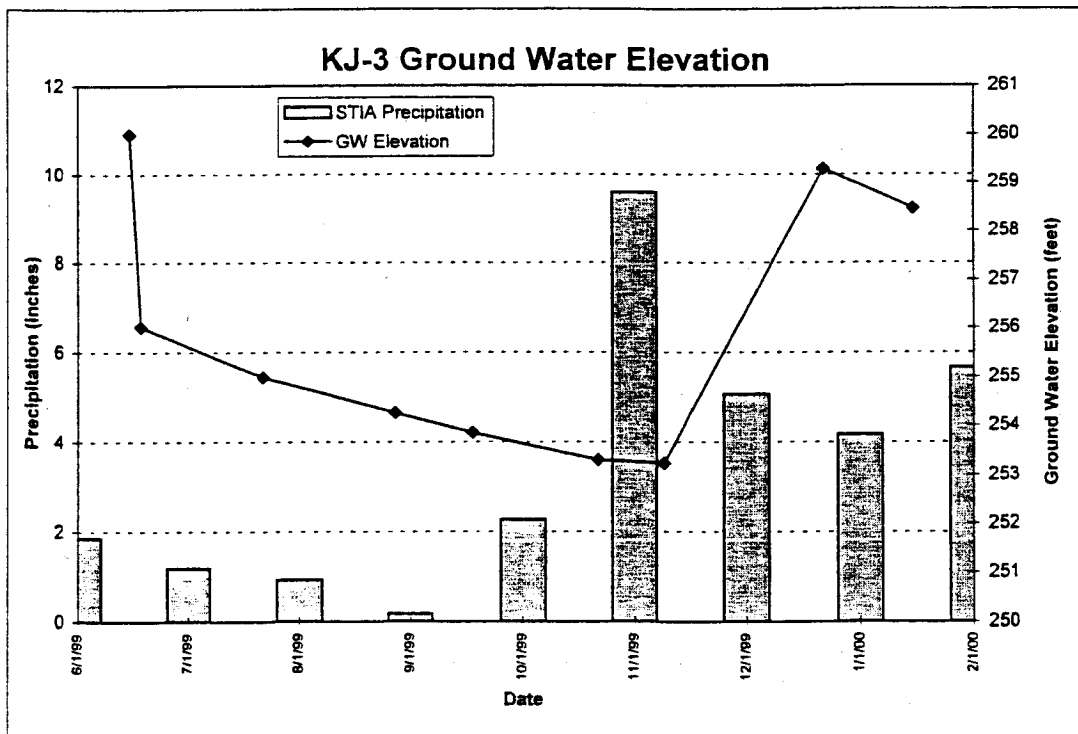


**Figure 4.17**  
**Ground Water Level Measurements**  
**Monitoring Well KJ-3**  
**IWS Lagoon 3**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2</sup>	Ground Water Elevation (feet)
6/15/99	292	295	295	35.00	260.00
6/18/99	292	295	295	38.98	256.02
7/22/99	292	295	295	40.01	254.99
8/27/99	292	295	295	40.74	254.26
9/17/99	292	295	295	41.15	253.85
10/21/99	292	295	295	41.69	253.31
11/8/99	292	295	295	41.76	253.24
12/21/99	292	295	295	35.72	259.28
1/14/00	292	295	295	36.53	256.47

**NOTE:**

- 1) New measuring point elevation to accommodate well extension
- 2) feet TOC = feet from top of monitoring well casing



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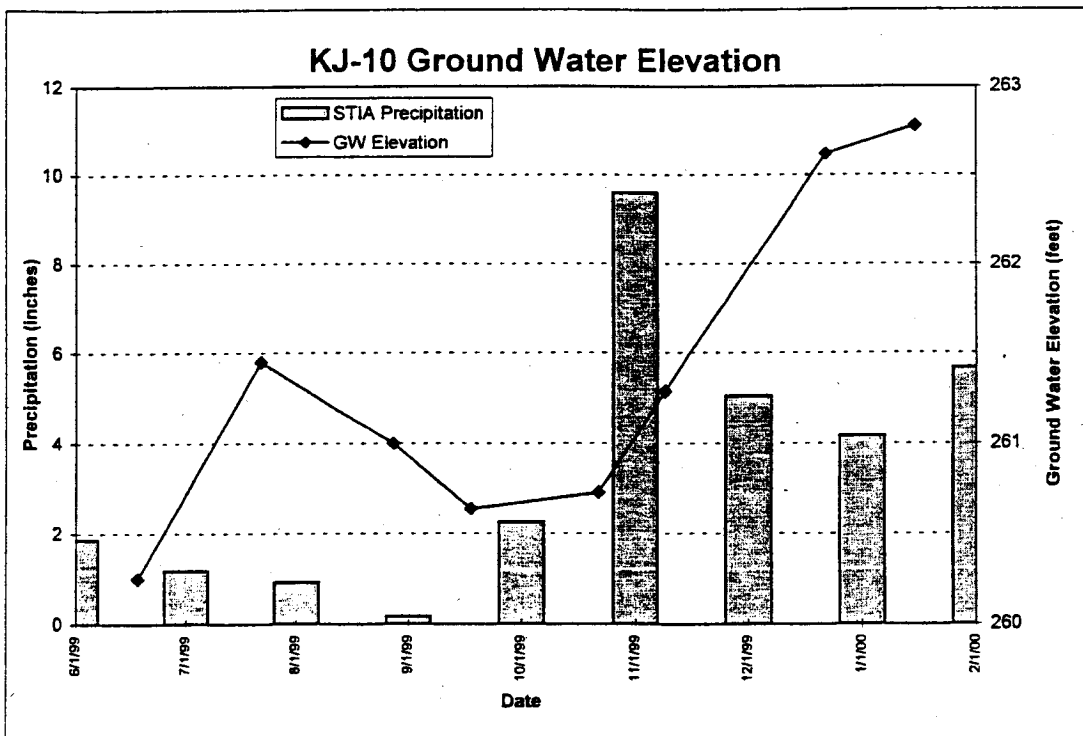
AR 024021

**Figure 4.18**  
**Ground Water Level Measurements**  
**Monitoring Well KJ-10**  
**IWS Lagoon 3**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	STIA Surface Elevation (feet)	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Ground Water (feet TOC) <sup>2</sup>	Ground Water Elevation (feet)
6/18/99	268.17	271.17	271.17	10.92	260.25
7/22/99	268.17	271.17	271.17	9.72	261.45
8/27/99	268.17	271.17	271.17	10.17	261.00
9/17/99	268.17	271.17	271.17	10.53	260.64
10/21/99	268.17	271.17	271.17	10.44	260.73
11/8/99	268.17	271.17	271.17	9.88	261.29
12/21/99	268.17	271.17	271.17	8.55	262.62
1/14/00	268.17	271.17	271.17	8.39	262.78

**NOTE:**

- 1) New measuring point elevation to accommodate well extension
- 2) feet TOC = feet from top of monitoring well casing



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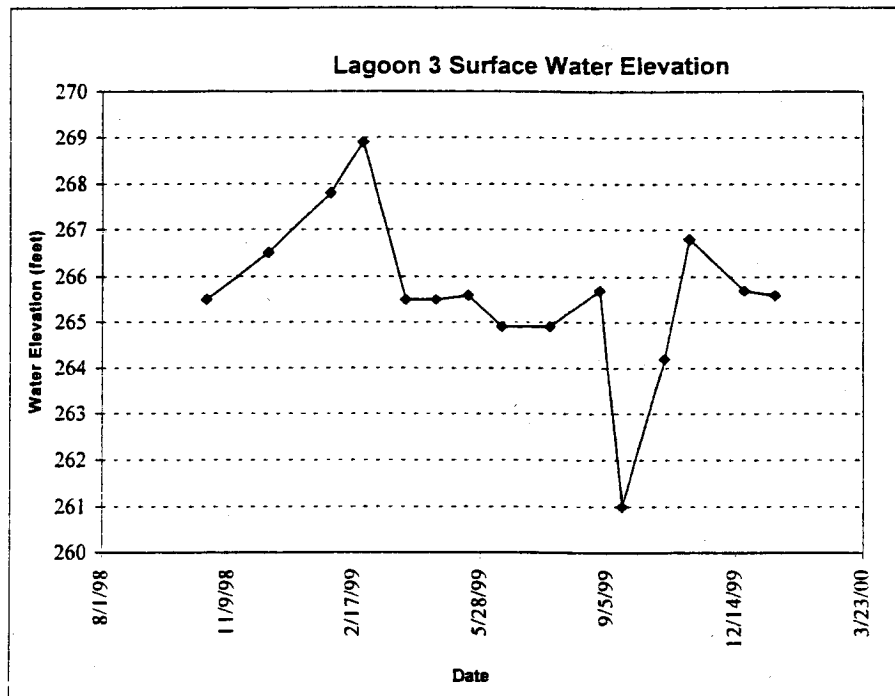
AR 024022

**Figure 4.19**  
**Lagoon 3 Surface Water Level Measurements**  
**Lagoon 3**  
**IWS Lagoon 3**  
**IWS Hydrogeologic Study**  
**Seattle-Tacoma International Airport**

Date	Top of Casing Elevation (feet)	Water Level Reference Elevation (feet) <sup>1</sup>	Depth to Surface Water (feet TOC) <sup>2</sup>	Surface Water Elevation (feet)
8/17/98	260.00	264.00	Not Measured	
9/4/98	260.00	264.00	Not Measured	
9/18/98	260.00	264.00	Not Measured	
10/23/98	260.00	264.00	1.50	265.50
12/11/98	260.00	264.00	2.50	266.50
1/29/99	260.00	264.00	3.80	267.80
2/24/99	260.00	264.00	4.90	268.90
3/30/99	260.00	264.00	1.50	265.50
4/23/99	260.00	264.00	1.50	265.50
5/18/99	260.00	264.00	1.60	265.60
6/14/99	260.00	264.00	0.90	264.90
7/22/99	260.00	264.00	0.90	264.90
8/30/99	260.00	264.00	1.70	265.70
9/17/99	260.00	264.00	-3.00	261.00
10/20/99	260.00	264.00	0.20	264.20
11/8/99	260.00	264.00	2.80	266.80
12/21/99	260.00	264.00	1.70	265.70
1/14/00	260.00	264.00	1.6	265.60

**NOTE:**

- 1) New measuring point elevation to accommodate well extension
- 2) feet TOC = feet from top of monitoring well casing



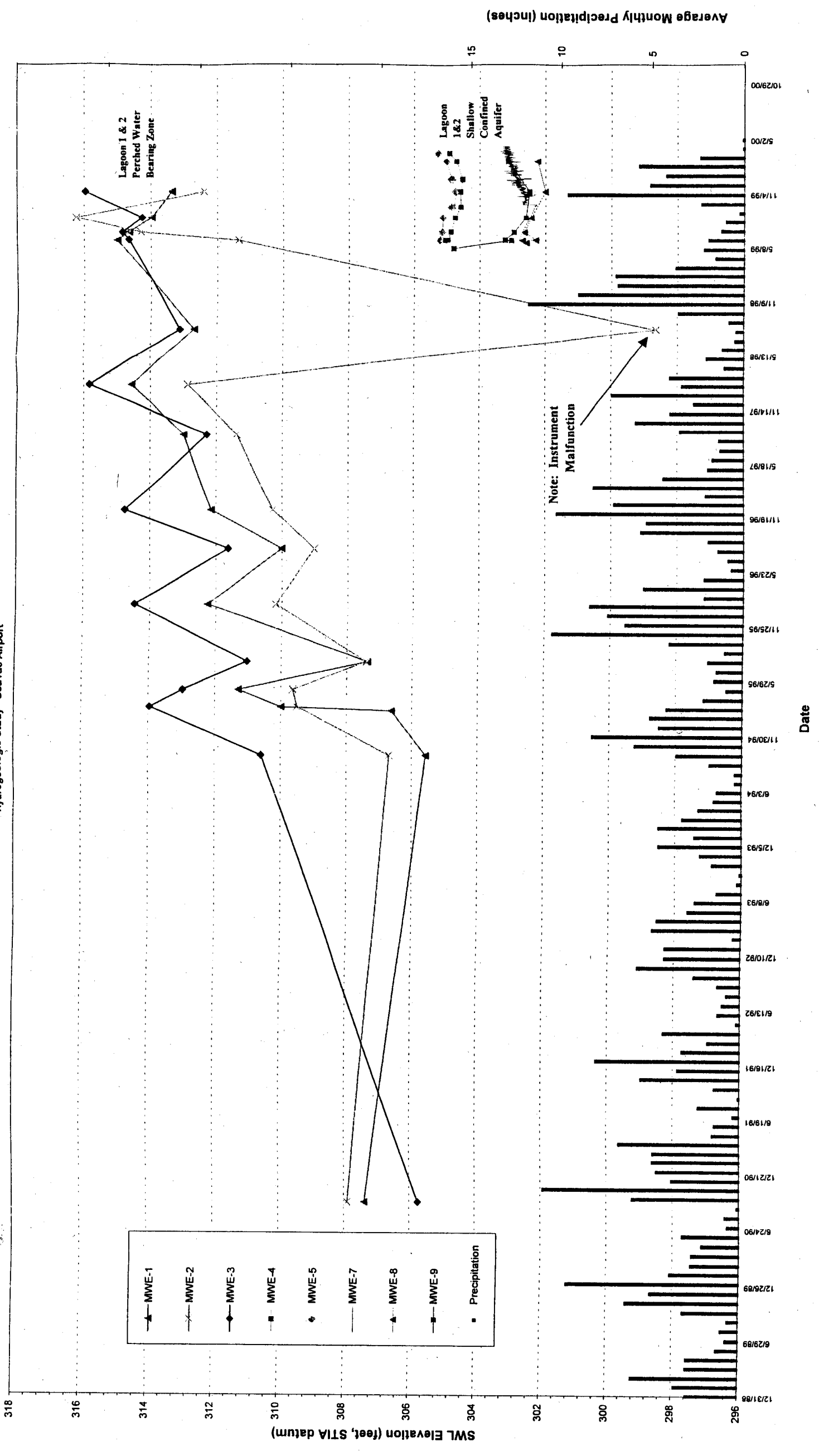
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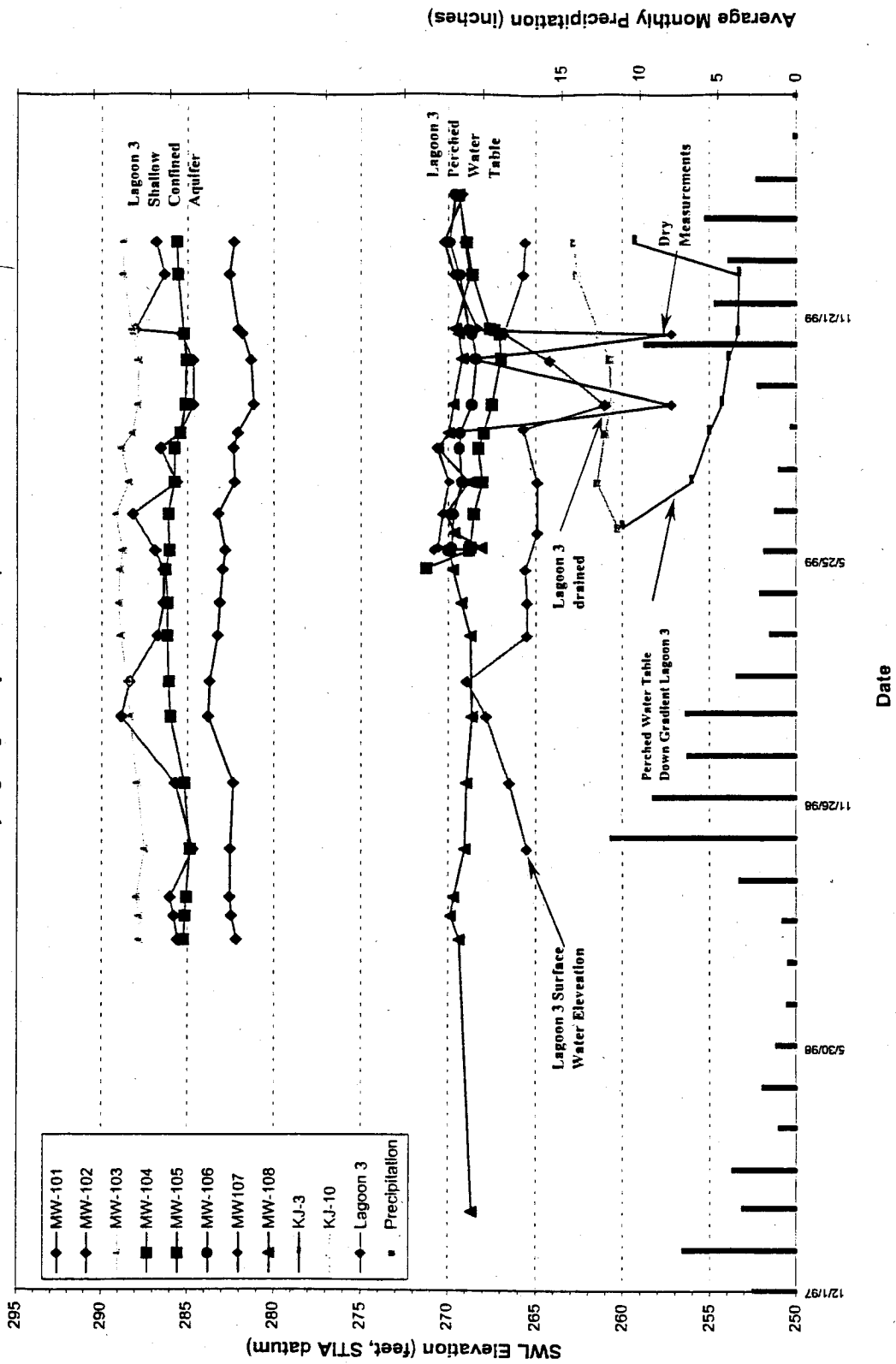
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**Figure 4.20- Hydrographs for Lagoons 1 and 2 Monitoring Wells**  
 Industrial Waste System Plant and Lagoon Area  
 Hydrogeologic Study - Sea Tac Airport

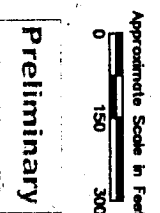
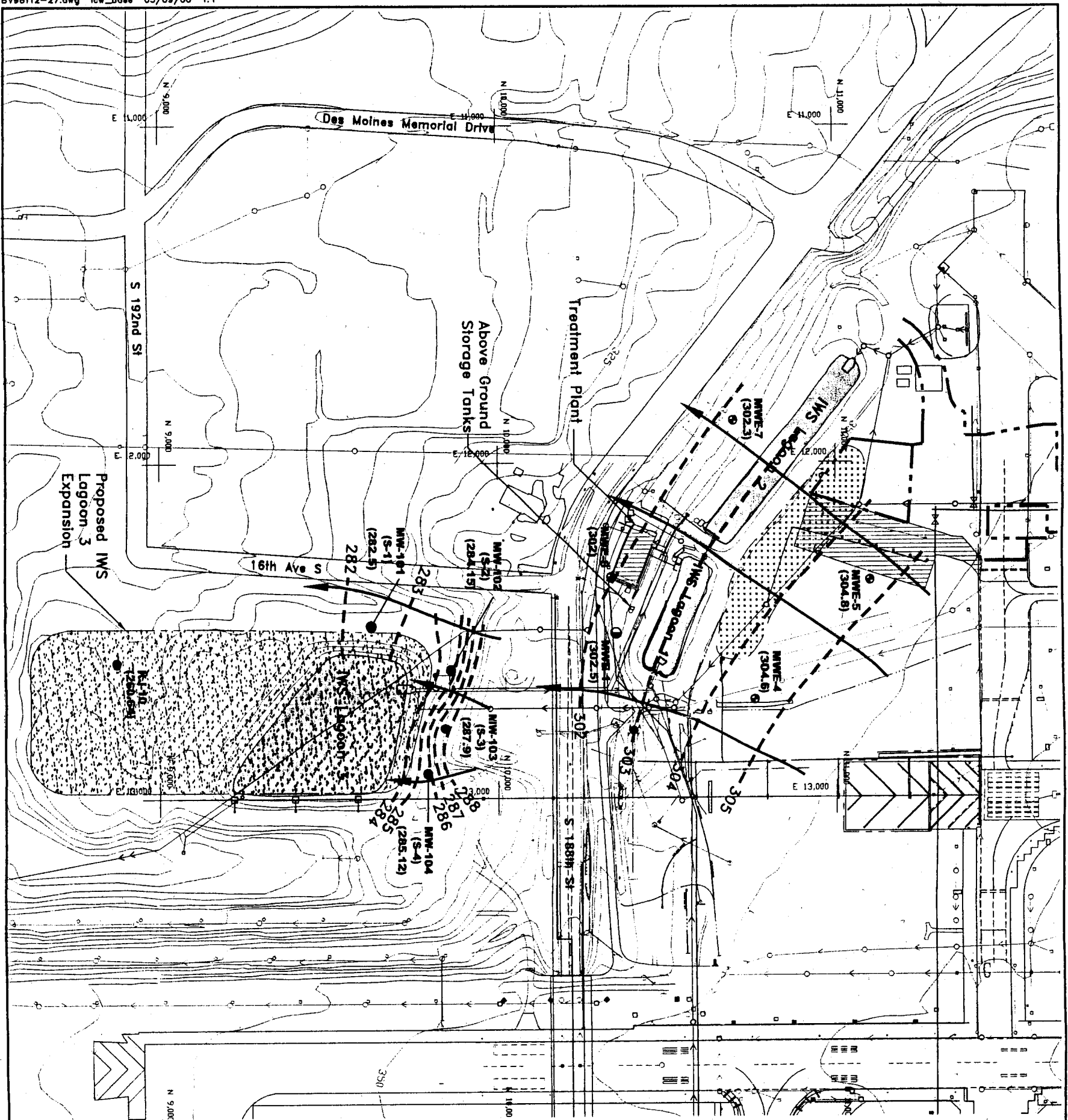


**Figure 4.21 - Hydrographs for Lagoon 3 Monitoring Wells**  
 Industrial Waste System Plant and Lagoon Area  
 Hydrogeologic Study - SeaTac Airport



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AR 024025



**Legend**

- MW-1 Lagoon 1 and 2 Monitoring Well installed by Shannon and Wilson, 1990
  - MW-101 (S-1) Lagoon 3 Monitoring Well installed by Kennedy/Jenks Consultants, 1998, 1999
  - ⊙ MW-4 (S-4) Monitoring Well Location or MW-104 (304.8)
  - Static Water Levels (304.8)
  - - - 285 - - - Ground Water Potentiometric Surface Elevation Contour
  - Ground Water Flow Direction
  - Proposed Areas of Future Construction
  - ▨ Snow Equipment Storage Shed
  - ▤ Approximate Limits of Former Sludge Disposal Area
- Utility Lines**
- IWS
  - Water
  - Storm Drain
  - Runway Approach Lighting

The surface and subsurface features shown on this map have been derived from a variety of sources and should be field verified.

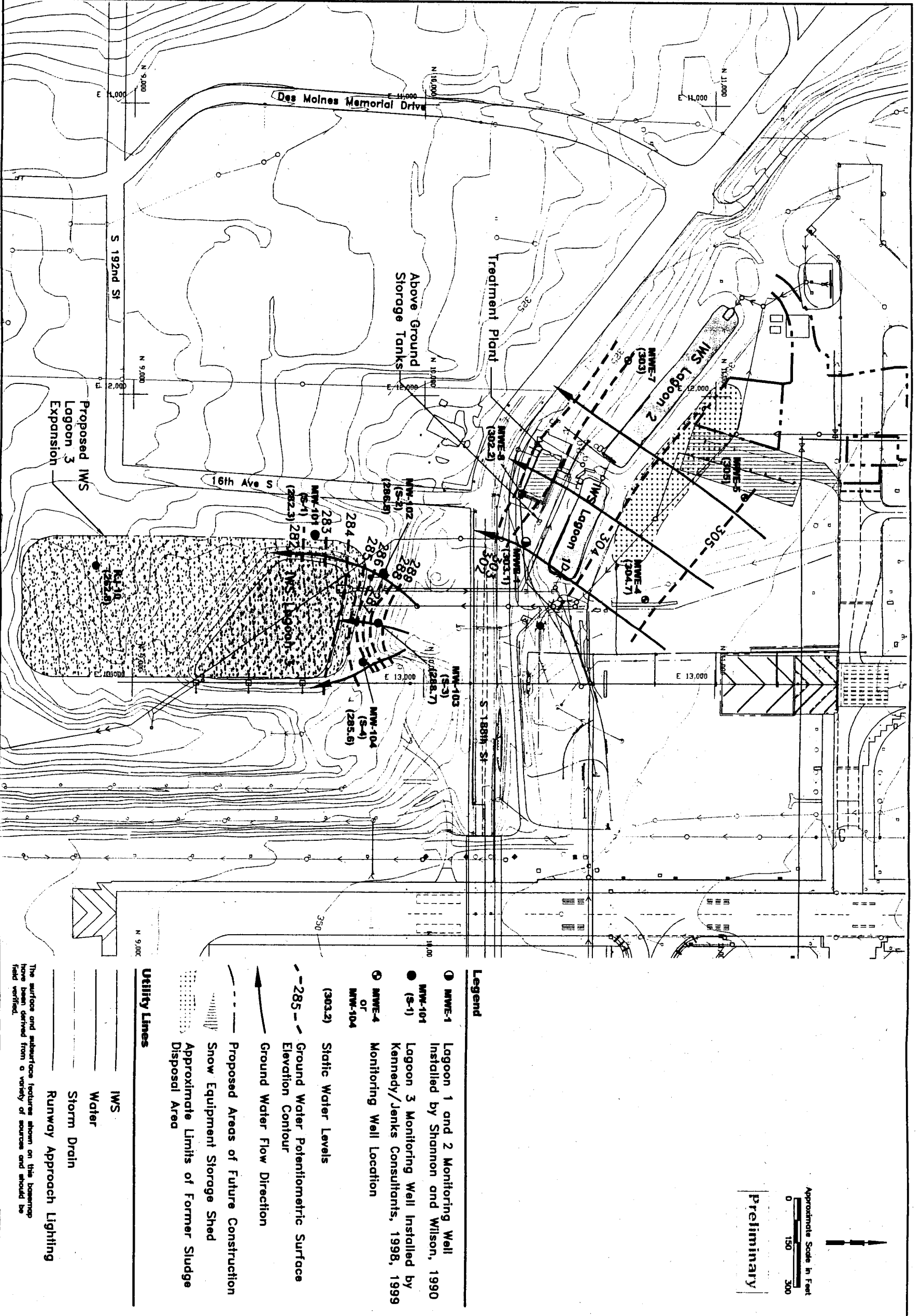
STRUNK 01055



DATE:	05/09/00	SCALE:	1" = 300'
DESIGNED/DRAWN:	JJS/HXT		

**Shallow Aquifer Potentiometric Map (September 1999) and Ground Water Flow Direction**  
 IWS P/L Area Hydrogeologic Study  
 Seattle - Tacoma International Airport

PROJECT NO.	BV98112
FIGURE NO.	4.22



Approximate Scale in Feet  
 0 150 300  
**Preliminary**

**Legend**


- MW-1 Lagoon 1 and 2 Monitoring Well Installed by Shannon and Wilson, 1990
- MW-101 Lagoon 3 Monitoring Well Installed by Kennedy/Jenks Consultants, 1998, 1999
- MW-4 OR MW-104 Monitoring Well Location
- (303.2) Static Water Levels
- - - 285 - - Ground Water Potentiometric Surface Elevation Contour
- Ground Water Flow Direction
- ▭ Proposed Areas of Future Construction
- ▨ Snow Equipment Storage Shed
- ▧ Approximate Limits of Former Sludge Disposal Area

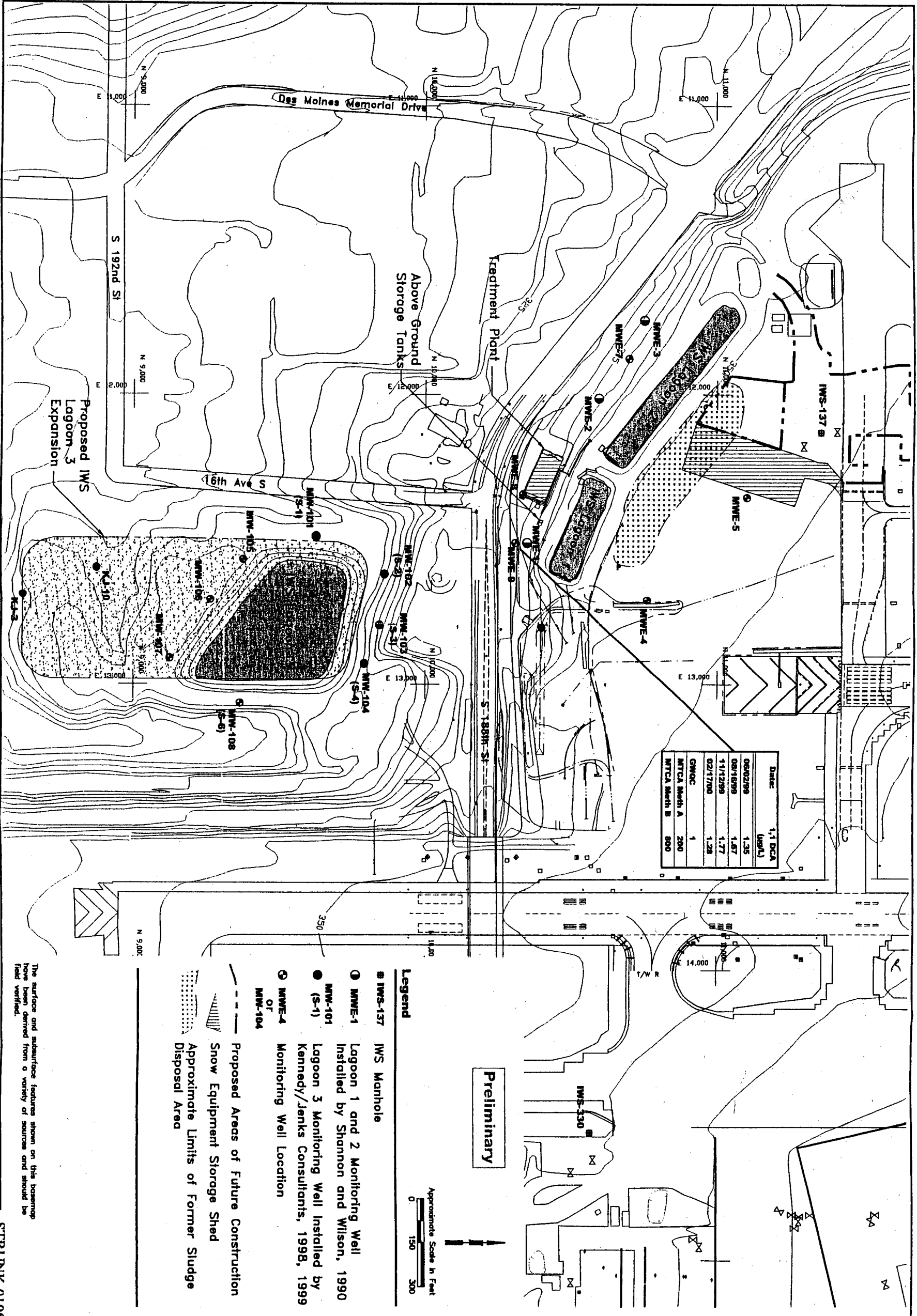
**Utility Lines**

- ▬ IWS
- ▬ Water
- ▬ Storm Drain
- ▬ Runway Approach Lighting

The surface and subsurface features shown on this base map have been derived from a variety of sources and should be field verified.

STRUNK 01056

 <p><b>ASSOCIATED EARTH SCIENCES, INC</b></p>	DATE: 04/26/00 DESIGNED/DWN: JJS/HXT	SCALE: 1" = 300'	<p><b>Shallow Aquifer Potentiometric Map (Jan/Feb 2000) and Ground Water Flow Direction</b>                  IWS P/L Area Hydrogeologic Study                  Seattle - Tacoma International Airport</p>	PROJECT NO. BV98112 FIGURE NO. <b>4.23</b>
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The surface and subsurface features shown on this map have been derived from a variety of sources and should be field verified.



**Appendix A**

STRUNK 01058

**AR 024029**

**APPENDIX A**

**FIELD METHODOLOGY SUMMARY**

STRUNK 01059

**AR 024030**

## APPENDIX A

### FIELD EXPLORATION METHODS AND BORING LOGS/COMPLETION DIAGRAMS

#### General

Subsurface soil and ground water conditions adjacent to the IWS Plant and Lagoon area were explored with the completion and installation of five ground water monitoring wells in the shallow sediments adjacent to Lagoons 1 and 2 and three shallow monitoring wells in the perched water table south of Lagoon 3. Drilling techniques included the use of hollow-stem auger methods to advance soil borings for the completion of the monitoring wells.

A geologist from Associated Earth Sciences, Inc. (AESI) was present throughout the drilling of the boreholes to observe the explorations and perform construction oversight of monitoring well and prepare descriptive logs of subsurface conditions. Soils were classified in the field in general accordance with American Society for Testing and Materials (ASTM) procedure D-2488, *Standard Practice for Description of Soils (Visual-Manual Procedure)*. Throughout the field exploration program, detailed field notes were recorded including daily reports, equipment used, observations, and other noteworthy events.

#### Health and Safety

A site-specific health and safety plan was developed for the investigation. The health and safety plan defined requirements and designated protocols that were followed at the site during the investigation. Copies of the health and safety plan are on file with AESI.

#### Utilities Permit and Underground Utility Location

AESI, Port of Seattle, and Hokkaido Drilling & Developing Corporation (Hokkaido) personnel performed a site reconnaissance for the purpose of siting the proposed well locations. Features such as site access and utility location were noted during the reconnaissance.

Underground utilities were located in the field prior to drilling operations utilizing the services of a private utility locating service (Locating, Inc.) and coordinating with the Port of Seattle officials. Utilities that were within 50 feet of proposed exploration location were marked on the surface using standard color coding depending on the type of utility present.

#### Drilling Equipment

Soil, ground water and gas conditions at the project site were explored by completing soil borings and collecting soil samples at either 2.5- or 5-foot depth intervals. Drilling techniques included hollow-stem auger methods using a truck-mounted Mobile B-61 drill rig operated by Hokkaido Drilling & Developing Corporation of Graham, Washington. The hollow-stem auger diameter

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was 10.5-inch outside diameter (OD) and 6-inch inside diameter (ID). The five monitoring wells (MWE-4, MWE-5, MWE-7, MWE-8, and MWE-9) adjacent to Lagoons 1 and 2 and the monitoring wells south of Lagoon 3 (MW-105, MW-106, and MW-107) were installed in May 1999.

### **Field Documentation**

All information pertaining to field sampling of soil was recorded on boring logs, and a field logbook was used to document all relevant site activities.

The boring logs from all explorations are presented in this appendix as Figures A-2 through A-10. The logs present a summary of our interpretation of the subsurface conditions based on findings from drilling and sampling at the exploration locations. Each log includes the sample depth, subsurface soil descriptions, field screening results, and well or probe completion details.

### **Soil Sampling**

Standard Penetration Test (SPT) sampling was performed at selected depth intervals with a 3-inch outside diameter split-spoon sampler in general accordance with ASTM procedure D-1586. The sampler was driven into relatively undisturbed soil at the bottom of the borehole at either 2.5-foot or 5-foot sample intervals. The sampler was driven to a maximum depth of 18 inches, where possible, with a 140-pound downhole hammer falling freely from a height of 30 inches. Soil samples were collected in a plastic bag or 6-inch-diameter brass tube and transported to AESI for storage.

### **Ground Water Monitoring Well Installation**

Monitoring well completion diagrams and associated geologic logs are presented on Figures A-2 through A-10. Ground water monitoring wells installed during this investigation consisted of 2-inch-diameter, Schedule 40, polyvinyl chloride (PVC) riser with machine-slotted 0.010-inch slot PVC screen. A threaded end cap was installed on the bottom of the screen section.

The annular space between the monitoring well screen section and the walls of the boring was backfilled with 10/20 Colorado silica sand filter placed at least 3 feet above the top slot of the screen section. A minimum 2-foot-thick bentonite seal was placed from the top of the filter pack. Both the filter pack and the bentonite chip seal was placed by hand and allowed to settle in place. The depth to the top of the sand pack and the bentonite seal was checked continuously during installation with a weighted fiberglass tape with a stainless steel weight to ensure that no bridging of materials took place. The remaining annular space was filled with a bentonite slurry, which had a density of 30 percent by weight. A 1-inch-diameter tremie pipe was used to pump the bentonite slurry upward from the top of the bentonite pellet seal to ensure a complete seal of the remaining annular space. The seal was placed from the top of the sand pack to approximately 3 to 4 feet below ground surface. A concrete surface seal was placed from approximately 3 to 4 feet below ground surface to grade.

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Monitoring wells MWE-5, MWE-7, MWE-9, MW-105, MW-106, and MW-107 are protected by 10-inch-diameter steel protective casing, which was installed with approximately 3 feet of stick-up. The protective steel casings were secured with keyed-alike padlocks. Monitoring wells MWE-4 and MWE-8 are finished with an 8-inch diameter flush mounted road box.

### **Monitoring Well Development**

Ground water monitoring wells were developed to ensure proper hydraulic communication of the well screen with the surrounding aquifer material and to remove fine-grained sediment from the filter pack. The wells were developed via a combination of surging and over-pumping using a tight-fitting surge block in conjunction with a mechanical lift pump (Waterra pump). An electric submersible was also used for over-pumping purposes. Downhole development equipment was decontaminated thoroughly between use in each monitoring well using a Alconox wash, potable water rinse, and de-ionized water rinse. Wells were developed until discharge ran clear and the field parameters of pH, specific conductance, temperature had stabilized. Turbidity measurements were taken throughout the development period. Figures A-25 through A-32 and Tables A-2 through A-9 present the field-measured parameters that were collected during the monitoring well development process. All ground water discharged during the development process was contained in 55-gallon steel drums and was incorporated into the IWS Treatment Plant system for treatment.

### **Decontamination**

All downhole drilling equipment, sampling equipment, associated drilling tools and the working area of the drill rig were cleaned by high pressure hot-water cleaning equipment between all boring locations. A temporary decontamination station was constructed on Port of Seattle property and consisted of a lined pad. All monitoring well and gas probe casing and screen was decontaminated by high pressure hot-water wash prior to inserting the equipment into the borehole. Potable water, supplied by the drilling contractor, was used for drilling decontamination operations.

Soil samplers, spatulas, and stainless steel spoons and all other soil sampling equipment were decontaminated with a Alconox wash, a potable water rinse, and a deionized water rinse.

### **Sampling Equipment Installation**

After the monitoring wells were sufficiently developed, dedicated sampling equipment was installed by AESI personnel in each of the wells to facilitate long-term sampling. Two-inch-diameter, submersible, sterile, stainless-steel bladder pumps were installed at the mid-screen level, and dedicated high-density polyethylene tubing was attached per manufacturer's specifications. The tubing was attached to a flush-mounted well cap designed to allow water-level gauging and well purging/sampling with compressed gas.

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### **Monitoring Well Sampling**

Prior to sampling, each well was gauged to the nearest 0.01 foot with an electronic water-level probe. Compressed air was used to operate the bladder pump. The controller was adjusted per manufacturer's specifications so that ground water was purged at a constant discharge with minimum agitation. The well was purged at a flow rate of less than one liter per minute until water-quality parameters (temperature, pH, specific conductance, and turbidity) stabilized to  $\pm 10$  percent. Samples were then transferred to laboratory-supplied and preserved containers in accordance with standard sampling protocol. For the volatile analytes, the containers were filled and checked to ensure that entrapped air was not present. The samples were iced in the field to maintain a maximum temperature of 4°C, and transported under chain-of-custody protocol to a North Creek Analytical for analysis.

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**Page A-4**

**June 21, 2000**

**AR 024034**

TABLE A.1  
Ground Water Wells Within 1/4 Mile of the IWS P/I Area  
IWS Hydrogeologic Study  
Seattle-Tacoma International Airport

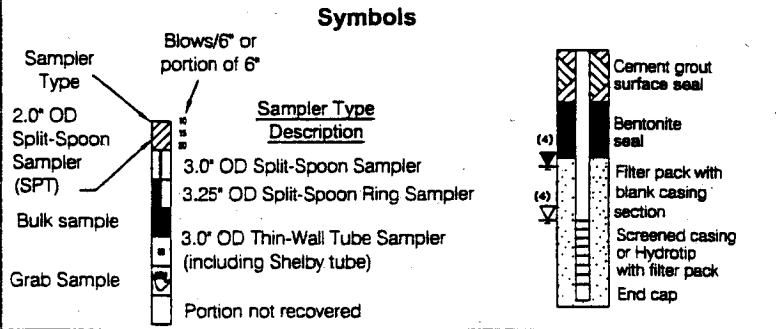
Location ID	Well Owner	Well Completion Date	Proposed Use	Diameter of Well (in)	Drilled Depth (ft)	Completed Well Depth (ft)	Open Interval from (ft)	Open Interval to (ft)	Surface Elevation (ft msl)	Static Water Level (ft toc)	Ground Water Elevation (ft msl)	Date of Static Water Level	Yield (gal/min)	Drawdown (ft)	Consultant	Driller
IWSLG_MWE-1	Port of Seattle	09/12/80	Mon Well	2	40.5	40.5	9.8	39.8	326.37	15.41	313.36	11/1/99	-	-	Shannon & Wilson, Inc.	Hokkaido Drilling & Dev Corp
IWSLG_MWE-2	Port of Seattle	09/12/80	Mon Well	2	40.5	40.5	10	40	327.49	17.47	312.39	11/1/99	-	-	Shannon & Wilson, Inc.	Hokkaido Drilling & Dev Corp
IWSLG_MWE-3	Port of Seattle	09/13/80	Mon Well	2	41.5	40.5	10	40	321.03	7.52	315.95	11/1/99	-	-	Shannon & Wilson, Inc.	Hokkaido Drilling & Dev Corp
IWSLG_MWE-4	Port of Seattle	05/08/89	Mon Well	2	92.5	87.5	74.6	84.6	353.62	48.3	304.92	3/15/00	-	-	AESI	Hokkaido Drilling & Dev Corp
IWSLG_MWE-5	Port of Seattle	04/29/99	Mon Well	2	92.7	92.7	80	90	355.59	52.32	305.27	3/15/00	-	-	AESI	Hokkaido Drilling & Dev Corp
IWSLG_MWE-7	Port of Seattle	05/03/99	Mon Well	2	92.5	75	60	70	326.9	25.93	303.17	4/10/00	-	-	AESI	Hokkaido Drilling & Dev Corp
IWSLG_MWE-8	Port of Seattle	05/24/99	Mon Well	2	52.5	52.5	41.7	51.7	320.58	18.14	302.24	2/17/00	-	-	AESI	Hokkaido Drilling & Dev Corp
IWSLG_MWE-9	Port of Seattle	05/05/99	Mon Well	2	57.5	57.5	44.5	57.5	324.15	23.19	303.13	2/17/00	-	-	AESI	Hokkaido Drilling & Dev Corp
IWSLG_MW-101	Port of Seattle	8/1/98	Mon Well	2	41.5	40	30	40	282.44	3.97	282.29	1/14/00	-	-	Kennedy/Jenks	Tacoma Pump and Drilling Company
IWSLG_MW-102	Port of Seattle	8/3/98	Mon Well	2	31.5	30	26	30	289.21	2.41	286.8	1/14/00	-	-	Kennedy/Jenks	Tacoma Pump and Drilling Company
IWSLG_MW-103	Port of Seattle	8/5/98	Mon Well	2	51.5	48	37.5	47.5	297.32	8.62	288.7	1/14/00	-	-	Kennedy/Jenks	Tacoma Pump and Drilling Company
IWSLG_MW-104	Port of Seattle	8/4/98	Mon Well	2	34	34	29	34	291.78	6.18	285.6	1/14/00	-	-	Kennedy/Jenks	Tacoma Pump and Drilling Company
IWSLG_MW-105	Port of Seattle	5/19/99	Mon Well	2	27.5	27.5	15.3	25.3	284.83	17.47	269.36	2/17/00	-	-	AESI	Hokkaido Drilling & Dev Corp
IWSLG_MW-106	Port of Seattle	5/20/99	Mon Well	2	32.5	32.5	11.5	31.5	287.59	20.01	269.58	2/18/00	-	-	AESI	Hokkaido Drilling & Dev Corp
IWSLG_MW-107	Port of Seattle	5/20/99	Mon Well	2	25	25	9.7	24.7	282.16	15.04	269.12	2/18/00	-	-	AESI	Hokkaido Drilling & Dev Corp
IWSLG_MW-108	Port of Seattle	8/12/98	Mon Well	2	41.5	25	10	25	281.36	12.03	269.33	8/17/98	-	-	Kennedy/Jenks	Tacoma Pump and Drilling Company
IWSLG_KJ-3	Port of Seattle	6/14/99	Mon Well	2	61	42	27	42	292	36.53	258.47	1/14/00	-	-	Kennedy/Jenks	GeoTech Explorations Inc.
IWSLG_KJ-10	Port of Seattle	6/17/99	Mon Well	2	52	52	47	52	268.17	8.39	262.78	1/14/00	-	-	Kennedy/Jenks	GeoTech Explorations Inc.
IWSLG_P-1	Port of Seattle	01/07/74	Piezometer	4	11	11	4	12.5	-	None Encountered	-	-	-	-	Cascade Testing Lab	Not Identified
IWSLG_P-2	Port of Seattle	01/08/74	Piezometer	4	14	14	4	14	-	None Encountered	-	-	-	-	Cascade Testing Lab	Not Identified
23N4E32R1 <sup>1</sup>	WA Natural Gas	12/16/91	Other	6	247	96	-	-	-	-	-	-	-	-	-	Richardson Well Drilling
22N4E4D1 <sup>1</sup>	Mrs. R Mazo		Domestic	4	78	77.5	-	-	265	5.87	259.33	9/24/62	-	-	-	-
22N4E4C1 <sup>1</sup>	King County Water District #75	2/9/55	Destroyed	16	314.5	314.5	241	314.5	310	44	266	1/31/55	265	75	-	N.C. Janssen Drilling Co. Inc.
22N4E5A1 <sup>1</sup>	King County Water District #75	6/54	Test Hole	-	260	-	-	-	270	None Encountered	-	-	-	-	-	Richardson Well Drilling
22N4E5A2 <sup>1</sup>	G.S. Childes	1941	Domestic	6	65	65	-	-	270	14.4	255.6	9/4/62	-	-	-	-

NOTE: <sup>1</sup> denotes well locations that were obtained from government records and subsequently located to the closest 1/4 section

biserver/admin/forms/Exploration Log Key.dwg 10/12/99 1:1

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Coarse-Grained Soils - More than 50% (1) Retained on No. 200 Sieve</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Gravels - More than 50% (1) of Coarse Fraction Retained on No. 4 Sieve</p>	GW	Well-graded gravel and gravel with sand, little to no fines	<p><b>Terms Describing Relative Density and Consistency</b></p> <table border="0"> <tr> <td></td> <td><u>Density</u></td> <td><u>SPT<sup>(2)</sup> blows/foot</u></td> <td></td> </tr> <tr> <td rowspan="4">Coarse-Grained Soils</td> <td>Very Loose</td> <td>0 to 4</td> <td rowspan="6"> <p><b>Test Symbols</b></p> <p>G = Grain Size M = Moisture Content A = Atterberg Limits C = Chemical DD = Dry Density K = Permeability</p> </td> </tr> <tr> <td>Loose</td> <td>4 to 10</td> </tr> <tr> <td>Medium Dense</td> <td>10 to 30</td> </tr> <tr> <td>Dense</td> <td>30 to 50</td> </tr> <tr> <td>Very Dense</td> <td>&gt;50</td> <td></td> </tr> <tr> <td></td> <td><u>Consistency</u></td> <td><u>SPT<sup>(2)</sup> blows/foot</u></td> <td></td> </tr> <tr> <td rowspan="4">Fine-Grained Soils</td> <td>Very Soft</td> <td>0 to 2</td> </tr> <tr> <td>Soft</td> <td>2 to 4</td> </tr> <tr> <td>Medium Stiff</td> <td>4 to 8</td> </tr> <tr> <td>Stiff</td> <td>8 to 15</td> </tr> <tr> <td>Very Stiff</td> <td>15 to 30</td> <td></td> </tr> <tr> <td>Hard</td> <td>&gt;30</td> <td></td> </tr> </table>		<u>Density</u>	<u>SPT<sup>(2)</sup> blows/foot</u>		Coarse-Grained Soils	Very Loose	0 to 4	<p><b>Test Symbols</b></p> <p>G = Grain Size M = Moisture Content A = Atterberg Limits C = Chemical DD = Dry Density K = Permeability</p>	Loose	4 to 10	Medium Dense	10 to 30	Dense	30 to 50	Very Dense	>50			<u>Consistency</u>	<u>SPT<sup>(2)</sup> blows/foot</u>		Fine-Grained Soils	Very Soft	0 to 2	Soft	2 to 4	Medium Stiff	4 to 8	Stiff	8 to 15	Very Stiff	15 to 30		Hard	>30	
			<u>Density</u>		<u>SPT<sup>(2)</sup> blows/foot</u>																																			
		Coarse-Grained Soils	Very Loose		0 to 4	<p><b>Test Symbols</b></p> <p>G = Grain Size M = Moisture Content A = Atterberg Limits C = Chemical DD = Dry Density K = Permeability</p>																																		
			Loose		4 to 10																																			
	Medium Dense		10 to 30																																					
	Dense		30 to 50																																					
	Very Dense	>50																																						
		<u>Consistency</u>	<u>SPT<sup>(2)</sup> blows/foot</u>																																					
	Fine-Grained Soils	Very Soft	0 to 2																																					
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Medium Stiff		4 to 8																																						
Stiff		8 to 15																																						
Very Stiff	15 to 30																																							
Hard	>30																																							
GP	Poorly-graded gravel and gravel with sand, little to no fines																																							
GM	Silty gravel and silty gravel with sand																																							
GC	Clayey gravel and clayey gravel with sand																																							
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Sands - 50% (1) or More of Coarse Fraction Passes No. 4 Sieve</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">≥ 15% Fines (5)</p>	SW	Well-graded sand and sand with gravel, little to no fines																																					
		SP	Poorly-graded sand and sand with gravel, little to no fines																																					
	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">≥ 5% Fines (5)</p>	SM	Silty sand and silty sand with gravel																																					
		SC	Clayey sand and clayey sand with gravel																																					
	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">≥ 15% Fines (5)</p>	ML	Silt, sandy silt, gravelly silt, silt with sand or gravel																																					
		CL	Clay of low to medium plasticity; silty, sandy, or gravelly clay, lean clay																																					

<b>(3) Estimated Percentage</b>		<b>Moisture Content</b>
<u>Component</u>	<u>Percentage by Weight</u>	Dry - Absence of moisture, dusty, dry to the touch
Trace	<5	Slightly Moist - Perceptible moisture
Few	5 to 10	Moist - Damp but no visible water
Little	15 to 25	Very Moist - Water visible but not free draining
With	- Non-primary coarse constituents: ≥ 15% - Fines content between 5% and 15%	Wet - Visible free water, usually from below water table



(1) Percentage by dry weight  
 (2) (SPT) Standard Penetration Test (ASTM D-1586)  
 (3) In General Accordance with Standard Practice for Description and Identification of Soils (ASTM D-2488)  
 (4) Depth of groundwater  
 ∇ ATD = At time of drilling  
 ∇ Static water level (date)  
 (5) Combined USCS symbols used for fines between 5% and 15%

Classifications of soils in this report are based on visual field and/or laboratory observations, which include density/consistency, moisture condition, grain size, and plasticity estimates and should not be construed to imply field or laboratory testing unless presented herein. Visual-manual and/or laboratory classification methods of ASTM D-2487 and D-2488 were used as an identification guide for the Unified Soil Classification System.





### Geologic & Monitoring Well Construction Log

Project Number: BV98112      Well Number: MWE-04      Sheet: 1 of 3

Project Name: STIA IWS Hydrogeologic Study      Surface Elevation (ft msl): 353.62  
 Location: Sea-Tac, Washington N 10760.8, E 12706.87      Water Depth ATD (ft bgs): 59  
 Drilling Method: Hollow Stem Auger 8" OD/4" ID      Start Date: May 7, 1999  
 Sampling Method: 2" OD, Split Spoon Sampler, 140 lb hammer      Finish Date: May 8, 1999

Depth feet	Well Construction	OVM (ppm)	S T	Blows/ 6"	Sample ID	Mtl. Graphic	Description
0 - 5	Concrete seal	0.0		2 7 39	1		FILL Dense, damp, brown SILTY SAND with GRAVEL; fine to medium sand, few gravel (SM)
5 - 10	Bentonite seal	0.0		14 38 18	2		Very dense, moist, gray-brown SAND to SILTY SAND with GRAVEL; fine to medium sand, few gravel (SM)
10 - 15	2" PVC casing; threaded with O-rings	0.0		25 32 16	3		Dense, moist, gray-brown SAND with SILT to SILTY SAND; fine to medium, few gravel (SM)
15 - 20		0.0		16 24 23	4		Dense, moist, gray-brown SILTY SAND; fine to medium, trace gravel (SM)
20 - 25		0.0		9 12 14	5		TOPSOIL Medium dense, damp, dark brown SAND with SILT; fine to medium, trace organics (SM)
25 - 30		0.0		13 27 35	6		RECESSIONAL OUTWASH Very dense, damp, brown SAND, sand fine to medium, little coarse, 60-70% quartz/feldspar, trace gravel (SW)
30 - 35		0.0		50/6"			GLACIAL TILL Very dense, moist, gray, SILTY SAND; fine to coarse, predominantly fine sand, trace gravel, driving on rock (SM)
35 - 40		0.0		50/1"	7		- cobbles

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- Sampler Type (ST):
- 2" Split Spoon Sampler
  - Grab Sample
  - No Recovery

- Lab Tests:
- C - Chemical Properties
  - P - Permeability
  - M - Moisture Content
  - ▽ Water Level ATD
  - Static Water Level

Logged by: RRH  
 Approved by: JJS  
 Figure No. A - 2

STIAMV STIA IWS GPJ April 24, 2000



### Geologic & Monitoring Well Construction Log

Project Number: BV98112      Well Number: MWE-04      Sheet: 2 of 3

Project Name: STIA IWS Hydrogeologic Study      Surface Elevation (ft msl): 353.62  
 Location: Sea-Tac, Washington N 10760.8, E 12706.87      Water Depth ATD (ft bgs): 59  
 Drilling Method: Hollow Stem Auger 8" OD/4" ID      Start Date: May 7, 1999  
 Sampling Method: 2" OD, Split Spoon Sampler, 140 lb hammer      Finish Date: May 8, 1999

Depth feet	Well Construction	OVM (ppm)	S T	Blows/6"	Sample ID	Mt. Graphic	Description
45		0.0		50/3"	8		-sand fine to medium, no gravel
48.17, 6/1/99		0.0		50/2"	9		
50		0.0		50/3"	10		-trace gravel, drilling easier at 51'
55		0.0		50/2"	11		Very dense, moist, gray SILTY SAND with GRAVEL; fine to coarse, predominantly fine to medium (SM)
59, ATD		0.0		50/3"	12		ADVANCE GLACIAL OUTWASH Very dense, wet, gray GRAVELLY SAND; fine to coarse, predominantly medium to coarse, few silt, drilling easier at 60' (SP)
65		0.0		50/2"	13		GLACIAL TILL Very dense, moist, gray, SILTY SAND with GRAVEL; fine to coarse (SM) cobbles/gravels below 68', rough drilling
70		0.0		50/2"	14		Very dense, wet, gray SILTY GRAVEL with SAND; fine to coarse, fine gravel (GM)
75	20/40 sand  10/20 Colorado silica sand  2" PVC slotted well screen; 10 slot, 74.6'-84.6'	0.0		50/3"	15		PRE-FRASER COARSE-GRAINED DEPOSITS Very dense, wet, brown GRAVELLY SAND; few silt, quartz/feldspar est. at 50%, appears volcanic in origin, rough drill action (SP)

STRUNK 01067

- Sampler Type (ST):
- 2" Split Spoon Sampler
  - Grab Sample
  - No Recovery

- Lab Tests:
- C - Chemical Properties
  - P - Permeability
  - M - Moisture Content
  - ▼ Water Level ATD
  - Static Water Level

Logged by: RRH  
 Approved by: JJS  
 Figure No. A - 2

STIAMW STIA IWS GPFJ April 24, 2000



### Geologic & Monitoring Well Construction Log

Project Number: BV98112      Well Number: MWE-04      Sheet: 3 of 3

Project Name: STIA IWS Hydrogeologic Study      Surface Elevation (ft msl): 353.62  
 Location: Sea-Tac, Washington N 10760.8, E 12706.87      Water Depth ATD (ft bgs): 59  
 Drilling Method: Hollow Stem Auger 8" OD/4" ID      Start Date: May 7, 1999  
 Sampling Method: 2" OD, Split Spoon Sampler, 140 lb hammer      Finish Date: May 8, 1999

Depth feet	Well Construction	OVM (ppm)	S T	Blows/6"	Sample ID	Mt. Graphic	Description
85	Filter pack interval: 71.5'-87.5' 4" threaded PVC sump with O-ring	0.0		50/3"	-16		Very dense, wet, rust-brown, SANDY GRAVEL; fine to coarse, predominantly medium to coarse, few silt (GP)
90		0.0		50/4"	17		Very dense, moist, rust-brown GRAVELLY SAND with SILT; fine to coarse (SP)
92.5							Bottom of boring at 92.5'
95							
100							
105							
110							
115							

STRUNK 01068

Sampler Type (ST):  
 2" Split Spoon Sampler  
 Grab Sample  
 No Recovery

Lab Tests:  
 C - Chemical Properties  
 P - Permeability  
 M - Moisture Content  
 ▼ Water Level ATD  
 ▬ Static Water Level

Logged by: RRH  
 Approved by: JJS  
 Figure No: A - 2

STIA IWS GP-1 April 24, 2000



### Geologic & Monitoring Well Construction Log

Project Number: BV98112      Well Number: MWE-05      Sheet: 1 of 3

Project Name: STIA IWS Hydrogeologic Study      Surface Elevation (ft msl): 355.59  
 Location: Sea-Tac, Washington N 11104.34, E 12350.79      Water Depth ATD (ft bgs): 48  
 Drilling Method: Hollow Stem Auger 8" OD/4" ID      Start Date: April 28, 1999  
 Sampling Method: 2" OD, Split Spoon Sampler, 140 lb hammer      Finish Date: April 29, 1999

Depth feet	Well Construction	OV (ppm)	S T	Blows/ 6"	Sample ID	Mt. Graphic	Description
							FILL
5	Concrete seal	0.0		24	1		Very dense, moist, brown SAND with SILT; sand fine to coarse, predominantly fine to medium, trace gravel (SP-SM)
	Bentonite seal	0.0		10	2		Dense, moist, gray-brown, fine to coarse SAND with SILT; trace gravels, sands predominantly fine to medium, 1/4" piece of wood (SP-SM)
		0.0		24			
		0.0		22			
10		0.0		50/5"	3		Very dense, moist, gray-brown, GRAVELLY SAND with SILT; very low recovery - rock in shoe (SW-SM)
15	2" PVC casing, threaded with O-rings	0.8		12	4		Medium dense, moist, gray-brown SILTY SAND with GRAVEL; sand predominately fine to medium, ~ 15% silt, trace organics (SW-SM)
				11			
				18			
20		0.0		12	5		RECESSIONAL OUTWASH
				14			Dense, moist, brown SAND with GRAVEL; sand fine to medium, trace organics (SP)
				16			
25		0.0		10	6		WEATHERED GLACIAL TILL
				15			Dense, moist, brown SILTY SAND; sand predominately fine to medium (SM)
				19			
30		0.0		50/4"	7		GLACIAL TILL
							Very dense, moist, brown SILTY SAND; trace gravel, sand predominately fine to medium, harder drilling at 33' (SM)
35		0.0		50/3"	8		Very dense, moist, brown SILTY SAND; trace gravel, sand predominately fine to medium (SM)

STRUNK 01069

- Sampler Type (ST):
- 2" Split Spoon Sampler
  - Grab Sample
  - No Recovery

- Lab Tests:
- C - Chemical Properties
  - P - Permeability
  - M - Moisture Content
  - ▼ Water Level ATD
  - Static Water Level

Logged by: RRR  
 Approved by: JJS  
 Figure No. A - 3

STIA IWS GPJ April 24, 2000



### Geologic & Monitoring Well Construction Log

Project Number: BV98112      Well Number: MWE-05      Sheet: 2 of 3

Project Name: STIA IWS Hydrogeologic Study      Surface Elevation (ft msl): 355.59  
 Location: Sea-Tac, Washington N 11104.34, E 12350.79      Water Depth ATD (ft bgs): 48  
 Drilling Method: Hollow Stem Auger 8" OD/4" ID      Start Date: April 28, 1999  
 Sampling Method: 2" OD, Split Spoon Sampler, 140 lb hammer      Finish Date: April 29, 1999

Depth feet	Well Construction	OVM (ppm)	S T	Blows/6"	Sample ID	Mtl. Graphic	Description
45		0.0		50/3"	9		Very dense, moist, gray SAND with SILT; predominately fine to medium sand, trace fine gravel, estimated 10% fines (SW-SM)
48	48' ATD	0.0		50/3"	10		Very dense, moist, gray SILTY SAND with GRAVEL; sand predominately fine to medium, gravel fine to coarse (SM)
50							- easier drilling at 50 feet
52.38	52.38' 6/1/99	0.0		50/5"	11		Very dense, wet, brown SAND with GRAVEL; sand fine to coarse, predominately fine to medium (SW)
55		0.0		50/5"	12		Hard, moist, brown CLAYEY SILT; trace sand, trace fine organic fragments; medium plasticity, rust orange streaks, no visible laminations (MH)
60							- driller notes 1.5' layers of hard drilling
65		0.0		50/3"	13		Very dense, moist to wet, gray SILTY SAND; sand fine to coarse, predominately fine to medium, trace gravel (SM)
70		0.0		50/5"	14		-trace gravel, "clean" medium to fine sand lenses
75		0.0		50/3"	15		
		0.0		50/3"	16		ADVANCE GLACIAL OUTWASH Very dense, wet, brown SAND with SILT; fine sand, estimated 70% quartz and feldspar, 30% other; trace mica, no visible organics; thinly laminated with lighter brown and dark gray laminae (SP-SM)

Filter pack, 10/20 Colorado silica sand, 77'-92.5'

STRUNK 01070

- Sampler Type (ST):
- 2" Split Spoon Sampler
  - Grab Sample
  - No Recovery

- Lab Tests:
- C - Chemical Properties
  - P - Permeability
  - M - Moisture Content
  - ▽ - Water Level ATD
  - Static Water Level

Logged by: RRH  
 Approved by: JJS  
 Figure No. A - 3

STIA IWS GP J April 24, 2000



### Geologic & Monitoring Well Construction Log

Project Number  
BV98112

Well Number  
MWE-05

Sheet  
3 of 3

Project Name: STIA IWS Hydrogeologic Study      Surface Elevation (ft msl): 355.59  
 Location: Sea-Tac, Washington N 11104.34, E 12350.79      Water Depth ATD (ft bgs): 48  
 Drilling Method: Hollow Stem Auger 8" OD/4" ID      Start Date: April 28, 1999  
 Sampling Method: 2" OD, Split Spoon Sampler, 140 lb hammer      Finish Date: April 29, 1999

Depth feet	Well Construction	OVM (ppm)	S T	Blows/ 6"	Sample ID	Mtl. Graphic	Description
85	2" PVC slotted well screen; 10 slot; 80-90'	0.0	✓	50/5"	17		PRE-FRASER COARSE-GRAINED DEPOSIT Very dense, wet, brown to rust SANDY GRAVEL with SILT; sand fine to coarse, gravel fine, trace organics (GP-GM)
90	4" threaded PVC sump with O-ring	0.0	✓	50/5"	18		Very dense, wet, brown to rust GRAVELLY SAND with SILT; sand fine to coarse, predominately coarse; less than 20% estimated quartz/feldspar, volcanic in origin (SW-SM)
92.7		0.0	✓	50/3"	19		Bottom of boring at 92.7'

STRUNK 01071

- Sampler Type (ST):
- 2" Split Spoon Sampler
  - Grab Sample
  - No Recovery

- Lab Tests:
- C - Chemical Properties
  - P - Permeability
  - M - Moisture Content
  - ▼ Water Level ATD
  - Static Water Level

Logged by: RRH  
 Approved by: JJS  
 Figure No. A - 3

STIA IWS GP-1 April 24, 2000



### Geologic & Monitoring Well Construction Log

Project Number: BV98112      Well Number: MWE-07      Sheet: 1 of 3

Project Name: STIA IWS Hydrogeologic Study      Surface Elevation (ft msl): 326.90  
 Location: Sea-Tac, Washington N 10697.85, E 11874.75      Water Depth ATD (ft bgs): 52  
 Drilling Method: Hollow Stem Auger 8" OD/4" ID      Start Date: April 29, 1999  
 Sampling Method: 2" OD, Split Spoon Sampler, 140 lb hammer      Finish Date: May 3, 1999

Depth feet	Well Construction	OVM (ppm)	S T	Blows/5'	Sample ID	Mtl. Graphic	Description
0 - 5	Concrete seal	2.5		5 14 20	1		FILL Dense, moist, brown SILTY SAND with GRAVEL; sand fine to coarse, generally fine to medium, with organics to ~ 3 feet (SM)
5 - 10	Bentonite seal	1.2		8 26 30	2		Very dense, moist, brown, SILTY SAND; few gravels, few organics, sand fine to coarse, generally fine to medium (SM)  small quantities of water
10 - 15	2" PVC casing; threaded with O-rings	1.1		15 36 25	3		Very dense, moist, brown, SAND with SILT; few gravels, sand fine to coarse, generally medium (SM)
15 - 20		0.0		8 21 24	4		Dense, wet, brown SILTY SAND; few gravels; sand fine to coarse, generally fine, few organics (SM)
20 - 25		0.0		22 50/5.5"	5		Very dense, moist, brown, SILTY SAND with GRAVEL; sand fine to coarse, genally fine to medium sand (SM)
25 - 30		GLACIAL TILL	0.0		50/4"	6	
30 - 35	26.3', 6/1/99	0.0		50/3"	7		Very dense, moist, gray SILTY SAND with GRAVEL; sand fine to coarse, predominantly fine to medium (SM)
35 - 38		0.0		50/5"	8		Very dense, moist, gray SILTY SAND; silt laminae to 1/8" (SM)

STRUNK 01072

**Sampler Type (ST):**

- 2" Split Spoon Sampler
- Grab Sample
- No Recovery

**Lab Tests:**

- C - Chemical Properties
- P - Permeability
- M - Moisture Content
- ▼ Water Level ATD
- Static Water Level

Logged by: RRH

Approved by: JJS

Figure No. A - 4

STIA MW STIA IWS GPJ April 24, 2000

AR 024043



**Geologic & Monitoring Well Construction Log**

Project Number BV98112	Well Number MWE-07	Sheet 2 of 3
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Project Name STIA IWS Hydrogeologic Study	Surface Elevation (ft msl) 326.90
Location Sea-Tac, Washington N 10697.85, E 11874.75	Water Depth ATD (ft bgs) 52
Drilling Method Hollow Stem Auger 8" OD/4" ID	Start Date April 29, 1999
Sampling Method 2" OD, Split Spoon Sampler, 140 lb hammer	Finish Date May 3, 1999

Depth feet	Well Construction	OVM (ppm)	S T	Blows/ 6"	Sample ID	Mt. Graphic	Description
45		0.0		50/4"	9		Very dense, moist, gray-brown GRAVELLY SAND with SILT; sand fine to coarse, predominately fine to medium (SW)
50		0.0		50/3"	10		Very dense, moist, gray-brown SILTY SAND with GRAVEL; sand fine to coarse, predominately fine to medium sand (SM)
55	52', ATD	0.0		50/4"	11		Very dense, moist to wet, gray-brown GRAVELLY SAND with SILT; gravel in shoe, low recovery (SP)
	ADVANCE GLACIAL OUTWASH						
60	20/40 Sand	0.0		50/5"	12		Very dense, wet, brown SAND; sand fine to medium; 70% quartz-feldspar, visible mica (SP)
	10/20 Colorado silica sand						- drilling easier
65	2" PVC slotted well screen; 10 slot, 60'-70'	0.0		50/5"	13		- visible silty laminae
	Filter pack interval: 57'-75'	0.0		50/5"	14		PRE-FRASER COARSE-GRAINED DEPOSIT
70	4" threaded PVC sump with O-ring	0.0		50/5"	15		Very dense, wet, rust-brown SANDY GRAVEL with SILT; sand fine to coarse, fine gravel, trace organics; estimated <30% quartz/feldspar, volcanic in origin (GM)
75	Bentonite chips	0.0		50/5"	16		- estimated >20% quartz/feldspar

STRUNK 01073

<b>Sampler Type (ST):</b> <input type="checkbox"/> 2" Split Spoon Sampler <input type="checkbox"/> Grab Sample <input type="checkbox"/> No Recovery	<b>Lab Tests:</b> C - Chemical Properties P - Permeability M - Moisture Content ∇ - Water Level ATD — - Static Water Level	Logged by: RRH Approved by: JJS Figure No. A-1
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STIA IWS GPJ April 24, 2000





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**Geologic & Monitoring Well Construction Log**

Project Number BV98112	Well Number MWE-07	Sheet 3 of 3
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Project Name STIA IWS Hydrogeologic Study	Surface Elevation (ft msl) 326.90
Location Sea-Tac, Washington N 10697.85, E 11874.75	Water Depth ATD (ft bgs) 52
Drilling Method Hollow Stem Auger 8" OD/4" ID	Start Date April 29, 1999
Sampling Method 2" OD, Split Spoon Sampler, 140 lb hammer	Finish Date May 3, 1999

Depth feet	Well Construction	OVM (ppm)	S T	Blows/ 6"	Sample ID	Mt. Graphic	Description
85		0.0	█	50/5"	17		Very dense, wet, rust-brown GRAVELLY SAND; sand fine to coarse, fine gravel, trace silt; estimated less than 20% quartz/feldspar; volcanic in origin (SW)
90		0.0	█	50/5"	18		Very dense, wet, rust-brown SANDY GRAVEL with SILT; sand fine to coarse, fine gravel; estimated less than 20% quartz/feldspar; volcanic in origin (GM)
95		0.0	█	50/5"	19		Very dense, wet, rust-brown SANDY GRAVEL with SILT; gravel fine, sand fine to coarse, est. less than 20% qtz/feldspar; trace organic smear?, volcanic in origin (GM)
92.5							Bottom of boring at 92.5'

STRUNK 01074

**Sampler Type (ST):**

- 2" Split Spoon Sampler
- Grab Sample
- No Recovery

**Lab Tests:**

- C - Chemical Properties
- P - Permeability
- M - Moisture Content
- ▼ Water Level ATD
- Static Water Level

Logged by: RRH

Approved by: JJS

Figure No. A - 4

STIA IWS GFJ April 24, 2000



### Geologic & Monitoring Well Construction Log

Project Number: BV98112      Well Number: MWE-08      Sheet: 1 of 2

Project Name: STIA IWS Hydrogeologic Study      Surface Elevation (ft msl): 320.58  
 Location: Sea-Tac, Washington N 10337.34, E 12340.38      Water Depth ATD (ft bgs): 17.8  
 Drilling Method: Hollow Stem Auger 8" OD/4" ID      Start Date: May 24, 1999  
 Sampling Method: 2" OD, Split Spoon Sampler, 140 lb hammer      Finish Date: May 24, 1999

Depth feet	Well Construction	OVN (ppm)	S T	Blows/ 6"	Sample ID	Mtl. Graphic	Description
	Asphalt						
	FILL						
5	Concrete seal	0.5		7 6 12	1		Medium dense, moist, gray SILTY SAND; fine to coarse, predominantly fine to medium, trace gravel (SM)
	Bentonite seal	0.5		7 22 16	2		Dense, moist, gray SILTY SAND with GRAVEL; fine to coarse sand (SM)
10							
	2" PVC casing, threaded with O-rings	0.2		24 31 40	3		Very dense, wet, brown GRAVELLY SAND; fine to coarse, predominantly medium to coarse, free water, very low sample recovery (SP)
15							
	17.68', 6/1/99 17.8', ATD	0.0		6 9 10	4		Very stiff, moist to wet, gray SILT; trace sand and gravel (MH)
20							
		0.0		19 25 18	5		Dense, wet, gray SILTY SAND; fine to coarse, predominantly fine, trace gravels (SM)
25							
		0.0		50/6"	6		GLACIAL TILL Very dense, moist to wet, gray SILTY SAND with GRAVEL; fine to coarse sand (SM)
30							
		0.0		50/3"	7		Very dense, moist to wet, gray SILTY SAND; fine to coarse (SM)
35							Appears to be layered gravels/sand
		0.0		50/2"	8		Very dense, moist, gray SILTY SAND with GRAVEL; gravels fine to coarse (SM)
	20/40 sand						STRUNK 01075 ADVANCE GLACIAL OUTWASH

STIA IWS GPJ April 24, 2000

- Sampler Type (ST):
- 2" Split Spoon Sampler
  - Grab Sample
  - No Recovery

- Lab Tests:
- C - Chemical Properties
  - P - Permeability
  - M - Moisture Content
  - ▼ Water Level ATD
  - Static Water Level

Logged by: RRH  
 Approved by: JJS  
 Figure No. A - 5



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**Geologic & Monitoring Well Construction Log**

Project Number  
BV98112

Well Number  
MWE-08

Sheet  
2 of 2

Project Name STIA IWS Hydrogeologic Study

Surface Elevation (ft msl) 320.58

Location Sea-Tac, Washington N 10337.34, E 12340.38

Water Depth ATD (ft bgs) 17.8

Drilling Method Hollow Stem Auger 8" OD/4" ID

Start Date May 24, 1999

Sampling Method 2" OD, Split Spoon Sampler, 140 lb hammer

Finish Date May 24, 1999

Depth feet	Well Construction	OVM (ppm)	S T	Blows/ 6"	Sample ID	Mtl. Graphic	Description
45	10/20 Colorado silica sand	0.0		50/5"	9		Very dense, wet, gray-brown SAND with SILT; fine to medium sand, trace gravels (SP-SM)
	2" PVC slotted well screen; 10 slot, 41.7-51.7'						
50	Filter pack interval: 39.0'-52.5'	0.0		50/3"	10		Very dense, wet, gray-brown SAND with GRAVEL and SILT; fine to medium sand (SP-SM)
	4" threaded PVC sump with O-ring	0.0		50/2"	11		Very dense, wet, gray-brown, SANDY GRAVEL to GRAVELLY SAND (SP)
55							Bottom of boring at 52.5'
60							
65							
70							
75							

STRUNK 01076

Sampler Type (ST):

- 2" Split Spoon Sampler
- Grab Sample
- No Recovery

Lab Tests:

- C - Chemical Properties
- P - Permeability
- M - Moisture Content
- ∇ - Water Level ATD
- - Static Water Level

Logged by: RRH

Approved by: JJS

Figure No. A - 5

STIAMW STIA IWS GPJ April 24, 2000



### Geologic & Monitoring Well Construction Log

Project Number: BV98112      Well Number: MWE-09      Sheet: 1 of 2

Project Name: STIA IWS Hydrogeologic Study      Surface Elevation (ft msl): 324.15  
 Location: Sea-Tac, Washington N 10310.14, E 12506.77      Water Depth ATD (ft bgs): 21.35  
 Drilling Method: Hollow Stem Auger 8" OD/4" ID      Start Date: May 4, 1999  
 Sampling Method: 2" OD, Split Spoon Sampler, 140 lb hammer      Finish Date: May 5, 1999

Depth feet	Well Construction	OVM (ppm)	S T	Blows/ 6"	Sample ID	Mtl. Graphic	Description
	Concrete seal	1.0		15 34 49	1		FILL Very dense, moist, brown to gray SILTY SAND with GRAVEL; sand fine to medium (SM)
5	Bentonite seal	1.1		11 18 21	2		Dense, moist, dark brown SILTY SAND with ORGANICS; wood and roots (Topsoil?) (SM)
10		4.3		14 24 42	3		RECESSIONAL OUTWASH Very dense, wet, brown GRAVELLY SAND; few silty sand laminae, sand fine to medium (SP)
15	2" PVC casing, threaded with O-rings	0.0		5 7 8	4		Stiff, moist, gray SILT; trace sand (ML)
20	21.35', ATD	3.8		16 30 40	5		GLACIAL TILL Very dense, wet, gray SILTY SAND; sand fine to coarse, predominately fine sand, few gravel (SM) - gravelly - moist, trace gravel
25	23.11', 6/1/99	1.8		50/5"	6		- cobbles and boulders
30		1.1		50/0"			
35		1.0		50/2"	8		Very dense, moist to wet, gray SILTY SAND with GRAVEL; sand fine to coarse, predominately fine (SM)

STRUNK 01077

- Sampler Type (ST):
- 2" Split Spoon Sampler
  - Grab Sample
  - No Recovery

- Lab Tests:
- C - Chemical Properties
  - P - Permeability
  - M - Moisture Content
  - ▽ - Water Level ATD
  - - Static Water Level

Logged by: RRH  
 Approved by: JJS  
 Figure No. A - 6

STIA IWS GPJ April 24, 2000



**Geologic & Monitoring Well Construction Log**

Project Number BV98112	Well Number MWE-09	Sheet 2 of 2
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Project Name STIA IWS Hydrogeologic Study	Surface Elevation (ft msl) 324.15
Location Sea-Tac, Washington N 10310.14, E 12506.77	Water Depth ATD (ft bgs) 21.35
Drilling Method Hollow Stem Auger 8" OD/4" ID	Start Date May 4, 1999
Sampling Method 2" OD, Split Spoon Sampler, 140 lb hammer	Finish Date May 5, 1999

