CITY OF PORTLAND
ENVIRONMENTAL SERVICES
1120 SW Fifth Avenue, Room 1000, Portland, Oregon 97204-1912 ▪ Sam Adams, Commissioner ▪ Dean Marriott, Director

TECHNICAL MEMORANDUM NO. OF 18-1

City Outfall Basin 18

Inline Solids Sampling in the Vicinity of Container Management Services and Wilhelm Trucking Co.

TO: Tom Roick, DEQ, Northwest Region Cleanup & Portland Harbor Section

FROM: Linda Scheffler, City of Portland, BES
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COPIES: Kristine Koch, EPA
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DATE: March 21, 2006

SUBJECT: **Portland Harbor Source Control Investigation**

Introduction

This technical memorandum summarizes the results of a City of Portland (City) Bureau of Environmental Services (BES) source control investigation within City Outfall Basin 18. During routine stormwater line maintenance activities in 2001, in the vicinity of facilities operated by Container Management Services and Wilhelm Trucking Co., the City removed solids from the stormwater collection system. In 2004, new inline solids accumulations warranted additional line cleaning activities. At that time, the City conducted an investigation of the nature and source of these solids, as part of the ongoing source control program associated with the Portland Harbor City of Portland Outfalls Project. This memorandum evaluates the 2004 sampling results in the context of historical and current operational activities adjacent to this portion of the stormwater collection system. These investigation results are submitted pursuant to the August 13, 2003 Intergovernmental Agreement (IGA) between the Oregon Department of Environmental Quality (DEQ) and the City.

Purpose and Objectives

The purpose of this investigation was to characterize solids found within the City stormwater conveyance system upstream of City Outfall 18 and to identify potential current and historic sources of pollutants that could contaminate Willamette River sediments. This

investigation focused on stormwater lines in the vicinity of Container Management Services and Wilhelm Trucking Co. Source investigation activities were intended to evaluate if facilities in this area should be considered by DEQ for inclusion in the Environmental Cleanup Program.

Background

In July of 2001, BES Maintenance personnel cleaned an 18" corrugated metal storm line and the downgradient 42" concrete City line[1] (Figure 1). The 18" line originates on the 3000 block of NW St. Helens Road, where it collects ditched flow from Forest Park and a small section of roadway prior to entering an industrial area between NW St. Helens Road and a parallel railroad right-of-way (ROW) to the east. There it connects to the 42" City line which discharges through City Outfall 18. The majority of manholes along this line are grated open inlets (Figure 1). These lines receive piped and surface stormwater runoff from private properties currently owned and operated by Container Management Services and Wilhelm Trucking Co., as well as surface drainage from portions of the railroad ROW. Historic operations included a lead bearing rehabilitation facility operated by Oregon Brass Works, Magnus Brass Co., and National Lead Industries, Inc. between 1921 and 1967.

Inline solids and water samples were collected at the time of the 2001 cleaning to facilitate disposal of material removed from the system. Work on these segments raised concerns about both line condition and sources of pollutant discharges. A subsequent TV investigation and cleaning of the 18" segment, between June and July 2004, revealed heavy debris, two lateral connections, and evidence of substandard construction materials (55-gallon drums) within the section of the conveyance system connecting drainage from NW St. Helens Rd. to the 42" City line (Photos 1-5, Attachment A).

Further line investigation, sampling and cleaning activities were conducted by BES between July and November 2004, to identify the condition of downstream lines, the presence of unmapped lateral connections, and the nature of accumulated solids observed within the drainage system. The camera survey revealed the presence of four lateral lines along the 42" City segment between nodes AAX281 and AAX277 (Figure 1). This memorandum summarizes the results of these investigations in the context of affiliated source research.

Source Investigation

Container Management Services

Operations

Drum reconditioning has occurred continuously at this site since 1929. Reimann & McKenney, Inc. opened the original facility in 1929, and maintained operations until Myers Container assumed ownership in 1986. In 1996, Myers Container formed a joint venture partnership with Container Management Services. Myers Container Corporation has also operated a similar container reclamation facility on NE Marx St. (ECSI #2062). The NE Marx

[1] The 42-inch-diameter concrete stormwater line between nodes AAX316 and AAX274 (Figure 1) is referred to in this report as a City line, though the City is in the process of evaluating ownership of stormwater lines within this basin.

facility was placed on DEQ's Confirmed Release List in May 2003, following the confirmation of PCB contamination during an Expanded Preliminary Assessment and Ecological Risk Assessment in 2002 (DEQ, 2005(a)).

Closed-top industrial barrels containing primarily petroleum products and open-top drums from the fruit industry are reconditioned on this 6-acre site at 3000 NW St. Helens Rd. The primary production area is on the west side of the railroad line, where drums are inspected, drained, cut open, flushed, steam cleaned, shot blasted, hydrotested and painted. On the east side of the railroad line, a drum burner is utilized to remove internal and external coatings from open-top drums prior to shot blasting and recoating. The southeast portion of the property includes a maintenance building that has been used historically to store paint sludge and waste. Facility operations include truck loading and unloading docks, conveyor belts for drum transport within the production line, and significant outdoor drum storage areas.

Collection Systems

The Container Management Services' Stormwater Pollution Control Plan identifies 11 catch basins at the facility that collect stormwater (Figure 2). Three of these (SW-9, SW-10, and SW-11) route stormwater to the onsite wastewater pretreatment system, and subsequently to the municipal sanitary sewer. Catch basin SW-1 routes stormwater from the southern end of the production area to the 18" storm line that connects with the 42" City line at node AAX316 (referred to as SW-2 by Container Management Services). Catch basin SW-3 (node AAX281 on the 42" City line), on the east side of the facility, serves as the point of connection for stormwater collected in catch basins SW-4, SW-5, SW-6 and SW-7 and conveyed underneath the railroad tracks through a 6" lateral line. Catch basin SW-8 collects stormwater from the northeast portion of the facility and is connected to the 42" City line between nodes AAX281 and ANB968.

The earliest City plumbing record for the drum reconditioning operations on site is from 1944, authorizing Reimann & McKenney to install garage catch basins (COP, 1944). A later inspection record documented relocating the drain field (COP, 1958). The City constructed sanitary sewers in this area in 1969; until then the area had been served by a network of sewers constructed by the Federal Public Housing Authority in 1943, which conveyed both stormwater and wastewater to the Willamette River (COP, 1943). In 1970, Reimann & McKenney was advised by the City plumbing inspector to not connect the barrel washer to the storm sewer, as part of a sewer connection inspection (COP, 1970(a) and (b)). Reimann & McKenney connected the facility to the City sanitary sewer in 1971 (COP, 1971(a) and 1971(b)). While it is known that Reimann & McKenney generated wastewater prior to this time, it is not clear from available records how the facility disposed of this wastewater.

In May 2005, Container Management Services completed the installation of a storm drain overflow structure at the upstream end of the 18" storm line, to address the City's concern that a collapse or blockage in the private 18" line could result in a backup of the City storm system on NW St. Helens Road. This report is included in Attachment B.

Compliance History

Container Management Services operates under Industrial Wastewater Discharge Permit #400.28 as well as under a general industrial 1200-Z NPDES stormwater permit (DEQ file

111065) reissued on October 9, 2002. Wastewater pretreatment consists of pH neutralization, solids settling, and oil separation. Historically, this system included an overflow to the storm sewer (COP, 1991), and discharged directly to the storm sewer prior to the addition of the 8" lateral connection to the sanitary line on NW Lake St. in 1971 (COP, 1971(a)). The pretreatment system overflow to the storm line was capped in 1991, in response to findings during a City wastewater inspection (Myers, 1991).

Until approximately 1990, this facility processed "drippings" from unprocessed barrels at the NE Marx St. facility (COP, 1990). This practice was discontinued in an effort to address recurring lead, zinc, and oil & grease violations under the industrial wastewater discharge permit. Tighter controls were also implemented by Container Management to restrict the drums that would be accepted for reconditioning based on the nature of the material previously contained in the drums.

Stormwater concerns at Reimann & McKenney were noted on a memo from a City inspector in 1974 (COP, 1974). The inspector noted that Reimann & McKenney would be covering the trash rack (node AAX316) due to siltation problems. These problems apparently were caused by Reimann & McKenney's practice of pumping stormwater, from a large catch basin in the west side operating area, through a pressurized 3" line underneath the railroad tracks to a field draining to the trash rack. This catch basin received both surface runoff and piped stormwater, and was observed to have oil on the surface.

Catch basins SW-1, SW-4, and SW-8 have been designated as stormwater sampling points for the stormwater discharge permit. Exceedances of stormwater benchmarks at locations SW-1 and SW-4 include copper, lead, zinc, TSS, and oil and grease. Exceedances at sampling location SW-8 are limited to TSS and oil and grease. NPDES stormwater monitoring data are summarized in Table 1.

Wilhelm Trucking Co.

Operations

The Wilhelm Trucking Co. has been in operation at 3250 NW St. Helens Rd. since at least 1953 (COP, 1950(a), 1950(b), and 1953). Services currently include heavy hauling, freight management and logistics, and transformer/utilities rigging. The facility includes an indoor maintenance facility, a fueling area, a covered wash rack, indoor storage areas, a railroad spur, and significant pervious and impervious truck and equipment parking areas. A City stormwater inspection in 1995 noted the storage of dry transformers on site (COP, 1995). Wilhelm Trucking Co. owns and operates property on both sides of the railroad line, although the primary operations are conducted on the east side. Vehicle and equipment wash water is collected and discharged to the sanitary sewer under batch discharge authorization from BES.

Wilhelm Trucking Co. ownership now includes the old Oregon Brass Works/Magnus Company/National Lead site (formerly 3074 NW St. Helens Rd.). According to the DEQ Environmental Cleanup Site Information (ECSI) Database Site Summary Report for Magnus Co. (ECSI Site No. 69), a lead bearing rehabilitation plant operated between 1930 and 1967 (DEQ, 2005(b)). EPA added the site to the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database in 1981, and began investigating lead contamination at the facility in 1984.

A DEQ memo dated July 17, 1984 indicated that Magnus Company operated three smelters at this site (lead, zinc, and brass) until 1936, when the National Lead Company purchased the facility (DEQ, 1984(a)). At this location, the National Lead Company rehabilitated journal bearings used on railroad cars by melting out the lead and rebabbitting the bearings with a tin/lead alloy. Similar operations at a Magnus Company/National Lead facility in Colonie, New York utilized a babbit metal alloy composed of lead, copper, and antimony (ATSDR, 2002). The National Lead Company continued smelting operations until 1968 when Wilhelm acquired the facility and dismantled the equipment. Wilhelm reportedly washed dust accumulation from the building interior out back to the ramp area, which sloped toward the railroad spur (DEQ 1984 (b)). Lead was utilized to repair cracks in the building floor and lead dust settled in areas within and likely outside the building. Foundry sand was noted on site in 1984, but former smelter waste storage practices for dross and slag on site, and utilization of air pollution control equipment are not known.

DEQ added the site to its database in 1988. In 1993, EPA concluded their involvement with a review by PRC Environmental Management, who recommended soil mitigation. DEQ recommended a site screening evaluation in 1994. Wilhelm leased the building to Industrial Craters and Packers from the time of acquisition until 2005.

Collection Systems

Wilhelm's Stormwater Pollution Control Plan (SWPCP) identifies eight stormwater drainage basins within the facility (Figure 3). Basins #4 and #5 drain to the collection system leading to the adjacent Outfall 17. These basins include an abandoned storm line running through the maintenance building, the vehicle washing and fueling areas, as well as two unregistered drywells. DEQ has notified Wilhelm that the drywells must be either registered or abandoned under the UIC program. Dye testing of the drywells by City representatives verified that they do not connect to the storm system.

City records indicate that historically both sanitary and process wastewaters were discharged from the maintenance building to the stormwater collection system (COP, 1973(a) and (b)). A previous letter had been sent to Wilhelm Trucking in 1963 regarding discharges of oil, grease, and solvent (COP, 1963). In 1973, restroom facilities were redirected to the sanitary sewer, though City inspectors documented that steam-cleaning effluent was still being discharged to the storm sewer (COP, 1973(c)). Subsequent inspections in September 1977 by the Industrial Wastewater Management Section revealed that the facility was continuing to discharge untreated steam cleaning effluent to the storm sewer system (COP, 1977). This connection was rerouted to the sanitary sewer in 1978 (COP, 1978).

The remaining basins discharge to the 42" City storm line leading to Outfall 18. In 2001, in response to complaints from adjacent property owners of sediment-laden stormwater discharging overland to their properties, Wilhelm Trucking installed a new berm, catch basins, stormwater lateral ANB970, and manhole ANB968 in the SE corner of their property (Basins #6 and #7) to redirect stormwater to the 42" City line (COP, 2001). Although the Wilhelm SWPCP does not include the parcel formerly operated by Industrial Craters and Packers, the City inspection of the 42" City storm line in July 2004 verified the presence of a previously unmapped 12" lateral (ANB969) connecting drainage from the old lead smelter to the line at node AAX277.

City plumbing records for 3074 NW St. Helens Rd. date to 1921, when Oregon Brass Works moved a foundry to the site and connected it to a cesspool (COP, 1921). In 1934 and 1936, Magnus Co. Inc. made improvements to the property which included sumps, sinks, and floor drains that were connected to the sewer line leading to the existing septic tank adjacent to the older part of the building (COP, 1934, 1936(a) and 1936(b)). A record from 1946 documents the connection of the Magnus Brass Co. septic tank to a Housing Authority sewer that discharged to the river through Balch Gulch (COP, 1946). The last plumbing record on file for this address, authorized Wilhelm Trucking to connect a new catch basin and five rain drains to a discharge line leading east (COP, 1975). It is not clear from the record whether this permit represented the connection of lateral ANB969 to the 42" City storm line.

Compliance History

Wilhelm Trucking Co. has operated under an NPDES general stormwater permit since 1996 (DEQ file 100721). On September 30, 1996, Wilhelm was issued a 1200-T permit, which was replaced by a 1200-Z permit on December 19, 1997. DEQ reissued this permit on October 2, 2002. City and industry representatives have collected stormwater samples from catch basin #1, located just inside the main entrance, since 1997. The catch basin discharges to the 42" City storm line downstream of the four locations sampled as part of this sediment investigation. Of the six parameters monitored under the 1200-Z permit, total suspended solids (TSS) and oil and grease have proven to be the benchmarks most difficult to achieve. Minor exceedances of copper and zinc have also occurred. NPDES stormwater monitoring data is summarized in Table 1.