Depth feet	Well Construction	OVM (ppm)	S T	Blows/ 6"	Sample ID	Mtl. Graphic	Description
							-wet
45	20/40 Sand	0.0		50 3"	9		Very dense, wet, gray GRAVELLY SAND with SILT; sand fine to medium (SP)
	10/20 Colorado silica sand	0.0		50/2"	10		
50	2" PVC slotted well screen, 10 slot, 47.2'-57.2'						
	Filter pack interval: 44.5'-57.5'						ADVANCE GLACIAL OUTWASH
55	4" threaded PVC sump with O-ring	0.0		50/6"	11		Very dense, wet, brown SAND with GRAVEL; sand fine to medium, trace silt, sand 70% quartz/feldspar (SP).
60		0.0		50/3"	12		Bottom of boring at 57.5'
65							
70							
75							

STRUNK 01078

**Sampler Type (ST):**

- 2" Split Spoon Sampler
- Grab Sample
- No Recovery

**Lab Tests:**

- C - Chemical Properties
- P - Permeability
- M - Moisture Content
- ∇ - Water Level ATD
- - Static Water Level

Logged by: RRH

Approved by: JJS

Figure No. A - 6

STIA/IWS STIA IWS GPJ April 24, 2000



### Geologic & Monitoring Well Construction Log

Project Number: BV98112      Well Number: MW-105      Sheet: 1 of 1

Project Name: STIA IWS Hydrogeologic Study      Surface Elevation (ft msl): 284.83  
 Location: Sea-Tac, Washington N 9373.61, E 12563.53      Water Depth ATD (ft bgs): 15.6  
 Drilling Method: Hollow Stem Auger 8" OD/4" ID      Start Date: May 19, 1999  
 Sampling Method: 2" OD Split Spoon Sampler, 140 lb hammer      Finish Date: May 19, 1999

Depth feet	Well Construction	OVM (ppm)	S T	Blows/ 6"	Sample ID	MIT Graphic	Description
0 - 5	Concrete seal	0.0		17 26 25	1		FILL Dense, moist, brown SILTY SAND; trace gravel (SM) Very dense, moist, brown SILTY SAND; fine to medium, trace gravels and organics (SM)
5 - 10	Hydrated bentonite chips	0.0		11 14 10	2		Medium dense, moist, brown SAND; medium to fine, trace gravels (SM)
10 - 15	2" PVC casing, threaded with O-rings	0.0		3 3 3	3		Loose, moist, brown SILTY SAND; fine to coarse, predominantly fine to medium sand, with organics (SM)
15 - 20	15.6' ATD 10/20 Colorado silica sand 18.04', 6/1/99	0.0		1 1 1	4		Very loose, wet, brown-gray SILTY SAND with GRAVEL; fine to coarse sand, predominantly fine sand, 1/8" piece of charred wood (SM)
20 - 25	2" PVC slotted well screen; 10 slot, 15.3'-25.3' Filter pack interval: 14'-27.5'	0.0		2 3 1	5		Very loose, wet, brown SILTY SAND; with trace gravels and organics (SM) Gravels
25 - 30	4" threaded PVC sump with O-ring	0.0		50/3"	6		GLACIAL TILL Very dense, moist, gray-brown SILTY SAND; with trace gravels (SM) Bottom of boring at 27.5'

STRUNK 01079

- Sampler Type (ST):
- 2" Split Spoon Sampler
  - Grab Sample
  - No Recovery

- Lab Tests:
- C - Chemical Properties
  - P - Permeability
  - M - Moisture Content
  - ▼ Water Level ATD
  - Static Water Level

Logged by: RRH  
 Approved by: JJS  
 Figure No. A - 7

STIA MW STIA IWS GPJ April 24, 2000



## Geologic & Monitoring Well Construction Log

Project Number <b>BV98112</b>		Well Number <b>MW-105(BOR)</b>		Sheet <b>1 of 2</b>
Project Name <b>STIA IWS Hydrogeologic Study</b>			Surface Elevation (ft msl) <b>284.83</b>	
Location <b>Sea-Tac, Washington N 9373.61, E 12563.53</b>			Water Depth ATD (ft bgs)	
Drilling Method <b>Hollow Stem Auger 8" OD/4" ID</b>			Start Date <b>May 10, 1999</b>	
Sampling Method <b>2" OD, Split Spoon Sampler, 140 lb hammer</b>			Finish Date <b>May 19, 1999</b>	

Depth feet	Well Construction	OVM (ppm)	S T	Blows/ 6"	Sample ID	Mtl Graphic	Description
							FILL
				8 18 22	1		Medium dense, moist, brown SILTY SAND with GRAVEL (SM) -Dense, dark brown, fine to coarse sand, predominantly fine to medium -Small cobbles -Very dense, brown-gray; trace organics
5							
				20 42 38	2		
10							Medium dense, moist, brown SAND; fine to medium, trace gravels, moisture on shoe (SP)
				3 5 6	3		-Wet
15							Very soft, wet, brown SANDY SILT to SILTY SAND; fine to coarse sand; slightly plastic (SM-ML)
				1/18"	4		
20							Loose, wet, gray SILTY SAND; fine to medium, trace gravels, saturated sand; slightly plastic (SM)
				2 4 3	5		
25							GLACIAL TILL
				50/3"	6		Very dense, moist to wet, gray SILTY SAND with GRAVEL; fine to coarse sand, predominantly fine to medium (SM); driving rock (sample 6) -Hard drill action -Moist, gray
30							
				50/3"	7		
35							Very dense, moist, gray GRAVELLY SAND with SILT; drilling loosens at 36' (SP)
				50/3"	8		

**STRUNK 01080**

**Sampler Type (ST):**

- 2" Split Spoon Sampler
- Grab Sample
- No Recovery

**Lab Tests:**

- C - Chemical Properties
- P - Permeability
- M - Moisture Content
- ▼ Water Level ATD
- Static Water Level

Logged by: **RRH**

Approved by: **JJS**

Figure No. **A - 8**

STIA IWS, GP J, April 24, 2000



## Geologic & Monitoring Well Construction Log

Project Number BV98112	Well Number MW-105(BOR)	Sheet 2 of 2
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Project Name STIA IWS Hydrogeologic Study	Surface Elevation (ft msl) 284.83
Location Sea-Tac, Washington N 9373.61, E 12563.53	Water Depth ATD (ft bgs)
Drilling Method Hollow Stem Auger 8" OD/4" ID	Start Date May 10, 1999
Sampling Method 2" OD, Split Spoon Sampler, 140 lb hammer	Finish Date May 19, 1999

Depth feet	Well Construction	OVM (ppm)	S T	Blows/ 6"	Sample ID	M.I. Graphic	Description
							Producing a lot of wet silty sand cuttings (2 drums in 5.0')
45				50/3"	9		Very dense, moist, gray, SILTY SAND; fine to coarse, predominantly fine to medium (SM)
50				50/4"	10		Very dense, wet, gray SAND with SILT; fine to medium sand, very little recovery (SM)
55							Bottom of boring at 50.5'. Transmission broke down. 5/19/99 abandoned hole tremmied 20% + solid grout. Hole took approx. 355 gallons of grout to 7'. Bentonite chips 7' to 4' and concrete plug 4' to surface.
60							
65							
70							
75							

STRUNK 01081

**Sampler Type (ST):**

- 2" Split Spoon Sampler
- Grab Sample
- No Recovery

**Lab Tests:**

- C - Chemical Properties
- P - Permeability
- M - Moisture Content
- Y - Water Level ATD
- .. - Static Water Level

Logged by: RRH

Approved by: JJS

Figure No. A - 8

STIA MW STIA IWS GFJ April 24, 2000





### Geologic & Monitoring Well Construction Log

Project Name	STIA IWS Hydrogeologic Study	Project Number	BV98112	Well Number	MW-106	Sheet	1 of 1
Location	Sea-Tac, Washington N 9262.72, E 12703.81	Surface Elevation (ft msl)	287.59				
Drilling Method	Hollow Stem Auger 8" OD/4" ID	Water Depth ATD (ft bgs)	30				
Sampling Method	2" OD, Split Spoon Sampler, 140 lb hammer	Start Date	May 20, 1999				
		Finish Date	May 20, 1999				

Depth feet	Well Construction	OVM (ppm)	S T	Blows/ 6"	Sample ID	Mtl. Graphic	Description
							FILL
5	Concrete seal	0.5		10	1		Sparse grass vegetation over dense, moist, brown SILTY SAND; trace gravel (SM) Very dense, damp, dark brown SILTY SAND with GRAVEL; trace organics, asphalt in shoe, appear to be driving on rock or rubble (SM)
	Hydrated bentonite chips						
	2" PVC casing, threaded with O-rings	0.3		14 17 21	2		Dense, damp, brown SILTY SAND with GRAVEL; sand fine to coarse, predominantly fine to medium (SM)
10	10/20 Colorado silica sand	0.0		6 4 3	3		Loose, wet, gray SILTY SAND; fine to coarse, dominantly fine, trace gravels (SM)
	2" PVC slotted well screen; 10 slot; 11.5'-31.5'						
	19.57, 6/1/99	0.4		3 4 4	4		Loose, moist to wet, gray-brown SILTY SAND; fine to coarse, predominantly fine to medium, trace gravels (SM)
20	Filter pack interval: 9.5'-32.5'						
		0.5		10 8 10	5		Medium dense, moist to wet, dark brown SILTY SAND with GRAVEL; few organics (SM)
25							
		0.0		4 6 7	6		Medium dense, moist to wet, gray SILTY SAND, trace gravels (SM)
30	30' ATD						Rods wet
	4" threaded PVC sump with O-ring						
		0.0		50/3"	7		GLACIAL TILL Very dense, moist, gray, SILTY SAND; sand fine to coarse, drilling difficult (SM) Bottom of boring at 32.5'
35							

STRUNK 01082

**Sampler Type (ST):**

- 2" Split Spoon Sampler
- Grab Sample
- No Recovery

**Lab Tests:**

- C - Chemical Properties
- P - Permeability
- M - Moisture Content
- ▼ Water Level ATD
- Static Water Level

Logged by: RRH

Approved by: JJS

Figure No. A - 9

STIA MW STIA IWS GFI April 24, 2000

AR 024053



**ASSOCIATED  
EARTH  
SCIENCES, INC**

**Geologic & Monitoring Well Construction Log**

Project Number  
BV98112

Well Number  
MW-107

Sheet  
1 of 1

Project Name STIA IWS Hydrogeologic Study

Surface Elevation (ft msl) 282.16

Location Sea-Tac, Washington N 9124.54, E 12908.99

Water Depth ATD (ft bgs) 7.62

Drilling Method Hollow Stem Auger 8" OD/4" ID

Start Date May 20, 1999

Sampling Method 2" OD, Split Spoon Sampler, 140 lb hammer

Finish Date May 20, 1999

Depth feet	Well Construction	OMV (ppm)	S T	Blows/ 6"	Sample ID	Mtl. Graphic	Description
							FILL
	Concrete seal	0.0		5 7 5	1		Sparse grass over medium dense, moist, brown SILTY SAND (SM) -Damp, trace gravel
5	Hydrated bentonite chips						-Very loose, moist to wet, gray, fine to coarse, predominantly fine
	7.62' ATD	0.2		2 2 2	2		
	2" PVC casing; threaded with O-rings						
10	10/20 Colorado silica sand						Loose, wet, gray brown SILTY SAND with GRAVEL; fine to coarse sand, predominantly (SM)
	13.37', 6/1/99	0.3		2 3 6	3		
15	2" PVC slotted well screen, 10 slot, 9.7"-24.7"						Medium dense, wet, brown GRAVELLY SAND with SILT; fine to coarse sand, predominantly medium to coarse (SP-SM)
		0.2		12 6 7	4		-Appears to be producing water
20	Filter pack interval: 7.7'-25.0'						Very dense, wet, gray-brown SANDY GRAVEL with SILT; possible shell fragment, small white flakes (paint?), concrete in shoe, hard drilling at 22.5', could not advance past 25' (GM)
		0.2		50/4"	5		
25	4" threaded PVC sump with O-ring	0.0		50/2"	6		Refusal at 25.0'

STRUNK 01083

Sampler Type (ST):

- 2" Split Spoon Sampler
- Grab Sample
- No Recovery

Lab Tests:

- C - Chemical Properties
- P - Permeability
- M - Moisture Content
- ▼ Water Level ATD
- Static Water Level

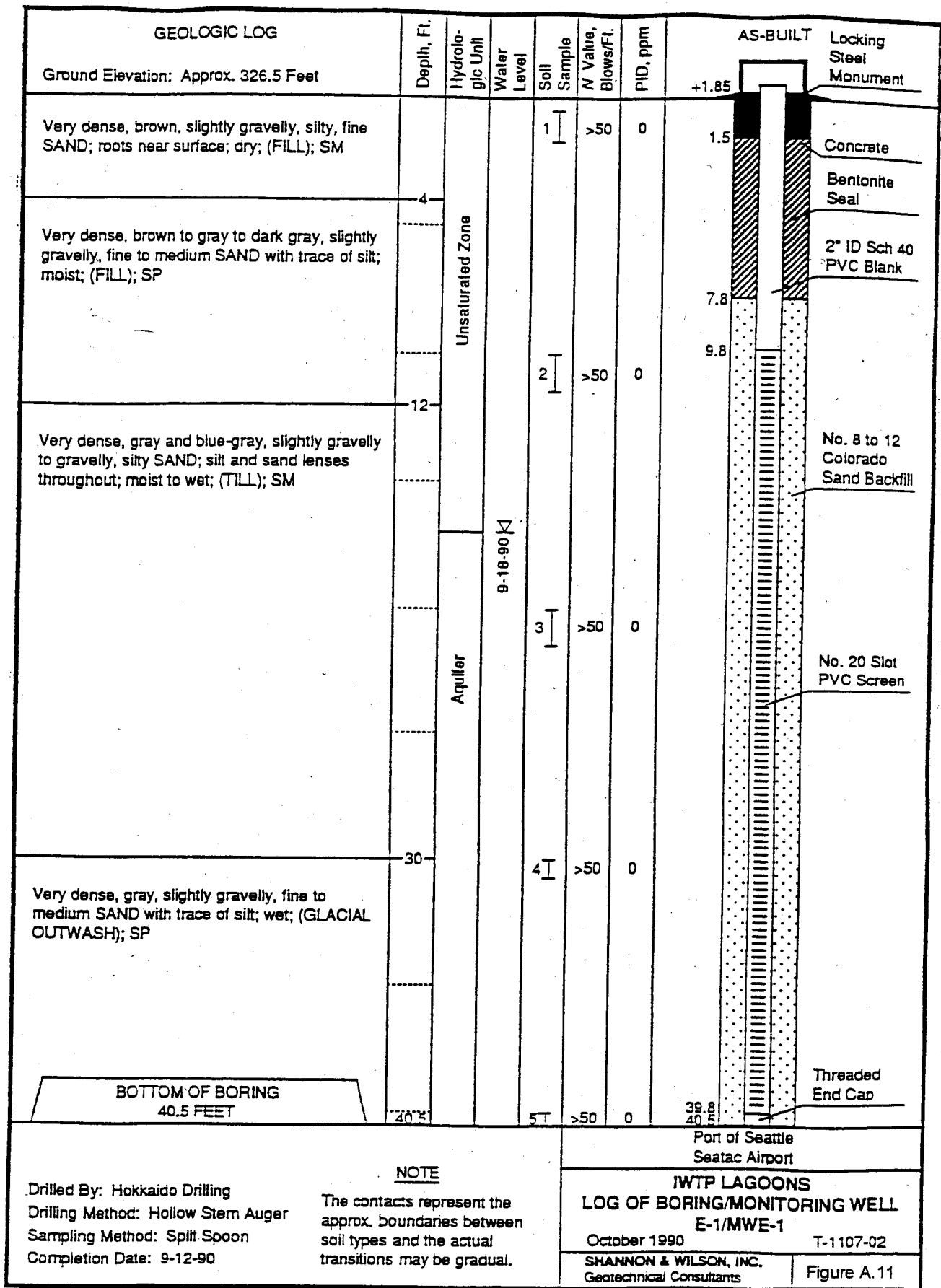
Logged by: RRH

Approved by: JJS

Figure No. A - 10

STIAMW STIA IWS GPJ April 24, 2000

AR 024054



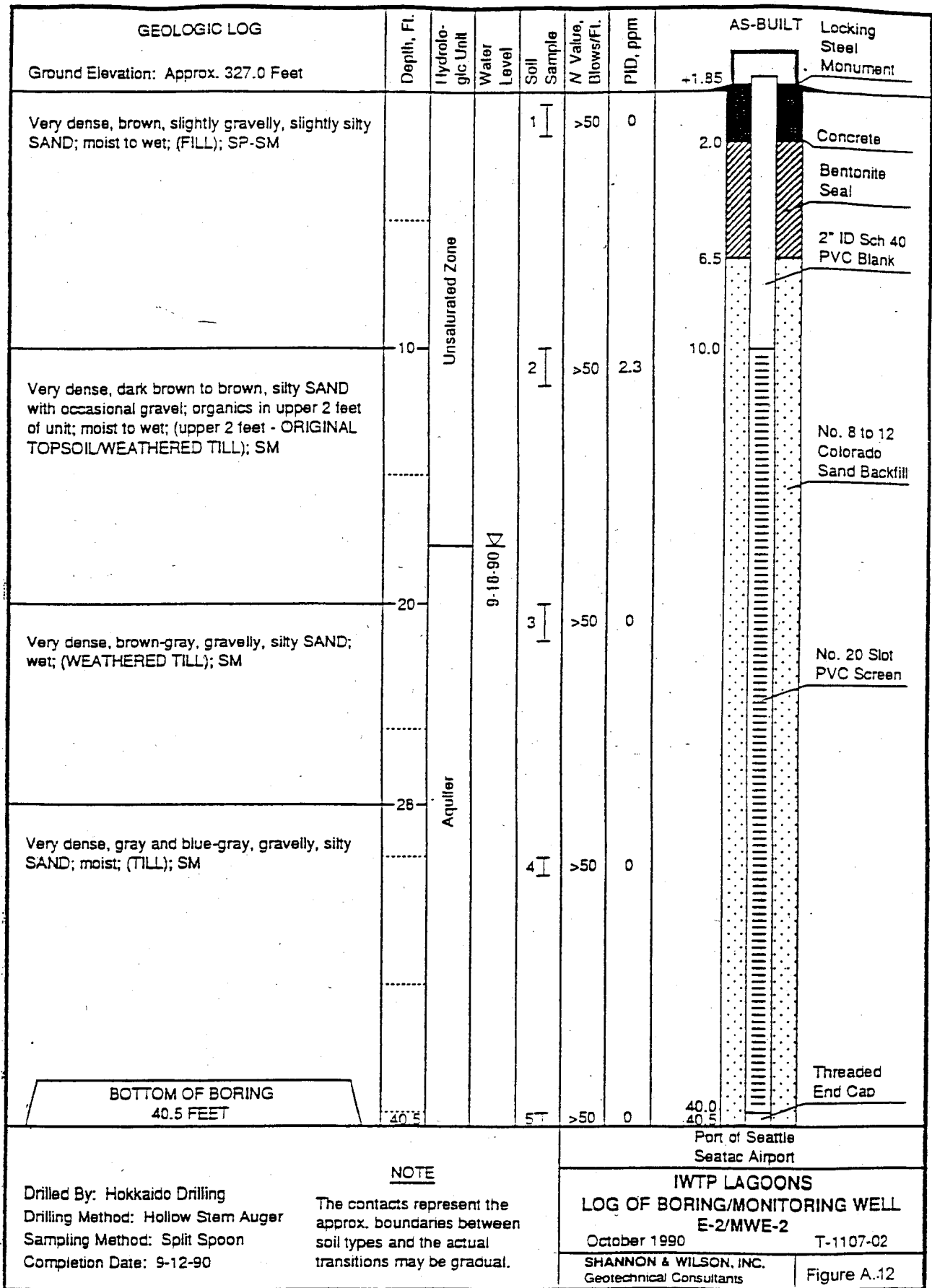
**NOTE**

Drilled By: Hokkaido Drilling  
 Drilling Method: Hollow Stem Auger  
 Sampling Method: Split Spoon  
 Completion Date: 9-12-90

The contacts represent the approx. boundaries between soil types and the actual transitions may be gradual.

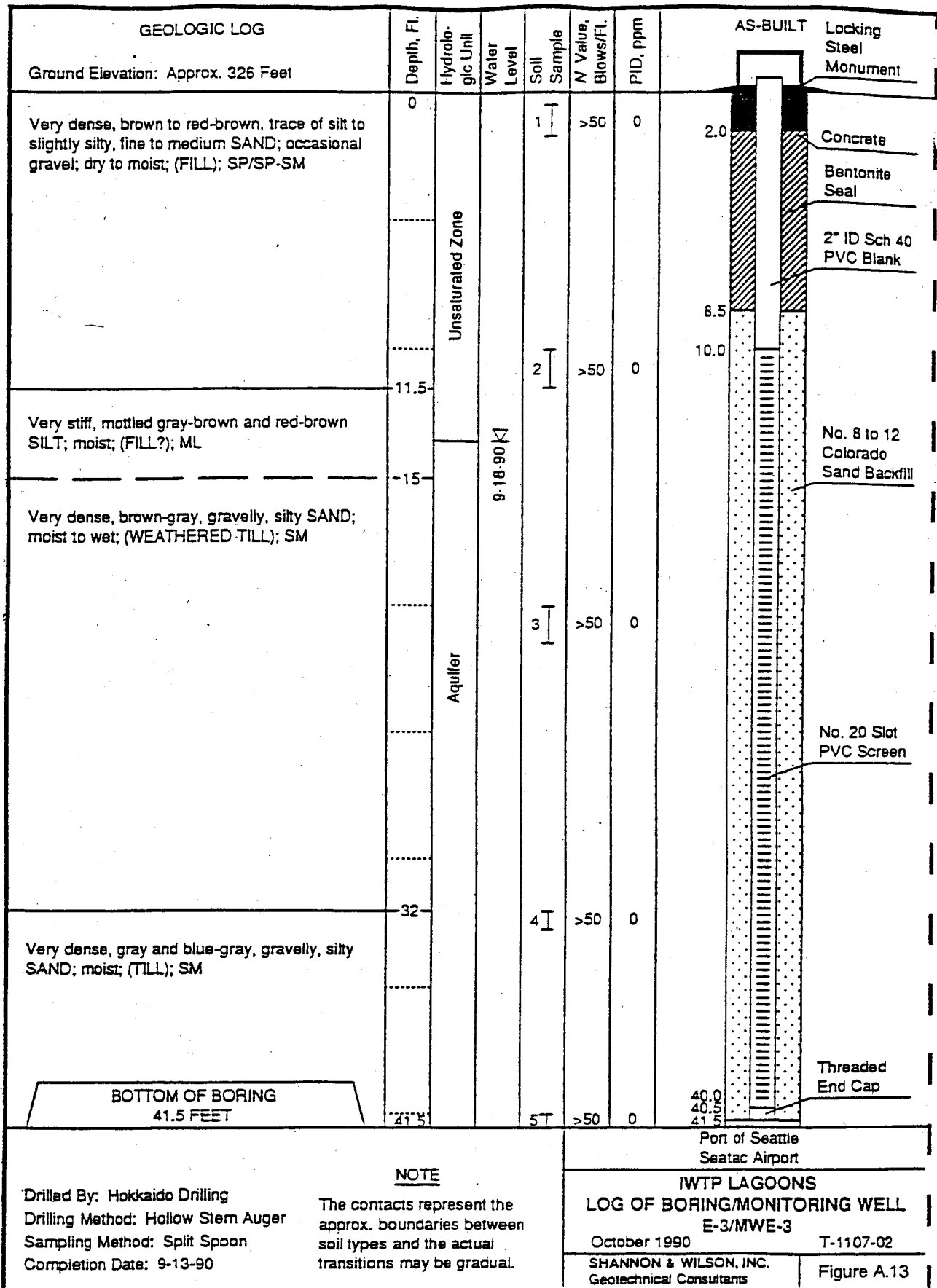
STRUNK 01084

AR 024055



STRUNK 01085

AR 024056



Drilled By: Hokkaido Drilling  
 Drilling Method: Hollow Stem Auger  
 Sampling Method: Split Spoon  
 Completion Date: 9-13-90

**NOTE**  
 The contacts represent the approx. boundaries between soil types and the actual transitions may be gradual.

Port of Seattle  
 Seatac Airport  
**IWTP LAGOONS**  
**LOG OF BORING/MONITORING WELL**  
**E-3/MWE-3**  
 October 1990 T-1107-02  
 SHANNON & WILSON, INC.  
 Geotechnical Consultants Figure A.13

STRUNK 01086

AR 024057

# Boring & Well Construction Log

Kennedy/Jenks Consultants

BORING LOCATION WEST DIKE		Boring/Well Name <u>MW-101</u>	
DRILLING COMPANY TACOMA PUMP AND DRILLING COMPANY		Project Name <u>POS LAGOON 3 INVEST.</u>	
DRILLER JEFF KELLEY		Project Number <u>976079.01</u>	
DRILLING METHOD HOLLOW-STEM AUGER		DRILL BIT(S) SIZE: <u>9 INCH</u>	
ISOLATION CASING		FROM	TO FT.
BLANK CASING SCH-40, 2" -DIA PVC		FROM 0.0	TO 30.0 FT.
PERFORATED CASING 2" -DIA, 0.010" SLOT PVC		FROM 30.0	TO 40.0 FT.
SIZE AND TYPE OF FILTER PACK 10/20 COLORADO SILICA		FROM 27.0	TO 40.0 FT.
SEAL CEMENT		FROM 0.0	TO 1.5 FT.
GROUT BENTONITE CHIPS		FROM 1.5	TO 27.0 FT.
ELEVATION AND DATUM 282.44		TOTAL DEPTH 41.5	
DATE STARTED 08/11/1998		DATE COMPLETED 08/11/1998	
INITIAL WATER DEPTH (FT)		LOGGED BY GARY STOYKA	
SAMPLING METHODS 3" SPLIT SPOON, 300#		WELL COMPLETION <input checked="" type="checkbox"/> SURFACE HOUSING <input type="checkbox"/> STAND PIPE _____ FT.	

SAMPLES			DEPTH (FEET)	SAMPLE NO.	WELL CONSTRUCTION	OVA	LITHOLOGY	USCS LOC	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOVERY (FEET)	PENETRATION RESIST (BLDS/A H.)							
								SM	Silty SAND with gravel Light brown, dry to moist. (Fill)
S	1.5	8 32 30		S-1-2.5				SM	Silty SAND with gravel As above, brown. (Fill)
			5						
S	1.5	12 20 15		S-1-5.0					Silty SAND with gravel Gray, moist, trace cobbles. (Dike Fill)
S	1.5	10 24 24		S-1-7.5					
			10						
S	1.5	14 25 22		S-1-10.0				SM	
S	1.5	8 13 14		S-1-13.0					
			15						
S	1.5	4 6 10		S-1-15.5					
S	1.5	10 11 20		S-1-17.5					
			20						
S	0.9	18 50/5		S-1-20.0					Silty SAND with gravel Gray, moist, very dense. (Till)
S	0.7	80 50/2		S-1-22.5					
			25						
S	0.8	50 50/4		S-1-25.0				SM	
S	1.0	40 50		S-1-28.0					
			30						

STRUNK 01087

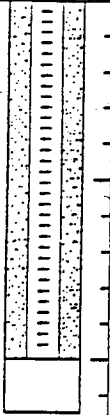

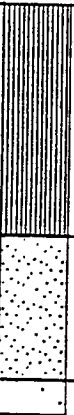
Figure A.14

AR 024058

# Boring & Well Construction Log

Kennedy/Jenks Consultants

Project Name POS LAGOON 3 INVEST. Project Number 976079.01 Boring/Well Name MW-101

SAMPLES			DEPTH (FEET)	SAMPLE NO.	WELL CONSTRUCTION	OVA	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS	
TYPE	RECOVERY (FEET)	PENETRATION RESIST (BLDG/S R.)								
S	1.0	30 50/5	35	S-1-30.0				SM		
S	1.0	27 50/5		S-1-35.0						SP
S	1.0	5 25 25	S-1-40.0	SW						

Notes:

1. Bold sample number indicates sample submitted to laboratory.

STRUNK 01088

Figure A.14

# Boring & Well Construction Log

Kennedy/Jenks Consultants

BORING LOCATION		NEAR PUMP HOUSE		Boring/Well Name			MW-102				
DRILLING COMPANY		TACOMA PUMP AND DRILLING COMPANY		DRILLER			JEFF KELLEY				
DRILLING METHOD		HOLLOW-STEM AUGER		DRILL BIT(S) SIZE			9 INCH				
ISOLATION CASING		FROM		TO		FT.					
BLANK CASING		SCH-40, 2" -DIA PVC		FROM		0.0		TO		26.0	FT.
PERFORATED CASING		2" -DIA, 0.010" SLOT PVC		FROM		26.0		TO		31.0	FT.
SIZE AND TYPE OF FILTER PACK		10/20 COLORADO SILICA		FROM		16.0		TO		31.0	FT.
SEAL		CEMENT		FROM		0.0		TO		2.0	FT.
GROUT		BENTONITE CHIPS		FROM		2.0		TO		16.0	FT.
ELEVATION AND DATUM		289.21		TOTAL DEPTH		31.5					
DATE STARTED		08/03/1998		DATE COMPLETED		08/03/1998					
INITIAL WATER DEPTH (FT)											
LOGGED BY		GARY STOYKA									
SAMPLING METHODS		J SPLIT SPOON, 300#		WELL COMPLETION		<input type="checkbox"/> SURFACE HOUSING <input checked="" type="checkbox"/> STAND PIPE 5.5 FT.					

SAMPLES			DEPTH (FEET)	SAMPLE NO.	WELL CONSTRUCTION	OVA	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOVERY (FEET)	PENETRATION RESIST (BLDG/A/N)							
			0					ML	Sandy SILT with gravel Brown, dry. (Fill)
C	0.8	62 100/4	5						Silty SAND with gravel Gray, moist, very dense. (Till)
G	0.5	100	10						
			15					SM	
			20						
G	0.5	100/5	25					ML	SILT with gravel Gray, moist, very dense.
			28					SP	Poorly graded SAND Gray, wet, very dense.
G	1.5	100 24 20	29					SW	Well-graded coarse SAND with gravel Gray, wet, very dense.
G	0.5	50 100/3	30					GP	Poorly graded GRAVEL with sand Gray, wet, very dense.

STRUNK 01089



Figure A.15



# Boring & Well Construction Log

Kennedy/Jenks Consultants

Project Name POS LAGOON 3 INVEST. Project Number 976079.01 Boring/Well Name MW-102

SAMPLES			DEPTH (FEET)	SAMPLE NO.	WELL CONSTRUCTION	OVA	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOVERY (FEET)	PORE/BRAND RESIST (BLDS/IN)							
			35					SM	Silty SAND with gravel Gray, wet.
			40						
			45						
			50						
			55						
			60						
			65						
			70						

STRUNK 01090

Figure A.15

# Boring & Well Construction Log

Kennedy/Jenks Consultants

BORING LOCATION MIDDLE OF NORTH SLOPE		Boring/Well Name MW-103	
DRILLING COMPANY TACOMA PUMP AND DRILLING COMPANY	DRILLER JEFF KELLEY	Project Name POS LAGOON 3 INVEST.	
DRILLING METHOD HOLLOW-STEM AUGER	DRILL BIT(S) SIZE: 9 INCH	Project Number 976079.01	
ISOLATION CASING	FROM TO FT.	ELEVATION AND DATUM 289.21	TOTAL DEPTH 51.5
BLANK CASING SCH-40, 2" -DIA PVC	FROM 0.0 TO 38.0 FT.	DATE STARTED 08/05/1998	DATE COMPLETED 08/05/1998
PERFORATED CASING 2" -DIA, 0.010" SLOT PVC	FROM 38.0 TO 48.0 FT.	INITIAL WATER DEPTH (FT)	
SIZE AND TYPE OF FILTER PACK 10/20 COLORADO SILICA	FROM 35.0 TO 48.5 FT.	LOGGED BY GARY STOYKA	
SEAL CEMENT	FROM 0.0 TO 2.0 FT.	SAMPLING METHODS 3" SPLIT SPOON, 300#	WELL COMPLETION <input checked="" type="checkbox"/> SURFACE HOUSING <input type="checkbox"/> STAND PIPE _____ FT.
GROUT BENTONITE CHIPS	FROM 2.0 TO 35.0 FT.		

SAMPLES			DEPTH (FEET)	SAMPLE NO.	WELL CONSTRUCTION	OVA	LITHOLOGY	USCS LOC	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOVERY (FEET)	PENETRATION RESIST (BLDG/A R)							
								SM	Silty SAND with gravel Light brown, with organic matter, dry. (Fill)
S	1.5	7 6 5	5					SM	Silty SAND with gravel As above, no organic matter, moist, loose. (Fill)
S	1.5	3 3 4	10					SM	Silty SAND with gravel Grayish-green, trace asphalt, moist, very loose. (Fill)
S	1.5	3 2 2	15					SM	Silty SAND with gravel Gray, with varying amounts of silt and fine sand, moist becoming wet at depth, very dense. (Till)
S	0.5	55 56	20					SM	
S	0.8	45 50/4	25					SM	
S	0.5	55 56	30					SM	

STRUNK 01091

Figure A.16

# Boring & Well Construction Log

Kennedy/Jenks Consultants

Project Name POS LAGOON 3 INVEST.

Project Number 976079.01

Boring/Well Name MW-103

SAMPLES			DEPTH (FEET)	SAMPLE NO.	WELL CONSTRUCTION	OVA	LITHOLOGY	USCS LOC	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOVERY (FEET)	PERFORATION RESIST (BLDG/A K.)							
S	0.8	40 50/4	35				SM		
S	0.5	50 50/1							
S	0.5	45 50/1							
S	1.0	40 50/1							
S	1.0	55 50/5		40					
S	0.8	35 50/4							
S	1.0	35 50/5		45					
S	0.6	40 50/2							
S	1.0	35 50/1							
S	1.0	20 50/4				<b>S-3-47.5</b>			
S	1.5	35 40 50/4		50					
				55					
				60					

**Notes:**

1. Perched groundwater encountered at approximately 15 feet bgs. Confined groundwater encountered at approximately 44 feet bgs recovering to approximately 42 feet bgs during drilling.
2. Borehole terminated at 51.5 feet bgs.
3. Bold sample number indicates sample submitted to laboratory.

STRUNK 01092

Figure A.16

# Boring & Well Construction Log

Kennedy/Jenks Consultants

BORING LOCATION EAST PORTION OF NORTH SLOPE		Boring/Well Name MW-104	
DRILLING COMPANY TACOMA PUMP AND DRILLING COMPANY	DRILLER JEFF KELLEY	Project Name POS LAGOON 3 INVEST.	
DRILLING METHOD HOLLOW-STEM AUGER	DRILL BIT(S) SIZE: 9 INCH	Project Number 976079.01	
ISOLATION CASING	FROM TO FT.	ELEVATION AND DATUM 291.78	TOTAL DEPTH 34.0
BLANK CASING SCH-40, 2" -DIA PVC	FROM 0.0 TO 29.0 FT.	DATE STARTED 08/04/1998	DATE COMPLETED 08/04/1998
PERFORATED CASING 2" -DIA, 0.010" SLOT PVC	FROM 29.0 TO 34.0 FT.	INITIAL WATER DEPTH (FT)	
SIZE AND TYPE OF FILTER PACK 10/20 COLORADO SILICA	FROM 26.0 TO 34.0 FT.	LOGGED BY GARY STOYKA	
SEAL CEMENT	FROM 0.0 TO 2.0 FT.	SAMPLING METHODS 3" SPLIT SPOON, 300#	WELL COMPLETION <input checked="" type="checkbox"/> SURFACE HOUSING <input type="checkbox"/> STAND PIPE _____ FT.
GROUT BENTONITE CHIPS	FROM 2.0 TO 26.0 FT.		

SAMPLES			DEPTH (FEET)	SAMPLE NO.	WELL CONSTRUCTION	OVA	LITHOLOGY	USCS LOC	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOVERY (FEET)	PENETRATION RESIST (BLDG/BL)							
							ML		Sandy SILT with gravel Brown, dry. (Fill)
S	1.5	12 22 18	5				SM		Silty SAND with gravel Gray, dry to moist. (Fill)
S	1.0	25 50/4	10				SM		Silty SAND with gravel As above, with concrete rubble, moist. (Fill)
S	0.8	45 50/4	15				SM		Silty SAND with gravel Gray, moist, very dense. (Fill)
S	1.0	65 50/5	20				SM		
S	0.8	25 50/4	25						
S	1.0	37 50/5							
S	0.5	20 50/4	30				SP/SM GP/L GM		Poorly graded SAND with silt Gray, wet. Poorly graded GRAVEL with silt and sand Gray, coarse gravel, fine sand, wet, very dense.

STRUNK 01093

Figure A.17

# Boring & Well Construction Log

Kennedy/Jenks Consultants

Project Name POS LAGOON 3 INVEST. Project Number 976079.01 Boring/Well Name MW-104

SAMPLES			DEPTH (FEET)	SAMPLE NO.	WELL CONSTRUCTION	DVA	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOVERY (FEET)	PENETRATION RESIST (BLDG/A K.)							
S	0.9	25 50 56/4	35						Poorly graded SAND with silt
S	0.8	45 70/4							
									Poorly graded SAND
									Gray, trace silt, wet.

## Notes:

1. Groundwater encountered at 28.5 feet bgs.
2. Borehole terminated at 34 feet bgs.

STRUNK 01094

Figure A.17

SHEET 2 OF 2

AR 024065

# Boring & Well Construction Log

Kennedy/Jenks Consultants

BORING LOCATION EAST DIKE		Boring/Well Name - MW-108	
DRILLING COMPANY TACOMA PUMP AND DRILLING COMPANY		DRILLER JEFF KELLEY	
DRILLING METHOD HOLLOW-STEM AUGER		DRILL BIT(S) SIZE: 9 INCH	
ISOLATION CASING		ELEVATION AND DATUM 281.36	
BLANK CASING SCH-40, 2"-DIA PVC		TOTAL DEPTH 41.5	
PERFORATED CASING 2"-DIA, 0.010" SLOT PVC		DATE STARTED 08/11/1998	
SIZE AND TYPE OF FILTER PACK 10/20 COLORADO SILICA		DATE COMPLETED 08/12/1998	
SEAL CEMENT		INITIAL WATER DEPTH (FT)	
GROUT BENTONITE CHIPS		LOGGED BY GARY STOYKA	
		SAMPLING METHODS 3" SPLIT SPOON, 300#	
		WELL COMPLETION <input checked="" type="checkbox"/> SURFACE HOUSING <input type="checkbox"/> STAND PIPE _____ FT.	

SAMPLES			DEPTH (FEET)	SAMPLE NO.	WELL CONSTRUCTION	GVA	LITHOLOGY	USCS LOC	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOVERY (FEET)	PENETRATION RESIST (BLDS/A IN)							
								GM	Silty GRAVEL with sand Light brown, dry. (Road)
S	1.5	17 16 20	5	S-6-2.5					Silty SAND with gravel Brownish-gray to gray, dry to moist, trace cobble and clay. (Dike Fill)
S	1.5	20 36 28		S-6-5.0					
S	1.5	7 13 18		S-6-7.5					
S	1.5	12 14 10	10	S-6-11.0					
S	1.5	15 20 14		S-6-12.5				SM	
S	1.5	7 10 10	15	S-6-15.0					
S	1.5	14 14 14		S-6-18.0					
S	1.5	4 17 23	20	S-6-20.0					
S	1.5	4 15 26		S-6-22.5					
S	0.5	50/1	25	S-6-25.0					Silty SAND with gravel Gray, moist, very dense. (Till)
S	1.0	20 50/5		S-6-27.5				SM	
			30						

STRUNK 01095

Figure A.18

# Boring & Well Construction Log

Kennedy/Jenks Consultants

Project Name POS LAGOON 3 INVEST. Project Number 976079.01 Boring/Well Name MW-108

SAMPLES			DEPTH (FEET)	SAMPLE NO.	WELL CONSTRUCTION	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOVERY (FEET)	PENETRATION RESIST (BLOWS/FT)						
S	1.0	45 50/5	35	S-6-30.5			SM	
S	0.5	60 56/4		S-6-32.5				
S	1.0	40 50/5	40	S-6-35.0			SM	Silty SAND with gravel
S	1.5	35 40 50		S-6-37.5				GM
S	1.5	10 27 30		S-6-40.0			SM	Silty GRAVEL with sand
								Brown to greenish-brown, trace cobbles, moist.
								Silty SAND with gravel
								Gray, wet.

**Notes:**

1. Perched groundwater encountered at approximately 24 feet bgs. Confined groundwater encountered at approximately 26 feet bgs, recovering to approximately 9.5 feet bgs during drilling.
2. Borehole terminated at 41.5 feet bgs.
3. Bold sample number indicates sample submitted to laboratory.

STRUNK 01096

Figure A.18

# Boring & Well Construction Log

Kennedy/Jenks Consultants

BORING LOCATION EAST DIKE		Boring/Well Name S-8	
DRILLING COMPANY TACOMA PUMP AND DRILLING COMPANY		DRILLER JEFF KELLEY	
DRILLING METHOD HOLLOW-STEM AUGER		DRILL BIT(S) SIZE: 9 INCH	
ISOLATION CASING		FROM	TO FT.
BLANK CASING		FROM	TO FT.
PERFORATED CASING		FROM	TO FT.
SIZE AND TYPE OF FILTER PACK		FROM	TO FT.
SEAL		FROM	TO FT.
GROUT BENTONITE CHIPS		FROM	0.0 TO 39.5 FT.
ELEVATION AND DATUM 276.98		TOTAL DEPTH 39.5	
DATE STARTED 08/07/1998		DATE COMPLETED 08/07/1998	
INITIAL WATER DEPTH (FT)		LOGGED BY GARY STOYKA	
SAMPLING METHODS 3" SPLIT SPOON, 300#		WELL COMPLETION <input type="checkbox"/> SURFACE HOUSING <input type="checkbox"/> STAND PIPE _____ FT.	

SAMPLES			DEPTH (FEET)	SAMPLE NO.	WELL NOT CONSTRUCTED	OVA	LITHOLOGY	USCS LOC	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOVERY (FEET)	PENETRATION RESIST (BLOWS/FT)							
S		10 7 7	5					SM	Silty SAND with gravel Light brown, with organic material and boulders, dry. (Fill)
S		6 5 4							
S		3 3 2	10					SM	Silty SAND with gravel As above, brown, moist.
S	1.5	1 2							
S	1.5	1 2 2	15					SM	Silty SAND with gravel Gray, moist to wet at depth, very loose, trace organic matter.
S	1.5	2 4 3							
S	1.5	2 1 1	20						
S		1 1 2							
S	0.8	40 50/4	25					SM	Silty SAND with gravel Gray, moist, very dense.
S	0.6	20 65/4							
S	1.5	40 50 50/5	30					SM	SILT Gray, moist.
									Silty SAND with gravel Gray, moist, very dense. (Till)

STRUNK 01097



Figure A.19



# Boring & Well Construction Log

Kennedy/Jenks Consultants

Project Name POS LAGOON 3 INVEST. Project Number 976079.01 Boring/Well Name S-8

SAMPLES			DEPTH (FEET)	SAMPLE NO.	WELL NOT CONSTRUCTED	OVA	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOVERY (FEET)	PENETRATION RESIST (BLDG/A/K)							
S	1.0	30 50/5	35	S-8-30.0				SM	
S	0.5	100 50/1		S-8-32.5					
S	1.0	100 50/5		S-8-35.0					
S	0.5	100 50/1		S-8-39.0					

**Notes:**

1. Perched groundwater encountered at approximately 25.5 feet bgs.
2. Borehole terminated at 39.5 feet bgs.
3. Bold sample number indicates sample submitted to laboratory.

STRUNK 01098

Figure A.19

# Boring & Well Construction Log

Kennedy/Jenks Consultants

BORING LOCATION SOUTH SLOPE AREA		Boring/Well Name KJ-3	
DRILLING COMPANY GEOTECH EXPLORATIONS, INC.	DRILLER ARMANDO PABLO	Project Name POS LAGOON 3 INVEST.	
DRILLING METHOD HOLLOW-STEM AUGER	DRILL BIT(S) SIZE: 9 INCH OD	Project Number 976079.01	
ISOLATION CASING	FROM TO FT.	ELEVATION AND DATUM 295	TOTAL DEPTH 60.5
BLANK CASING SCH-40, 2"-DIA PVC	FROM 0 TO 27 FT.	DATE STARTED 06/14/1999	DATE COMPLETED 06/15/1999
PERFORATED CASING 2"-DIA, 0.010" SLOT PVC	FROM 27 TO 42 FT.	INITIAL WATER DEPTH (FT) 35	
SIZE AND TYPE OF FILTER PACK 10/20 COLORADO SILICA	FROM 20 TO 42 FT.	LOGGED BY GARY STOYKA	
SEAL BENTONITE CHIPS	FROM 1.5 TO 20 FT.	SAMPLING METHODS 3" SPLIT SPOON, 300#	
GROUT CEMENT	FROM 0 TO 1.5 FT.	WELL COMPLETION <input type="checkbox"/> SURFACE HOUSING <input checked="" type="checkbox"/> STAND PIPE 3 FT.	

SAMPLES			DEPTH (FEET)	SAMPLE NO.	WELL CONSTRUCTION	OVA	LITHOLOGY	USCS LOC	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOVERY (FEET)	PENETRATION RESIST (BLDG./A IN)							
									Crushed Asphalt.
								SM	Silty SAND
								SM	Light brown, with organic material, dry, no odor.
S	1.5	5 15 9	5	KJ-3-3.5		0			Silty SAND with gravel
									Greenish gray, angular gravel, moist, no odor.
S	1.5	2 15 13		KJ-3-6		0			Silty SAND with gravel
									Gray, moist, no odor. (Till Fill)
S	1.5	2 4 4	10	KJ-3-8.5		0			
S	1.5	2 4 5		KJ-3-11		0			
S	1.5	2 4 6	15	KJ-3-13.5		0		SM	
S	1.5	13 14 16		KJ-3-15		0			
S	1.5	2 4 5	20	KJ-3-18.5		0			
S	1.5	4 4 4		KJ-3-21		0			
S	1.5	2 4 4	25	KJ-3-23.5		0		SM	Silty SAND with gravel
									As above with asphalt.
S	1.5	4 6 8		KJ-3-25.5		0			Silty SAND
									As above, no asphalt.
S	1.5	4 8 8	30	KJ-3-28		0		SM	

STRUNK 01099

Figure A.20

# Boring & Well Construction Log

Kennedy/Jenks Consultants

Project Name POS LAGOON 3 INVEST.

Project Number 976079.01

Boring/Well Name KJ-3

SAMPLES			DEPTH (FEET)	SAMPLE NO.	WELL CONSTRUCTION	OVA	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOVERY (FEET)	POROSITY RESIST (KIDS/A KL)							
S	1.5	4 5 7		KJ-3-31		0			Silty SAND As above, no asphalt.
S	1.5	3 6 9		KJ-3-33		0		SM	
			35						
S	1.5	2 1 2		KJ-3-36		0			
S	1.5	2 3 5		KJ-3-37.5		0		SM	Silty SAND with gravel
			40					SW	As above fine gravel (10%), med-coarse sand (80%), silt (10%), wet, no odor.
									Well-graded SAND
S	1.5	2 1 1		KJ-3-41		0		SM	Gray, wet, no odor.
									Silty SAND with gravel
S	1.5	2 4 6		KJ-3-43		0		OL	Gray, wet, no odor.
			45					ML	Organic SILT
S	1.5	15 16 23		KJ-3-45		0			Dusky brown, moist, organic odor.
									SILT
								GW	Brownish gray, moist, no odor.
S	1.5	3 4 4		KJ-3-48		0			Well-graded GRAVEL with sand
			50						Bluish gray, with cobbles, wet, no odor.
				BENTONITE CHIPS				SM	Silty SAND with gravel
									Bluish gray, sand and silt zones, very moist, no odor. (Weathered till)
			55						Silty SAND with gravel
S	1	42 50/5		KJ-3-55.5		0		SM	Bluish gray, moist, no odor. (Till)
			60						
S	0.5	50/5		KJ-3-60		0			
			65						
			70						

STRUNK 01100

Figure A.20

# Boring & Well Construction Log

Kennedy/Jenks Consultants

BORING LOCATION: LAGOON BOTTOM AREA		Boring/Well Name: KJ-10	
DRILLING COMPANY: GEOTECH EXPLORATIONS, INC.	DRILLER: ARMANDO PABLO	Project Name: POS LAGOON 3 INVEST.	
DRILLING METHOD: HOLLOW-STEM AUGER	DRILL BIT(S) SIZE: 9 INCH OD	Project Number: 976079.01	
ISOLATION CASING	FROM TO FT.	ELEVATION AND DATUM: 271.17	TOTAL DEPTH: 53
BLANK CASING: SCH-40, 2"-DIA PVC	FROM 0 TO 47 FT.	DATE STARTED: 06/17/1999	DATE COMPLETED: 06/17/1999
PERFORATED CASING: 2"-DIA, 0.010" SLOT PVC	FROM 47 TO 52 FT.	INITIAL WATER DEPTH (FT): 17.5	
SIZE AND TYPE OF FILTER PACK: 10/20 COLORADO SILICA	FROM 45 TO 53 FT.	LOGGED BY: GARY STOYKA	
SEAL: BENTONITE CHIPS	FROM 38 TO 45 FT.	SAMPLING METHODS: 3" SPLIT SPOON, 300#	
GROUT PRESSURE GROUT	FROM 0 TO 38 FT.	WELL COMPLETION: <input type="checkbox"/> SURFACE HOUSING <input checked="" type="checkbox"/> STAND PIPE 3 FT.	

SAMPLES TYPE	RECOVERY (FEET)	PENETRATION RESIST (BLUNTS/K)	DEPTH (FEET)	SAMPLE NO.	WELL CONSTRUCTION	OVA	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
								SM	Silty SAND with gravel Light brown, with asphalt and roots, dry, no odor.
S	1.5	7 7 5	5	KJ-10-3.5		0			Silty SAND with gravel Gray, trace metal debris, trace asphalt, moist, no odor. (Till Fill)
S	1.5	2 2 6		KJ-10-6		0		SM	
S	1.5	4 25 40	10	KJ-10-8.5		0			
S	1.5	17 19		KJ-10-11		0		SM	Silty SAND with gravel Olive gray, with organic material, very moist, no odor.
S	1.5	1 2 5	15	KJ-10-13.5		0		ML	Sandy SILT Bluish gray, very moist, no odor.
S	1.5	7 17 13		KJ-10-16		0		SM	Silty SAND with gravel Bluish gray, moist, no odor.
S	1.5	12 24 50	20	KJ-10-18.5		0		SM	Silty SAND with gravel Light olive gray, wet, no odor, (Weathered till?).
S	1	35 35		KJ-10-20.5		0			Silty SAND with gravel Bluish gray, moist, no odor. (Till).
S	0.3	50/3	25	KJ-10-23.5		0			
S	1	50		KJ-10-25		0		SM	

STRUNK 01101

Figure A.21

# Boring & Well Construction Log

Kennedy/Jenks Consultant

Project Name POS LAGOON 3 INVEST. Project Number 976079.01 Boring/Well Name KJ-10

SAMPLES			DEPTH (FEET)	SAMPLE NO.	WELL CONSTRUCTION	DVA	LITHOLOGY	USCS LOC	SAMPLE DESCRIPTION AND DRILLING REMARKS		
TYPE	RECOVERY (FEET)	PENETRATION RESIST (BLDS/S KL)									
S	0.5	50/5		KJ-10-30		0		SM	Silty SAND with gravel Bluish gray, moist, no odor. (TH).		
S	1.5	3 6 9		KJ-10-33		0					
S	0.3	50/3	35	KJ-10-35		0					
S	1.5	2 5		KJ-10-37.5		0					
S	0.6	68 32/2	40	KJ-10-40		0					
S	1.5	2 4 6		KJ-10-43		0					
S	0.5	65	45	KJ-10-45		0					
						0					Well-graded SAND with gravel Gray, wet, no odor.
S	1.5	2 12 50/5	50	KJ-10-50		0				SW	
			55								
			60								
			65								
			70								

STRUNK 01102

Figure A.21

# Boring & Well Construction Log

Kennedy/Jenks Consultants

BORING LOCATION SOUTH FILL AREA		Boring/Well Name D-1	
DRILLING COMPANY TACOMA PUMP AND DRILLING COMPANY		DRILLER JEFF KELLEY	
DRILLING METHOD HOLLOW-STEM AUGER		DRILL BIT(S) SIZE 9 INCH	
ISOLATION CASING FROM TO FT.		ELEVATION AND DATUM 284.64	
BLANK CASING FROM TO FT.		TOTAL DEPTH 69.0	
PERFORATED CASING FROM TO FT.		DATE STARTED 08/09/1998	
SIZE AND TYPE OF FILTER PACK FROM TO FT.		DATE COMPLETED 08/09/1998	
SEAL FROM TO FT.		INITIAL WATER DEPTH (FT)	
GROUT BENTONITE GROUT FROM 0.0 TO 69.0 FT.		LOGGED BY GARY STOYKA	
		SAMPLING METHODS 3" SPLIT SPOON, 300#	
		WELL COMPLETION <input type="checkbox"/> SURFACE HOUSING <input type="checkbox"/> STAND PIPE _____ FT.	

SAMPLES			DEPTH (FEET)	SAMPLE NO.	WELL NOT CONSTRUCTED	OVA	LITHOLOGY	USCS LOC	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOVERY (FEET)	PENETRATION RESIST (BLDG/S H.)							
								GP	Poorly graded GRAVEL Block, crushed asphalt, dry. (Fill)
S	1.5	6 7 6	D-1-2.5					SM	Silty SAND with gravel Light brown, dry. (Fill)
S	1.5	3 5 4	D-1-5.5					SM	Silty SAND with gravel As above, gray. (Fill)
S	1.5	2 1 4	D-1-7.5					SM	Asphalt 1 inch thick. (Fill)
S	1.5	3 2 1	D-1-10.0					ML	Silty SAND with gravel Gray, moist, very loose. (Fill)
S	1.5	12 8 9	D-1-12.5					SM	Sandy SILT Gray, very moist. (Fill)
S	1.5	6 2 2	D-1-17.5					SM	Wood debris Wet. (Fill)
S	1.5	1 1 1	D-1-20.0					SM	Silty SAND with gravel Gray, wet, very loose. (Fill)
S	0.9	8 50/4	D-1-22.5					SM	Silty SAND with gravel Gray, moist, very dense. (Fill)
S	0.5	25 20	D-1-25.0						
S	0.6	28 20	D-1-27.5						

STRUNK 01103

Figure A.22

# Boring & Well Construction Log

Kennedy/Jenks Consultants

Project Name POS LAGOON 3 INVEST. Project Number 976079.01 Boring/Well Name D-1

SAMPLES			DEPTH (FEET)	SAMPLE NO.	WELL NOT CONSTRUCTED	DVA	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOVERY (FEET)	PENETRATION RESIST (BLDG'S R)							
S	0.9	66 50/4		D-1-30.0					
S	1.5	65 50 50		D-1-32.5					
			35						
S	0.6	88 50/2		D-1-37.5					
			40						
S	0.6	100 50/2		D-1-42.5					
			45						
S	0.6	88 50/2		D-1-47.5					
			50						
S	0.8	28 50/3		D-1-52.5					
			55						
S	1.0	100 50/5		D-1-57.5					
			60						
S	1.3	30 40 50/3		D-1-62.5					
			65						
S	1.5	8 22 50/5		D-1-67.5					

**Notes:**

1. Perched groundwater encountered at approximately 23 feet bgs. Confined groundwater encountered at approximately 60 feet bgs. Groundwater recovered to approximately 45 feet bgs during drilling.
2. Borehole terminated at 69 feet bgs.
3. Bold sample number indicates sample submitted to laboratory.

**STRUNK 01104**

Figure A.22



IWSLG-P-1

Project GROUNDWATER DETECTION AND  
PIEZOMETER INSTALLATION  
INDUSTRIAL WASTE PLANT  
SEA-TAC AIRPORT, SEATTLE, WASHINGTON  
 Location SEE LOCATION MAP

Date 1-7-74  
 Cert No. 751-1  
 Test Pit No. 1  
 Page 1

Depth Below Grade	Strata Log	Soil Bearing	Soil Description	Depth Test Sample	Depth Water Table
			6" Sod and Topsoil		
5		Approx. 2000 P.S.F.	Grey Compact Intermixed Clay, silt, sand and gravel with occasional organic material. (Artificial fill to 11')	Piezo Installation 1-7-74	None Encountered PERFORATED TO DEPTH 7 FEET
10					
15	T.P. 12-1/2 ft.	Approx. 6000 P.S.F.	Blue-Grey, very dense, clayey silty sand with 15-20% gravel (Glacial Till)		
20					

STRUNK 01105

Notes: 4" diameter x 13' long Piezometer installed. Backfilled with pea gravel and perforated from 12-1/2' below grade to 4' below grade.





IWSLG-P-2

GROUNDWATER DETECTION AND  
 PIEZOMETER INSTALLATION

Date Jan. 8, 1974

Project \_\_\_\_\_

Cert No. 751-1

INDUSTRIAL WASTE PLANT

Test Pit No. 2

SEA-TAC AIRPORT, SEATTLE, WASHINGTON

Page 1

Location \_\_\_\_\_

Depth Below Grade	Strata Log	Soil Bearing	Soil Description	Depth Test Sample	Dept Water Table
			6" Sod and Topsoil		
5		Approx. 1500 P.S.F.	Grey loose to compaction intermixed clay, silt sand and gravel with occasional organic material. (Artificial fill to 12')	Piezo Installation 1-8-74	None Encountered
			Note: Much caving in hole due to loose soil nature.		
10					
15		Approx. 6000 P.S.F.	Blue-Grey very dense clayey silty sand with 15-20% gravel (Glacial Till)		
	T.P. 14 ft.				
20					

STRUNK 01106

Notes: 4" diameter x 14' long Piezometer installed. Backfilled with pea gravel and perforated from 14' below grade to 4' below grade. Figure A.24

23/4-32R1

WATER WELL REPORT  
STATE OF WASHINGTON

Start Card No. 068661  
Water Right Permit No.

(1) OWNER: Name WA. NAT GAS Address PO BOX 1869 SEATTLE, WA 98111-23/4E/32R

(2) LOCATION OF WELL: County KING - SE 1/4 SE 1/4 Sec 32 T 23 N., R 4E W4  
(2a) STREET ADDRESS OF WELL (or nearest address) 9600 14TH AVE S SEATTLE 98111

(3) PROPOSED USE: OTHER USE (10) WELL LOG

(4) TYPE OF WORK: Owner's Number of well (If more than one)  
NEW WELL Method: AIR ROTARY

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change in formation.

(5) DIMENSIONS: Diameter of well 6 inches  
Drilled 247 ft. Depth of completed well 247 ft.

MATERIAL	FROM	TO
COMPACTED GRAVEL	0	1
BROWN SAND SILT	1	11
GREY SILT	11	37
SAND & GRAVEL SILT WATER	37	51
COMPACTED SAND SILT AND GRAVEL	51	65
GREY CLAY	65	72
BROWN CLAY	72	77
GREY CLAY	77	158
CLAY & SAND AND GRAVEL	158	170
BROWN CLAY / shale	170	247

(6) CONSTRUCTION DETAILS:  
Casing installed: 6" Dia. from 0 ft. to 96 ft. ft.  
WELDED " Dia. from ft. to ft. ft.  
" Dia. from ft. to ft. ft.

Perforations: NO  
Type of perforator used  
SIZE of perforations in. by in.  
perforations from ft. to ft. ft.  
perforations from ft. to ft. ft.  
perforations from ft. to ft. ft.

Screens: NO  
Manufacturer's Name  
Type Model No.  
Dia. slot size from ft. to ft. ft.  
Dia. slot size from ft. to ft. ft.

Gravel packed: NO  
Gravel placed from ft. to ft. Size of gravel ft.

Surface seal: NO To what depth? ft.  
Material used in seal  
Did any strata contain unusable water? NO  
Type of water? Depth of strata ft.  
Method of sealing strata off

(7) PUMP: Manufacturer's Name # Type H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level ... ft.  
Static level ft. below top of well Date  
Artesian Pressure lbs. per square inch Date / /  
Artesian water controlled by

Work started 12/11/91 Completed 12/16/91

(9) WELL TESTS: Drawdown is amount water level is lowered below static level.  
Was a pump test made? NO If yes, by whom?  
Yield: gal./min with ft. drawdown after hrs.

WELL CONSTRUCTOR CERTIFICATION:  
I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Recovery data  
Time Water Level Time Water Level Time Water Level

NAME RICHARDSON WELL DRILLING (Person, firm, or corporation) (Type or print)  
ADDRESS PO BOX 44427 TAC WA 98444  
(SIGNED) *Richardson* License No. 1424  
Contractor's Registration No. RICHAW#32108 Date 01/23/92

Date of test / /  
Bailer test gal/min. ft. drawdown after hrs.  
Air test gal/min. w/ stem set at ft. for hrs.  
Artesian flow g.p.m. Date  
Temperature of water Was a chemical analysis made? NO

STRUNK 01107  
RECEIVED  
JAN 30 1992  
DEPT. OF ECOLOGY  
AR 024078

22N 4E 4D1

APPENDIX

Well ID	Owner	Dr	1,222	106	6	98.65	8-20-62	S	D	Cp
34F1	Marvin Tracy									
1A1	I. 22 N., R. 4 E. Lambath Sill & Co.	20	260	30	+66	1961			NU	Flows 55 gpm. Casings: 3-inch, 0-255 ft screen, 255-260 ft.
1H1 2D1	Kent Farm Dairy F. Genter	22 40	209 123	6 8	+69 Flowing	4-20-61 1960	S S	10 1	Ind S	Flows 19 gpm; pumps 40 gpm. Flows 5 gpm; pumps 60 gpm, dd 30 ft. L.
2H1	The Boeing Company, boring 6	21	80	--	8.0	11-19-63	--	--	Ex	Topsoil 2 ft, fine brown and gray sand, 2-80 ft. L.
2P1	The Boeing Company, boring 4	21	72	--	11.0	11-15-63	--	--	Ex	L.
2P2	The Boeing Company, boring 5	22	100	--	5.0	11-15-63	--	--	Ex	L.
2R1	The Boeing Company, boring 1	21	158	--	1.0	11-18-63	--	--	Ex	L.
3G1	State Highway Dept.	250	128	6	--	--	--	--	Ex	Test hole for bridge piling. L.
3L1	King County Water Dist. 53, well 1	410	270	8	90	1955	T	10	PS	Yields 90 gpm.
3M1	S. A. Tombs	397	73	24	64.34	9-5-62	J	2	D	Yields 20 gpm.
3N1	Andy Matchich	365	25	30	14.30	9-5-62	N	--	NU	Pumped 20 gpm for 4 hr, dd 37 ft. L.
4B1	Highline Public School Dist. 401	395	190	8-6	143	1945	T	3	Irr	
4B2	A. H. Heidenreich	378	90	5 1/2	50	--	J	1	D, S	Noticeable iron content.
4C1	King County Water Dist. 75, well 3	315	314	16-8	44	1955	--	--	De	Pumped 290 gpm for 22 hr, dd 29 ft. Destroyed for extension of Sea-Tac Airport runway, L.
4D1	Mrs. R. Mazo	265	78	4	5.67	9-24-62	C	1	D	Well flows occasionally.
4J1	Harry Johnson	390	35	48	16.44	9-5-62	N	--	NU	Formerly supplied 5 families.
4L1	King County Water Dist. 75, well 1	248	593	18-12-8	0	1952	--	--	De	Yields 420 gpm, dd 41 ft. Destroyed for extension of Sea-Tac Airport runway. C, L.
4L2	King County Water Dist. 75, well 2	248	133	16	0	1954	--	--	De	Pumped 1,085 gpm for 5 1/2 hr, dd 92 ft. Destroyed for extension of Sea-Tac Airport runway. L.
4N1	King County Water Dist. 75, well 7	248	270	12	73	1958	T	75	PS	Yields 500 gpm, dd 47 ft.
4Q1	King County Water Dist. 75, well 4	295	202	20	54	1956	T	--	PS	Yields 1,050 gpm for 6 hr, dd 49 ft. L.

HC1

22N/4E/C1

STATE OF WASHINGTON  
DEPARTMENT OF CONSERVATION  
AND DEVELOPMENT

WELL LOG

No. Appli/ 3813  
Cert. 2375

Date Feb. 16, 1955

Record by King County Water Dist. #75

Source Driller's Record

Location: State of WASHINGTON

County King

Area

Map

NE 1/4 NW 1/4 sec 4, T. 22N, R. 4 E

Diagram of Section

Drilling Co. N. C. Jannsen Drilling Co. Inc.

Address 9407 E. Marginal Way, Seattle, Wn

Method of Drilling Drilled Date Feb. 9, 1955

Owner King Co. Water District #75

Address 19863-28th Ave S. - Seattle 88, Wn

Land surface, datum ft above  
below

CORRE- LATION	MATERIAL	THICKNESS (feet)	DEPTH (feet)
------------------	----------	---------------------	-----------------

(Transcribe driller's terminology literally but paraphrase as necessary, in parentheses. If material water-bearing, so state and record static level if reported. Give depths in feet below land-surface datum unless otherwise indicated. Correlate with stratigraphic column, if feasible. Following log of materials, list all casings, perforations, screens, etc.)

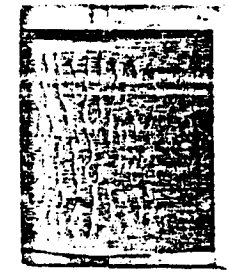
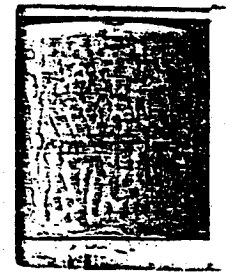
Gravel & Sand	68	68
Boulders & Sand	20	88
Hard Boulder	2	90
Gravel Boulders & Sand	37	127
Sandy Clay	49	176
Sand	71	247
Boulders	3	250
Coarse Sand	10	260
Gravel Boulders & Sand	10	270
Gravel & Sand	15	285
Gravel & Sand Clay streaks	13	298
Sand	11	309
Clay with Sand	5*	314*

Drill Test:

Dip: 211° T 16°

Turn up

Sheet of sheets



STRUNK 01109

AR 024080



22N/4E/5A1

178 GEOLOGY AND GROUND WATER, SOUTHWESTERN KING CO., WASH.  
Table 10 - Drillers' logs - Continued

Materials	Thickness (feet)	Depth (feet)
22/4-4Q1 - Continued		
Sand	3	182
Sand and gravel	20	202
22/4-5A1. King County Water Dist. 75, well 15. Drilled by L. B. Richardson, 1954. Altitude 270 ft.		
Topsoil	5	5
Clay, sand, and gravel, blue	25	30
Hardpan	6	36
Sand and gravel, gray	8	44
Clay, sand, and gravel	19	63
Sand, blue-gray	8	71
Clay, sand and gravel, blue	5	76
Clay, sandy	45	121
Clay, blue	8	129
Sand and clay, blue	68	197
Clay, sand, and gravel, hard, blue	13	210
Clay, sandy, blue	50	260
22/4-6A1. Highline Public School Dist. 401. Drilled by W. L. Petersen, 1948. Altitude 270 ft. Casing: 6-inch to 124 ft; 4-inch, 124-144 ft; perforated 124-144 ft.		
Topsoil and yellow clay	4	4
Till, gray	21	25
Gravel, water-bearing	2	27
Till, blue	38	65
Sand, fine	19	84
Sand, gray, gravel, water-bearing	40	124
Sand, coarse, blue, pea gravel, water-bearing	20	144
22/4-8A1. King County Water Dist. 75, well 9. Drilled, 1959. Altitude 200 ft. Casing: 12-inch to 311 ft; 80-slot screen, 310-330 ft; 40-slot, 330-340 ft.		
Sand	16	16
Clay, blue	101	117
Hardpan	3	120
Clay, sand, and gravel	54	174
Sand and gravel, cemented	27	201
Sand and gravel	5	206
Clay, multi-colored	109	315
Sand, gravel, water-bearing	19	334
Hardpan	15	349
Clay, blue, and sand	46	395
22/4-8J1. King County Water Dist. 75, well 11. Drilled, 1960. Altitude 148 ft. Casing: 12-inch to 252 ft; 60-slot screen, 251-261 ft; 80-slot screen, 261-271 ft.		
Sand and clay	22	22
Clay, blue	77	99
Sand, fine, and clay, water-bearing	25	124

STRUNK 01111

AR 024082

22N/4E/5A2

Table 9 - Records of wells - Continued

Well	Owner or Tenant	Altitude (feet)	Type of well	Depth of well (feet)	Diameter of well (inches)	Water level		Pump		Remarks	
						Below land surface (feet)	Date	Type	Horse-power		
4Q2	I. 22 N., R. 4 E. - Contd.	347	Dr	60	6	--	--	P	1	D	Test hole for water. Dry hole.
5A1	Dick Price King County Water Dist. 75, well 15	270	Dr	260	--	--	--	--	--	Ex	
5A2	G. S. Gillides	270	Dr	65	6	14.38	9-4-62	J	3/4	D	
5B1	E. E. Hendrix	280	Dr	45	6	4	1960	J	1	D, Irr	Noticeable iron content.
5I1	E. S. Stuessi	320	BH	81	24	44.09	9-24-62	P	--	Irr	Noticeable iron content. Cp.
5K1	B. C. Carlson	335	Dg	120	36	84	1957	J	14	D	Pumped 50 gpm for 4 hr, dd
6A1	Highline Public School Dist. 401	270	Dr	144	6-4	39	1962	J	--	Inst	11 ft. Cp, L.
8A1	King County Water Dist. 75, well 9	200	Dr	395	12	69	1959	T	300	PS	Pumped 1,275 gpm for 36 hr, dd 140 ft. C, L.
8J1	King County Water Dist. 75, well 11	148	Dr	600	12	31	1960	T	100	PS	Pumped 402 gpm for 68 hr, dd 199 ft. L.
8K1	King County Water Dist. 54, well 1	155	Dr	167	8	40	1945	T	10	NU	Yields 140 gpm, dd 75 ft.
8K2	King County Water Dist. 54, well 2	150	Dr	195	10	38	1946	T	30	PS	Pumped 300 for 4 hr, dd 40 ft. L.
8K3	Westley Gardens, well 1	125	Dg, Dr	163	6	29	1953	T	2	NU	Yields 75 gpm. Dug to 48 ft, drilled 48-163 ft. L.
8K4	... do ... , well 2	135	Dr	106	10	22.93	9-26-62	T	5	D, Irr	Yields 250 gpm. Noticeable sulfur odor. L.
8K5	King County Water Dist. 54, well 3	155	Dr	245	12	48	1961	T	--	PS	Yields 210 gpm, dd 15 ft. Cp, L.
9A1	N. T. Hulbert	334	Dg	14	36	5.88	9-4-62	P	1/3	Irr	Pumped 614 gpm for 6 hr, dd 99 ft. C, L.
9A2	King County Water Dist. 75, well 10	345	Dr	253	16-10	114	1960	T	125	PS	Noticeable iron content. Formerly supplied 5 families.
9B1	Andy Matellich	358	Dr	90	6	61.11	9-5-62	N	--	NU	
9F1	C. C. Ivey	353	Dr	118+	6	95.90	9-25-62	S	1/2	D	
9G1	Andy Matellich	363	Dg	59	18	47.85	9-5-62	J	1/2	D	
9J1	Bob Snow	440	Dg	21	48	11.85	9-4-62	N	--	NU	

WELL DEVELOPMENT RECORD				WELL NUMBER: MWE-04		Page: 1 of 2		
Project Name: <u>STIA IWS Hydm Study</u>				Project Number: <u>BV98112</u>				
Date: <u>5/17/99</u>				Starting Water Level (ft TOC): <u>48.10</u>				
Developed by: <u>RRH</u>				Casing Stickup (ft): <u>-0.40 (flush mount)</u>				
Measuring Point of Well: <u>TOC PVC</u>				Total Depth (ft TOC): <u>85.5</u>				
Screened Interval (ft. BGS) <u>84.6-74.6</u>				Casing Diameter (inches): <u>2"</u>				
Filter Pack Interval (ft. BGs) <u>87.5-71.5</u>								
Casing Volume: 37.4 ft Water x 0.163 gpf = 6.09								
Casing volumes: 2" = 0.16 gpf      4" = 0.65 gpf      6" = 1.47 gpf								
DEVELOPMENT MEASUREMENTS								
Time	Cumul. Vol. (gallons)	Purge Rate (gpm)	Temp. (C)	pH	Specific Conductance (umhos/cm)	Turbidity (NTU)	Imhoff Cone (ml/L)	Comments
13:10		2.0	13	7.3	500	>400	2	v. turbid, fine sand
13:15	10	2.0	13	7.3	500	>400	2	v. turbid, fine sand
13:20	20	2.0	13	7.3	490	>400	1	v. turbid, fine sand
13:25	30	2.0	13	7.4	500	>400	1	v. turbid, fine sand
13:30	40	2.0	13	7.3	500	>400	1	v. turbid, fine sand; emptied drum
14:00	50	2.0	13	7.3	500	>400	1	
14:05	60	2.0	13	7.3	500	>400	trace	
14:10	70	2.0	13	7.3	490	>400	trace	
14:15	80	2.0	13	7.4	500	>400	trace	
14:20	90	2.0	13	7.4	510	>400	trace	
14:25	100	2.0	13	7.4	500	>400	trace	
14:30	110	2.0	13	7.3	500	>400	trace	cloudy brown; emptied drums
15:10	120	2.0	13	7.3	500	>400	trace	
15:15	130	2.0	13	7.3	500	>400	trace	
15:20	140	2.0	13	7.3	500	>400	trace	
15:25	150	2.0	13	7.3	500	>400	trace	
15:30	160	2.0	13	7.3	490	>400	trace	emptied drums
16:00	167.5	1.5	13	7.3	500	>400	0	cloudy
Total Discharge (gallons): <u>320</u>				Total Casing Volumes Removed (gallons) <u>52.5</u>				
Ending Water Level (ft TOC): <u>48.12</u>				Ending Total Depth (ft TOC): <u>85.5</u>				
METHODS								
Cleaning Equipment <u>Liquinox wash/tap rinse/DI rinse</u>								
Development Equipment: <u>Wattera high flow system with electric actuator</u>								
Disposal of Discharged Water: <u>Waste water treatment plant</u>								
Observations/Comments: <u>Appears to be clearing</u>								
<u>Additional development completed 5/25/99 - see page 2</u>								



WELL DEVELOPMENT RECORD						WELL NUMBER: MWE-04	Page: 2 of 2	
Project Name: <u>STIA IWS Hydro Study</u>				Project Number: <u>BV98112</u>				
Date: <u>5/17/99; 5/25/99</u>				Starting Water Level (ft TOC): <u>48.10 (5/17); 48.26 (5/25)</u>				
Developed by: <u>RRH</u>				Casing Stickup (ft): <u>-0.40 (flush mount)</u>				
Measuring Point of Well: <u>TOC PVC</u>				Total Depth (ft TOC): <u>85.5</u>				
Screened Interval (ft. BGS) <u>84.6-74.6</u>				Casing Diameter (inches): <u>2"</u>				
Filter Pack Interval (ft. BGS) <u>87.5-71.5</u>								
Casing Volume: 37.4 ft Water x 0.163 gpf = 6.09								
Casing volumes: 2" = 0.16 gpf      4" = 0.65 gpf      6" = 1.47 gpf								
DEVELOPMENT MEASUREMENTS								
Time	Cumul. Vol. (gallons)	Purge Rate (gpm)	Temp. (C)	pH	Specific Conductance (umhos/cm)	Turbidity (NTU)	Imhoff Cone (mL)	Comments
16:05	175.0	1.5	13	7.3	500	>400	0	cloudy
16:10	182.5	2.0	13	7.3	510	>400	0	cloudy
16:15	190	2.0	13	7.3	490	>400	0	cloudy
16:20	197.5	2.0	13	7.3	500	>400	0	cloudy
16:25	205	2.0	13	7.3	500	>400	0	sl. to med. Cloudy
16:30	212.5	2.0	13	7.3	510	>400	0	sl. to med. Cloudy
16:35	220.0	2.0	13	7.3	510	>400	0	slightly cloudy brown
5/25/99								
Used Grundfos pump								
13:00		4	13	7.2	540	130	0	clear, colorless
13:05	240	4	13	7.2	550	95	0	clear, colorless
13:10	260	4	13	7.2	550	22	0	clear, colorless
13:20	280	4	13	7.2	540	13	0	clear, colorless
13:30	300	4	13	7.1	560	10.62	0	clear, colorless
13:40	320	4	13	7.1	560	5.92	0	clear, colorless
Total Discharge (gallons): <u>320</u>				Total Casing Volumes Removed (gallons) <u>52.5</u>				
Ending Water Level (ft TOC): <u>48.26</u>				Ending Total Depth (ft TOC): _____				
METHODS								
Cleaning Equipment <u>Liquinox wash/tap rinse/DI rinse</u>								
Development Equipment: <u>Wattersa high flow system with electric actuator, Grundfos submersible pump; disposable 1/2" ID tubing</u>								
Disposal of Discharged Water: <u>Waste water sump</u>								
Observations/Comments: _____								

<b>WELL DEVELOPMENT RECORD</b>				<b>WELL NUMBER: MWE-05</b>		<b>Page: 1 of 3</b>		
Project Name: <u>STIA IWS Hydro Study</u>				Project Number: <u>BV98112</u>				
Date: <u>5/14/99; 5/25/99</u>				Starting Water Level (ft TOC): <u>52.42</u>				
Developed by: <u>RRH</u>				Casing Stickup (ft): <u>2.0</u>				
Measuring Point of Well: <u>TOC PVC</u>				Total Depth (ft TOC): <u>92.00</u>				
Screened Interval (ft. BGS) <u>80-90</u>				Casing Diameter (inches): <u>2</u>				
Filter Pack Interval (ft. BGS) <u>76.0-92.5</u>								
Casing Volume: 39.58 ft Water x 0.163 gpf = 6.3								
Casing volumes: 2" = 0.16 gpf      4" = 0.65 gpf      6" = 1.47 gpf								
<b>DEVELOPMENT MEASUREMENTS</b>								
Time	Cumul. Vol. (gallons)	Purge Rate (gpm)	Temp. (C)	pH	Specific Conductance (umhos/cm)	Turbidity (NTU)	Imhoff Cone (ml/L)	Comments
9:30	0	2.5						(Depth of surge block/footvalve)
9:35	12.5	2.5	13	6.9	390	>400	5	89'-90' - surge block
9:40	25.0	2.5	13	6.9	380	>400	2	88'-89' - surge block
9:45	37.5	2.5	13	6.9	390	>400	2	87'-88'
9:50	50	2.5	13	6.9	390	>400	2	86'-87'
9:55	62.5	2.5	13	6.9	380	>400	2	85'-86'
10:00	75	2.5	13	6.9	370	>400	2	84'-85'
10:05	87.5	2.5	13	6.8	390	>400	2	83'-84'
10:10	100	2.5	13	6.9	380	>400	2	82'-83'
10:40	112.5	2.5	13	6.8	380	>400	2	81'-82'
10:45	125	2.5	13	6.8	380	>400	2	80'-81'
11:25	137.5	2.5	13	6.8	380	>400	4	
11:30	150.0	2.5	13	6.7	380	>400	trace	Pumping above screen 78'-79'
11:35	162.5	2.5	13	6.8	380	>400	0	clear, colorless
11:40	172.5	2.0	13	6.8	380	>400	0	
11:45	182.5	2.0	13	6.7	370	>400	0	
11:50	192.5	2.0	13	6.7	360	>400	0	
11:55	202.5	2.0	13	6.7	360	>400	0	cloudy, slightly turbid
Total Discharge (gallons): <u>437.5</u>				Total Casing Volumes Removed (gallons) <u>69.44</u>				
Ending Water Level (ft TOC): <u>52.45</u>				Ending Total Depth (ft TOC): <u>92.0</u>				
<b>METHODS</b>								
Cleaning Equipment <u>Liquinox wash/tap rinse/DI rinse</u>								
Development Equipment: <u>Wattera high flow system with surge block</u>								
Disposal of Discharged Water: <u>Waste water sump</u>								
Observations/Comments: <u>Additional development completed 5/25/99</u>								

WELL DEVELOPMENT RECORD				WELL NUMBER: MWE-05		Page: 2 of 3		
Project Name: <u>STIA IWS Hydro Study</u>				Project Number: <u>BV98112</u>				
Date: <u>5/14/99; 5/25/99</u>				Starting Water Level (ft TOC): <u>52.42</u>				
Developed by: <u>RRH</u>				Casing Stickup (ft): <u>2.0</u>				
Measuring Point of Well: <u>TOC PVC</u>				Total Depth (ft TOC): <u>92.00</u>				
Screened Interval (ft. BGS) <u>80-90</u>				Casing Diameter (inches): <u>2</u>				
Filter Pack Interval (ft. BGS) <u>76.0-92.5</u>								
Casing Volume: 39.58 ft Water x 0.163 gpf = 6.3								
Casing volumes: 2" = 0.16 gpf      4" = 0.65 gpf      6" = 1.47 gpf								
DEVELOPMENT MEASUREMENTS								
Time	Cumul. Vol. (gallons)	Purge Rate (gpm)	Temp. (C)	pH	Specific Conductance (umhos/cm)	Turbidity (NTU)	Imhoff Cone (mL)	Comments
12:00	212.5	2.0	13	6.7	370	>400	0	cloudy, slightly turbid
12:05	222.5	2.0	13	6.7	360	>400	0	cloudy, slightly turbid
12:40	232.5	2.0	13	6.7	360	>400	0	
12:45	242.5	2.0	13	6.8	360	>400	0	
12:50	252.5	2.0	13	6.7	340	>400	0	
12:55	262.5	2.0	13	6.7	340	382	0	
13:00	272.5	2.0	13	6.8	350	>400	0	
13:05	282.5	2.0	13	6.7	360	>400	0	
13:10	292.5	2.0	13	6.7	360	>400	0	
13:15	302.5	2.0	13	6.7	360	>400	0	
13:20	312.5	2.0	13	6.7	370	>400	0	
13:25	322.5	2.0	13	6.7	360	415	0	
14:00	327.5	1.0	13	6.8	370	398	0	
14:05	332.5	1.0	13	6.7	360	370	0	
14:10	337.5	1.0	13	6.7	370	280	0	
14:15	342.5	1.0	13	6.6	370	216	0	v. slightly turbid
14:20	347.5	1.0	13	6.6	380	211	0	v. slightly turbid
14:25	352.5	1.0	13	6.6	370	214	0	v. slightly turbid
Total Discharge (gallons): _____				Total Casing Volumes Removed (gallons) _____				
Ending Water Level (ft TOC): _____				Ending Total Depth (ft TOC): <u>92.0</u>				
METHODS								
Cleaning Equipment <u>Liquinox wash/tap rinse/DI rinse</u>								
Development Equipment: <u>Wattera high flow system with surge block</u>								
Disposal of Discharged Water: <u>Waste water sump</u>								
Observations/Comments: <u>Additional development completed 5/25/99</u>								

<b>WELL DEVELOPMENT RECORD</b>				<b>WELL NUMBER: MWE-05</b>				<b>Page: 3 of 3</b>	
Project Name: <u>STIA IWS Hydrom Study</u>				Project Number: <u>BV98112</u>					
Date: <u>5/14/99; 5/25/99</u>				Starting Water Level (ft TOC): <u>52.42</u> Casing Stickup (ft): <u>2.0</u> Total Depth (ft TOC): <u>92.00</u> Casing Diameter (inches): <u>2</u>					
Developed by: <u>RRH</u>									
Measuring Point of Well: <u>TOC PVC</u>									
Screened Interval (ft. BGS) <u>80-90</u>									
Filter Pack Interval (ft. BGs) <u>76.0-92.5</u>									
Casing Volume: 39.58 ft Water x 0.163 gpf = 6.3									
Casing volumes: 2" = 0.16 gpf      4" = 0.65 gpf      6" = 1.47 gpf									
<b>DEVELOPMENT MEASUREMENTS</b>									
Time	Cumul. Vol. (gallons)	Purge Rate (gpm)	Temp. (C)	pH	Specific Conductance (umhos/cm)	Turbidity (NTU)	Imhoff Cone (ml/L)	Comments	
14:30	357.5	1.0	13	6.6	380	212	0	v. slightly turbid	
14:35	362.5	1.0	13	6.6	380	180	0	becoming clear	
14:40	367.5	1.0	13	6.6	380	152	0		
14:45	372.5	1.0	13	6.6	370	148	0		
14:50	377.5	1.0	13	6.6	380	119	0	clear, colorless	
14:55	382.5	1.0	13	6.6	380	98.9	0	clear, colorless	
								5/25/99	
								52.49' beginning water level	
								Pumped with Grundfos	
15:15		4.0						sl. cloudy	
15:20	402.5	4.0	13	7.2	390	8.8	0	clear, colorless	
15:25	422.5	4.0	13	7.2	390	5.19			
15:28	437.5	4.0	13	7.2	390	3.72			
Total Discharge (gallons): <u>55</u> Total Casing Volumes Removed (gallons) _____									
Ending Water Level (ft TOC): <u>52.45 (5/14); 52.50 (5/25)</u> Ending Total Depth (ft TOC): <u>92.0</u>									
<b>METHODS</b>									
Cleaning Equipment: <u>Liquinox wash/tap rinse/DI spray</u>									
Development Equipment: <u>Grundfos submersible pump</u>									
Disposal of Discharged Water: <u>Waste water sump</u>									
Observations/Comments: <u>Additional development completed 5/25/99</u>									

WELL DEVELOPMENT RECORD				WELL NUMBER: MWE-07		Page: 1 of 2		
Project Name: <u>STIA IWS Hydro Study</u>				Project Number: <u>BV98112</u>				
Date: <u>5/12/99</u>				Starting Water Level (ft TOC): <u>26.29</u>				
Developed by: <u>RRH</u>				Casing Stickup (ft): <u>2.2</u>				
Measuring Point of Well: <u>TOC PVC</u>				Total Depth (ft TOC): <u>71.30</u>				
Screened Interval (ft. BGS) <u>60-70</u>				Casing Diameter (inches): <u>2</u>				
Filter Pack Interval (ft. BGS) <u>57-75</u>								
Casing Volume: 45 ft Water x 0.163 gpf = 7.34								
Casing volumes: 2" = 0.16 gpf      4" = 0.65 gpf      6" = 1.47 gpf								
DEVELOPMENT MEASUREMENTS								
Time	Cumul. Vol. (gallons)	Purge Rate (gpm)	Temp. (C)	pH	Specific Conductance (umhos/cm)	Turbidity (NTU)	Imhoff Cone (mL/L)	Comments
12:45								Surged with Wattera, 5 gal
13:10	5	2	13	7.8	490	>400	10	very turbid, brown
13:15	10	2	12	7.6	480	>400	5	very turbid, brown
13:20	20	2	12	7.7	500	>400	trace	turbid, brown
13:25	30	2	12	7.7	500	>400	2	turbid, brown
13:30	40	2	12	7.7	520	303	0	slightly turbid, light brown
13:35	50	2.0	12	7.6	510	211	0	
13:40	60	2	12	7.6	500	179	0	clear
								Surged with Wattera, 5 gal
13:55	65	2	13	7.7	530	>400	4	very turbid
14:00	75	2	13	7.5	490	>400	0	very turbid
14:05	85	2	13	7.6	480	>400	0	turbid
14:10	95	2	13	7.6	490	300	0	clear
								Surged with Wattera, 10 gal; emptied drums
14:45	105	2	13	7.7	500	>400	2	very turbid
14:50	115	2	14	7.5	470	>400	trace	moderately turbid
14:55	125	2	14	7.6	440	297	0	almost clear
15:00	135	2	14	7.6	440	165	0	almost clear
Total Discharge (gallons): <u>240</u>				Total Casing Volumes Removed (gallons) <u>32</u>				
Ending Water Level (ft TOC): <u>26.35</u>				Ending Total Depth (ft TOC): <u>71.30</u>				
METHODS								
Cleaning Equipment <u>Alconox wash/tap rinse/DI spray</u>								
Development Equipment: <u>Wattera high flow system with surge block; 12 volt submersible pump</u>								
Disposal of Discharged Water: <u>Waste water treatment plant</u>								
Observations/Comments: <u>Surged throughout screen interval; additional development 5/24/99 - see page 2</u>								

<b>WELL DEVELOPMENT RECORD</b>				<b>WELL NUMBER: MWE-07</b>		<b>Page: 2 of 2</b>		
Project Name: <u>STIA IWS Hydm Study</u>				Project Number: <u>BV98112</u>				
Date: <u>5/24/99</u>				Starting Water Level (ft TOC): <u>26.32</u>				
Developed by: <u>RRH</u>				Casing Stickup (ft): <u>2.2</u>				
Measuring Point of Well: <u>TOC PVC</u>				Total Depth (ft TOC): <u>71.30</u>				
Screened Interval (ft. BGS) <u>60-70</u>				Casing Diameter (inches): <u>2</u>				
Filter Pack Interval (ft. BGs) <u>57-75</u>								
Casing Volume: 45 ft Water x 0.163 gpf = 7.34								
Casing volumes: 2" = 0.16 gpf      4" = 0.65 gpf      6" = 1.47 gpf								
<b>DEVELOPMENT MEASUREMENTS</b>								
Time	Cumul. Vol. (gallons)	Purge Rate (gpm)	Temp. (C)	pH	Specific Conductance (umhos/cm)	Turbidity (NTU)	Imhoff Cone (ml/L)	Comments
15:10		1.5	13	7.8	430	414	0	turbid, brown
15:15	142.5	1.5	13	7.6	460	550	0	turbid, brown
15:20	150.0	1.5	13	7.6	490	797	0	turbid, brown
15:25	157.5	1.5	13	7.6	470	410	0	slightly turbid
15:30	165	1.5	13	7.7	450	120	0	very slightly turbid
15:35	172.5	1.5	13	7.6	430	60	0	almost clear
15:40	180	1.5	13	7.6	430	55	0	slightly cloudy
15:45	187.5	1.5	13	7.6	440	38	0	clear
15:50	195	1.5	13	7.6	450	32	0	clear
15:55	202.5	1.5	13	7.7	440	32	0	clear
16:00	210	1.5	13	7.5	460	17	0	clear
16:05	217.5	1.5	13	7.4	460	14	0	clear
16:10	225	1.5	13	7.4	460	15	0	clear
16:15	232.5	1.5	13	7.4	460	12	0	clear
16:20	240	1.5	13	7.4	460	9.7	0	clear, colorless
Total Discharge (gallons): <u>105</u> Total Casing Volumes Removed (gallons) _____								
Ending Water Level (ft TOC): _____      Ending Total Depth (ft TOC): _____								
<b>METHODS</b>								
Cleaning Equipment <u>Alconox wash/tap rinse/DI spray</u>								
Development Equipment: <u>Wattera high flow system with surge block; 12 volt submersible pump</u>								
Disposal of Discharged Water: <u>Waste water treatment plant</u>								
Observations/Comments: <u>Surged throughout screen interval; additional development 5/24/99 - see page 2</u>								

WELL DEVELOPMENT RECORD				WELL NUMBER: MWE-08		Page: 1 of 1		
Project Name: <u>STIA IWS Hydro Study</u>				Project Number: <u>BV98112</u>				
Date: <u>5/25/99</u>				Starting Water Level (ft TOC): <u>17.72</u> Casing Stickup (ft): <u>-0.2 (flush mount)</u> Total Depth (ft TOC): <u>51.5</u> Casing Diameter (inches): <u>2"</u>				
Developed by: <u>RRH</u>								
Measuring Point of Well: <u>TOC PVC</u>								
Screened Interval (ft. BGS) <u>51.7-41.7</u>								
Filter Pack Interval (ft. BGS) <u>52.5-39.0</u>								
Casing Volume: 33.8 ft Water x 0.163 gpf = 5.5								
Casing volumes: 2" = 0.16 gpf      4" = 0.65 gpf      6" = 1.47 gpf								
DEVELOPMENT MEASUREMENTS								
Time	Cumul. Vol. (gallons)	Purge Rate (gpm)	Temp. (C)	pH	Specific Conductance (umhos/cm)	Turbidity (NTU)	Imhoff Cone (mL/L)	Comments
9:30		1	14	7.6	740	>1100	5	very turbid
9:40	10	1	14	7.5	740	>1100	1	pumping rate slowed
9:50	17.5	0.75	14	7.5	730	>1100	trace	
10:00	25	0.75	14	7.5	730	>1100	trace	
10:10	32.5	0.5	14	7.4	730	>1100	0	
10:20	37.5	0.5	14	7.4	730	550	0	
10:30	42.5	0.5	14	7.3	740	210	0	
10:40	47.5	0.5	14	7.3	740	180	0	
10:50	52.5	0.5	14	7.4	730	100	0	
11:00	57.5		14	7.4	730	85	0	Shut off pump water at 48.0'
11:10		0.75	14	7.4	720	>1100	0	Water at 34', start pump
11:20	65.0	0.5	14	7.4	720	>1100	0	
11:30	70.0	0.5	14	7.4	720	>1100	0	
11:40	75.0	0.5	14	7.4	720	910	0	
11:50	80.0	0.5	14	7.4	720	560	0	
12:00	85	0.5	14	7.4	720	410	0	
12:10	90	0.5	14	7.4	720	350	0	
12:20	95	0.5	14	7.3	720	95	0	clear, colorless
	100		14	7.3	720	55	0	
Total Discharge (gallons): <u>100</u>				Total Casing Volumes Removed (gallons) <u>17.9</u>				
Ending Water Level (ft TOC): <u>39.0 (rising)</u>				Ending Total Depth (ft TOC): <u>51.5</u>				
METHODS								
Cleaning Equipment: <u>Liquinox wash/tap rinse/DI spray</u>								
Development Equipment: <u>Wattera high flow system with surge block; 12 volt submersible pump</u>								
Disposal of Discharged Water: <u>Waste water sump</u>								
Observations/Comments: <u>Removed approximately 10 gallons surging with Wattera. Pumped with 12 volt submersible</u>								

<b>WELL DEVELOPMENT RECORD</b>					<b>WELL NUMBER: MWE-09</b>		<b>Page: 1 of 1</b>	
Project Name: <u>STIA IWS Hydro Study</u>					Project Number: <u>BV9R112</u>			
Date: <u>5/12/99</u>					Starting Water Level (ft TOC): <u>23.13</u>			
Developed by: <u>RRH</u>					Casing Stickup (ft): <u>2.0</u>			
Measuring Point of Well: <u>TOC PVC</u>					Total Depth (ft TOC): <u>58.0</u>			
Screened Interval (ft. BGS) <u>57.2-47.2</u>					Casing Diameter (inches): <u>2</u>			
Filter Pack Interval (ft. BGs) <u>57.5-44.5</u>								
Casing Volume: 34.87 ft Water x 0.163 gpf = 5.68								
Casing volumes: 2" = 0.16 gpf      4" = 0.65 gpf      6" = 1.47 gpf								
<b>DEVELOPMENT MEASUREMENTS</b>								
Time	Cumul. Vol. (gallons)	Purge Rate (gpm)	Temp. (C)	pH	Specific Conductance (umhos/cm)	Turbidity (NTU)	Imhoff Cone (ml/L)	Comments
								Prior to pumping, 15 gallons removed by surging
10:05	15	2	13	6.6	780	>400	5	very turbid, brown
10:10	25	2	12	6.7	880	367	1	slightly turbid, lt brown
10:15	35	2	12	6.6	900	120	trace	v. slightly turbid
10:20	45	2	12	6.7	880	210	0	v. slightly turbid
								Resurged with Wattera, 10 gal
10:45	60	2	12	6.8	910	>400	3	very turbid, brown
10:50	70	2	12	6.7	870	320	trace	slightly turbid
10:55	65	2	12	6.7	880	180	0	v. slightly turbid
								Resurged with Wattera, 8 gal
11:15	90	2	12	6.7	900	310	trace	turbid, brown
11:20	100	2	12	6.7	880	68.8	0	clear
11:25	110	2	12	6.7	880	59.1	0	clear
11:35	120	2	12	6.7	880	48.4	0	clear
Total Discharge (gallons): <u>120</u> Total Casing Volumes Removed (gallons) <u>21.13</u>								
Ending Water Level (ft TOC): <u>-</u> Ending Total Depth (ft TOC): <u>58.0</u>								
<b>METHODS</b>								
Cleaning Equipment <u>Liquinox wash/tap rinse/DI spray</u>								
Development Equipment: <u>Wattera high flow system with surge block; 12 volt submersible pump</u>								
Disposal of Discharged Water: <u>Waste water treatment plant</u>								
Observations/Comments: <u>Surged throughout screen interval</u>								

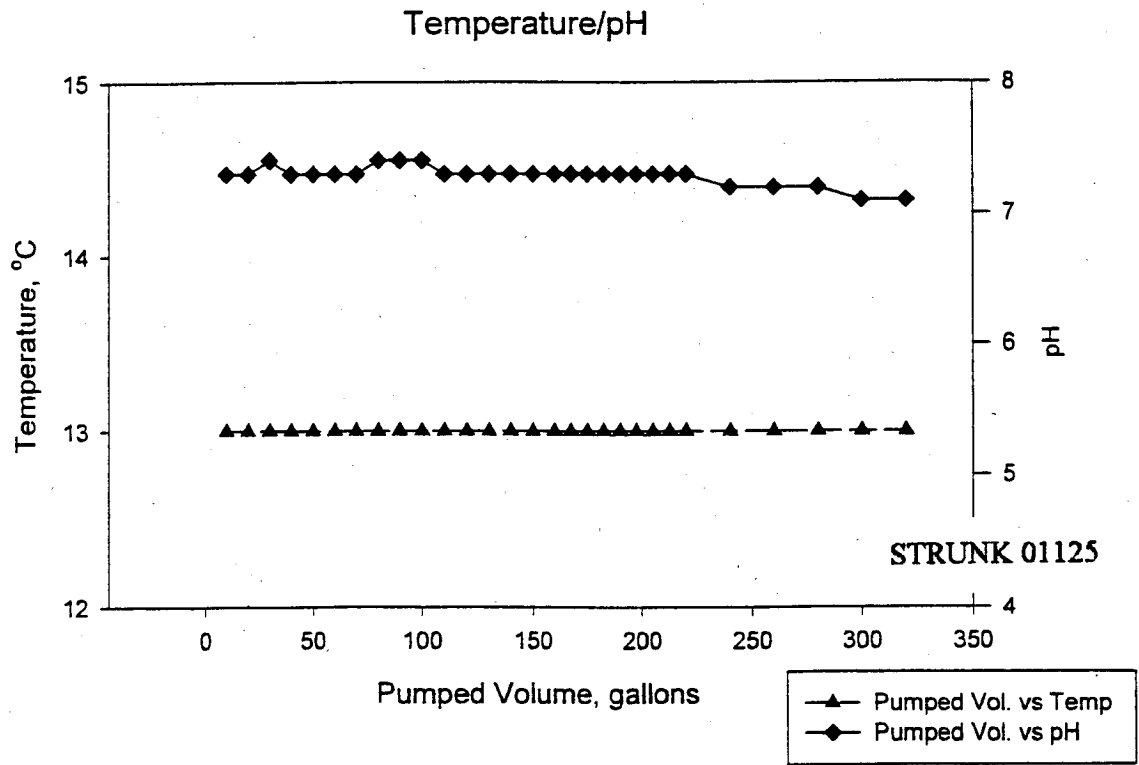
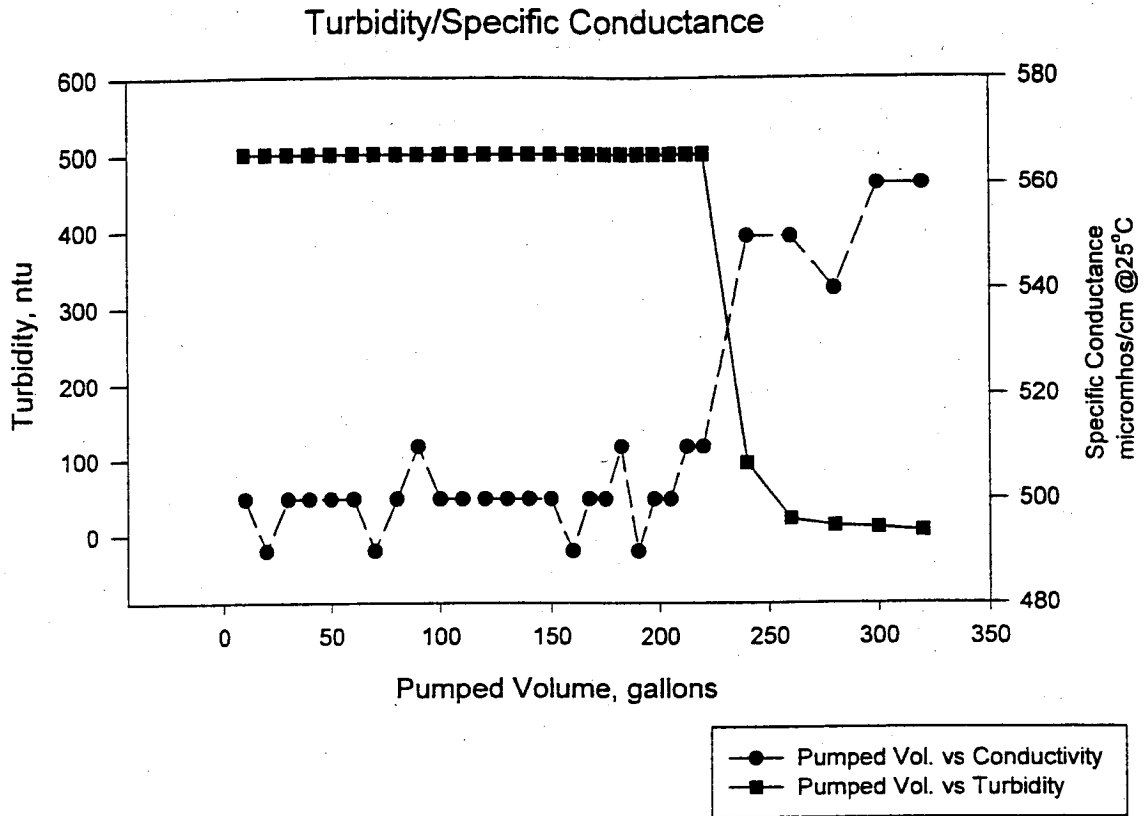


<b>WELL DEVELOPMENT RECORD</b>				<b>WELL NUMBER: MW-105</b>		<b>Page: 1 of 1</b>		
Project Name: <u>STIA IWS Hydro Study</u>				Project Number: <u>BV98112</u>				
Date: <u>5/21/99, 5/26/99</u>				Starting Water Level (ft TOC): <u>18.12</u> Casing Stickup (ft): <u>2.0</u> Total Depth (ft TOC): <u>27.4</u> Casing Diameter (inches): <u>2"</u>				
Developed by: <u>RRH</u>								
Measuring Point of Well: <u>TOC PVC</u>								
Screened Interval (ft. BGS) <u>25.3-15.3</u>								
Filter Pack Interval (ft. BGS) <u>27.5-14</u>				Casing Diameter (inches): <u>2"</u>				
Casing Volume: $9.28 \text{ ft Water} \times 0.163 \text{ gpf} = 1.5$								
Casing volumes: $2" = 0.16 \text{ gpf}$ $4" = 0.65 \text{ gpf}$ $6" = 1.47 \text{ gpf}$								
<b>DEVELOPMENT MEASUREMENTS</b>								
Time	Cumul. Vol. (gallons)	Purge Rate (gpm)	Temp. (C)	pH	Specific Conductance (umhos/cm)	Turbidity (NTU)	Imhoff Cone (ml/L)	Comments
5/21/99	4							Surged with Wattera surge block for 4 gallons. Well went dry.
								Let well recover and surged with Wattera without check valve
5/26/99								
11:00	0.5							
11:03	1.5	0.25	14	7.3	780	>1100	5 mg/L	Very turbid
11:07	2.5	0.25	14	7.2	790	>1100	trace	Very turbid
11:11	3.5	0.25	14	7.2	800	>1100	trace	Very turbid
11:15	4.5	0.25	14	7.3	780	>1100	trace	Very turbid
11:19	5.5	0.25	14	7.3	790	>1100	trace	Very turbid
11:23	6.5	0.25	14	7.2	800	>1100	trace	Water level at 26.6'
11:27	7.5	0.25	14	7.2	790	>1100	trace	Moderately turbid
11:30	8.0	0.25	14	7.2	800	>1100	trace	Dry
Total Discharge (gallons): <u>surge 4.0; pump 8.0</u>								
Total Casing Volumes Removed (gallons) <u>12.0</u>								
Ending Water Level (ft TOC): <u>26.5 (rising)</u>								
Ending Total Depth (ft TOC): <u>27.4</u>								
<b>METHODS</b>								
Cleaning Equipment <u>Dedicated tubing; Liquinox wash/tap rinse/DI spray</u>								
Development Equipment: <u>Wattera high flow system with surge block; Grundfos submersible pump</u>								
Disposal of Discharged Water: <u>Waste water sump</u>								
Observations/Comments: <u>Very turbid to turbid; pumps dry. Difficult to develop due to low water production in well</u>								

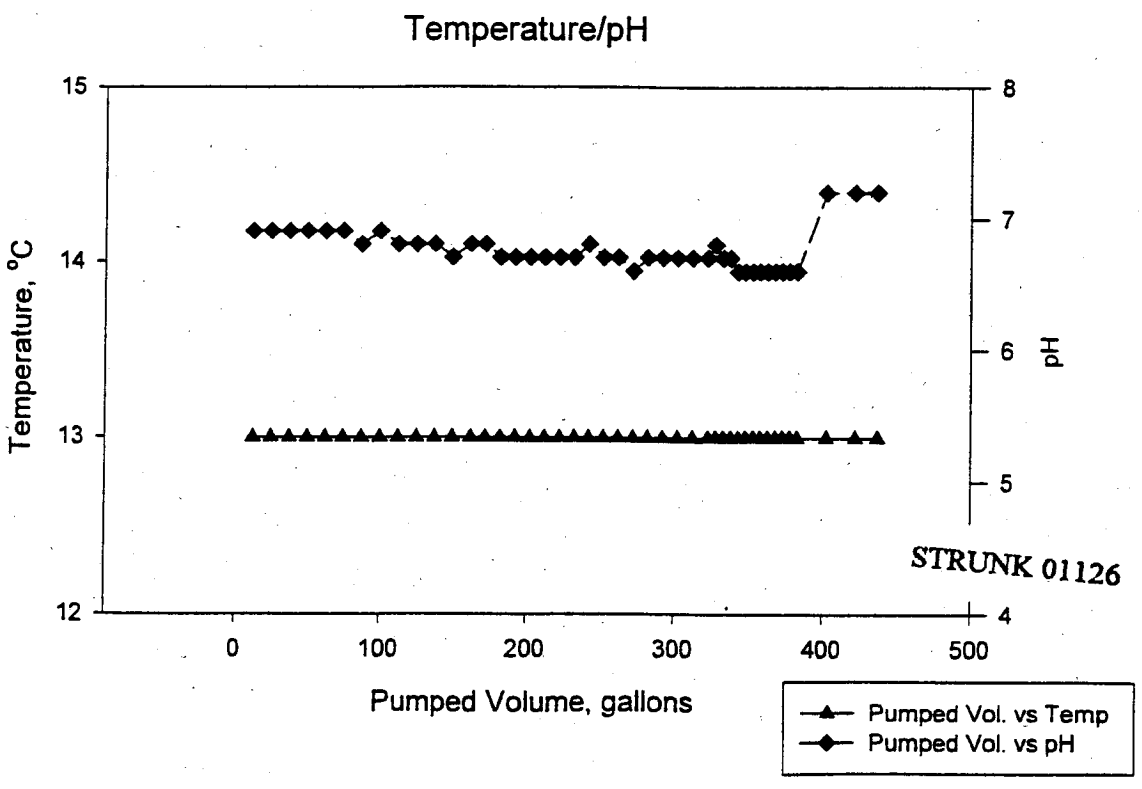
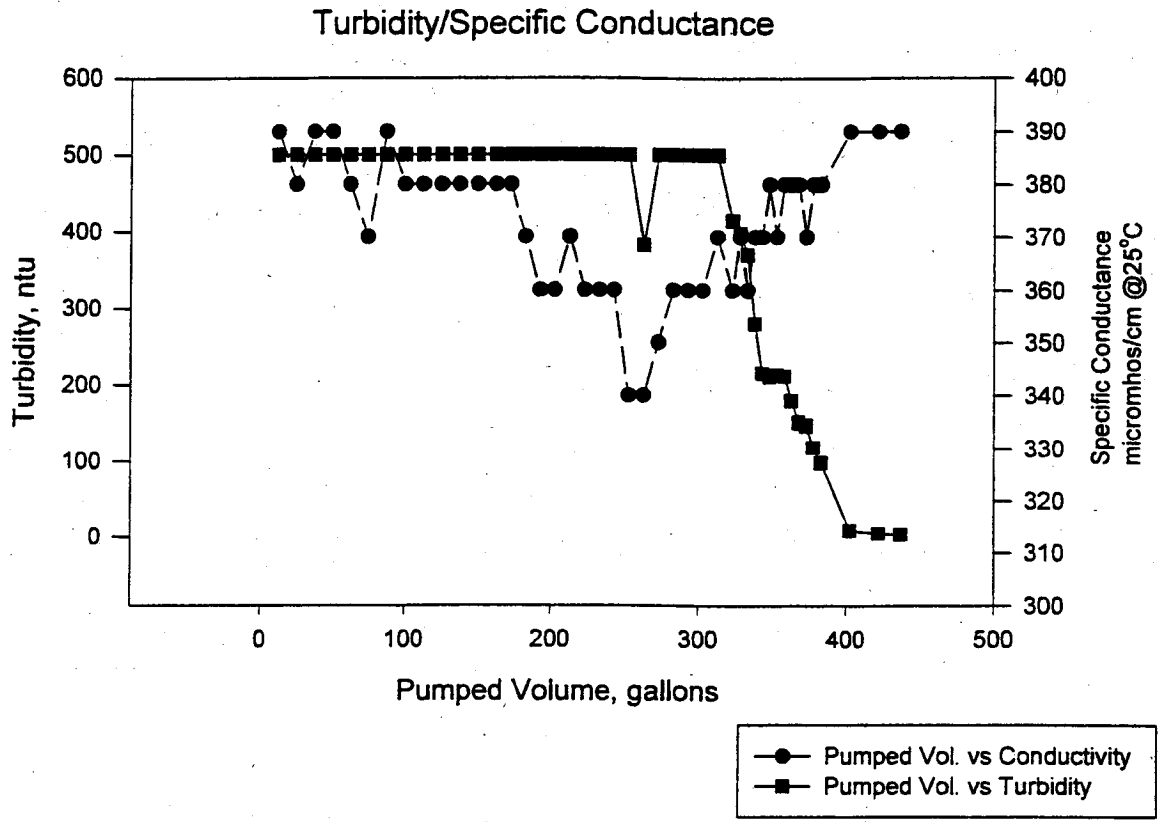
<b>WELL DEVELOPMENT RECORD</b>				<b>WELL NUMBER: MW-106</b>		<b>Page: 1 of 1</b>		
Project Name: <u>STJA IWS Hydro Study</u>				Project Number: <u>BV98112</u>				
Date: <u>5/26/99</u>				Starting Water Level (ft TOC): <u>19.89</u>				
Developed by: <u>RRH</u>				Casing Stickup (ft): <u>2.0</u>				
Measuring Point of Well: <u>TOC PVC</u>				Total Depth (ft TOC): <u>31.6</u>				
Screened Interval (ft. BGS) <u>31.5-9.5</u>				Casing Diameter (inches): <u>2"</u>				
Filter Pack Interval (ft. BGS) <u>32.5-9.5</u>								
Casing Volume: 11.71 ft Water x 0.163 gpf = 1.9								
Casing volumes: 2" = 0.16 gpf      4" = 0.65 gpf      6" = 1.47 gpf								
<b>DEVELOPMENT MEASUREMENTS</b>								
Time	Cumul. Vol. (gallons)	Purge Rate (gpm)	Temp. (C)	pH	Specific Conductance (umhos/cm)	Turbidity (NTU)	Imhoff Cone (mL/L)	Comments
10:00	2							Surged with Wattera surge block
10:05	4		13	6.9	760	>1100	5	from water table down in 2'
10:10	6		13	7.1	760	>1100		intervals. Let well recover.
10:15	8		13	7.0	750	>1100		
10:20	10		13	7.1	750	>1100		
10:25	12		13	7.1	750	>1100	2	
14:32		1	14	7.1	520	>1100		Finished with Grundfos using
14:35	3	1	14	7.1	600	>1100		variable flow rates going dry
14:37	4	0.25	14	7.0	610			Slow pump rate
14:41	5	0.16	14	7.0	630	468		slow pump rate
14:47	6	0.5	14	7.1	660	165		Increase pump rate
14:49	7	0.5	14	7.1	680	767		
14:51	8		14	7.1	680			
Total Discharge (gallons): <u>20</u>				Total Casing Volumes Removed (gallons) <u>10.5</u>				
Ending Water Level (ft TOC): <u>31 (rising)</u>				Ending Total Depth (ft TOC): <u>31.6</u>				
<b>METHODS</b>								
Cleaning Equipment: <u>Dedicated tubing; Liquinox wash/tap rinse/DI spray</u>								
Development Equipment: <u>Wattera high flow system with surge block; Grundfos submersible pump</u>								
Disposal of Discharged Water: <u>Waste water sump</u>								
Observations/Comments: <u>Slow recovery, turbid</u>								

<b>WELL DEVELOPMENT RECORD</b>				<b>WELL NUMBER: MW-107</b>			<b>Page: 1 of 1</b>	
Project Name: <u>STIA IWS Hydro Study</u>				Project Number: <u>BV98112</u>				
Date: <u>5/26/99</u>				Starting Water Level (ft TOC): <u>13.58</u> Casing Stickup (ft): <u>2.0</u> Total Depth (ft TOC): <u>26.5</u> Casing Diameter (inches): <u>2"</u>				
Developed by: <u>RRH</u>								
Measuring Point of Well: <u>TOC PVC</u>								
Screened Interval (ft. BGS) <u>25-10</u>								
Filter Pack Interval (ft. BGS) <u>25-7.7</u>								
Casing Volume: 12.92 ft Water x 0.163 gpf = 2.1								
Casing volumes: 2" = 0.16 gpf      4" = 0.65 gpf      6" = 1.47 gpf								
<b>DEVELOPMENT MEASUREMENTS</b>								
Time	Cumul. Vol. (gallons)	Purge Rate (gpm)	Temp. (C)	pH	Specific Conductance (umhos/cm)	Turbidity (NTU)	Imhoff Cone (m/L)	Comments (Depth of foot valve/surge block)
12:30	2	1						Surged with Wattera and surge block 14'-16'
12:40	4	1						16'-18'
12:50	6	1						18'-20'
13:00	9	1						20'-22'
13:10	13	1						22'-24'
13:20	16	1						24'-26'
Switched to 12 volt submersible								
13:30		2	14	9.7	340	>1100	5 mg/L	22'
13:35	10	2	14	9.6	330	451	1 mg/L	pumped dry - pump at 26'
14:00								Water at 14.75'
14:02	12	2	14	9.7	230	>1100	2 mg/L	slightly turbid
14:04	15	1	14	9.8	350	674	trace	
14:05	16	1	14	9.7	450	457		Medium turbidity
Total Discharge (gallons): <u>surge 16; pump 16 - 32 total</u> Total Casing Volumes Removed (gallons) <u>15</u>								
Ending Water Level (ft TOC): <u>25</u> Ending Total Depth (ft TOC): <u>26.5</u>								
<b>METHODS</b>								
Cleaning Equipment: <u>Liquinox wash/tap rinse/DI spray</u>								
Development Equipment: <u>Disposable tubing; Wattera high flow system with surge block; 12 volt submersible pump</u>								
Disposal of Discharged Water: <u>Waste water sump</u>								
Observations/Comments: <u>Runs dry after 16 gallons. Recovers to 92% after 25 minutes</u>								

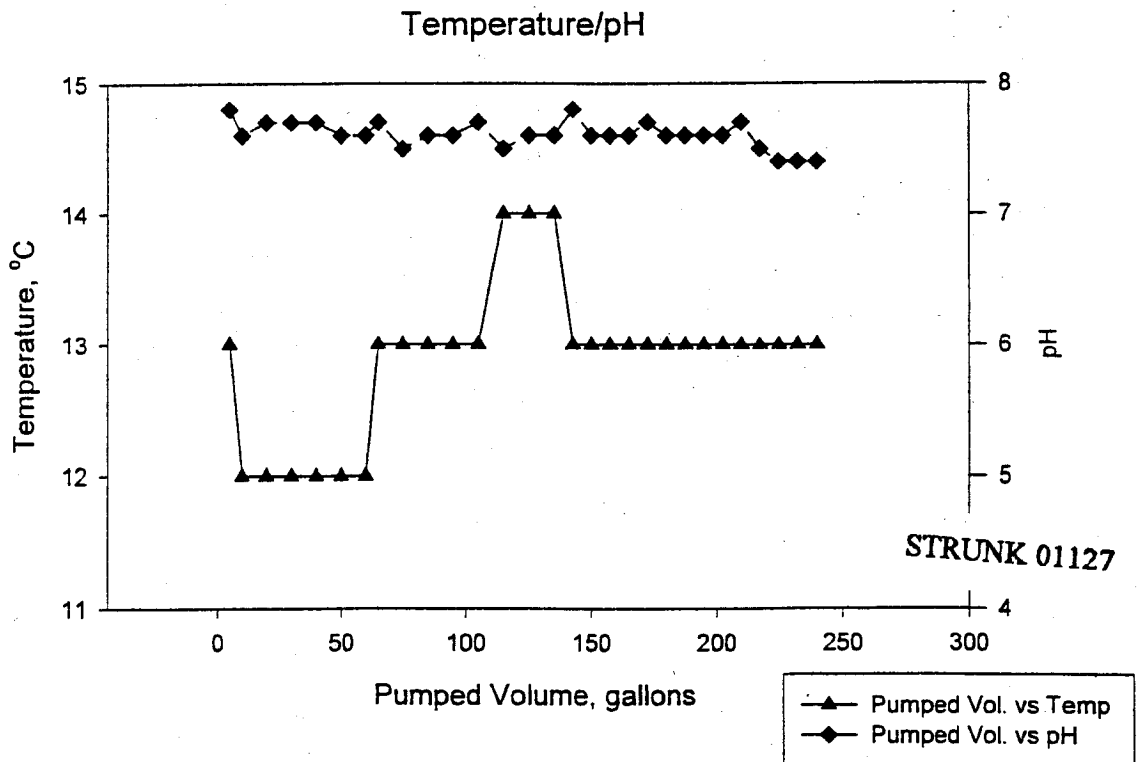
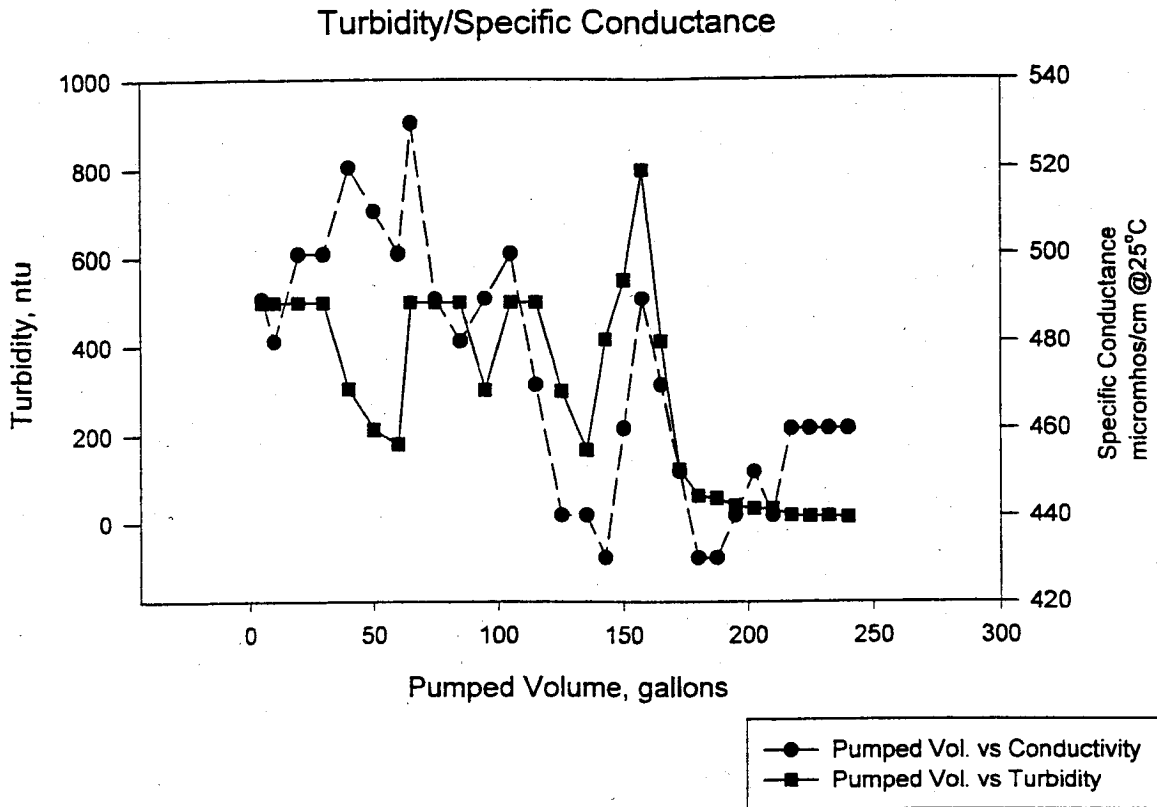
**FIGURE A.25**  
**FIELD MEASURED PARAMETERS DURING WELL DEVELOPMENT**  
**MONITORING WELL MWE-04**  
 STIA IWS Hydrogeologic Study  
 SeaTac Airport, Washington



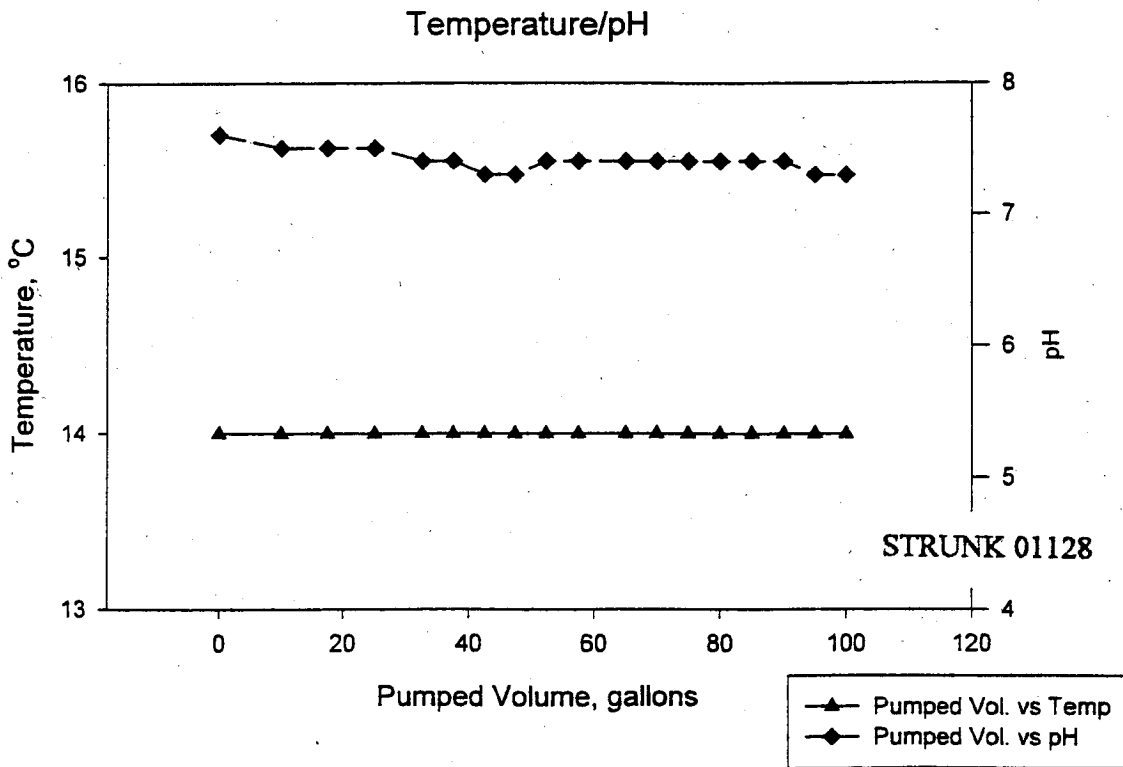
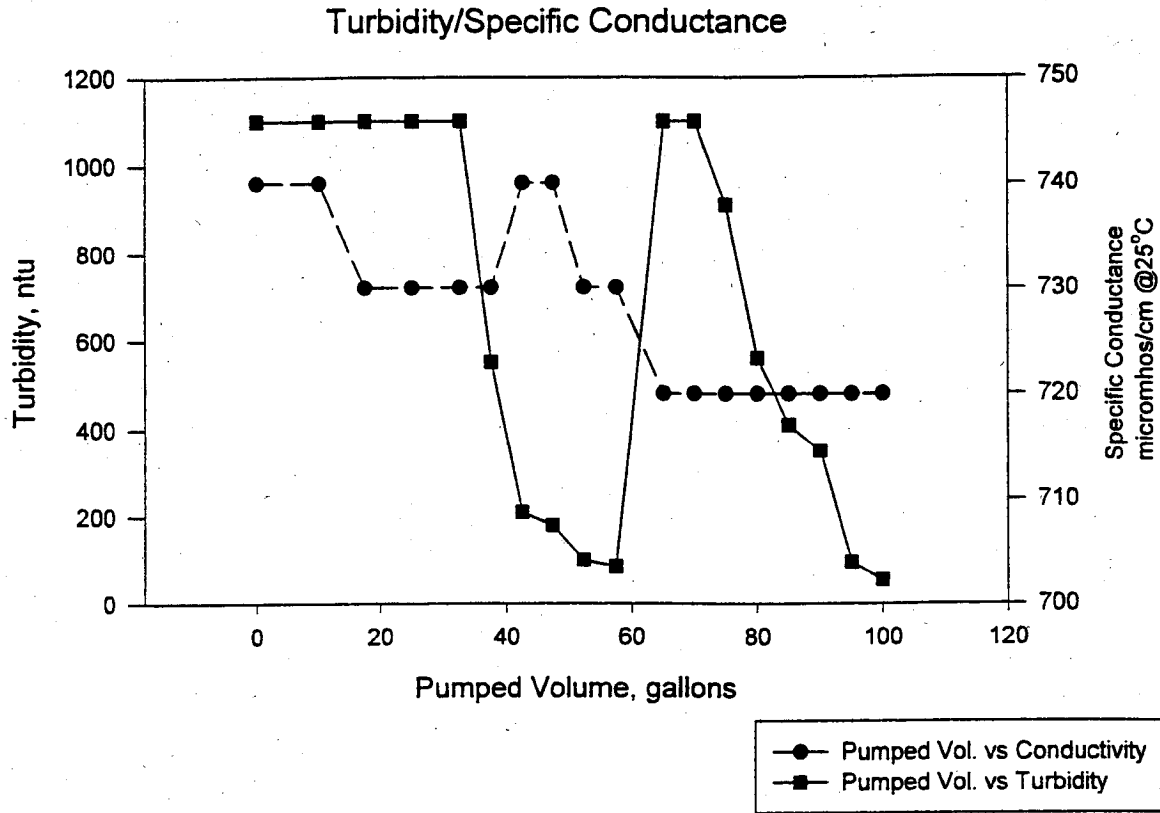
**FIGURE A.26**  
**FIELD MEASURED PARAMETERS DURING WELL DEVELOPMENT**  
**MONITORING WELL MWE-05**  
 STIA IWS Hydrogeologic Study  
 SeaTac Airport, Washington



**FIGURE A.27**  
**FIELD MEASURED PARAMETERS DURING WELL DEVELOPMENT**  
**MONITORING WELL MWE-07**  
 STIA IWS Hydrogeological Study  
 SeaTac Airport, Washington

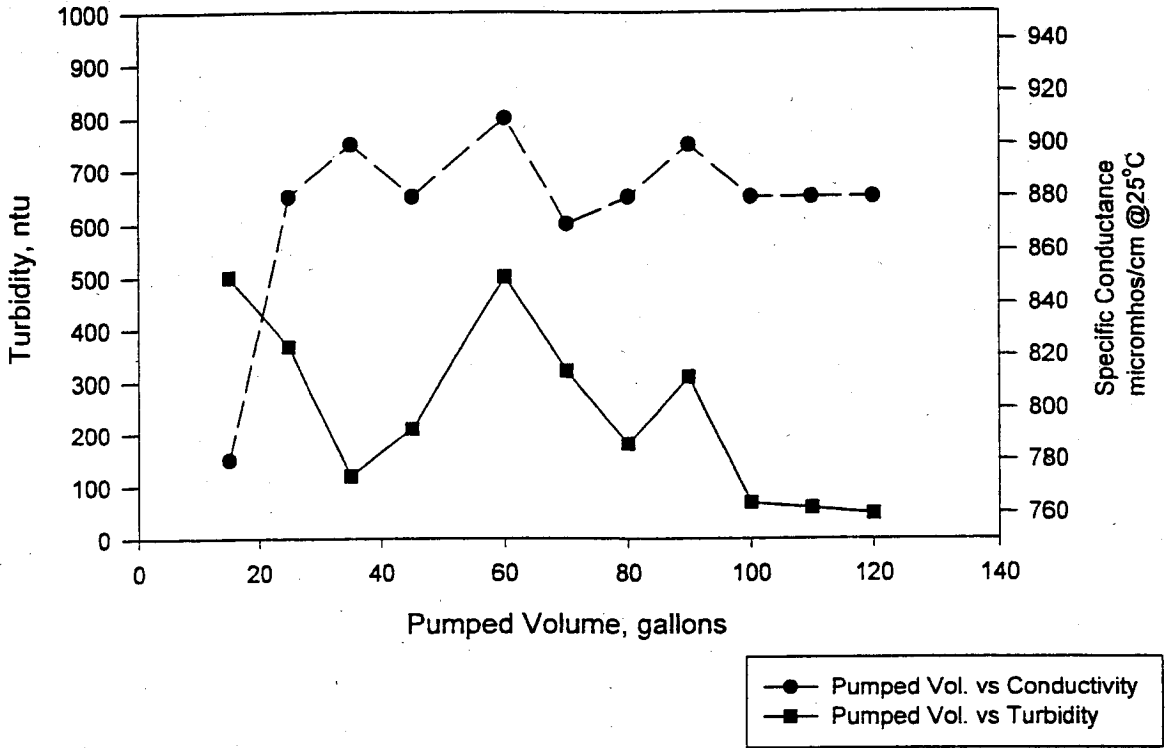


**FIGURE A.28**  
**FIELD MEASURED PARAMETERS DURING WELL DEVELOPMENT**  
**MONITORING WELL MWE-08**  
 STIA IWS Hydrogeologic Study  
 SeaTac Airport, Washington

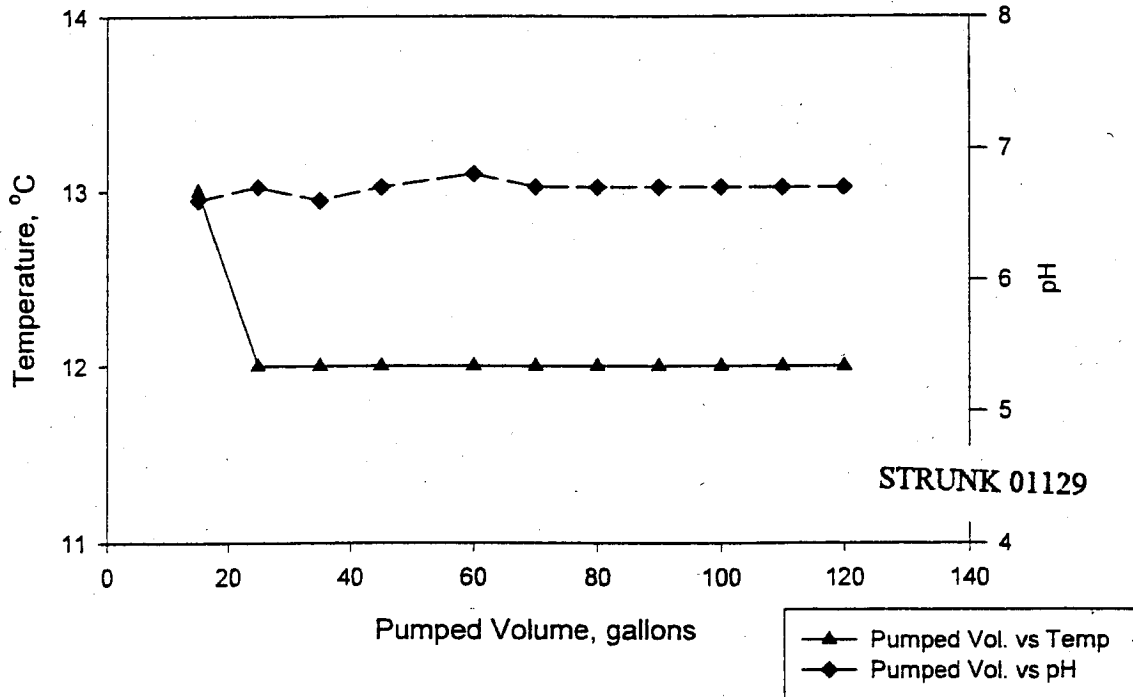


**FIGURE A.29**  
**FIELD MEASURED PARAMETERS DURING WELL DEVELOPMENT**  
**MONITORING WELL MWE-09**  
 STIA IWS Hydrogeologic Study  
 SeaTac Airport, Washington

Turbidity/Specific Conductance



Temperature/pH

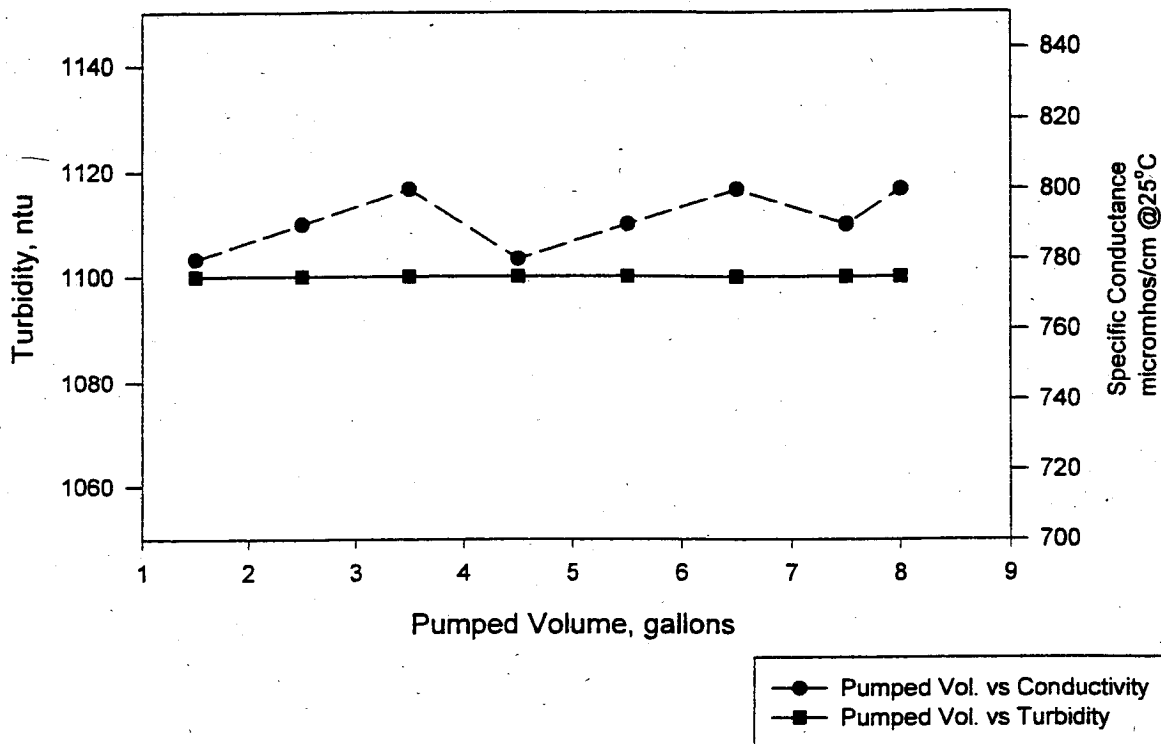


STRUNK 01129

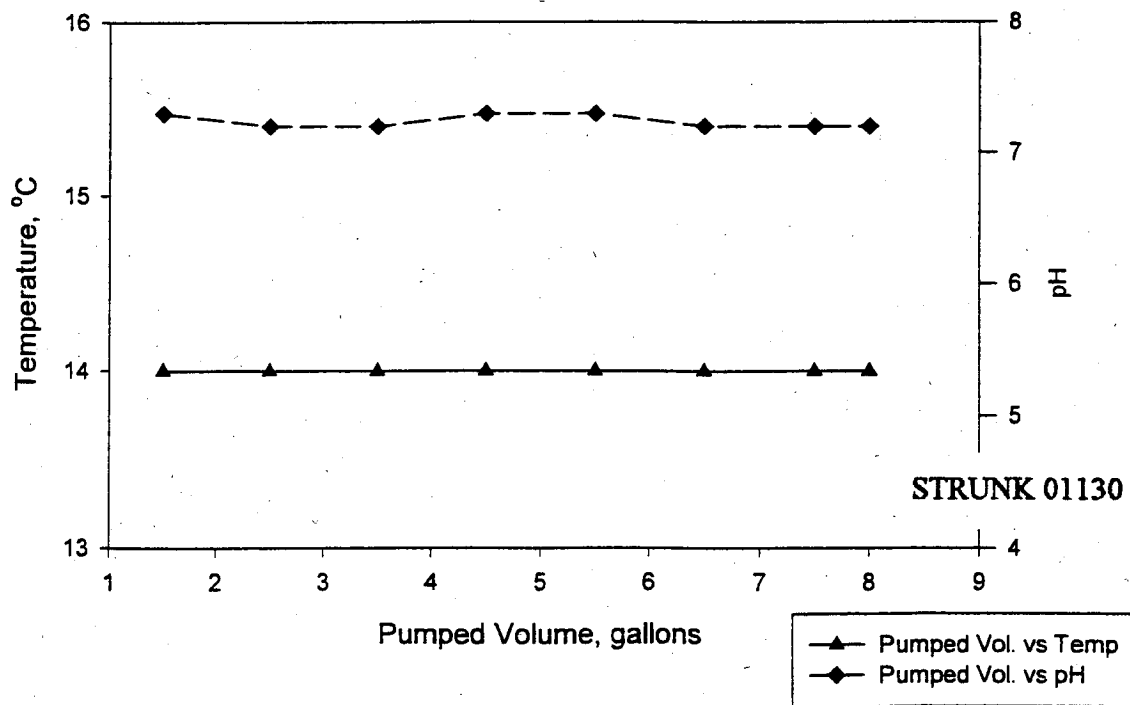


**FIGURE A.30**  
**FIELD MEASURED PARAMETERS DURING WELL DEVELOPMENT**  
**MONITORING WELL MW-105**  
 STIA IWS Hydrogeologic Study  
 SeaTac Airport, Washington

Turbidity/Specific Conductance

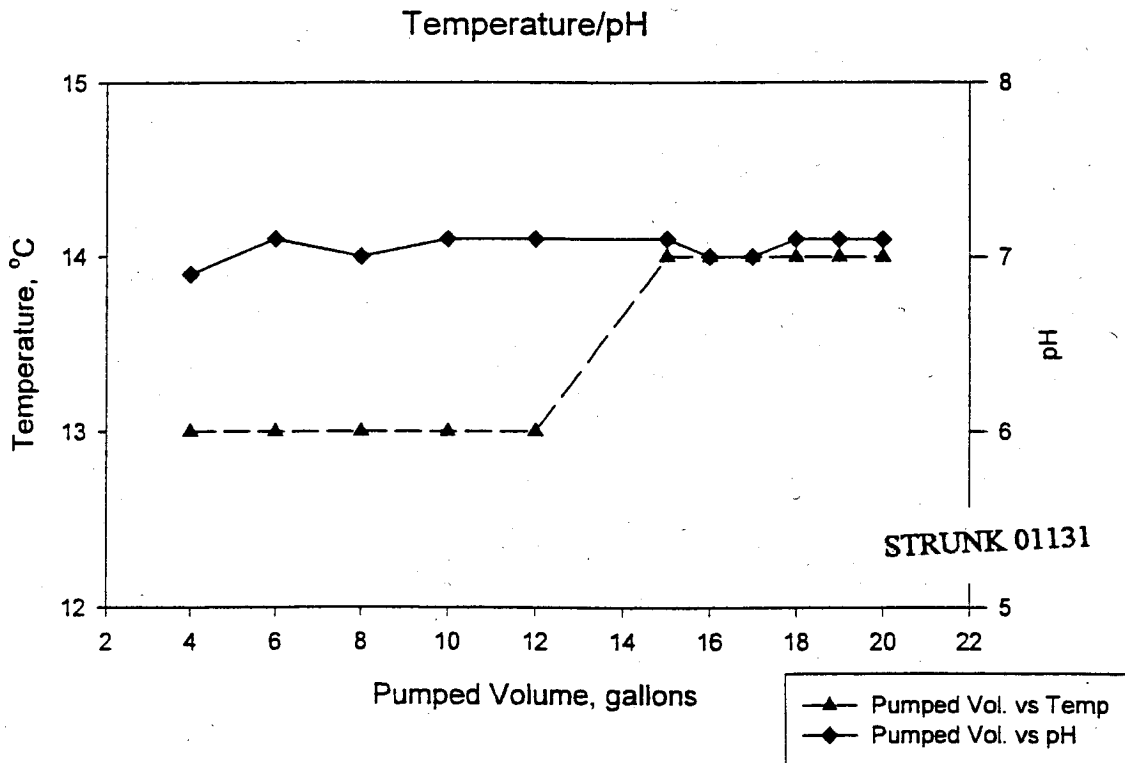
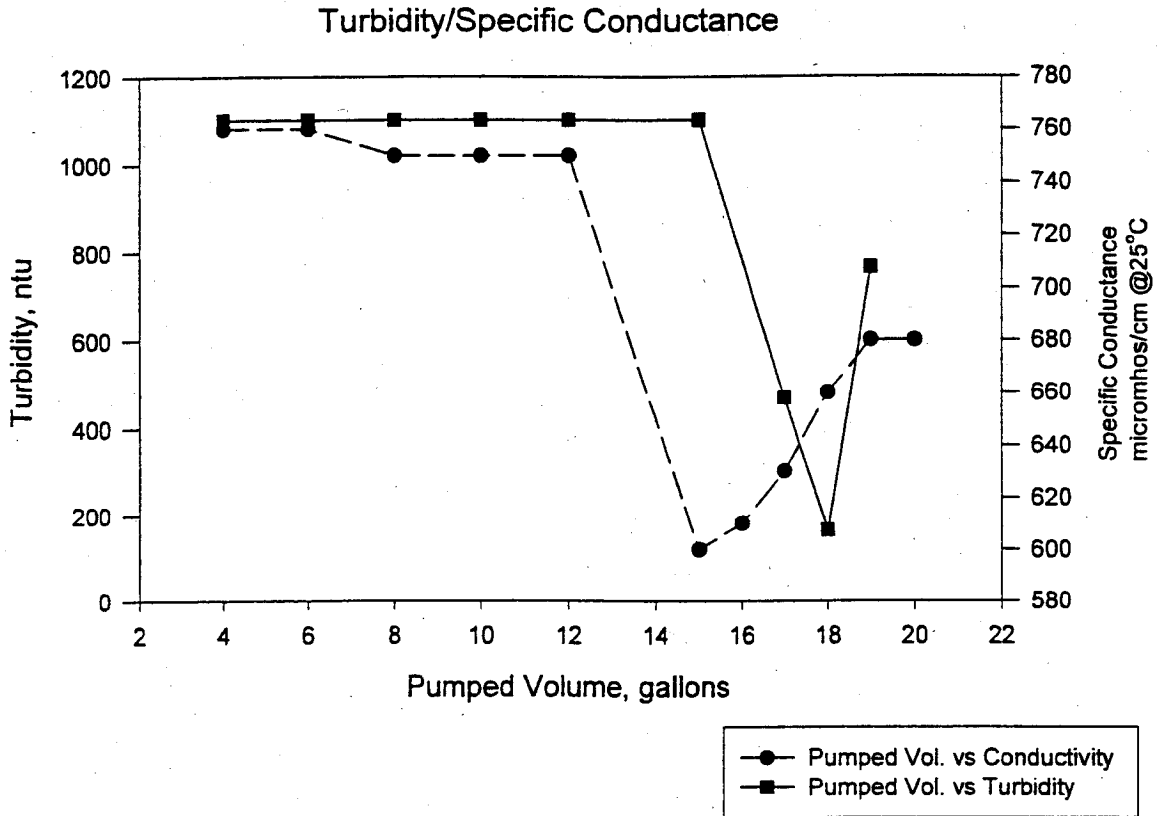


Temperature/pH



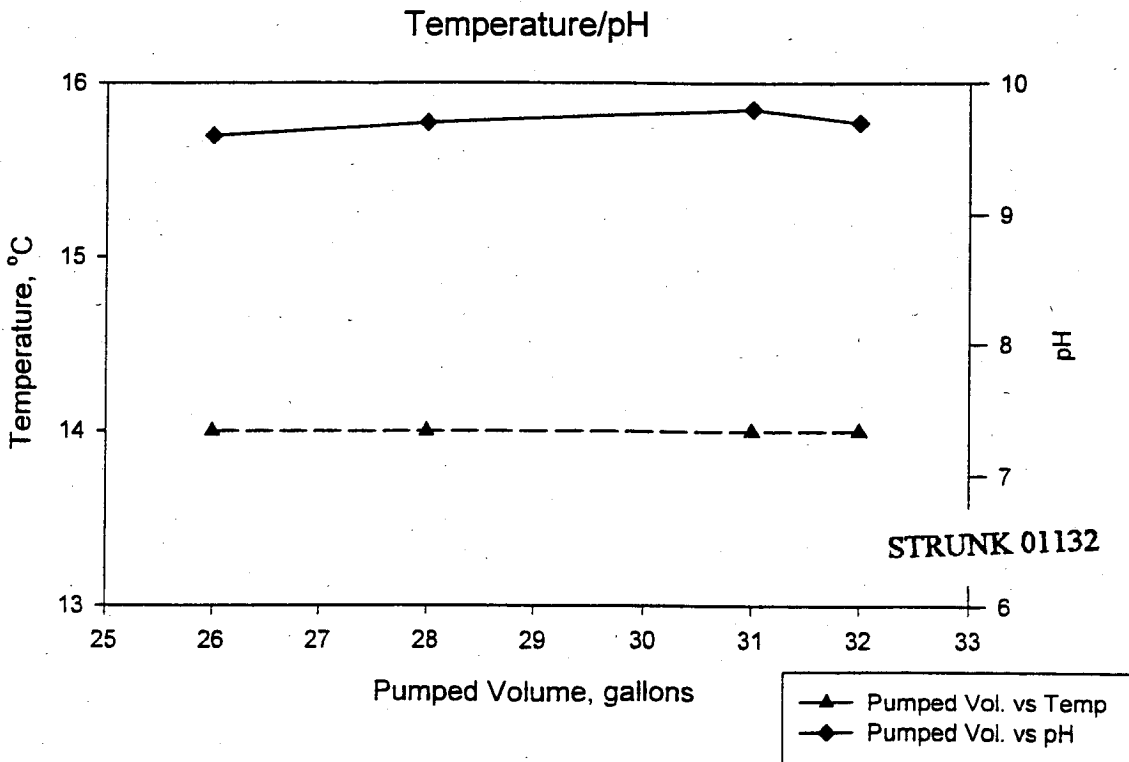
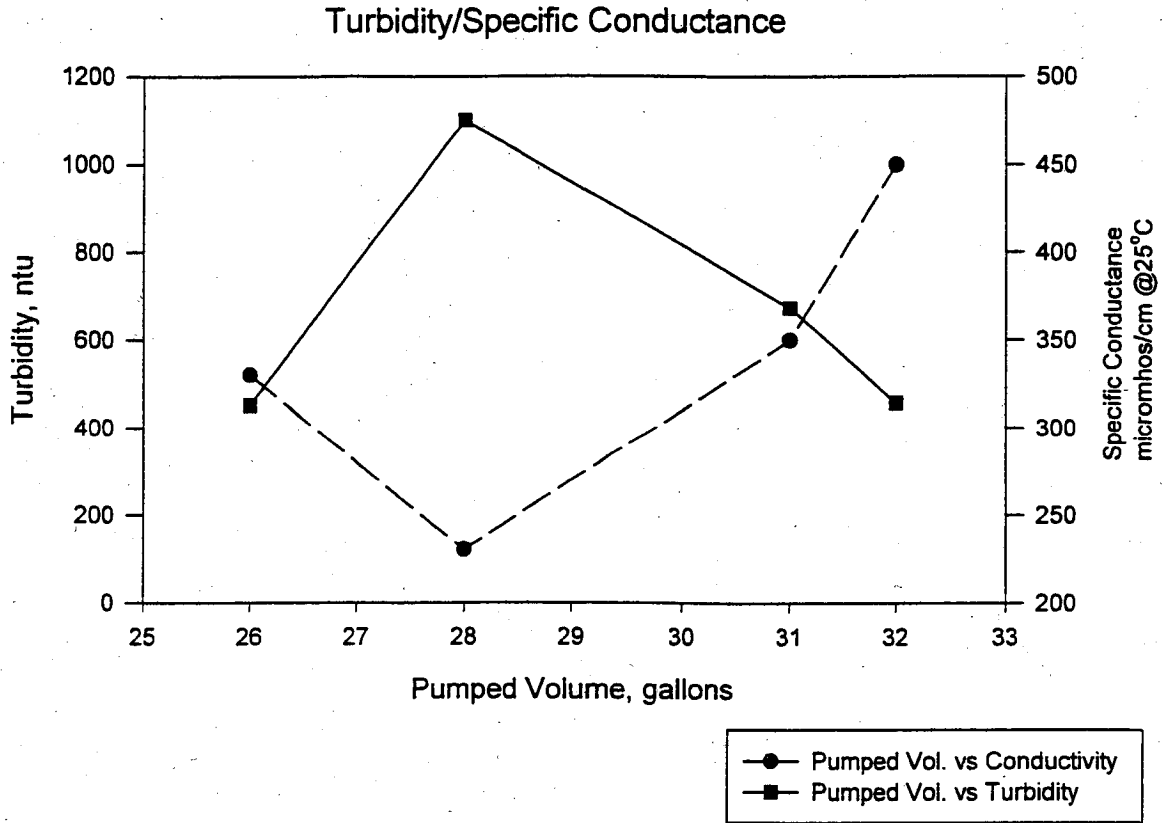
STRUNK 01130

**FIGURE A.31**  
**FIELD MEASURED PARAMETERS DURING WELL DEVELOPMENT**  
**MONITORING WELL MW-106**  
 STIA IWS Hydrogeologic Study  
 SeaTac Airport, Washington



STRUNK 01131

**FIGURE A.32**  
**FIELD MEASURED PARAMETERS DURING WELL DEVELOPMENT**  
**MONITORING WELL MW-107**  
 STIA IWS Hydrogeologic Study  
 SeaTac Airport, Washington



**Appendix B**

**AR 024104**

**STRUNK 01133**

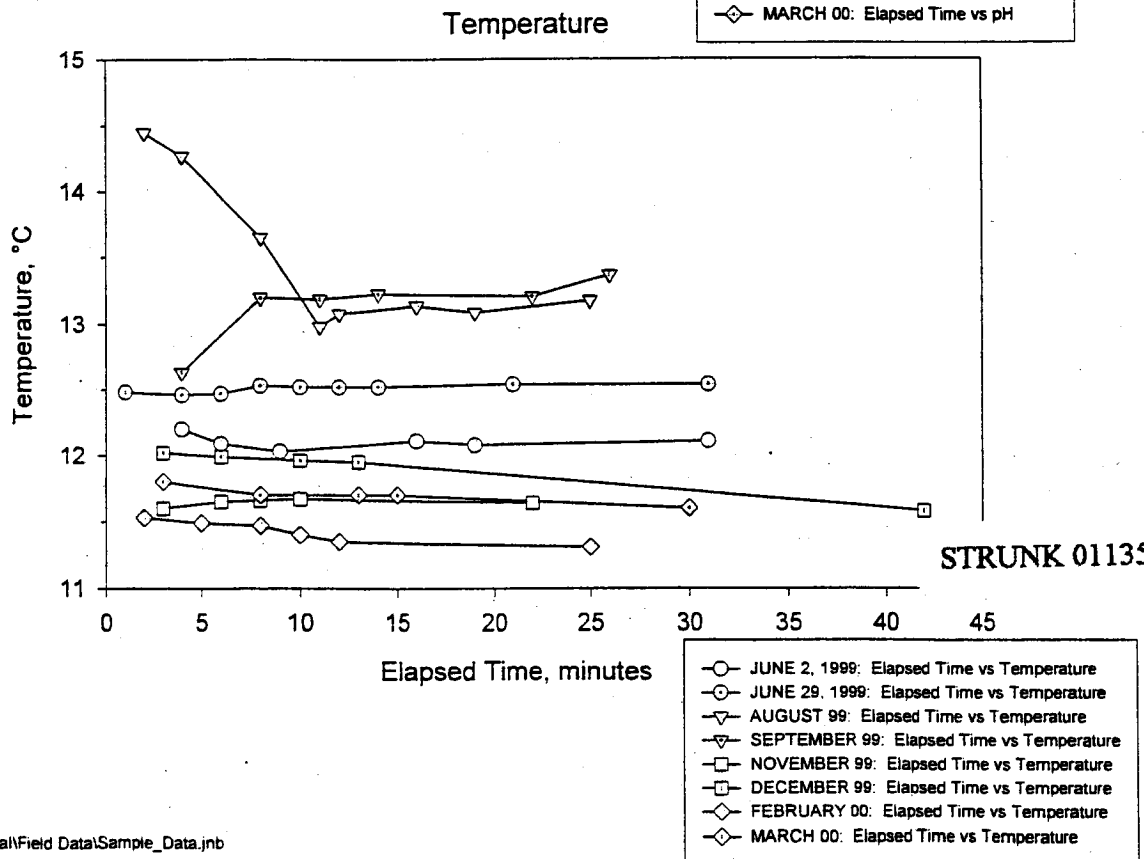
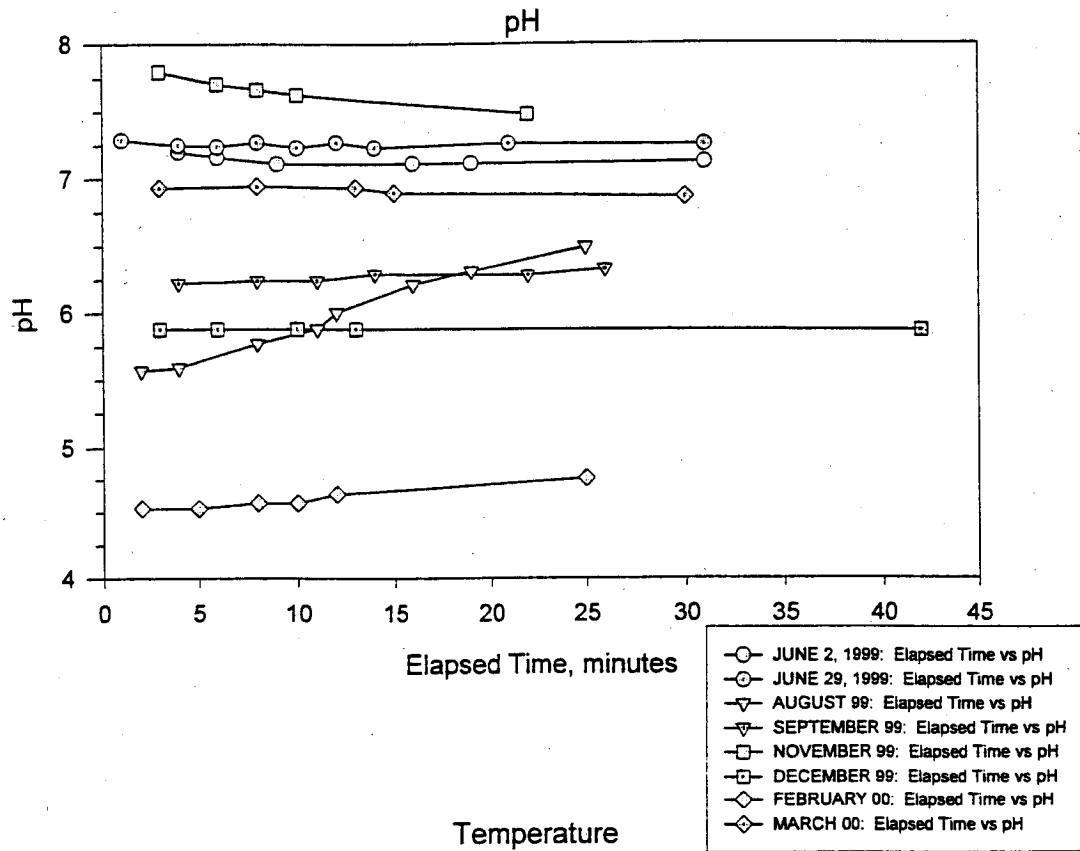
**APPENDIX B**