Field Activities

BES sampled inline solids at four locations on August 25, 2004 (Figure 1). One sample was collected adjacent to the Container Management Services lateral connection and three samples were collected in the vicinity of Wilhelm Trucking Co. Locations were selected to evaluate solids contributions from stormwater laterals identified during the 2004 TV surveys. Grab samples were collected utilizing BES Field Operations Standard Operating Procedures (SOPs) for sample collection and handling.

Sampling locations are described below, from the upstream to downstream direction. Stormwater drainage systems at the Container Management and Wilhelm facilities are discussed in the Source Investigations section of this report. Photographs of field sampling activities are included in Attachment A. Field notes documenting sample collection activities are included in Attachment C.

Container Management Services

Sample Point IL-AAX281-0804 ("Container Management-1")

This sampling location is accessed through node AAX281, which is an open grate on private property, connected to the 42" City line. A 12" stormwater lateral (ANB971) joins the 42" City storm line at this node from the main Container Management Services operation on the west side of the railroad tracks (Figure 1). The sample point (Photos 6-8, Attachment A) is located 2' downstream of node AAX281. Node AAX281 is located upstream of node

ANB968, where piped discharge from Wilhelm Trucking Co. enters the 42" City line, and upstream of a 6"stormwater lateral (ANC462) which contributes stormwater from the eastern portion of the Container Management Services facility.

Samples collected at this location represent contributions from ditched flow from Forest Park, catch basins along NW St. Helens Rd., and stormwater discharges from the western and southeastern portions of the Container Management facility. Container Management Services' stormwater collection system is displayed on Figure 2.

Wilhelm Trucking Co.

Sample Point IL-ANB970-0804 ("Wilhelm-1")

Lateral ANB970 connects the catch basin in the SE corner of the main Wilhelm facility to the 42" City line. This catch basin collects sheet flow from the truck and trailer parking area, identified as "Basin #6" in the Wilhelm Stormwater Pollution Control Plan (SWPCP) site map (Figure 3). This sample point (Photos 9-11, Attachment A) is located within the 12" stormwater lateral (ANB970), 1' upstream of the junction at node ANB968. Samples collected at this location represent piped discharges from Wilhelm catch basin #6.

Sample Point IL-ANB968-0804 ("Wilhelm-2")

This sample point (Photos 12-14, Attachment A) is located within the 42" City storm line, 4' downstream of node ANB968 -- an open grate square access way referred to as catch basin #7 in the Wilhelm SWPCP (Figure 3). The 42" City line flows northwest, parallel to the railroad tracks between Container Management Services and Wilhelm Trucking Co., and emerges on the east side of NW St. Helens Rd. Samples collected at this location represent the contributions detailed under the "Container Management-1" sampling location, as well as the Wilhelm SWPCP basins #6 and #7 which convey runoff from the truck and trailer parking area to this node.

Sample Point IL-AAX274-0804 ("Wilhelm-3")

This sample point (Photos 15-17, Attachment A) is located within the 42" City storm line, 3'-6' upstream of manhole AAX274 (Figure 1). Samples collected at this location include all previously described upstream contributions in addition to discharges from stormwater lateral ANB969 on the west side of the railroad ROW. This lateral leads to property currently owned by Wilhelm, and formerly occupied by a lead smelter operation.

Summary of Results

Sediment samples were analyzed by the BES Water Pollution Control Lab, North Creek Analytical, and Severn Trent Laboratories, for metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, and zinc), semivolatile organics (SVOCs), polychlorinated biphenyls (PCBs), and total petroleum hydrocarbons (NWTPH-HCID with Dx and Gx as necessary). Analyses of inline solids at all four locations indicated concentrations of metals, phthalates, polycyclic aromatic hydrocarbons (PAHs), and PCBs that exceed Portland Harbor Joint Source Control Strategy (JSCS) soil/stormwater sediment screening level values (SLVs) (DEQ/EPA, 2005). Wilhelm Trucking Co. requested split samples of the three samples collected from locations on their property. It is not known

whether or not Wilhelm Trucking Co. submitted these samples for analyses. Analytical results of the City samples are summarized in Table 2 and Figures 4 - 8. Laboratory data are included in Attachment D.

Metals

DEQ JSCS Toxicity SLVs were exceeded for lead, mercury, and zinc at all four sampling locations, with the highest concentrations observed at the Wilhelm-3 sampling location – the furthest point downgradient (Figure 4). At this location, lead was detected at 2800 mg/Kg – more than one order of magnitude greater than the JSCS Toxicity and Bioaccumulation SLV (128 mg/Kg). The lead concentration here was more than three times the concentration of the nearest upstream sample collected at Wilhelm-2, suggesting a pollutant source downstream of the Container Management Services facility.

Mercury concentrations ranged between 2.03 and 9.18 mg/Kg -- almost one order of magnitude above the JSCS Toxicity SLV (1.06 mg/Kg) -- with the highest concentration again observed at Wilhelm-3. Zinc concentrations ranged between 516 and 1230 mg/Kg -- more than two orders of magnitude greater than the JSCS Bioaccumulation SLV of 3 mg/Kg, and higher than the JSCS Toxicity SLV of 459 mg/Kg. Again, the highest concentration was detected in the Wilhelm-3 sample. Chromium concentrations at all three Wilhelm locations -- 114 mg/Kg, 134 mg/Kg and 351 mg/Kg respectively -- exceeded the JSCS Toxicity SLV (111 mg/Kg).

Laboratory results of metals analyses at all four locations suggest that both Container Management Services and Wilhelm Trucking Co. are contributing metals to the stormwater collection system in concentrations that exceed DEQ JSCS soil/stormwater sediment screening level values.

Phthalates

All four samples exceeded the JSCS Toxicity and Bioaccumulation SLVs for bis(2-ethylhexyl)phthalate (800 µg/Kg and 330 µg/Kg respectively), with the highest concentration observed at the Container Management-1 location (22,700 µg/Kg) (Figure 5). The Container Management-1 sample had a di-n-butylphthalate concentration of 131 µg/Kg, which exceeded the JSCS Toxicity SLV (100 µg/Kg).

Laboratory results of SVOC analyses at all four locations suggest that both Container Management Services and Wilhelm Trucking Co. are contributing phthalates to the stormwater collection system in concentrations that exceed DEQ JSCS soil/stormwater sediment screening values.

PAHs

All four samples exceeded the JSCS Toxicity SLV for indeno(1,2,3-cd)pyrene (100 µg/Kg), with concentrations ranging from 128 µg/Kg at Wilhelm-2 to 1680 µg/Kg at Container Management-1 (Figure 6). The sample from Container Management-1 also exceeded JSCS Toxicity SLVs for 11 additional PAHs. The Wilhelm-1 and Wilhelm-3 samples also exceeded the JSCS Toxicity SLV for benzo(g,h,i)perylene. The 2-methylnapthalene JSCS Toxicity SLV was also exceeded at Wilhelm-3. For most PAHs, concentrations at the

Container Management-1 sample location were an order of magnitude higher than the Wilhelm sample concentrations.

Analytical results indicate that both Container Management and Wilhelm may be contributing PAHs to the stormwater collection system in concentrations that exceed the JSCS Toxicity SLVs.

PCBs

All four samples exceeded the JSCS Toxicity SLVs for Aroclor 1254 (300 µg/Kg), Aroclor 1260 (200 µg/Kg), and total PCBs (676 µg/Kg) (Figure 7). Concentrations of Aroclor 1254 ranged from 996 µg/Kg at Wilhelm-1 to 7430 µg/Kg at Wilhelm-3. Concentrations of Aroclor 1260 ranged from 376 µg/Kg at Wilhelm-2 to 4220 µg/Kg at Wilhelm-3.

All four samples exceeded the JSCS Bioaccumulation SLVs for Aroclor 1242 (2 µg/Kg). Concentrations of Aroclor 1242 ranged from 1440 µg/Kg at Wilhelm-1 to 11,500 µg/Kg at Wilhelm-3. Aroclor 1248 was not detected at any location, though the laboratory method reporting limit exceeded the JSCS Bioaccumulation SLV (4 µg/Kg).

These results suggest that both the Container Management and Wilhelm Trucking facilities may be contributing PCBs to the stormwater collection system in concentrations that exceed the JSCS Toxicity and Bioaccumulation SLVs.

Total Petroleum Hydrocarbons

SLVs have not been established by the JSCS for heavy oil range hydrocarbons. Notably, both the Container Management-1 and Wilhelm-3 samples had elevated concentrations of motor oil (6,630 mg/Kg and 18,100 mg/Kg respectively) (Figure 8).

Conclusions and Recommendations

Results of the Outfall Basin 18 inline solids investigation, conducted in the vicinity of Container Management Services and Wilhelm Trucking, indicate that pollutants with the potential to contaminate Willamette River sediments are being released to the stormwater conveyance system. Metals, phthalates, PAHs and PCBs were detected at concentrations that significantly exceed the Portland Harbor Joint Source Control Strategy screening levels for stormwater sediment.

Inline solids contamination could be the result of both historic and current uses of the properties adjacent to the 42" City storm line which discharges to Outfall 18. Because stormwater lines were cleaned in 2001, this source control investigation reflects pollutant concentrations in inline solids accumulated over a three-year period. A review of both historic and current operations at these properties provides further evidence of potential contaminant sources, and indicates that discharges to storm lines leading to Outfall 17 may also have occurred.

The City recommends that DEQ reactivate site evaluation activities at the former Magnus/National Lead facility to address the stormwater pathway, as well as to evaluate a broader suite of contaminants. The City also recommends that DEQ initiate site screening activities at both Container Management Services and Wilhelm Trucking Co. to determine

whether contamination at these facilities warrants inclusion in the Environmental Cleanup Program.

References

Copies of City records listed below are included in Attachment E.

ATSDR. 2002. Agency for Toxic Substances and Disease Registry, Division of Health Assessment and Consultation, Federal Facilities Assessment Branch. Health Consultation Site Summary, Colonie Site. December 24, 2002. Accessed January 2006. www.atsdr.cdc.gov/HAC/PHA/coloniesite/col_toc.html

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COP. 1934. Bureau of Buildings, Report of Plumbing Inspection. Permit No. 108440. August 23, 1934.

COP. 1936(a). Bureau of Buildings, Report of Plumbing Inspection. Permit No. 118821. September 21, 1936.

COP. 1936(b). Bureau of Buildings, Report of Plumbing Inspection. Permit No. 120636. December 31, 1936.

COP. 1943. Map of Guild's Lake Courts, Oreg. 35288 Division 35059 & 35098. Housing Authority of Portland Oregon. December 1943.

COP. 1944. Bureau of Buildings, Report of Plumbing Inspection. Permit No. 166668. August 3, 1944.

COP. 1946. Bureau of Buildings, Report of Plumbing Inspection. Permit No. 182292. October 2, 1946.

COP. 1950(a). Ordinance No. 92409. Sewer easement granted by Rudie Wilhelm Warehouse Co. to the City of Portland. September 6, 1950.

COP. 1950(b). County Document 43591.

COP. 1953. Bureau of Buildings, Report of Plumbing Inspection. Permit No. 38325. March 25, 1953.

COP. 1958. Bureau of Buildings, Report of Plumbing Inspection. Permit No. 80978. April 22, 1958.

COP. 1963. Letter from the City Engineer to Wilhelm Trucking Company. October 23, 1963.

COP. 1970(a). Bureau of Buildings, Report of Plumbing Inspection. Permit No. 166594. July 10, 1970.

COP. 1970(b). Bureau of Buildings, Report of Plumbing Inspection. Permit No. 167870. September 28, 1970.

COP. 1971(a). Bureau of Buildings, Report of Plumbing Inspection. Permit No. 173959. September 30, 1971.

COP. 1971(b). Department of Public Works, Bureau of Design, Sewer Branch. Permit No. 91036. October 7, 1971.

COP. 1973(a). Letter from City Bureau of Sanitary Engineering to Rudie Wilhelm Warehouse Co., Re: Separation of Storm and Sanitary Sewage. March 28, 1973.

COP. 1973(b). Memo to file from "DTM." July 6, 1973.

COP. 1973(c). Letter from City Bureau of Sanitary Engineering to Wilhelm Trucking Co. September 14, 1973.

COP. 1974. Note to file from Jon Stone (City of Portland) regarding meeting with Harold Vanzel (Reimann & McKenney). April 26, 1974.

COP. 1975. Bureau of Buildings, Report of Plumbing Inspection. Permit No. 0197764. September 16, 1975.

COP. 1977. Letter from City of Portland, Principal Engineer, to Wilhelm Trucking Company. September 1, 1977.

COP. 1978. Bureau of Buildings, Report of Plumbing Inspection. Permit No. 0213665. October 2, 1978.

COP. 1990. Letter from City of Portland, Bureau of Environmental Services to Myers Container Corporation. March 26, 1990.

COP. 1991. Letter from City of Portland, Bureau of Environmental Services to Myers Container Corporation. November 19, 1991.

COP. 1995. City of Portland Industrial Facility Stormwater Inspection Report. May 10, 1995.

COP. 2001. City of Portland Plumbing Permit IVR# 2096479. Issued April 10, 2001.

DEQ. 1984(a). DEQ Interoffice Memo from John Smits to Rick Gates regarding HW – 3012 Magnus Company Inc. July 17, 1984.

DEQ. 1984(b). DEQ Interoffice Memo from John Smits to Debbie Flood (EPA Region X Superfund Program Management Section) regarding HW – 3012 Magnus Company, Inc. October 29, 1984.

DEQ. 2005(a). DEQ Site Summary Report – Details for ECSI Site No. 2062. DEQ Environmental Cleanup Site Information Database (ECSI). Accessed November 10, 2005. www.deq.state.or.us/wmc/ECSI/ecsidetail.asp?seqnbr=2062

DEQ. 2005(b). DEQ Site Summary Report – Details for ECSI Site No. 69. DEQ Environmental Cleanup Site Information Database (ECSI). Accessed November 10, 2005. www.deq.state.or.us/wmc/ECSI/ecsidetail.asp?seqnbr=69

DEQ/EPA. 2005. Portland Harbor Joint Source Control Strategy, Final, dated December 2005.

Myers. 1991. Letter from Myers Container Corporation to City of Portland, Bureau of Environmental Services. December 2, 1991.

TRC. 2005. *Myers Container Corporation – St. Helens Facility Storm Drain Overflow Installation Report.* June 13, 2005.