**SUMMARY OF CHEMISTRY RESULTS FOR ALL SAMPLING EVENTS  
AND DATA VALIDATION REPORTS**

**STRUNK 01134**

**AR 024105**

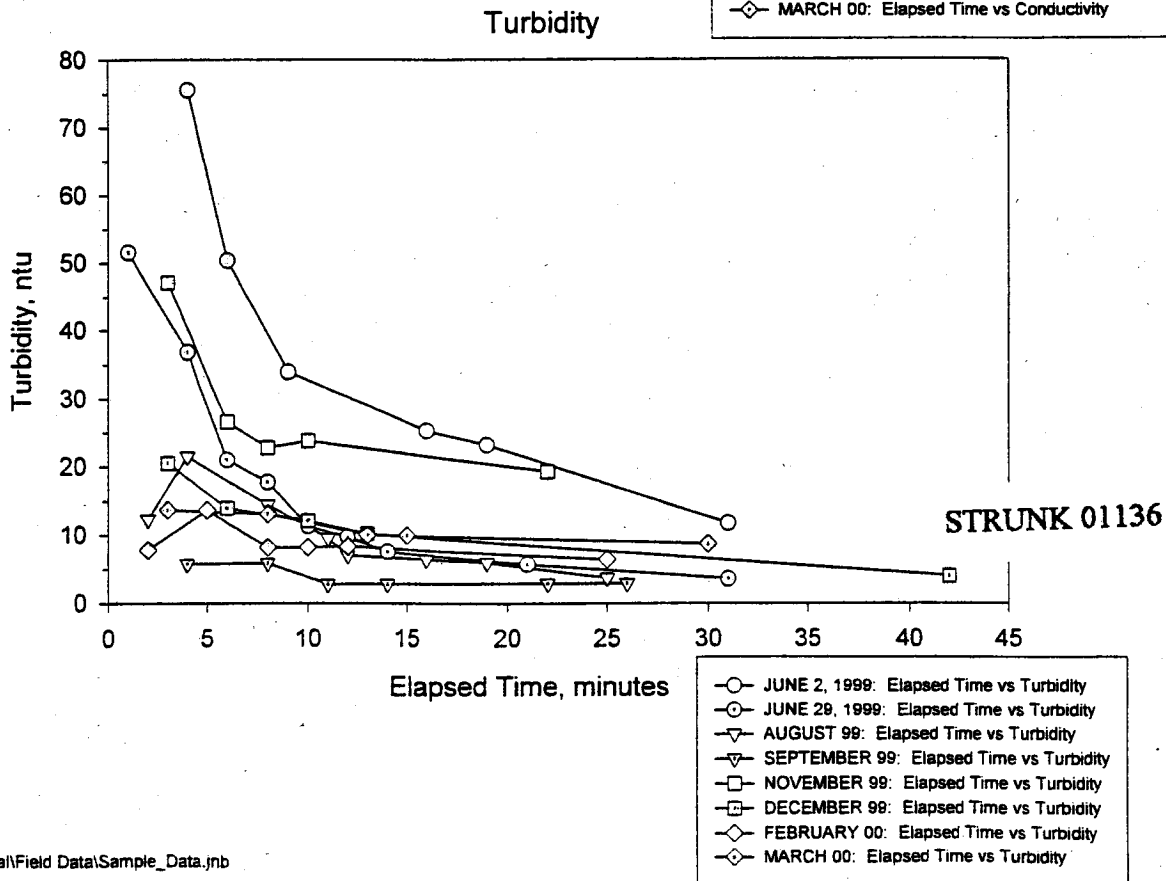
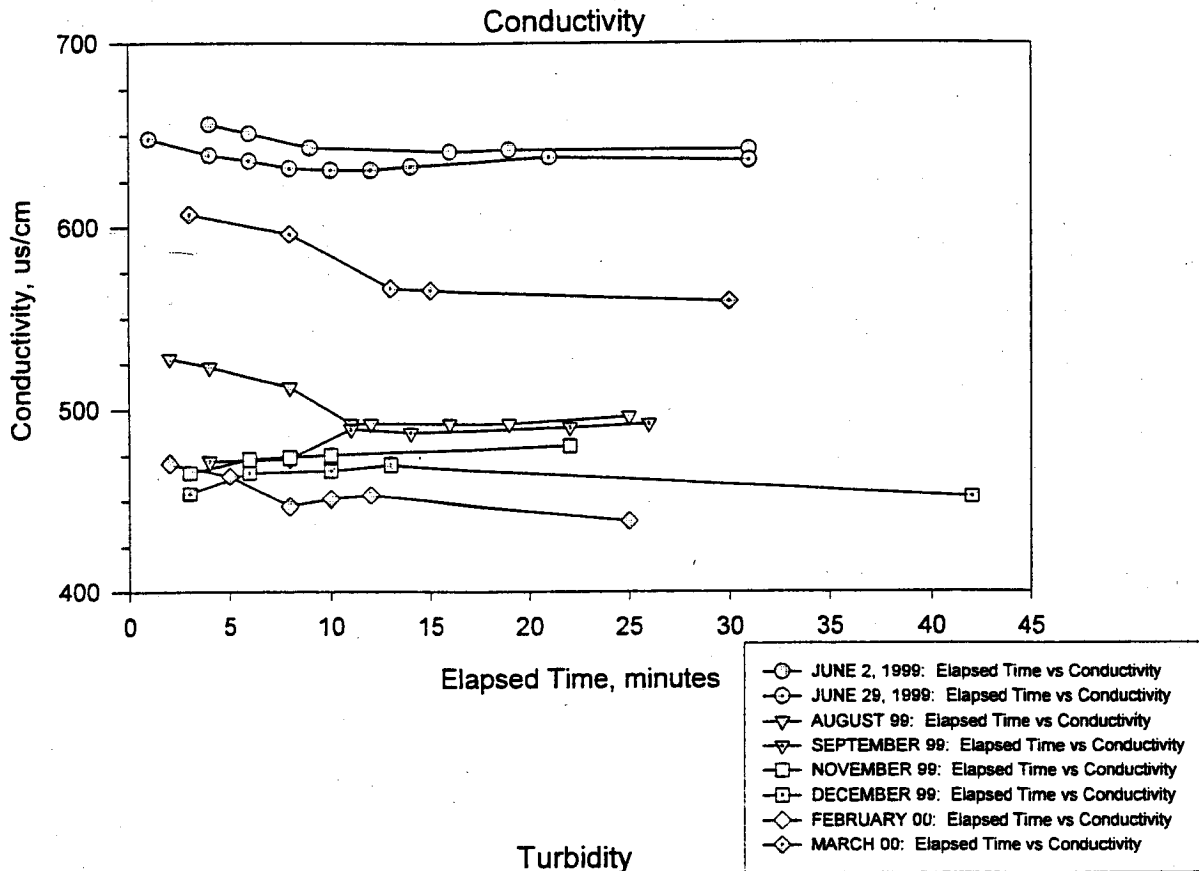
**FIGURE B.1**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MWE04**  
 IWS Groundwater Study  
 King County, Washington



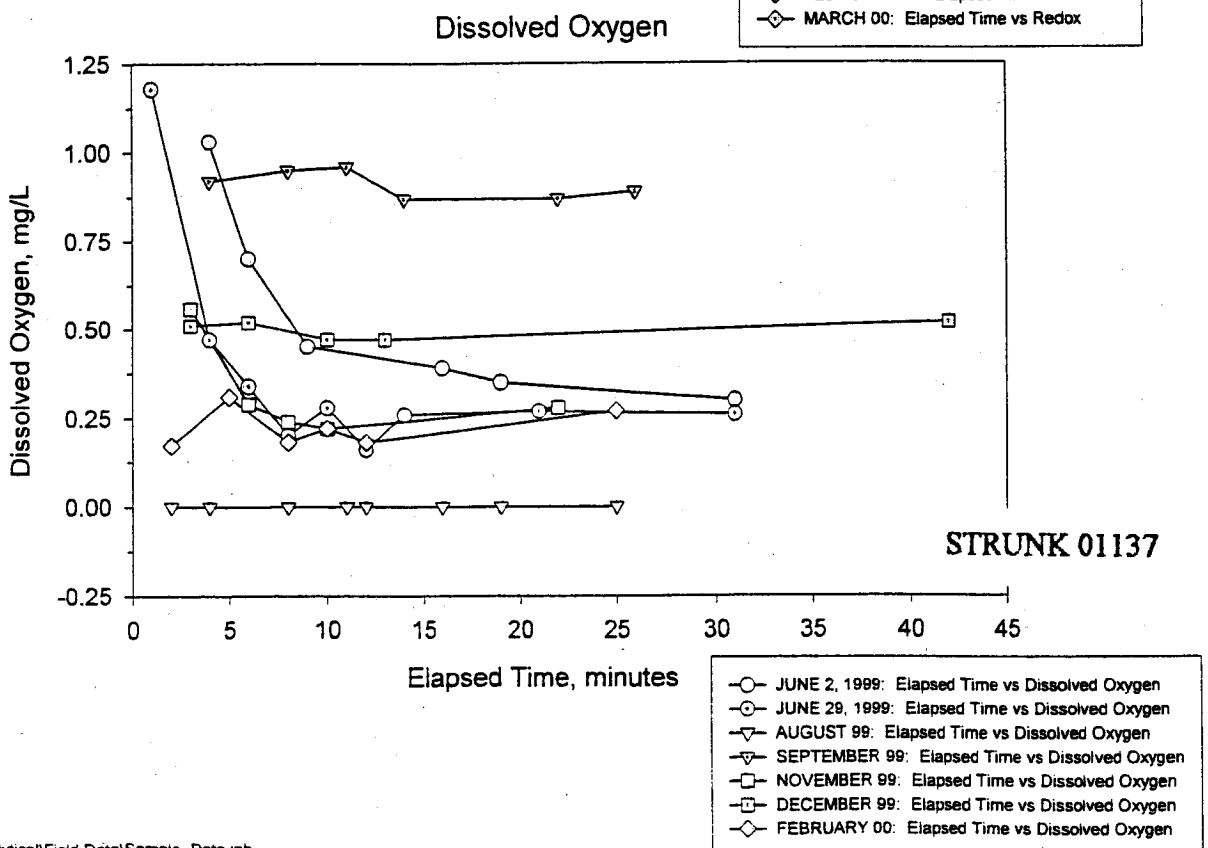
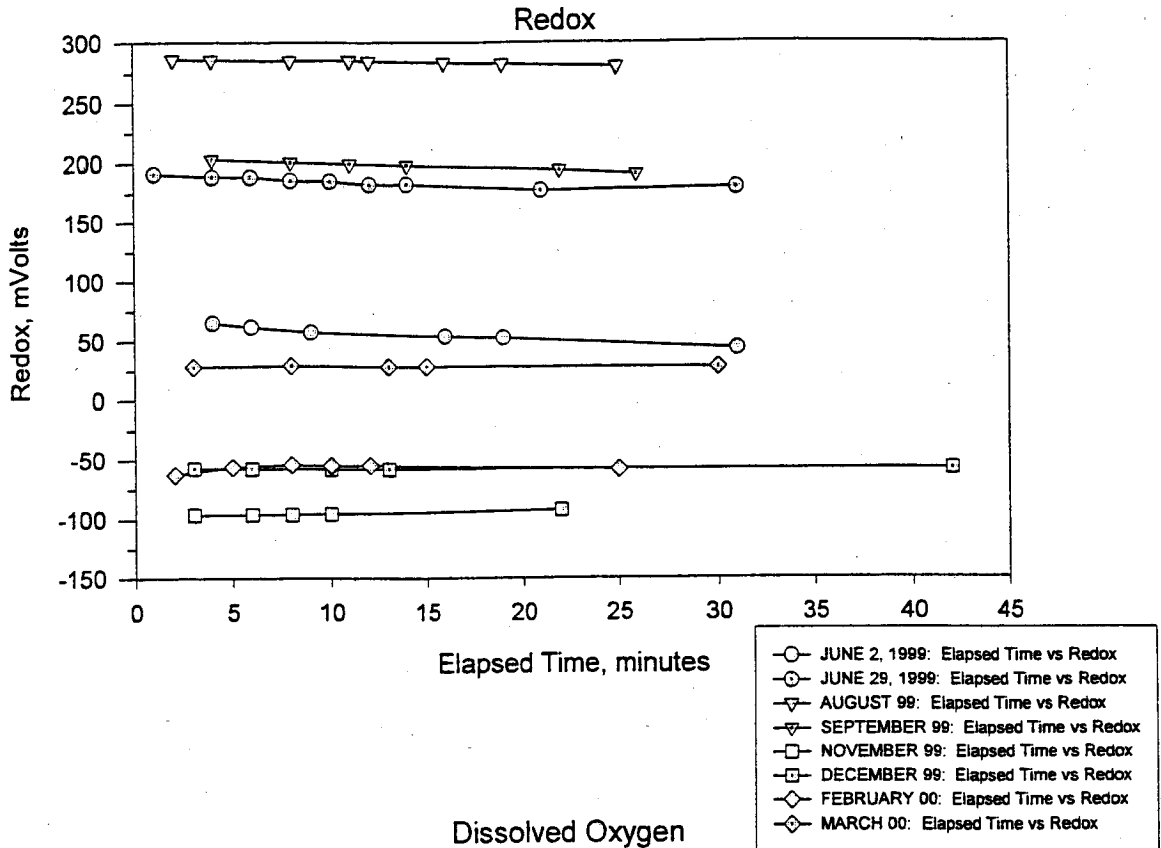
STRUNK 01135

**FIGURE B.1**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MWE04**

IWS Groundwater Study  
 King County, Washington



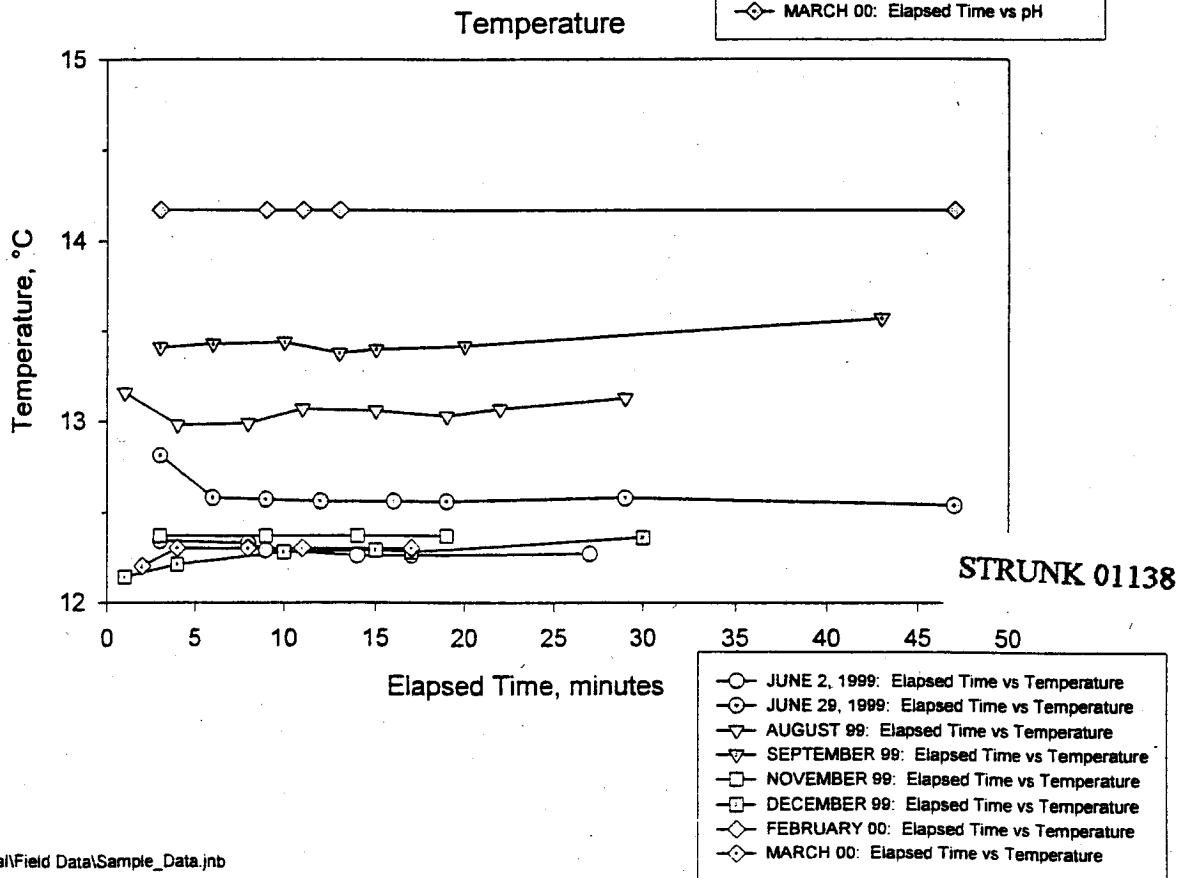
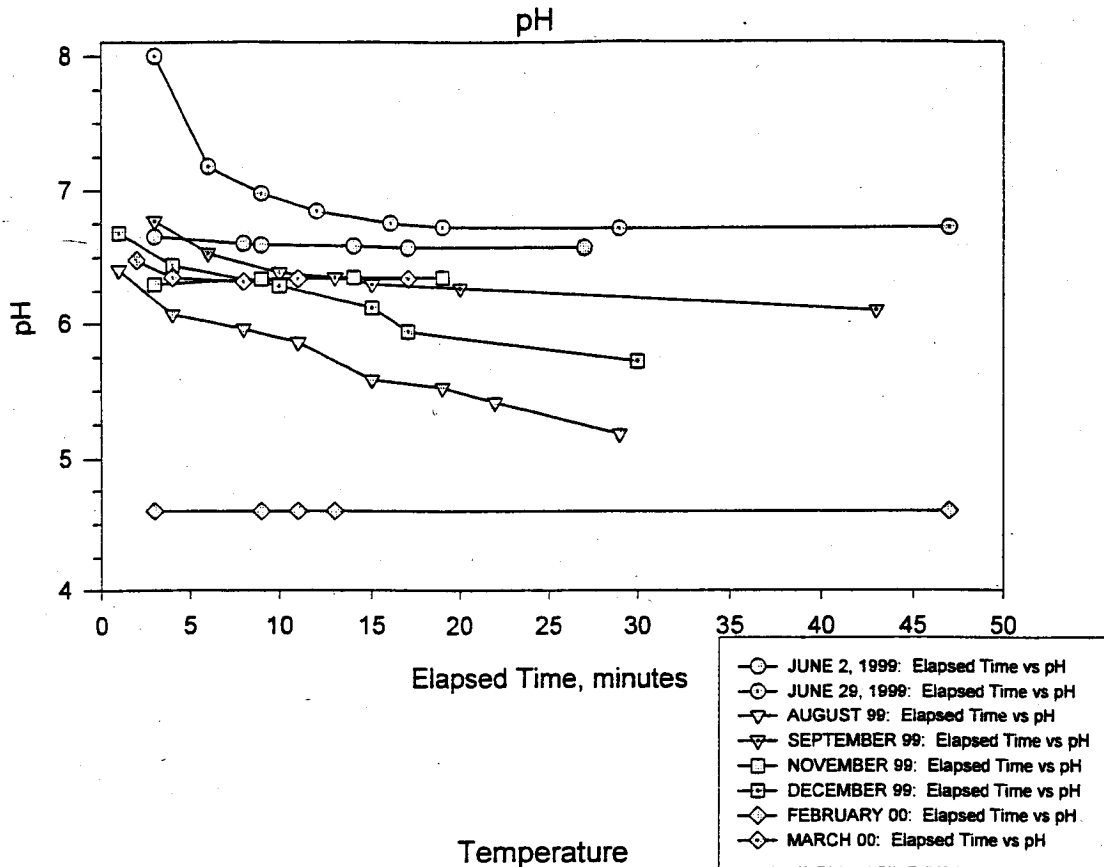
**FIGURE B.1**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MWE04**  
 IWS Groundwater Study  
 King County, Washington



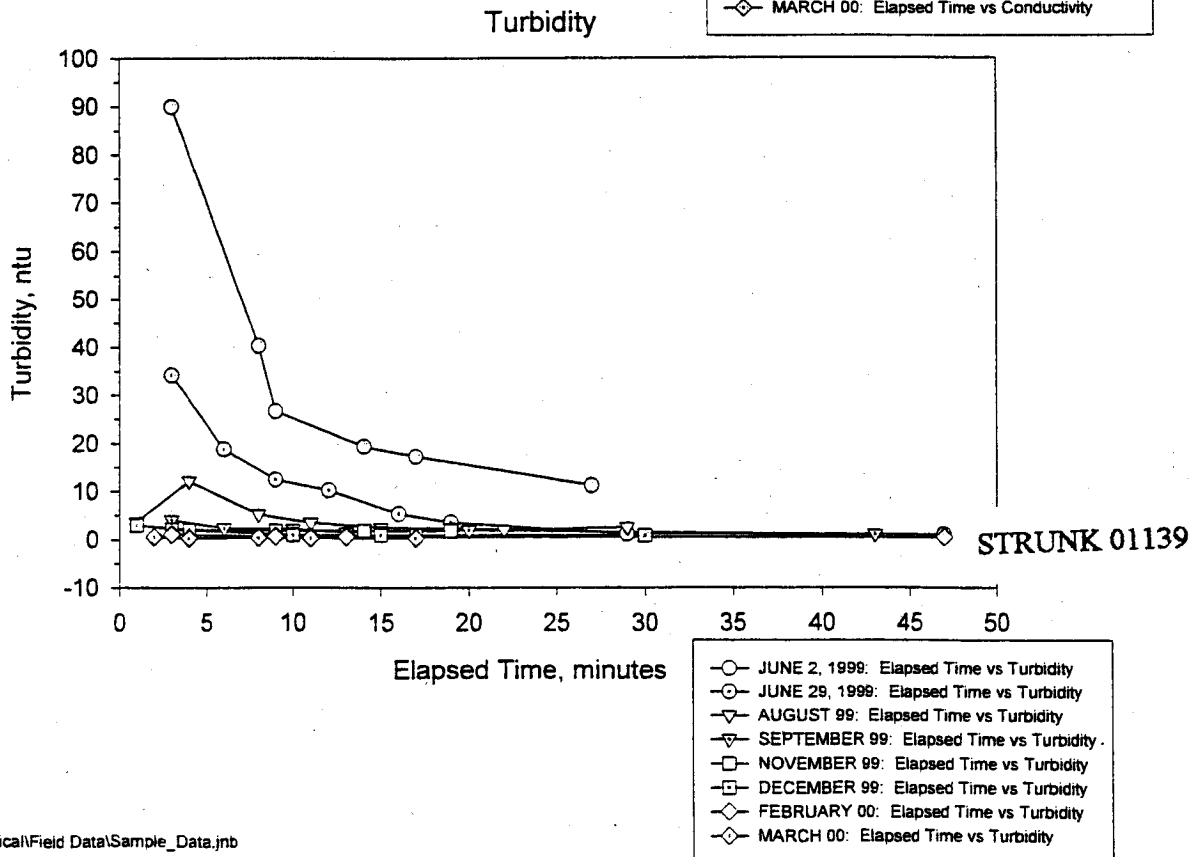
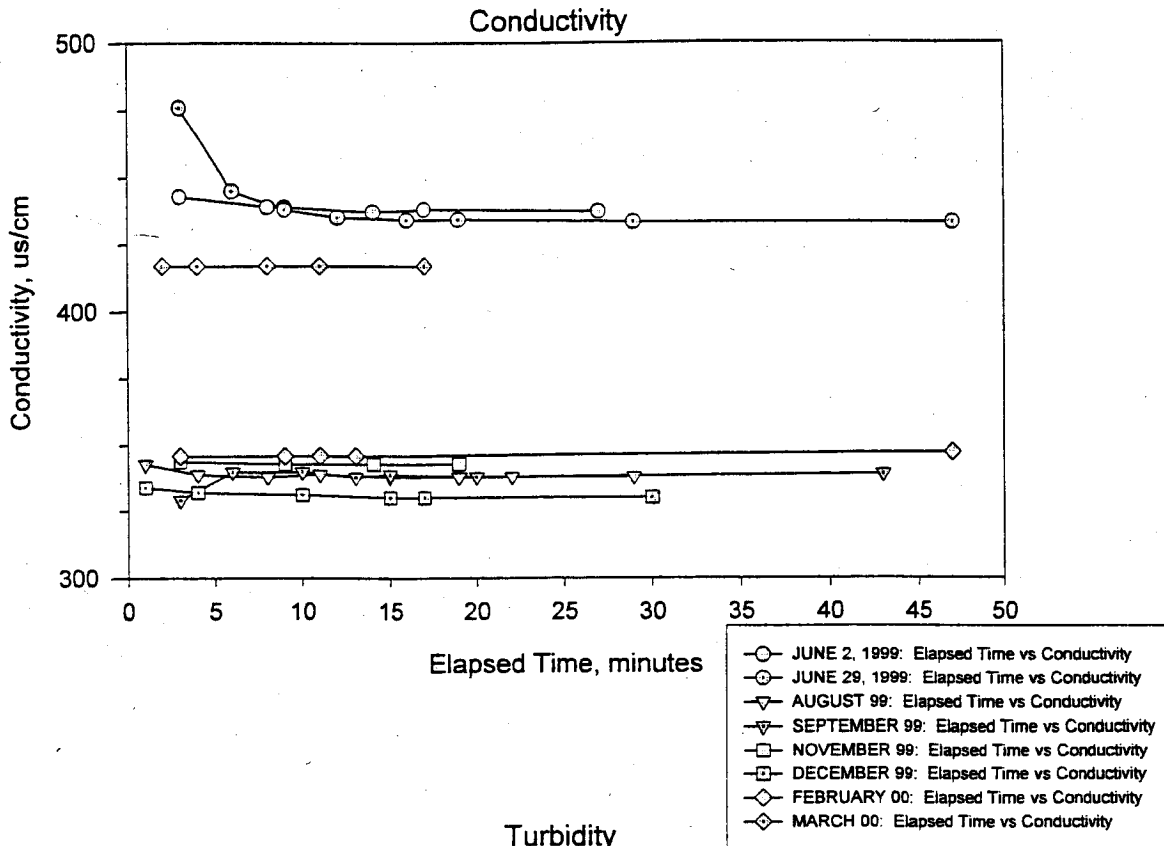
STRUNK 01137



**FIGURE B.2**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MWE05**  
 IWS Groundwater Study  
 King County, Washington

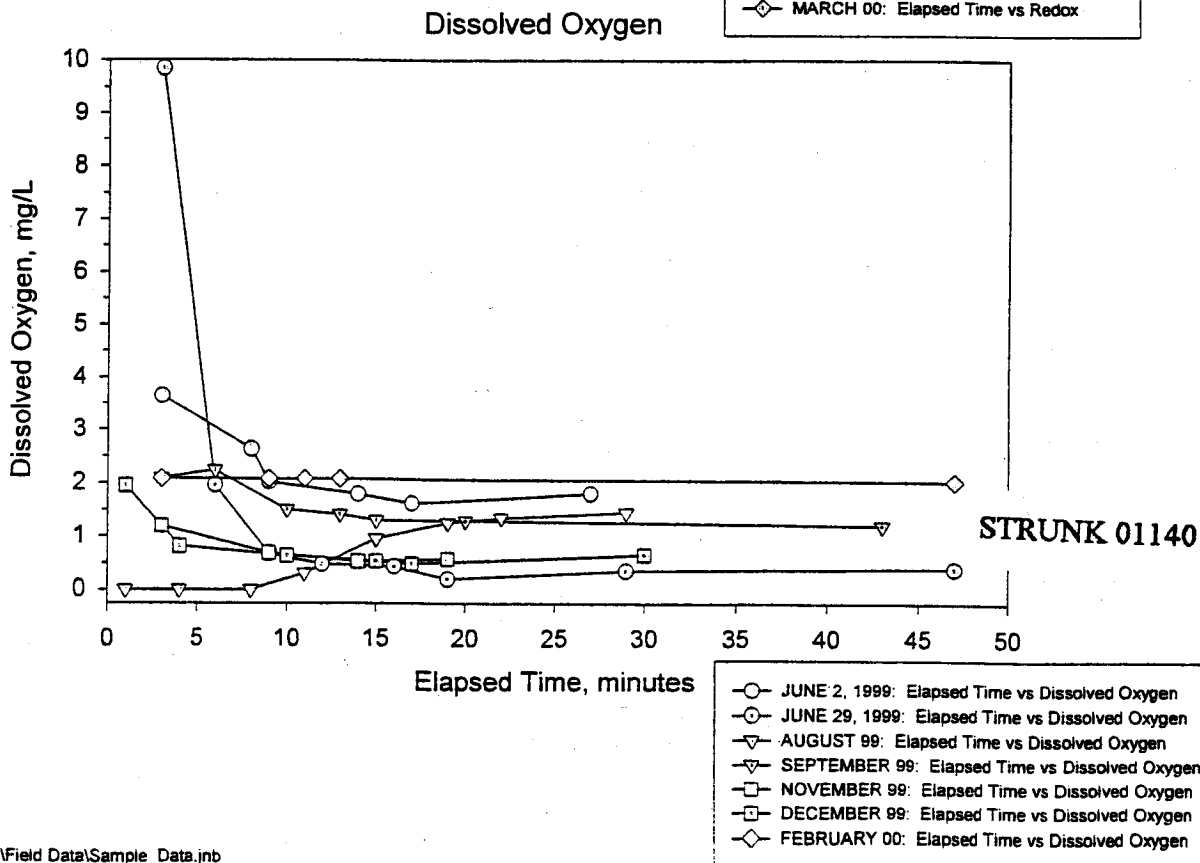
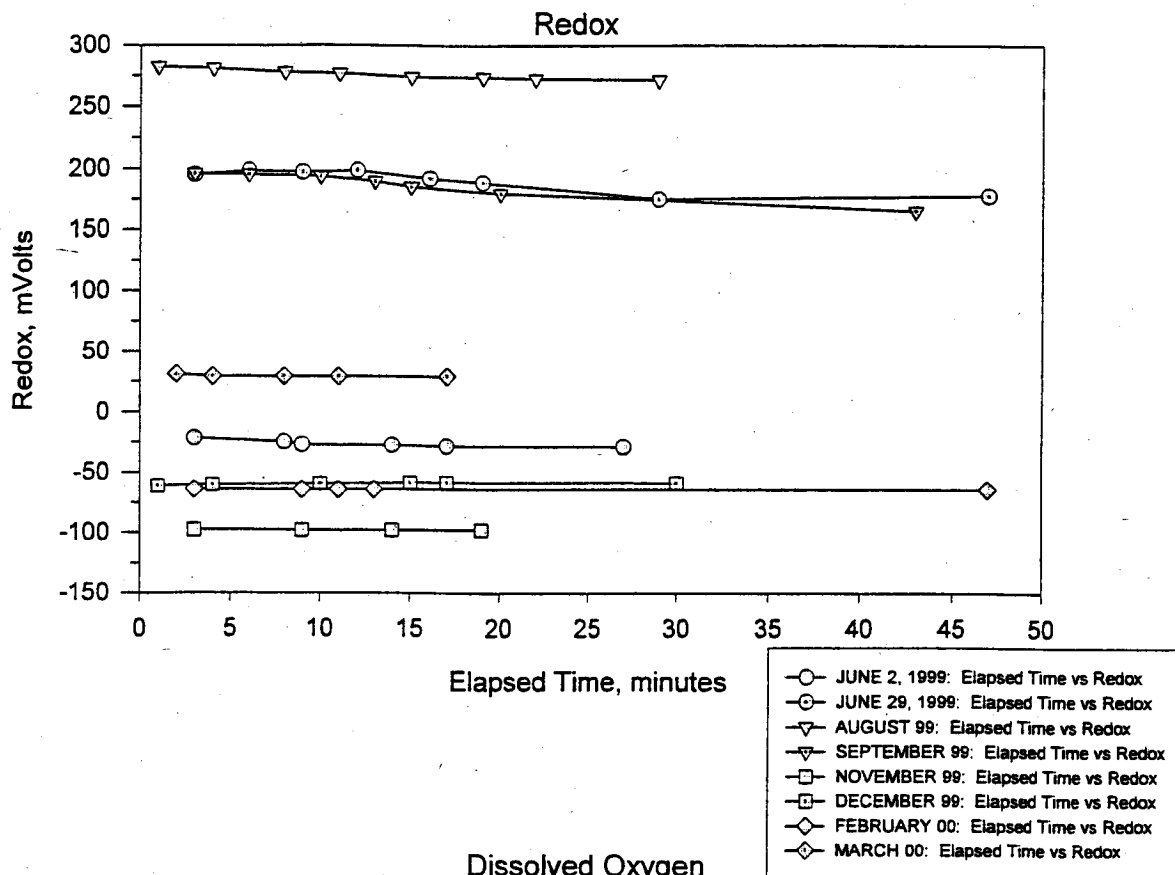


**FIGURE B.2**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MWE05**  
 IWS Groundwater Study  
 King County, Washington

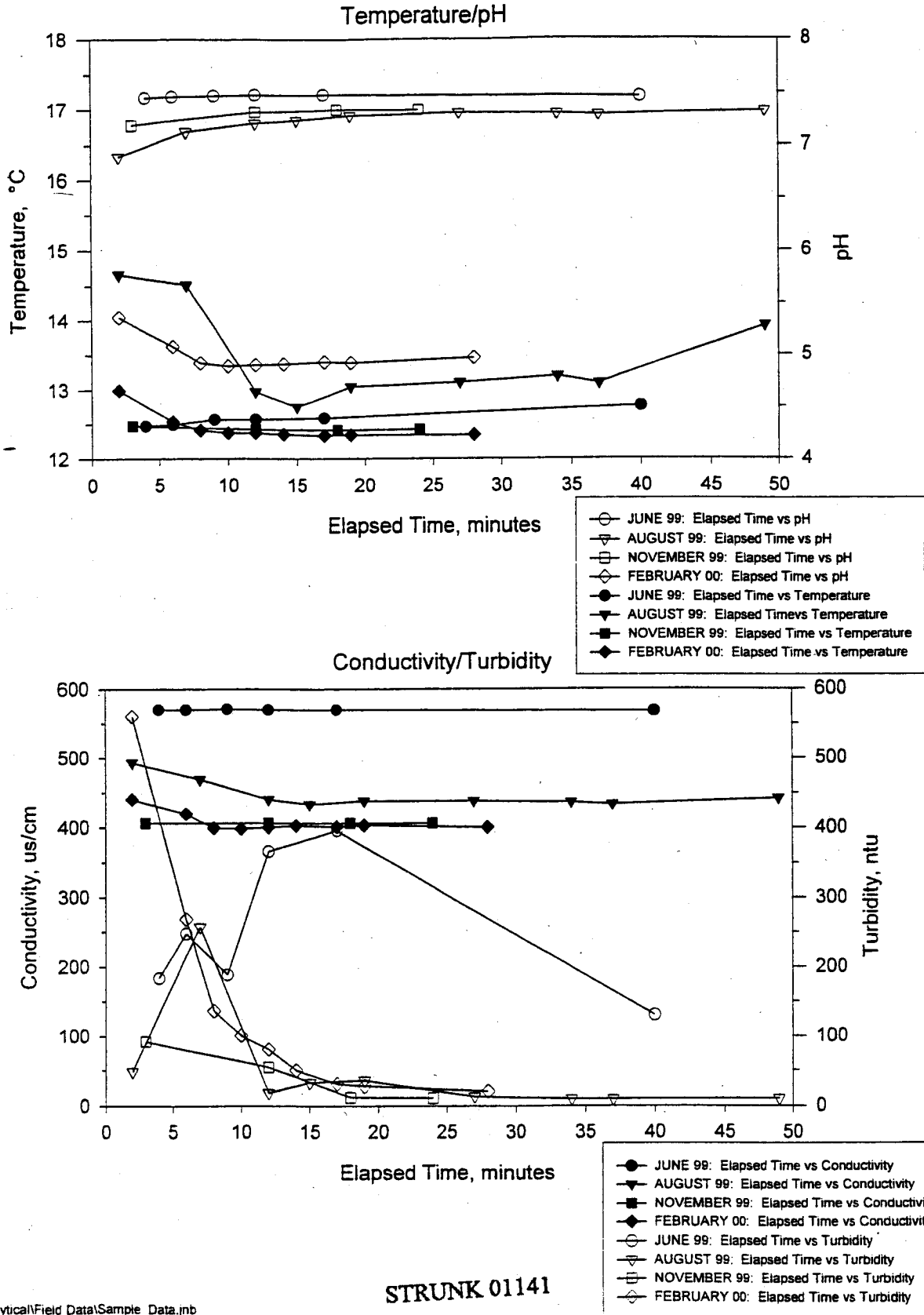


STRUNK 01139

**FIGURE B.2**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MWE05**  
 IWS Groundwater Study  
 King County, Washington

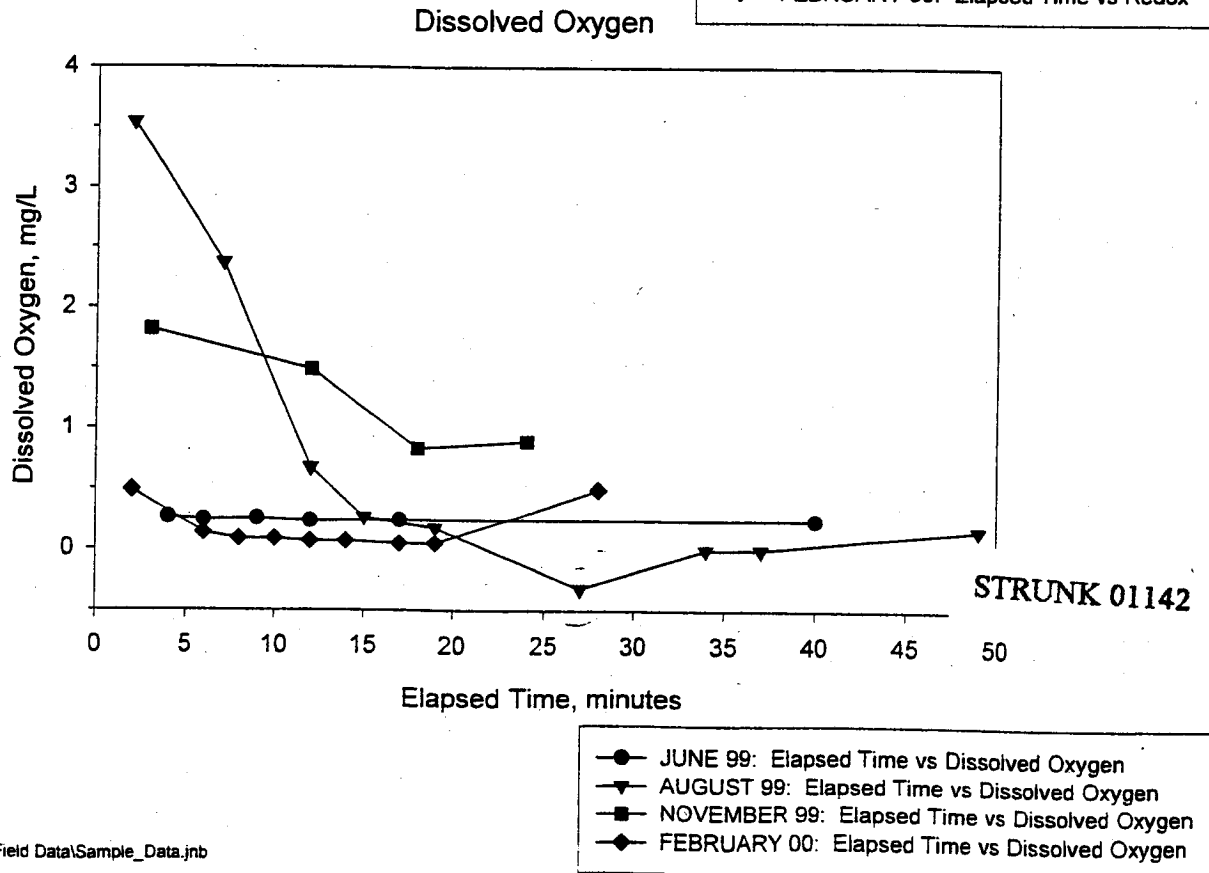
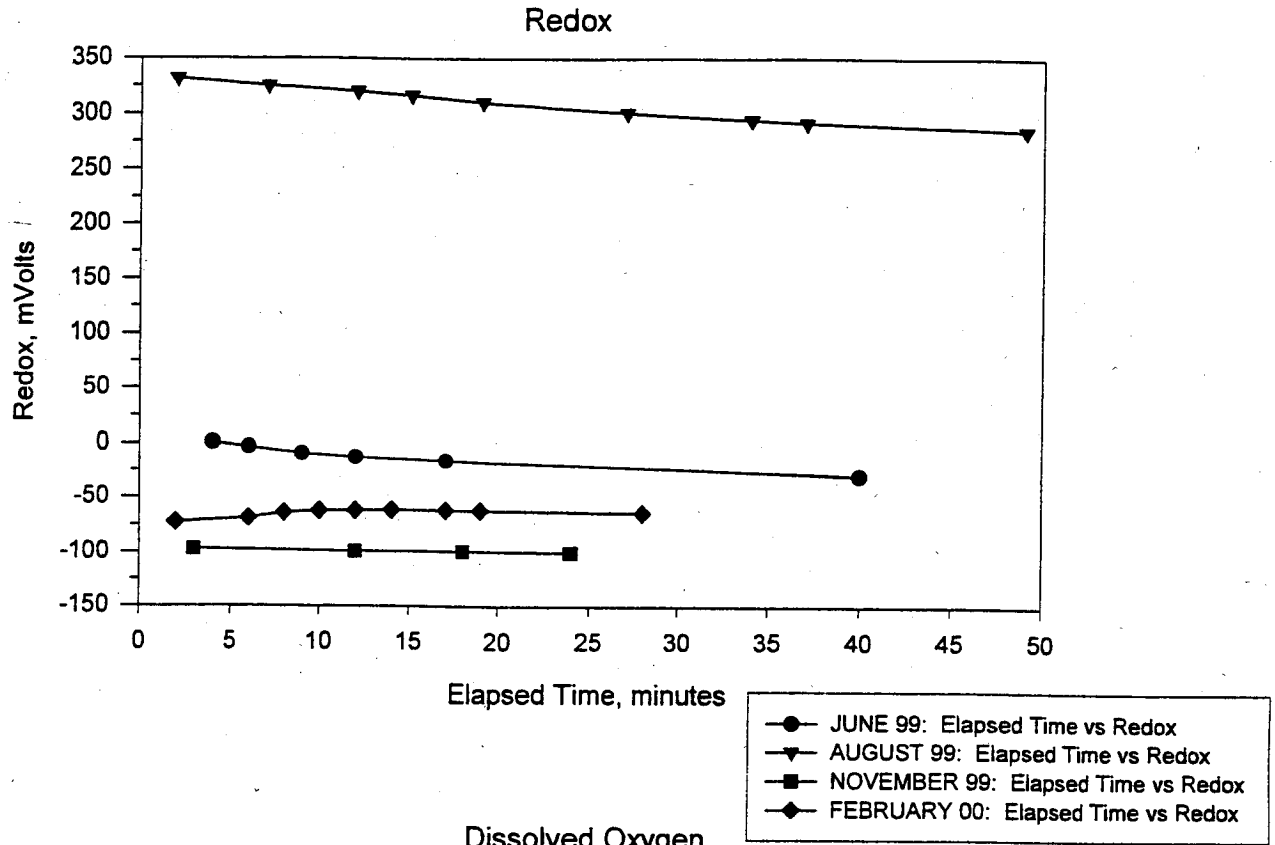


**FIGURE B.3**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MWE07**  
 IWS Groundwater Study  
 King County, Washington

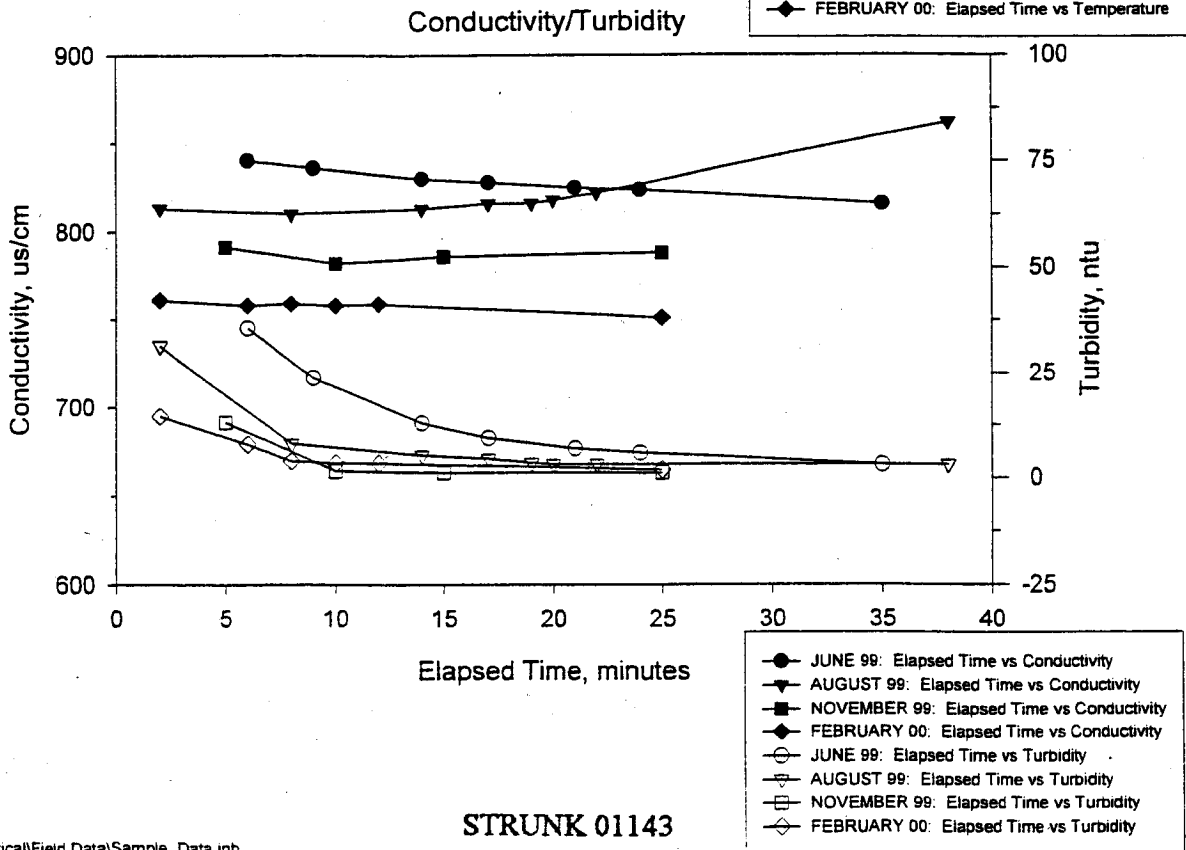
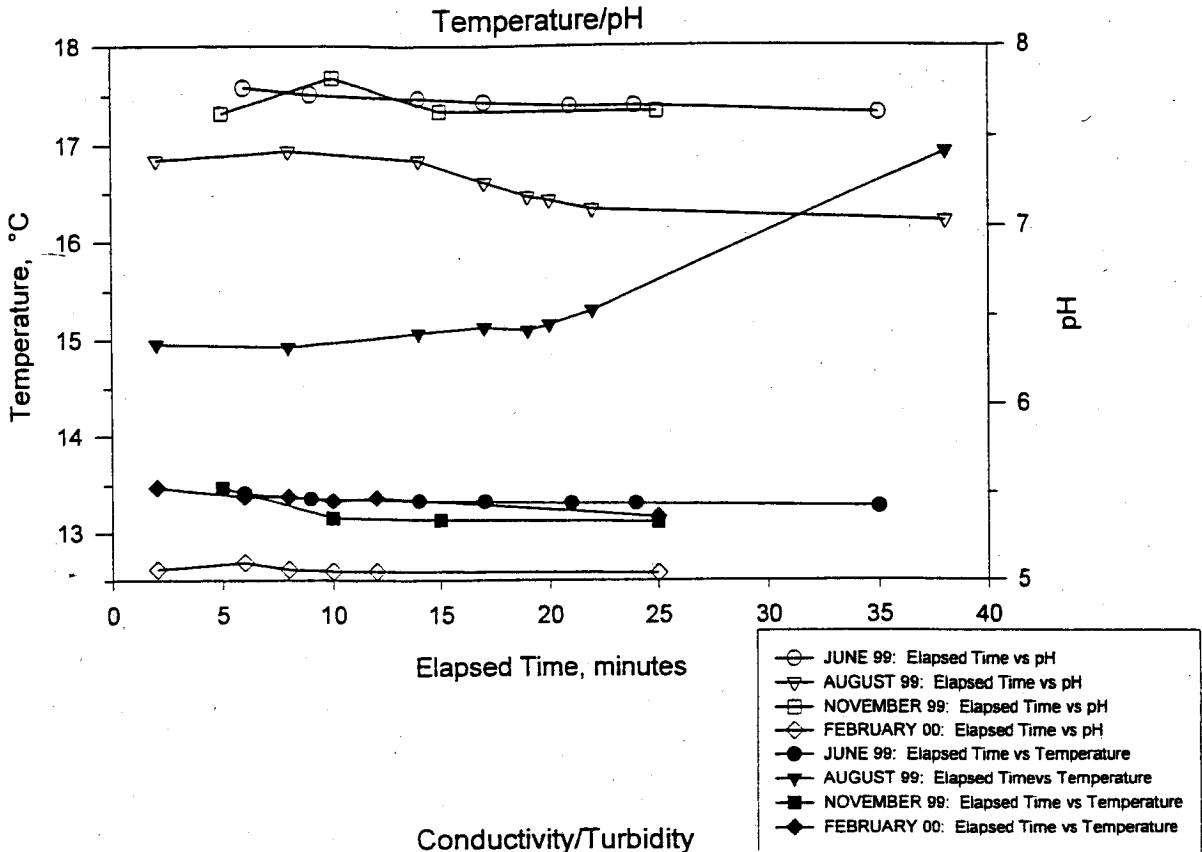


STRUNK 01141

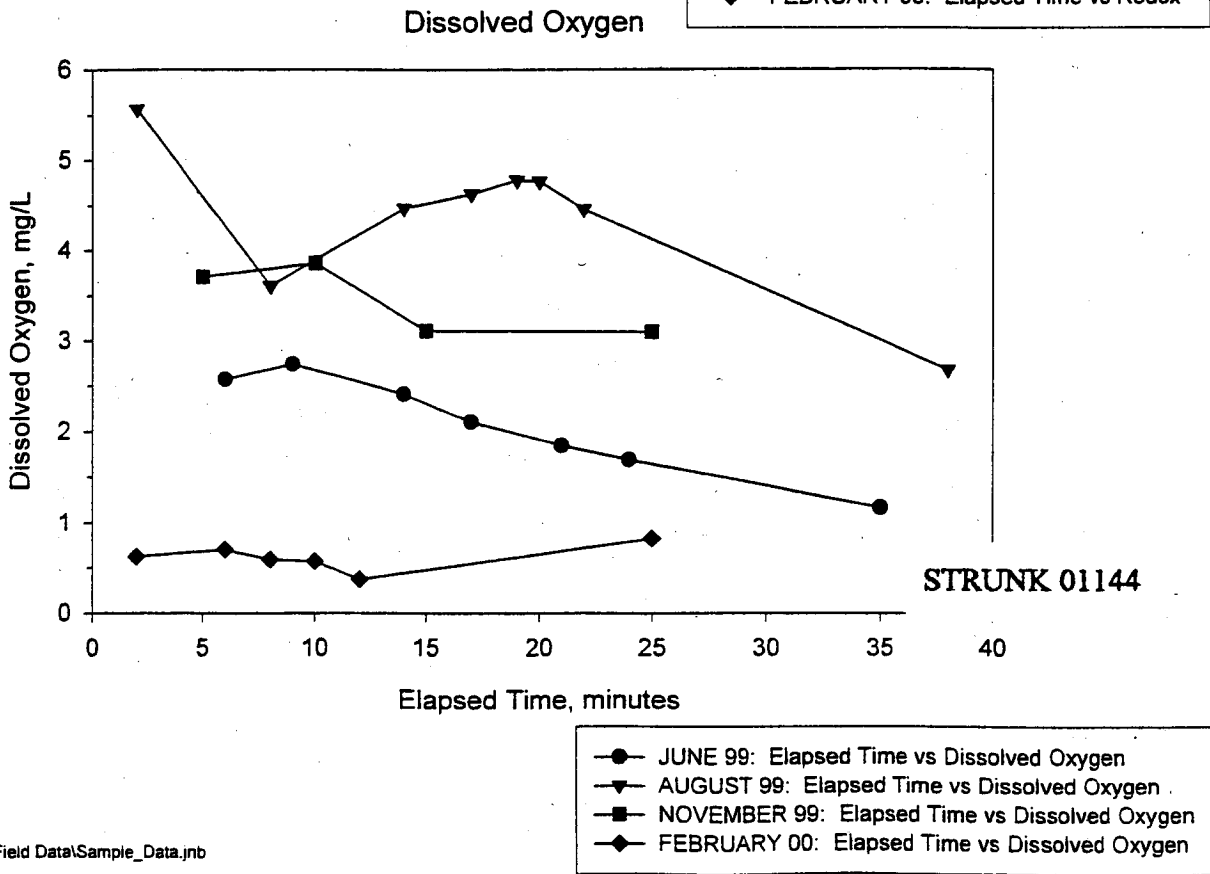
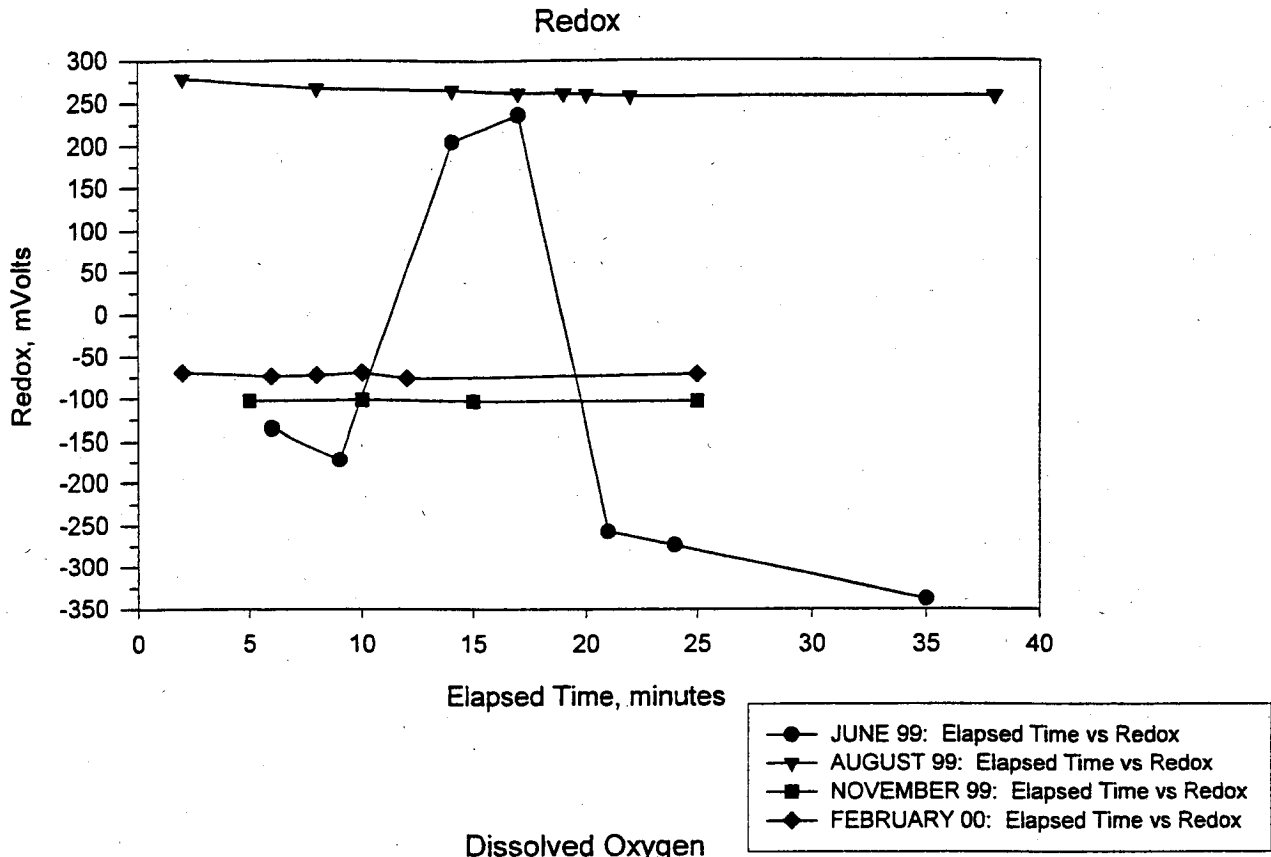
**FIGURE B.3**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MWE07**  
 IWS Groundwater Study  
 King County, Washington



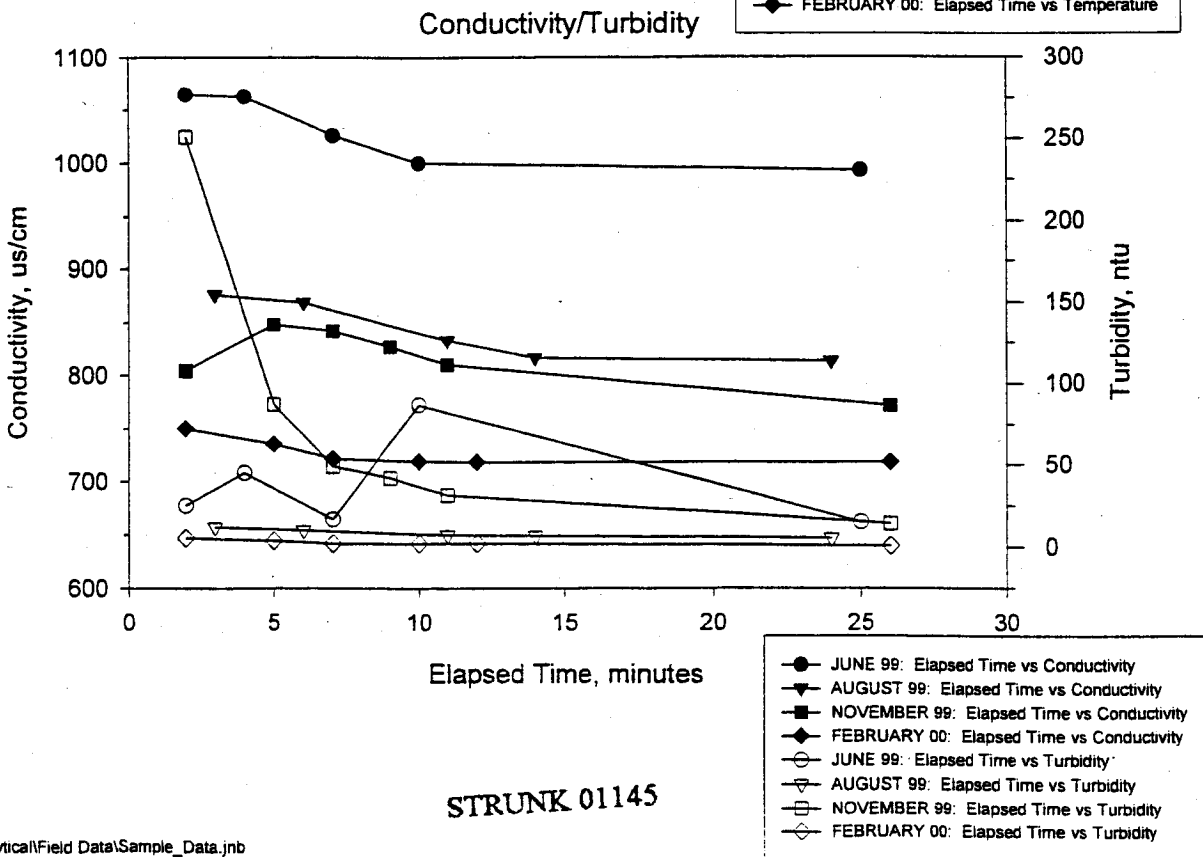
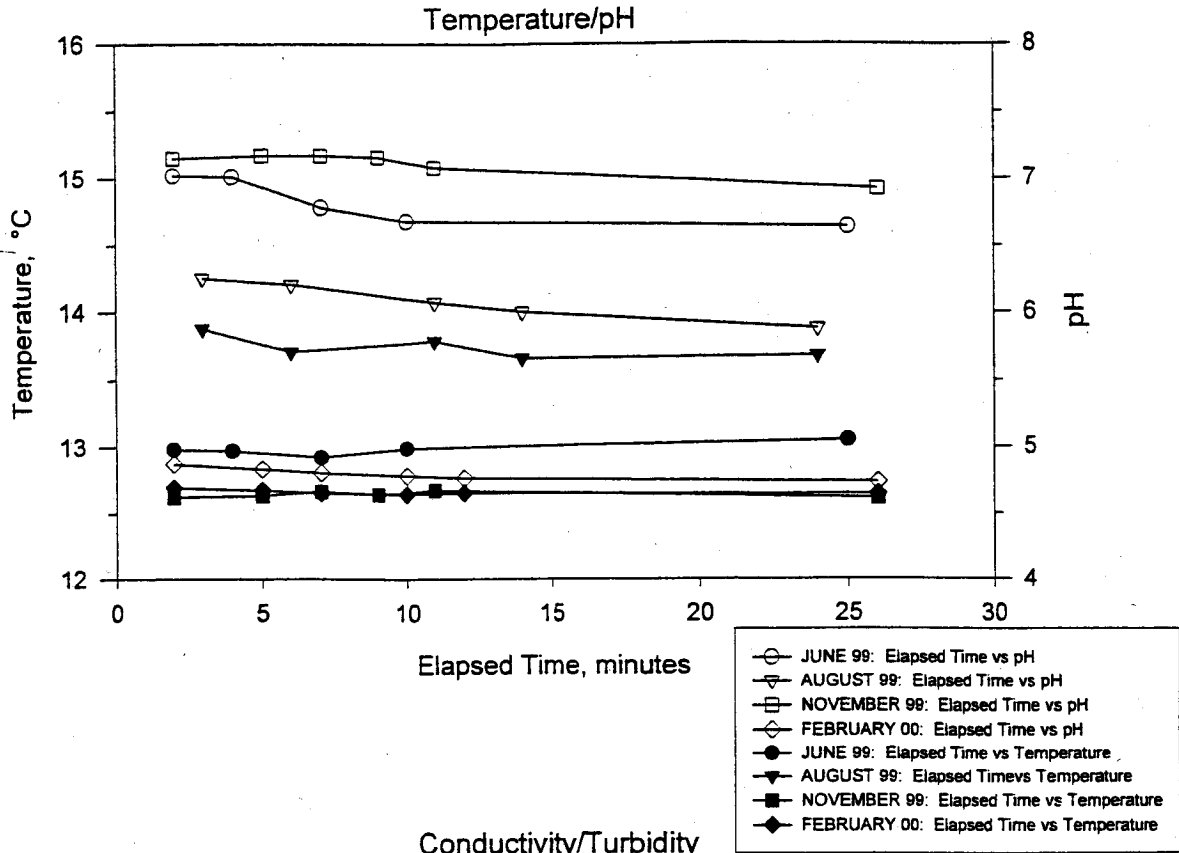
**FIGURE B.4**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MWE08**  
 IWS Groundwater Study  
 King County, Washington



**FIGURE B.4**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MWE08**  
 IWS Groundwater Study  
 King County, Washington



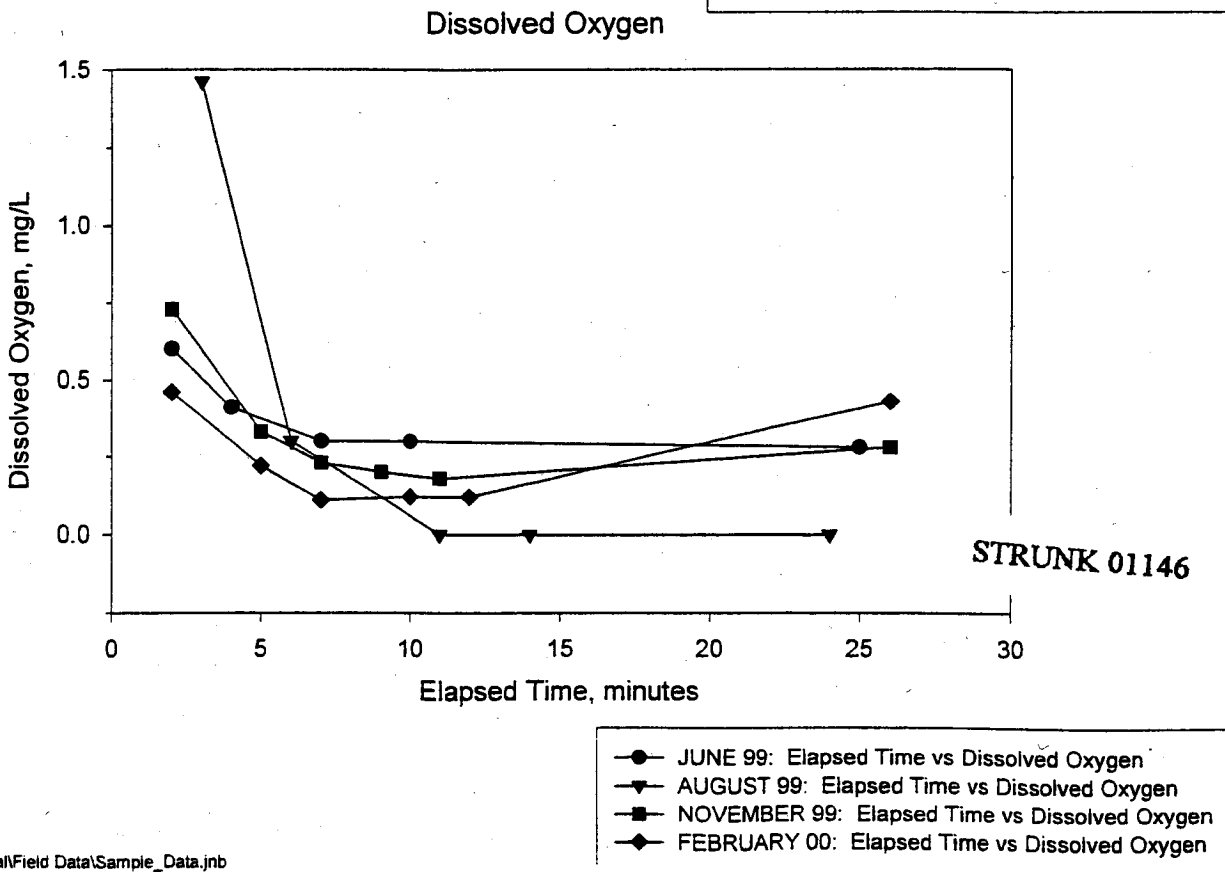
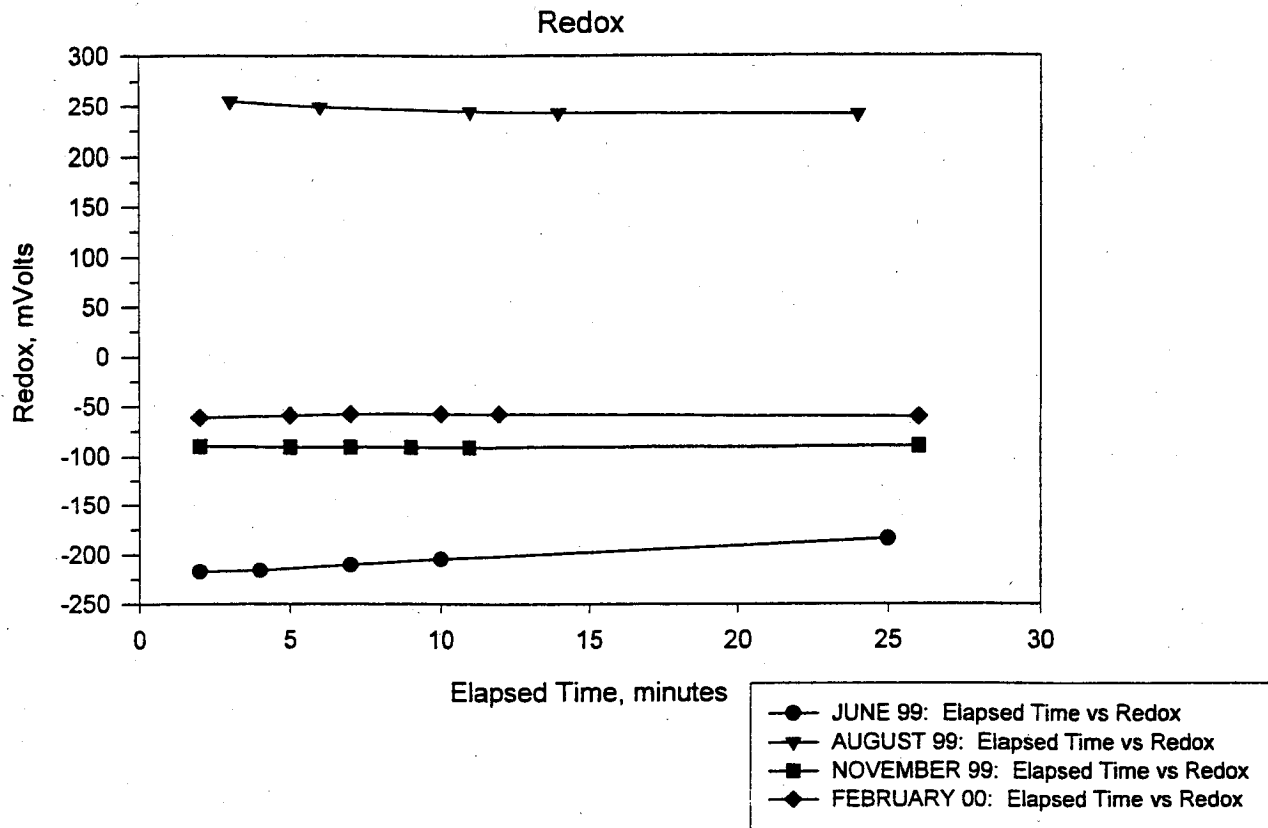
**FIGURE B.5**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MWE09**  
 IWS Groundwater Study  
 King County, Washington



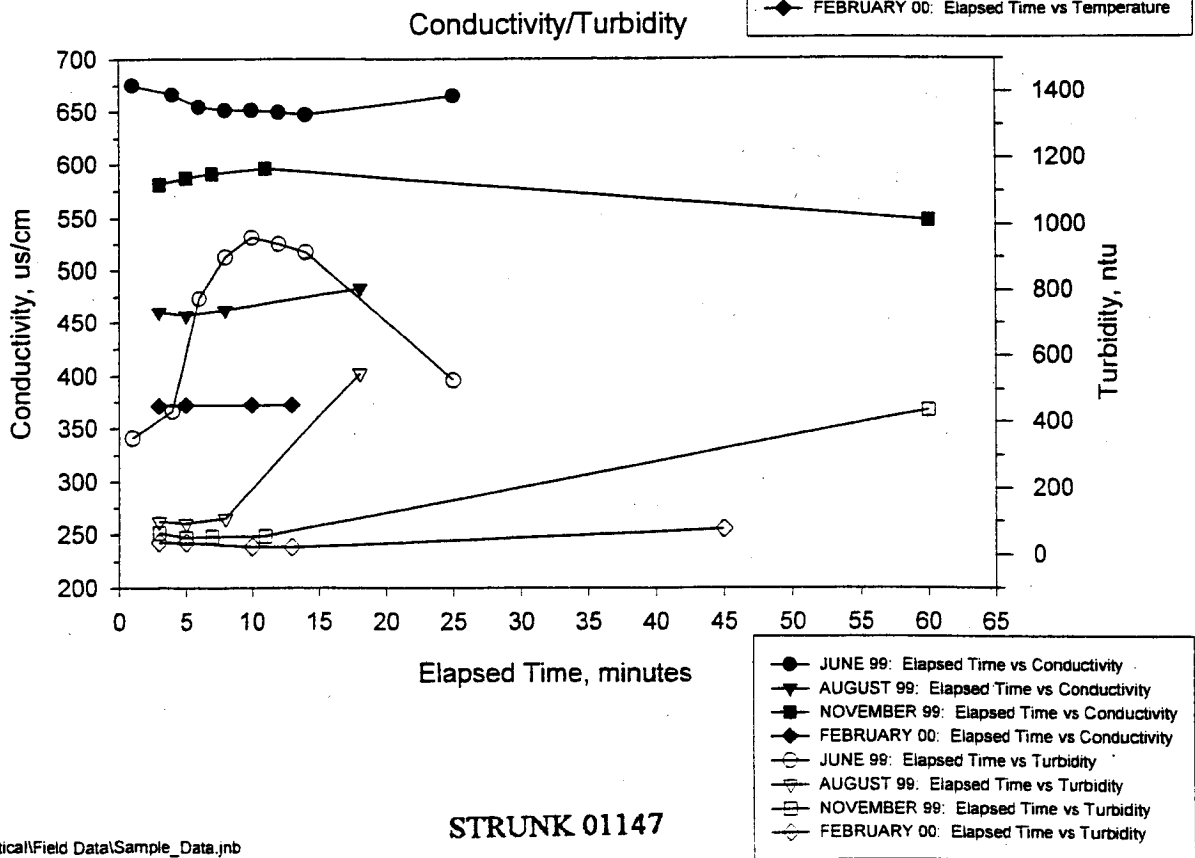
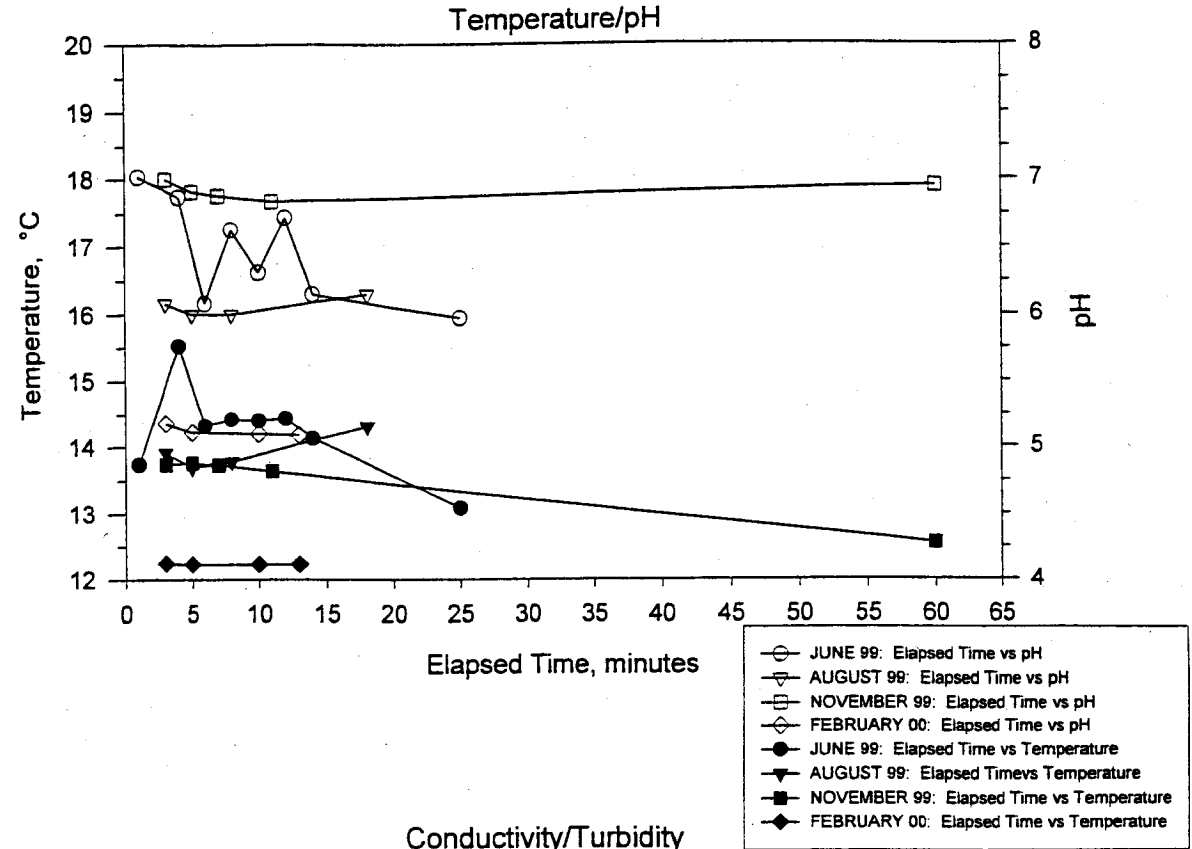
STRUNK 01145



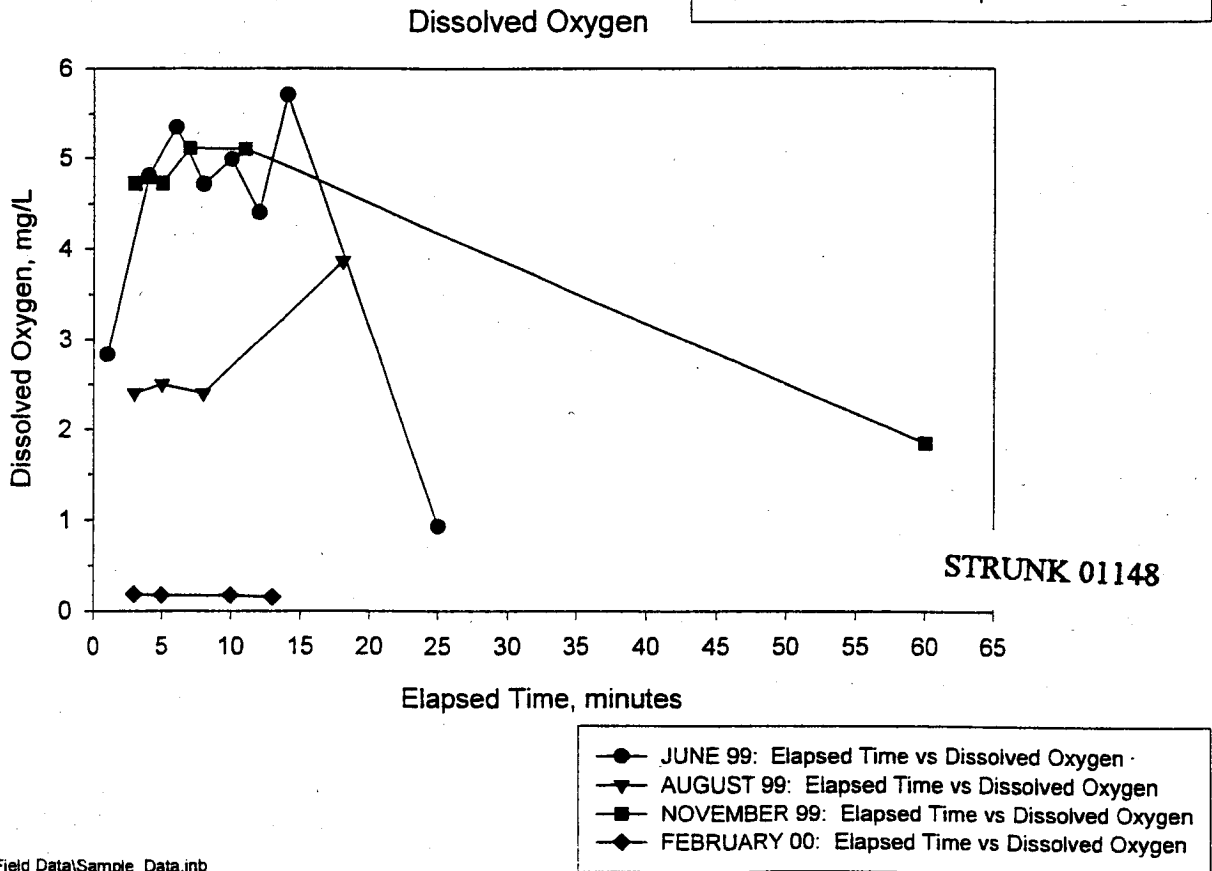
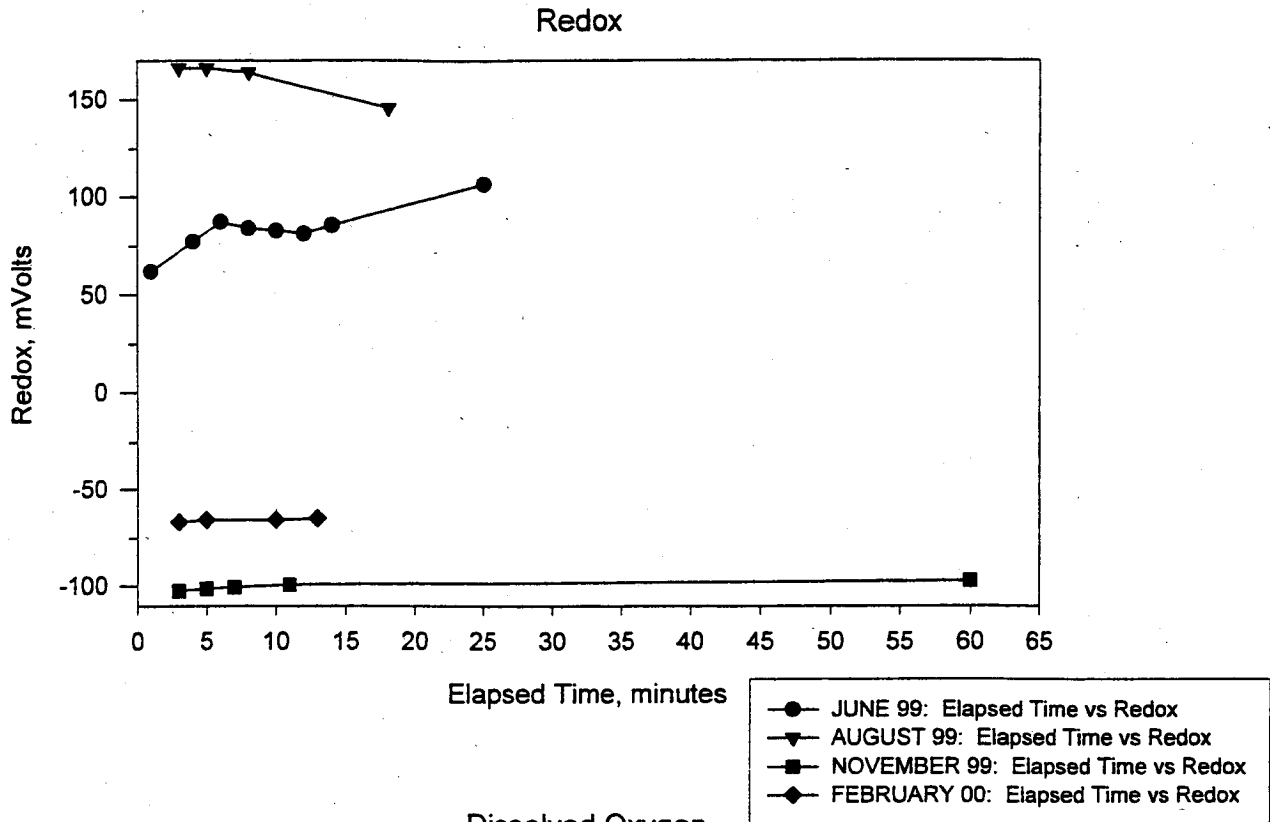
**FIGURE B.5**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MWE09**  
 IWS Groundwater Study  
 King County, Washington



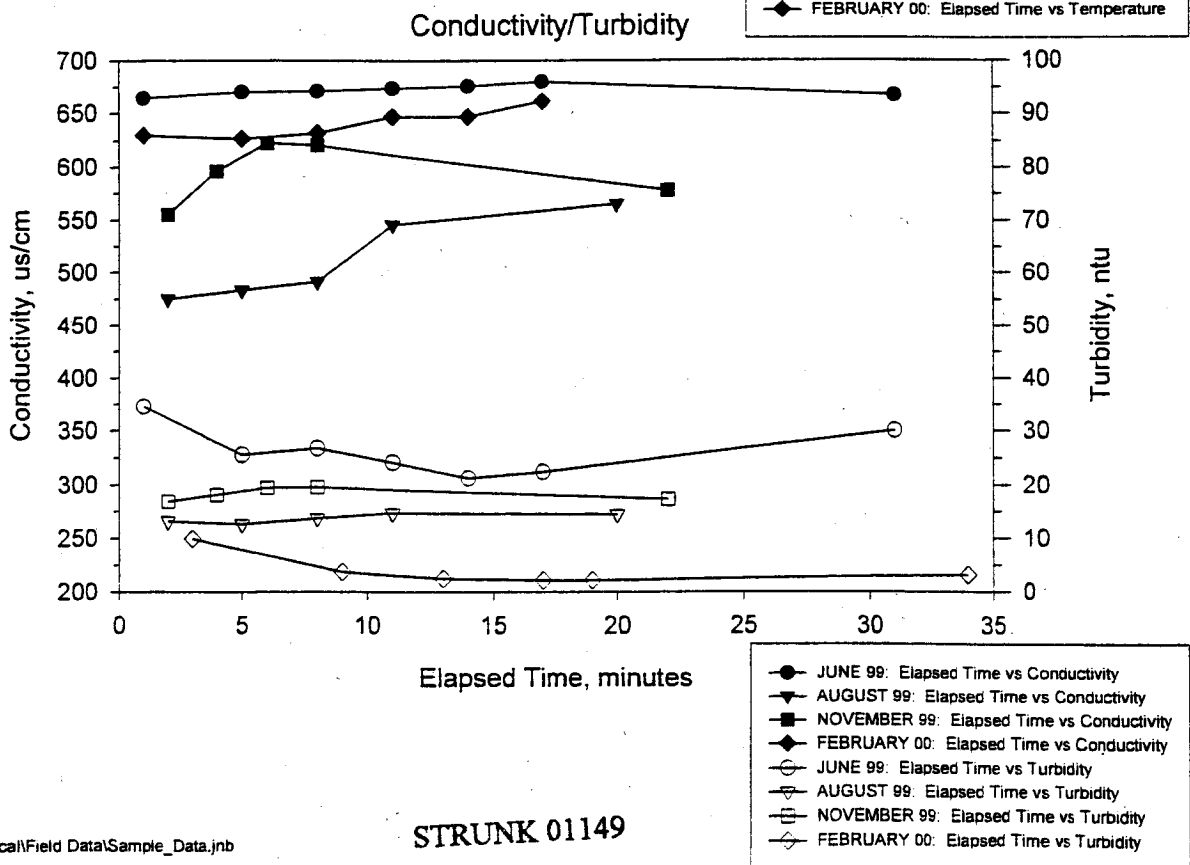
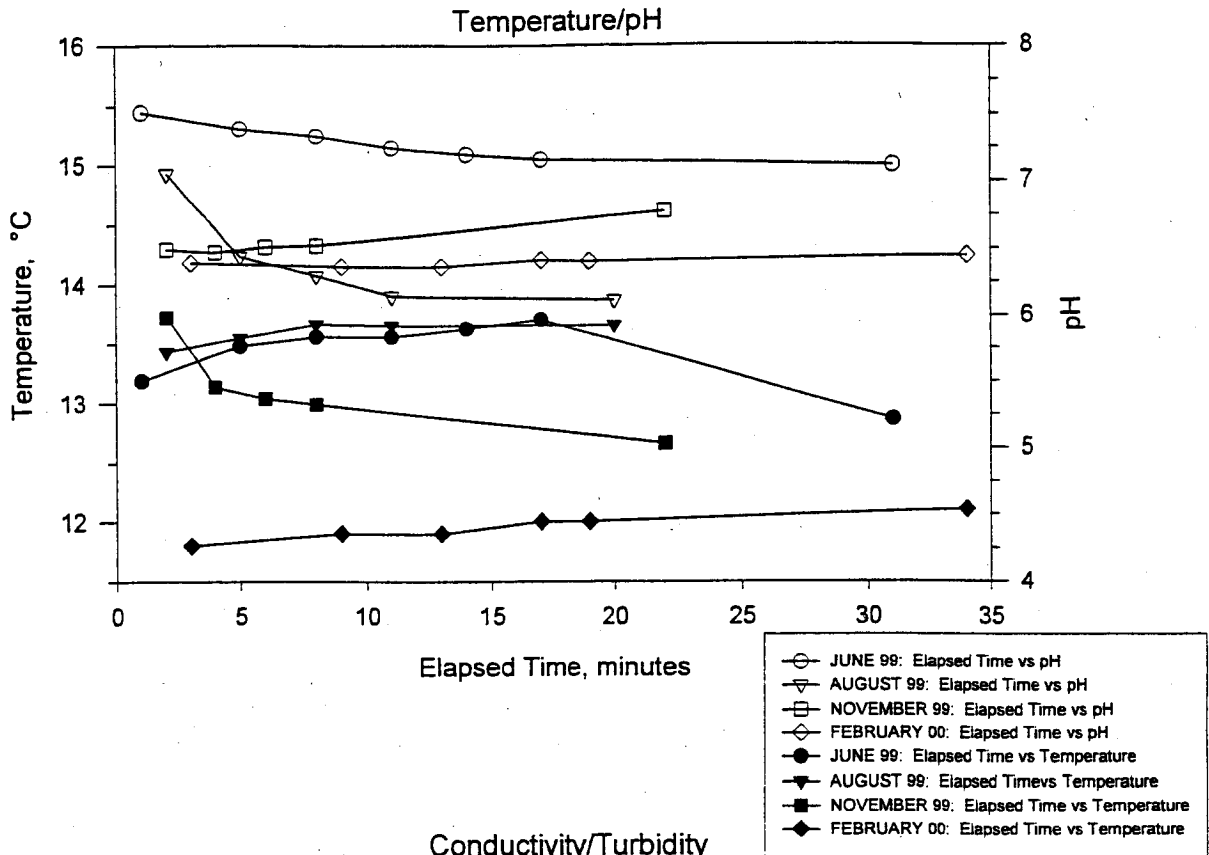
**FIGURE B.6**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MW105**  
 IWS Groundwater Study  
 King County, Washington



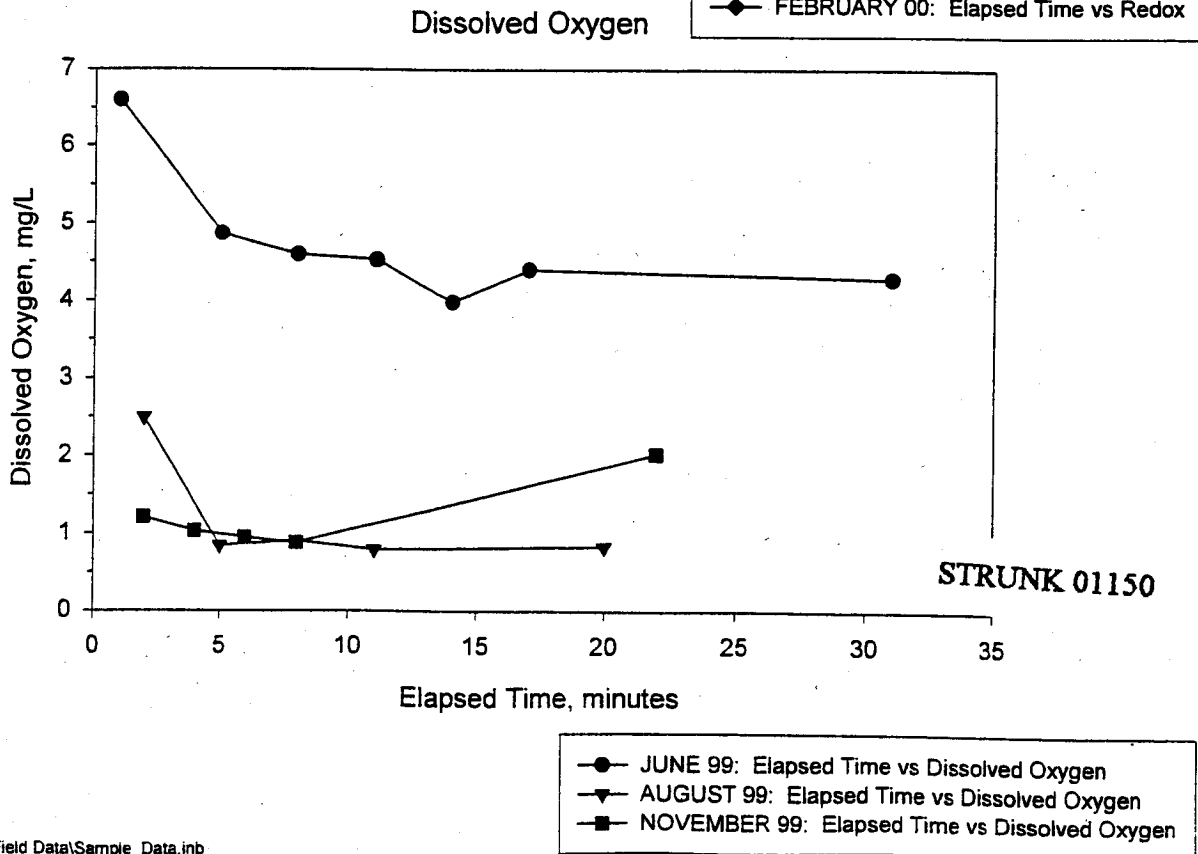
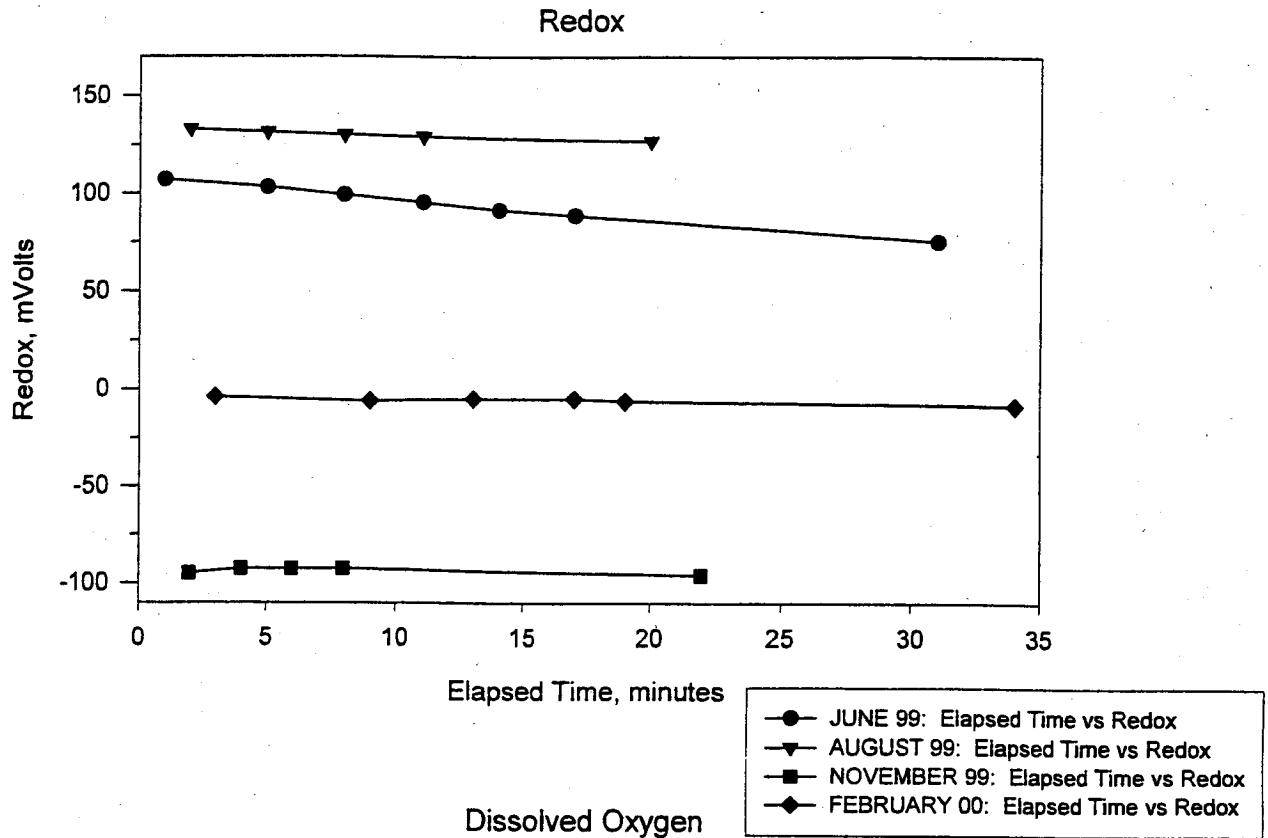
**FIGURE B.6**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MW105**  
 IWS Groundwater Study  
 King County, Washington



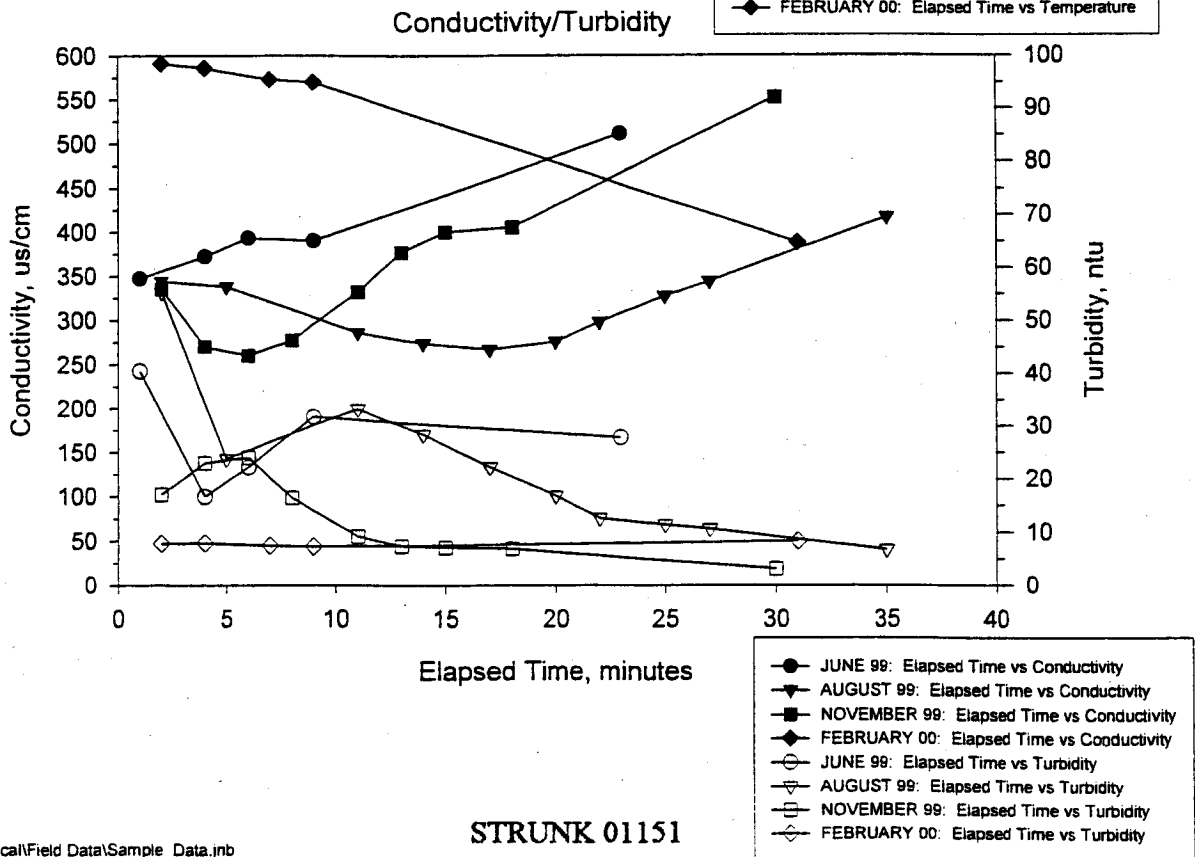
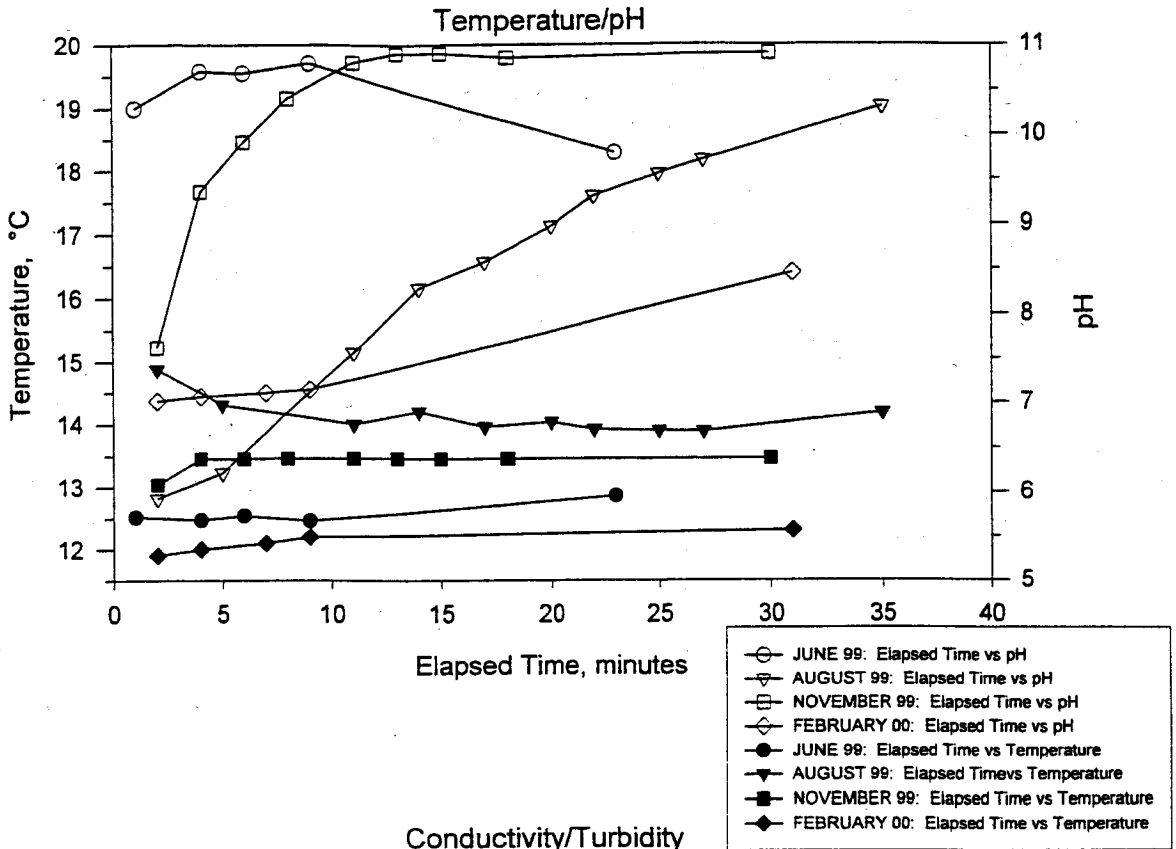
**FIGURE B.7**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MW106**  
 IWS Groundwater Study  
 King County, Washington



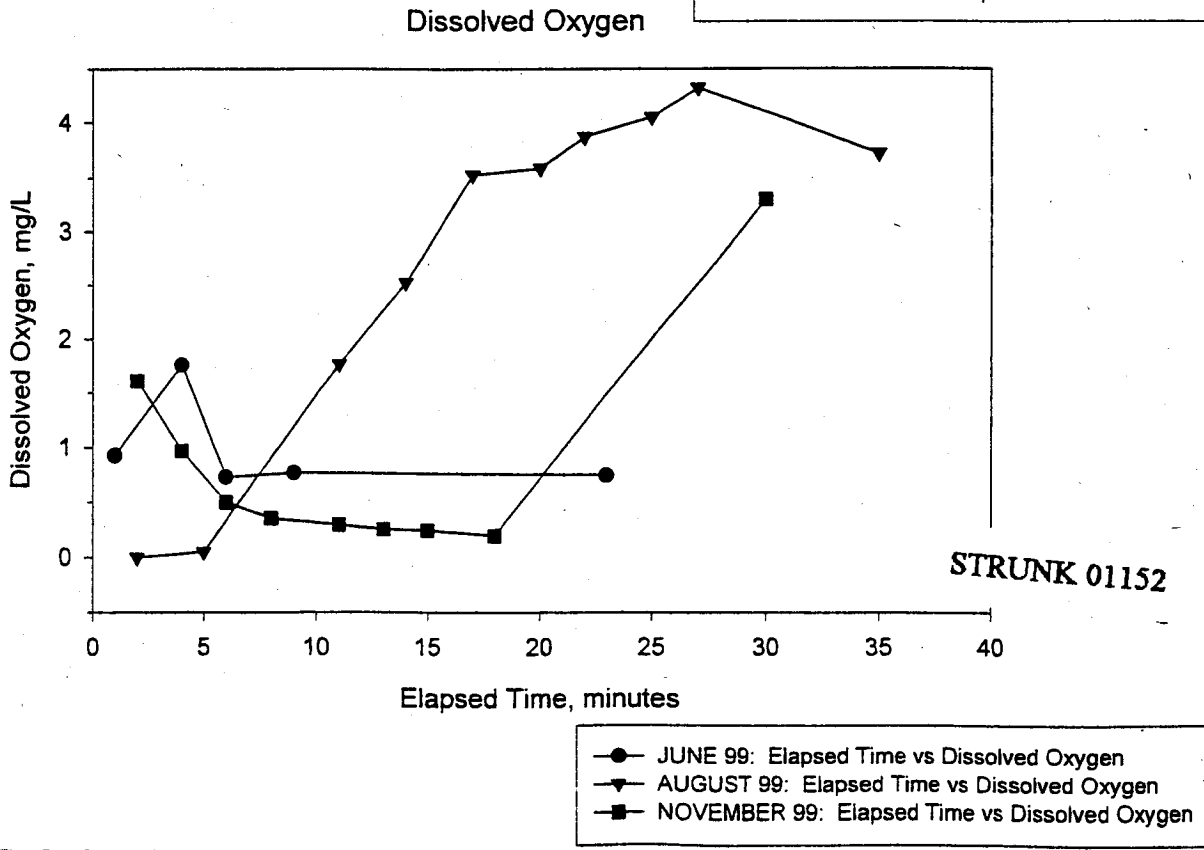
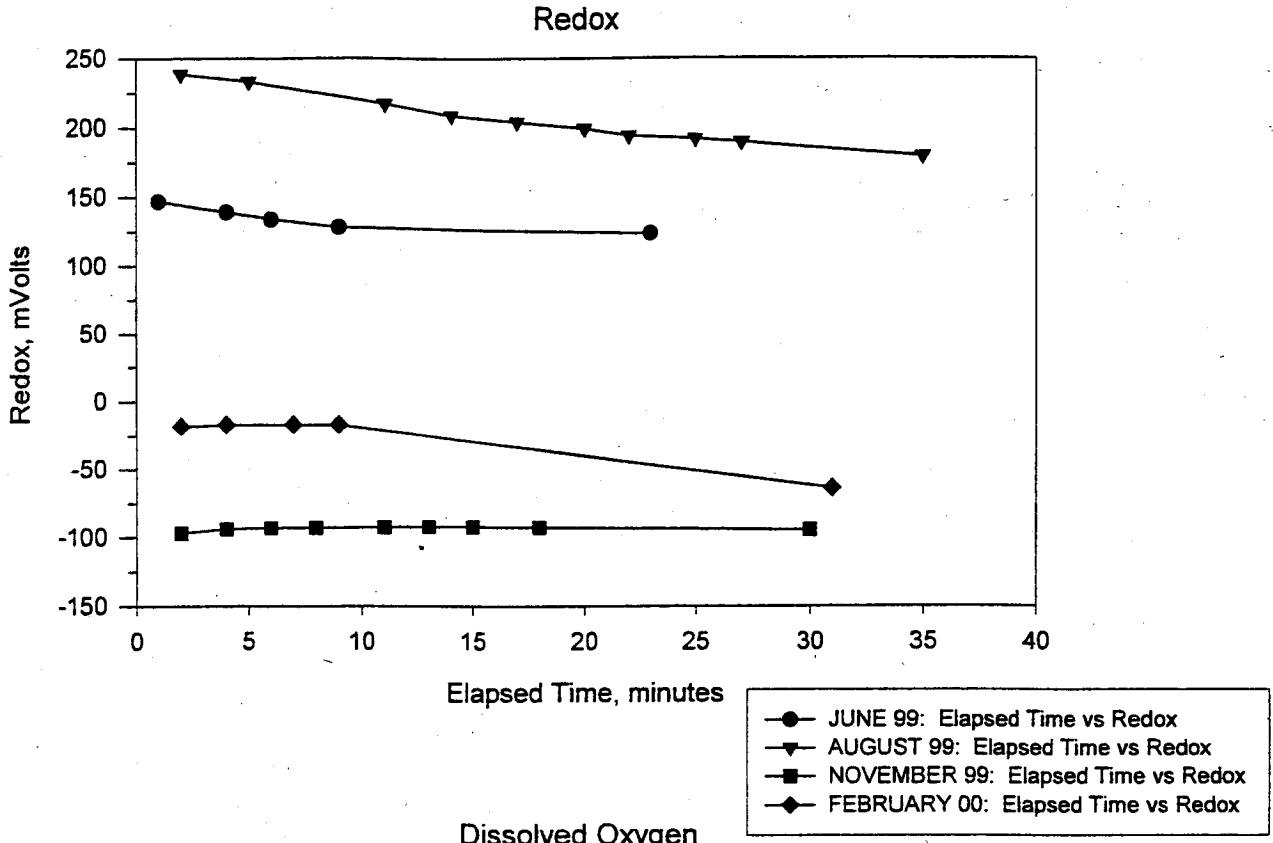
**FIGURE B.7**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MW106**  
 IWS Groundwater Study  
 King County, Washington



**FIGURE B.8**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MW107**  
 IWS Groundwater Study  
 King County, Washington

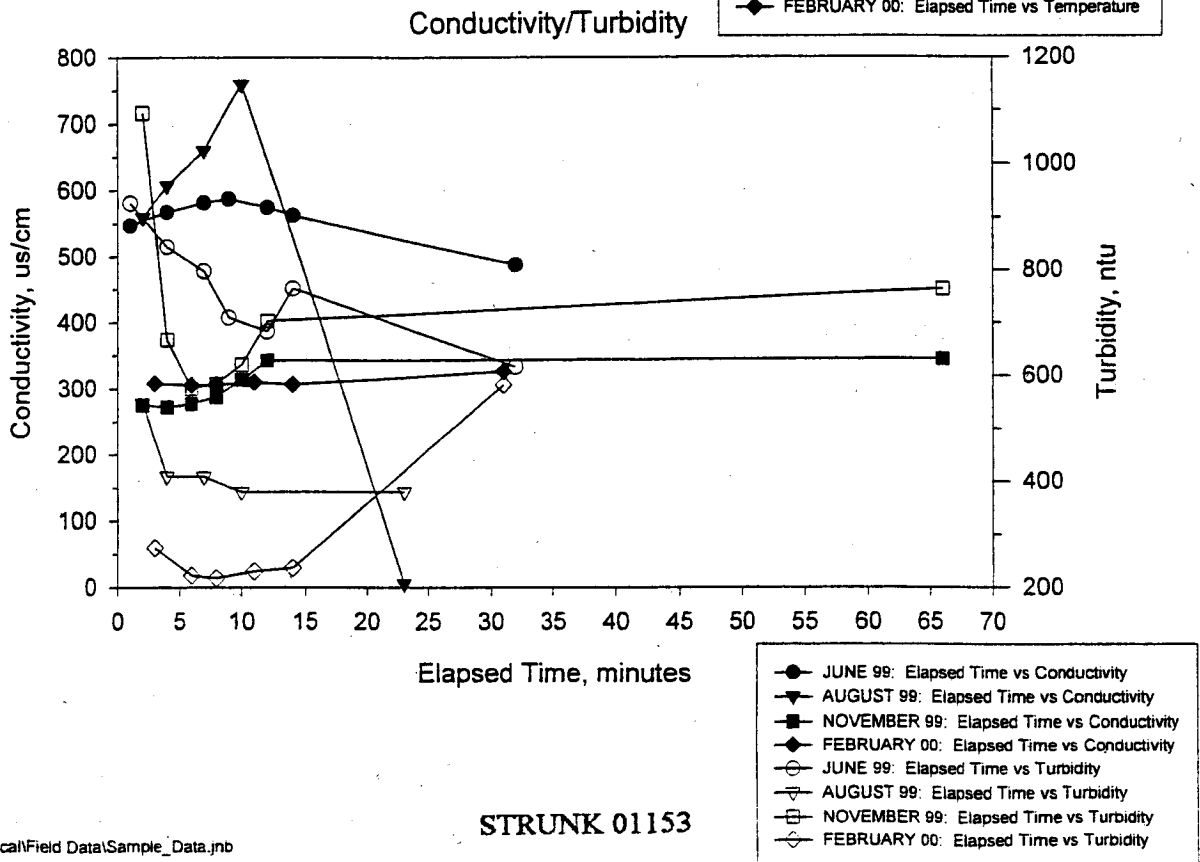
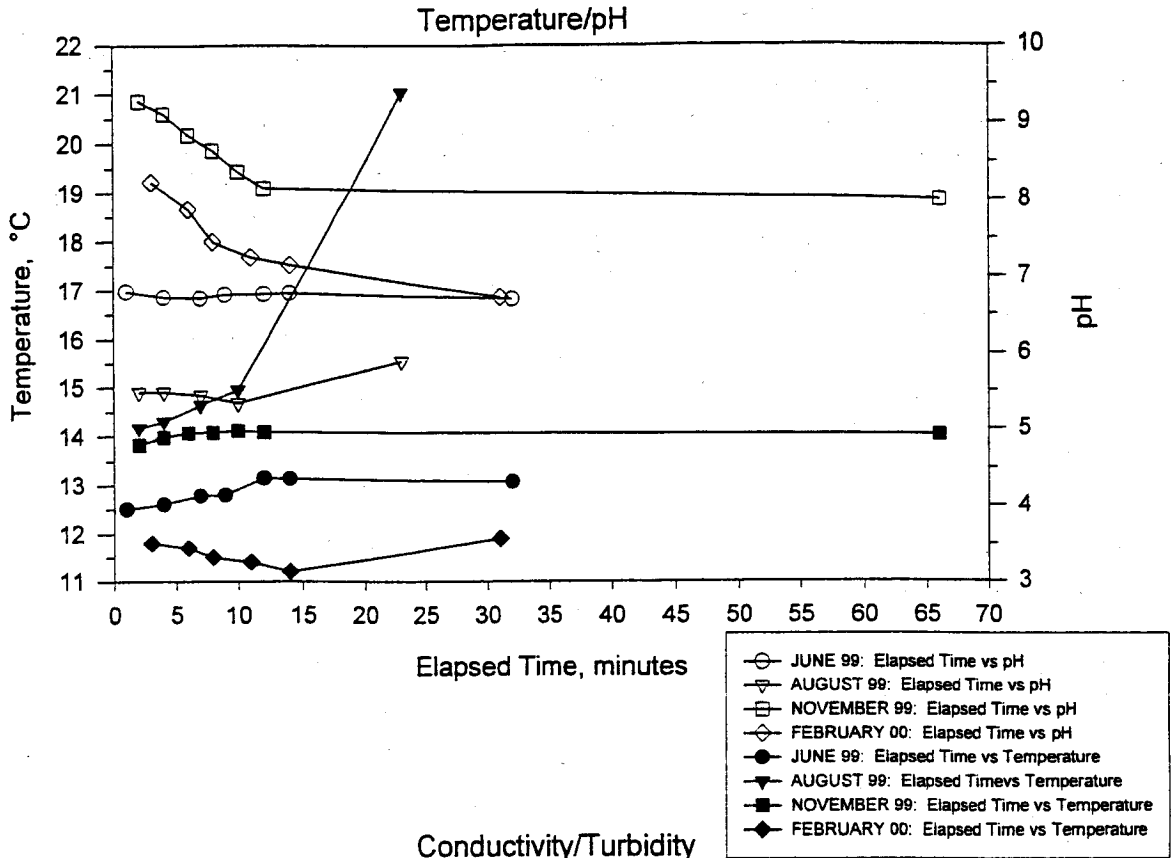


**FIGURE B.8**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MW107**  
 IWS Groundwater Study  
 King County, Washington



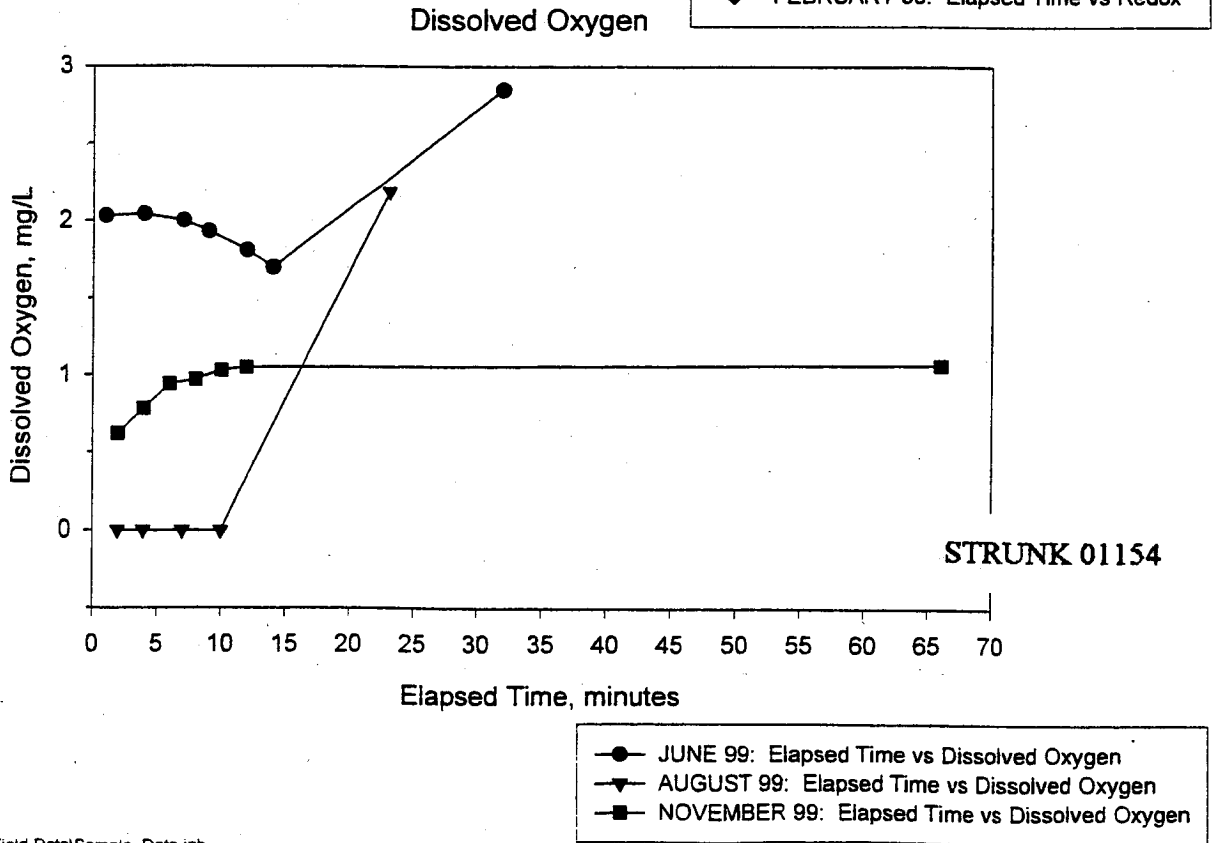
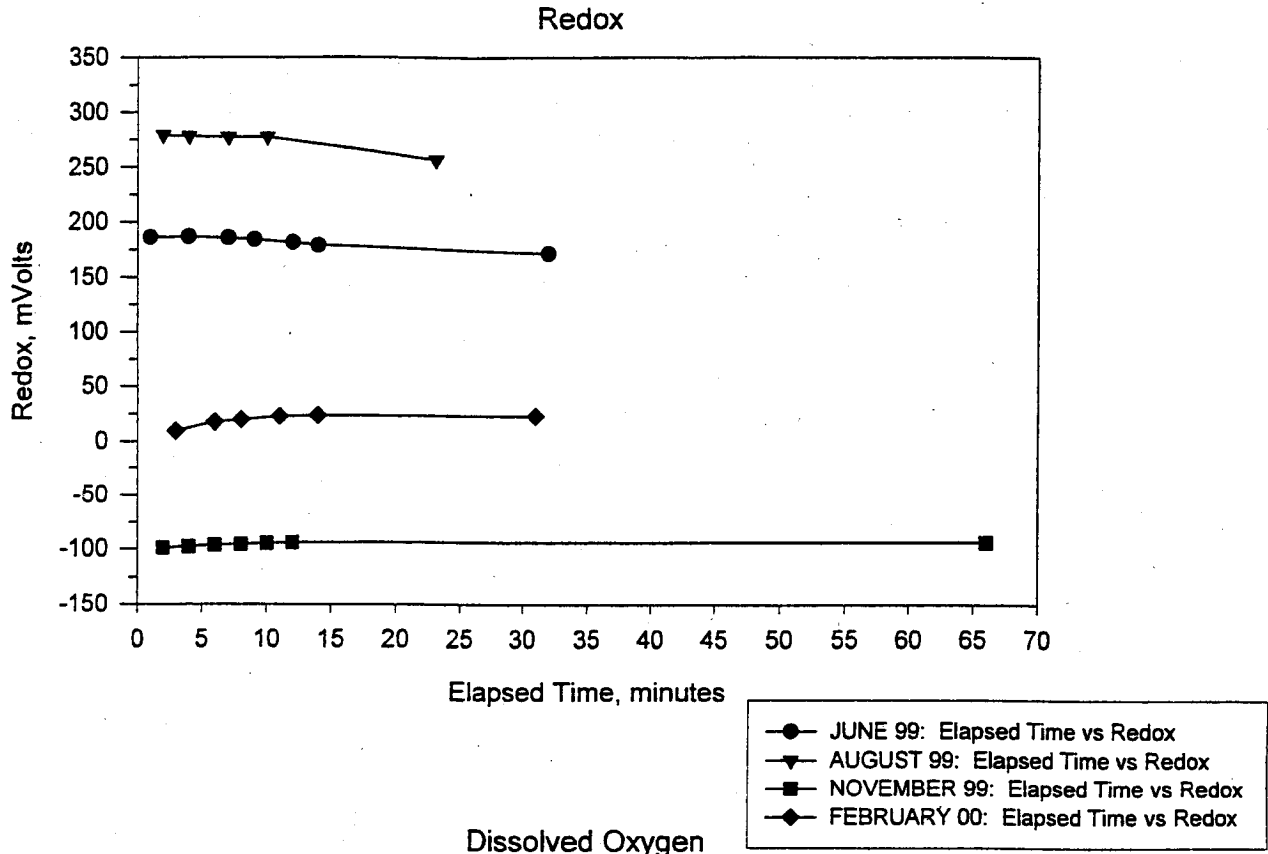
STRUNK 01152

**FIGURE B.9**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MW108**  
 IWS Groundwater Study  
 King County, Washington





**FIGURE B.9**  
**FIELD MEASURED PARAMETERS DURING GROUNDWATER SAMPLING**  
**MONITORING WELL MW108**  
 IWS Groundwater Study  
 King County, Washington





IWSLG_108060299N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.329	0.329	mg/l	SUR	Y			DV
IWSLG_108060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8015				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00	5.00	DV
57-55-6	Propylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00	5.00	DV
5343-92-0	1,2-Pentanediol	202	202	mg/l	SUR	Y			DV
IWSLG_108060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00	0.198	DV
71-55-6	1,1,1-trichloroethane	0.159 U	0.159 U	ug/l	TRG	N	1.00	0.159	DV
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00	0.192	DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00	0.127	DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00	0.209	DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00	0.157	DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00	0.234	DV
96-18-4	1,2,3-trichloropropane	0.418 U	0.418 U	ug/l	TRG	N	1.00	0.418	DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00	0.175	DV
95-63-6	1,2,4-trimethylbenzene	0.369 U	0.369 U	ug/l	TRG	N	1.00	0.369	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.347 U	0.347 U	ug/l	TRG	N	5.00	0.347	DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00	0.124	DV
95-50-1	1,2-dichlorobenzene	0.109 U	0.109 U	ug/l	TRG	N	1.00	0.109	DV
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00	0.123	DV
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00	0.183	DV
108-67-8	1,3,5-trimethylbenzene	0.139 U	0.139 U	ug/l	TRG	N	1.00	0.139	DV
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00	0.164	DV
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00	0.195	DV
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
594-20-7	2,2-dichloropropane	0.187 U	0.187 U	ug/l	TRG	N	1.00	0.187	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.217 U	0.217 U	ug/l	TRG	N	1.00	0.217	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.165 U	0.165 U	ug/l	TRG	N	1.00	0.165	DV
108-10-1	4-methyl-2-pentanone	2.04 U	2.04 U	ug/l	TRG	N	10.0	2.04	DV
67-64-1	Acetone	14.0 U	14.0 U	ug/l	TRG	N	25.0	14.0	DV
71-43-2	Benzene	0.0940 U	0.0940 U	ug/l	TRG	N	1.00	0.094	DV
108-86-1	Bromobenzene	0.112 U	0.112 U	ug/l	TRG	N	1.00	0.112	DV
75-27-4	Bromodichloromethane	0.0880 U	0.0880 U	ug/l	TRG	N	1.00	0.088	DV
74-83-9	Bromomethane	0.364 U	0.364 U	ug/l	TRG	N	1.00	0.364	DV
104-51-8	Butylbenzene.n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.117 U	0.117 U	ug/l	TRG	N	1.00	0.117	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

C:\ENV-APPS\EMIS\POSDEV\posdev.mdb\rptSampleFieldTestResultPlusQAQCbyCOC



IWSLG_108060299N		Type: Normal Environmental S		Matrix: WG	Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
124-48-1	Chlorodibromomethane	0.0730 U	0.0730 U	ug/l	TRG	N	1.00	0.073	DV
75-00-3	Chloroethane	0.295 U	0.295 U	ug/l	TRG	N	1.00	0.295	DV
67-66-3	Chloroform	0.212 U	0.212 U	ug/l	TRG	N	1.00	0.212	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.221 U	0.221 U	ug/l	TRG	N	1.00	0.221	DV
10061-01-5	Cis-1,3-dichloropropene	0.156 U	0.156 U	ug/l	TRG	N	1.00	0.156	DV
74-95-3	Dibromomethane	0.244 U	0.244 U	ug/l	TRG	N	1.00	0.244	DV
75-71-8	Dichlorodifluoromethane	0.256 U	0.256 U	ug/l	TRG	N	1.00	0.256	DV
*** 75-09-2	Dichloromethane	1.43 U	1.43 J	ug/l	TRG	N	5.00	0.808	DV
100-41-4	Ethylbenzene	0.122 U	0.122 U	ug/l	TRG	N	1.00	0.122	DV
87-68-3	Hexachloro-1,3-butadiene	0.182 U	0.182 U	ug/l	TRG	N	1.00	0.182	DV
98-82-8	Isopropylbenzene	0.0830 U	0.0830 U	ug/l	TRG	N	1.00	0.083	DV
91-20-3	Naphthalene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
95-47-6	O-xylene	0.286 U	0.286 U	ug/l	TRG	N	1.00	0.286	DV
99-87-6	P-isopropyltoluene	0.137 U	0.137 U	ug/l	TRG	N	1.00	0.137	DV
103-65-1	Propylbenzene,n-	0.0960 U	0.0960 U	ug/l	TRG	N	1.00	0.096	DV
135-98-8	Sec-butylbenzene	0.134 U	0.134 U	ug/l	TRG	N	1.00	0.134	DV
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00	0.135	DV
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00	0.097	DV
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00	0.282	DV
108-88-3	Toluene (methylbenzene)	0.177 U	0.177 U	ug/l	TRG	N	1.00	0.177	DV
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00	0.225	DV
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00	0.069	DV
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00	0.208	DV
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00	0.145	DV
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00	0.172	DV
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	1.00	0.261	DV
XYLENE	Xylene, P-, M-	0.721 U	0.721 U	ug/l	TRG	N	2.00	0.721	DV
17060-07-0	1,2-dichloroethane-d4	18.5	18.5	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	20.1	20.1	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.7	20.7	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	18.3	18.3	ug/l	SUR	Y			DV

IWSLG_MW105060299FD		Type: Field Duplicate Sample		Matrix: WG	Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.302	0.302	mg/l	SUR	Y			DV

IWSLG_MW105060299FD		Type: Field Duplicate Sample		Matrix: WG	Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00	5.00	DV
57-55-6	Propylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00	5.00	DV
5343-92-0	1,2-Pentanediol	212	212	mg/l	SUR	Y			DV

IWSLG_MW105060299FD		Type: Field Duplicate Sample		Matrix: WG	Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00	0.198	DV
71-55-6	1,1,1-trichloroethane	0.159 U	0.159 U	ug/l	TRG	N	1.00	0.159	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01156

AR 024127



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 8:52:22 AM

POSAV00246 Sample Date Range: 6/2/99-6/3/99

IWSLG_MW105060299FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00 0.192 DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00 0.127 DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00 0.209 DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00 0.157 DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00 0.234 DV
96-18-4	1,2,3-trichloropropane	0.418 U	0.418 U	ug/l	TRG	N	1.00 0.418 DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00 0.175 DV
95-63-6	1,2,4-trimethylbenzene	0.369 U	0.369 U	ug/l	TRG	N	1.00 0.369 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc	0.347 U	0.347 U	ug/l	TRG	N	5.00 0.347 DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00 0.124 DV
95-50-1	1,2-dichlorobenzene	0.109 U	0.109 U	ug/l	TRG	N	1.00 0.109 DV
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00 0.123 DV
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00 0.183 DV
108-67-8	1,3,5-trimethylbenzene	0.139 U	0.139 U	ug/l	TRG	N	1.00 0.139 DV
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00 0.164 DV
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00 0.195 DV
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00 0.102 DV
594-20-7	2,2-dichloropropane	0.187 U	0.187 U	ug/l	TRG	N	1.00 0.187 DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40 DV
95-49-8	2-chlorotoluene	0.217 U	0.217 U	ug/l	TRG	N	1.00 0.217 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83 DV
106-43-4	4-chlorotoluene	0.165 U	0.165 U	ug/l	TRG	N	1.00 0.165 DV
108-10-1	4-methyl-2-pentanone	2.04 U	2.04 U	ug/l	TRG	N	10.0 2.04 DV
67-64-1	Acetone	21.5 J	21.5 J	ug/l	TRG	TR	25.0 14.0 DV
71-43-2	Benzene	0.0940 U	0.0940 U	ug/l	TRG	N	1.00 0.094 DV
108-86-1	Bromobenzene	0.112 U	0.112 U	ug/l	TRG	N	1.00 0.112 DV
75-27-4	Bromodichloromethane	0.0880 U	0.0880 U	ug/l	TRG	N	1.00 0.088 DV
74-83-9	Bromomethane	0.364 U	0.364 U	ug/l	TRG	N	1.00 0.364 DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
56-23-5	Carbon Tetrachloride	0.102 U	0.102 U	ug/l	TRG	N	1.00 0.102 DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
74-97-5	Chlorobromomethane	0.117 U	0.117 U	ug/l	TRG	N	1.00 0.117 DV
124-48-1	Chlorodibromomethane	0.0730 U	0.0730 U	ug/l	TRG	N	1.00 0.073 DV
75-00-3	Chloroethane	0.295 U	0.295 U	ug/l	TRG	N	1.00 0.295 DV
67-66-3	Chloroform	1.08	1.08	ug/l	TRG	Y	1.00 0.212 DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00 2.35 DV
156-59-2	Cis-1,2-dichloroethene	0.221 U	0.221 U	ug/l	TRG	N	1.00 0.221 DV
10061-01-5	Cis-1,3-dichloropropene	0.156 U	0.156 U	ug/l	TRG	N	1.00 0.156 DV
74-95-3	Dibromomethane	0.244 U	0.244 U	ug/l	TRG	N	1.00 0.244 DV
75-71-8	Dichlorodifluoromethane	0.256 U	0.256 U	ug/l	TRG	N	1.00 0.256 DV
*** 75-09-2	Dichloromethane	2.01 U	2.01 J	ug/l	TRG	N	5.00 0.808 DV
100-41-4	Ethylbenzene	0.122 U	0.122 U	ug/l	TRG	N	1.00 0.122 DV
87-68-3	Hexachloro-1,3-butadiene	0.182 U	0.182 U	ug/l	TRG	N	1.00 0.182 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01157

AR 024128



IWSLG_MW105060299FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
98-82-8	Isopropylbenzene	0.0830 U	0.0830 U	ug/l	TRG	N	1.00 0.083 DV
91-20-3	Naphthalene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
95-47-6	O-xylene	0.286 U	0.286 U	ug/l	TRG	N	1.00 0.286 DV
99-87-6	P-isopropyltoluene	0.137 U	0.137 U	ug/l	TRG	N	1.00 0.137 DV
103-65-1	Propylbenzene,n-	0.0960 U	0.0960 U	ug/l	TRG	N	1.00 0.096 DV
135-98-8	Sec-butylbenzene	0.134 U	0.134 U	ug/l	TRG	N	1.00 0.134 DV
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00 0.135 DV
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00 0.097 DV
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00 0.282 DV
108-88-3	Toluene (methylbenzene)	0.476 J	0.476 J	ug/l	TRG	TR	1.00 0.177 DV
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00 0.225 DV
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00 0.069 DV
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00 0.208 DV
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00 0.145 DV
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00 0.172 DV
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	1.00 0.261 DV
XYLENE	Xylene, P-, M-	0.721 U	0.721 U	ug/l	TRG	N	2.00 0.721 DV
17060-07-0	1,2-dichloroethane-d4	18.5	18.5	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	19.9	19.9	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	21.0	21.0	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	18.6	18.6	ug/l	SUR	Y	DV
IWSLG_MW105060299N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.296	0.296	mg/l	SUR	Y	DV
IWSLG_MW105060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00 5.00 DV
57-55-6	Propylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00 5.00 DV
5343-92-0	1,2-Pentanediol	216	216	mg/l	SUR	Y	DV
IWSLG_MW105060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00 0.198 DV
71-55-6	1,1,1-trichloroethane	0.159 U	0.159 U	ug/l	TRG	N	1.00 0.159 DV
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00 0.192 DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00 0.127 DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00 0.209 DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00 0.157 DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00 0.234 DV
96-18-4	1,2,3-trichloropropane	0.418 U	0.418 U	ug/l	TRG	N	1.00 0.418 DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00 0.175 DV
95-63-6	1,2,4-trimethylbenzene	0.369 U	0.369 U	ug/l	TRG	N	1.00 0.369 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.347 U	0.347 U	ug/l	TRG	N	5.00 0.347 DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00 0.124 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



IWSLG_MW105060299N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
95-50-1	1,2-dichlorobenzene	0.109 U	0.109 U	ug/l	TRG	N	1.00	0.109	DV
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00	0.123	DV
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00	0.183	DV
108-67-8	1,3,5-trimethylbenzene	0.139 U	0.139 U	ug/l	TRG	N	1.00	0.139	DV
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00	0.164	DV
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00	0.195	DV
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
594-20-7	2,2-dichloropropane	0.187 U	0.187 U	ug/l	TRG	N	1.00	0.187	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.217 U	0.217 U	ug/l	TRG	N	1.00	0.217	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.165 U	0.165 U	ug/l	TRG	N	1.00	0.165	DV
108-10-1	4-methyl-2-pentanone	2.04 U	2.04 U	ug/l	TRG	N	10.0	2.04	DV
67-64-1	Acetone	22.3 J	22.3 J	ug/l	TRG	TR	25.0	14.0	DV
71-43-2	Benzene	0.0940 U	0.0940 U	ug/l	TRG	N	1.00	0.094	DV
108-86-1	Bromobenzene	0.112 U	0.112 U	ug/l	TRG	N	1.00	0.112	DV
75-27-4	Bromodichloromethane	0.0880 U	0.0880 U	ug/l	TRG	N	1.00	0.088	DV
74-83-9	Bromomethane	0.364 U	0.364 U	ug/l	TRG	N	1.00	0.364	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
*** 75-15-0	Carbon Disulfide	0.695 U	0.695 J	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.117 U	0.117 U	ug/l	TRG	N	1.00	0.117	DV
124-48-1	Chlorodibromomethane	0.0730 U	0.0730 U	ug/l	TRG	N	1.00	0.073	DV
75-00-3	Chloroethane	0.295 U	0.295 U	ug/l	TRG	N	1.00	0.295	DV
67-66-3	Chloroform	1.20	1.20	ug/l	TRG	Y	1.00	0.212	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.221 U	0.221 U	ug/l	TRG	N	1.00	0.221	DV
10061-01-5	Cis-1,3-dichloropropene	0.156 U	0.156 U	ug/l	TRG	N	1.00	0.156	DV
74-95-3	Dibromomethane	0.244 U	0.244 U	ug/l	TRG	N	1.00	0.244	DV
75-71-8	Dichlorodifluoromethane	0.256 U	0.256 U	ug/l	TRG	N	1.00	0.256	DV
*** 75-09-2	Dichloromethane	2.48 U	2.48 J	ug/l	TRG	N	5.00	0.808	DV
100-41-4	Ethylbenzene	0.122 U	0.122 U	ug/l	TRG	N	1.00	0.122	DV
87-68-3	Hexachloro-1,3-butadiene	0.182 U	0.182 U	ug/l	TRG	N	1.00	0.182	DV
98-82-8	Isopropylbenzene	0.0830 U	0.0830 U	ug/l	TRG	N	1.00	0.083	DV
91-20-3	Naphthalene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
95-47-6	O-xylene	0.286 U	0.286 U	ug/l	TRG	N	1.00	0.286	DV
99-87-6	P-isopropyltoluene	0.137 U	0.137 U	ug/l	TRG	N	1.00	0.137	DV
103-65-1	Propylbenzene,n-	0.0960 U	0.0960 U	ug/l	TRG	N	1.00	0.096	DV
135-98-8	Sec-butylbenzene	0.134 U	0.134 U	ug/l	TRG	N	1.00	0.134	DV
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00	0.135	DV
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00	0.097	DV
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00	0.282	DV
108-88-3	Toiuene (methylbenzene)	0.480 J	0.480 J	ug/l	TRG	TR	1.00	0.177	DV
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00	0.225	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



IWSLG_MW105060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00	0.069	DV
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00	0.208	DV
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00	0.145	DV
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00	0.172	DV
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	1.00	0.261	DV
XYLENE	Xylene, P-, M-	0.721 U	0.721 U	ug/l	TRG	N	2.00	0.721	DV
17060-07-0	1,2-dichloroethane-d4	19.4	19.4	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	19.3	19.3	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.4	20.4	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	20.0	20.0	ug/l	SUR	Y			DV

IWSLG_MW106060299N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.360	0.360	mg/l	TRG	Y	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.313	0.313	mg/l	SUR	Y			DV

IWSLG_MW106060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8015				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00	5.00	DV
57-55-6	Propylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00	5.00	DV
5343-92-0	1,2-Pentanediol	210	210	mg/l	SUR	Y			DV

IWSLG_MW106060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00	0.198	DV
71-55-6	1,1,1-trichloroethane	0.159 U	0.159 U	ug/l	TRG	N	1.00	0.159	DV
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00	0.192	DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00	0.127	DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00	0.209	DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00	0.157	DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00	0.234	DV
96-18-4	1,2,3-trichloropropane	0.418 U	0.418 U	ug/l	TRG	N	1.00	0.418	DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00	0.175	DV
95-63-6	1,2,4-trimethylbenzene	1.75	1.75	ug/l	TRG	Y	1.00	0.369	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.347 U	0.347 U	ug/l	TRG	N	5.00	0.347	DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00	0.124	DV
95-50-1	1,2-dichlorobenzene	0.109 U	0.109 U	ug/l	TRG	N	1.00	0.109	DV
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00	0.123	DV
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00	0.183	DV
108-67-8	1,3,5-trimethylbenzene	1.28	1.28	ug/l	TRG	Y	1.00	0.139	DV
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00	0.164	DV
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00	0.195	DV
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
594-20-7	2,2-dichloropropane	0.187 U	0.187 U	ug/l	TRG	N	1.00	0.187	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.217 U	0.217 U	ug/l	TRG	N	1.00	0.217	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01160

AR 024131



IWSLG_MW106060299N		Type: Normal Environmental S		Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status	
106-43-4	4-chlorotoluene	0.165 U	0.165 U	ug/l	TRG	N	1.00	0.165	DV	
108-10-1	4-methyl-2-pentanone	2.04 U	2.04 U	ug/l	TRG	N	10.0	2.04	DV	
67-64-1	Acetone	14.0 U	14.0 U	ug/l	TRG	N	25.0	14.0	DV	
71-43-2	Benzene	0.0940 U	0.0940 U	ug/l	TRG	N	1.00	0.094	DV	
108-86-1	Bromobenzene	0.112 U	0.112 U	ug/l	TRG	N	1.00	0.112	DV	
75-27-4	Bromodichloromethane	0.0880 U	0.0880 U	ug/l	TRG	N	1.00	0.088	DV	
74-83-9	Bromomethane	0.364 U	0.364 U	ug/l	TRG	N	1.00	0.364	DV	
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV	
*** 75-15-0	Carbon Disulfide	0.869 U	0.869 J	ug/l	TRG	N	1.00	0.170	DV	
56-23-5	Carbon Tetrachloride	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV	
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
74-97-5	Chlorobromomethane	0.117 U	0.117 U	ug/l	TRG	N	1.00	0.117	DV	
124-48-1	Chlorodibromomethane	0.0730 U	0.0730 U	ug/l	TRG	N	1.00	0.073	DV	
75-00-3	Chloroethane	0.295 U	0.295 U	ug/l	TRG	N	1.00	0.295	DV	
67-66-3	Chloroform	0.212 U	0.212 U	ug/l	TRG	N	1.00	0.212	DV	
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV	
156-59-2	Cis-1,2-dichloroethene	0.221 U	0.221 U	ug/l	TRG	N	1.00	0.221	DV	
10061-01-5	Cis-1,3-dichloropropene	0.156 U	0.156 U	ug/l	TRG	N	1.00	0.156	DV	
74-95-3	Dibromomethane	0.244 U	0.244 U	ug/l	TRG	N	1.00	0.244	DV	
*** 75-71-8	Dichlorodifluoromethane	0.536 U	0.536 J	ug/l	TRG	TR	1.00	0.256	DV	
*** 75-09-2	Dichloromethane	2.19 U	2.19 J	ug/l	TRG	N	5.00	0.808	DV	
100-41-4	Ethylbenzene	0.122 U	0.122 U	ug/l	TRG	N	1.00	0.122	DV	
87-68-3	Hexachloro-1,3-butadiene	0.182 U	0.182 U	ug/l	TRG	N	1.00	0.182	DV	
98-82-8	Isopropylbenzene	0.0830 U	0.0830 U	ug/l	TRG	N	1.00	0.083	DV	
*** 91-20-3	Naphthalene	1.65 U	1.65	ug/l	TRG	N	1.00	0.090	DV	
95-47-6	O-xylene	1.44	1.44	ug/l	TRG	Y	1.00	0.286	DV	
99-87-6	P-isopropyltoluene	0.137 U	0.137 U	ug/l	TRG	N	1.00	0.137	DV	
103-65-1	Propylbenzene,n-	0.0960 U	0.0960 U	ug/l	TRG	N	1.00	0.096	DV	
135-98-8	Sec-butylbenzene	0.134 U	0.134 U	ug/l	TRG	N	1.00	0.134	DV	
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00	0.135	DV	
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00	0.097	DV	
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00	0.282	DV	
108-88-3	Toluene (methylbenzene)	0.614 J	0.614 J	ug/l	TRG	TR	1.00	0.177	DV	
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00	0.225	DV	
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00	0.069	DV	
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00	0.208	DV	
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00	0.145	DV	
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00	0.172	DV	
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	1.00	0.261	DV	
XYLENE	Xylene, P-, M-	1.10 J	1.10 J	ug/l	TRG	TR	2.00	0.721	DV	
17060-07-0	1,2-dichloroethane-d4	19.3	19.3	ug/l	SUR	Y			DV	
557-93-7	2-bromopropene	19.9	19.9	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	20.9	20.9	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	19.0	19.0	ug/l	SUR	Y			DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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IWSLG_MW107060299N		Type: Normal Environmental S	Matrix: WG	Method: NWTPh-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.222	0.222	mg/l	SUR	Y	DV
IWSLG_MW107060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00 5.00 DV
57-55-6	Propylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00 5.00 DV
5343-92-0	1,2-Pentanediol	210	210	mg/l	SUR	Y	DV
IWSLG_MW107060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00 0.198 DV
71-55-6	1,1,1-trichloroethane	0.159 U	0.159 U	ug/l	TRG	N	1.00 0.159 DV
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00 0.192 DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00 0.127 DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00 0.209 DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00 0.157 DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00 0.234 DV
96-18-4	1,2,3-trichloropropane	0.418 U	0.418 U	ug/l	TRG	N	1.00 0.418 DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00 0.175 DV
95-63-6	1,2,4-trimethylbenzene	0.369 U	0.369 U	ug/l	TRG	N	1.00 0.369 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.347 U	0.347 U	ug/l	TRG	N	5.00 0.347 DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00 0.124 DV
95-50-1	1,2-dichlorobenzene	0.515 J	0.515 J	ug/l	TRG	TR	1.00 0.109 DV
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00 0.123 DV
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00 0.183 DV
108-67-8	1,3,5-trimethylbenzene	0.139 U	0.139 U	ug/l	TRG	N	1.00 0.139 DV
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00 0.164 DV
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00 0.195 DV
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00 0.102 DV
594-20-7	2,2-dichloropropane	0.187 U	0.187 U	ug/l	TRG	N	1.00 0.187 DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40 DV
95-49-8	2-chlorotoluene	0.217 U	0.217 U	ug/l	TRG	N	1.00 0.217 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83 DV
106-43-4	4-chlorotoluene	0.165 U	0.165 U	ug/l	TRG	N	1.00 0.165 DV
108-10-1	4-methyl-2-pentanone	2.04 U	2.04 U	ug/l	TRG	N	10.0 2.04 DV
67-64-1	Acetone	24.2 J	24.2 J	ug/l	TRG	TR	25.0 14.0 DV
71-43-2	Benzene	0.0940 U	0.0940 U	ug/l	TRG	N	1.00 0.094 DV
108-86-1	Bromobenzene	0.112 U	0.112 U	ug/l	TRG	N	1.00 0.112 DV
75-27-4	Bromodichloromethane	0.0880 U	0.0880 U	ug/l	TRG	N	1.00 0.088 DV
74-83-9	Bromomethane	0.364 U	0.364 U	ug/l	TRG	N	1.00 0.364 DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
*** 75-15-0	Carbon Disulfide	0.493 U	0.493 J	ug/l	TRG	N	1.00 0.170 DV
56-23-5	Carbon Tetrachloride	0.102 U	0.102 U	ug/l	TRG	N	1.00 0.102 DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
74-97-5	Chlorobromomethane	0.117 U	0.117 U	ug/l	TRG	N	1.00 0.117 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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IWSLG_MW107060299N		Type: Normal Environmental S		Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
124-48-1	Chlorodibromomethane	0.0730 U	0.0730 U	ug/l	TRG	N	1.00	0.073	DV	
75-00-3	Chloroethane	0.295 U	0.295 U	ug/l	TRG	N	1.00	0.295	DV	
67-66-3	Chloroform	0.751 J	0.751 J	ug/l	TRG	TR	1.00	0.212	DV	
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV	
156-59-2	Cis-1,2-dichloroethene	0.221 U	0.221 U	ug/l	TRG	N	1.00	0.221	DV	
10061-01-5	Cis-1,3-dichloropropene	0.156 U	0.156 U	ug/l	TRG	N	1.00	0.156	DV	
74-95-3	Dibromomethane	0.244 U	0.244 U	ug/l	TRG	N	1.00	0.244	DV	
75-71-8	Dichlorodifluoromethane	0.256 U	0.256 U	ug/l	TRG	N	1.00	0.256	DV	
*** 75-09-2	Dichloromethane	2.11 U	2.11 J	ug/l	TRG	N	5.00	0.808	DV	
100-41-4	Ethylbenzene	0.122 U	0.122 U	ug/l	TRG	N	1.00	0.122	DV	
87-68-3	Hexachloro-1,3-butadiene	0.182 U	0.182 U	ug/l	TRG	N	1.00	0.182	DV	
98-82-8	Isopropylbenzene	0.0830 U	0.0830 U	ug/l	TRG	N	1.00	0.083	DV	
*** 91-20-3	Naphthalene	4.91 U	4.91	ug/l	TRG	N	1.00	0.090	DV	
95-47-6	O-xylene	0.286 U	0.286 U	ug/l	TRG	N	1.00	0.286	DV	
99-87-6	P-isopropyltoluene	0.401 J	0.401 J	ug/l	TRG	TR	1.00	0.137	DV	
103-65-1	Propylbenzene,n-	0.0960 U	0.0960 U	ug/l	TRG	N	1.00	0.096	DV	
135-98-8	Sec-butylbenzene	0.134 U	0.134 U	ug/l	TRG	N	1.00	0.134	DV	
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00	0.135	DV	
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00	0.097	DV	
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00	0.282	DV	
108-88-3	Toluene (methylbenzene)	0.499 J	0.499 J	ug/l	TRG	TR	1.00	0.177	DV	
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00	0.225	DV	
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00	0.069	DV	
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00	0.208	DV	
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00	0.145	DV	
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00	0.172	DV	
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	1.00	0.261	DV	
XYLENE	Xylene, P-, M-	0.721 U	0.721 U	ug/l	TRG	N	2.00	0.721	DV	
17060-07-0	1,2-dichloroethane-d4	19.2	19.2	ug/l	SUR	Y			DV	
557-93-7	2-bromopropene	19.1	19.1	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	20.8	20.8	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	17.9	17.9	ug/l	SUR	Y			DV	

IWSLG_MWE04060299N		Type: Normal Environmental S		Matrix: WG		Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV	
321-60-8	2-fluorobiphenyl	0.263	0.263	mg/l	SUR	Y			DV	

IWSLG_MWE04060299N		Type: Normal Environmental S		Matrix: WG		Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
107-21-1	Ethylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00	5.00	DV	
57-55-6	Propylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00	5.00	DV	
5343-92-0	1,2-Pentanediol	214	214	mg/l	SUR	Y			DV	

IWSLG_MWE04060299N		Type: Normal Environmental S		Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00	0.198	DV	
71-55-6	1,1,1-trichloroethane	0.517 J	0.517 J	ug/l	TRG	TR	1.00	0.159	DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



IWSLG_MWE04060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8260		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00	0.192	DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00	0.127	DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00	0.209	DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00	0.157	DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00	0.234	DV
96-18-4	1,2,3-trichloropropane	0.418 U	0.418 U	ug/l	TRG	N	1.00	0.418	DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00	0.175	DV
95-63-6	1,2,4-trimethylbenzene	0.369 U	0.369 U	ug/l	TRG	N	1.00	0.369	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.347 U	0.347 U	ug/l	TRG	N	5.00	0.347	DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00	0.124	DV
95-50-1	1,2-dichlorobenzene	0.109 U	0.109 U	ug/l	TRG	N	1.00	0.109	DV
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00	0.123	DV
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00	0.183	DV
108-67-8	1,3,5-trimethylbenzene	0.139 U	0.139 U	ug/l	TRG	N	1.00	0.139	DV
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00	0.164	DV
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00	0.195	DV
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
594-20-7	2,2-dichloropropane	0.187 U	0.187 U	ug/l	TRG	N	1.00	0.187	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.217 U	0.217 U	ug/l	TRG	N	1.00	0.217	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.165 U	0.165 U	ug/l	TRG	N	1.00	0.165	DV
108-10-1	4-methyl-2-pentanone	2.04 U	2.04 U	ug/l	TRG	N	10.0	2.04	DV
67-64-1	Acetone	14.0 U	14.0 U	ug/l	TRG	N	25.0	14.0	DV
71-43-2	Benzene	0.0940 U	0.0940 U	ug/l	TRG	N	1.00	0.094	DV
108-86-1	Bromobenzene	0.112 U	0.112 U	ug/l	TRG	N	1.00	0.112	DV
75-27-4	Bromodichloromethane	0.0880 U	0.0880 U	ug/l	TRG	N	1.00	0.088	DV
74-83-9	Bromomethane	0.364 U	0.364 U	ug/l	TRG	N	1.00	0.364	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.117 U	0.117 U	ug/l	TRG	N	1.00	0.117	DV
124-48-1	Chlorodibromomethane	0.0730 U	0.0730 U	ug/l	TRG	N	1.00	0.073	DV
75-00-3	Chloroethane	0.295 U	0.295 U	ug/l	TRG	N	1.00	0.295	DV
67-66-3	Chloroform	0.212 U	0.212 U	ug/l	TRG	N	1.00	0.212	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.221 U	0.221 U	ug/l	TRG	N	1.00	0.221	DV
10061-01-5	Cis-1,3-dichloropropene	0.156 U	0.156 U	ug/l	TRG	N	1.00	0.156	DV
74-95-3	Dibromomethane	0.244 U	0.244 U	ug/l	TRG	N	1.00	0.244	DV
*** 75-71-8	Dichlorodifluoromethane	0.456 JB	0.456 J	ug/l	TRG	TR	1.00	0.256	DV
*** 75-09-2	Dichloromethane	2.86 U	2.86 J	ug/l	TRG	N	5.00	0.808	DV
100-41-4	Ethylbenzene	0.122 U	0.122 U	ug/l	TRG	N	1.00	0.122	DV
87-68-3	Hexachloro-1,3-butadiene	0.182 U	0.182 U	ug/l	TRG	N	1.00	0.182	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