Tables

Figures

Attachments

Table 1
City of Portland Outfall Basin 18
NPDES Stormwater Sampling Results: Container Management Services and Wilhelm Trucking Co.
Database Search: January 2006

Date	Location	Tester		Copper	Lead	Zinc	O/G (Total)	TSS
2005 1200-Z Benchmarks				**0.1**	**0.4**	**0.6**	**10**	**130**
CONTAINER MANAGEMENT SERVICES				**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
1/24/2001	01	self		0.16	0.28	0.86	<3	380
1/24/2001	04	self		0.05	0.053	0.52	30	160
1/24/2001	08	self		0.03	0.035	0.22	<3	10
5/15/2001	01	self		<0.1	0.19	0.83	12	1100
5/15/2001	04	self		<0.01	0.013	0.16	8	50
5/15/2001	08	self		<0.01	0.014	0.16	5	53
11/13/2001	01	self		0.1	0.15	0.62	5	550
11/13/2001	08	self		0.04	0.046	0.19	<3	20
11/13/2001	X03	self		0.26	0.034	0.37	5	49
2/5/2002	01	city		0.663	1.62	3.01	258	7700
2/5/2002	04	city		0.538	0.526	1.2	49.3	736
2/5/2002	08	city		0.0191	0.0558	0.182	<5	21
3/19/2002	01	self		0.09	0.019	0.25	38	80
3/19/2002	08	self		0.04	0.09	0.22	120	290
3/19/2002	X03	self		0.03	0.08	0.18	8	58
12/10/2002	01	self		0.04	0.08	0.22	<6	120
12/10/2002	04	self		0.04	0.029	0.18	17	55
12/10/2002	08	self		0.04	0.04	0.2	11	30
3/21/2003	01	self		<0.03	0.032	0.16	8	83
3/21/2003	04	self		0.09	0.025	0.23	<5	24
3/21/2003	08	self		<0.03	0.036	0.15	<6	23
11/19/2003	01	self		<0.03	0.07	0.15	<5	170
11/19/2003	04	self		0.03	0.04	0.21	<5	25
11/19/2003	08	self		<0.03	0.021	0.06	<5	15
3/30/2004	01	self		<0.03	0.014	0.07	9	52
3/30/2004	04	self		0.04	0.024	0.31	<3	4
3/30/2004	08	self		0.05	0.025	0.36	<3	5
11/1/2004	01	self		<0.03	0.006	0.15	<5	28
11/1/2004	04	self		<0.03	0.009	<0.15	<5	14
11/1/2004	08	self		<0.03	0.015	<0.15	<5	10
4/25/2005	01	self		<0.03	0.013	0.05	<5	53
4/25/2005	04	self		<0.03	<0.005	0.15	<5	10
4/25/2005	08	self		<0.03	0.038	0.1	<5	18
WILHELM TRUCKING CO								
10/8/1997	X01	self		0.018	0.088	0.06	<2	--
10/9/1997	X01	city		<0.02	<0.3	0.572	19	46
2/6/1998	X01	self		0.085	0.29	0.33	9.7	430
11/4/1998	X01	self		0.02	<0.06	0.15	7	48
11/10/1998	X01	city		<0.03	<0.1	0.991	8.1	59
12/28/1998	X01	city		<0.03	<0.1	0.063	9.6	42
2/17/1999	X01	self		0.024	<0.095	0.088	5.8	40
3/1/1999	X01	city		<0.03	<0.1	0.064	5.4	84.3
10/27/1999	X01	city		0.12	0.12	0.48	12	426
11/24/1999	X01	self		0.075	0.1	0.32	49	520
2/24/2000	X01	self		0.042	0.08	0.19	13	140
11/29/2000	X01	city		<0.05	<0.2	0.21	16.6	141
12/20/2000	X01	self		0.022	0.034	0.16	4.1	180
3/12/2001	X01	self		0.07	0.08	0.71	48	120
11/28/2001	01	self		0.01	0.016	0.16	16.1	184
4/10/2002	01	self		0.025	0.009	0.068	3.4	2
12/30/2002	01	self		0.027	<0.001	0.078	<2	32
3/12/2003	01	city		0.0303	0.0346	0.144	8.7	114
5/15/2003	01	self		0.11	0.08	0.41	21	800
11/25/2003	01	self		0.012	<0.001	<0.001	2.8	38
5/27/2004	01	self		0.052	0.069	0.42	12.4	610
12/29/2004	01	self		0.046	0.04	0.24	13.5	230
5/9/2005	01	self		0.029	0.021	0.11	27.6	260

< = nondetect
mg/L = milligrams per liter
Shaded — Shaded entries indicate an exceedence of benchmark.

Table 2
City of Portland Outfall Basin 18
Inline Solids Sampling Results Adjacent to Container Management Services and Wilhelm Trucking Co.

Upstream ----------> Downstream

		DEQ JSCS[1] Toxicity Screening Level Value[1]	DEQ JSCS Bioaccumulation Screening Level Value[2]	Sample Location	AAX281	Lateral ANB970	ANB968	AAX274
				Sample Name	Container-1	Wilhelm-1	Wilhelm-2	Wilhelm-3
				Sample ID	IL-18-AAX281-0804	IL-18-ANB968-0804-LAT	IL-18-ANB968-0804-DS	IL-18-AAX274-0804
				Sample Date	25-Aug-04	25-Aug-04	25-Aug-04	25-Aug-04
				Sample Time	1:23:00 PM	11:17:00 AM	10:36:00 AM	12:06:00 PM
				Sample Type	GRAB	GRAB	GRAB	GRAB
				Sample Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Analyte	**Method**			**Units**				
Metals								
Arsenic	EPA 6020	33		mg/Kg	3.85	9.07	8.92	4.86
Barium	EPA 6020			mg/Kg	320	304	349	471
Cadmium	EPA 6020	4.98	0.003	mg/Kg	2.07	1.13	1.73	3.94
Chromium	EPA 6020	111	4200	mg/Kg	110	114	134	351
Lead	EPA 6020	128	128	mg/Kg	**568**	**731**	**898**	**2800**
Mercury	EPA 7471	1.06		mg/Kg	2.2	2.46	2.03	9.18
Selenium	EPA 6020	5	0.1	mg/Kg	*1 U*	*1 U*	*1 U*	*1 U*
Silver	EPA 6020	5		mg/Kg	3.78	0.25	1.01	0.6
Zinc	EPA 6020	459	3	mg/Kg	**706**	**516**	**847**	**1230**
Phthalates								
Bis(2-ethylhexyl)phthalate	EPA 8270-SIM	800	330	µg/Kg	**22700**	**2810**	**3470**	**11500**
Butylbenzylphthalate	EPA 8270-SIM			µg/Kg	3840	189	443	1010
Diethylphthalate	EPA 8270-SIM	600		µg/Kg	28.3	15.5 U	15.8 U	17.2 U
Dimethylphthalate	EPA 8270-SIM			µg/Kg	130	15.5 U	29.5	39.1
Di-n-butylphthalate	EPA 8270-SIM	100		µg/Kg	131	33.4	32.7	77.7
Di-n-octylphthalate	EPA 8270-SIM			µg/Kg	13500	83.5	56.7	278
PAHs								
1-Methylnaphthalene	EPA 8270-SIM			µg/Kg	549	28.3	29.4	143
2-Methylnaphthalene	EPA 8270-SIM	200		µg/Kg	946	61.8	72.6	440
Acenaphthene	EPA 8270-SIM	300		µg/Kg	1570	50.5	28.8	45.8
Acenaphthylene	EPA 8270-SIM	200		µg/Kg	29.5	25	7.9 U	50.5
Anthracene	EPA 8270-SIM	845		µg/Kg	1430	156	61.9	48.6
Fluorene	EPA 8270-SIM	536		µg/Kg	1180	38.7	30.3	28.1
Naphthalene	EPA 8270-SIM	561		µg/Kg	345	32.6	44.2	210
Phenanthrene	EPA 8270-SIM	1170		µg/Kg	7130	341	174	187
Benzo(a)anthracene	EPA 8270-SIM	1050		µg/Kg	3700	351	103	407
Benzo(a)pyrene	EPA 8270-SIM	1450		µg/Kg	2870	403	123	591
Benzo(g,h,i)perylene	EPA 8270-SIM	300		µg/Kg	1740	510	164	676
Benzofluoranthenes	EPA 8270-SIM	13000 (k)		µg/Kg	4490	746	324	1090
Chrysene	EPA 8270-SIM	1290		µg/Kg	2750	402	184	746
Dibenzo(a,h)anthracene	EPA 8270-SIM	1300		µg/Kg	885	91.5	39.6	8.62 U
Fluoranthene	EPA 8270-SIM	2230		µg/Kg	5700	624	211	576
Indeno(1,2,3-cd)pyrene	EPA 8270-SIM	100		µg/Kg	1680	381	128	457
Pyrene	EPA 8270-SIM	1520		µg/Kg	5790	712	339	1140
PCBs								
PCB 1016	EPA 8082	530	420	µg/Kg	131 U	121 U	127 U	269 U
PCB 1221	EPA 8082			µg/Kg	131 U	121 U	127 U	269 U
PCB 1232	EPA 8082			µg/Kg	131 U	121 U	127 U	269 U
PCB 1242	EPA 8082		2	µg/Kg	**3860**	**1440**	**2000**	**11500**
PCB 1248	EPA 8082	1500	4	µg/Kg	***131 U***	***121 U***	***127 U***	***269 U***
PCB 1254	EPA 8082	300	10	µg/Kg	**1570**	**996**	**1240**	**7430**
PCB 1260	EPA 8082	200		µg/Kg	745	473	376	4220
Total PCBs[3]		676		µg/Kg	6175	2909	3616	23150
TPH - Hydrocarbon Identification								
Diesel	NWTPH-HCID			mg/Kg	50 U	50 U	50 U	50 U
Gasoline	NWTPH-HCID			mg/Kg	Detected	20 U	20 U	20 U
Heavy Fuel Oil	NWTPH-HCID			mg/Kg	Detected	100 U	Detected	Detected
Lube Oil	NWTPH-HCID			mg/Kg	Detected	Detected	Detected	Detected
Other	NWTPH-HCID			mg/Kg	100 U	100 U	100 U	100 U
TPH - Diesel Extended Range								
#6 Fuel Oil	NWTPH-Dx			mg/Kg	4000 U	250 U	1000 U	3920
Diesel	NWTPH-Dx			mg/Kg	2000 U	125 U	500 U	1000 U
Kerosene	NWTPH-Dx			mg/Kg	2000 U	125 U	500 U	1000 U
Motor Oil	NWTPH-Dx			mg/Kg	6630	554	1130	18100
TPH - Gasoline Extended Range								
Gasoline Range Hydrocarbons	NWTPH-Gx			mg/Kg	71.7	--	--	--

JSCS = Portland Harbor Joint Source Control Strategy (DEQ/EPA Final - December 2005)
U = None detected -- value shown is the method reporting limit.

[1] MacDonald PECs and other SQVs - JSCS Toxicity SLV for Soil/Stormwater Sediment

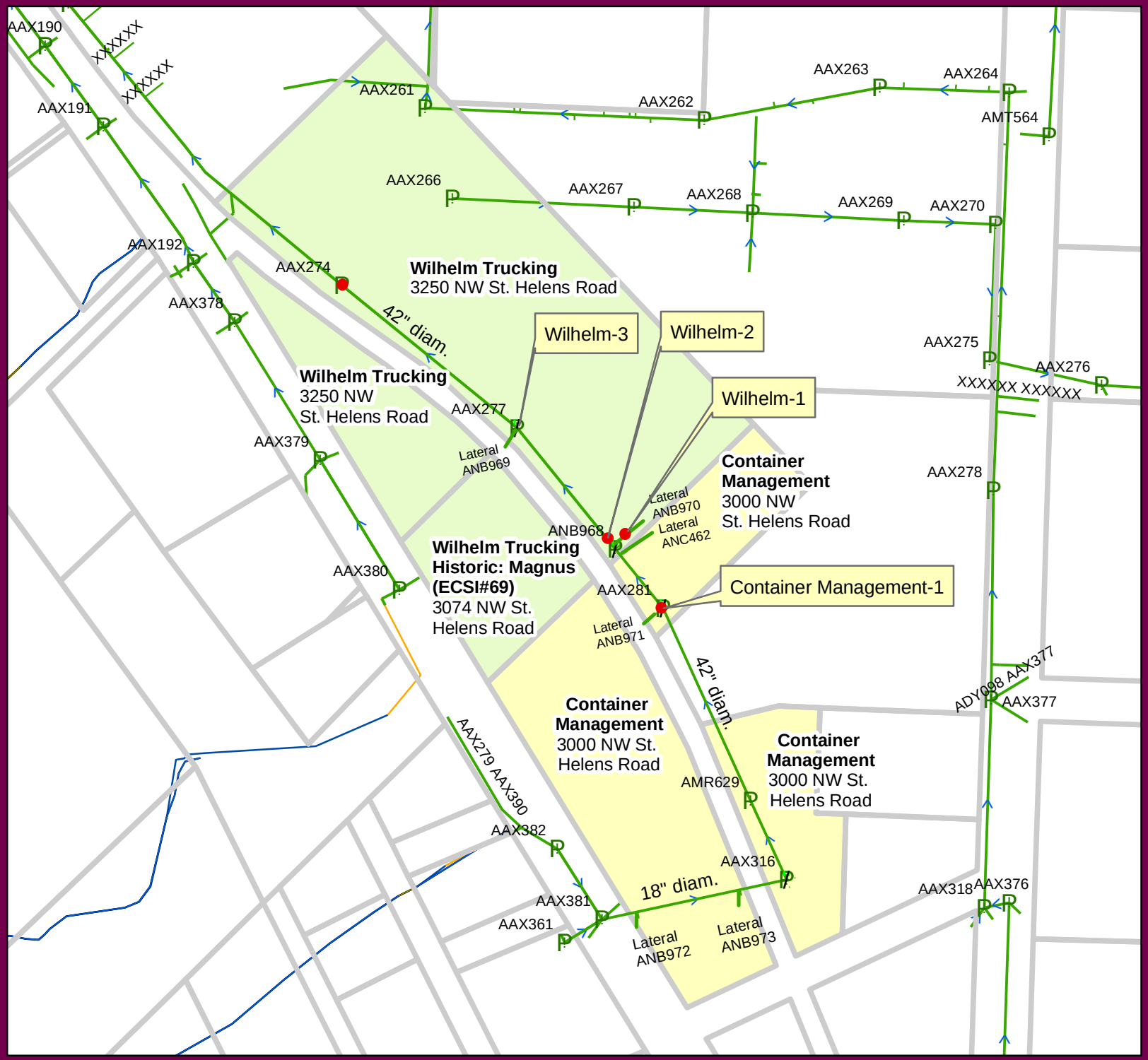
[2] DEQ 2001 Bioaccumulative Sediment SLVs - JSCS Bioaccumulation SLV for Soil/Stormwater Sediment

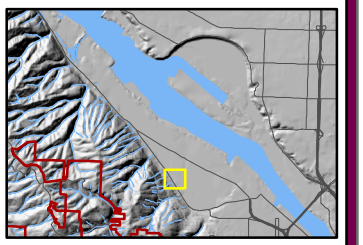
[3] Total PCBs: Total PCBs are a summation of detected Aroclors.

italic — The method reporting limit exceeds JSCS Screening Level Value.

shaded — The reported value exceeds DEQ Toxicity Screening Level Value.

bolded — The reported value exceeds DEQ Bioaccumulation Screening Level Value.