IWSLG_MWE04060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
98-82-8	Isopropylbenzene	0.0830 U	0.0830 U	ug/l	TRG	N	1.00 0.083 DV
91-20-3	Naphthalene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
95-47-6	O-xylene	0.286 U	0.286 U	ug/l	TRG	N	1.00 0.286 DV
99-87-6	P-isopropyltoluene	0.137 U	0.137 U	ug/l	TRG	N	1.00 0.137 DV
103-65-1	Propylbenzene,n-	0.0960 U	0.0960 U	ug/l	TRG	N	1.00 0.096 DV
135-98-8	Sec-butylbenzene	0.134 U	0.134 U	ug/l	TRG	N	1.00 0.134 DV
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00 0.135 DV
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00 0.097 DV
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00 0.282 DV
108-88-3	Toluene (methylbenzene)	0.177 U	0.177 U	ug/l	TRG	N	1.00 0.177 DV
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00 0.225 DV
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00 0.069 DV
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00 0.208 DV
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00 0.145 DV
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00 0.172 DV
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	1.00 0.261 DV
XYLENE	Xylene, P-, M-	0.721 U	0.721 U	ug/l	TRG	N	2.00 0.721 DV
17060-07-0	1,2-dichloroethane-d4	20.6	20.6	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	20.3	20.3	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	20.9	20.9	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	17.5	17.5	ug/l	SUR	Y	DV
IWSLG_MWE05060299N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.257	0.257	mg/l	SUR	Y	DV
IWSLG_MWE05060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00 5.00 DV
57-55-6	Propylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00 5.00 DV
5343-92-0	1,2-Pentenediol	199	199	mg/l	SUR	Y	DV
IWSLG_MWE05060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00 0.198 DV
71-55-6	1,1,1-trichloroethane	0.836 J	0.836 J	ug/l	TRG	TR	1.00 0.159 DV
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00 0.192 DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00 0.127 DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00 0.209 DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00 0.157 DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00 0.234 DV
96-18-4	1,2,3-trichloropropane	0.418 U	0.418 U	ug/l	TRG	N	1.00 0.418 DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00 0.175 DV
95-63-6	1,2,4-trimethylbenzene	0.369 U	0.369 U	ug/l	TRG	N	1.00 0.369 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.347 U	0.347 U	ug/l	TRG	N	5.00 0.347 DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00 0.124 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



IWSLG_MWE05060299N		Type: Normal Environmental S		Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
95-50-1	1,2-dichlorobenzene	0.109 U	0.109 U	ug/l	TRG	N	1.00	0.109	DV	
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00	0.123	DV	
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00	0.183	DV	
108-67-8	1,3,5-trimethylbenzene	0.139 U	0.139 U	ug/l	TRG	N	1.00	0.139	DV	
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00	0.164	DV	
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00	0.195	DV	
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV	
594-20-7	2,2-dichloropropane	0.187 U	0.187 U	ug/l	TRG	N	1.00	0.187	DV	
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV	
95-49-8	2-chlorotoluene	0.217 U	0.217 U	ug/l	TRG	N	1.00	0.217	DV	
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV	
106-43-4	4-chlorotoluene	0.165 U	0.165 U	ug/l	TRG	N	1.00	0.165	DV	
108-10-1	4-methyl-2-pentanone	2.04 U	2.04 U	ug/l	TRG	N	10.0	2.04	DV	
67-64-1	Acetone	14.0 U	14.0 U	ug/l	TRG	N	25.0	14.0	DV	
71-43-2	Benzene	0.0940 U	0.0940 U	ug/l	TRG	N	1.00	0.094	DV	
108-86-1	Bromobenzene	0.112 U	0.112 U	ug/l	TRG	N	1.00	0.112	DV	
75-27-4	Bromodichloromethane	0.0880 U	0.0880 U	ug/l	TRG	N	1.00	0.088	DV	
74-83-9	Bromomethane	0.364 U	0.364 U	ug/l	TRG	N	1.00	0.364	DV	
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV	
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
56-23-5	Carbon Tetrachloride	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV	
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
74-97-5	Chlorobromomethane	0.117 U	0.117 U	ug/l	TRG	N	1.00	0.117	DV	
124-48-1	Chlorodibromomethane	0.0730 U	0.0730 U	ug/l	TRG	N	1.00	0.073	DV	
75-00-3	Chloroethane	0.295 U	0.295 U	ug/l	TRG	N	1.00	0.295	DV	
67-66-3	Chloroform	0.212 U	0.212 U	ug/l	TRG	N	1.00	0.212	DV	
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV	
156-59-2	Cis-1,2-dichloroethene	0.221 U	0.221 U	ug/l	TRG	N	1.00	0.221	DV	
10061-01-5	Cis-1,3-dichloropropene	0.156 U	0.156 U	ug/l	TRG	N	1.00	0.156	DV	
74-95-3	Dibromomethane	0.244 U	0.244 U	ug/l	TRG	N	1.00	0.244	DV	
*** 75-71-8	Dichlorodifluoromethane	2.43 B	2.43	ug/l	TRG	Y	1.00	0.256	DV	
*** 75-09-2	Dichloromethane	2.79 U	2.79 J	ug/l	TRG	N	5.00	0.808	DV	
100-41-4	Ethylbenzene	0.122 U	0.122 U	ug/l	TRG	N	1.00	0.122	DV	
87-68-3	Hexachloro-1,3-butadiene	0.182 U	0.182 U	ug/l	TRG	N	1.00	0.182	DV	
98-82-8	Isopropylbenzene	0.0830 U	0.0830 U	ug/l	TRG	N	1.00	0.083	DV	
91-20-3	Naphthalene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
95-47-6	O-xylene	0.286 U	0.286 U	ug/l	TRG	N	1.00	0.286	DV	
99-87-6	P-isopropyltoluene	0.137 U	0.137 U	ug/l	TRG	N	1.00	0.137	DV	
103-65-1	Propylbenzene,n-	0.0960 U	0.0960 U	ug/l	TRG	N	1.00	0.096	DV	
135-98-8	Sec-butylbenzene	0.134 U	0.134 U	ug/l	TRG	N	1.00	0.134	DV	
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00	0.135	DV	
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00	0.097	DV	
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00	0.282	DV	
108-88-3	Toluene (methylbenzene)	0.177 U	0.177 U	ug/l	TRG	N	1.00	0.177	DV	
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00	0.225	DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 8:52:25 AM

POSAV00246 Sample Date Range: 6/2/99-6/3/99

IWSLG_MWE05060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8260		Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00 0.069 DV
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00 0.208 DV
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00 0.145 DV
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00 0.172 DV
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	1.00 0.261 DV
XYLENE	Xylene, P-, M-	0.721 U	0.721 U	ug/l	TRG	N	2.00 0.721 DV
17060-07-0	1,2-dichloroethane-d4	20.2	20.2	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	19.9	19.9	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	21.5	21.5	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	18.6	18.6	ug/l	SUR	Y	DV
IWSLG_MWE07060299FD		Type: Field Duplicate Sample	Matrix: WG	Method: NWTPH-Dx		Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.266	0.266	mg/l	SUR	Y	DV
IWSLG_MWE07060299FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8015		Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00 5.00 DV
57-55-6	Propylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00 5.00 DV
5343-92-0	1,2-Pentanediol	200	200	mg/l	SUR	Y	DV
IWSLG_MWE07060299FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8260		Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00 0.198 DV
71-55-6	1,1,1-trichloroethane	0.159 U	0.159 U	ug/l	TRG	N	1.00 0.159 DV
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00 0.192 DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00 0.127 DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00 0.209 DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00 0.157 DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00 0.234 DV
96-18-4	1,2,3-trichloropropane	0.418 U	0.418 U	ug/l	TRG	N	1.00 0.418 DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00 0.175 DV
95-63-6	1,2,4-trimethylbenzene	0.369 U	0.369 U	ug/l	TRG	N	1.00 0.369 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc	0.347 U	0.347 U	ug/l	TRG	N	5.00 0.347 DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00 0.124 DV
95-50-1	1,2-dichlorobenzene	0.109 U	0.109 U	ug/l	TRG	N	1.00 0.109 DV
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00 0.123 DV
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00 0.183 DV
108-67-8	1,3,5-trimethylbenzene	0.139 U	0.139 U	ug/l	TRG	N	1.00 0.139 DV
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00 0.164 DV
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00 0.195 DV
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00 0.102 DV
594-20-7	2,2-dichloropropane	0.187 U	0.187 U	ug/l	TRG	N	1.00 0.187 DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40 DV
95-49-8	2-chlorotoluene	0.217 U	0.217 U	ug/l	TRG	N	1.00 0.217 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01167

AR 024138



IWSLG_MWE07060299FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8260		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
106-43-4	4-chlorotoluene	0.165 U	0.165 U	ug/l	TRG	N	1.00	0.165	DV
108-10-1	4-methyl-2-pentanone	2.04 U	2.04 U	ug/l	TRG	N	10.0	2.04	DV
67-64-1	Acetone	14.0 U	14.0 U	ug/l	TRG	N	25.0	14.0	DV
71-43-2	Benzene	0.0940 U	0.0940 U	ug/l	TRG	N	1.00	0.094	DV
108-86-1	Bromobenzene	0.112 U	0.112 U	ug/l	TRG	N	1.00	0.112	DV
75-27-4	Bromodichloromethane	0.0880 U	0.0880 U	ug/l	TRG	N	1.00	0.088	DV
74-83-9	Bromomethane	0.364 U	0.364 U	ug/l	TRG	N	1.00	0.364	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
*** 75-15-0	Carbon Disulfide	1.02 U	1.02	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.117 U	0.117 U	ug/l	TRG	N	1.00	0.117	DV
124-48-1	Chlorodibromomethane	0.0730 U	0.0730 U	ug/l	TRG	N	1.00	0.073	DV
75-00-3	Chloroethane	0.295 U	0.295 U	ug/l	TRG	N	1.00	0.295	DV
67-66-3	Chloroform	0.776 J	0.776 J	ug/l	TRG	TR	1.00	0.212	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.221 U	0.221 U	ug/l	TRG	N	1.00	0.221	DV
10061-01-5	Cis-1,3-dichloropropene	0.156 U	0.156 U	ug/l	TRG	N	1.00	0.156	DV
74-95-3	Dibromomethane	0.244 U	0.244 U	ug/l	TRG	N	1.00	0.244	DV
75-71-8	Dichlorodifluoromethane	0.256 U	0.256 U	ug/l	TRG	N	1.00	0.256	DV
*** 75-09-2	Dichloromethane	1.44 U	1.44 J	ug/l	TRG	N	5.00	0.808	DV
100-41-4	Ethylbenzene	0.122 U	0.122 U	ug/l	TRG	N	1.00	0.122	DV
87-68-3	Hexachloro-1,3-butadiene	0.182 U	0.182 U	ug/l	TRG	N	1.00	0.182	DV
98-82-8	Isopropylbenzene	0.0830 U	0.0830 U	ug/l	TRG	N	1.00	0.083	DV
91-20-3	Naphthalene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
95-47-6	O-xylene	0.286 U	0.286 U	ug/l	TRG	N	1.00	0.286	DV
99-87-6	P-isopropyltoluene	0.137 U	0.137 U	ug/l	TRG	N	1.00	0.137	DV
103-65-1	Propylbenzene,n-	0.0960 U	0.0960 U	ug/l	TRG	N	1.00	0.096	DV
135-98-8	Sec-butylbenzene	0.134 U	0.134 U	ug/l	TRG	N	1.00	0.134	DV
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00	0.135	DV
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00	0.097	DV
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00	0.282	DV
108-88-3	Toluene (methylbenzene)	0.177 U	0.177 U	ug/l	TRG	N	1.00	0.177	DV
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00	0.225	DV
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00	0.069	DV
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00	0.208	DV
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00	0.145	DV
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00	0.172	DV
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	1.00	0.261	DV
XYLENE	Xylene, P-, M-	0.721 U	0.721 U	ug/l	TRG	N	2.00	0.721	DV
17060-07-0	1,2-dichloroethane-d4	19.7	19.7	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	20.1	20.1	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.5	20.5	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	18.3	18.3	ug/l	SUR	Y			DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01168

AR 024139



IWSLG_MWE07060299N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.246	0.246	mg/l	SUR	Y	DV
IWSLG_MWE07060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00 5.00 DV
57-55-6	Propylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00 5.00 DV
5343-92-0	1,2-Pentanediol	202	202	mg/l	SUR	Y	DV
IWSLG_MWE07060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00 0.198 DV
71-55-6	1,1,1-trichloroethane	0.159 U	0.159 U	ug/l	TRG	N	1.00 0.159 DV
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00 0.192 DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00 0.127 DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00 0.209 DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00 0.157 DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00 0.234 DV
96-18-4	1,2,3-trichloropropane	0.418 U	0.418 U	ug/l	TRG	N	1.00 0.418 DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00 0.175 DV
95-63-6	1,2,4-trimethylbenzene	0.369 U	0.369 U	ug/l	TRG	N	1.00 0.369 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.347 U	0.347 U	ug/l	TRG	N	5.00 0.347 DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00 0.124 DV
95-50-1	1,2-dichlorobenzene	0.109 U	0.109 U	ug/l	TRG	N	1.00 0.109 DV
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00 0.123 DV
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00 0.183 DV
108-67-8	1,3,5-trimethylbenzene	0.139 U	0.139 U	ug/l	TRG	N	1.00 0.139 DV
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00 0.164 DV
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00 0.195 DV
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00 0.102 DV
594-20-7	2,2-dichloropropane	0.187 U	0.187 U	ug/l	TRG	N	1.00 0.187 DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40 DV
95-49-8	2-chlorotoluene	0.217 U	0.217 U	ug/l	TRG	N	1.00 0.217 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83 DV
106-43-4	4-chlorotoluene	0.165 U	0.165 U	ug/l	TRG	N	1.00 0.165 DV
108-10-1	4-methyl-2-pentanone	2.04 U	2.04 U	ug/l	TRG	N	10.0 2.04 DV
67-64-1	Acetone	14.0 U	14.0 U	ug/l	TRG	N	25.0 14.0 DV
71-43-2	Benzene	0.0940 U	0.0940 U	ug/l	TRG	N	1.00 0.094 DV
108-86-1	Bromobenzene	0.112 U	0.112 U	ug/l	TRG	N	1.00 0.112 DV
75-27-4	Bromodichloromethane	0.0880 U	0.0880 U	ug/l	TRG	N	1.00 0.088 DV
74-83-9	Bromomethane	0.364 U	0.364 U	ug/l	TRG	N	1.00 0.364 DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
*** 75-15-0	Carbon Disulfide	0.451 U	0.451 J	ug/l	TRG	N	1.00 0.170 DV
56-23-5	Carbon Tetrachloride	0.102 U	0.102 U	ug/l	TRG	N	1.00 0.102 DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
74-97-5	Chlorobromomethane	0.117 U	0.117 U	ug/l	TRG	N	1.00 0.117 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01169

AR 024140





IWSLG_MWE07060299N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
124-48-1	Chlorodibromomethane	0.0730 U	0.0730 U	ug/l	TRG	N	1.00	0.073	DV
75-00-3	Chloroethane	0.295 U	0.295 U	ug/l	TRG	N	1.00	0.295	DV
67-66-3	Chloroform	0.212 U	0.212 U	ug/l	TRG	N	1.00	0.212	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.221 U	0.221 U	ug/l	TRG	N	1.00	0.221	DV
10061-01-5	Cis-1,3-dichloropropene	0.156 U	0.156 U	ug/l	TRG	N	1.00	0.156	DV
74-95-3	Dibromomethane	0.244 U	0.244 U	ug/l	TRG	N	1.00	0.244	DV
75-71-8	Dichlorodifluoromethane	0.256 U	0.256 U	ug/l	TRG	N	1.00	0.256	DV
*** 75-09-2	Dichloromethane	2.26 U	2.26 J	ug/l	TRG	N	5.00	0.808	DV
100-41-4	Ethylbenzene	0.122 U	0.122 U	ug/l	TRG	N	1.00	0.122	DV
87-68-3	Hexachloro-1,3-butadiene	0.182 U	0.182 U	ug/l	TRG	N	1.00	0.182	DV
98-82-8	Isopropylbenzene	0.0830 U	0.0830 U	ug/l	TRG	N	1.00	0.083	DV
91-20-3	Naphthalene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
95-47-6	O-xylene	0.286 U	0.286 U	ug/l	TRG	N	1.00	0.286	DV
99-87-6	P-isopropyltoluene	0.137 U	0.137 U	ug/l	TRG	N	1.00	0.137	DV
103-65-1	Propylbenzene,n-	0.0960 U	0.0960 U	ug/l	TRG	N	1.00	0.096	DV
135-98-8	Sec-butylbenzene	0.134 U	0.134 U	ug/l	TRG	N	1.00	0.134	DV
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00	0.135	DV
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00	0.097	DV
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00	0.282	DV
108-88-3	Toluene (methylbenzene)	0.177 U	0.177 U	ug/l	TRG	N	1.00	0.177	DV
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00	0.225	DV
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00	0.069	DV
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00	0.208	DV
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00	0.145	DV
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00	0.172	DV
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	1.00	0.261	DV
XYLENE	Xylene, P-, M-	0.721 U	0.721 U	ug/l	TRG	N	2.00	0.721	DV
17060-07-0	1,2-dichloroethane-d4	20.8	20.8	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	20.2	20.2	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	19.4	19.4	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.3	19.3	ug/l	SUR	Y			DV

IWSLG_MWE08060299N		Type: Normal Environmental S Matrix: WG			Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.273	0.273	mg/l	SUR	Y			DV

IWSLG_MWE08060299N		Type: Normal Environmental S Matrix: WG			Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00	5.00	DV
57-55-6	Propylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00	5.00	DV
5343-92-0	1,2-Pentenediol	204	204	mg/l	SUR	Y			DV

IWSLG_MWE08060299N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00	0.198	DV
71-55-6	1,1,1-trichloroethane	0.159 U	0.159 U	ug/l	TRG	N	1.00	0.159	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01170

AR 024141



IWSLG_MWE08060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00	0.192	DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00	0.127	DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00	0.209	DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00	0.157	DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00	0.234	DV
96-18-4	1,2,3-trichloropropane	0.418 U	0.418 U	ug/l	TRG	N	1.00	0.418	DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00	0.175	DV
95-63-6	1,2,4-trimethylbenzene	0.369 U	0.369 U	ug/l	TRG	N	1.00	0.369	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc	0.347 U	0.347 U	ug/l	TRG	N	5.00	0.347	DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00	0.124	DV
95-50-1	1,2-dichlorobenzene	0.109 U	0.109 U	ug/l	TRG	N	1.00	0.109	DV
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00	0.123	DV
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00	0.183	DV
108-67-8	1,3,5-trimethylbenzene	0.139 U	0.139 U	ug/l	TRG	N	1.00	0.139	DV
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00	0.164	DV
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00	0.195	DV
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
594-20-7	2,2-dichloropropane	0.187 U	0.187 U	ug/l	TRG	N	1.00	0.187	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.217 U	0.217 U	ug/l	TRG	N	1.00	0.217	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.165 U	0.165 U	ug/l	TRG	N	1.00	0.165	DV
108-10-1	4-methyl-2-pentanone	2.04 U	2.04 U	ug/l	TRG	N	10.0	2.04	DV
67-64-1	Acetone	24.1 J	24.1 J	ug/l	TRG	TR	25.0	14.0	DV
71-43-2	Benzene	0.0940 U	0.0940 U	ug/l	TRG	N	1.00	0.094	DV
108-86-1	Bromobenzene	0.112 U	0.112 U	ug/l	TRG	N	1.00	0.112	DV
75-27-4	Bromodichloromethane	0.0880 U	0.0880 U	ug/l	TRG	N	1.00	0.088	DV
74-83-9	Bromomethane	0.364 U	0.364 U	ug/l	TRG	N	1.00	0.364	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
*** 75-15-0	Carbon Disulfide	0.454 U	0.454 J	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.117 U	0.117 U	ug/l	TRG	N	1.00	0.117	DV
124-48-1	Chlorodibromomethane	0.0730 U	0.0730 U	ug/l	TRG	N	1.00	0.073	DV
75-00-3	Chloroethane	0.295 U	0.295 U	ug/l	TRG	N	1.00	0.295	DV
67-66-3	Chloroform	1.04	1.04	ug/l	TRG	Y	1.00	0.212	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.221 U	0.221 U	ug/l	TRG	N	1.00	0.221	DV
10061-01-5	Cis-1,3-dichloropropene	0.156 U	0.156 U	ug/l	TRG	N	1.00	0.156	DV
74-95-3	Dibromomethane	0.244 U	0.244 U	ug/l	TRG	N	1.00	0.244	DV
*** 75-71-8	Dichlorodifluoromethane	3.93 B	3.93	ug/l	TRG	Y	1.00	0.256	DV
*** 75-09-2	Dichloromethane	4.4 U	4.40 J	ug/l	TRG	N	5.00	0.808	DV
100-41-4	Ethylbenzene	0.122 U	0.122 U	ug/l	TRG	N	1.00	0.122	DV
87-68-3	Hexachloro-1,3-butadiene	0.182 U	0.182 U	ug/l	TRG	N	1.00	0.182	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01171

AR 024142



Pos Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 8:52:26 AM

POSAV00246 Sample Date Range: 6/2/99-6/3/99

IWSLG_MWE08060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
98-82-8	Isopropylbenzene	0.0830 U	0.0830 U	ug/l	TRG	N	1.00	0.083	DV
91-20-3	Naphthalene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
95-47-6	O-xylene	0.286 U	0.286 U	ug/l	TRG	N	1.00	0.286	DV
99-87-6	P-isopropyltoluene	0.137 U	0.137 U	ug/l	TRG	N	1.00	0.137	DV
103-65-1	Propylbenzene,n-	0.0960 U	0.0960 U	ug/l	TRG	N	1.00	0.096	DV
135-98-8	Sec-butylbenzene	0.134 U	0.134 U	ug/l	TRG	N	1.00	0.134	DV
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00	0.135	DV
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00	0.097	DV
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00	0.282	DV
108-88-3	Toluene (methylbenzene)	0.177 U	0.177 U	ug/l	TRG	N	1.00	0.177	DV
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00	0.225	DV
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00	0.069	DV
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00	0.208	DV
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00	0.145	DV
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00	0.172	DV
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	1.00	0.261	DV
XYLENE	Xylene, P-, M-	0.721 U	0.721 U	ug/l	TRG	N	2.00	0.721	DV
17060-07-0	1,2-dichloroethane-d4	20.1	20.1	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	19.9	19.9	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.1	20.1	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	18.6	18.6	ug/l	SUR	Y			DV

IWSLG_MWE09060299N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.264	0.264	mg/l	TRG	Y	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.244	0.244	mg/l	SUR	Y			DV

IWSLG_MWE09060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8015				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00	5.00	DV
57-55-6	Propylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00	5.00	DV
5343-92-0	1,2-Pentanediol	200	200	mg/l	SUR	Y			DV

IWSLG_MWE09060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00	0.198	DV
71-55-6	1,1,1-trichloroethane	0.159 U	0.159 U	ug/l	TRG	N	1.00	0.159	DV
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00	0.192	DV
75-34-3	1,1-dichloroethane	1.35	1.35	ug/l	TRG	Y	1.00	0.127	DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00	0.209	DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00	0.157	DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00	0.234	DV
96-18-4	1,2,3-trichloropropane	0.418 U	0.418 U	ug/l	TRG	N	1.00	0.418	DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00	0.175	DV
95-63-6	1,2,4-trimethylbenzene	0.369 U	0.369 U	ug/l	TRG	N	1.00	0.369	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.347 U	0.347 U	ug/l	TRG	N	5.00	0.347	DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00	0.124	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

C:\ENV-APPS\EMIS\POSDEV\posdev.mdb\rptSampleFieldTestResultPlusQAQCbyCOC

STRUNK 01172

AR 024143



IWSLG_MWE09060299N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status	
95-50-1	1,2-dichlorobenzene	0.109 U	0.109 U	ug/l	TRG	N	1.00	0.109	DV	
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00	0.123	DV	
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00	0.183	DV	
108-67-8	1,3,5-trimethylbenzene	0.139 U	0.139 U	ug/l	TRG	N	1.00	0.139	DV	
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00	0.164	DV	
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00	0.195	DV	
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV	
594-20-7	2,2-dichloropropane	0.187 U	0.187 U	ug/l	TRG	N	1.00	0.187	DV	
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV	
95-49-8	2-chlorotoluene	0.217 U	0.217 U	ug/l	TRG	N	1.00	0.217	DV	
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV	
106-43-4	4-chlorotoluene	0.165 U	0.165 U	ug/l	TRG	N	1.00	0.165	DV	
108-10-1	4-methyl-2-pentanone	2.04 U	2.04 U	ug/l	TRG	N	10.0	2.04	DV	
67-64-1	Acetone	14.0 U	14.0 U	ug/l	TRG	N	25.0	14.0	DV	
71-43-2	Benzene	0.0940 U	0.0940 U	ug/l	TRG	N	1.00	0.094	DV	
108-86-1	Bromobenzene	0.112 U	0.112 U	ug/l	TRG	N	1.00	0.112	DV	
75-27-4	Bromodichloromethane	0.0880 U	0.0880 U	ug/l	TRG	N	1.00	0.088	DV	
74-83-9	Bromomethane	0.364 U	0.364 U	ug/l	TRG	N	1.00	0.364	DV	
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV	
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
56-23-5	Carbon Tetrachloride	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV	
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
74-97-5	Chlorobromomethane	0.117 U	0.117 U	ug/l	TRG	N	1.00	0.117	DV	
124-48-1	Chlorodibromomethane	0.0730 U	0.0730 U	ug/l	TRG	N	1.00	0.073	DV	
75-00-3	Chloroethane	0.295 U	0.295 U	ug/l	TRG	N	1.00	0.295	DV	
67-66-3	Chloroform	0.409 J	0.409 J	ug/l	TRG	TR	1.00	0.212	DV	
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV	
156-59-2	Cis-1,2-dichloroethene	0.221 U	0.221 U	ug/l	TRG	N	1.00	0.221	DV	
10061-01-5	Cis-1,3-dichloropropene	0.156 U	0.156 U	ug/l	TRG	N	1.00	0.156	DV	
74-95-3	Dibromomethane	0.244 U	0.244 U	ug/l	TRG	N	1.00	0.244	DV	
*** 75-71-8	Dichlorodifluoromethane	0.864 JB	0.864 J	ug/l	TRG	TR	1.00	0.256	DV	
*** 75-09-2	Dichloromethane	2 U	2.00 J	ug/l	TRG	N	5.00	0.808	DV	
100-41-4	Ethylbenzene	0.122 U	0.122 U	ug/l	TRG	N	1.00	0.122	DV	
87-68-3	Hexachloro-1,3-butadiene	0.182 U	0.182 U	ug/l	TRG	N	1.00	0.182	DV	
98-82-8	Isopropylbenzene	0.0830 U	0.0830 U	ug/l	TRG	N	1.00	0.083	DV	
91-20-3	Naphthalene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
95-47-6	O-xylene	0.286 U	0.286 U	ug/l	TRG	N	1.00	0.286	DV	
99-87-6	P-isopropyltoluene	0.137 U	0.137 U	ug/l	TRG	N	1.00	0.137	DV	
103-65-1	Propylbenzene,n-	0.0960 U	0.0960 U	ug/l	TRG	N	1.00	0.096	DV	
135-98-8	Sec-butylbenzene	0.134 U	0.134 U	ug/l	TRG	N	1.00	0.134	DV	
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00	0.135	DV	
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00	0.097	DV	
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00	0.282	DV	
108-88-3	Toluene (methylbenzene)	0.462 J	0.462 J	ug/l	TRG	TR	1.00	0.177	DV	
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00	0.225	DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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IWSLG_MWE09060299N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00 0.069 DV
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00 0.208 DV
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00 0.145 DV
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00 0.172 DV
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	1.00 0.261 DV
XYLENE	Xylene, P-, M-	0.721 U	0.721 U	ug/l	TRG	N	2.00 0.721 DV
17060-07-0	1,2-dichloroethane-d4	21.3	21.3	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	20.0	20.0	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	20.7	20.7	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	18.1	18.1	ug/l	SUR	Y	DV
POSAV00246TB		Type: Trip Blank	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00 0.198 DV
71-55-6	1,1,1-trichloroethane	0.159 U	0.159 U	ug/l	TRG	N	1.00 0.159 DV
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00 0.192 DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00 0.127 DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00 0.209 DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00 0.157 DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00 0.234 DV
96-18-4	1,2,3-trichloropropane	0.418 U	0.418 U	ug/l	TRG	N	1.00 0.418 DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00 0.175 DV
95-63-6	1,2,4-trimethylbenzene	0.369 U	0.369 U	ug/l	TRG	N	1.00 0.369 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.347 U	0.347 U	ug/l	TRG	N	5.00 0.347 DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00 0.124 DV
95-50-1	1,2-dichlorobenzene	0.109 U	0.109 U	ug/l	TRG	N	1.00 0.109 DV
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00 0.123 DV
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00 0.183 DV
108-67-8	1,3,5-trimethylbenzene	0.139 U	0.139 U	ug/l	TRG	N	1.00 0.139 DV
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00 0.164 DV
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00 0.195 DV
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00 0.102 DV
594-20-7	2,2-dichloropropane	0.187 U	0.187 U	ug/l	TRG	N	1.00 0.187 DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40 DV
95-49-8	2-chlorotoluene	0.217 U	0.217 U	ug/l	TRG	N	1.00 0.217 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83 DV
106-43-4	4-chlorotoluene	0.165 U	0.165 U	ug/l	TRG	N	1.00 0.165 DV
108-10-1	4-methyl-2-pentanone	2.04 U	2.04 U	ug/l	TRG	N	10.0 2.04 DV
67-64-1	Acetone	14.0 U	14.0 U	ug/l	TRG	N	25.0 14.0 DV
71-43-2	Benzene	0.0940 U	0.0940 U	ug/l	TRG	N	1.00 0.094 DV
108-86-1	Bromobenzene	0.112 U	0.112 U	ug/l	TRG	N	1.00 0.112 DV
75-27-4	Bromodichloromethane	0.0880 U	0.0880 U	ug/l	TRG	N	1.00 0.088 DV
74-83-9	Bromomethane	0.364 U	0.364 U	ug/l	TRG	N	1.00 0.364 DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
75-15-0	Carbon Disulfide	0.528 J	0.528 J	ug/l	TRG	TR	1.00 0.170 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01174

AR 024145



POSAV00246TB		Type: Trip Blank	Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
56-23-5	Carbon Tetrachloride	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.117 U	0.117 U	ug/l	TRG	N	1.00	0.117	DV
124-48-1	Chlorodibromomethane	0.0730 U	0.0730 U	ug/l	TRG	N	1.00	0.073	DV
75-00-3	Chloroethane	0.295 U	0.295 U	ug/l	TRG	N	1.00	0.295	DV
67-66-3	Chloroform	0.212 U	0.212 U	ug/l	TRG	N	1.00	0.212	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.221 U	0.221 U	ug/l	TRG	N	1.00	0.221	DV
10061-01-5	Cis-1,3-dichloropropene	0.156 U	0.156 U	ug/l	TRG	N	1.00	0.156	DV
74-95-3	Dibromomethane	0.244 U	0.244 U	ug/l	TRG	N	1.00	0.244	DV
75-71-8	Dichlorodifluoromethane	0.256 U	0.256 U	ug/l	TRG	N	1.00	0.256	DV
75-09-2	Dichloromethane	3.94 J	3.94 J	ug/l	TRG	TR	5.00	0.808	DV
100-41-4	Ethylbenzene	0.122 U	0.122 U	ug/l	TRG	N	1.00	0.122	DV
87-68-3	Hexachloro-1,3-butadiene	0.182 U	0.182 U	ug/l	TRG	N	1.00	0.182	DV
98-82-8	Isopropylbenzene	0.0830 U	0.0830 U	ug/l	TRG	N	1.00	0.083	DV
91-20-3	Naphthalene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
95-47-6	O-xylene	0.286 U	0.286 U	ug/l	TRG	N	1.00	0.286	DV
99-87-6	P-isopropyltoluene	0.137 U	0.137 U	ug/l	TRG	N	1.00	0.137	DV
103-65-1	Propylbenzene,n-	0.0960 U	0.0960 U	ug/l	TRG	N	1.00	0.096	DV
135-98-8	Sec-butylbenzene	0.134 U	0.134 U	ug/l	TRG	N	1.00	0.134	DV
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00	0.135	DV
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00	0.097	DV
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00	0.282	DV
108-88-3	Toluene (methylbenzene)	0.177 U	0.177 U	ug/l	TRG	N	1.00	0.177	DV
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00	0.225	DV
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00	0.069	DV
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00	0.208	DV
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00	0.145	DV
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00	0.172	DV
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	1.00	0.261	DV
XYLENE	Xylene, P-, M-	0.721 U	0.721 U	ug/l	TRG	N	2.00	0.721	DV
17060-07-0	1,2-dichloroethane-d4	20.3	20.3	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	20.2	20.2	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	21.1	21.1	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.0	19.0	ug/l	SUR	Y			DV

0690228-BLK1		Type: Method Blank	Matrix: WG		Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00	5.00	DV
57-55-6	Propylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00	5.00	DV
5343-92-0	1,2-Pentanediol	202	202	mg/l	SUR	Y			DV

0690228-BS1		Type: Blank Spike	Matrix: WG		Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
5343-92-0	1,2-Pentanediol	194	194	mg/l	SUR	Y			DV
107-21-1	Ethylene Glycol	187	187	mg/l	SC	Y	5.00	5.00	DV
57-55-6	Propylene Glycol	193	193	mg/l	SC	Y	5.00	5.00	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



0690287-BLK1		Type: Method Blank	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.299	0.299	mg/l	SUR	Y	DV
0690287-BLK2		Type: Method Blank	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.440	0.440	mg/l	SUR	Y	DV
0690287-BS1		Type: Blank Spike	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL MDL Status
321-60-8	2-fluorobiphenyl	0.374	0.374	mg/l	SUR	Y	DV
PHCD	Phc As Diesel Fuel	1.84	1.84	mg/l	SC	Y	0.250 0.250 DV
0690287-BS2		Type: Blank Spike	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL MDL Status
321-60-8	2-fluorobiphenyl	0.325	0.325	mg/l	SUR	Y	DV
PHCD	Phc As Diesel Fuel	2.01	2.01	mg/l	SC	Y	0.250 0.250 DV
0690287-BSD1		Type: Blank Spike Duplicate	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL MDL Status
321-60-8	2-fluorobiphenyl	0.318	0.318	mg/l	SUR	Y	DV
PHCD	Phc As Diesel Fuel	2.03	2.03	mg/l	SC	Y	0.250 0.250 DV
0690287-BSD2		Type: Blank Spike Duplicate	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL MDL Status
321-60-8	2-fluorobiphenyl	0.421	0.421	mg/l	SUR	Y	DV
PHCD	Phc As Diesel Fuel	2.16	2.16	mg/l	SC	Y	0.250 0.250 DV
0690524-BLK1		Type: Method Blank	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00 0.198 DV
71-55-6	1,1,1-trichloroethane	0.159 U	0.159 U	ug/l	TRG	N	1.00 0.159 DV
79-34-5	1,1,2,2-tetrachloroethane	0.448 J	0.448 J	ug/l	TRG	TR	1.00 0.140 DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00 0.192 DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00 0.127 DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00 0.209 DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00 0.157 DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00 0.234 DV
96-18-4	1,2,3-trichloropropane	0.418 J	0.418 J	ug/l	TRG	TR	1.00 0.418 DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00 0.175 DV
95-63-6	1,2,4-trimethylbenzene	0.369 U	0.369 U	ug/l	TRG	N	1.00 0.369 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.551 J	0.551 J	ug/l	TRG	TR	5.00 0.347 DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00 0.124 DV
95-50-1	1,2-dichlorobenzene	0.109 U	0.109 U	ug/l	TRG	N	1.00 0.109 DV
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00 0.123 DV
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00 0.183 DV
108-67-8	1,3,5-trimethylbenzene	0.139 U	0.139 U	ug/l	TRG	N	1.00 0.139 DV
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00 0.164 DV
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00 0.195 DV
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00 0.102 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01176

AR 024147



POS Sample/Test/Result plus Lab QA/QC in EQuIS DB for Selected COC

4/26/00 8:52:27 AM

POSAV00246 Sample Date Range: 6/2/99-6/3/99

CAS	Chemical	Type: Method Blank		Matrix: WG		Method: SW8260				Valid. Status	
		FINAL: Val/Qual		LAB:Val/Qual		Unit	Resit Type	Detect Flag	RDL		MDL
594-20-7	2,2-dichloropropane	0.187	U	0.187	U	ug/l	TRG	N	1.00	0.187	DV
78-93-3	2-butanone	3.40	U	3.40	U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.217	U	0.217	U	ug/l	TRG	N	1.00	0.217	DV
591-78-6	2-hexanone	2.83	U	2.83	U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.165	U	0.165	U	ug/l	TRG	N	1.00	0.165	DV
108-10-1	4-methyl-2-pentanone	2.04	U	2.04	U	ug/l	TRG	N	10.0	2.04	DV
67-64-1	Acetone	14.0	U	14.0	U	ug/l	TRG	N	25.0	14.0	DV
71-43-2	Benzene	0.0940	U	0.0940	U	ug/l	TRG	N	1.00	0.094	DV
108-86-1	Bromobenzene	0.112	U	0.112	U	ug/l	TRG	N	1.00	0.112	DV
75-27-4	Bromodichloromethane	0.0880	U	0.0880	U	ug/l	TRG	N	1.00	0.088	DV
74-83-9	Bromomethane	0.364	U	0.364	U	ug/l	TRG	N	1.00	0.364	DV
104-51-8	Butylbenzene,n-	0.0800	U	0.0800	U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170	U	0.170	U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.102	U	0.102	U	ug/l	TRG	N	1.00	0.102	DV
108-90-7	Chlorobenzene	0.0700	U	0.0700	U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.117	U	0.117	U	ug/l	TRG	N	1.00	0.117	DV
124-48-1	Chlorodibromomethane	0.0730	U	0.0730	U	ug/l	TRG	N	1.00	0.073	DV
75-00-3	Chloroethane	0.295	U	0.295	U	ug/l	TRG	N	1.00	0.295	DV
67-66-3	Chloroform	0.212	U	0.212	U	ug/l	TRG	N	1.00	0.212	DV
74-87-3	Chloromethane	2.35	U	2.35	U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.221	U	0.221	U	ug/l	TRG	N	1.00	0.221	DV
10061-01-5	Cis-1,3-dichloropropene	0.156	U	0.156	U	ug/l	TRG	N	1.00	0.156	DV
74-95-3	Dibromomethane	0.244	U	0.244	U	ug/l	TRG	N	1.00	0.244	DV
75-71-8	Dichlorodifluoromethane	0.256	U	0.256	U	ug/l	TRG	N	1.00	0.256	DV
75-09-2	Dichloromethane	0.808	U	0.808	U	ug/l	TRG	N	5.00	0.808	DV
100-41-4	Ethylbenzene	0.122	U	0.122	U	ug/l	TRG	N	1.00	0.122	DV
87-68-3	Hexachloro-1,3-butadiene	0.182	U	0.182	U	ug/l	TRG	N	1.00	0.182	DV
98-82-8	Isopropylbenzene	0.0830	U	0.0830	U	ug/l	TRG	N	1.00	0.083	DV
91-20-3	Naphthalene	0.640	J	0.640	J	ug/l	TRG	TR	1.00	0.090	DV
95-47-6	O-xylene	0.286	U	0.286	U	ug/l	TRG	N	1.00	0.286	DV
99-87-6	P-isopropyltoluene	0.137	U	0.137	U	ug/l	TRG	N	1.00	0.137	DV
103-65-1	Propylbenzene,n-	0.0960	U	0.0960	U	ug/l	TRG	N	1.00	0.096	DV
135-98-8	Sec-butylbenzene	0.134	U	0.134	U	ug/l	TRG	N	1.00	0.134	DV
100-42-5	Styrene (monomer)	0.135	U	0.135	U	ug/l	TRG	N	1.00	0.135	DV
98-06-6	Tert-butylbenzene	0.0970	U	0.0970	U	ug/l	TRG	N	1.00	0.097	DV
127-18-4	Tetrachloroethene	0.282	U	0.282	U	ug/l	TRG	N	1.00	0.282	DV
108-88-3	Toluene (methylbenzene)	0.177	U	0.177	U	ug/l	TRG	N	1.00	0.177	DV
156-60-5	Trans-1,2-dichloroethene	0.225	U	0.225	U	ug/l	TRG	N	1.00	0.225	DV
10061-02-6	Trans-1,3-dichloropropene	0.0690	U	0.0690	U	ug/l	TRG	N	1.00	0.069	DV
75-25-2	Tribromomethane	0.208	U	0.208	U	ug/l	TRG	N	1.00	0.208	DV
79-01-6	Trichloroethylene	0.145	U	0.145	U	ug/l	TRG	N	1.00	0.145	DV
75-69-4	Trichlorofluoromethane	0.172	U	0.172	U	ug/l	TRG	N	1.00	0.172	DV
75-01-4	Vinyl Chloride	0.261	U	0.261	U	ug/l	TRG	N	1.00	0.261	DV
XYLENE	Xylene, P-, M-	0.721	U	0.721	U	ug/l	TRG	N	2.00	0.721	DV
17060-07-0	1,2-dichloroethane-d4	21.0		21.0		ug/l	SUR	Y			DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01177

AR 024148





0690524-BLK1		Type: Method Blank	Matrix: WG	Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
557-93-7	2-bromopropene	17.5	17.5	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	21.3	21.3	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	17.5	17.5	ug/l	SUR	Y			DV
0690524-BS1		Type: Blank Spike	Matrix: WG	Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
17060-07-0	1,2-dichloroethane-d4	20.3	20.3	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	20.4	20.4	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	21.4	21.4	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	18.6	18.6	ug/l	SUR	Y			DV
75-35-4	1,1-dichloroethylene	11.5	11.5	ug/l	SC	Y	1.00	0.209	DV
71-43-2	Benzene	10.1	10.1	ug/l	SC	Y	1.00	0.094	DV
108-90-7	Chlorobenzene	10.2	10.2	ug/l	SC	Y	1.00	0.070	DV
108-88-3	Toluene (methylbenzene)	9.06	9.06	ug/l	SC	Y	1.00	0.177	DV
79-01-6	Trichloroethylene	10.2	10.2	ug/l	SC	Y	1.00	0.145	DV
IWSLG_108060299N-DUP		Type: Lab Replicate	Matrix: WG	Method: SW8015			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00	5.00	DV
57-55-6	Propylene Glycol	5.00 U	5.00 U	mg/l	TRG	N	5.00	5.00	DV
5343-92-0	1,2-Pentanediol	214	214	mg/l	SUR	Y			DV
IWSLG_108060299N-MS1		Type: Lab Matrix Spike	Matrix: WG	Method: SW8015			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
5343-92-0	1,2-Pentanediol	206	206	mg/l	SUR	Y			DV
107-21-1	Ethylene Glycol	224	224	mg/l	SC	Y	5.00	5.00	DV
57-55-6	Propylene Glycol	222	222	mg/l	SC	Y	5.00	5.00	DV
IWSLG_108060299N-MS1		Type: Lab Matrix Spike	Matrix: WG	Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
17060-07-0	1,2-dichloroethane-d4	19.6	19.6	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	20.1	20.1	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.8	20.8	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	18.4	18.4	ug/l	SUR	Y			DV
75-35-4	1,1-dichloroethylene	9.97	9.97	ug/l	SC	Y	1.00	0.209	DV
71-43-2	Benzene	9.78	9.78	ug/l	SC	Y	1.00	0.094	DV
108-90-7	Chlorobenzene	9.90	9.90	ug/l	SC	Y	1.00	0.070	DV
108-88-3	Toluene (methylbenzene)	9.45	9.45	ug/l	SC	Y	1.00	0.177	DV
79-01-6	Trichloroethylene	9.59	9.59	ug/l	SC	Y	1.00	0.145	DV
IWSLG_108060299N-MSD		Type: Lab Matrix Spike Duplic	Matrix: WG	Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
17060-07-0	1,2-dichloroethane-d4	21.0	21.0	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	19.4	19.4	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	19.2	19.2	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	20.6	20.6	ug/l	SUR	Y			DV
75-35-4	1,1-dichloroethylene	10.2	10.2	ug/l	SC	Y	1.00	0.209	DV
71-43-2	Benzene	10.9	10.9	ug/l	SC	Y	1.00	0.094	DV
108-90-7	Chlorobenzene	10.6	10.6	ug/l	SC	Y	1.00	0.070	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01178

AR 024149



IWSLG_108060299N-MSD		Type: Lab Matrix Spike Duplic	Matrix: WG	Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
108-88-3	Toluene (methylbenzene)	10.2	10.2	ug/l	SC	Y	1.00	0.177	DV
79-01-6	Trichloroethylene	9.89	9.89	ug/l	SC	Y	1.00	0.145	DV

**Footnotes and Abbreviation**

**Result Type**

- IS Internal Standards.
- SC Spiked Compounds.
- SUR Surrogates.
- TIC Tentatively Identified Compound.
- TRG Target, regular result.

**Final Qualifiers:**

- B Analyte found in associated blank. Suspect lab contamination.
- J Estimated value.
- JB Estimated Value-Analyte found in associated blank. Suspect lab contamination.
- U Compound was analyzed but not detected.

**ValidationStatus:**

- DV Validated
- NV Not Validated
- PV PreValidated
- UV Unknown Validation Status



Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

6/13/00 10:53:32 AM

POSAV00278 Sample Date Range: 6/29/99-6/29/99

IWSLG_MWE04062899N		Type: Normal Environmental Sa	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.25 U	0.25 U	mg/l	TRG	N	0.25 0.25 DV
321-60-8	2-fluorobiphenyl	0.299	0.299	mg/l	SUR	Y	DV
IWSLG_MWE04062899N		Type: Normal Environmental Sa	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
5343-92-0	1,2-Pentanediol	220	220	mg/l	SUR	Y	DV
IWSLG_MWE04062899N		Type: Normal Environmental Sa	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00 0.198 DV
71-55-6	1,1,1-trichloroethane	0.159 U	0.159 U	ug/l	TRG	N	1.00 0.159 DV
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00 0.192 DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00 0.127 DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00 0.209 DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00 0.157 DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00 0.234 DV
96-18-4	1,2,3-trichloropropane	0.418 U	0.418 U	ug/l	TRG	N	1.00 0.418 DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00 0.175 DV
95-63-6	1,2,4-trimethylbenzene	0.369 U	0.369 U	ug/l	TRG	N	1.00 0.369 DV
96-12-8	1,2-dibromo-3-chloropropane (dbcp)	0.347 U	0.347 U	ug/l	TRG	N	5.00 0.347 DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00 0.124 DV
95-50-1	1,2-dichlorobenzene	0.109 U	0.109 U	ug/l	TRG	N	1.00 0.109 DV
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00 0.123 DV
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00 0.183 DV
108-67-8	1,3,5-trimethylbenzene	0.139 U	0.139 U	ug/l	TRG	N	1.00 0.139 DV
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00 0.164 DV
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00 0.195 DV
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00 0.102 DV
594-20-7	2,2-dichloropropane	0.187 U	0.187 U	ug/l	TRG	N	1.00 0.187 DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40 DV
95-49-8	2-chlorotoluene	0.217 U	0.217 U	ug/l	TRG	N	1.00 0.217 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83 DV
106-43-4	4-chlorotoluene	0.165 U	0.165 U	ug/l	TRG	N	1.00 0.165 DV
108-10-1	4-methyl-2-pentanone	2.04 U	2.04 U	ug/l	TRG	N	10.0 2.04 DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0 5.59 DV
71-43-2	Benzene	0.0940 U	0.0940 U	ug/l	TRG	N	1.00 0.0940 DV
108-86-1	Bromobenzene	0.112 U	0.112 U	ug/l	TRG	N	1.00 0.112 DV
75-27-4	Bromodichloromethane	0.0880 U	0.0880 U	ug/l	TRG	N	1.00 0.0880 DV
74-83-9	Bromomethane	0.364 U	0.364 U	ug/l	TRG	N	1.00 0.364 DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.0800 DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
56-23-5	Carbon Tetrachloride	0.102 U	0.102 U	ug/l	TRG	N	1.00 0.102 DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.0700 DV
74-97-5	Chlorobromomethane	0.117 U	0.117 U	ug/l	TRG	N	1.00 0.117 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01180

AR 024151



Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

6/13/00 10:53:32 AM

POSAV00278 Sample Date Range: 6/29/99-6/29/99

IWSLG_MWE04062899N		Type: Normal Environmental Sa	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
124-48-1	Chlorodibromomethane	0.0730 U	0.0730 U	ug/l	TRG	N	1.00 0.0730 DV
75-00-3	Chloroethane	0.295 U	0.295 U	ug/l	TRG	N	1.00 0.295 DV
67-66-3	Chloroform	0.212 U	0.212 U	ug/l	TRG	N	1.00 0.212 DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00 2.35 DV
156-59-2	Cis-1,2-dichloroethene	0.221 U	0.221 U	ug/l	TRG	N	1.00 0.221 DV
10061-01-5	Cis-1,3-dichloropropene	0.156 U	0.156 U	ug/l	TRG	N	1.00 0.156 DV
74-95-3	Dibromomethane	0.244 U	0.244 U	ug/l	TRG	N	1.00 0.244 DV
75-71-8	Dichlorodifluoromethane	0.256 U	0.256 U	ug/l	TRG	N	1.00 0.256 DV
75-09-2	Dichloromethane	0.808 U	0.808 U	ug/l	TRG	N	5.00 0.808 DV
100-41-4	Ethylbenzene	0.122 U	0.122 U	ug/l	TRG	N	1.00 0.122 DV
87-68-3	Hexachloro-1,3-butadiene	0.182 U	0.182 U	ug/l	TRG	N	1.00 0.182 DV
98-82-8	Isopropylbenzene	0.0830 U	0.0830 U	ug/l	TRG	N	1.00 0.0830 DV
91-20-3	Naphthalene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.0900 DV
95-47-6	O-xylene	0.286 U	0.286 U	ug/l	TRG	N	1.00 0.286 DV
99-87-6	P-isopropyltoluene	0.137 U	0.137 U	ug/l	TRG	N	1.00 0.137 DV
103-65-1	Propylbenzene,n-	0.0960 U	0.0960 U	ug/l	TRG	N	1.00 0.0960 DV
135-98-8	Sec-butylbenzene	0.134 U	0.134 U	ug/l	TRG	N	1.00 0.134 DV
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00 0.135 DV
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00 0.0970 DV
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00 0.282 DV
108-88-3	Toluene (methylbenzene)	0.177 U	0.177 U	ug/l	TRG	N	1.00 0.177 DV
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00 0.225 DV
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00 0.0690 DV
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00 0.208 DV
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00 0.145 DV
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00 0.172 DV
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	1.00 0.261 DV
XYLENE	Xylene, P-, M-	0.721 U	0.721 U	ug/l	TRG	N	2.00 0.721 DV
17060-07-0	1,2-dichloroethane-d4	21.3	21.3	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	25.5	25.5	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	19.7	19.7	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	19.9	19.9	ug/l	SUR	Y	DV
IWSLG_MWE05062899FD		Type: Field Duplicate Sample	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.25 U	0.25 U	mg/l	TRG	N	0.25 0.25 DV
321-60-8	2-fluorobiphenyl	0.316	0.316	mg/l	SUR	Y	DV
IWSLG_MWE05062899FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
5343-92-0	1,2-Pentanediol	232	232	mg/l	SUR	Y	DV
IWSLG_MWE05062899FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00 0.198 DV
71-55-6	1,1,1-trichloroethane	0.509 J	0.509 J	ug/l	TRG	TR	1.00 0.159 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01181

AR 024152



Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

6/13/00 10:53:34 AM

POSAV00278 Sample Date Range: 6/29/99-6/29/99

IWSLG_MWE05062899FD		Type: Field Duplicate Sample	Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00	0.192	DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00	0.127	DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00	0.209	DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00	0.157	DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00	0.234	DV
96-18-4	1,2,3-trichloropropane	0.418 U	0.418 U	ug/l	TRG	N	1.00	0.418	DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00	0.175	DV
95-63-6	1,2,4-trimethylbenzene	0.369 U	0.369 U	ug/l	TRG	N	1.00	0.369	DV
96-12-8	1,2-dibromo-3-chloropropane (dbcp)	0.347 U	0.347 U	ug/l	TRG	N	5.00	0.347	DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00	0.124	DV
95-50-1	1,2-dichlorobenzene	0.109 U	0.109 U	ug/l	TRG	N	1.00	0.109	DV
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00	0.123	DV
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00	0.183	DV
108-67-8	1,3,5-trimethylbenzene	0.139 U	0.139 U	ug/l	TRG	N	1.00	0.139	DV
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00	0.164	DV
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00	0.195	DV
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
594-20-7	2,2-dichloropropane	0.187 U	0.187 U	ug/l	TRG	N	1.00	0.187	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.217 U	0.217 U	ug/l	TRG	N	1.00	0.217	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.165 U	0.165 U	ug/l	TRG	N	1.00	0.165	DV
108-10-1	4-methyl-2-pentanone	2.04 U	2.04 U	ug/l	TRG	N	10.0	2.04	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0940 U	0.0940 U	ug/l	TRG	N	1.00	0.0940	DV
108-86-1	Bromobenzene	0.112 U	0.112 U	ug/l	TRG	N	1.00	0.112	DV
75-27-4	Bromodichloromethane	0.0880 U	0.0880 U	ug/l	TRG	N	1.00	0.0880	DV
74-83-9	Bromomethane	0.364 U	0.364 U	ug/l	TRG	N	1.00	0.364	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.0800	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.0700	DV
74-97-5	Chlorobromomethane	0.117 U	0.117 U	ug/l	TRG	N	1.00	0.117	DV
124-48-1	Chlorodibromomethane	0.0730 U	0.0730 U	ug/l	TRG	N	1.00	0.0730	DV
75-00-3	Chloroethane	0.295 U	0.295 U	ug/l	TRG	N	1.00	0.295	DV
67-66-3	Chloroform	0.212 U	0.212 U	ug/l	TRG	N	1.00	0.212	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.221 U	0.221 U	ug/l	TRG	N	1.00	0.221	DV
10061-01-5	Cis-1,3-dichloropropene	0.156 U	0.156 U	ug/l	TRG	N	1.00	0.156	DV
74-95-3	Dibromomethane	0.244 U	0.244 U	ug/l	TRG	N	1.00	0.244	DV
75-71-8	Dichlorodifluoromethane	0.256 U	0.256 U	ug/l	TRG	N	1.00	0.256	DV
75-09-2	Dichloromethane	0.808 U	0.808 U	ug/l	TRG	N	5.00	0.808	DV
100-41-4	Ethylbenzene	0.122 U	0.122 U	ug/l	TRG	N	1.00	0.122	DV
87-68-3	Hexachloro-1,3-butadiene	0.182 U	0.182 U	ug/l	TRG	N	1.00	0.182	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01182

AR 024153

IWSLG_MWE05062899FD		Type: Field Duplicate Sample	Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
98-82-8	Isopropylbenzene	0.0830 U	0.0830 U	ug/l	TRG	N	1.00	0.0830	DV
91-20-3	Naphthalene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.0900	DV
95-47-6	O-xylene	0.286 U	0.286 U	ug/l	TRG	N	1.00	0.286	DV
99-87-6	P-isopropyltoluene	0.137 U	0.137 U	ug/l	TRG	N	1.00	0.137	DV
103-65-1	Propylbenzene,n-	0.0960 U	0.0960 U	ug/l	TRG	N	1.00	0.0960	DV
135-98-8	Sec-butylbenzene	0.134 U	0.134 U	ug/l	TRG	N	1.00	0.134	DV
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00	0.135	DV
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00	0.0970	DV
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00	0.282	DV
108-88-3	Toluene (methylbenzene)	0.177 U	0.177 U	ug/l	TRG	N	1.00	0.177	DV
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00	0.225	DV
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00	0.0690	DV
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00	0.208	DV
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00	0.145	DV
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00	0.172	DV
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	1.00	0.261	DV
XYLENE	Xylen, P-, M-	0.721 U	0.721 U	ug/l	TRG	N	2.00	0.721	DV
17060-07-0	1,2-dichloroethane-d4	21.3	21.3	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	25.8	25.8	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	19.7	19.7	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	20.0	20.0	ug/l	SUR	Y			DV

IWSLG_MWE05062899N		Type: Normal Environmental Sa	Matrix: WG		Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.25 U	0.25 U	mg/l	TRG	N	0.25	0.25	DV
321-60-8	2-fluorobiphenyl	0.290	0.290	mg/l	SUR	Y			DV

IWSLG_MWE05062899N		Type: Normal Environmental Sa	Matrix: WG		Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentenediol	232	232	mg/l	SUR	Y			DV

IWSLG_MWE05062899N		Type: Normal Environmental Sa	Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00	0.198	DV
71-55-6	1,1,1-trichloroethane	0.505 J	0.505 J	ug/l	TRG	TR	1.00	0.159	DV
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00	0.192	DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00	0.127	DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00	0.209	DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00	0.157	DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00	0.234	DV
96-18-4	1,2,3-trichloropropane	0.418 U	0.418 U	ug/l	TRG	N	1.00	0.418	DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00	0.175	DV
95-63-6	1,2,4-trimethylbenzene	0.369 U	0.369 U	ug/l	TRG	N	1.00	0.369	DV
96-12-8	1,2-dibromo-3-chloropropane (dbcp)	0.347 U	0.347 U	ug/l	TRG	N	5.00	0.347	DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00	0.124	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

6/13/00 10:53:44 AM

POSAV00278 Sample Date Range: 6/29/99-6/29/99

TWSLG_MWE05062899N		Type: Normal Environmental Sa	Matrix: WG	Method: SW8260		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
95-50-1	1,2-dichlorobenzene	0.109 U	0.109 U	ug/l	TRG	N	1.00	0.109	DV
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00	0.123	DV
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00	0.183	DV
108-67-8	1,3,5-trimethylbenzene	0.139 U	0.139 U	ug/l	TRG	N	1.00	0.139	DV
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00	0.164	DV
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00	0.195	DV
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
594-20-7	2,2-dichloropropane	0.187 U	0.187 U	ug/l	TRG	N	1.00	0.187	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.217 U	0.217 U	ug/l	TRG	N	1.00	0.217	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.165 U	0.165 U	ug/l	TRG	N	1.00	0.165	DV
108-10-1	4-methyl-2-pentanone	2.04 U	2.04 U	ug/l	TRG	N	10.0	2.04	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0940 U	0.0940 U	ug/l	TRG	N	1.00	0.0940	DV
108-86-1	Bromobenzene	0.112 U	0.112 U	ug/l	TRG	N	1.00	0.112	DV
75-27-4	Bromodichloromethane	0.0880 U	0.0880 U	ug/l	TRG	N	1.00	0.0880	DV
74-83-9	Bromomethane	0.364 U	0.364 U	ug/l	TRG	N	1.00	0.364	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.0800	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.0700	DV
74-97-5	Chlorobromomethane	0.117 U	0.117 U	ug/l	TRG	N	1.00	0.117	DV
124-48-1	Chlorodibromomethane	0.0730 U	0.0730 U	ug/l	TRG	N	1.00	0.0730	DV
75-00-3	Chloroethane	0.295 U	0.295 U	ug/l	TRG	N	1.00	0.295	DV
67-66-3	Chloroform	0.212 U	0.212 U	ug/l	TRG	N	1.00	0.212	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.221 U	0.221 U	ug/l	TRG	N	1.00	0.221	DV
10061-01-5	Cis-1,3-dichloropropene	0.156 U	0.156 U	ug/l	TRG	N	1.00	0.156	DV
74-95-3	Dibromomethane	0.244 U	0.244 U	ug/l	TRG	N	1.00	0.244	DV
75-71-8	Dichlorodifluoromethane	0.256 U	0.256 U	ug/l	TRG	N	1.00	0.256	DV
75-09-2	Dichloromethane	0.808 U	0.808 U	ug/l	TRG	N	5.00	0.808	DV
100-41-4	Ethylbenzene	0.122 U	0.122 U	ug/l	TRG	N	1.00	0.122	DV
87-68-3	Hexachloro-1,3-butadiene	0.182 U	0.182 U	ug/l	TRG	N	1.00	0.182	DV
98-82-8	Isopropylbenzene	0.0830 U	0.0830 U	ug/l	TRG	N	1.00	0.0830	DV
91-20-3	Naphthalene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.0900	DV
95-47-6	O-xylene	0.286 U	0.286 U	ug/l	TRG	N	1.00	0.286	DV
99-87-6	P-isopropyltoluene	0.137 U	0.137 U	ug/l	TRG	N	1.00	0.137	DV
103-65-1	Propylbenzene,n-	0.0960 U	0.0960 U	ug/l	TRG	N	1.00	0.0960	DV
135-98-8	Sec-butylbenzene	0.134 U	0.134 U	ug/l	TRG	N	1.00	0.134	DV
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00	0.135	DV
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00	0.0970	DV
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00	0.282	DV
108-88-3	Toluene (methylbenzene)	0.177 U	0.177 U	ug/l	TRG	N	1.00	0.177	DV
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00	0.225	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01184

AR 024155

IWSLG_MWE05062899N		Type: Normal Environmental Sa	Matrix: WG	Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00	0.0690	DV
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00	0.208	DV
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00	0.145	DV
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00	0.172	DV
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	1.00	0.261	DV
XYLENE	Xylene, P-, M-	0.721 U	0.721 U	ug/l	TRG	N	2.00	0.721	DV
17060-07-0	1,2-dichloroethane-d4	21.3	21.3	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	25.6	25.6	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	19.6	19.6	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	20.2	20.2	ug/l	SUR	Y			DV

POSAV00278TB		Type: Trip Blank	Matrix: WG	Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00	0.198	DV
71-55-6	1,1,1-trichloroethane	0.159 U	0.159 U	ug/l	TRG	N	1.00	0.159	DV
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00	0.192	DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00	0.127	DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00	0.209	DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00	0.157	DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00	0.234	DV
96-18-4	1,2,3-trichloropropane	0.418 U	0.418 U	ug/l	TRG	N	1.00	0.418	DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00	0.175	DV
95-63-6	1,2,4-trimethylbenzene	0.369 U	0.369 U	ug/l	TRG	N	1.00	0.369	DV
96-12-8	1,2-dibromo-3-chloropropane (dbcp)	0.347 U	0.347 U	ug/l	TRG	N	5.00	0.347	DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00	0.124	DV
95-50-1	1,2-dichlorobenzene	0.109 U	0.109 U	ug/l	TRG	N	1.00	0.109	DV
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00	0.123	DV
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00	0.183	DV
108-67-8	1,3,5-trimethylbenzene	0.139 U	0.139 U	ug/l	TRG	N	1.00	0.139	DV
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00	0.164	DV
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00	0.195	DV
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
594-20-7	2,2-dichloropropane	0.187 U	0.187 U	ug/l	TRG	N	1.00	0.187	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.217 U	0.217 U	ug/l	TRG	N	1.00	0.217	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.165 U	0.165 U	ug/l	TRG	N	1.00	0.165	DV
108-10-1	4-methyl-2-pentanone	2.04 U	2.04 U	ug/l	TRG	N	10.0	2.04	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0940 U	0.0940 U	ug/l	TRG	N	1.00	0.0940	DV
108-86-1	Bromobenzene	0.112 U	0.112 U	ug/l	TRG	N	1.00	0.112	DV
75-27-4	Bromodichloromethane	0.0880 U	0.0880 U	ug/l	TRG	N	1.00	0.0880	DV
74-83-9	Bromomethane	0.364 U	0.364 U	ug/l	TRG	N	1.00	0.364	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.0800	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01185

AR 024156



POSAV00278TB		Type: Trip Blank	Matrix: WG	Method: SW8260		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
56-23-5	Carbon Tetrachloride	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.0700	DV
74-97-5	Chlorobromomethane	0.117 U	0.117 U	ug/l	TRG	N	1.00	0.117	DV
124-48-1	Chlorodibromomethane	0.0730 U	0.0730 U	ug/l	TRG	N	1.00	0.0730	DV
75-00-3	Chloroethane	0.295 U	0.295 U	ug/l	TRG	N	1.00	0.295	DV
67-66-3	Chloroform	0.212 U	0.212 U	ug/l	TRG	N	1.00	0.212	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.221 U	0.221 U	ug/l	TRG	N	1.00	0.221	DV
10061-01-5	Cis-1,3-dichloropropene	0.156 U	0.156 U	ug/l	TRG	N	1.00	0.156	DV
74-95-3	Dibromomethane	0.244 U	0.244 U	ug/l	TRG	N	1.00	0.244	DV
75-71-8	Dichlorodifluoromethane	0.256 U	0.256 U	ug/l	TRG	N	1.00	0.256	DV
75-09-2	Dichloromethane	0.808 U	0.808 U	ug/l	TRG	N	5.00	0.808	DV
100-41-4	Ethylbenzene	0.122 U	0.122 U	ug/l	TRG	N	1.00	0.122	DV
87-68-3	Hexachloro-1,3-butadiene	0.182 U	0.182 U	ug/l	TRG	N	1.00	0.182	DV
98-82-8	Isopropylbenzene	0.0830 U	0.0830 U	ug/l	TRG	N	1.00	0.0830	DV
91-20-3	Naphthalene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.0900	DV
95-47-6	O-xylene	0.286 U	0.286 U	ug/l	TRG	N	1.00	0.286	DV
99-87-6	P-isopropyltoluene	0.137 U	0.137 U	ug/l	TRG	N	1.00	0.137	DV
103-65-1	Propylbenzene,n-	0.0960 U	0.0960 U	ug/l	TRG	N	1.00	0.0960	DV
135-98-8	Sec-butylbenzene	0.134 U	0.134 U	ug/l	TRG	N	1.00	0.134	DV
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00	0.135	DV
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00	0.0970	DV
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00	0.282	DV
108-88-3	Toluene (methylbenzene)	0.177 U	0.177 U	ug/l	TRG	N	1.00	0.177	DV
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00	0.225	DV
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00	0.0690	DV
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00	0.208	DV
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00	0.145	DV
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00	0.172	DV
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	1.00	0.261	DV
XYLENE	Xylene, P-, M-	0.721 U	0.721 U	ug/l	TRG	N	2.00	0.721	DV
17060-07-0	1,2-dichloroethane-d4	21.5	21.5	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	25.5	25.5	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	19.5	19.5	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	20.2	20.2	ug/l	SUR	Y			DV
0790054-BLK1		Type: Method Blank	Matrix: WG	Method: SW8015		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	210	210	mg/l	SUR	Y			DV
0790054-BS1		Type: Blank Spike	Matrix: WG	Method: SW8015		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
5343-92-0	1,2-Pentanediol	224	224	mg/l	SUR	Y			DV
107-21-1	Ethylene Glycol	208	208	mg/l	SC	Y	4.00	4.00	DV
57-55-6	Propylene Glycol	212	212	mg/l	SC	Y	4.00	4.00	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

6/13/00 10:53:44 AM

POSAV00278 Sample Date Range: 6/29/99-6/29/99

0790086-BLK1		Type: Method Blank	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.122	0.122	mg/l	TRG	Y	0.120 0.120 DV
321-60-8	2-fluorobiphenyl	0.296	0.296	mg/l	SUR	Y	DV
0790086-BS1		Type: Blank Spike	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
321-60-8	2-fluorobiphenyl	0.370	0.370	mg/l	SUR	Y	DV
PHCD	Phc As Diesel Fuel	1.70	1.70	mg/l	SC	Y	0.250 0.250 DV
0790086-BSD1		Type: Blank Spike Duplicate	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
321-60-8	2-fluorobiphenyl	0.377	0.377	mg/l	SUR	Y	DV
PHCD	Phc As Diesel Fuel	1.75	1.75	mg/l	SC	Y	0.250 0.250 DV
0790126-BLK1		Type: Method Blank	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00 0.198 DV
71-55-6	1,1,1-trichloroethane	0.159 U	0.159 U	ug/l	TRG	N	1.00 0.159 DV
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00 0.192 DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00 0.127 DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00 0.209 DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00 0.157 DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00 0.234 DV
96-18-4	1,2,3-trichloropropane	0.418 U	0.418 U	ug/l	TRG	N	1.00 0.418 DV
120-82-1	1,2,4-trichlorobenzene	0.175 U	0.175 U	ug/l	TRG	N	1.00 0.175 DV
95-63-6	1,2,4-trimethylbenzene	0.369 U	0.369 U	ug/l	TRG	N	1.00 0.369 DV
96-12-8	1,2-dibromo-3-chloropropane (dbcp)	0.347 U	0.347 U	ug/l	TRG	N	5.00 0.347 DV
106-93-4	1,2-dibromoethane	0.124 U	0.124 U	ug/l	TRG	N	1.00 0.124 DV
95-50-1	1,2-dichlorobenzene	0.109 U	0.109 U	ug/l	TRG	N	1.00 0.109 DV
107-06-2	1,2-dichloroethane	0.123 U	0.123 U	ug/l	TRG	N	1.00 0.123 DV
78-87-5	1,2-dichloropropane	0.183 U	0.183 U	ug/l	TRG	N	1.00 0.183 DV
108-67-8	1,3,5-trimethylbenzene	0.139 U	0.139 U	ug/l	TRG	N	1.00 0.139 DV
541-73-1	1,3-dichlorobenzene	0.164 U	0.164 U	ug/l	TRG	N	1.00 0.164 DV
142-28-9	1,3-dichloropropane	0.195 U	0.195 U	ug/l	TRG	N	1.00 0.195 DV
106-46-7	1,4-dichlorobenzene	0.102 U	0.102 U	ug/l	TRG	N	1.00 0.102 DV
594-20-7	2,2-dichloropropane	0.187 U	0.187 U	ug/l	TRG	N	1.00 0.187 DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40 DV
95-49-8	2-chlorotoluene	0.217 U	0.217 U	ug/l	TRG	N	1.00 0.217 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83 DV
106-43-4	4-chlorotoluene	0.165 U	0.165 U	ug/l	TRG	N	1.00 0.165 DV
108-10-1	4-methyl-2-pentanone	2.04 U	2.04 U	ug/l	TRG	N	10.0 2.04 DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0 5.59 DV
71-43-2	Benzene	0.0940 U	0.0940 U	ug/l	TRG	N	1.00 0.0940 DV
108-86-1	Bromobenzene	0.112 U	0.112 U	ug/l	TRG	N	1.00 0.112 DV
75-27-4	Bromodichloromethane	0.0880 U	0.0880 U	ug/l	TRG	N	1.00 0.0880 DV
74-83-9	Bromomethane	0.364 U	0.364 U	ug/l	TRG	N	1.00 0.364 DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.0800 DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

CA:ENV-APPS\EMIS\POSDEV\posdev.mdb\rptSampleFieldTestResultPlusQAQCbyCOC

STRUNK 01187

AR 024158

0790126-BLK1		Type: Method Blank	Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
56-23-5	Carbon Tetrachloride	0.102 U	0.102 U	ug/l	TRG	N	1.00	0.102	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.0700	DV
74-97-5	Chlorobromomethane	0.117 U	0.117 U	ug/l	TRG	N	1.00	0.117	DV
124-48-1	Chlorodibromomethane	0.0730 U	0.0730 U	ug/l	TRG	N	1.00	0.0730	DV
75-00-3	Chloroethane	0.295 U	0.295 U	ug/l	TRG	N	1.00	0.295	DV
67-66-3	Chloroform	0.212 U	0.212 U	ug/l	TRG	N	1.00	0.212	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.221 U	0.221 U	ug/l	TRG	N	1.00	0.221	DV
10061-01-5	Cis-1,3-dichloropropene	0.156 U	0.156 U	ug/l	TRG	N	1.00	0.156	DV
74-95-3	Dibromomethane	0.244 U	0.244 U	ug/l	TRG	N	1.00	0.244	DV
75-71-8	Dichlorodifluoromethane	0.256 U	0.256 U	ug/l	TRG	N	1.00	0.256	DV
75-09-2	Dichloromethane	3.43 J	3.43 J	ug/l	TRG	TR	5.00	0.808	DV
100-41-4	Ethylbenzene	0.122 U	0.122 U	ug/l	TRG	N	1.00	0.122	DV
87-68-3	Hexachloro-1,3-butadiene	0.182 U	0.182 U	ug/l	TRG	N	1.00	0.182	DV
98-82-8	Isopropylbenzene	0.0830 U	0.0830 U	ug/l	TRG	N	1.00	0.0830	DV
91-20-3	Naphthalene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.0900	DV
95-47-6	O-xylene	0.286 U	0.286 U	ug/l	TRG	N	1.00	0.286	DV
99-87-6	P-isopropyltoluene	0.137 U	0.137 U	ug/l	TRG	N	1.00	0.137	DV
103-65-1	Propylbenzene,n-	0.0960 U	0.0960 U	ug/l	TRG	N	1.00	0.0960	DV
135-98-8	Sec-butylbenzene	0.134 U	0.134 U	ug/l	TRG	N	1.00	0.134	DV
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00	0.135	DV
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00	0.0970	DV
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00	0.282	DV
108-88-3	Toluene (methylbenzene)	0.177 U	0.177 U	ug/l	TRG	N	1.00	0.177	DV
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00	0.225	DV
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00	0.0690	DV
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00	0.208	DV
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00	0.145	DV
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00	0.172	DV
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	0.500	0.261	DV
XYLENE	Xylene, P-, M-	0.721 U	0.721 U	ug/l	TRG	N	2.00	0.721	DV
17060-07-0	1,2-dichloroethane-d4	20.5	20.5	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	25.6	25.6	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	19.8	19.8	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	20.1	20.1	ug/l	SUR	Y			DV

0790126-BLK2		Type: Method Blank	Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.198 U	0.198 U	ug/l	TRG	N	1.00	0.198	DV
71-55-6	1,1,1-trichloroethane	0.159 U	0.159 U	ug/l	TRG	N	1.00	0.159	DV
79-34-5	1,1,2,2-tetrachloroethane	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
79-00-5	1,1,2-trichloroethane	0.192 U	0.192 U	ug/l	TRG	N	1.00	0.192	DV
75-34-3	1,1-dichloroethane	0.127 U	0.127 U	ug/l	TRG	N	1.00	0.127	DV
75-35-4	1,1-dichloroethylene	0.209 U	0.209 U	ug/l	TRG	N	1.00	0.209	DV
563-58-6	1,1-dichloropropylene	0.157 U	0.157 U	ug/l	TRG	N	1.00	0.157	DV
87-61-6	1,2,3-trichlorobenzene	0.234 U	0.234 U	ug/l	TRG	N	1.00	0.234	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

CA:ENV-APPSEMIS\POSDEV\posdev.mdb\rptSampleFieldTestResultPlusQAQCbyCOC

0790126-BLK2

CAS	Chemical	Type: Method Blank		Matrix: WG		Method: SW8260			RDL	MDL	Valid Status
		FINAL: Val/Qual		LAB:Val/Qual		Unit	Reslt Type	Detect Flag			
96-18-4	1,2,3-trichloropropane	0.418	U	0.418	U	ug/l	TRG	N	1.00	0.418	DV
120-82-1	1,2,4-trichlorobenzene	0.175	U	0.175	U	ug/l	TRG	N	1.00	0.175	DV
95-63-6	1,2,4-trimethylbenzene	0.369	U	0.369	U	ug/l	TRG	N	1.00	0.369	DV
96-12-8	1,2-dibromo-3-chloropropane (dbcp)	0.347	U	0.347	U	ug/l	TRG	N	5.00	0.347	DV
106-93-4	1,2-dibromoethane	0.124	U	0.124	U	ug/l	TRG	N	1.00	0.124	DV
95-50-1	1,2-dichlorobenzene	0.109	U	0.109	U	ug/l	TRG	N	1.00	0.109	DV
107-06-2	1,2-dichloroethane	0.123	U	0.123	U	ug/l	TRG	N	1.00	0.123	DV
78-87-5	1,2-dichloropropane	0.183	U	0.183	U	ug/l	TRG	N	1.00	0.183	DV
108-67-8	1,3,5-trimethylbenzene	0.139	U	0.139	U	ug/l	TRG	N	1.00	0.139	DV
541-73-1	1,3-dichlorobenzene	0.164	U	0.164	U	ug/l	TRG	N	1.00	0.164	DV
142-28-9	1,3-dichloropropane	0.195	U	0.195	U	ug/l	TRG	N	1.00	0.195	DV
106-46-7	1,4-dichlorobenzene	0.102	U	0.102	U	ug/l	TRG	N	1.00	0.102	DV
594-20-7	2,2-dichloropropane	0.187	U	0.187	U	ug/l	TRG	N	1.00	0.187	DV
78-93-3	2-butanone	3.40	U	3.40	U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.217	U	0.217	U	ug/l	TRG	N	1.00	0.217	DV
591-78-6	2-hexanone	2.83	U	2.83	U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.165	U	0.165	U	ug/l	TRG	N	1.00	0.165	DV
108-10-1	4-methyl-2-pentanone	2.04	U	2.04	U	ug/l	TRG	N	10.0	2.04	DV
67-64-1	Acetone	5.59	U	5.59	U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0940	U	0.0940	U	ug/l	TRG	N	1.00	0.0940	DV
108-86-1	Bromobenzene	0.112	U	0.112	U	ug/l	TRG	N	1.00	0.112	DV
75-27-4	Bromodichloromethane	0.0880	U	0.0880	U	ug/l	TRG	N	1.00	0.0880	DV
74-83-9	Bromomethane	0.364	U	0.364	U	ug/l	TRG	N	1.00	0.364	DV
104-51-8	Butylbenzene,n-	0.0800	U	0.0800	U	ug/l	TRG	N	1.00	0.0800	DV
75-15-0	Carbon Disulfide	0.170	U	0.170	U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.102	U	0.102	U	ug/l	TRG	N	1.00	0.102	DV
108-90-7	Chlorobenzene	0.0700	U	0.0700	U	ug/l	TRG	N	1.00	0.0700	DV
74-97-5	Chlorobromomethane	0.117	U	0.117	U	ug/l	TRG	N	1.00	0.117	DV
124-48-1	Chlorodibromomethane	0.0730	U	0.0730	U	ug/l	TRG	N	1.00	0.0730	DV
75-00-3	Chloroethane	0.295	U	0.295	U	ug/l	TRG	N	1.00	0.295	DV
67-66-3	Chloroform	0.212	U	0.212	U	ug/l	TRG	N	1.00	0.212	DV
74-87-3	Chloromethane	2.35	U	2.35	U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.221	U	0.221	U	ug/l	TRG	N	1.00	0.221	DV
10061-01-5	Cis-1,3-dichloropropene	0.156	U	0.156	U	ug/l	TRG	N	1.00	0.156	DV
74-95-3	Dibromomethane	0.244	U	0.244	U	ug/l	TRG	N	1.00	0.244	DV
75-71-8	Dichlorodifluoromethane	0.256	U	0.256	U	ug/l	TRG	N	1.00	0.256	DV
75-09-2	Dichloromethane	1.28	J	1.28	J	ug/l	TRG	TR	5.00	0.808	DV
100-41-4	Ethylbenzene	0.122	U	0.122	U	ug/l	TRG	N	1.00	0.122	DV
87-68-3	Hexachloro-1,3-butadiene	0.182	U	0.182	U	ug/l	TRG	N	1.00	0.182	DV
98-82-8	Isopropylbenzene	0.0830	U	0.0830	U	ug/l	TRG	N	1.00	0.0830	DV
91-20-3	Naphthalene	0.0900	U	0.0900	U	ug/l	TRG	N	1.00	0.0900	DV
95-47-6	O-xylene	0.286	U	0.286	U	ug/l	TRG	N	1.00	0.286	DV
99-87-6	P-isopropyltoluene	0.137	U	0.137	U	ug/l	TRG	N	1.00	0.137	DV
103-65-1	Propylbenzene,n-	0.0960	U	0.0960	U	ug/l	TRG	N	1.00	0.0960	DV
135-98-8	Sec-butylbenzene	0.134	U	0.134	U	ug/l	TRG	N	1.00	0.134	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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0790126-BLK2		Type: Method Blank	Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
100-42-5	Styrene (monomer)	0.135 U	0.135 U	ug/l	TRG	N	1.00	0.135	DV
98-06-6	Tert-butylbenzene	0.0970 U	0.0970 U	ug/l	TRG	N	1.00	0.0970	DV
127-18-4	Tetrachloroethene	0.282 U	0.282 U	ug/l	TRG	N	1.00	0.282	DV
108-88-3	Toluene (methylbenzene)	0.177 U	0.177 U	ug/l	TRG	N	1.00	0.177	DV
156-60-5	Trans-1,2-dichloroethene	0.225 U	0.225 U	ug/l	TRG	N	1.00	0.225	DV
10061-02-6	Trans-1,3-dichloropropene	0.0690 U	0.0690 U	ug/l	TRG	N	1.00	0.0690	DV
75-25-2	Tribromomethane	0.208 U	0.208 U	ug/l	TRG	N	1.00	0.208	DV
79-01-6	Trichloroethylene	0.145 U	0.145 U	ug/l	TRG	N	1.00	0.145	DV
75-69-4	Trichlorofluoromethane	0.172 U	0.172 U	ug/l	TRG	N	1.00	0.172	DV
75-01-4	Vinyl Chloride	0.261 U	0.261 U	ug/l	TRG	N	1.00	0.261	DV
XYLENE	Xylene, P-, M-	0.721 U	0.721 U	ug/l	TRG	N	2.00	0.721	DV
17060-07-0	1,2-dichloroethane-d4	21.0	21.0	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	23.6	23.6	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.3	20.3	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	20.2	20.2	ug/l	SUR	Y			DV
0790126-BS1		Type: Blank Spike	Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
17060-07-0	1,2-dichloroethane-d4	20.2	20.2	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	25.5	25.5	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	19.9	19.9	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.8	19.8	ug/l	SUR	Y			DV
75-35-4	1,1-dichloroethylene	10.4	10.4	ug/l	SC	Y	1.00	0.209	DV
71-43-2	Benzene	9.29	9.29	ug/l	SC	Y	1.00	0.0940	DV
108-90-7	Chlorobenzene	9.54	9.54	ug/l	SC	Y	1.00	0.0700	DV
108-88-3	Toluene (methylbenzene)	9.40	9.40	ug/l	SC	Y	1.00	0.177	DV
79-01-6	Trichloroethylene	8.68	8.68	ug/l	SC	Y	1.00	0.145	DV
B907055-01		Type: Lab Matrix Spike	Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
17060-07-0	1,2-dichloroethane-d4	20.6	20.6	ug/l	SUR	Y			DV
17060-07-0	1,2-dichloroethane-d4	20.5	20.5	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	25.3	25.3	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	25.1	25.1	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	19.7	19.7	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	19.9	19.9	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.9	19.9	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	20.1	20.1	ug/l	SUR	Y			DV
75-35-4	1,1-dichloroethylene	10.7	10.7	ug/l	SC	Y	1.00	0.209	DV
75-35-4	1,1-dichloroethylene	11.4	11.4	ug/l	SC	Y	1.00	0.209	DV
71-43-2	Benzene	8.57	8.57	ug/l	SC	Y	1.00	0.0940	DV
71-43-2	Benzene	9.12	9.12	ug/l	SC	Y	1.00	0.0940	DV
108-90-7	Chlorobenzene	9.19	9.19	ug/l	SC	Y	1.00	0.0700	DV
108-90-7	Chlorobenzene	8.68	8.68	ug/l	SC	Y	1.00	0.0700	DV
108-88-3	Toluene (methylbenzene)	9.25	9.25	ug/l	SC	Y	1.00	0.177	DV
108-88-3	Toluene (methylbenzene)	8.79	8.79	ug/l	SC	Y	1.00	0.177	DV
79-01-6	Trichloroethylene	10.6	10.6	ug/l	SC	Y	1.00	0.145	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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B907055-01		Type: Lab Matrix Spike	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
79-01-6	Trichloroethylene	9.84	9.84	ug/l	SC	Y	1.00 0.145 DV
IWSLG_MWE04062899N-D		Type: Lab Replicate	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
5343-92-0	1,2-Pentanediol	234	234	mg/l	SUR	Y	DV
IWSLG_MWE04062899N-M		Type: Lab Matrix Spike	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
5343-92-0	1,2-Pentanediol	232	232	mg/l	SUR	Y	DV
107-21-1	Ethylene Glycol	238	238	mg/l	SC	Y	4.00 4.00 DV
57-55-6	Propylene Glycol	236	236	mg/l	SC	Y	4.00 4.00 DV

**Footnotes and Abbreviation Key**

**Result Type:**

- IS Internal Standards.
- SC Spiked Compounds.
- SUR Surrogates.
- TIC Tentatively Identified Compound.
- TRG Target, regular result.