Legend

- Storm Pipe
- Stormwater Laterals
- Taxlots
- Manhole
- Grated Inlet
- Sampling Location
- Ditch
- Culvert

0 250 500 1000 Feet

Figure 1
Outfall 18
Stormwater Conveyance System Adjacent to Container Management Services and Wilhelm Trucking
Sample Date: 8/25/2004

Source: City of Portland BES Aerial photo 2004	Environmental Services City of Portland 1120 SW Fifth Avenue, Room 1000 Portland Oregon, 97204-1912
s:\gis\outfalls\outfall_18\ overview_figure1_082504.mxd	**Program Manager:** Dawn Sanders Portland Harbor Superfund
Sheet No. 1 OF 1	**Date Printed:** 03/15/2006

LEGEND

PROPERTY LINE

SW-1 STORM DRAIN LINE WITH CATCH BASIN

OPERATIONAL AREA BOUNDARY

T-1 ABOVEGROUND CONTAINMENT SYSTEM

P-5 BELOWGROUND CONTAINMENT SYSTEM

FD-1 BELOWGROUND CONTAINMENT: FLOOR DRAIN SYSTEM

DRUM STORAGE / CONTAINMENT AREA

T-7 INACTIVE OR EMERGENCY / TEMPORARY USE TANK SYSTEM

INTERNAL DRAIN LINES (PROCESS WASTEWATER)

Discharge @ Property Line — No Sample Location

OIL SEPARATION AND BURNING AREA

T-7

Stormwater Monitoring Point

SW-3

T-14

SW-10

P-16

P-15

Catch Basin Curb above grade SW to SW-10/11 to Westside Street

36-INCH CONCRETE STORM SEWER (EXISTING)

SW-11

8-INCH STORM DRAIN

CONVEYOR TUNNEL

SW-6

6-INCH STORM DRAIN

SW-7

P-4C

RAILROAD RIGHT OF WAY

SW-2

ACCESS ROADWAY

EXISTING PLANT STRUCTURE

3 FT x 5 FT x 4 FT DRYWELL

P-4B

PAINT BOOTH

4 FT x 4 FT x 4 FT DRYWELL

P-14

SW-5

4-INCH STORM DRAIN

TRUCK LOADING

P-4A

T-12

FD-3

T-8

T-9

D-7

FD-2

FD-1

D-5

D-17

D-10A

D-10B

STEAM CLEANING OPERATION

D-1

P-5

T-2

T-1

T-3

CAUSTIC TANKS

T-5

SW-9

SW-4

CHAINING AND INSPECTION OPERATION

LUNCH ROOM

EXISTING STORM DRAIN

SW-1

DRUM STORAGE YARD

4-INCH STORM DRAIN

D-18

4-INCH STORM DRAIN

DIRECTION OF Stormwater flow

N

0 30 60 FEET

APPROXIMATE SCALE

Figure 2
Outfall 18
Container Management
Source: Container Management Services, LLC. Stormwater Pollution Control Plan. SWPCP #5. 9/28/01

CONTAINER MANAGEMENT SERVICES, LLC
3000 NW ST. HELENS ROAD
PORTLAND, OR 97210

SWPCP MAP #5
STORMWATER FLOW / DISCHARGE / SAMPLE LOCATION

LEGEND

- Site Boundary
- Structure
- Drainage Basin Boundary
- Stormwater Manhole
- Wash Bay Water Treatment Tanks
- 2,000-Gallon Split Gasoline/Diesel AST
- Propane Tank
- Weigh Scale
- Roof Drains Discharging to 42-Inch Line at Basin #4
- Roof Drains with Unverified Discharge Points
- #2 Catch Basin #2
- Asphalt Pavement
- Gravel
- Water Flow Direction
- A Wash Bay (used antifreeze storage)
- B Maintenance Shop (motor oil, hydraulic fluid, gear oil storage)
- C Offices
- D North Storage Shed
- E Covered Parking Area

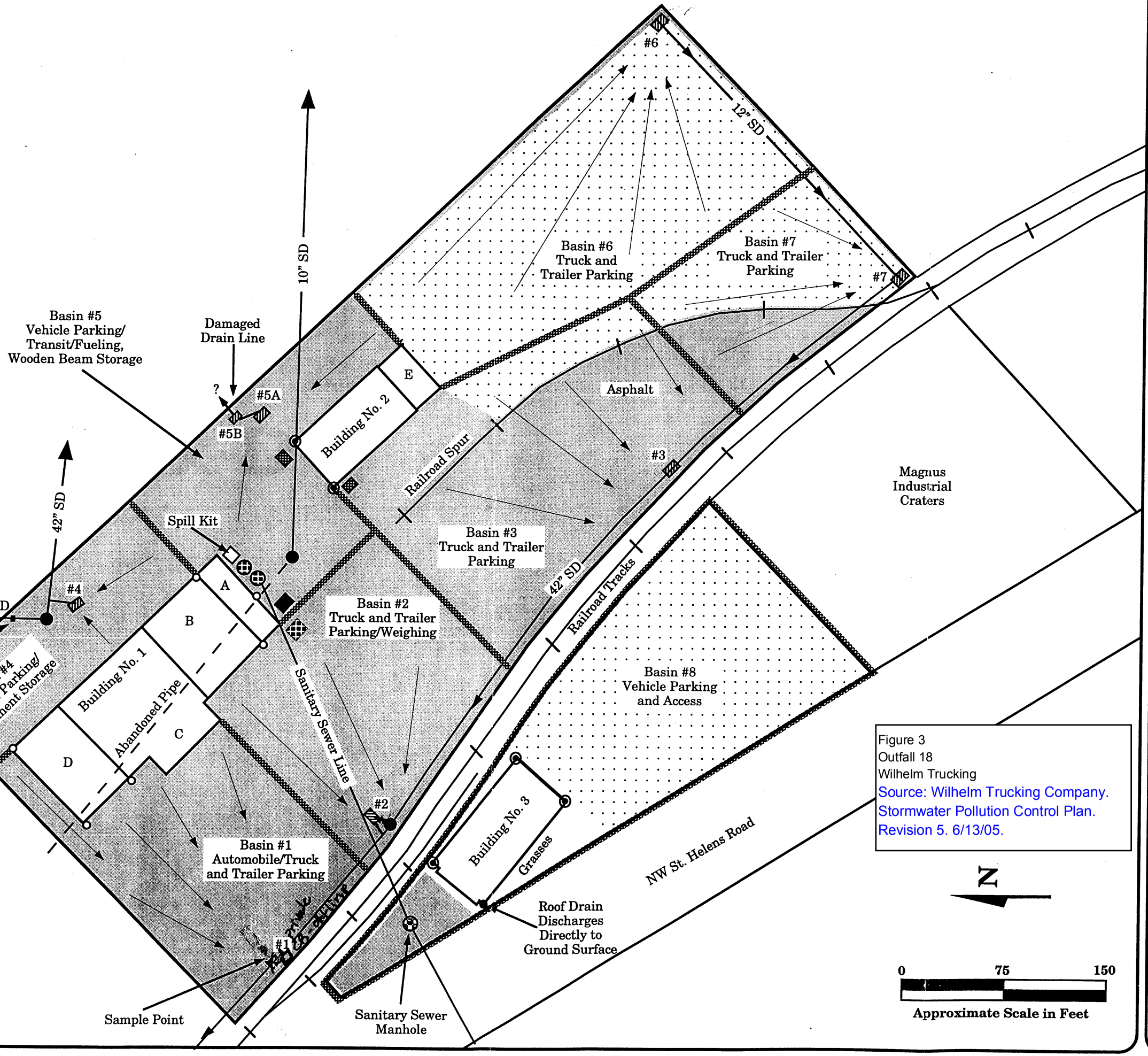


Figure 3
Outfall 18
Wilhelm Trucking
Source: Wilhelm Trucking Company. Stormwater Pollution Control Plan. Revision 5. 6/13/05.

Appendix C

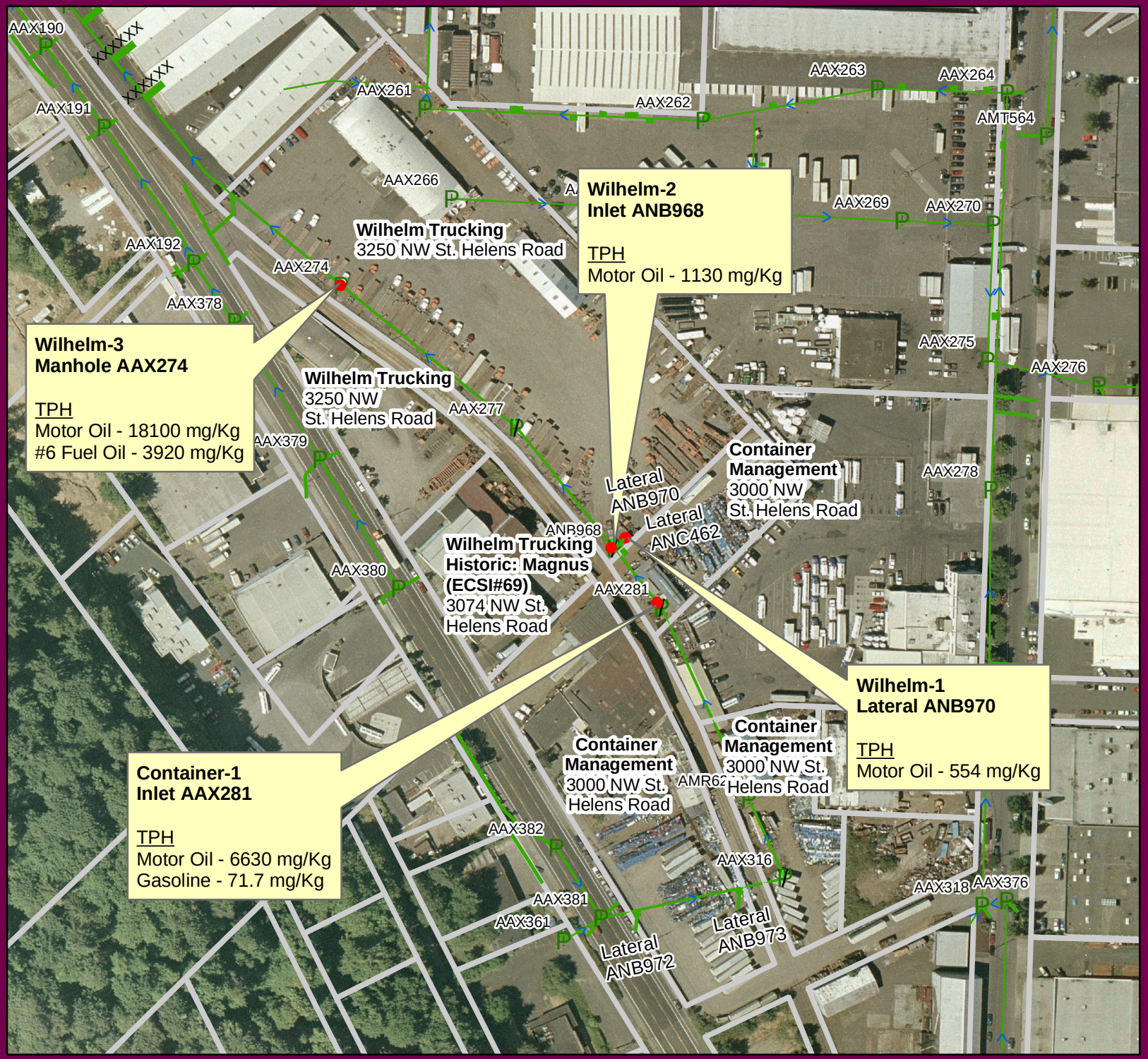
SITE MAP

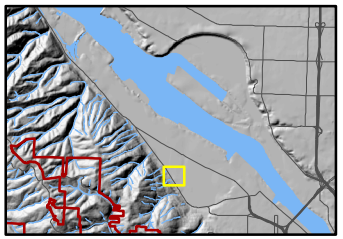
Wilhelm Trucking Company
3250 NW St. Helens Road
Portland, Oregon

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS
434 NW SIXTH AVENUE, SUITE 203
PORTLAND, OREGON 97209
(503) 796-0717

June 2003

HAI Project # 6150





Legend

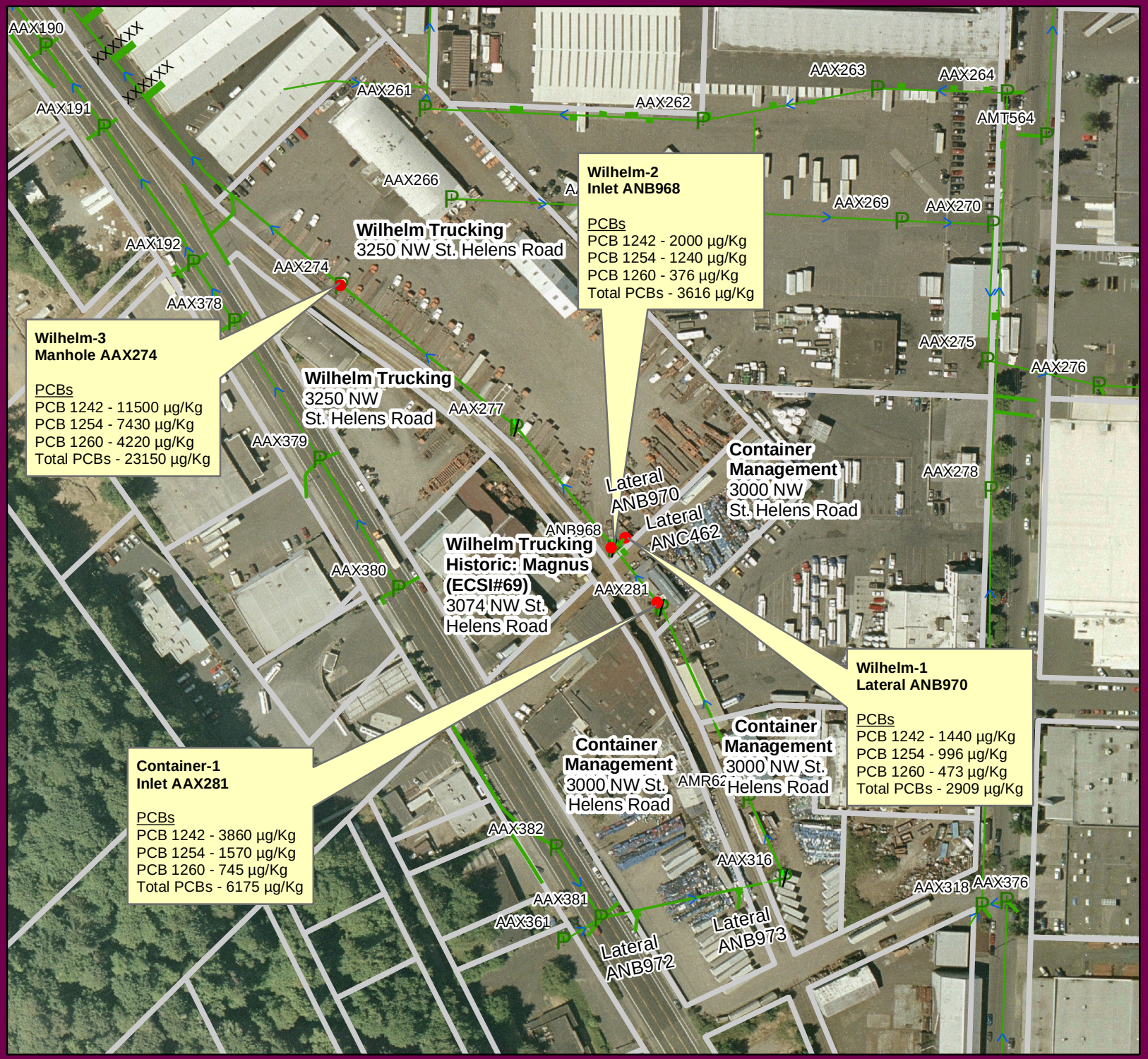
- Storm Pipe
- Stormwater Laterals
- Taxlots
- Sample Location
- Manhole
- Grated Inlet

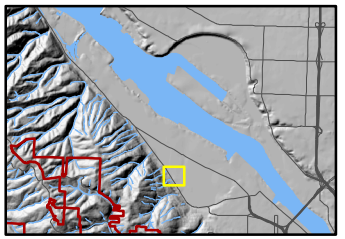
0 250 500 1000 Feet

mg/Kg = milligrams/Kilogram
dry weight

Figure 8
Outfall 18
Inline Solids Sampling
Total Petroleum
Hydrocarbons (TPH)
Sample Date: 8/25/2004

Source: City of Portland BES Aerial photo 2004	Environmental Services City of Portland 1120 SW Fifth Avenue, Room 1000 Portland Oregon, 97204-1912
s:\gis\outfalls\outfall_18\ TPH_figure8_020706.mxd	**Program Manager:** Dawn Sanders Portland Harbor Superfund
Sheet No. 1 OF 1	**Date Printed:** 02/07/2006





Legend

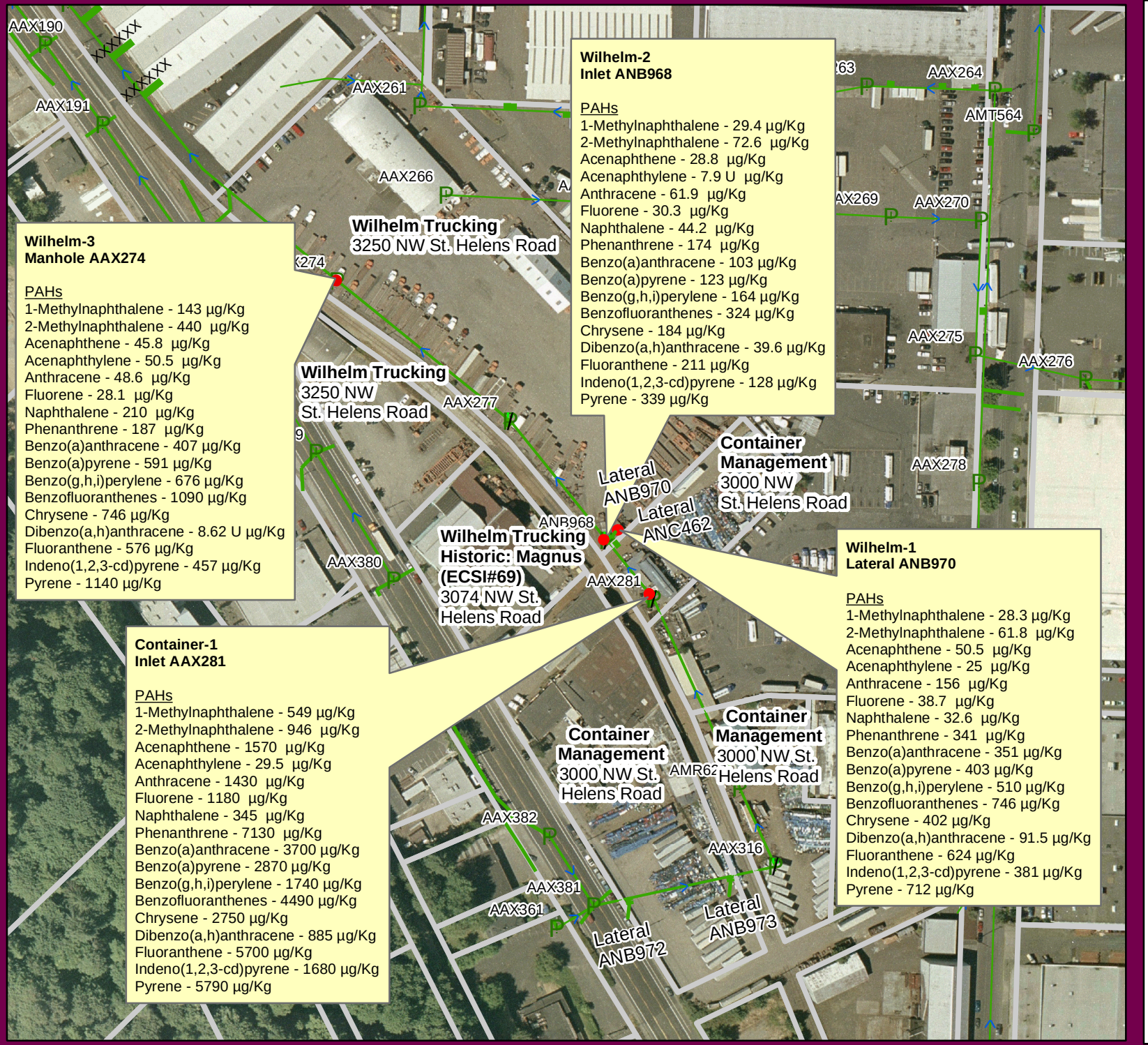
- Storm Pipe
- Stormwater Laterals
- Taxlots
- Sample Location
- Manhole
- Grated Inlet

0 250 500 1000 Feet

µg/Kg = micrograms/Kilogram dry weight

Figure 7
Outfall 18
Inline Solids Sampling
PCBs
Sample Date: 8/25/2004

Source: City of Portland BES Aerial photo 2004	Environmental Services City of Portland 1120 SW Fifth Avenue, Room 1000 Portland Oregon, 97204-1912
s:\gis\outfalls\outfall_18\pcbs_figure7_020706.mxd	**Program Manager:** Dawn Sanders Portland Harbor Superfund
Sheet No. 1 OF 1	**Date Printed:** 02/07/2006



Wilhelm-3
Manhole AAX274

PAHs
1-Methylnaphthalene - 143 µg/Kg
2-Methylnaphthalene - 440 µg/Kg
Acenaphthene - 45.8 µg/Kg
Acenaphthylene - 50.5 µg/Kg
Anthracene - 48.6 µg/Kg
Fluorene - 28.1 µg/Kg
Naphthalene - 210 µg/Kg
Phenanthrene - 187 µg/Kg
Benzo(a)anthracene - 407 µg/Kg
Benzo(a)pyrene - 591 µg/Kg
Benzo(g,h,i)perylene - 676 µg/Kg
Benzofluoranthenes - 1090 µg/Kg
Chrysene - 746 µg/Kg
Dibenzo(a,h)anthracene - 8.62 U µg/Kg
Fluoranthene - 576 µg/Kg
Indeno(1,2,3-cd)pyrene - 457 µg/Kg
Pyrene - 1140 µg/Kg

Wilhelm-2
Inlet ANB968

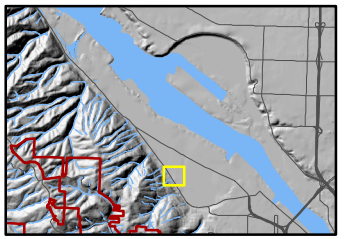
PAHs
1-Methylnaphthalene - 29.4 µg/Kg
2-Methylnaphthalene - 72.6 µg/Kg
Acenaphthene - 28.8 µg/Kg
Acenaphthylene - 7.9 U µg/Kg
Anthracene - 61.9 µg/Kg
Fluorene - 30.3 µg/Kg
Naphthalene - 44.2 µg/Kg
Phenanthrene - 174 µg/Kg
Benzo(a)anthracene - 103 µg/Kg
Benzo(a)pyrene - 123 µg/Kg
Benzo(g,h,i)perylene - 164 µg/Kg
Benzofluoranthenes - 324 µg/Kg
Chrysene - 184 µg/Kg
Dibenzo(a,h)anthracene - 39.6 µg/Kg
Fluoranthene - 211 µg/Kg
Indeno(1,2,3-cd)pyrene - 128 µg/Kg
Pyrene - 339 µg/Kg

Wilhelm-1
Lateral ANB970

PAHs
1-Methylnaphthalene - 28.3 µg/Kg
2-Methylnaphthalene - 61.8 µg/Kg
Acenaphthene - 50.5 µg/Kg
Acenaphthylene - 25 µg/Kg
Anthracene - 156 µg/Kg
Fluorene - 38.7 µg/Kg
Naphthalene - 32.6 µg/Kg
Phenanthrene - 341 µg/Kg
Benzo(a)anthracene - 351 µg/Kg
Benzo(a)pyrene - 403 µg/Kg
Benzo(g,h,i)perylene - 510 µg/Kg
Benzofluoranthenes - 746 µg/Kg
Chrysene - 402 µg/Kg
Dibenzo(a,h)anthracene - 91.5 µg/Kg
Fluoranthene - 624 µg/Kg
Indeno(1,2,3-cd)pyrene - 381 µg/Kg
Pyrene - 712 µg/Kg

Container-1
Inlet AAX281

PAHs
1-Methylnaphthalene - 549 µg/Kg
2-Methylnaphthalene - 946 µg/Kg
Acenaphthene - 1570 µg/Kg
Acenaphthylene - 29.5 µg/Kg
Anthracene - 1430 µg/Kg
Fluorene - 1180 µg/Kg
Naphthalene - 345 µg/Kg
Phenanthrene - 7130 µg/Kg
Benzo(a)anthracene - 3700 µg/Kg
Benzo(a)pyrene - 2870 µg/Kg
Benzo(g,h,i)perylene - 1740 µg/Kg
Benzofluoranthenes - 4490 µg/Kg
Chrysene - 2750 µg/Kg
Dibenzo(a,h)anthracene - 885 µg/Kg
Fluoranthene - 5700 µg/Kg
Indeno(1,2,3-cd)pyrene - 1680 µg/Kg
Pyrene - 5790 µg/Kg



Legend

- Storm Pipe
- Stormwater Laterals
- Taxlots
- Sample Location
- Manhole
- Grated Inlet

0 250 500 1000 Feet

µg/Kg = micrograms/Kilogram dry weight

Figure 6
Outfall 18
Inline Solids Sampling
PAHs
Sample Date: 8/25/2004

Source: City of Portland BES Aerial photo 2004	Environmental Services City of Portland 1120 SW Fifth Avenue, Room 1000 Portland Oregon, 97204-1912
s:\gis\outfalls\outfall_18\ pah_figure6_020706.mxd	**Program Manager:** Dawn Sanders Portland Harbor Superfund
Sheet No. 1 OF 1	**Date Printed:** 02/07/2006

Wilhelm-2
Inlet ANB968

Phthalates
Bis(2-ethylhexl)phthalate - 3470 µg/Kg
Butylbenzylphthalate - 443 µg/Kg
Diethylphthalate - 15.8 U µg/Kg
Dimethylphthalate - 29.5 µg/Kg
Di-n-butyphthalate - 32.7 µg/Kg
Di-n-octylphthalate - 56.7 µg/Kg

Wilhelm-3
Manhole AAX274

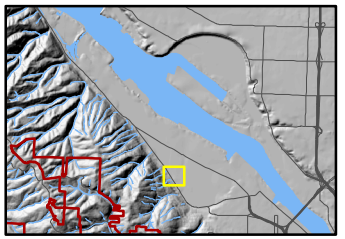
Phthalates
Bis(2-ethylhexl) phthalate - 11500 µg/Kg
Butylbenzylphthalate - 1010 µg/Kg
Diethylphthalate - 17.2 U µg/Kg
Dimethylphthalate - 39.1 µg/Kg
Di-n-butylphthalate - 77.7 µg/Kg
Di-n-octyl phthalate - 278 µg/Kg

Wilhelm-1
Lateral ANB970

Phthalates
Bis(2-ethylhexl)phthalate - 2810 µg/Kg
Butylbenzylphthalate - 189 µg/Kg
Diethylphthalate - 15.5 U µg/Kg
Dimethylphthalate - 15.5 U µg/Kg
Di-n-butylphthalate - 33.4 µg/Kg
Di-n-octylphthalate - 83.5 µg/Kg

Container-1
Inlet AAX281

Phthalates
Bis(2-ethylhexl)phthalate - 22700 µg/Kg
Butylbenzylphthalate - 3840 µg/Kg
Diethylphthalate - 28.3 µg/Kg
Dimethylphthalate - 130 µg/Kg
Di-n-butylphthalate - 131 µg/Kg
Di-n-octylphthalate - 13500 µg/Kg