**Final Qualifiers:**

- J Estimated value.
- U Compound was analyzed but not detected.

**ValidationStatus:**

- DV Validated
- NV Not Validated
- PV PreValidated
- UV Unknown Validation Status

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



IWSLG_MW105081699N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.219	0.219	mg/l	SUR	Y	DV
IWSLG_MW105081699N		Type: Normal Environmental S	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
5343-92-0	1,2-Pentanediol	204	204	mg/l	SUR	Y	DV
IWSLG_MW105081699N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00 0.200 DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00 0.410 DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00 0.420 DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00 0.350 DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40 DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83 DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0 3.78 DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0 5.59 DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01192

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IWSLG_MW105081699N		Type: Normal Environmental S	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	23.9	23.9	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	18.6	18.6	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	18.8	18.8	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	20.3	20.3	ug/l	SUR	Y			DV

IWSLG_MW106081699N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.622	0.622	mg/l	TRG	Y	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.244	0.244	mg/l	SUR	Y			DV

IWSLG_MW106081699N		Type: Normal Environmental S	Matrix: WG	Method: SW8015				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentenediol	204	204	mg/l	SUR	Y			DV

IWSLG_MW106081699N		Type: Normal Environmental S	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01193

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IWSLG_MW106081699N		Type: Normal Environmental S		Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV	
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV	
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV	
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV	
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV	
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV	
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV	
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV	
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV	
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV	
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV	
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV	
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV	
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV	
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV	
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV	
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV	
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01194

AR 024165



IWSLG_MW106081699N		Type: Normal Environmental S	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.667 J	0.667 J	ug/l	TRG	TR	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	24.3	24.3	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	18.6	18.6	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	18.4	18.4	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	20.2	20.2	ug/l	SUR	Y			DV

IWSLG_MW107081699N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.710	0.710	mg/l	TRG	Y	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.261	0.261	mg/l	SUR	Y			DV

IWSLG_MW107081699N		Type: Normal Environmental S	Matrix: WG	Method: SW8015				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	208	208	mg/l	SUR	Y			DV

IWSLG_MW107081699N		Type: Normal Environmental S	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01195

AR 024166



IWSLG_MW107081699N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
95-50-1	1,2-dichlorobenzene	0.575 J	0.575 J	ug/l	TRG	TR	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	6.84	6.84	ug/l	TRG	Y	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.507 J	0.507 J	ug/l	TRG	TR	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.472 J	0.472 J	ug/l	TRG	TR	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01196

AR 024167



IWSLG_MW107081699N										
Type: Normal Environmental S Matrix: WG Method: SW8260										
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Valid. Status	
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV	
17060-07-0	1,2-dichloroethane-d4	24.3	24.3	ug/l	SUR	Y			DV	
557-93-7	2-bromopropene	18.3	18.3	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	18.9	18.9	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	20.0	20.0	ug/l	SUR	Y			DV	
IWSLG_MW108081699FD										
Type: Field Duplicate Sample Matrix: WG Method: NWTPH-Dx										
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Valid. Status	
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV	
321-60-8	2-fluorobiphenyl	0.246	0.246	mg/l	SUR	Y			DV	
IWSLG_MW108081699FD										
Type: Field Duplicate Sample Matrix: WG Method: SW8015										
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Valid. Status	
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV	
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV	
5343-92-0	1,2-Pentanediol	202	202	mg/l	SUR	Y			DV	
IWSLG_MW108081699FD										
Type: Field Duplicate Sample Matrix: WG Method: SW8260										
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Valid. Status	
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV	
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV	
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV	
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV	
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV	
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV	
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV	
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV	
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01197

AR 024168



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:32:07 AM

POSAV00327 Sample Date Range: 8/16/99-8/16/99

IWSLG_MW108081699FD		Type: Field Duplicate Sample		Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV	
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV	
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV	
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV	
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV	
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV	
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV	
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV	
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV	
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV	
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV	
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV	
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV	
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV	
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV	
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV	
17060-07-0	1,2-dichloroethane-d4	23.8	23.8	ug/l	SUR	Y			DV	
557-93-7	2-bromopropene	18.0	18.0	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	18.6	18.6	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	19.4	19.4	ug/l	SUR	Y			DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01198

AR 024169



IWSLG_MW108081699N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.179	0.179	mg/l	SUR	Y	DV

IWSLG_MW108081699N		Type: Normal Environmental S	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
5343-92-0	1,2-Pentanediol	200	200	mg/l	SUR	Y	DV

IWSLG_MW108081699N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00 0.200 DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00 0.410 DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00 0.420 DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00 0.350 DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40 DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83 DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0 3.78 DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0 5.59 DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01199

AR 024170



IWSLG_MW108081699N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	24.5	24.5	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	18.4	18.4	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	18.9	18.9	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	20.2	20.2	ug/l	SUR	Y			DV

IWSLG_MWE04081699N		Type: Normal Environmental S Matrix: WG			Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.234	0.234	mg/l	SUR	Y			DV

IWSLG_MWE04081699N		Type: Normal Environmental S Matrix: WG			Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	198	198	mg/l	SUR	Y			DV

IWSLG_MWE04081699N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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IWSLG_MWE04081699N		Type: Normal Environmental S Matrix: WG		Method: SW8260		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01201

AR 024172





IWSLG_MWE04081699N										
Type: Normal Environmental S Matrix: WG Method: SW8260										
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Valid. Status	
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV	
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV	
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV	
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV	
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV	
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV	
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV	
17060-07-0	1,2-dichloroethane-d4	23.8	23.8	ug/l	SUR	Y			DV	
557-93-7	2-bromopropene	17.8	17.8	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	18.7	18.7	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	19.8	19.8	ug/l	SUR	Y			DV	
IWSLG_MWE05081699N										
Type: Normal Environmental S Matrix: WG Method: NWTPH-Dx										
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Valid. Status	
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV	
321-60-8	2-fluorobiphenyl	0.228	0.228	mg/l	SUR	Y			DV	
IWSLG_MWE05081699N										
Type: Normal Environmental S Matrix: WG Method: SW8015										
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Valid. Status	
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV	
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV	
5343-92-0	1,2-Pentanediol	204	204	mg/l	SUR	Y			DV	
IWSLG_MWE05081699N										
Type: Normal Environmental S Matrix: WG Method: SW8260										
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Valid. Status	
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV	
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV	
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV	
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV	
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV	
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV	
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01202

AR 024173



IWSLG_MWE05081699N		Type: Normal Environmental S Matrix: WG		Method: SW8260		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01203

AR 024174



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:32:09 AM

POSAV00327 Sample Date Range: 8/16/99-8/16/99

IWSLG_MWE05081699N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	24.1	24.1	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	20.7	20.7	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	19.0	19.0	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.9	19.9	ug/l	SUR	Y			DV

IWSLG_MWE07081699N		Type: Normal Environmental S Matrix: WG			Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.227	0.227	mg/l	SUR	Y			DV

IWSLG_MWE07081699N		Type: Normal Environmental S Matrix: WG			Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	188	188	mg/l	SUR	Y			DV

IWSLG_MWE07081699N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01204

AR 024175



IWSLG_MWE07081699N		Type: Normal Environmental S Matrix: WG		Method: SW8260		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	24.0	24.0	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	20.3	20.3	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	18.7	18.7	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	20.3	20.3	ug/l	SUR	Y			DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01205

AR 024176



POS Sample/Test/Result plus Lab QA/QC in EQuIS DB for Selected COC

4/26/00 9:32:09 AM

POSAV00327 Sample Date Range: 8/16/99-8/16/99

IWSLG_MWE08081699N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.809	0.809	mg/l	TRG	Y	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.281	0.281	mg/l	SUR	Y	DV
IWSLG_MWE08081699N		Type: Normal Environmental S	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
5343-92-0	1,2-Pentanediol	202	202	mg/l	SUR	Y	DV
IWSLG_MWE08081699N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00 0.200 DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00 0.410 DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00 0.420 DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00 0.350 DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40 DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83 DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0 3.78 DV
67-64-1	Acetone	7.70 J	7.70 J	ug/l	TRG	TR	10.0 5.59 DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01206

AR 024177



IWSLG_MWE08081699N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	24.3	24.3	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	20.4	20.4	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	19.1	19.1	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.9	19.9	ug/l	SUR	Y			DV

IWSLG_MWE09081699FD		Type: Field Duplicate Sample Matrix: WG			Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.706	0.706	mg/l	TRG	Y	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.280	0.280	mg/l	SUR	Y			DV

IWSLG_MWE09081699FD		Type: Field Duplicate Sample Matrix: WG			Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	202	202	mg/l	SUR	Y			DV

IWSLG_MWE09081699FD		Type: Field Duplicate Sample Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01207

AR 024178



IWSLG_MWE09081699FD		Type: Field Duplicate Sample		Matrix: WG		Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt	Type	Detect	Flag	RDL	MDL	Status
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV		
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV		
75-34-3	1,1-dichloroethane	1.67	1.67	ug/l	TRG	Y	1.00	0.220	DV		
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV		
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV		
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV		
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV		
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV		
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV		
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV		
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV		
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV		
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV		
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV		
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV		
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV		
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV		
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV		
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV		
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV		
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV		
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV		
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV		
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV		
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV		
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV		
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV		
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV		
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV		
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV		
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV		
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV		
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV		
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV		
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV		
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV		
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV		
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV		
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV		
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV		
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV		
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV		
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV		
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV		
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV		

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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IWSLG_MWE09081699FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8260		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.581 J	0.581 J	ug/l	TRG	TR	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	24.7	24.7	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	20.3	20.3	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	19.2	19.2	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	20.0	20.0	ug/l	SUR	Y			DV

IWSLG_MWE09081699N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	1.02	1.02	mg/l	TRG	Y	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.279	0.279	mg/l	SUR	Y			DV

IWSLG_MWE09081699N		Type: Normal Environmental S	Matrix: WG	Method: SW8015		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	194	194	mg/l	SUR	Y			DV

IWSLG_MWE09081699N		Type: Normal Environmental S	Matrix: WG	Method: SW8260		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	1.72	1.72	ug/l	TRG	Y	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.





POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:32:10 AM

POSAV00327 Sample Date Range: 8/16/99-8/16/99

IWSLG_MWE09081699N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.655 J	0.655 J	ug/l	TRG	TR	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01210

AR 024181



IWSLG_MWE09081699N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	24.2	24.2	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	20.6	20.6	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	18.9	18.9	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.9	19.9	ug/l	SUR	Y			DV

POSAV00327TB		Type: Trip Blank			Matrix: WG			Method: SW8260		Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status		
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV		
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV		
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV		
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV		
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV		
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV		
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV		
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV		
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV		
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV		
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV		
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV		
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV		
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV		
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV		
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV		
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV		
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV		
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV		
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV		
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV		
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV		
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV		
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV		
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV		
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV		
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV		
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV		
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV		
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV		
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV		
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV		
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV		

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:32:10 AM

POSAV00327 Sample Date Range: 8/16/99-8/16/99

POSAV00327TB		Type: Trip Blank		Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV	
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV	
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV	
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
75-09-2	Dichloromethane	5.11 U	5.11 U	ug/l	TRG	Y	5.00	2.63	DV	
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV	
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV	
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV	
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV	
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV	
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV	
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV	
17060-07-0	1,2-dichloroethane-d4	24.1 U	24.1 U	ug/l	SUR	Y			DV	
557-93-7	2-bromopropene	20.2 U	20.2 U	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	18.9 U	18.9 U	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	20.1 U	20.1 U	ug/l	SUR	Y			DV	

0890618-BLK1		Type: Method Blank		Matrix: WG		Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV	
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV	
5343-92-0	1,2-Pentanediol	202 U	202 U	mg/l	SUR	Y			DV	

0890618-BS1		Type: Blank Spike		Matrix: WG		Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
5343-92-0	1,2-Pentanediol	206 U	206 U	mg/l	SUR	Y			DV	
107-21-1	Ethylene Glycol	204 U	204 U	mg/l	SC	Y	4.00	4.00	DV	
57-55-6	Propylene Glycol	204 U	204 U	mg/l	SC	Y	4.00	4.00	DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01212

AR 024183

0890772-BLK1		Type: Method Blank	Matrix: WG		Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250	DV
321-60-8	2-fluorobiphenyl	0.244	0.244	mg/l	SUR	Y		DV
0890772-BS1		Type: Blank Spike	Matrix: WG		Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL	Status
321-60-8	2-fluorobiphenyl	0.235	0.235	mg/l	SUR	Y		DV
PHCD	Phc As Diesel Fuel	1.57	1.57	mg/l	SC	Y	0.250 0.250	DV
0890772-BSD1		Type: Blank Spike Duplicate	Matrix: WG		Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL	Status
321-60-8	2-fluorobiphenyl	0.229	0.229	mg/l	SUR	Y		DV
PHCD	Phc As Diesel Fuel	1.50	1.50	mg/l	SC	Y	0.250 0.250	DV
0890900-BLK1		Type: Method Blank	Matrix: WG		Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00 0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00 0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00 0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00 0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0 3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0 5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01213

AR 024184



0890900-BLK1		Type: Method Blank	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00 0.300 DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00 2.35 DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00 0.240 DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00 0.260 DV
75-09-2	Dichloromethane	2.74 J	2.74 J	ug/l	TRG	TR	5.00 2.63 DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00 0.300 DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00 0.290 DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00 0.130 DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00 0.280 DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00 0.260 DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00 0.720 DV
17060-07-0	1,2-dichloroethane-d4	23.8	23.8	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	19.0	19.0	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	18.9	18.9	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	19.9	19.9	ug/l	SUR	Y	DV

0890900-BS1		Type: Blank Spike	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
17060-07-0	1,2-dichloroethane-d4	24.7	24.7	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	18.7	18.7	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	18.7	18.7	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	20.3	20.3	ug/l	SUR	Y	DV
75-35-4	1,1-dichloroethylene	12.0	12.0	ug/l	SC	Y	1.00 0.210 DV
71-43-2	Benzene	11.5	11.5	ug/l	SC	Y	1.00 0.090 DV
108-90-7	Chlorobenzene	10.6	10.6	ug/l	SC	Y	1.00 0.070 DV
108-88-3	Toluene (methylbenzene)	10.4	10.4	ug/l	SC	Y	1.00 0.180 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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0890900-BS1		Type: Blank Spike	Matrix: WG	Method: SW8260		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
79-01-6	Trichloroethylene	10.3	10.3	ug/l	SC	Y	1.00	0.140	DV
IWSLG_MW105081699N-D		Type: Lab Replicate	Matrix: WG	Method: SW8015		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.46	4.46	mg/l	TRG	Y	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	204	204	mg/l	SUR	Y			DV
IWSLG_MW105081699N-M		Type: Lab Matrix Spike	Matrix: WG	Method: SW8015		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
5343-92-0	1,2-Pentanediol	202	202	mg/l	SUR	Y			DV
107-21-1	Ethylene Glycol	208	208	mg/l	SC	Y	4.00	4.00	DV
57-55-6	Propylene Glycol	208	208	mg/l	SC	Y	4.00	4.00	DV
IWSLG_MW105081699N-M		Type: Lab Matrix Spike	Matrix: WG	Method: SW8260		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
17060-07-0	1,2-dichloroethane-d4	25.3	25.3	ug/l	SUR	Y			DV
17060-07-0	1,2-dichloroethane-d4	24.5	24.5	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	18.4	18.4	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	18.2	18.2	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	19.4	19.4	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	18.3	18.3	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	20.1	20.1	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.9	19.9	ug/l	SUR	Y			DV
75-35-4	1,1-dichloroethylene	10.9	10.9	ug/l	SC	Y	1.00	0.210	DV
75-35-4	1,1-dichloroethylene	12.0	12.0	ug/l	SC	Y	1.00	0.210	DV
71-43-2	Benzene	10.7	10.7	ug/l	SC	Y	1.00	0.090	DV
71-43-2	Benzene	11.5	11.5	ug/l	SC	Y	1.00	0.090	DV
108-90-7	Chlorobenzene	9.99	9.99	ug/l	SC	Y	1.00	0.070	DV
108-90-7	Chlorobenzene	10.6	10.6	ug/l	SC	Y	1.00	0.070	DV
108-88-3	Toluene (methylbenzene)	9.49	9.49	ug/l	SC	Y	1.00	0.180	DV
108-88-3	Toluene (methylbenzene)	10.1	10.1	ug/l	SC	Y	1.00	0.180	DV
79-01-6	Trichloroethylene	10.3	10.3	ug/l	SC	Y	1.00	0.140	DV
79-01-6	Trichloroethylene	9.66	9.66	ug/l	SC	Y	1.00	0.140	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01215

AR 024186



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**Footnotes and Abbreviation**

**Result Type**

IS Internal Standards.  
SC Spiked Compounds.  
SUR Surrogates.  
TIC Tentatively Identified Compound.  
TRG Target, regular result.

**Final Qualifiers:**

J Estimated value.  
U Compound was analyzed but not detected.

**ValidationStatus:**

DV Validated  
NV Not Validated  
PV PreValidated  
UV Unknown Validation Status

**AR 024187**

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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**STRUNK 01216**



IWSLG_MWE040999N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx		Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.205	0.205	mg/l	SUR	Y	DV

IWSLG_MWE040999N		Type: Normal Environmental S	Matrix: WG	Method: SW8015		Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
5343-92-0	1,2-Pentandiol	176	176	mg/l	SUR	Y	DV

IWSLG_MWE040999N		Type: Normal Environmental S	Matrix: WG	Method: SW8260		Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00 0.200 DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00 0.410 DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00 0.420 DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00 0.350 DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40 DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83 DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0 3.78 DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0 5.59 DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01217

AR 024188





POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:31:05 AM

POSAV06345 Sample Date Range: 9/22/99-9/22/99

IWSLG_MWE040999N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	23.4	23.4	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	23.5	23.5	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	16.6	16.6	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.1	19.1	ug/l	SUR	Y			DV

IWSLG_MWE050999FD		Type: Field Duplicate Sample Matrix: WG			Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.246	0.246	mg/l	SUR	Y			DV

IWSLG_MWE050999FD		Type: Field Duplicate Sample Matrix: WG			Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	187	187	mg/l	SUR	Y			DV

IWSLG_MWE050999FD		Type: Field Duplicate Sample Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.602 J	0.602 J	ug/l	TRG	TR	1.00	0.160	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01218

AR 024189



IWSLG_MWE050999FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8260		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01219

AR 024190



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:31:06 AM

POSAV00345 Sample Date Range: 9/22/99-9/22/99

IWSLG_MWE050999FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00 0.300 DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00 0.290 DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00 0.130 DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00 0.280 DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00 0.260 DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00 0.720 DV
17060-07-0	1,2-dichloroethane-d4	22.7	22.7	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	23.0	23.0	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	17.3	17.3	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	19.6	19.6	ug/l	SUR	Y	DV

IWSLG_MWE050999N		Type: Normal Environmental S	Matrix: WG	Method: NWTPh-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.271	0.271	mg/l	SUR	Y	DV

IWSLG_MWE050999N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00 0.200 DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00 0.410 DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00 0.420 DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00 0.350 DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01220

AR 024191



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:31:06 AM

POSA V00345 Sample Date Range: 9/22/99-9/22/99

IWSLG_MWE050999N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01221

AR 024192



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:31:06 AM

POSAV00345 Sample Date Range: 9/22/99-9/22/99

IWSLG_MWE050999N		Type: Normal Environmental S	Matrix: WG	Method: SW8260		Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00 0.720 DV
17060-07-0	1,2-dichloroethane-d4	22.4	22.4	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	23.4	23.4	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	16.8	16.8	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	19.5	19.5	ug/l	SUR	Y	DV
0990768-BLK1		Type: Method Blank	Matrix: WG	Method: SW8260		Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00 0.200 DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00 0.410 DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00 0.420 DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00 0.350 DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40 DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83 DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0 3.78 DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0 5.59 DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00 0.300 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01222

AR 024193



0990768-BLK1		Type: Method Blank	Matrix: WG	Method: SW8260		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.300	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.290	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.140	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.100	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	20.8	20.8	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	25.4	25.4	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	16.9	16.9	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.7	19.7	ug/l	SUR	Y			DV

0990768-BS1		Type: Blank Spike	Matrix: WG	Method: SW8260		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
17060-07-0	1,2-dichloroethane-d4	21.4	21.4	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	24.2	24.2	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	16.9	16.9	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.3	19.3	ug/l	SUR	Y			DV
75-35-4	1,1-dichloroethylene	10.1	10.1	ug/l	SC	Y	1.00	0.210	DV
71-43-2	Benzene	12.2	12.2	ug/l	SC	Y	1.00	0.090	DV
108-90-7	Chlorobenzene	11.2	11.2	ug/l	SC	Y	1.00	0.070	DV
108-88-3	Toluene (methylbenzene)	10.9	10.9	ug/l	SC	Y	1.00	0.180	DV
79-01-6	Trichloroethylene	10.4	10.4	ug/l	SC	Y	1.00	0.140	DV

0990792-BLK1		Type: Method Blank	Matrix: WG	Method: NWTPH-Dx		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.212	0.212	mg/l	SUR	Y			DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:31:07 AM

POSAV00345 Sample Date Range: 9/22/99-9/22/99

0990792-BS1		Type: Blank Spike	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
321-60-8	2-fluorobiphenyl	0.281	0.281	mg/l	SUR	Y	DV
PHCD	Phc As Diesel Fuel	1.58	1.58	mg/l	SC	Y	0.250 0.250 DV
0990792-BSD1		Type: Blank Spike Duplicate	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
321-60-8	2-fluorobiphenyl	0.321	0.321	mg/l	SUR	Y	DV
PHCD	Phc As Diesel Fuel	1.85	1.85	mg/l	SC	Y	0.250 0.250 DV
0990868-BLK1		Type: Method Blank	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
5343-92-0	1,2-Pentanediol	208	208	mg/l	SUR	Y	DV
0990868-BS1		Type: Blank Spike	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
5343-92-0	1,2-Pentanediol	218	218	mg/l	SUR	Y	DV
107-21-1	Ethylene Glycol	202	202	mg/l	SC	Y	4.00 4.00 DV
57-55-6	Propylene Glycol	202	202	mg/l	SC	Y	4.00 4.00 DV
B909337-01		Type: Lab Matrix Spike	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
17060-07-0	1,2-dichloroethane-d4	22.6	22.6	ug/l	SUR	Y	DV
17060-07-0	1,2-dichloroethane-d4	22.3	22.3	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	25.1	25.1	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	24.0	24.0	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	16.8	16.8	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	17.2	17.2	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	19.8	19.8	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	19.8	19.8	ug/l	SUR	Y	DV
75-35-4	1,1-dichloroethylene	10.4	10.4	ug/l	SC	Y	1.00 0.210 DV
75-35-4	1,1-dichloroethylene	9.38	9.38	ug/l	SC	Y	1.00 0.210 DV
71-43-2	Benzene	11.0	11.0	ug/l	SC	Y	1.00 0.090 DV
71-43-2	Benzene	11.5	11.5	ug/l	SC	Y	1.00 0.090 DV
108-90-7	Chlorobenzene	10.7	10.7	ug/l	SC	Y	1.00 0.070 DV
108-90-7	Chlorobenzene	11.2	11.2	ug/l	SC	Y	1.00 0.070 DV
108-88-3	Toluene (methylbenzene)	10.9	10.9	ug/l	SC	Y	1.00 0.180 DV
108-88-3	Toluene (methylbenzene)	10.4	10.4	ug/l	SC	Y	1.00 0.180 DV
79-01-6	Trichloroethylene	55.0	55.0	ug/l	SC	Y	1.00 0.140 DV
79-01-6	Trichloroethylene	55.7	55.7	ug/l	SC	Y	1.00 0.140 DV
IWSLG_MWE050999FD-DU		Type: Lab Replicate	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
5343-92-0	1,2-Pentanediol	190	190	mg/l	SUR	Y	DV
IWSLG_MWE050999FD-MS		Type: Lab Matrix Spike	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
5343-92-0	1,2-Pentanediol	197	197	mg/l	SUR	Y	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01224

AR 024195



IWSLG_MWE050999FD-MS	Type: Lab Matrix Spike	Matrix: WG	Method: SW8015	Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit Resit Type Detect Flag RDL MDL Status
107-21-1	Ethylene Glycol	196	196	mg/l SC Y 4.00 4.00 DV
57-55-6	Propylene Glycol	196	196	mg/l SC Y 4.00 4.00 DV

**Footnotes and Abbreviation**

**Result Type**

- IS Internal Standards.
- SC Spiked Compounds.
- SUR Surrogates.
- TIC Tentatively Identified Compound.
- TRG Target, regular result.

**Final Qualifiers:**

- J Estimated value.
- U Compound was analyzed but not detected.

**Validation Status:**

- DV Validated
- NV Not Validated
- PV PreValidated
- UV Unknown Validation Status

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.





IWSLG_MW105111099FD		Type: Field Duplicate Sample	Matrix: WG	Method: NWTPh-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.298	0.298	mg/l	SUR	Y	DV
IWSLG_MW105111099FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
5343-92-0	1,2-Pentanediol	195	195	mg/l	SUR	Y	DV
IWSLG_MW105111099FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00 0.200 DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00 0.410 DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00 0.420 DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00 0.350 DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40 DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83 DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0 3.78 DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0 5.59 DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
75-15-0	Carbon Disulfide	0.764 J	0.764 J	ug/l	TRG	TR	1.00 0.170 DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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IWSLG_MW105111099FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	19.1	19.1	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	19.5	19.5	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.4	20.4	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.9	19.9	ug/l	SUR	Y			DV

IWSLG_MW105111099N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.364	0.364	mg/l	SUR	Y			DV

IWSLG_MW105111099N		Type: Normal Environmental S	Matrix: WG	Method: SW8015				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	200	200	mg/l	SUR	Y			DV

IWSLG_MW105111099N		Type: Normal Environmental S	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



POS Sample/Test/Result plus Lab QA/QC in EQuIS DB for Selected COC

4/26/00 9:29:42 AM

POSAV00362 Sample Date Range: 11/11/99-11/12/99

IWSLG_MW105111099N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.802 J	0.802 J	ug/l	TRG	TR	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01228

AR 024199



IWSLG_MW105111099N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	19.3	19.3	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	19.7	19.7	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.4	20.4	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.9	19.9	ug/l	SUR	Y			DV

IWSLG_MW106111099N		Type: Normal Environmental S Matrix: WG			Method: NWTPh-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.823	0.823	mg/l	TRG	Y	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.331	0.331	mg/l	SUR	Y			DV

IWSLG_MW106111099N		Type: Normal Environmental S Matrix: WG			Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentenediol	198	198	mg/l	SUR	Y			DV

IWSLG_MW106111099N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	2.01	2.01	ug/l	TRG	Y	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:29:42 AM

EMIS

POSAV00362 Sample Date Range: 11/11/99-11/12/99

IWSLG_MW106111099N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	1.08 U	1.08 U	ug/l	TRG	Y	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.523 J	0.523 J	ug/l	TRG	TR	1.00	0.300	DV
95-47-6	O-xylene	0.701 J	0.701 J	ug/l	TRG	TR	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01230

AR 024201



IWSLG_MW106111099N		Type: Normal Environmental S Matrix: WG	Method: SW8260		Valid.				
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	19.2	19.2	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	19.7	19.7	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.0	20.0	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.8	19.8	ug/l	SUR	Y			DV

IWSLG_MW107111099N		Type: Normal Environmental S Matrix: WG	Method: NWTPh-Dx		Valid.				
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
*** PHCJ	Phc As Jet Fuels	0.274 R	0.274	mg/l	TRG	N	0.250	0.250	DV
*** PHCJ	Phc As Jet Fuels	0.843 J	0.843	mg/l	TRG	Y	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.592	0.592	mg/l	SUR	Y			DV
321-60-8	2-fluorobiphenyl	0.256	0.256	mg/l	SUR	Y			DV

IWSLG_MW107111099N		Type: Normal Environmental S Matrix: WG	Method: SW8015		Valid.				
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	202	202	mg/l	SUR	Y			DV

IWSLG_MW107111099N		Type: Normal Environmental S Matrix: WG	Method: SW8260		Valid.				
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:29:42 AM

POSAV00362 Sample Date Range: 11/11/99-11/12/99

IWSLG_MW107111099N		Type: Normal Environmental S Matrix: WG		Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	1.22	1.22	ug/l	TRG	Y	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	8.36	8.36	ug/l	TRG	Y	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.541 J	0.541 J	ug/l	TRG	TR	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Teri-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	19.2	19.2	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	19.9	19.9	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.3	20.3	ug/l	SUR	Y			DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01232

AR 024203



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:29:43 AM

POSAV00362 Sample Date Range: 11/11/99-11/12/99

IWSLG_MW107111099N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
2037-26-5	Toluene-d8	19.9	19.9	ug/l	SUR	Y	DV
IWSLG_MW108111099N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.233	0.233	mg/l	SUR	Y	DV
IWSLG_MW108111099N		Type: Normal Environmental S	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
5343-92-0	1,2-Pentanediol	162	162	mg/l	SUR	Y	DV
IWSLG_MW108111099N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00 0.200 DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00 0.410 DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00 0.420 DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00 0.350 DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40 DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83 DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0 3.78 DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0 5.59 DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
75-15-0	Carbon Disulfide	0.827 J	0.827 J	ug/l	TRG	TR	1.00 0.170 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01233

AR 024204





POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:29:43 AM

POSAV00362 Sample Date Range: 11/11/99-11/12/99

IWSLG_MW108111099N		Type: Normal Environmental S Matrix: WG				Method: SW8260				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV	
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV	
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV	
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV	
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV	
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV	
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV	
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV	
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV	
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV	
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV	
17060-07-0	1,2-dichloroethane-d4	19.2	19.2	ug/l	SUR	Y			DV	
557-93-7	2-bromopropene	19.7	19.7	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	20.2	20.2	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	19.8	19.8	ug/l	SUR	Y			DV	

IWSLG_MWE04111099N		Type: Normal Environmental S Matrix: WG				Method: NWTTPH-Dx				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV	
321-60-8	2-fluorobiphenyl	0.248	0.248	mg/l	SUR	Y			DV	

IWSLG_MWE04111099N		Type: Normal Environmental S Matrix: WG				Method: SW8015				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV	
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV	
5343-92-0	1,2-Pentanediol	177	177	mg/l	SUR	Y			DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01234

AR 024205



IWSLG_MWE04111099N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.679 J	0.679 J	ug/l	TRG	TR	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01235

AR 024206



Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:29:43 AM

POSAV00362 Sample Date Range: 11/11/99-11/12/99

IWSLG_MWE04111099N		Type: Normal Environmental S	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	19.2	19.2	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	19.8	19.8	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.3	20.3	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.9	19.9	ug/l	SUR	Y			DV
IWSLG_MWE05111099N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.266	0.266	mg/l	SUR	Y			DV
IWSLG_MWE05111099N		Type: Normal Environmental S	Matrix: WG	Method: SW8015				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	174	174	mg/l	SUR	Y			DV
IWSLG_MWE05111099N		Type: Normal Environmental S	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01236

AR 024207



IWSLG_MWE05111099N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.585 J	0.585 J	ug/l	TRG	TR	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01237

AR 024208



IWSLG_MWE05111099N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	19.2	19.2	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	19.7	19.7	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.4	20.4	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.7	19.7	ug/l	SUR	Y			DV
IWSLG_MWE07111099FD		Type: Field Duplicate Sample Matrix: WG			Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.262	0.262	mg/l	SUR	Y			DV
IWSLG_MWE07111099FD		Type: Field Duplicate Sample Matrix: WG			Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	176	176	mg/l	SUR	Y			DV
IWSLG_MWE07111099FD		Type: Field Duplicate Sample Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

C:\ENV-APPS\EMIS\POSDEV\posdev.mdb\rptSampleFieldTestResultPlusQAQCbyCOC



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:29:44 AM

POSAV00362 Sample Date Range: 11/11/99-11/12/99

IWSLG_MWE07111099FD	Type: Field Duplicate Sample	Matrix: WG	Method: SW8260	Valid.					
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.535 J	0.535 J	ug/l	TRG	TR	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	19.3	19.3	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	19.8	19.8	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.3	20.3	ug/l	SUR	Y			DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01239

AR 024210



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:29:44 AM

POSAV00362 Sample Date Range: 11/11/99-11/12/99

IWSLG_MWE07111099FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
2037-26-5	Toluene-d8	19.9	19.9	ug/l	SUR	Y			DV
IWSLG_MWE07111099N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.265	0.265	mg/l	SUR	Y			DV
IWSLG_MWE07111099N		Type: Normal Environmental S	Matrix: WG	Method: SW8015				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	160	160	mg/l	SUR	Y			DV
IWSLG_MWE07111099N		Type: Normal Environmental S	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.521 J	0.521 J	ug/l	TRG	TR	1.00	0.170	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01240

AR 024211



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:29:44 AM

POSAV00362 Sample Date Range: 11/11/99-11/12/99

IWSLG_MWE07111099N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	19.4	19.4	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	19.7	19.7	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.3	20.3	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.9	19.9	ug/l	SUR	Y			DV

IWSLG_MWE08111099N		Type: Normal Environmental S Matrix: WG			Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.781	0.781	mg/l	TRG	Y	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.275	0.275	mg/l	SUR	Y			DV

IWSLG_MWE08111099N		Type: Normal Environmental S Matrix: WG			Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	171	171	mg/l	SUR	Y			DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01241

AR 024212





IWSLG_MWE08111099N		Type: Normal Environmental S Matrix: WG		Method: SW8260			Valid		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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IWSLG_MWE08111099N		Type: Normal Environmental S	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	19.5	19.5	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	19.6	19.6	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.2	20.2	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.9	19.9	ug/l	SUR	Y			DV

IWSLG_MWE09111099N		Type: Normal Environmental S	Matrix: WG	Method: NWTPh-Dx				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.664	0.664	mg/l	TRG	Y	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.268	0.268	mg/l	SUR	Y			DV

IWSLG_MWE09111099N		Type: Normal Environmental S	Matrix: WG	Method: SW8015				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	171	171	mg/l	SUR	Y			DV

IWSLG_MWE09111099N		Type: Normal Environmental S	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	1.77	1.77	ug/l	TRG	Y	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01243

AR 024214



IWSLG_MWE09111099N		Type: Normal Environmental S Matrix: WG		Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01244

AR 024215



IWSLG_MWE09111099N		Type: Normal Environmental S		Matrix: WG		Method: SW8260				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
108-88-3	Toluene (methylbenzene)	0.761 J	0.761 J	ug/l	TRG	TR	1.00	0.180	DV	
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV	
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV	
17060-07-0	1,2-dichloroethane-d4	19.5	19.5	ug/l	SUR	Y			DV	
557-93-7	2-bromopropene	19.6	19.6	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	20.3	20.3	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	20.0	20.0	ug/l	SUR	Y			DV	

POSAV00362TB		Type: Trip Blank		Matrix: WG		Method: SW8260				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV	
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV	
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV	
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV	
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV	
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV	
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV	
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV	
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV	
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV	
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV	
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV	
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01245

AR 024216



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:29:45 AM

POSAV00362 Sample Date Range: 11/11/99-11/12/99

POSAV00362TB		Type: Trip Blank	Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	19.4	19.4	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	19.5	19.5	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.4	20.4	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.9	19.9	ug/l	SUR	Y			DV

1190578-BLK1		Type: Method Blank	Matrix: WG		Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	196	196	mg/l	SUR	Y			DV

1190578-BS1		Type: Blank Spike	Matrix: WG		Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
5343-92-0	1,2-Pentanediol	204	204	mg/l	SUR	Y			DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01246

AR 024217



1190578-BS1		Type: Blank Spike	Matrix: WG		Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	192	192	mg/l	SC	Y	4.00	4.00	DV
57-55-6	Propylene Glycol	191	191	mg/l	SC	Y	4.00	4.00	DV
9K17011-BLK1		Type: Method Blank	Matrix: WG		Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.279	0.279	mg/l	SUR	Y			DV
9K17011-BS1		Type: Blank Spike	Matrix: WG		Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
321-60-8	2-fluorobiphenyl	0.260	0.260	mg/l	SUR	Y			DV
PHCD	Phc As Diesel Fuel	1.49	1.49	mg/l	SC	Y	0.250	0.250	DV
9K17011-BSD1		Type: Blank Spike Duplicate	Matrix: WG		Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
321-60-8	2-fluorobiphenyl	0.349	0.349	mg/l	SUR	Y			DV
PHCD	Phc As Diesel Fuel	1.61	1.61	mg/l	SC	Y	0.250	0.250	DV
9K23013-BLK1		Type: Method Blank	Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01247

AR 024218



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:29:46 AM

POSA V00362 Sample Date Range: 11/11/99-11/12/99

9K23013-BLK1		Type: Method Blank	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00 0.300 DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00 2.35 DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00 0.240 DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00 0.260 DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00 2.63 DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00 0.300 DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00 0.290 DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00 0.130 DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00 0.280 DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00 0.260 DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00 0.720 DV
17060-07-0	1,2-dichloroethane-d4	20.0	20.0	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	19.8	19.8	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	20.4	20.4	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	20.0	20.0	ug/l	SUR	Y	DV

9K23013-BS1		Type: Blank Spike	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
17060-07-0	1,2-dichloroethane-d4	19.7	19.7	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	19.8	19.8	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	20.3	20.3	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	19.9	19.9	ug/l	SUR	Y	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01248

AR 024219



9K23013-BS1		Type: Blank Spike	Matrix: WG	Method: SW8260		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
75-35-4	1,1-dichloroethylene	10.7	10.7	ug/l	SC	Y	1.00	0.210	DV
71-43-2	Benzene	10.9	10.9	ug/l	SC	Y	1.00	0.090	DV
108-90-7	Chlorobenzene	10.2	10.2	ug/l	SC	Y	1.00	0.070	DV
108-88-3	Toluene (methylbenzene)	10.3	10.3	ug/l	SC	Y	1.00	0.180	DV
79-01-6	Trichloroethylene	10.2	10.2	ug/l	SC	Y	1.00	0.140	DV
9K24010-BLK1		Type: Method Blank	Matrix: WG	Method: NWTPH-Dx		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.267	0.267	mg/l	SUR	Y			DV
9K24010-BS1		Type: Blank Spike	Matrix: WG	Method: NWTPH-Dx		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
321-60-8	2-fluorobiphenyl	0.290	0.290	mg/l	SUR	Y			DV
PHCD	Phc As Diesel Fuel	1.64	1.64	mg/l	SC	Y	0.250	0.250	DV
9K24010-BSD1		Type: Blank Spike Duplicate	Matrix: WG	Method: NWTPH-Dx		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
321-60-8	2-fluorobiphenyl	0.255	0.255	mg/l	SUR	Y			DV
PHCD	Phc As Diesel Fuel	1.50	1.50	mg/l	SC	Y	0.250	0.250	DV
B9K0231-02		Type: Lab Matrix Spike	Matrix: WG	Method: SW8260		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
17060-07-0	1,2-dichloroethane-d4	20.9	20.9	ug/l	SUR	Y			DV
17060-07-0	1,2-dichloroethane-d4	20.2	20.2	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	19.5	19.5	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	19.8	19.8	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.3	20.3	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	20.8	20.8	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	19.9	19.9	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	20.0	20.0	ug/l	SUR	Y			DV
75-35-4	1,1-dichloroethylene	10.7	10.7	ug/l	SC	Y	1.00	0.210	DV
75-35-4	1,1-dichloroethylene	9.68	9.68	ug/l	SC	Y	1.00	0.210	DV
71-43-2	Benzene	11.2	11.2	ug/l	SC	Y	1.00	0.090	DV
71-43-2	Benzene	10.3	10.3	ug/l	SC	Y	1.00	0.090	DV
108-90-7	Chlorobenzene	10.4	10.4	ug/l	SC	Y	1.00	0.070	DV
108-90-7	Chlorobenzene	9.43	9.43	ug/l	SC	Y	1.00	0.070	DV
108-88-3	Toluene (methylbenzene)	10.6	10.6	ug/l	SC	Y	1.00	0.180	DV
108-88-3	Toluene (methylbenzene)	9.55	9.55	ug/l	SC	Y	1.00	0.180	DV
79-01-6	Trichloroethylene	9.20	9.20	ug/l	SC	Y	1.00	0.140	DV
79-01-6	Trichloroethylene	10.3	10.3	ug/l	SC	Y	1.00	0.140	DV
IWSLG_MW105111099FLR		Type: Lab Replicate	Matrix: WG	Method: SW8015		Valid.			
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	197	197	mg/l	SUR	Y			DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01249

AR 024220





IWSLG_MW105111099FMS		Type: Lab Matrix Spike	Matrix: WG		Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
5343-92-0	1,2-Pentanediol	200	200	mg/l	SUR	Y			DV
107-21-1	Ethylene Glycol	206	206	mg/l	SC	Y	4.00	4.00	DV
57-55-6	Propylene Glycol	208	208	mg/l	SC	Y	4.00	4.00	DV

**Footnotes and Abbreviation**

**Result Type**

- IS Internal Standards.
- SC Spiked Compounds.
- SUR Surrogates.
- TIC Tentatively Identified Compound.
- TRG Target, regular result.

**Final Qualifiers:**

- J Estimated value.
- R Rejected by Validator.
- U Compound was analyzed but not detected.

**Validation Status:**

- DV Validated
- NV Not Validated
- PV PreValidated
- UV Unknown Validation Status

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:28:15 AM

POSAV00879 Sample Date Range: 12/20/99-12/20/99

IWSLG_MWE04122099FD		Type: Field Duplicate Sample	Matrix: WG	Method: NWTPH-Dx			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.248	0.248	mg/l	SUR	Y			DV
IWSLG_MWE04122099FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8015			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	204	204	mg/l	SUR	Y			DV
IWSLG_MWE04122099FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01251

AR 024222



IWSLG_MWE04122099FD		Type: Field Duplicate Sample		Matrix: WG		Method: SW8260				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV	
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV	
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV	
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV	
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV	
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV	
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV	
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV	
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV	
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV	
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV	
17060-07-0	1,2-dichloroethane-d4	37.4	37.4	ug/l	SUR	Y			DV	
557-93-7	2-bromopropene	40.9	40.9	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	38.7	38.7	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	40.7	40.7	ug/l	SUR	Y			DV	

IWSLG_MWE04122099N		Type: Normal Environmental S		Matrix: WG		Method: NWTPH-Dx				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV	
321-60-8	2-fluorobiphenyl	0.208	0.208	mg/l	SUR	Y			DV	

IWSLG_MWE04122099N		Type: Normal Environmental S		Matrix: WG		Method: SW8015				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV	
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV	
5343-92-0	1,2-Pentenediol	195	195	mg/l	SUR	Y			DV	

IWSLG_MWE04122099N		Type: Normal Environmental S		Matrix: WG		Method: SW8260				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV	
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



IWSLG_MWE04122099N		Type: Normal Environmental S Matrix: WG		Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01253

AR 024224



IWSLG_MWE04122099N		Type: Normal Environmental S Matrix: WG		Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	38.3	38.3	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	41.3	41.3	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	38.6	38.6	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	39.2	39.2	ug/l	SUR	Y			DV
IWSLG_MWE05122099N		Type: Normal Environmental S Matrix: WG		Method: NWTPH-Dx				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.237	0.237	mg/l	SUR	Y			DV
IWSLG_MWE05122099N		Type: Normal Environmental S Matrix: WG		Method: SW8015				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	206	206	mg/l	SUR	Y			DV
IWSLG_MWE05122099N		Type: Normal Environmental S Matrix: WG		Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV

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IWSLG_MWE05122099N		Type: Normal Environmental S Matrix: WG		Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01255

AR 024226



IWSLG_MWE05122099N		Type: Normal Environmental S Matrix: WG			Method: SW8260					Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV	
17060-07-0	1,2-dichloroethane-d4	36.7	36.7	ug/l	SUR	Y			DV	
557-93-7	2-bromopropene	41.7	41.7	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	39.3	39.3	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	40.9	40.9	ug/l	SUR	Y			DV	

POSAV00879TB		Type: Trip Blank			Matrix: WG			Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status		
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV		
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV		
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV		
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV		
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV		
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV		
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV		
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV		
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV		
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV		
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV		
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV		
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV		
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV		
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV		
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV		
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV		
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV		
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV		
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV		
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV		
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV		
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV		
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV		
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV		
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV		
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV		
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV		
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV		
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV		
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV		
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV		
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV		

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



POSAV00879TB		Type: Trip Blank	Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	37.9	37.9	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	41.0	41.0	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	38.6	38.6	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	40.1	40.1	ug/l	SUR	Y			DV

1290628-BLK1		Type: Method Blank	Matrix: WG		Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	184	184	mg/l	SUR	Y			DV

1290628-BS1		Type: Blank Spike	Matrix: WG		Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
5343-92-0	1,2-Pentanediol	193	193	mg/l	SUR	Y			DV
107-21-1	Ethylene Glycol	196	196	mg/l	SC	Y	4.00	4.00	DV
57-55-6	Propylene Glycol	198	198	mg/l	SC	Y	4.00	4.00	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01257

AR 024228





9L21046-BLK1		Type: Method Blank	Matrix: WG	Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01258

AR 024229



Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 9:28:16 AM

POSAV00879 Sample Date Range: 12/20/99-12/20/99

9L21046-BLK1		Type: Method Blank	Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	37.7	37.7	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	42.4	42.4	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	38.7	38.7	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	40.7	40.7	ug/l	SUR	Y			DV

9L21046-BS1		Type: Blank Spike	Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
17060-07-0	1,2-dichloroethane-d4	39.3	39.3	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	42.5	42.5	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	40.6	40.6	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	39.3	39.3	ug/l	SUR	Y			DV
75-35-4	1,1-dichloroethylene	18.6	18.6	ug/l	SC	Y	1.00	0.210	DV
71-43-2	Benzene	17.9	17.9	ug/l	SC	Y	1.00	0.090	DV
108-90-7	Chlorobenzene	17.2	17.2	ug/l	SC	Y	1.00	0.070	DV
108-88-3	Toluene (methylbenzene)	17.4	17.4	ug/l	SC	Y	1.00	0.180	DV
79-01-6	Trichloroethylene	16.4	16.4	ug/l	SC	Y	1.00	0.140	DV

9L22025-BLK1		Type: Method Blank	Matrix: WG		Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.217	0.217	mg/l	SUR	Y			DV

9L22025-BS1		Type: Blank Spike	Matrix: WG		Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
321-60-8	2-fluorobiphenyl	0.216	0.216	mg/l	SUR	Y			DV
PHCD	Phc As Diesel Fuel	1.58	1.58	mg/l	SC	Y	0.250	0.250	DV

9L22025-BSD1		Type: Blank Spike Duplicate	Matrix: WG		Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
321-60-8	2-fluorobiphenyl	0.232	0.232	mg/l	SUR	Y			DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01259

AR 024230



9L22025-BSD1		Type: Blank Spike Duplicate	Matrix: WG	Method: NWTPH-Dx			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCD	Phc As Diesel Fuel	1.58	1.58	mg/l	SC	Y	0.250	0.250	DV
B9L0329-01		Type: Lab Matrix Spike	Matrix: WG	Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
17060-07-0	1,2-dichloroethane-d4	37.7	37.7	ug/l	SUR	Y			DV
17060-07-0	1,2-dichloroethane-d4	38.3	38.3	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	42.1	42.1	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	42.7	42.7	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	38.3	38.3	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	38.1	38.1	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	37.9	37.9	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	42.3	42.3	ug/l	SUR	Y			DV
75-35-4	1,1-dichloroethylene	18.5	18.5	ug/l	SC	Y	1.00	0.210	DV
75-35-4	1,1-dichloroethylene	18.5	18.5	ug/l	SC	Y	1.00	0.210	DV
71-43-2	Benzene	19.0	19.0	ug/l	SC	Y	1.00	0.090	DV
71-43-2	Benzene	19.2	19.2	ug/l	SC	Y	1.00	0.090	DV
108-90-7	Chlorobenzene	18.4	18.4	ug/l	SC	Y	1.00	0.070	DV
108-90-7	Chlorobenzene	18.2	18.2	ug/l	SC	Y	1.00	0.070	DV
108-88-3	Toluene (methylbenzene)	18.7	18.7	ug/l	SC	Y	1.00	0.180	DV
108-88-3	Toluene (methylbenzene)	19.3	19.3	ug/l	SC	Y	1.00	0.180	DV
79-01-6	Trichloroethylene	17.1	17.1	ug/l	SC	Y	1.00	0.140	DV
79-01-6	Trichloroethylene	16.6	16.6	ug/l	SC	Y	1.00	0.140	DV
IWSLG_MWE04122099FLR		Type: Lab Replicate	Matrix: WG	Method: SW8015			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	204	204	mg/l	SUR	Y			DV
IWSLG_MWE04122099FMS		Type: Lab Matrix Spike	Matrix: WG	Method: SW8015			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
5343-92-0	1,2-Pentanediol	204	204	mg/l	SUR	Y			DV
107-21-1	Ethylene Glycol	214	214	mg/l	SC	Y	4.00	4.00	DV
57-55-6	Propylene Glycol	220	220	mg/l	SC	Y	4.00	4.00	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.  
 C:\ENV-APPS\EMIS\POSDEV\posdev.mdb\rptSampleFieldTestResultPlusQAQCbyCOC



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**Footnotes and Abbreviation**

**Result Type**

- IS Internal Standards.
- SC Spiked Compounds.
- SUR Surrogates.
- TIC Tentatively Identified Compound.
- TRG Target, regular result.

**Final Qualifiers:**

- U Compound was analyzed but not detected.

**Validation Status:**

- DV Validated
- NV Not Validated
- PV PreValidated
- UV Unknown Validation Status

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01261

AR 024232



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 8:51:00 AM

POSAV00893 Sample Date Range: 2/17/00-2/18/00

IWSLG_MW105021700FD		Type: Field Duplicate Sample	Matrix: WG	Method: NWTPH-Dx			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.232	0.232	mg/l	SUR	Y			DV
IWSLG_MW105021700FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8015			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
*** 107-21-1	Ethylene Glycol	7.22 N	7.22	mg/l	TRG	Y	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	204	204	mg/l	SUR	Y			DV
IWSLG_MW105021700FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01262

AR 024233



IWSLG_MW105021700FD		Type: Field Duplicate Sample		Matrix: WG		Method: SW8260				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV	
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV	
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV	
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV	
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV	
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV	
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV	
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV	
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV	
*** 108-88-3	Toluene (methylbenzene)	0.244 U	0.244 J	ug/l	TRG	N	1.00	0.180	DV	
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV	
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV	
17060-07-0	1,2-dichloroethane-d4	37.1	37.1	ug/l	SUR	Y			DV	
557-93-7	2-bromopropene	40.6	40.6	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	40.8	40.8	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	39.6	39.6	ug/l	SUR	Y			DV	

IWSLG_MW105021700N		Type: Normal Environmental S		Matrix: WG		Method: NWTPH-Dx				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV	
321-60-8	2-fluorobiphenyl	0.283	0.283	mg/l	SUR	Y			DV	

IWSLG_MW105021700N		Type: Normal Environmental S		Matrix: WG		Method: SW8015				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
*** 107-21-1	Ethylene Glycol	6.02 N	6.02	mg/l	TRG	Y	4.00	4.00	DV	
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV	
5343-92-0	1,2-Pentandiol	204	204	mg/l	SUR	Y			DV	

IWSLG_MW105021700N		Type: Normal Environmental S		Matrix: WG		Method: SW8260				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV	
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01263

AR 024234



IWSLG_MW105021700N		Type: Normal Environmental S Matrix: WG		Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV

\*\*\*I Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



POS Sample/Test/Result plus Lab QA/QC in EQUS DB for Selected COC

4/26/00 8:51:00 AM

POSAV00893 Sample Date Range: 2/17/00-2/18/00

IWSLG_MW105021700N		Type: Normal Environmental S	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
*** 108-88-3	Toluene (methylbenzene)	0.336 U	0.336 J	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	35.8	35.8	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	41.3	41.3	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	39.9	39.9	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	40.5	40.5	ug/l	SUR	Y			DV

IWSLG_MW106021700N		Type: Normal Environmental S	Matrix: WG	Method: NWTPh-Dx				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.274	0.274	mg/l	TRG	Y	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.165	0.165	mg/l	SUR	Y			DV

IWSLG_MW106021700N		Type: Normal Environmental S	Matrix: WG	Method: SW8015				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
*** 107-21-1	Ethylene Glycol	4.80 N	4.80	mg/l	TRG	Y	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	208	208	mg/l	SUR	Y			DV

IWSLG_MW106021700N		Type: Normal Environmental S	Matrix: WG	Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.708 J	0.708 J	ug/l	TRG	TR	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01265

AR 024236





POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 8:51:01 AM

POSAV00893 Sample Date Range: 2/17/00-2/18/00

IWSLG_MW106021700N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.478 J	0.478 J	ug/l	TRG	TR	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
*** 108-88-3	Toluene (methylbenzene)	0.392 U	0.392 J	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01266

AR 024237



IWSLG_MW106021700N		Type: Normal Environmental S		Matrix: WG		Method: SW8260				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV	
17060-07-0	1,2-dichloroethane-d4	37.9	37.9	ug/l	SUR	Y			DV	
557-93-7	2-bromopropene	41.5	41.5	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	40.4	40.4	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	39.7	39.7	ug/l	SUR	Y			DV	

IWSLG_MW107021700N		Type: Normal Environmental S		Matrix: WG		Method: NWTPH-Dx				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV	
321-60-8	2-fluorobiphenyl	0.321	0.321	mg/l	SUR	Y			DV	

IWSLG_MW107021700N		Type: Normal Environmental S		Matrix: WG		Method: SW8015				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV	
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV	
5343-92-0	1,2-Pentanediol	195	195	mg/l	SUR	Y			DV	

IWSLG_MW107021700N		Type: Normal Environmental S		Matrix: WG		Method: SW8260				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV	
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV	
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV	
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV	
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV	
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV	
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
95-50-1	1,2-dichlorobenzene	0.678 J	0.678 J	ug/l	TRG	TR	1.00	0.110	DV	
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV	
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01267

AR 024238



IWSLG_MW107021700N		Type: Normal Environmental S Matrix: WG		Method: SW8260		Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0 3.78 DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0 5.59 DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00 0.300 DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00 2.35 DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00 0.240 DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00 0.260 DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00 2.63 DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
91-20-3	Naphthalene	2.55 U	2.55 U	ug/l	TRG	Y	1.00 0.300 DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00 0.290 DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00 0.130 DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00 0.280 DV
*** 108-88-3	Toluene (methylbenzene)	0.352 U	0.352 J	ug/l	TRG	N	1.00 0.180 DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00 0.260 DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00 0.720 DV
17060-07-0	1,2-dichloroethane-d4	36.8 U	36.8 U	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	41.4 U	41.4 U	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	40.2 U	40.2 U	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	38.2 U	38.2 U	ug/l	SUR	Y	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



IWSLG_MW108021700N		Type: Normal Environmental S	Matrix: WG	Method: NWTPh-Dx			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.246	0.246	mg/l	SUR	Y			DV
IWSLG_MW108021700N		Type: Normal Environmental S	Matrix: WG	Method: SW8015			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	192	192	mg/l	SUR	Y			DV
IWSLG_MW108021700N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



IWSLG_MW108021700N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00 0.300 DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00 2.35 DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00 0.240 DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00 0.260 DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00 2.63 DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00 0.300 DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00 0.290 DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00 0.130 DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00 0.280 DV
*** 108-88-3	Toluene (methylbenzene)	0.326 U	0.326 J	ug/l	TRG	N	1.00 0.180 DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00 0.260 DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00 0.720 DV
17060-07-0	1,2-dichloroethane-d4	36.8	36.8	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	42.3	42.3	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	38.8	38.8	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	39.4	39.4	ug/l	SUR	Y	DV
IWSLG_MWE04021700N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.290	0.290	mg/l	SUR	Y	DV
IWSLG_MWE04021700N		Type: Normal Environmental S	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
5343-92-0	1,2-Pentanediol	198	198	mg/l	SUR	Y	DV
IWSLG_MWE04021700N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00 0.200 DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



IWSLG_MWE04021700N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.402 J	0.402 J	ug/l	TRG	TR	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01271

AR 024242



IWSLG_MWE04021700N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00 0.300 DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00 0.290 DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00 0.130 DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00 0.280 DV
*** 108-88-3	Toluene (methylbenzene)	0.440 U	0.440 J	ug/l	TRG	N	1.00 0.180 DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00 0.260 DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00 0.720 DV
17060-07-0	1,2-dichloroethane-d4	39.0	39.0	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	41.5	41.5	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	41.6	41.6	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	40.5	40.5	ug/l	SUR	Y	DV
IWSLG_MWE05021700FD		Type: Field Duplicate Sample	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.223	0.223	mg/l	SUR	Y	DV
IWSLG_MWE05021700FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
5343-92-0	1,2-Pentandiol	196	196	mg/l	SUR	Y	DV
IWSLG_MWE05021700FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00 0.200 DV
71-55-6	1,1,1-trichloroethane	0.466 J	0.466 J	ug/l	TRG	TR	1.00 0.160 DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00 0.410 DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00 0.420 DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00 0.350 DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 8:51:02 AM

POSAV00893 Sample Date Range: 2/17/00-2/18/00

IWSLG_MWE05021700FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01273

AR 024244





IWSLG_MWE05021700FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00 0.260 DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00 0.720 DV
17060-07-0	1,2-dichloroethane-d4	37.7	37.7	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	40.5	40.5	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	37.0	37.0	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	39.9	39.9	ug/l	SUR	Y	DV
IWSLG_MWE05021700N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.309	0.309	mg/l	SUR	Y	DV
IWSLG_MWE05021700N		Type: Normal Environmental S	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
5343-92-0	1,2-Pentanediol	190	190	mg/l	SUR	Y	DV
IWSLG_MWE05021700N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00 0.200 DV
71-55-6	1,1,1-trichloroethane	0.462 J	0.462 J	ug/l	TRG	TR	1.00 0.160 DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00 0.410 DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00 0.420 DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc	0.350 U	0.350 U	ug/l	TRG	N	5.00 0.350 DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40 DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01274

AR 024245



IWSLG_MWE05021700N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
*** 108-88-3	Toluene (methylbenzene)	0.416 U	0.416 U	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	37.9	37.9	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	41.8	41.8	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	38.8	38.8	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	38.9	38.9	ug/l	SUR	Y			DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01275

AR 024246



IWSLG_MWE07021700N		Type: Normal Environmental S	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250 0.250 DV
321-60-8	2-fluorobiphenyl	0.243	0.243	mg/l	SUR	Y	DV

IWSLG_MWE07021700N		Type: Normal Environmental S	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
5343-92-0	1,2-Pentanediol	202	202	mg/l	SUR	Y	DV

IWSLG_MWE07021700N		Type: Normal Environmental S	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00 0.200 DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00 0.410 DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00 0.420 DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00 0.350 DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40 DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83 DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0 3.78 DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0 5.59 DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
104-51-8	Butylbenzene.n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01276

AR 024247



IWSLG_MWE07021700N		Type: Normal Environmental S Matrix: WG				Method: SW8260				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status	
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV	
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV	
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV	
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV	
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV	
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV	
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV	
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV	
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV	
*** 108-88-3	Toluene (methylbenzene)	0.466 U	0.466 J	ug/l	TRG	N	1.00	0.180	DV	
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV	
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV	
17060-07-0	1,2-dichloroethane-d4	36.4	36.4	ug/l	SUR	Y			DV	
557-93-7	2-bromopropene	40.0	40.0	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	41.3	41.3	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	38.7	38.7	ug/l	SUR	Y			DV	

IWSLG_MWE08021700N		Type: Normal Environmental S Matrix: WG				Method: NWTPH-Dx				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status	
PHCJ	Phc As Jet Fuels	0.623	0.623	mg/l	TRG	Y	0.250	0.250	DV	
321-60-8	2-fluorobiphenyl	0.325	0.325	mg/l	SUR	Y			DV	

IWSLG_MWE08021700N		Type: Normal Environmental S Matrix: WG				Method: SW8015				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status	
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV	
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV	
5343-92-0	1,2-Pentanedioi	194	194	mg/l	SUR	Y			DV	

IWSLG_MWE08021700N		Type: Normal Environmental S Matrix: WG				Method: SW8260				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status	
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV	
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



IWSLG_MWE08021700N		Type: Normal Environmental S		Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV	
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV	
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV	
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV	
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV	
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV	
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV	
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV	
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV	
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV	
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV	
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV	
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV	
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV	
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV	
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV	
75-71-8	Dichlorodifluoromethane	0.260 U	0.266 U	ug/l	TRG	N	1.00	0.260	DV	
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV	
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



IWSLG_MWE08021700N		Type: Normal Environmental S Matrix: WG		Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
*** 108-88-3	Toluene (methylbenzene)	0.556 U	0.556 J	ug/l	TRG	N	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	36.8	36.8	ug/l	SUR	Y			DV
557-93-7	2-bromopropene	39.3	39.3	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	40.0	40.0	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	39.5	39.5	ug/l	SUR	Y			DV

IWSLG_MWE09021700N		Type: Normal Environmental S Matrix: WG		Method: NWTPh-Dx			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.441	0.441	mg/l	TRG	Y	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.235	0.235	mg/l	SUR	Y			DV

IWSLG_MWE09021700N		Type: Normal Environmental S Matrix: WG		Method: SW8015			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV
5343-92-0	1,2-Pentanediol	194	194	mg/l	SUR	Y			DV

IWSLG_MWE09021700N		Type: Normal Environmental S Matrix: WG		Method: SW8260			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	1.28	1.28	ug/l	TRG	Y	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01279

AR 024250



IWSLG_MWE09021700N		Type: Normal Environmental S	Matrix: WG	Method: SW8260		Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL MDL Status
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00 0.190 DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0 3.40 DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0 2.83 DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00 0.170 DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0 3.78 DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0 5.59 DV
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00 0.110 DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00 0.370 DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
75-15-0	Carbon Disulfide	0.226 J	0.226 J	ug/l	TRG	TR	1.00 0.170 DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00 0.070 DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00 0.090 DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00 0.300 DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00 0.210 DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00 2.35 DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00 0.220 DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00 0.160 DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00 0.240 DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00 0.260 DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00 2.63 DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00 0.120 DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00 0.180 DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00 0.080 DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00 0.300 DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00 0.290 DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00 0.130 DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00 0.140 DV
98-06-6	Teri-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00 0.100 DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00 0.280 DV
*** 108-88-3	Toluene (methylbenzene)	0.648 U	0.648 J	ug/l	TRG	N	1.00 0.180 DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00 0.230 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01280

AR 024251



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 8:51:04 AM

POSAV00893 Sample Date Range: 2/17/00-2/18/00

IWSLG_MWE09021700N		Type: Normal Environmental S		Matrix: WG		Method: SW8260				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV	
17060-07-0	1,2-dichloroethane-d4	35.5	35.5	ug/l	SUR	Y			DV	
557-93-7	2-bromopropene	40.8	40.8	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	40.8	40.8	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	40.7	40.7	ug/l	SUR	Y			DV	
POSAV00893TB		Type: Trip Blank		Matrix: WG		Method: SW8260				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV	
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV	
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV	
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV	
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV	
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV	
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV	
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV	
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV	
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV	
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV	
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV	
71-43-2	Benzene	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV	
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV	
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV	
75-15-0	Carbon Disulfide	0.408 J	0.408 J	ug/l	TRG	TR	1.00	0.170	DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01281

AR 024252





POSAV00893TB										
Type: Trip Blank			Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV	
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV	
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV	
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV	
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV	
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV	
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV	
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV	
100-41-4	Ethylbenzene	0.278 J	0.278 J	ug/l	TRG	TR	1.00	0.120	DV	
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV	
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV	
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV	
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV	
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV	
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV	
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV	
*** 108-88-3	Toluene (methylbenzene)	0.996 U	0.996 J	ug/l	TRG	N	1.00	0.180	DV	
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV	
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV	
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV	
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV	
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV	
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV	
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV	
17060-07-0	1,2-dichloroethane-d4	36.7	36.7	ug/l	SUR	Y			DV	
557-93-7	2-bromopropene	39.2	39.2	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	40.4	40.4	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	40.8	40.8	ug/l	SUR	Y			DV	
0200617-BLK1										
Type: Method Blank			Matrix: WG			Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
107-21-1	Ethylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV	
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00	4.00	DV	
5343-92-0	1,2-Pentanediol	204	204	mg/l	SUR	Y			DV	
0200617-BS1										
Type: Blank Spike			Matrix: WG			Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
5343-92-0	1,2-Pentanediol	197	197	mg/l	SUR	Y			DV	
107-21-1	Ethylene Glycol	214	214	mg/l	SC	Y	4.00	4.00	DV	
57-55-6	Propylene Glycol	212	212	mg/l	SC	Y	4.00	4.00	DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01282

AR 024253



OB20002-BLK1		Type: Method Blank	Matrix: WG		Method: NWTPH-Dx				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.217	0.217	mg/l	SUR	Y			DV
OB20002-BS1		Type: Blank Spike	Matrix: WG		Method: NWTPH-Dx				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
321-60-8	2-fluorobiphenyl	0.309	0.309	mg/l	SUR	Y			DV
PHCD	Phc As Diesel Fuel	1.77	1.77	mg/l	SC	Y	0.250	0.250	DV
OB20002-BSD1		Type: Blank Spike Duplicate	Matrix: WG		Method: NWTPH-Dx				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
321-60-8	2-fluorobiphenyl	0.250	0.250	mg/l	SUR	Y			DV
PHCD	Phc As Diesel Fuel	1.76	1.76	mg/l	SC	Y	0.250	0.250	DV
OB22004-BLK1		Type: Method Blank	Matrix: WG		Method: NWTPH-Dx				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.250 U	0.250 U	mg/l	TRG	N	0.250	0.250	DV
321-60-8	2-fluorobiphenyl	0.300	0.300	mg/l	SUR	Y			DV
OB22004-BS1		Type: Blank Spike	Matrix: WG		Method: NWTPH-Dx				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
321-60-8	2-fluorobiphenyl	0.212	0.212	mg/l	SUR	Y			DV
PHCD	Phc As Diesel Fuel	1.69	1.69	mg/l	SC	Y	0.250	0.250	DV
OB22004-BSD1		Type: Blank Spike Duplicate	Matrix: WG		Method: NWTPH-Dx				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
321-60-8	2-fluorobiphenyl	0.232	0.232	mg/l	SUR	Y			DV
PHCD	Phc As Diesel Fuel	1.80	1.80	mg/l	SC	Y	0.250	0.250	DV
OB29007-BLK1		Type: Method Blank	Matrix: WG		Method: SW8260				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.200 U	0.200 U	ug/l	TRG	N	1.00	0.200	DV
71-55-6	1,1,1-trichloroethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
79-34-5	1,1,2,2-tetrachloroethane	0.410 U	0.410 U	ug/l	TRG	N	1.00	0.410	DV
79-00-5	1,1,2-trichloroethane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
75-34-3	1,1-dichloroethane	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
75-35-4	1,1-dichloroethylene	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
563-58-6	1,1-dichloropropylene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
87-61-6	1,2,3-trichlorobenzene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
96-18-4	1,2,3-trichloropropane	0.420 U	0.420 U	ug/l	TRG	N	1.00	0.420	DV
120-82-1	1,2,4-trichlorobenzene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
95-63-6	1,2,4-trimethylbenzene	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.350 U	0.350 U	ug/l	TRG	N	5.00	0.350	DV
106-93-4	1,2-dibromoethane	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
95-50-1	1,2-dichlorobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
107-06-2	1,2-dichloroethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
78-87-5	1,2-dichloropropane	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
108-67-8	1,3,5-trimethylbenzene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
541-73-1	1,3-dichlorobenzene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
142-28-9	1,3-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
106-46-7	1,4-dichlorobenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01283

AR 024254



POS Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 8:51:04 AM

POSAV00893 Sample Date Range: 2/17/00-2/18/00

0B29007-BLK1		Type: Method Blank	Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
594-20-7	2,2-dichloropropane	0.190 U	0.190 U	ug/l	TRG	N	1.00	0.190	DV
78-93-3	2-butanone	3.40 U	3.40 U	ug/l	TRG	N	10.0	3.40	DV
95-49-8	2-chlorotoluene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10.0	2.83	DV
106-43-4	4-chlorotoluene	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10.0	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10.0	5.59	DV
71-43-2	Benzene	0.292 J	0.292 J	ug/l	TRG	TR	1.00	0.090	DV
108-86-1	Bromobenzene	0.110 U	0.110 U	ug/l	TRG	N	1.00	0.110	DV
75-27-4	Bromodichloromethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
74-83-9	Bromomethane	0.370 U	0.370 U	ug/l	TRG	N	1.00	0.370	DV
104-51-8	Butylbenzene,n-	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
75-15-0	Carbon Disulfide	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
56-23-5	Carbon Tetrachloride	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
108-90-7	Chlorobenzene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
74-97-5	Chlorobromomethane	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
124-48-1	Chlorodibromomethane	0.0900 U	0.0900 U	ug/l	TRG	N	1.00	0.090	DV
75-00-3	Chloroethane	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
67-66-3	Chloroform	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5.00	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.220 U	0.220 U	ug/l	TRG	N	1.00	0.220	DV
10061-01-5	Cis-1,3-dichloropropene	0.160 U	0.160 U	ug/l	TRG	N	1.00	0.160	DV
74-95-3	Dibromomethane	0.240 U	0.240 U	ug/l	TRG	N	1.00	0.240	DV
75-71-8	Dichlorodifluoromethane	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5.00	2.63	DV
100-41-4	Ethylbenzene	0.120 U	0.120 U	ug/l	TRG	N	1.00	0.120	DV
87-68-3	Hexachloro-1,3-butadiene	0.180 U	0.180 U	ug/l	TRG	N	1.00	0.180	DV
98-82-8	Isopropylbenzene	0.0800 U	0.0800 U	ug/l	TRG	N	1.00	0.080	DV
91-20-3	Naphthalene	0.300 U	0.300 U	ug/l	TRG	N	1.00	0.300	DV
95-47-6	O-xylene	0.290 U	0.290 U	ug/l	TRG	N	1.00	0.290	DV
99-87-6	P-isopropyltoluene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
103-65-1	Propylbenzene,n-	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
135-98-8	Sec-butylbenzene	0.130 U	0.130 U	ug/l	TRG	N	1.00	0.130	DV
100-42-5	Styrene (monomer)	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
98-06-6	Tert-butylbenzene	0.100 U	0.100 U	ug/l	TRG	N	1.00	0.100	DV
127-18-4	Tetrachloroethene	0.280 U	0.280 U	ug/l	TRG	N	1.00	0.280	DV
108-88-3	Toluene (methylbenzene)	0.728 J	0.728 J	ug/l	TRG	TR	1.00	0.180	DV
156-60-5	Trans-1,2-dichloroethene	0.230 U	0.230 U	ug/l	TRG	N	1.00	0.230	DV
10061-02-6	Trans-1,3-dichloropropene	0.0700 U	0.0700 U	ug/l	TRG	N	1.00	0.070	DV
75-25-2	Tribromomethane	0.210 U	0.210 U	ug/l	TRG	N	1.00	0.210	DV
79-01-6	Trichloroethylene	0.140 U	0.140 U	ug/l	TRG	N	1.00	0.140	DV
75-69-4	Trichlorofluoromethane	0.170 U	0.170 U	ug/l	TRG	N	1.00	0.170	DV
75-01-4	Vinyl Chloride	0.260 U	0.260 U	ug/l	TRG	N	1.00	0.260	DV
XYLENE	Xylene, P-, M-	0.720 U	0.720 U	ug/l	TRG	N	2.00	0.720	DV
17060-07-0	1,2-dichloroethane-d4	36.9	36.9	ug/l	SUR	Y			DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

C:\ENV-APPS\EMIS\POSDEV\posdev.mdb\rptSampleFieldTestResultPlusQAQCbyCOC

STRUNK 01284

AR 024255



0B29007-BLK1		Type: Method Blank	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
557-93-7	2-bromopropene	40.9	40.9	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	40.7	40.7	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	38.8	38.8	ug/l	SUR	Y	DV

0B29007-BS1		Type: Blank Spike	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
17060-07-0	1,2-dichloroethane-d4	37.1	37.1	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	40.5	40.5	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	38.6	38.6	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	40.0	40.0	ug/l	SUR	Y	DV
75-35-4	1,1-dichloroethylene	18.3	18.3	ug/l	SC	Y	1.00 0.210 DV
71-43-2	Benzene	19.1	19.1	ug/l	SC	Y	1.00 0.090 DV
108-90-7	Chlorobenzene	19.9	19.9	ug/l	SC	Y	1.00 0.070 DV
108-88-3	Toluene (methylbenzene)	19.6	19.6	ug/l	SC	Y	1.00 0.180 DV
79-01-6	Trichloroethylene	17.9	17.9	ug/l	SC	Y	1.00 0.140 DV

B0B0425-05-MS1		Type: Lab Matrix Spike	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
17060-07-0	1,2-dichloroethane-d4	36.6	36.6	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	40.0	40.0	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	40.0	40.0	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	38.4	38.4	ug/l	SUR	Y	DV
75-35-4	1,1-dichloroethylene	19.1	19.1	ug/l	SC	Y	1.00 0.210 DV
71-43-2	Benzene	21.2	21.2	ug/l	SC	Y	1.00 0.090 DV
108-90-7	Chlorobenzene	19.9	19.9	ug/l	SC	Y	1.00 0.070 DV
108-88-3	Toluene (methylbenzene)	21.6	21.6	ug/l	SC	Y	1.00 0.180 DV
79-01-6	Trichloroethylene	19.3	19.3	ug/l	SC	Y	1.00 0.140 DV

B0B0425-05-MSD1		Type: Lab Matrix Spike Duplic	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
17060-07-0	1,2-dichloroethane-d4	36.9	36.9	ug/l	SUR	Y	DV
557-93-7	2-bromopropene	39.9	39.9	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	41.9	41.9	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	40.2	40.2	ug/l	SUR	Y	DV
75-35-4	1,1-dichloroethylene	17.5	17.5	ug/l	SC	Y	1.00 0.210 DV
71-43-2	Benzene	20.4	20.4	ug/l	SC	Y	1.00 0.090 DV
108-90-7	Chlorobenzene	20.3	20.3	ug/l	SC	Y	1.00 0.070 DV
108-88-3	Toluene (methylbenzene)	20.0	20.0	ug/l	SC	Y	1.00 0.180 DV
79-01-6	Trichloroethylene	18.6	18.6	ug/l	SC	Y	1.00 0.140 DV

IWSLG_MW105021700FLR		Type: Lab Replicate	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	5.30	5.30	mg/l	TRG	Y	4.00 4.00 DV
57-55-6	Propylene Glycol	4.00 U	4.00 U	mg/l	TRG	N	4.00 4.00 DV
5343-92-0	1,2-Pentenediol	202	202	mg/l	SUR	Y	DV

IWSLG_MW105021700FMS		Type: Lab Matrix Spike	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
5343-92-0	1,2-Pentenediol	214	214	mg/l	SUR	Y	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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IWSLG_MW105021700FMS		Type: Lab Matrix Spike	Matrix: WG	Method: SW8015			Valid.		
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	224	224	mg/l	SC	Y	4.00	4.00	DV
57-55-6	Propylene Glycol	222	222	mg/l	SC	Y	4.00	4.00	DV

**Footnotes and Abbreviation**

**Result Type**

- IS Internal Standards.
- SC Spiked Compounds.
- SUR Surrogates.
- TIC Tentatively Identified Compound.
- TRG Target, regular result.

**Final Qualifiers:**

- J Estimated value.
- N Compound presumptively present-No 2nd Column Confirmation
- U Compound was analyzed but not detected.

**Validation Status:**

- DV Validated
- NV Not Validated
- PV PreValidated
- UV Unknown Validation Status

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



Pos Sample/Test/Result plus Lab QA/QC in EQuIS DB for Selected COC

4/26/00 8:49:42 AM

POSAV00922 Sample Date Range: 3/15/00-3/15/00

IWSLG_MWE04031500FD		Type: Field Duplicate Sample	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCJ	Phc As Jet Fuels	0.25 U	0.25 U	mg/l	TRG	N	0.25 0.25 DV
321-60-8	2-fluorobiphenyl	0.173	0.173	mg/l	SUR	Y	DV

IWSLG_MWE04031500FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8015			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
107-21-1	Ethylene Glycol	20 U	20 U	mg/l	TRG	N	20 20 DV
57-55-6	Propylene Glycol	20 U	20 U	mg/l	TRG	N	20 20 DV
5343-92-0	1,2-Pentenediol	187	187	mg/l	SUR	Y	DV

IWSLG_MWE04031500FD		Type: Field Duplicate Sample	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
630-20-6	1,1,1,2-tetrachloroethane	0.2 U	0.2 U	ug/l	TRG	N	1 0.2 DV
71-55-6	1,1,1-trichloroethane	0.16 U	0.16 U	ug/l	TRG	N	1 0.16 DV
79-34-5	1,1,2,2-tetrachloroethane	0.41 U	0.41 U	ug/l	TRG	N	1 0.41 DV
79-00-5	1,1,2-trichloroethane	0.19 U	0.19 U	ug/l	TRG	N	1 0.19 DV
75-34-3	1,1-dichloroethane	0.22 U	0.22 U	ug/l	TRG	N	1 0.22 DV
75-35-4	1,1-dichloroethylene	0.21 U	0.21 U	ug/l	TRG	N	1 0.21 DV
563-58-6	1,1-dichloropropylene	0.16 U	0.16 U	ug/l	TRG	N	1 0.16 DV
87-61-6	1,2,3-trichlorobenzene	0.23 U	0.23 U	ug/l	TRG	N	1 0.23 DV
96-18-4	1,2,3-trichloropropane	0.42 U	0.42 U	ug/l	TRG	N	1 0.42 DV
120-82-1	1,2,4-trichlorobenzene	0.18 U	0.18 U	ug/l	TRG	N	1 0.18 DV
95-63-6	1,2,4-trimethylbenzene	0.37 U	0.37 U	ug/l	TRG	N	1 0.37 DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.35 U	0.35 U	ug/l	TRG	N	5 0.35 DV
106-93-4	1,2-dibromoethane	0.16 U	0.16 U	ug/l	TRG	N	1 0.16 DV
95-50-1	1,2-dichlorobenzene	0.11 U	0.11 U	ug/l	TRG	N	1 0.11 DV
*** 107-06-2	1,2-dichloroethane	0.2 U	0.2 J	ug/l	TRG	N	1 0.12 DV
78-87-5	1,2-dichloropropane	0.18 U	0.18 U	ug/l	TRG	N	1 0.18 DV
108-67-8	1,3,5-trimethylbenzene	0.14 U	0.14 U	ug/l	TRG	N	1 0.14 DV
541-73-1	1,3-dichlorobenzene	0.16 U	0.16 U	ug/l	TRG	N	1 0.16 DV
142-28-9	1,3-dichloropropane	0.19 U	0.19 U	ug/l	TRG	N	1 0.19 DV
106-46-7	1,4-dichlorobenzene	0.1 U	0.1 U	ug/l	TRG	N	1 0.1 DV
594-20-7	2,2-dichloropropane	0.19 U	0.19 U	ug/l	TRG	N	1 0.19 DV
78-93-3	2-butanone	3.4 U	3.4 U	ug/l	TRG	N	10 3.4 DV
95-49-8	2-chlorotoluene	0.22 U	0.22 U	ug/l	TRG	N	1 0.22 DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10 2.83 DV
106-43-4	4-chlorotoluene	0.17 U	0.17 U	ug/l	TRG	N	1 0.17 DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10 3.78 DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10 5.59 DV
71-43-2	Benzene	0.09 U	0.09 U	ug/l	TRG	N	1 0.09 DV
108-86-1	Bromobenzene	0.11 U	0.11 U	ug/l	TRG	N	1 0.11 DV
75-27-4	Bromodichloromethane	0.09 U	0.09 U	ug/l	TRG	N	1 0.09 DV
74-83-9	Bromomethane	0.37 U	0.37 U	ug/l	TRG	N	1 0.37 DV
104-51-8	Butylbenzene,n-	0.08 U	0.08 U	ug/l	TRG	N	1 0.08 DV
75-15-0	Carbon Disulfide	0.17 U	0.17 U	ug/l	TRG	N	1 0.17 DV
56-23-5	Carbon Tetrachloride	0.1 U	0.1 U	ug/l	TRG	N	1 0.1 DV
108-90-7	Chlorobenzene	0.07 U	0.07 U	ug/l	TRG	N	1 0.07 DV
74-97-5	Chlorobromomethane	0.12 U	0.12 U	ug/l	TRG	N	1 0.12 DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01287

AR 024258



IWSLG_MWE04031500FD		Type: Field Duplicate Sample	Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
124-48-1	Chlorodibromomethane	0.09 U	0.09 U	ug/l	TRG	N	1	0.09	DV
75-00-3	Chloroethane	0.3 U	0.3 U	ug/l	TRG	N	1	0.3	DV
67-66-3	Chloroform	0.21 U	0.21 U	ug/l	TRG	N	1	0.21	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.22 U	0.22 U	ug/l	TRG	N	1	0.22	DV
10061-01-5	Cis-1,3-dichloropropene	0.16 U	0.16 U	ug/l	TRG	N	1	0.16	DV
74-95-3	Dibromomethane	0.24 U	0.24 U	ug/l	TRG	N	1	0.24	DV
75-71-8	Dichlorodifluoromethane	0.26 U	0.26 U	ug/l	TRG	N	1	0.26	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5	2.63	DV
100-41-4	Ethylbenzene	0.12 U	0.12 U	ug/l	TRG	N	1	0.12	DV
87-68-3	Hexachloro-1,3-butadiene	0.18 U	0.18 U	ug/l	TRG	N	1	0.18	DV
98-82-8	Isopropylbenzene	0.08 U	0.08 U	ug/l	TRG	N	1	0.08	DV
91-20-3	Naphthalene	0.3 U	0.3 U	ug/l	TRG	N	1	0.3	DV
95-47-6	O-xylene	0.29 U	0.29 U	ug/l	TRG	N	1	0.29	DV
99-87-6	P-isopropyltoluene	0.14 U	0.14 U	ug/l	TRG	N	1	0.14	DV
103-65-1	Propylbenzene,n-	0.1 U	0.1 U	ug/l	TRG	N	1	0.1	DV
135-98-8	Sec-butylbenzene	0.13 U	0.13 U	ug/l	TRG	N	1	0.13	DV
100-42-5	Styrene (monomer)	0.14 U	0.14 U	ug/l	TRG	N	1	0.14	DV
98-06-6	Tert-butylbenzene	0.1 U	0.1 U	ug/l	TRG	N	1	0.1	DV
127-18-4	Tetrachloroethene	0.28 U	0.28 U	ug/l	TRG	N	1	0.28	DV
108-88-3	Toluene (methylbenzene)	0.18 U	0.18 U	ug/l	TRG	N	1	0.18	DV
156-60-5	Trans-1,2-dichloroethene	0.23 U	0.23 U	ug/l	TRG	N	1	0.23	DV
10061-02-6	Trans-1,3-dichloropropene	0.07 U	0.07 U	ug/l	TRG	N	1	0.07	DV
75-25-2	Tribromomethane	0.21 U	0.21 U	ug/l	TRG	N	1	0.21	DV
79-01-6	Trichloroethylene	0.14 U	0.14 U	ug/l	TRG	N	1	0.14	DV
75-69-4	Trichlorofluoromethane	0.17 U	0.17 U	ug/l	TRG	N	1	0.17	DV
75-01-4	Vinyl Chloride	0.26 U	0.26 U	ug/l	TRG	N	1	0.26	DV
XYLENE	Xylene, P-, M-	0.72 U	0.72 U	ug/l	TRG	N	2	0.72	DV
17060-07-0	1,2-dichloroethane-d4	42.8	42.8	ug/l	SUR	Y			DV
460-00-4	Bromofluorobenzene	38.3	38.3	ug/l	SUR	Y			DV
2037-26-5	Toluene-d8	38.9	38.9	ug/l	SUR	Y			DV

IWSLG_MWE04031500N		Type: Normal Environmental S	Matrix: WG		Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
PHCJ	Phc As Jet Fuels	0.25 U	0.25 U	mg/l	TRG	N	0.25	0.25	DV
321-60-8	2-fluorobiphenyl	0.302	0.302	mg/l	SUR	Y			DV

IWSLG_MWE04031500N		Type: Normal Environmental S	Matrix: WG		Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
107-21-1	Ethylene Glycol	20 U	20 U	mg/l	TRG	N	20	20	DV
57-55-6	Propylene Glycol	20 U	20 U	mg/l	TRG	N	20	20	DV
5343-92-0	1,2-Pentanediol	192	192	mg/l	SUR	Y			DV

IWSLG_MWE04031500N		Type: Normal Environmental S	Matrix: WG		Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
630-20-6	1,1,1,2-tetrachloroethane	0.2 U	0.2 U	ug/l	TRG	N	1	0.2	DV
71-55-6	1,1,1-trichloroethane	0.16 U	0.16 U	ug/l	TRG	N	1	0.16	DV
79-34-5	1,1,2,2-tetrachloroethane	0.41 U	0.41 U	ug/l	TRG	N	1	0.41	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.



IWSLG_MWE04031500N		Type: Normal Environmental S Matrix: WG		Method: SW8260				Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Resit Type	Detect Flag	RDL	MDL	Status
79-00-5	1,1,2-trichloroethane	0.19 U	0.19 U	ug/l	TRG	N	1	0.19	DV
75-34-3	1,1-dichloroethane	0.22 U	0.22 U	ug/l	TRG	N	1	0.22	DV
75-35-4	1,1-dichloroethylene	0.21 U	0.21 U	ug/l	TRG	N	1	0.21	DV
563-58-6	1,1-dichloropropylene	0.16 U	0.16 U	ug/l	TRG	N	1	0.16	DV
87-61-6	1,2,3-trichlorobenzene	0.23 U	0.23 U	ug/l	TRG	N	1	0.23	DV
96-18-4	1,2,3-trichloropropane	0.42 U	0.42 U	ug/l	TRG	N	1	0.42	DV
120-82-1	1,2,4-trichlorobenzene	0.18 U	0.18 U	ug/l	TRG	N	1	0.18	DV
95-63-6	1,2,4-trimethylbenzene	0.37 U	0.37 U	ug/l	TRG	N	1	0.37	DV
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.35 U	0.35 U	ug/l	TRG	N	5	0.35	DV
106-93-4	1,2-dibromoethane	0.16 U	0.16 U	ug/l	TRG	N	1	0.16	DV
95-50-1	1,2-dichlorobenzene	0.11 U	0.11 U	ug/l	TRG	N	1	0.11	DV
*** 107-06-2	1,2-dichloroethane	0.206 U	0.206 J	ug/l	TRG	N	1	0.12	DV
78-87-5	1,2-dichloropropane	0.18 U	0.18 U	ug/l	TRG	N	1	0.18	DV
108-67-8	1,3,5-trimethylbenzene	0.14 U	0.14 U	ug/l	TRG	N	1	0.14	DV
541-73-1	1,3-dichlorobenzene	0.16 U	0.16 U	ug/l	TRG	N	1	0.16	DV
142-28-9	1,3-dichloropropane	0.19 U	0.19 U	ug/l	TRG	N	1	0.19	DV
106-46-7	1,4-dichlorobenzene	0.1 U	0.1 U	ug/l	TRG	N	1	0.1	DV
594-20-7	2,2-dichloropropane	0.19 U	0.19 U	ug/l	TRG	N	1	0.19	DV
78-93-3	2-butanone	3.4 U	3.4 U	ug/l	TRG	N	10	3.4	DV
95-49-8	2-chlorotoluene	0.22 U	0.22 U	ug/l	TRG	N	1	0.22	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10	2.83	DV
106-43-4	4-chlorotoluene	0.17 U	0.17 U	ug/l	TRG	N	1	0.17	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10	5.59	DV
71-43-2	Benzene	0.09 U	0.09 U	ug/l	TRG	N	1	0.09	DV
108-86-1	Bromobenzene	0.11 U	0.11 U	ug/l	TRG	N	1	0.11	DV
75-27-4	Bromodichloromethane	0.09 U	0.09 U	ug/l	TRG	N	1	0.09	DV
74-83-9	Bromomethane	0.37 U	0.37 U	ug/l	TRG	N	1	0.37	DV
104-51-8	Butylbenzene,n-	0.08 U	0.08 U	ug/l	TRG	N	1	0.08	DV
75-15-0	Carbon Disulfide	0.17 U	0.17 U	ug/l	TRG	N	1	0.17	DV
56-23-5	Carbon Tetrachloride	0.1 U	0.1 U	ug/l	TRG	N	1	0.1	DV
108-90-7	Chlorobenzene	0.07 U	0.07 U	ug/l	TRG	N	1	0.07	DV
74-97-5	Chlorobromomethane	0.12 U	0.12 U	ug/l	TRG	N	1	0.12	DV
124-48-1	Chlorodibromomethane	0.09 U	0.09 U	ug/l	TRG	N	1	0.09	DV
75-00-3	Chloroethane	0.3 U	0.3 U	ug/l	TRG	N	1	0.3	DV
67-66-3	Chloroform	0.21 U	0.21 U	ug/l	TRG	N	1	0.21	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.22 U	0.22 U	ug/l	TRG	N	1	0.22	DV
10061-01-5	Cis-1,3-dichloropropene	0.16 U	0.16 U	ug/l	TRG	N	1	0.16	DV
74-95-3	Dibromomethane	0.24 U	0.24 U	ug/l	TRG	N	1	0.24	DV
75-71-8	Dichlorodifluoromethane	0.26 U	0.26 U	ug/l	TRG	N	1	0.26	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5	2.63	DV
100-41-4	Ethylbenzene	0.12 U	0.12 U	ug/l	TRG	N	1	0.12	DV
87-68-3	Hexachloro-1,3-butadiene	0.18 U	0.18 U	ug/l	TRG	N	1	0.18	DV
98-82-8	Isopropylbenzene	0.08 U	0.08 U	ug/l	TRG	N	1	0.08	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01289

AR 024260





Sample/Test/Result plus Lab QA/QC in EQUIS DB for Selected COC

4/26/00 8:49:43 AM

POSAV00922 Sample Date Range: 3/15/00-3/15/00

IWSLG_MWE04031500N										
Type: Normal Environmental S Matrix: WG Method: SW8260 Valid.										
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
91-20-3	Naphthalene	0.3 U	0.3 U	ug/l	TRG	N	1	0.3	DV	
95-47-6	O-xylene	0.29 U	0.29 U	ug/l	TRG	N	1	0.29	DV	
99-87-6	P-isopropyltoluene	0.14 U	0.14 U	ug/l	TRG	N	1	0.14	DV	
103-65-1	Propylbenzene,n-	0.1 U	0.1 U	ug/l	TRG	N	1	0.1	DV	
135-98-8	Sec-butylbenzene	0.13 U	0.13 U	ug/l	TRG	N	1	0.13	DV	
100-42-5	Styrene (monomer)	0.14 U	0.14 U	ug/l	TRG	N	1	0.14	DV	
98-06-6	Tert-butylbenzene	0.1 U	0.1 U	ug/l	TRG	N	1	0.1	DV	
127-18-4	Tetrachloroethene	0.28 U	0.28 U	ug/l	TRG	N	1	0.28	DV	
108-88-3	Toluene (methylbenzene)	0.18 U	0.18 U	ug/l	TRG	N	1	0.18	DV	
156-60-5	Trans-1,2-dichloroethene	0.23 U	0.23 U	ug/l	TRG	N	1	0.23	DV	
10061-02-6	Trans-1,3-dichloropropene	0.07 U	0.07 U	ug/l	TRG	N	1	0.07	DV	
75-25-2	Tribromomethane	0.21 U	0.21 U	ug/l	TRG	N	1	0.21	DV	
79-01-6	Trichloroethylene	0.14 U	0.14 U	ug/l	TRG	N	1	0.14	DV	
75-69-4	Trichlorofluoromethane	0.17 U	0.17 U	ug/l	TRG	N	1	0.17	DV	
75-01-4	Vinyl Chloride	0.26 U	0.26 U	ug/l	TRG	N	1	0.26	DV	
XYLENE	Xylene, P-, M-	0.72 U	0.72 U	ug/l	TRG	N	2	0.72	DV	
17060-07-0	1,2-dichloroethane-d4	41.5	41.5	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	38.6	38.6	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	40.4	40.4	ug/l	SUR	Y			DV	
IWSLG_MWE05031500N										
Type: Normal Environmental S Matrix: WG Method: NWTPH-Dx Valid.										
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
PHCJ	Phc As Jet Fuels	0.25 U	0.25 U	mg/l	TRG	N	0.25	0.25	DV	
321-60-8	2-fluorobiphenyl	0.264	0.264	mg/l	SUR	Y			DV	
IWSLG_MWE05031500N										
Type: Normal Environmental S Matrix: WG Method: SW8015 Valid.										
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
107-21-1	Ethylene Glycol	20 U	20 U	mg/l	TRG	N	20	20	DV	
57-55-6	Propylene Glycol	20 U	20 U	mg/l	TRG	N	20	20	DV	
5343-92-0	1,2-Pentanediol	193	193	mg/l	SUR	Y			DV	
IWSLG_MWE05031500N										
Type: Normal Environmental S Matrix: WG Method: SW8260 Valid.										
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
630-20-6	1,1,1,2-tetrachloroethane	0.2 U	0.2 U	ug/l	TRG	N	1	0.2	DV	
71-55-6	1,1,1-trichloroethane	0.486 J	0.486 J	ug/l	TRG	TR	1	0.16	DV	
79-34-5	1,1,2,2-tetrachloroethane	0.41 U	0.41 U	ug/l	TRG	N	1	0.41	DV	
79-00-5	1,1,2-trichloroethane	0.19 U	0.19 U	ug/l	TRG	N	1	0.19	DV	
75-34-3	1,1-dichloroethane	0.22 U	0.22 U	ug/l	TRG	N	1	0.22	DV	
75-35-4	1,1-dichloroethylene	0.21 U	0.21 U	ug/l	TRG	N	1	0.21	DV	
563-58-6	1,1-dichloropropylene	0.16 U	0.16 U	ug/l	TRG	N	1	0.16	DV	
87-61-6	1,2,3-trichlorobenzene	0.23 U	0.23 U	ug/l	TRG	N	1	0.23	DV	
96-18-4	1,2,3-trichloropropane	0.42 U	0.42 U	ug/l	TRG	N	1	0.42	DV	
120-82-1	1,2,4-trichlorobenzene	0.18 U	0.18 U	ug/l	TRG	N	1	0.18	DV	
95-63-6	1,2,4-trimethylbenzene	0.37 U	0.37 U	ug/l	TRG	N	1	0.37	DV	
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.35 U	0.35 U	ug/l	TRG	N	5	0.35	DV	
106-93-4	1,2-dibromoethane	0.16 U	0.16 U	ug/l	TRG	N	1	0.16	DV	
95-50-1	1,2-dichlorobenzene	0.11 U	0.11 U	ug/l	TRG	N	1	0.11	DV	
*** 107-06-2	1,2-dichloroethane	0.214 U	0.214 J	ug/l	TRG	N	1	0.12	DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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STRUNK 01290

AR 024261



IWSLG_MWE05031500N		Type: Normal Environmental S Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
78-87-5	1,2-dichloropropane	0.18 U	0.18 U	ug/l	TRG	N	1	0.18	DV
108-67-8	1,3,5-trimethylbenzene	0.14 U	0.14 U	ug/l	TRG	N	1	0.14	DV
541-73-1	1,3-dichlorobenzene	0.16 U	0.16 U	ug/l	TRG	N	1	0.16	DV
142-28-9	1,3-dichloropropane	0.19 U	0.19 U	ug/l	TRG	N	1	0.19	DV
106-46-7	1,4-dichlorobenzene	0.1 U	0.1 U	ug/l	TRG	N	1	0.1	DV
594-20-7	2,2-dichloropropane	0.19 U	0.19 U	ug/l	TRG	N	1	0.19	DV
78-93-3	2-butanone	3.4 U	3.4 U	ug/l	TRG	N	10	3.4	DV
95-49-8	2-chlorotoluene	0.22 U	0.22 U	ug/l	TRG	N	1	0.22	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10	2.83	DV
106-43-4	4-chlorotoluene	0.17 U	0.17 U	ug/l	TRG	N	1	0.17	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10	5.59	DV
71-43-2	Benzene	0.09 U	0.09 U	ug/l	TRG	N	1	0.09	DV
108-86-1	Bromobenzene	0.11 U	0.11 U	ug/l	TRG	N	1	0.11	DV
75-27-4	Bromodichloromethane	0.09 U	0.09 U	ug/l	TRG	N	1	0.09	DV
74-83-9	Bromomethane	0.37 U	0.37 U	ug/l	TRG	N	1	0.37	DV
104-51-8	Butylbenzene,n-	0.08 U	0.08 U	ug/l	TRG	N	1	0.08	DV
75-15-0	Carbon Disulfide	0.17 U	0.17 U	ug/l	TRG	N	1	0.17	DV
56-23-5	Carbon Tetrachloride	0.1 U	0.1 U	ug/l	TRG	N	1	0.1	DV
108-90-7	Chlorobenzene	0.07 U	0.07 U	ug/l	TRG	N	1	0.07	DV
74-97-5	Chlorobromomethane	0.12 U	0.12 U	ug/l	TRG	N	1	0.12	DV
124-48-1	Chlorodibromomethane	0.09 U	0.09 U	ug/l	TRG	N	1	0.09	DV
75-00-3	Chloroethane	0.3 U	0.3 U	ug/l	TRG	N	1	0.3	DV
67-66-3	Chloroform	0.21 U	0.21 U	ug/l	TRG	N	1	0.21	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.22 U	0.22 U	ug/l	TRG	N	1	0.22	DV
10061-01-5	Cis-1,3-dichloropropene	0.16 U	0.16 U	ug/l	TRG	N	1	0.16	DV
74-95-3	Dibromomethane	0.24 U	0.24 U	ug/l	TRG	N	1	0.24	DV
75-71-8	Dichlorodifluoromethane	0.26 U	0.26 U	ug/l	TRG	N	1	0.26	DV
75-09-2	Dichloromethane	2.63 U	2.63 U	ug/l	TRG	N	5	2.63	DV
100-41-4	Ethylbenzene	0.12 U	0.12 U	ug/l	TRG	N	1	0.12	DV
87-68-3	Hexachloro-1,3-butadiene	0.18 U	0.18 U	ug/l	TRG	N	1	0.18	DV
98-82-8	Isopropylbenzene	0.08 U	0.08 U	ug/l	TRG	N	1	0.08	DV
91-20-3	Naphthalene	0.3 U	0.3 U	ug/l	TRG	N	1	0.3	DV
95-47-6	O-xylene	0.29 U	0.29 U	ug/l	TRG	N	1	0.29	DV
99-87-6	P-isopropyltoluene	0.14 U	0.14 U	ug/l	TRG	N	1	0.14	DV
103-65-1	Propylbenzene,n-	0.1 U	0.1 U	ug/l	TRG	N	1	0.1	DV
135-98-8	Sec-butylbenzene	0.13 U	0.13 U	ug/l	TRG	N	1	0.13	DV
100-42-5	Styrene (monomer)	0.14 U	0.14 U	ug/l	TRG	N	1	0.14	DV
98-06-6	Tert-butylbenzene	0.1 U	0.1 U	ug/l	TRG	N	1	0.1	DV
127-18-4	Tetrachloroethene	0.28 U	0.28 U	ug/l	TRG	N	1	0.28	DV
108-88-3	Toluene (methylbenzene)	0.18 U	0.18 U	ug/l	TRG	N	1	0.18	DV
156-60-5	Trans-1,2-dichloroethene	0.23 U	0.23 U	ug/l	TRG	N	1	0.23	DV
10061-02-6	Trans-1,3-dichloropropene	0.07 U	0.07 U	ug/l	TRG	N	1	0.07	DV
75-25-2	Tribromomethane	0.21 U	0.21 U	ug/l	TRG	N	1	0.21	DV

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

STRUNK 01291

AR 024262



IWSLG_MWE05031500N										
Type: Normal Environmental S			Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
79-01-6	Trichloroethylene	0.14 U	0.14 U	ug/l	TRG	N	1	0.14	DV	
75-69-4	Trichlorofluoromethane	0.17 U	0.17 U	ug/l	TRG	N	1	0.17	DV	
75-01-4	Vinyl Chloride	0.26 U	0.26 U	ug/l	TRG	N	1	0.26	DV	
XYLENE	Xylene, P-, M-	0.72 U	0.72 U	ug/l	TRG	N	2	0.72	DV	
17060-07-0	1,2-dichloroethane-d4	42.5	42.5	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	39.6	39.6	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	38.3	38.3	ug/l	SUR	Y			DV	
IWSLG_MWE04031500LR										
Type: Lab Replicate			Matrix: WG			Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
107-21-1	Ethylene Glycol	20 U	20 U	mg/l	TRG	N	20	20	DV	
57-55-6	Propylene Glycol	20 U	20 U	mg/l	TRG	N	20	20	DV	
5343-92-0	1,2-Pentanediol	212	212	mg/l	SUR	Y			DV	
IWSLG_MWE04031500MS										
Type: Lab Matrix Spike			Matrix: WG			Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
5343-92-0	1,2-Pentanediol	186	186	mg/l	SUR	Y			DV	
107-21-1	Ethylene Glycol	187	187	mg/l	SC	Y	20	20	DV	
57-55-6	Propylene Glycol	186	186	mg/l	SC	Y	20	20	DV	
0300565-BLK1										
Type: Method Blank			Matrix: WG			Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
107-21-1	Ethylene Glycol	20 U	20 U	mg/l	TRG	N	20	20	DV	
57-55-6	Propylene Glycol	20 U	20 U	mg/l	TRG	N	20	20	DV	
5343-92-0	1,2-Pentanediol	179	179	mg/l	SUR	Y			DV	
0300565-BS1										
Type: Blank Spike			Matrix: WG			Method: SW8015			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
5343-92-0	1,2-Pentanediol	190	190	mg/l	SUR	Y			DV	
107-21-1	Ethylene Glycol	182	182	mg/l	SC	Y	20	20	DV	
57-55-6	Propylene Glycol	182	182	mg/l	SC	Y	20	20	DV	
0C17011-BLK1										
Type: Method Blank			Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
630-20-6	1,1,1,2-tetrachloroethane	0.2 U	0.2 U	ug/l	TRG	N	1	0.2	DV	
71-55-6	1,1,1-trichloroethane	0.16 U	0.16 U	ug/l	TRG	N	1	0.16	DV	
79-34-5	1,1,2,2-tetrachloroethane	0.41 U	0.41 U	ug/l	TRG	N	1	0.41	DV	
79-00-5	1,1,2-trichloroethane	0.19 U	0.19 U	ug/l	TRG	N	1	0.19	DV	
75-34-3	1,1-dichloroethane	0.22 U	0.22 U	ug/l	TRG	N	1	0.22	DV	
75-35-4	1,1-dichloroethylene	0.21 U	0.21 U	ug/l	TRG	N	1	0.21	DV	
563-58-6	1,1-dichloropropylene	0.16 U	0.16 U	ug/l	TRG	N	1	0.16	DV	
87-61-6	1,2,3-trichlorobenzene	0.23 U	0.23 U	ug/l	TRG	N	1	0.23	DV	
96-18-4	1,2,3-trichloropropane	0.42 U	0.42 U	ug/l	TRG	N	1	0.42	DV	
120-82-1	1,2,4-trichlorobenzene	0.18 U	0.18 U	ug/l	TRG	N	1	0.18	DV	
95-63-6	1,2,4-trimethylbenzene	0.37 U	0.37 U	ug/l	TRG	N	1	0.37	DV	
96-12-8	1,2-dibromo-3-chloropropane (dbc)	0.35 U	0.35 U	ug/l	TRG	N	5	0.35	DV	
106-93-4	1,2-dibromoethane	0.16 U	0.16 U	ug/l	TRG	N	1	0.16	DV	
95-50-1	1,2-dichlorobenzene	0.11 U	0.11 U	ug/l	TRG	N	1	0.11	DV	
107-06-2	1,2-dichloroethane	0.184 J	0.184 J	ug/l	TRG	TR	1	0.12	DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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EMIS

POSAV00922 Sample Date Range: 3/15/00-3/15/00

0C17011-BLK1		Type: Method Blank	Matrix: WG		Method: SW8260				Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status
78-87-5	1,2-dichloropropane	0.18 U	0.18 U	ug/l	TRG	N	1	0.18	DV
108-67-8	1,3,5-trimethylbenzene	0.14 U	0.14 U	ug/l	TRG	N	1	0.14	DV
541-73-1	1,3-dichlorobenzene	0.16 U	0.16 U	ug/l	TRG	N	1	0.16	DV
142-28-9	1,3-dichloropropane	0.19 U	0.19 U	ug/l	TRG	N	1	0.19	DV
106-46-7	1,4-dichlorobenzene	0.1 U	0.1 U	ug/l	TRG	N	1	0.1	DV
594-20-7	2,2-dichloropropane	0.19 U	0.19 U	ug/l	TRG	N	1	0.19	DV
78-93-3	2-butanone	3.4 U	3.4 U	ug/l	TRG	N	10	3.4	DV
95-49-8	2-chlorotoluene	0.22 U	0.22 U	ug/l	TRG	N	1	0.22	DV
591-78-6	2-hexanone	2.83 U	2.83 U	ug/l	TRG	N	10	2.83	DV
106-43-4	4-chlorotoluene	0.17 U	0.17 U	ug/l	TRG	N	1	0.17	DV
108-10-1	4-methyl-2-pentanone	3.78 U	3.78 U	ug/l	TRG	N	10	3.78	DV
67-64-1	Acetone	5.59 U	5.59 U	ug/l	TRG	N	10	5.59	DV
107-02-8	Acrolein	5.59 U	5.59 U	ug/l	TRG	N	10	5.59	DV
71-43-2	Benzene	0.09 U	0.09 U	ug/l	TRG	N	1	0.09	DV
108-86-1	Bromobenzene	0.11 U	0.11 U	ug/l	TRG	N	1	0.11	DV
75-27-4	Bromodichloromethane	0.09 U	0.09 U	ug/l	TRG	N	1	0.09	DV
74-83-9	Bromomethane	0.37 U	0.37 U	ug/l	TRG	N	1	0.37	DV
104-51-8	Butylbenzene,n-	0.08 U	0.08 U	ug/l	TRG	N	1	0.08	DV
75-15-0	Carbon Disulfide	0.17 U	0.17 U	ug/l	TRG	N	1	0.17	DV
56-23-5	Carbon Tetrachloride	0.1 U	0.1 U	ug/l	TRG	N	1	0.1	DV
108-90-7	Chlorobenzene	0.07 U	0.07 U	ug/l	TRG	N	1	0.07	DV
74-97-5	Chlorobromomethane	0.12 U	0.12 U	ug/l	TRG	N	1	0.12	DV
124-48-1	Chlorodibromomethane	0.09 U	0.09 U	ug/l	TRG	N	1	0.09	DV
75-00-3	Chloroethane	0.3 U	0.3 U	ug/l	TRG	N	1	0.3	DV
67-66-3	Chloroform	0.21 U	0.21 U	ug/l	TRG	N	1	0.21	DV
74-87-3	Chloromethane	2.35 U	2.35 U	ug/l	TRG	N	5	2.35	DV
156-59-2	Cis-1,2-dichloroethene	0.22 U	0.22 U	ug/l	TRG	N	1	0.22	DV
10061-01-5	Cis-1,3-dichloropropene	0.16 U	0.16 U	ug/l	TRG	N	1	0.16	DV
74-95-3	Dibromomethane	0.24 U	0.24 U	ug/l	TRG	N	1	0.24	DV
75-71-8	Dichlorodifluoromethane	0.26 U	0.26 U	ug/l	TRG	N	1	0.26	DV
75-09-2	Dichloromethane	3.39 J	3.39 J	ug/l	TRG	TR	5	2.63	DV
100-41-4	Ethylbenzene	0.12 U	0.12 U	ug/l	TRG	N	1	0.12	DV
87-68-3	Hexachloro-1,3-butadiene	0.18 U	0.18 U	ug/l	TRG	N	1	0.18	DV
98-82-8	Isopropylbenzene	0.08 U	0.08 U	ug/l	TRG	N	1	0.08	DV
74-88-4	Methyl Iodide	0.18 U	0.18 U	ug/l	TRG	N	1	0.18	DV
91-20-3	Naphthalene	0.3 U	0.3 U	ug/l	TRG	N	1	0.3	DV
95-47-6	O-xylene	0.29 U	0.29 U	ug/l	TRG	N	1	0.29	DV
99-87-6	P-isopropyltoluene	0.14 U	0.14 U	ug/l	TRG	N	1	0.14	DV
103-65-1	Propylbenzene,n-	0.1 U	0.1 U	ug/l	TRG	N	1	0.1	DV
135-98-8	Sec-butylbenzene	0.13 U	0.13 U	ug/l	TRG	N	1	0.13	DV
100-42-5	Styrene (monomer)	0.14 U	0.14 U	ug/l	TRG	N	1	0.14	DV
98-06-6	Tert-butylbenzene	0.1 U	0.1 U	ug/l	TRG	N	1	0.1	DV
127-18-4	Tetrachloroethene	0.28 U	0.28 U	ug/l	TRG	N	1	0.28	DV
108-88-3	Toluene (methylbenzene)	0.18 U	0.18 U	ug/l	TRG	N	1	0.18	DV
156-60-5	Trans-1,2-dichloroethene	0.23 U	0.23 U	ug/l	TRG	N	1	0.23	DV

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STRUNK 01293

AR 024264



0C17011-BLK1										
Type: Method Blank			Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
10061-02-6	Trans-1,3-dichloropropene	0.07 U	0.07 U	ug/l	TRG	N	1	0.07	DV	
110-57-6	Trans-1,4-dichlorobutene	0.07 U	0.07 U	ug/l	TRG	N	1	0.07	DV	
75-25-2	Tribromomethane	0.21 U	0.21 U	ug/l	TRG	N	1	0.21	DV	
79-01-6	Trichloroethylene	0.14 U	0.14 U	ug/l	TRG	N	1	0.14	DV	
75-69-4	Trichlorofluoromethane	0.17 U	0.17 U	ug/l	TRG	N	1	0.17	DV	
108-05-4	Vinyl Acetate	0.17 U	0.17 U	ug/l	TRG	N	1	0.17	DV	
75-01-4	Vinyl Chloride	0.26 U	0.26 U	ug/l	TRG	N	1	0.26	DV	
XYLENE	Xylene, P-, M-	0.72 U	0.72 U	ug/l	TRG	N	2	0.72	DV	
17060-07-0	1,2-dichloroethane-d4	42.4	42.4	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	40.2	40.2	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	40.4	40.4	ug/l	SUR	Y			DV	
0C17011-BLK2										
Type: Method Blank			Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
107-02-8	Acrolein	5.59 U	5.59 U	ug/l	TRG	N	10	5.59	DV	
17060-07-0	1,2-dichloroethane-d4	39.7	39.7	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	40.4	40.4	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	40.3	40.3	ug/l	SUR	Y			DV	
0C17011-BLK3										
Type: Method Blank			Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
107-02-8	Acrolein	5.59 U	5.59 U	ug/l	TRG	N	10	5.59	DV	
17060-07-0	1,2-dichloroethane-d4	40.6	40.6	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	40.4	40.4	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	40.4	40.4	ug/l	SUR	Y			DV	
0C17011-BS1										
Type: Blank Spike			Matrix: WG			Method: SW8260			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
17060-07-0	1,2-dichloroethane-d4	43.5	43.5	ug/l	SUR	Y			DV	
460-00-4	Bromofluorobenzene	38.6	38.6	ug/l	SUR	Y			DV	
2037-26-5	Toluene-d8	38.4	38.4	ug/l	SUR	Y			DV	
75-35-4	1,1-dichloroethylene	23.8	23.8	ug/l	SC	Y	1	0.21	DV	
71-43-2	Benzene	21.6	21.6	ug/l	SC	Y	1	0.09	DV	
108-90-7	Chlorobenzene	20.8	20.8	ug/l	SC	Y	1	0.07	DV	
108-88-3	Toluene (methylbenzene)	20.6	20.6	ug/l	SC	Y	1	0.18	DV	
79-01-6	Trichloroethylene	20	20	ug/l	SC	Y	1	0.14	DV	
0C21005-BLK1										
Type: Method Blank			Matrix: WG			Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
PHCJ	Phc As Jet Fuels	0.25 U	0.25 U	mg/l	TRG	N	0.25	0.25	DV	
321-60-8	2-fluorobiphenyl	0.206	0.206	mg/l	SUR	Y			DV	
0C21005-BS1										
Type: Blank Spike			Matrix: WG			Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
321-60-8	2-fluorobiphenyl	0.263	0.263	mg/l	SUR	Y			DV	
PHCD	Phc As Diesel Fuel	1.58	1.58	mg/l	SC	Y	0.25	0.25	DV	
0C21005-BSD1										
Type: Blank Spike Duplicate			Matrix: WG			Method: NWTPH-Dx			Valid.	
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL	MDL	Status	
321-60-8	2-fluorobiphenyl	0.0665	0.0665	mg/l	SUR	Y			DV	

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

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0C21005-BSD1		Type: Blank Spike Duplicate	Matrix: WG	Method: NWTPH-Dx			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
PHCD	Phc As Diesel Fuel	0.552	0.552	mg/l	SC	Y	0.25 0.25 DV

B0C0217-03-MS1		Type: Lab Matrix Spike	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
17060-07-0	1,2-dichloroethane-d4	40.8	40.8	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	37.9	37.9	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	37.1	37.1	ug/l	SUR	Y	DV
75-35-4	1,1-dichloroethylene	21.7	21.7	ug/l	SC	Y	1 0.21 DV
71-43-2	Benzene	20.3	20.3	ug/l	SC	Y	1 0.09 DV
108-90-7	Chlorobenzene	20.5	20.5	ug/l	SC	Y	1 0.07 DV
108-88-3	Toluene (methylbenzene)	19.3	19.3	ug/l	SC	Y	1 0.18 DV
79-01-6	Trichloroethylene	24	24	ug/l	SC	Y	1 0.14 DV

B0C0217-03-MSD1		Type: Lab Matrix Spike Duplic	Matrix: WG	Method: SW8260			Valid.
CAS	Chemical	FINAL: Val/Qual	LAB:Val/Qual	Unit	Reslt Type	Detect Flag	RDL MDL Status
17060-07-0	1,2-dichloroethane-d4	42.2	42.2	ug/l	SUR	Y	DV
460-00-4	Bromofluorobenzene	38.8	38.8	ug/l	SUR	Y	DV
2037-26-5	Toluene-d8	38.7	38.7	ug/l	SUR	Y	DV
75-35-4	1,1-dichloroethylene	21.6	21.6	ug/l	SC	Y	1 0.21 DV
71-43-2	Benzene	21.6	21.6	ug/l	SC	Y	1 0.09 DV
108-90-7	Chlorobenzene	20.5	20.5	ug/l	SC	Y	1 0.07 DV
108-88-3	Toluene (methylbenzene)	19.4	19.4	ug/l	SC	Y	1 0.18 DV
79-01-6	Trichloroethylene	25.2	25.2	ug/l	SC	Y	1 0.14 DV

Footnotes and Abbreviation

Result Type

- IS Internal Standards.
- SC Spiked Compounds.
- SUR Surrogates.
- TIC Tentatively Identified Compound.
- TRG Target, regular result.

Final Qualifiers:

- J Estimated value.
- U Analyte was analyzed for but not detected.
- U Compound was analyzed but not detected.

ValidationStatus:

- DV Validated
- NV Not Validated
- PV PreValidated
- UV Unknown Validation Status

\*\*\*Indicates Data Validation Changes. See last page for footnotes, abbreviations key, etc.

# Sayler Data Solutions

## DATA VALIDATION REPORT

### *IWS Hydrogeologic Study – Round 1*



Prepared for:  
Associated Earth Sciences, Inc.  
179 Madrone Lane North  
Bainbridge Island, Washington 98110

February 22, 2000

#### 1.0 Introduction

Quarterly monitoring samples were collected on June 3, 1999. Analyses were performed by North Creek Analytical Laboratory in Bothell, Washington. Samples were assigned laboratory batch number B906099. Data is presented in a laboratory report dated January 14, 2000.

A summary evaluation was performed on the analytical results. Evaluation was performed by Cari Sayler. Numeric quality control criteria for the requirements listed below are presented in the quality control sections of the laboratory file. Data qualifiers are assigned based only on the criteria reviewed and do not include calibration or instrument performance issues unless noted in the laboratory case narrative. Data qualifiers are summarized in section 5.0 of this report.

In the following report, a checked box () indicates that the data requirement was met; and an empty box () indicates that a discussion of the data requirement follows. The data may or may not be qualified.

#### 2.0 Volatile Organic Analyses

Analyses were performed by EPA Method 8260B. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Analysis holding times
- Laboratory blank contamination
- Field blank contamination
- Surrogate recoveries

STRUNK 01296

- Matrix spike (MS) and laboratory control sample (LCS) recoveries
- Matrix spike duplicate (MSD) relative percent differences (RPDs)
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times.

1,1,2,2-Tetrachloroethane, 1,2,3-trichloropropane, and 1,2-dibromo-3-chloropropane were detected in the method blank at levels below the reporting limit. These compounds were not detected in any associated samples are no qualifiers are necessary. Napthalene was detected in the method blank at a level below the reporting limit. Low levels of napthalene were also detected in samples IWSLG\_MW106060299N and IWSLG\_MW107060299N. These results should be considered not detected and are qualified "U".

Carbon disulfide and methylene chloride, common laboratory contaminants, were detected in the trip blank. Concentrations in associated samples are within 10 times the trip blank concentrations and should be considered not detected These results are qualified "U".

Dichlorodifluoromethane, also a laboratory contaminant was not detected in laboratory or field blanks, but was detected at low levels in 5 of the samples. These results are qualified "B" for possible lab contamination.

All surrogate recoveries were within acceptable recovery limits. All LCS recoveries were within the acceptable range. All MS/MSD recoveries were within control limits. The MSD relative percent differences (RPDs) were within applicable limits. With the exception of carbon disulfide discussed above, no compounds were detected in the field duplicate or its associated sample.

Volatile data qualifiers are summarized in section 5.0 of this report.

### 3.0 Petroleum Hydrocarbon Analyses

Analyses were performed by WA DOE Method NW-TPH-Dx. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Preparation and analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- LCS and laboratory control sample duplicate (LCSD) recoveries
- LCSD RPDs
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times. No blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All LCS/LCSD recoveries were within the acceptable range. The



LCSD relative percent differences (RPDs) were within applicable limits. Petroleum hydrocarbons were not detected in the field duplicate or its associated sample.

Petroleum hydrocarbon data are acceptable as reported and no data qualifiers are assigned.

#### 4.0 Glycol Analyses

Analyses were performed by GC/FID. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Preparation and analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- MS and LCS recoveries
- Sample duplicate variability
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times. No blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All MS and LCS recoveries were within the acceptable range. Sample duplicate results were within acceptable limits. No compounds were detected in the field duplicate or its associated sample.

Glycol data are acceptable as reported and no data qualifiers are assigned.

#### 5.0 Qualifier Summary Table

Sample ID	Analyte	DV Qualifier
IWSLG MW105060299N	Carbon Disulfide	U
IWSLG MW106060299N	Carbon Disulfide	U
IWSLG MW107060299N	Carbon Disulfide	U
IWSLG MWEO7060299FD	Carbon Disulfide	U
IWSLG MWEO7060299N	Carbon Disulfide	U
IWSLG MWEO8060299N	Carbon Disulfide	U
IWSLG MW106060299N	Dichlorodifluoromethane	B
IWSLG MWEO4060299N	Dichlorodifluoromethane	B
IWSLG MWEO5060299N	Dichlorodifluoromethane	B
IWSLG MWEO8060299N	Dichlorodifluoromethane	B
IWSLG MWEO9060299	Dichlorodifluoromethane	B
IWSLG 108060299N	Dichloromethane	U
IWSLG MW105060299FD	Dichloromethane	U
IWSLG MW105060299N	Dichloromethane	U
IWSLG MW106060299N	Dichloromethane	U
IWSLG MW107060299N	Dichloromethane	U
IWSLG MWEO4060299N	Dichloromethane	U

Sample ID	Analyte	DV Qualifier
IWSLG MWEO5060299N	Dichloromethane	U
IWSLG MWEO7060299FD	Dichloromethane	U
IWSLG MWEO7060299N	Dichloromethane	U
IWSLG MWEO8060299N	Dichloromethane	U
IWSLG MWEO9060299	Dichloromethane	U
IWSLG MW106060299N	Naphthalene	U
IWSLG MW107060299N	Naphthalene	U

## 6.0 Abbreviations and Definitions

<u>DV Qualifier</u>	<u>Definition</u>
B	Suspected laboratory contamination.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample reporting limit or the amount of contaminant detected in the sample.
J	The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
UJ	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The sample result is rejected. The presence or absence of the analyte cannot be verified and data are not usable.

<u>Abbreviation</u>	<u>Definition</u>
DV	Data Validation
LCS	Laboratory control sample
LCSD	Laboratory control sample duplicate
MS	Matrix spike
MSD	Matrix spike duplicate
RPD	Relative percent difference
Surr	Surrogate

## 7.0 References

*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, February 1994, EPA540/R-94/012.

# Sayler Data Solutions

## DATA VALIDATION REPORT

### *IWS Hydrogeologic Study - Round 1 Background*



Prepared for:  
Associated Earth Sciences, Inc.  
179 Madrone Lane North  
Bainbridge Island, Washington 98110

February 22, 2000

#### 1.0 Introduction

Quarterly monitoring samples were collected on June 29, 1999. Analyses were performed by North Creek Analytical Laboratory in Bothell, Washington. Samples were assigned laboratory batch number B906722. Data is presented in a laboratory report dated January 14, 2000.

A summary evaluation was performed on the analytical results. Evaluation was performed by Cari Sayler. Numeric quality control criteria for the requirements listed below are presented in the quality control sections of the laboratory file. Data qualifiers are assigned based only on the criteria reviewed and do not include calibration or instrument performance issues unless noted in the laboratory case narrative.

In the following report, a checked box () indicates that the data requirement was met; and an empty box () indicates that a discussion of the data requirement follows. The data may or may not be qualified.

#### 2.0 Volatile Organic Analyses

Analyses were performed by EPA Method 8260B. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Analysis holding times
- Laboratory blank contamination
- Field blank contamination
- Surrogate recoveries

- Matrix spike (MS) and laboratory control sample (LCS) recoveries
- Matrix spike duplicate (MSD) relative percent differences (RPDs)
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times.

Methylene chloride was detected in the method blanks at levels below the reporting limit. No methylene chloride was detected in the samples and no qualifiers are necessary. No other compounds were detected in the laboratory or trip blanks.

The surrogate recoveries of 2-Bromopropene (128–129%) were above the control limit of 80 to 120% in all samples. In each sample, the other three surrogate recoveries were within control limits and no qualifiers are assigned.

All LCS recoveries were within the acceptable range. Trichloroethene recoveries in the MSD (79%) were slightly below the control limit of 80 – 120 % and no qualifiers are assigned. All other MS/MSD recoveries were within control limits. The MSD relative percent differences (RPDs) were within applicable limits. Field duplicate variability was within the expected range.

Volatile data are acceptable as reported and no qualifiers are assigned.

### **3.0 Petroleum Hydrocarbon Analyses**

Analyses were performed by WA DOE Method NW-TPH-Dx. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Preparation and analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- LCS and laboratory control sample duplicate (LCSD) recoveries
- LCSD RPDs
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times. No blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All LCS/LCSD recoveries were within the acceptable range. The LCSD relative percent differences (RPDs) were within applicable limits. Field duplicate variability was within the expected range.

Petroleum hydrocarbon data are acceptable as reported and no qualifiers are assigned.

#### 4.0 Glycol Analyses

Analyses were performed by GC/FID. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Preparation and analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- MS and LCS recoveries
- Sample duplicate variability
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times. No blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All MS and LCS recoveries were within the acceptable range. Sample duplicate results were within acceptable limits. No compounds were detected in the field duplicate or its associated sample.

Glycol data are acceptable as reported and no data qualifiers are assigned.

#### 5.0 Abbreviations and Definitions

<u>DV Qualifer</u>	<u>Definition</u>
B	Suspected laboratory contamination.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample reporting limit or the amount of contaminant detected in the sample.
J	The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
UJ	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The sample result is rejected. The presence or absence of the analyte cannot be verified and data are not usable.

<u>Abbreviation</u>	<u>Definition</u>
DV	Data Validation
LCS	Laboratory control sample
LCS D	Laboratory control sample duplicate
MS	Matrix spike
MS D	Matrix spike duplicate
RPD	Relative percent difference

<u>Abbreviation</u>	<u>Definition</u>
Surr	Surrogate

## 6.0 References

*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, February 1994, EPA540/R-94/012.

# Sayler Data Solutions

## DATA VALIDATION REPORT

### *IWS Hydrogeologic Study – Round 2*



**Prepared for:**  
Associated Earth Sciences, Inc.  
179 Madrone Lane North  
Bainbridge Island, Washington 98110

February 22, 2000

### 1.0 Introduction

Quarterly monitoring samples were collected on August 16, 1999. Analyses were performed by North Creek Analytical Laboratory in Bothell, Washington. Samples were assigned laboratory batch number B908400. Data is presented in a laboratory report dated January 14, 2000

A summary evaluation was performed on the analytical results. Evaluation was performed by Cari Sayler. Numeric quality control criteria for the requirements listed below are presented in the quality control sections of the laboratory file. Data qualifiers are assigned based only on the criteria reviewed and do not include calibration or instrument performance issues unless noted in the laboratory case narrative.

In the following report, a checked box () indicates that the data requirement was met; and an empty box () indicates that a discussion of the data requirement follows. The data may or may not be qualified.

### 2.0 Volatile Organic Analyses

Analyses were performed by EPA Method 8260B. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Analysis holding times
- Laboratory blank contamination
- Field blank contamination
- Surrogate recoveries

- Matrix spike (MS) and laboratory control sample (LCS) recoveries
- Matrix spike duplicate (MSD) relative percent differences (RPDs)
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times.

Methylene chloride was detected in the trip blank at a level close to the reporting limit. No methylene chloride was detected in the samples and no qualifiers are necessary. No other compounds were detected in the laboratory or trip blanks.

The surrogate recoveries of 2-Bromopropene (121–124%) was above the control limit of 80 to 120% in 8 of the 12 samples. In each sample, the other three surrogate recoveries were within control limits and no qualifiers are assigned.

All LCS recoveries were within the acceptable range. All MS/MSD recoveries were within control limits. The MSD relative percent differences (RPDs) were within applicable limits. Field duplicate variability was within the expected range.

Volatile data are acceptable as reported and no qualifiers are assigned.

### 3.0 Petroleum Hydrocarbon Analyses

Analyses were performed by WA DOE Method NW-TPH-Dx. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Preparation and analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- LCS and laboratory control sample duplicate (LCSD) recoveries
- LCSD RPDs
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times. No blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All LCS/LCSD recoveries were within the acceptable range. The LCSD relative percent differences (RPDs) were within applicable limits. Field duplicate variability was within the expected range.

Petroleum hydrocarbon data are acceptable as reported and no qualifiers are assigned.

### 4.0 Glycol Analyses

Analyses were performed by GC/FID. The following data requirements were evaluated:



- Sample and quality control analysis frequencies
- Preparation and analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- MS and LCS recoveries
- Sample duplicate variability
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times. No blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All MS and LCS recoveries were within the acceptable range. Sample duplicate results were within acceptable limits. No compounds were detected in the field duplicate or its associated sample.

Glycol data are acceptable as reported and no qualifiers are assigned.

## 5.0 Abbreviations and Definitions

<u>DV Qualifier</u>	<u>Definition</u>
B	Suspected laboratory contamination.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample reporting limit or the amount of contaminant detected in the sample.
J	The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
UJ	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The sample result is rejected. The presence or absence of the analyte cannot be verified and data are not usable.

<u>Abbreviation</u>	<u>Definition</u>
DV	Data Validation
LCS	Laboratory control sample
LCSD	Laboratory control sample duplicate
MS	Matrix spike
MSD	Matrix spike duplicate
RPD	Relative percent difference
Surr	Surrogate

## 6.0 References

*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, February 1994, EPA540/R-94/012.

# Sayler Data Solutions

## DATA VALIDATION REPORT

### *IWS Hydrogeologic Study – Round 2 Background*



**Prepared for:**  
Associated Earth Sciences, Inc.  
179 Madrone Lane North  
Bainbridge Island, Washington 98110

February 22, 2000

#### 1.0 Introduction

Quarterly background samples were collected on September 22, 1999. Analyses were performed by North Creek Analytical Laboratory in Bothell, Washington. Samples were assigned laboratory batch number B909458. Data is presented in a laboratory report dated January 14, 2000.

A summary evaluation was performed on the analytical results. Evaluation was performed by Cari Sayler. Numeric quality control criteria for the requirements listed below are presented in the quality control sections of the laboratory file. Data qualifiers are assigned based only on the criteria reviewed and do not include calibration or instrument performance issues unless noted in the laboratory case narrative.

In the following report, a checked box () indicates that the data requirement was met; and an empty box () indicates that a discussion of the data requirement follows. The data may or may not be qualified.

#### 2.0 Volatile Organic Analyses

Analyses were performed by EPA Method 8260B. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- Matrix spike (MS) and laboratory control sample (LCS) recoveries

- Matrix spike duplicate (MSD) relative percent differences (RPDs)
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times. No blank contamination was detected. All surrogate recoveries were within acceptable recovery limits.

The LCS recovery of Benzene (122%) slightly exceeded the control limit of 80-120%. No Benzene was detected in the associated samples, and no qualifiers are assigned. All other LCS recoveries were within the acceptable range.

Trichloroethene recoveries in the MS and MSD (57% and 50%) were below the control limit of 80-120%. However, the native concentration of trichloroethene exceeded 4 times the spike amount, and control limits do not apply. Additionally, the MS/MSD analysis was not performed on samples from this project. No qualifiers are assigned.

All other MS/MSD recoveries were within control limits. The MSD relative percent differences (RPDs) were within applicable limits. Field duplicate variability was within the expected range.

Volatile data are acceptable as reported and no qualifiers are assigned.

### 3.0 Petroleum Hydrocarbon Analyses

Analyses were performed by WA DOE Method NW-TPH-Dx. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Preparation and analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- LCS and laboratory control sample duplicate (LCSD) recoveries
- LCSD RPDs
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times. No blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All LCS/LCSD recoveries were within the acceptable range. The LCSD relative percent differences (RPDs) were within applicable limits. Field duplicate variability was within the expected range.

Petroleum hydrocarbon data are acceptable as reported and no qualifiers are assigned.

#### 4.0 Glycol Analyses

Analyses were performed by GC/FID. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Preparation and analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- MS and LCS recoveries
- Sample duplicate variability
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times. No blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All MS and LCS recoveries were within the acceptable range.

Sample IWSLG\_MWE050999N was not analyzed for Glycols. Although field duplicate variability could not be evaluated, sample duplicate results were within acceptable limits and no qualifiers were assigned.

Glycol data are acceptable as reported and no qualifiers are assigned.

#### 5.0 Abbreviations and Definitions

<u>DV Qualifer</u>	<u>Definition</u>
B	Suspected laboratory contamination.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample reporting limit or the amount of contaminant detected in the sample.
J	The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
UJ	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The sample result is rejected. The presence or absence of the analyte cannot be verified and data are not usable.

<u>Abbreviation</u>	<u>Definition</u>
DV	Data Validation
LCS	Laboratory control sample
LCSD	Laboratory control sample duplicate
MS	Matrix spike
MSD	Matrix spike duplicate

<u>Abbreviation</u>	<u>Definition</u>
RPD	Relative percent difference
Surr	Surrogate

## 6.0 References

*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, February 1994, EPA540/R-94/012.

# Sayler Data Solutions

## DATA VALIDATION REPORT

### *IWS Hydrogeologic Study – Round 3*



**Prepared for:**  
Associated Earth Sciences, Inc.  
179 Madrone Lane North  
Bainbridge Island, Washington 98110

February 22, 2000

#### 1.0 Introduction

Quarterly monitoring samples were collected on November 12, 1999. Analyses were performed by North Creek Analytical Laboratory in Bothell, Washington. Samples were assigned laboratory batch number B9K0272. Data is presented in a laboratory report dated January 14, 2000.

A summary evaluation was performed on the analytical results. Evaluation was performed by Cari Sayler. Numeric quality control criteria for the requirements listed below are presented in the quality control sections of the laboratory file. Data qualifiers are assigned based only on the criteria reviewed and do not include calibration or instrument performance issues unless noted in the laboratory case narrative. Data qualifiers are summarized in section 5.0 of this report.

In the following report, a checked box () indicates that the data requirement was met; and an empty box () indicates that a discussion of the data requirement follows. The data may or may not be qualified.

#### 2.0 Volatile Organic Analyses

Analyses were performed by EPA Method 8260B. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- Matrix spike (MS) and laboratory control sample (LCS) recoveries

- Matrix spike duplicate (MSD) relative percent differences (RPDs)
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times. No blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All LCS recoveries were within the acceptable range. All MS/MSD recoveries were within control limits. The MSD relative percent differences (RPDs) were within applicable limits. Field duplicate variability was within the expected range.

Volatile data are acceptable as reported and no qualifiers are assigned.

### 3.0 Petroleum Hydrocarbon Analyses

Analyses were performed by WA DOE Method NW-TPH-Dx. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Preparation and analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- LCS and laboratory control sample duplicate (LCSD) recoveries
- LCSD RPDs
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. With the exception of the re-extraction described below, each analysis was completed within the required holding times. No blank contamination was detected.

The surrogate recovery in sample IWSLG\_MW107111099N (194%) exceeded the control limit of 50-150. The sample was re-extracted and re-analyzed with acceptable surrogate recoveries. However, the re-extraction was performed outside of holding times. The initial analysis is qualified as estimated, and the re-extraction analysis is rejected to prevent the reporting of multiple results.

All other surrogate recoveries were within acceptable recovery limits. All LCS/LCSD recoveries were within the acceptable range. The LCSD relative percent differences (RPDs) were within applicable limits. Field duplicate variability was within the expected range.

Petroleum hydrocarbon data qualifiers are summarized in section 5.0 of this report.

### 4.0 Glycol Analyses

Analyses were performed by GC/FID. The following data requirements were evaluated:

- Sample and quality control analysis frequencies



- Preparation and analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- MS and LCS recoveries
- Sample duplicate variability
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times. No blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All MS and LCS recoveries were within the acceptable range. Sample duplicate results were within acceptable limits. Field duplicate variability was within the expected range.

Glycol data are acceptable as reported and no qualifiers are assigned.

#### 5.0 Qualifier Summary Table

Sample ID	Analyte	DV Qualifier
IWSLG MW107111099N	Jet A Range Hydrocarbons	J
IWSLG MW107111099NRE	Jet A Range Hydrocarbons	R

#### 6.0 Abbreviations and Definitions

<u>DV Qualifier</u>	<u>Definition</u>
B	Suspected laboratory contamination.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample reporting limit or the amount of contaminant detected in the sample.
J	The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
UJ	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The sample result is rejected. The presence or absence of the analyte cannot be verified and data are not usable.

<u>Abbreviation</u>	<u>Definition</u>
DV	Data Validation
LCS	Laboratory control sample
LCSD	Laboratory control sample duplicate
MS	Matrix spike
MSD	Matrix spike duplicate
RPD	Relative percent difference
Surr	Surrogate

**7.0 References**

*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, February 1994, EPA540/R-94/012.

# Sayler Data Solutions

## DATA VALIDATION REPORT

### *IWS Hydrogeologic Study – Round 3 Background*



**Prepared for:**  
Associated Earth Sciences, Inc.  
179 Madrone Lane North  
Bainbridge Island, Washington 98110

February 23, 2000

#### 1.0 Introduction

Quarterly background samples were collected on December 20, 1999. Analyses were performed by North Creek Analytical Laboratory in Bothell, Washington. Samples were assigned laboratory batch number B9L0397. Data is presented in a laboratory report dated January 14, 2000.

A summary evaluation was performed on the analytical results. Evaluation was performed by Cari Sayler. Numeric quality control criteria for the requirements listed below are presented in the quality control sections of the laboratory file. Data qualifiers are assigned based only on the criteria reviewed and do not include calibration or instrument performance issues unless noted in the laboratory case narrative.

In the following report, a checked box () indicates that the data requirement was met; and an empty box () indicates that a discussion of the data requirement follows. The data may or may not be qualified.

#### 2.0 Volatile Organic Analyses

Analyses were performed by EPA Method 8260B. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- Matrix spike (MS) and laboratory control sample (LCS) recoveries

- Matrix spike duplicate (MSD) relative percent differences (RPDs)
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times. No blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All LCS recoveries were within the acceptable range. All MS/MSD recoveries were within control limits. The MSD relative percent differences (RPDs) were within applicable limits. Field duplicate variability was within the expected range.

Volatile data are acceptable as reported and no qualifiers are assigned.

### **3.0 Petroleum Hydrocarbon Analyses**

Analyses were performed by WA DOE Method NW-TPH-Dx. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Preparation and analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- LCS and laboratory control sample duplicate (LCSD) recoveries
- LCSD RPDs
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times. No blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All LCS/LCSD recoveries were within the acceptable range. The LCSD relative percent differences (RPDs) were within applicable limits. Field duplicate variability was within the expected range.

Petroleum hydrocarbon data are acceptable as reported and no qualifiers are assigned.

### **4.0 Glycol Analyses**

Analyses were performed by GC/FID. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Preparation and analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- MS and LCS recoveries
- Sample duplicate variability

Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times. No blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All MS and LCS recoveries were within the acceptable range.

Field duplicate variability was within the expected range.

Glycol data are acceptable as reported and no qualifiers are assigned.

## 5.0 Abbreviations and Definitions

<u>DV Qualifer</u>	<u>Definition</u>
B	Suspected laboratory contamination.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample reporting limit or the amount of contaminant detected in the sample.
J	The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
UJ	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The sample result is rejected. The presence or absence of the analyte cannot be verified and data are not usable.

<u>Abbreviation</u>	<u>Definition</u>
DV	Data Validation
LCS	Laboratory control sample
LCSD	Laboratory control sample duplicate
MS	Matrix spike
MSD	Matrix spike duplicate
RPD	Relative percent difference
Surr	Surrogate

## 6.0 References

*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, February 1994, EPA540/R-94/012.

# Sayler Data Solutions

## DATA VALIDATION REPORT

### *IWS Hydrogeologic Study – Round 4*



**Prepared for:**  
Associated Earth Sciences, Inc.  
179 Madrone Lane North  
Bainbridge Island, Washington 98110

April 20, 2000

#### 1.0 Introduction

Quarterly monitoring samples were collected on February 17 and 18, 2000. Analyses were performed by North Creek Analytical Laboratory in Bothell, Washington. Samples were assigned laboratory batch number B0B0314. Data is presented in a laboratory report dated March 09, 2000.

A summary evaluation was performed on the analytical results. Evaluation was performed by Cari Sayler. Numeric quality control criteria for the requirements listed below are presented in the quality control sections of the laboratory file. Data qualifiers are assigned based only on the criteria reviewed and do not include calibration or instrument performance issues unless noted in the laboratory case narrative. Data qualifiers are summarized in section 5.0 of this report.

In the following report, a checked box () indicates that the data requirement was met; and an empty box () indicates that a discussion of the data requirement follows. The data may or may not be qualified.

#### 2.0 Volatile Organic Analyses

Analyses were performed by EPA Method 8260B. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- Matrix spike (MS) and laboratory control sample (LCS) recoveries

- Matrix spike duplicate (MSD) relative percent differences (RPDs)
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times.

Benzene and Toluene were detected in the method blank at levels between the method detection limit and the reporting limit. Benzene was not detected in the associated samples, and no qualifiers are assigned. Toluene was detected in the majority of the associated samples at levels below the reporting limit. These results should be considered not detected and are qualified "U".

No other blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All LCS recoveries were within the acceptable range. All MS/MSD recoveries were within control limits. The MSD relative percent differences (RPDs) were within applicable limits. Field duplicate variability was within the expected range.

Volatile data qualifiers are summarized in section 5.0 of this report.

### **3.0 Petroleum Hydrocarbon Analyses**

Analyses were performed by WA DOE Method NW-TPH-Dx. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Preparation and analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- LCS and laboratory control sample duplicate (LCSD) recoveries
- LCSD RPDs
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. With the exception of the re-extraction described below, each analysis was completed within the required holding times. No blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All LCS/LCSD recoveries were within the acceptable range. The LCSD relative percent differences (RPDs) were within applicable limits. Field duplicate variability was within the expected range.

Petroleum hydrocarbon data are acceptable as reported and no qualifiers are assigned.

### **4.0 Glycol Analyses**

Analyses were performed by GC/FID. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Preparation and analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- MS and LCS recoveries
- Sample duplicate variability
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times. No blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All MS and LCS recoveries were within the acceptable range. Sample duplicate results were within acceptable limits. Field duplicate variability was within the expected range.

Primary column results for samples IWSLG\_MW105021700FD, IWSLG\_MW105021700N, and IWSLG\_MW106021700N indicate the presence of low levels of ethylene glycol. The detection was not confirmed on the secondary column possibly due to low concentrations. These ethylene glycol results are qualified "N" – presumptively present.

Glycol data qualifiers are summarized in section 5.0 of this report.

## 5.0 Qualifier Summary Table

Sample ID	Analyte	DV Qualifier	Reason
Volatile Organics			
IWSLG_MW105021700FD	Toluene	U	Blank Contamination
IWSLG_MW105021700N	Toluene	U	Blank Contamination
IWSLG_MW106021700N	Toluene	U	Blank Contamination
IWSLG_MW107021700N	Toluene	U	Blank Contamination
IWSLG_MW108021700N	Toluene	U	Blank Contamination
IWSLG_MWE04021700N	Toluene	U	Blank Contamination
IWSLG_MWE05021700N	Toluene	U	Blank Contamination
IWSLG_MWE07021700N	Toluene	U	Blank Contamination
IWSLG_MWE08021700N	Toluene	U	Blank Contamination
IWSLG_MWE09021700N	Toluene	U	Blank Contamination
Trip Blank	Toluene	U	Blank Contamination
Glycols			
IWSLG_MW105021700FD	Ethylene Glycol	N	No 2 <sup>nd</sup> column confirmation
IWSLG_MW105021700N	Ethylene Glycol	N	No 2 <sup>nd</sup> column confirmation
IWSLG_MW106021700N	Ethylene Glycol	N	No 2 <sup>nd</sup> column confirmation



## 6.0 Abbreviations and Definitions

<u>DV Qualifier</u>	<u>Definition</u>
B	Suspected laboratory contamination.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample reporting limit or the amount of contaminant detected in the sample.
J	The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
UJ	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The sample result is rejected. The presence or absence of the analyte cannot be verified and data are not usable.

<u>Abbreviation</u>	<u>Definition</u>
DV	Data Validation
LCS	Laboratory control sample
LCSD	Laboratory control sample duplicate
MS	Matrix spike
MSD	Matrix spike duplicate
RPD	Relative percent difference
Surr	Surrogate

## 7.0 References

*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, February 1994, EPA540/R-94/012.

# Sayler Data Solutions

## DATA VALIDATION REPORT

### *IWS Hydrogeologic Study – Round 4 - Background*



**Prepared for:**  
Associated Earth Sciences, Inc.  
179 Madrone Lane North  
Bainbridge Island, Washington 98110

April 20, 2000

#### 1.0 Introduction

Quarterly background samples were collected on March 15, 2000. Analyses were performed by North Creek Analytical Laboratory in Bothell, Washington. Samples were assigned laboratory batch number B0C0317. Data is presented in a laboratory report dated April 6, 2000.

A summary evaluation was performed on the analytical results. Evaluation was performed by Cari Sayler. Numeric quality control criteria for the requirements listed below are presented in the quality control sections of the laboratory file. Data qualifiers are assigned based only on the criteria reviewed and do not include calibration or instrument performance issues unless noted in the laboratory case narrative. Data qualifiers are summarized in section 5.0 of this report.

In the following report, a checked box () indicates that the data requirement was met; and an empty box () indicates that a discussion of the data requirement follows. The data may or may not be qualified.

#### 2.0 Volatile Organic Analyses

Analyses were performed by EPA Method 8260B. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- Matrix spike (MS) and laboratory control sample (LCS) recoveries

- Matrix spike duplicate (MSD) relative percent differences (RPDs)
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times.

1,2-Dichloroethane and Methylene Chloride were detected in the method blank at levels between the method detection limit and the reporting limit. Methylene Chloride was not detected in the associated samples, and no qualifiers are assigned. 1,2-Dichloroethane was detected in the associated samples at levels below the reporting limit. These results should be considered not detected and are qualified "U".

No other blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All LCS recoveries were within the acceptable range. All MS/MSD recoveries were within control limits. The MSD relative percent differences (RPDs) were within applicable limits. Field duplicate variability was within the expected range.

Volatile data qualifiers are summarized in section 5.0 of this report.

### **3.0 Petroleum Hydrocarbon Analyses**

Analyses were performed by WA DOE Method NW-TPH-Dx. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Preparation and analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- LCS and laboratory control sample duplicate (LCSD) recoveries
- LCSD RPDs
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times. No blank contamination was detected.

The recoveries of Diesel (27.6%) and surrogate 2-Fluorobiphenyl (20.8%) in the LCSD were below the control limit of 50-150. The RPD for the LCS/LCSD (96.4%) is also outside of control limits (50%). The recovery of Diesel in the LCS as well as all other surrogates were within control limits. This pattern is indicative of an isolated problem with the extraction and/or analysis of the LCSD, and no qualifiers are assigned.

Field duplicate variability was within the expected range.

Petroleum hydrocarbon data are acceptable as reported and no qualifiers are assigned.

#### 4.0 Glycol Analyses

Analyses were performed by GC/FID. The following data requirements were evaluated:

- Sample and quality control analysis frequencies
- Preparation and analysis holding times
- Laboratory blank contamination
- Surrogate recoveries
- MS and LCS recoveries
- Sample duplicate variability
- Field duplicate variability

Adequate laboratory quality control samples were analyzed with each laboratory batch. Each analysis was completed within the required holding times. No blank contamination was detected. All surrogate recoveries were within acceptable recovery limits. All MS and LCS recoveries were within the acceptable range. Sample duplicate results were within acceptable limits. Field duplicate variability was within the expected range.

Glycol data are acceptable as reported and no qualifiers are assigned.

#### 5.0 Qualifier Summary Table

Sample ID	Analyte	DV Qualifier	Reason
Volatile Organics			
IWSLG_MW105021700FD	1,2-Dichloroethane	U	Blank Contamination
IWSLG_MW105021700N	1,2-Dichloroethane	U	Blank Contamination
IWSLG_MW106021700N	1,2-Dichloroethane	U	Blank Contamination

#### 6.0 Abbreviations and Definitions

<u>DV Qualifier</u>	<u>Definition</u>
B	Suspected laboratory contamination.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample reporting limit or the amount of contaminant detected in the sample.
J	The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
UJ	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The sample result is rejected. The presence or absence of the analyte cannot be verified and data are not usable.

<u>Abbreviation</u>	<u>Definition</u>
DV	Data Validation
LCS	Laboratory control sample
LCSD	Laboratory control sample duplicate
MS	Matrix spike
MSD	Matrix spike duplicate
RPD	Relative percent difference
Surr	Surrogate

## 7.0 References

*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, February 1994, EPA540/R-94/012.