Legend

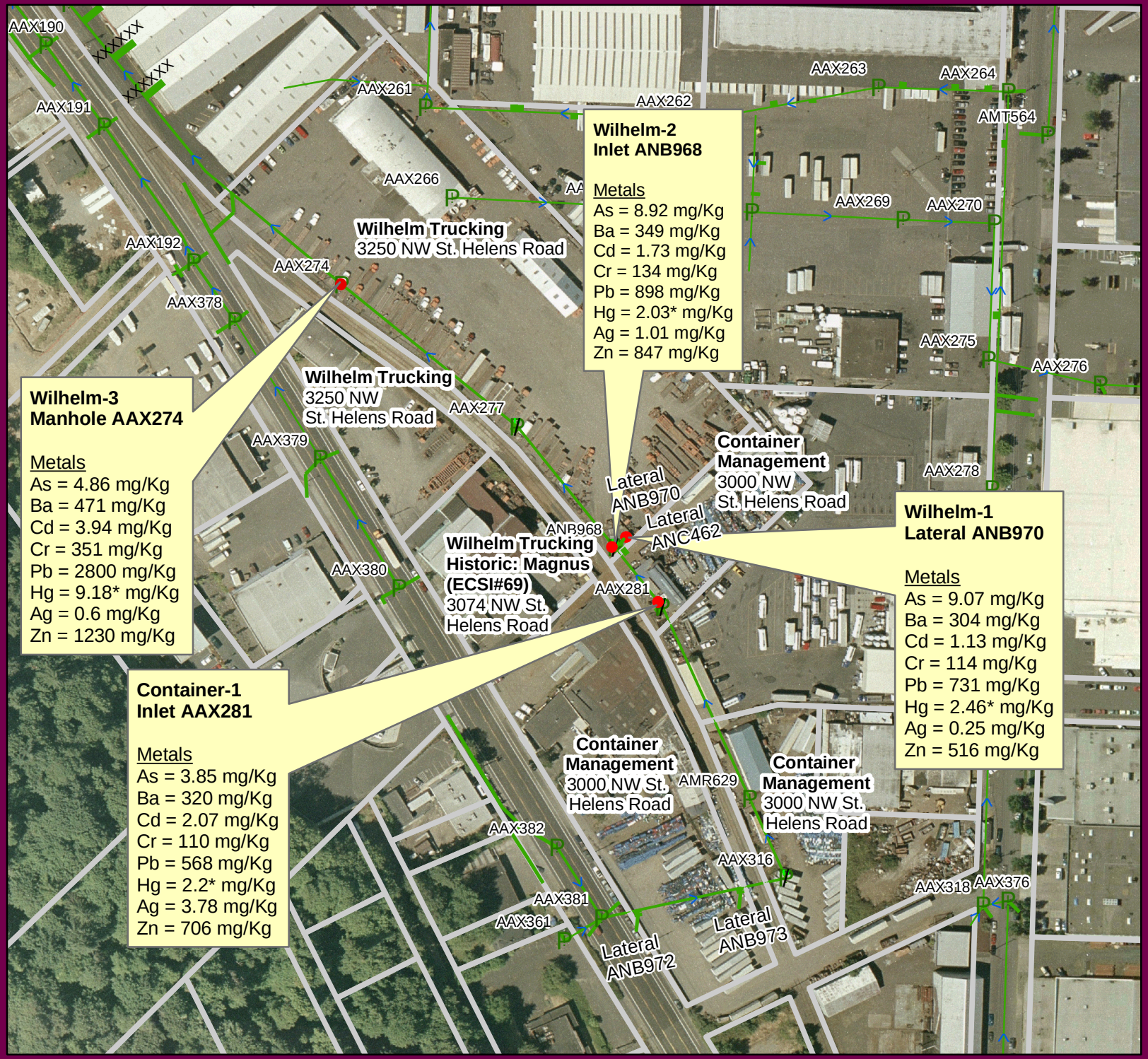
- Storm Pipe
- Stormwater Laterals
- Taxlots
- Sample Location
- Manhole
- Grated Inlet

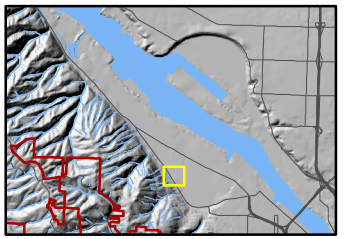
0 250 500 1000 Feet

µg/Kg = micrograms/Kilogram dry weight

Figure 5
Outfall 18
Inline Solids Sampling
Phthalates
Sample Date: 8/25/2004

Source: City of Portland BES Aerial photo 2004	Environmental Services City of Portland 1120 SW Fifth Avenue, Room 1000 Portland Oregon, 97204-1912
s:\gis\outfalls\outfall_18\phthalates_figure5_020706.mxd	**Program Manager:** Dawn Sanders Portland Harbor Superfund
Sheet No. 1 OF 1	**Date Printed:** 01/04/2006





Legend

- Storm Pipe
- Stormwater Laterals
- Taxlots
- Sample Location
- Manhole
- Grated Inlet

0 250 500 1000 Feet

µg/Kg = micrograms/Kilogram dry weight

Figure 4
Outfall 18
Inline Solids Sampling
Metals
Sample Date: 8/25/2004

Source: City of Portland BES Aerial photo 2004	Environmental Services City of Portland 1120 SW Fifth Avenue, Room 1000 Portland Oregon, 97204-1912
s:\gis\outfalls\outfall_18\ metals_figure4_020706.mxd	**Program Manager:** Dawn Sanders Portland Harbor Superfund
Sheet No. 1 OF 1	**Date Printed:** 02/07/2006

Attachment A
Field Photographs

Photo 1 (July 2004): 18" stormwater line - south side of Container Management facility.

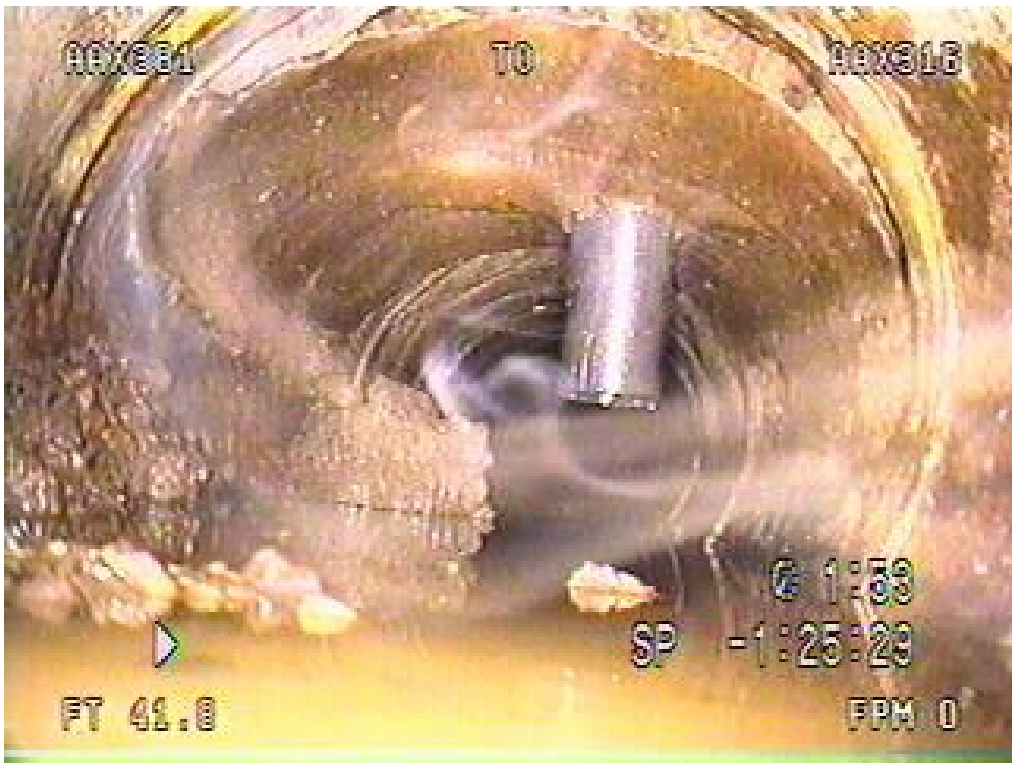


Photo 2 (July 2004): Container Management stormwater lateral ANB972.

Photo 3 (July 2004): Container Management stormwater lateral ANB973.

Photos 4-5 (August 2004): Stormwater node AAX316 at Container Management and junction of 18" and 42" stormwater lines at AAX316.

Photo 6 (August 2004): Stormwater node AAX281 at Container Management during sample collection.

Photo 7 (August 2004): Node AAX281 with Container Management stormwater lateral ANB971 entering from the west during sample collection.

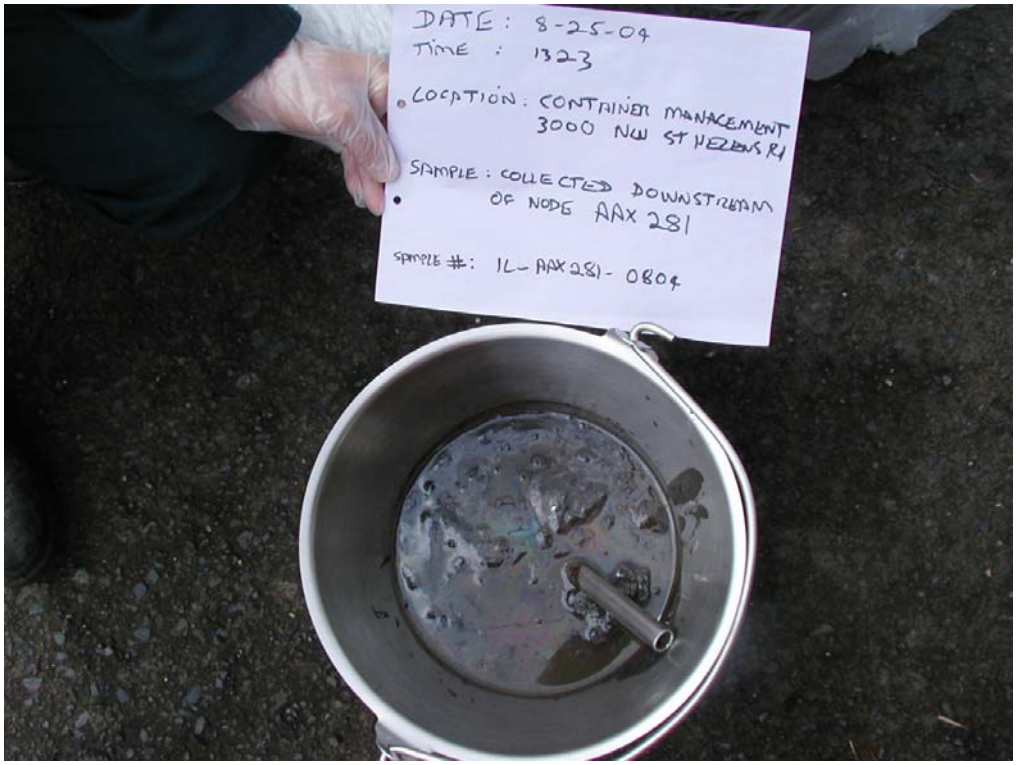


Photo 8(August 2004): Inline solids collected 8/25/04 at "Container Management -1" sample location.

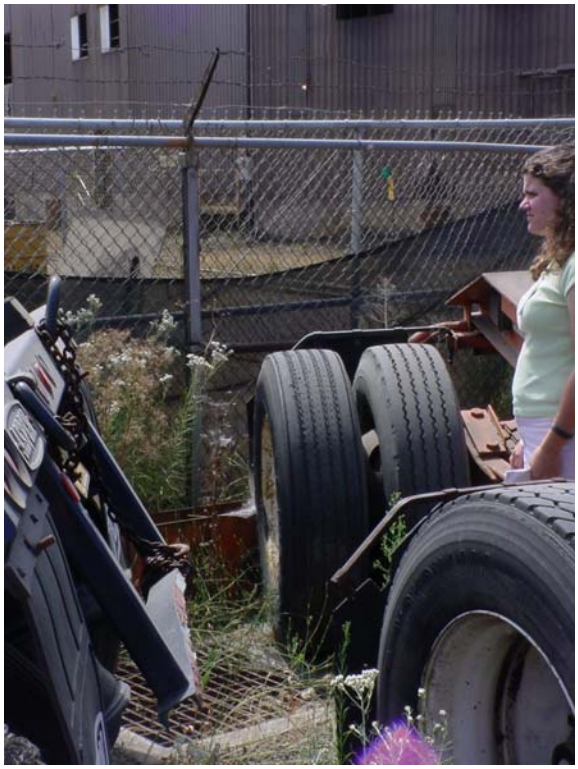


Photo 9 (August 2004): Stormwater node ANB968 at Wilhelm Trucking Co. during sample site selection.

Photo 10 (August 2004): Inline solids from Wilhelm stormwater lateral ANB970, upstream of node ANB968.

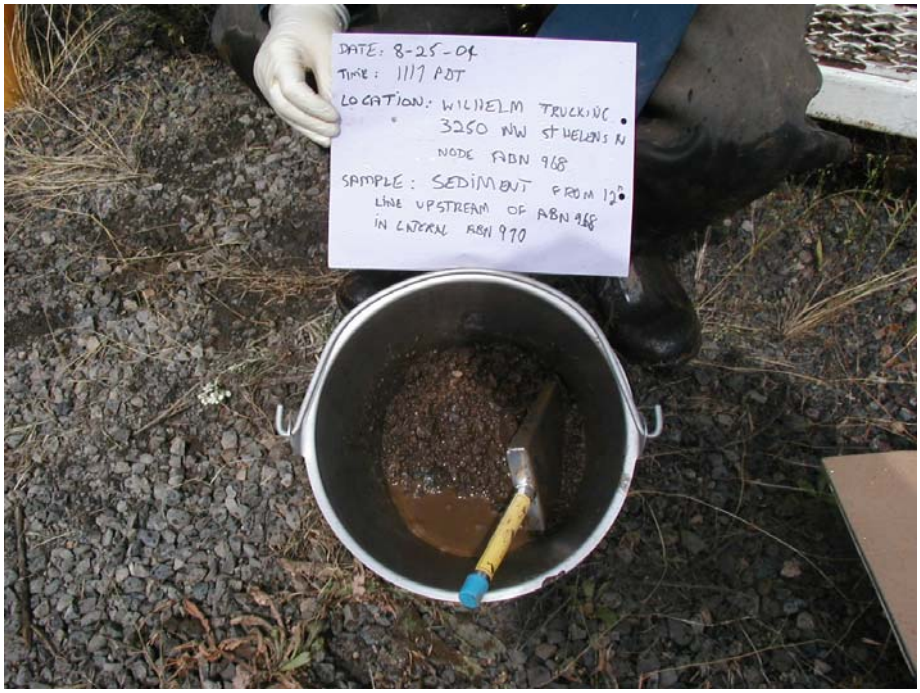


Photo 11 (August 2004): Inline solids collected at "Wilhelm-1" sample location.

Photo 12 (August 2004): Sample collection four feet downstream of node ANB968.

Photo 13 (August 2004): 42" stormwater line downstream of node ANB968.

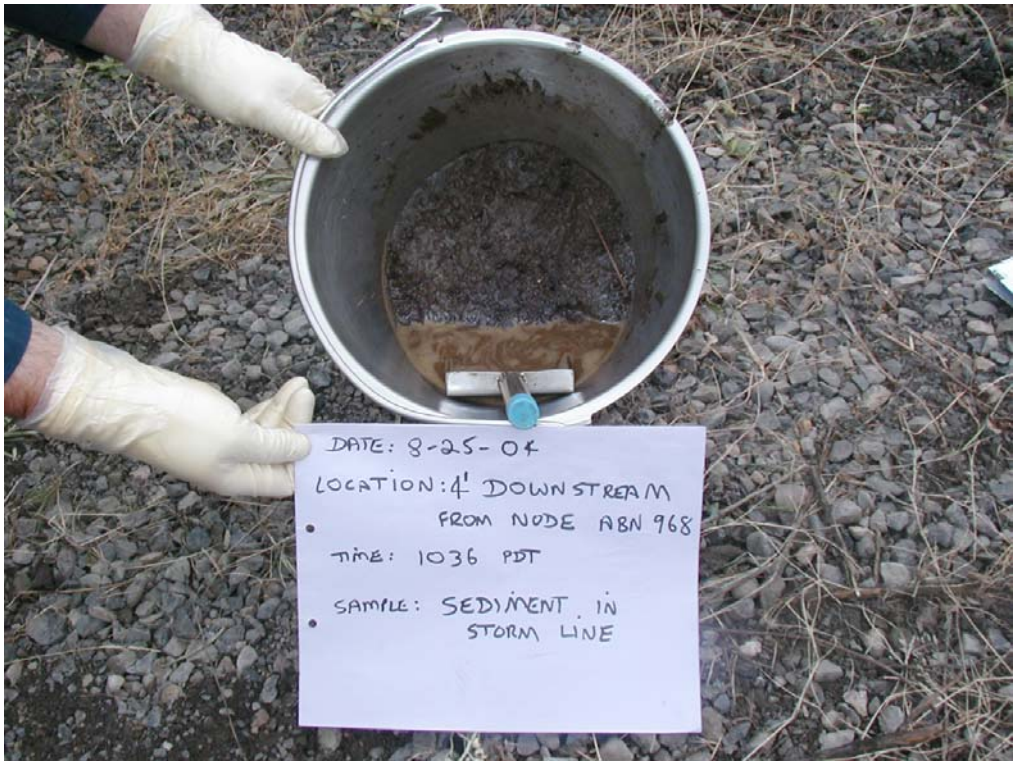


Photo 14 (August 2004): Inline solids collected at "Wilhelm-2" sample location.

Photo 15 (August 2004): Stormwater node (Wilhelm Trucking).

Photo 16 (August 2004): Inline solids AAX274 collected at "Wilhelm-3" sample location.

Photo 17 (August 2004): 42” stormwater line upstream of node AAX274.

Attachment B

TRC

Customer-Focused Solutions

June 13, 2005

Project No. 41053901

JUST FYI

Mr. Matthew Hickey
Collection System Maintenance Engineer
Bureau of Environmental Services
1120 SW 5th Avenue, Room 1000
Portland, Oregon 97204

Myers Container Corporation – St. Helens Facility
Storm Drain Overflow Installation Report

Dear Mr. Hickey:

On behalf of Myers Container Corporation TRC submits this Storm Drain Overflow Installation Report for activities conducted at Myers Container Corporation, located at 3000 NW St. Helens Road in Portland, Oregon (Site) (Figure 1). The activities were performed in accordance with TRC's proposal dated March 10, 2005. The construction activities described herein consisted of installing a storm drain overflow on the existing storm drain at the Site noted above.

Installation of the storm drain overflow was requested by the City of Portland to mitigate any potential impacts that might result if the existing on-site storm drain pipe constructed of 55-gallon drums collapsed or otherwise caused a backup. As shown on the attached Figure 2, the storm drain runs in an easterly direction from St. Helens Road and extends through the Site.

Prior to excavation, underground service alert was notified of the impending excavation activities to find possible utilities located onsite. A series of gas lines was found to run through the Site; however a private locator determined that the gas lines were not located near the area where excavation would occur.

The work was performed on two different events between April 7th and May 2nd, 2005. The activities were performed at the Site on April 7th included:

- Excavation of soil from area around existing storm drain to expose the top of the pipe and verify the depth of the storm drain.
- Excavation of an approximately 4 feet by 4 feet area around the storm drain to allow space for storm drain overflow.
- Placement of removed soil in a bin and collection of a composite sample for characterization and proper disposal of soil at an off-site facility.
- Placement of steel plates over the excavation to provide vehicular access and safety until the overflow box could be installed.

1590 Solano Way, Suite A • Concord, California 94520
Telephone 925-688-1200 • Fax 925-688-0388

After verification of the location and depth of the existing storm drain, a custom pre-cast concrete overflow box was ordered for fabrication (see Figures 3 and 4). The box fabrication was completed on April 21st, 2005, and was installed on May 2nd, 2005. The activities included:

- Installation of a storm drain overflow with a traffic-rated grate cover over the top of the existing storm drain to allow for vehicular access to the area.
- Sealing of the annular space between the storm drain and concrete overflow with foam sealant.
- Sealing of the edges of concrete overflow with grout to prevent leaks.
- Backfilling and compaction around storm drain overflow with ¾" minus aggregate.
- Removal of trench plates and soil bin from Site. Soil bin was transported to Trashco's facility pending disposal at a proper off-site facility.

One composite sample of the excavated soil was analyzed for CAM-17 Metals, polychlorobiphenyls (PCBs), total petroleum hydrocarbons as gasoline (TPH-g), total petroleum hydrocarbons as diesel (TPH-d), heavy oil range hydrocarbons (HRO), benzene, toluene, ethylbenzene, and total xylenes (BTEX). The results from this analysis are shown in Table 1. BTEX, TPH-g, and PCBs were not detected in the sample and low concentrations of TPH-d and HRO were detected at 27.8 mg/kg and 117 mg/kg, respectively.

Concentrations of arsenic, barium, cadmium, chromium, cobalt, copper, lead, nickel, titanium, vanadium and zinc were detected in the composite sample. All of these constituents except lead were detected below the regulatory levels provided by Waste Management, as shown in Table 1. A toxicity characteristic leaching procedure was completed for lead and the results were below the indicated laboratory detection limit. Copies of the laboratory data sheets and Quality Assurance/Quality Control (QA/QC) analysis are provided in Appendix A.

The excavated soil was profiled as non-hazardous waste and transported to Waste Management Hillsboro Landfill for disposal on May 17, 2005. Approximately 10 tons of soil was disposed at the facility. Waste documentation is provided in Appendix B.

All activities were performed in accordance with the approved proposal. If you have any questions regarding this report, please contact either of the undersigned at (925) 688-1200.

Sincerely,

Maija L. Seppanen
Senior Staff Engineer

Mohammad Bazargani, P.E.
Associate

cc: Dana Zanone, Myers Container Corporation

TABLES

TRC

Table 1

Summary of Soil Analytical Results

Myers Container Management Services
3000 NW St. Helens Road, Portland, Oregon

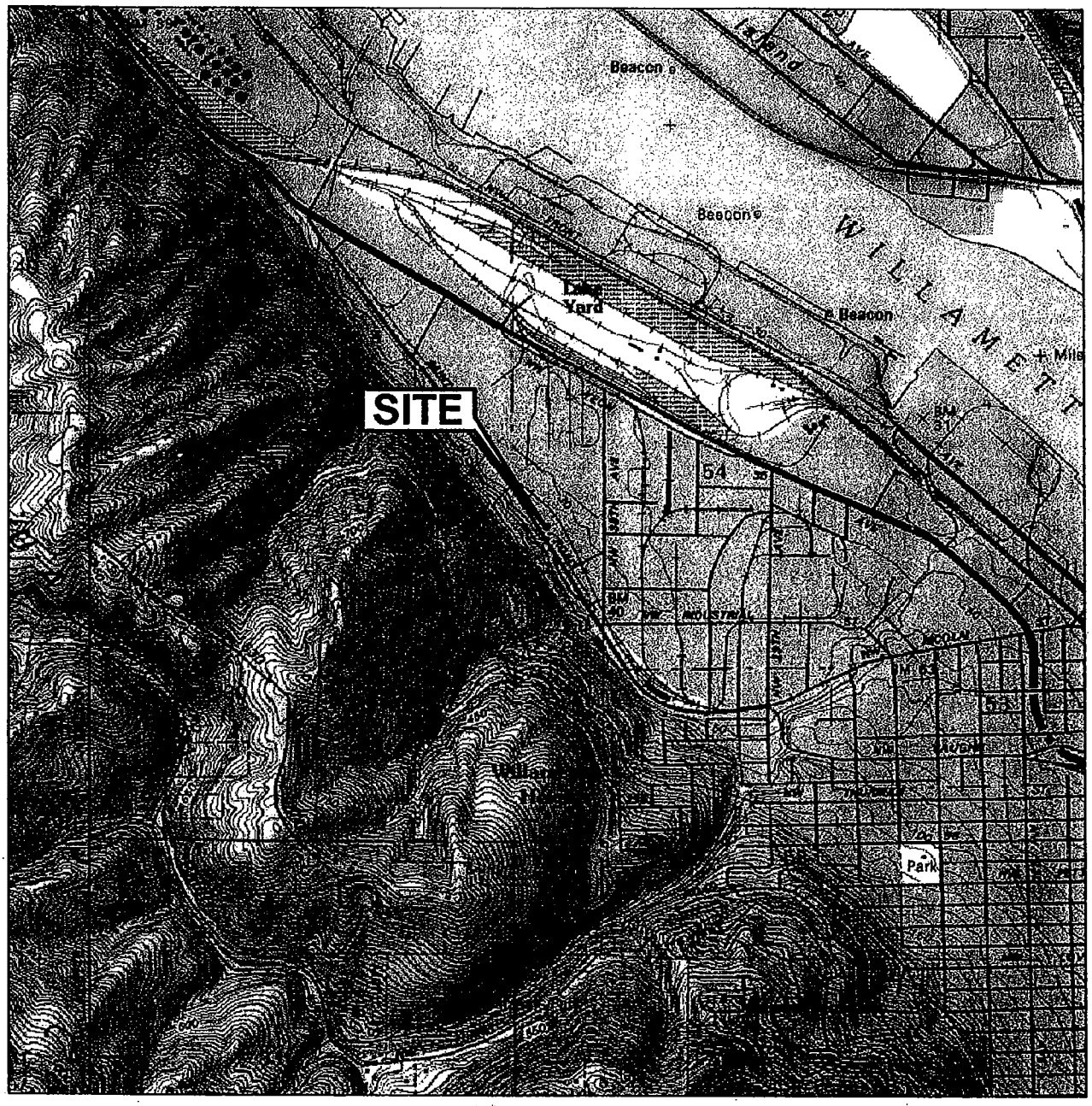
Parameter	Comp-1 (4/7/05)	Regulatory Level
Benzene	<0.05	10
Toluene	<0.05	--
Ethylbenzene	<0.05	--
Total Xylene	<0.05	--
Gasoline Range Organics	<4.0	--
Diesel Range Organics	**27.8**	--
Heavy Oil Range Hydrocarbons	**117**	--
Polychlorobiphenyls (µg/kg)	<33.3	--
Antimony	<1.5	--
Arsenic	**1.94**	100
Barium	**114**	2,000
Beryllium	<0.5	--
Cadmium	**0.651**	20
Chromium	**23.1**	100
Cobalt	**11.6**	--
Copper	**29.8**	--
Lead	**103**	100
Lead (TCLP) (mg/L)	<0.1	5
Mercury	≤0.0833	0.2
Molybdenum	<2.5	--
Nickel	**14.8**	--
Selenium	<0.5	20
Silver	<0.5	100
Titanium	**1,920**	--
Vanadium	**68.6**	--
Zinc	**123**	--

NOTES:

All constituents and regulatory levels reported as milligrams per kilogram unless otherwise noted.

<0.5 = Not detected above laboratory detection limit
-- = Not available

FIGURES



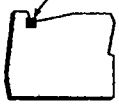
1 MILE 3/4 1/2 1/4 0 1 MILE

SCALE 1 : 24,000

N

SOURCE:
United States Geological Survey
7.5 Minute Topographic Maps:
Linnton and Portland, Oregon Quadrangles

QUADRANGLE LOCATION

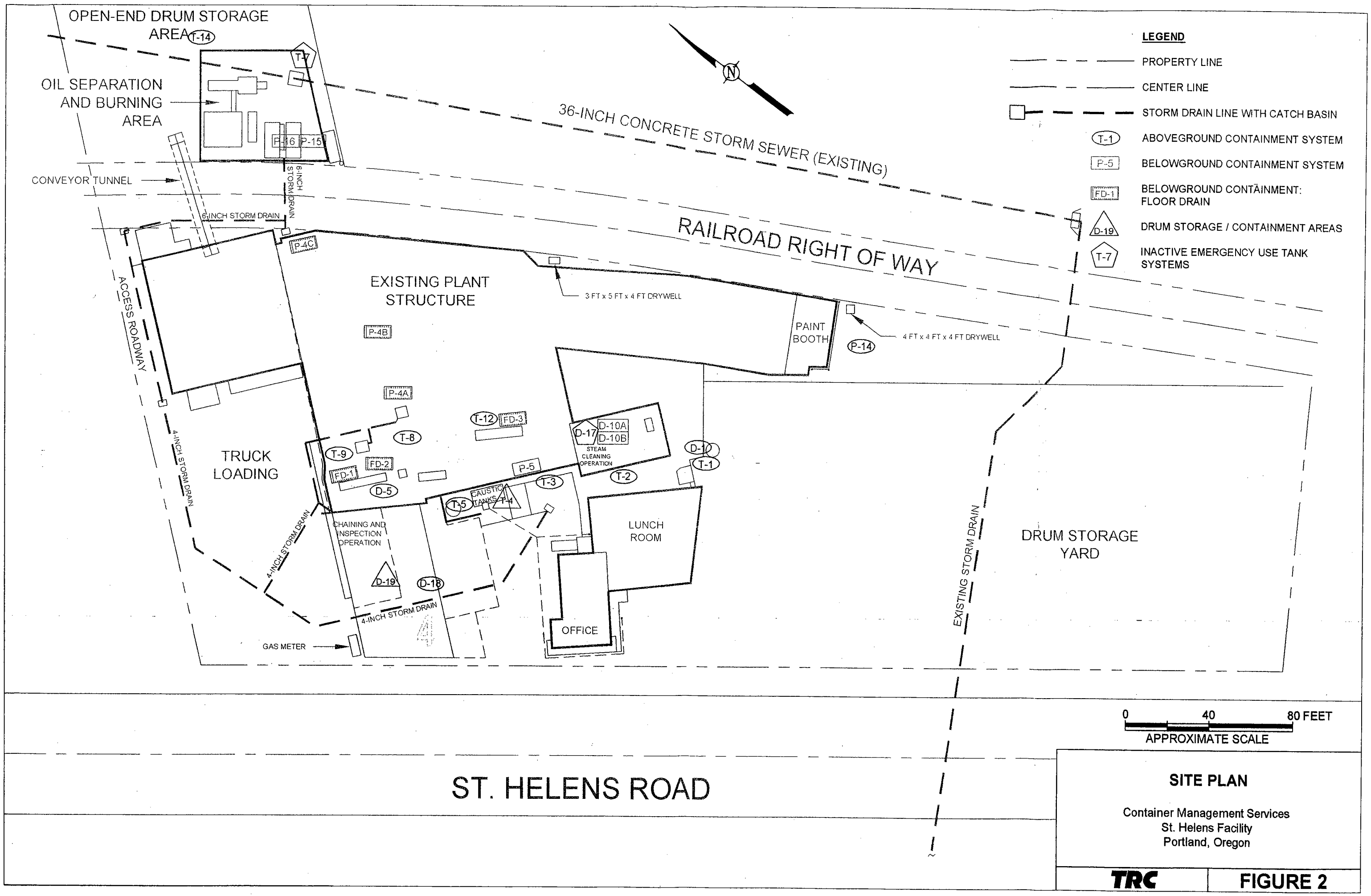


VICINITY MAP

Container Management Services
St. Helens Facility
Portland, Oregon

TRC

FIGURE 1

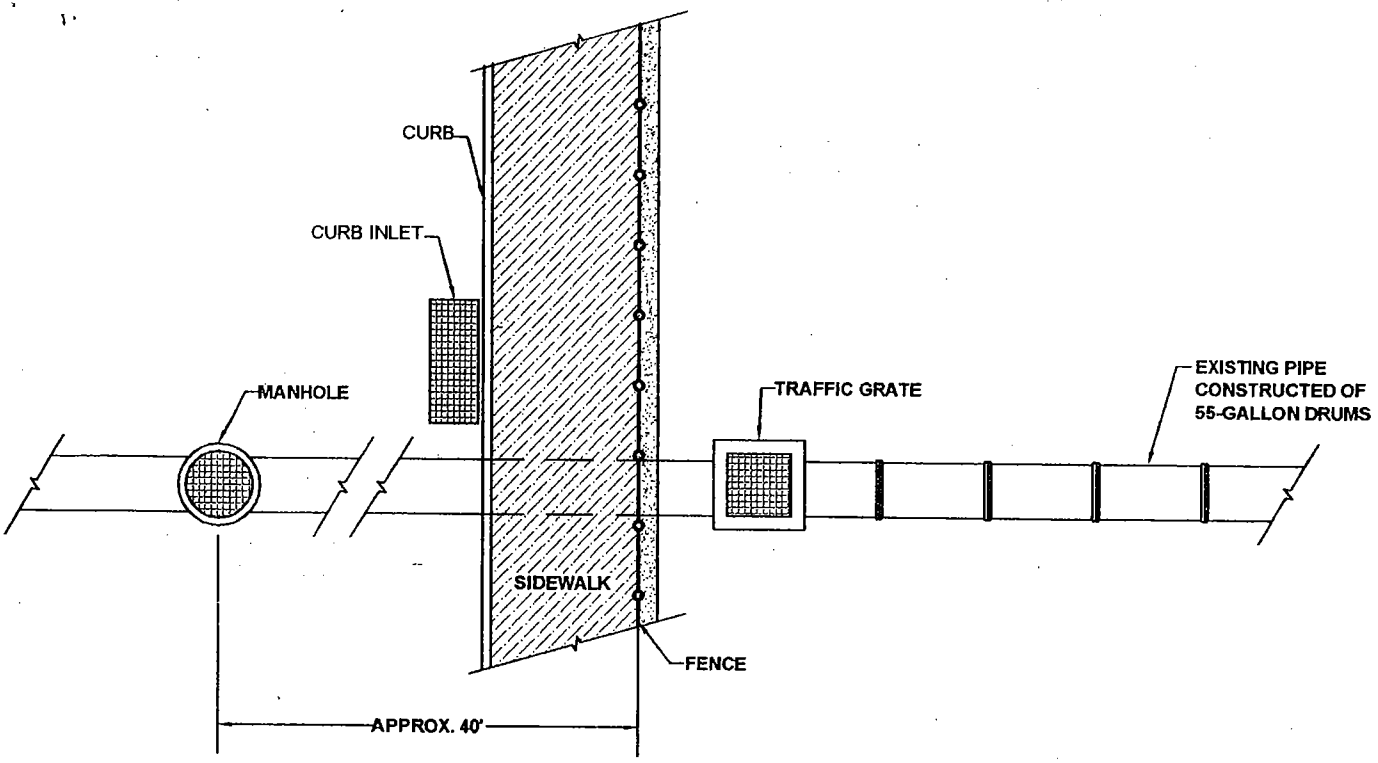


SITE PLAN

Container Management Services
St. Helens Facility
Portland, Oregon

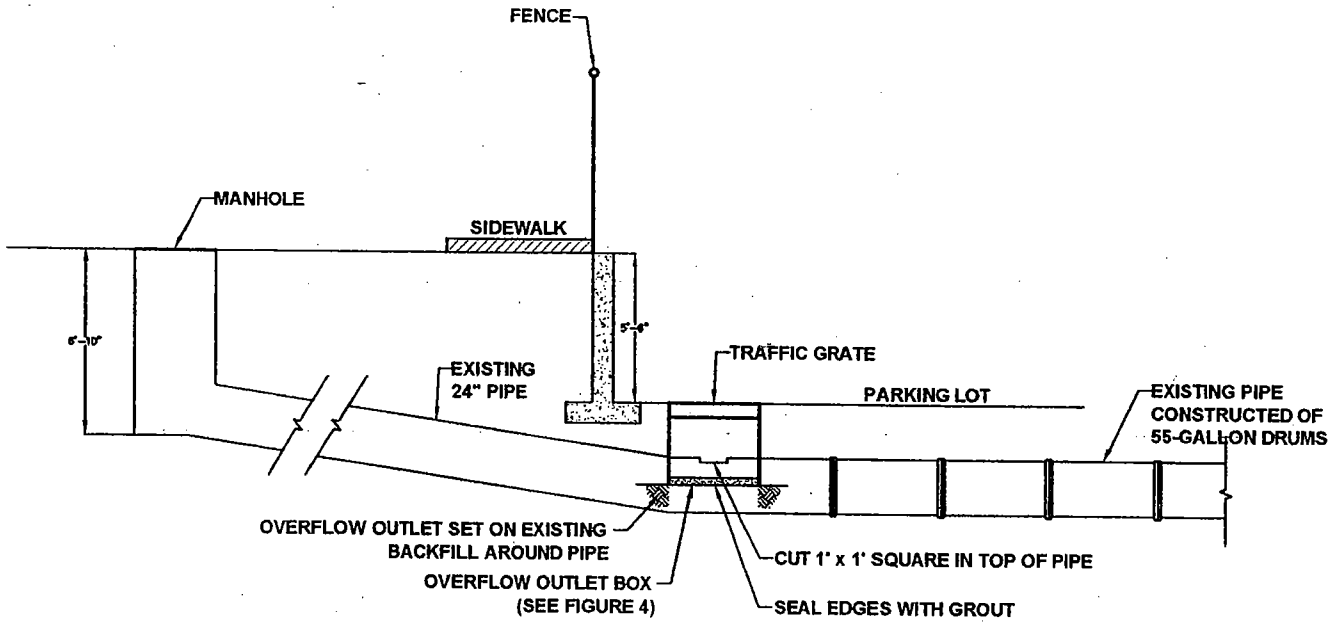
TRC

FIGURE 2



PLAN VIEW

NOT TO SCALE



PROFILE

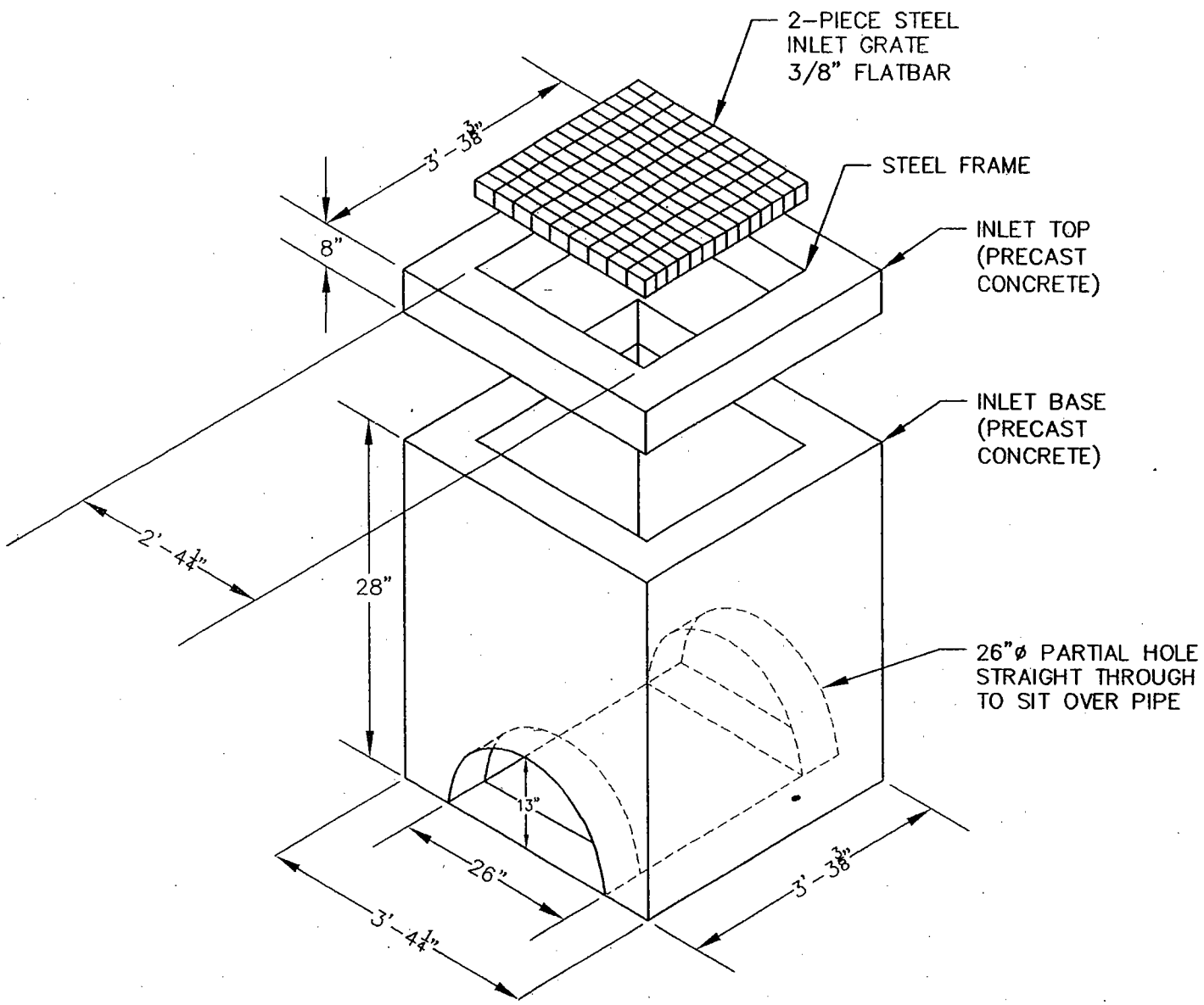
NOT TO SCALE

OVERFLOW OUTLET CONFIGURATION

Container Management Services
St. Helens Facility
Portland, Oregon

TRC

FIGURE 3



OVERFLOW OUTLET BOX - DETAIL

Container Management Services
St. Helens Facility
Portland, Oregon

SCALE: NOT TO SCALE

TRC

FIGURE 4

APPENDIX A

Official Laboratory Report and Chain of Custody

TRC

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Bend	20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588
Anchorage	2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119 907.563.9200 fax 907.563.9210

Amended Report

May 05, 2005

Maija Seppanen
TRC
5052 Commercial Circle
Concorde, CA 94520

RE: Myers Container Management

Enclosed are the results of analyses for samples received by the laboratory on 04/07/05 16:30.
The following list is a summary of the NCA Work Orders contained in this report.
If you have any questions concerning this report, please feel free to contact me.

Amended Report: All results reported here supercede any previously reported results.

Work	Project	ProjectNumber
P5D0366	Myers Container Management	41053901

Thank You,

Lisa Domenighini

Lisa Domenighini, Project Manager

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phone: (907) 563.9200 fax: (907) 563.9210

Amended Report

TRC
5052 Commercial Circle
Concorde, CA 94520

Project Name: **Myers Container Management**
Project Number: 41053901
Project Manager: Maija Seppanen

Report Created:
05/05/05 16:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Comp-1	P5D0366-01	Soil	04/07/05 10:00	04/07/05 16:30

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Amended Report

TRC	Project Name: **Myers Container Management**	
5052 Commercial Circle	Project Number: 41053901	Report Created:
Concorde, CA 94520	Project Manager: Maija Seppanen	05/05/05 16:32

Gasoline Hydrocarbons per NW TPH-Gx Method and BTEX per EPA Method 8021B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5D0366-01 Soil	**Comp-1**	**Sampled: 04/07/05 10:00**								
Benzene	NW-G, 8021B	ND	-----	0.0500	mg/kg dry	1x	5040464	04/12/05	04/13/05 06:40	
Toluene	"	ND	-----	0.0500	"	"	"	"	"	
Ethylbenzene	"	ND	-----	0.0500	"	"	"	"	"	
Xylenes (total)	"	ND	-----	0.0500	"	"	"	"	"	
Gasoline Range Hydrocarbons	"	ND	-----	4.00	"	"	"	"	"	
Surrogate(s): a,a,a-TFT (PID)		*Recovery: 88.6%*		*Limits: 60 - 130 %*		"			"	
a,a,a-TFT (FID)		*85.4%*		*50 - 150 %*		"			"	

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Amended Report

TRC	Project Name: **Myers Container Management**	
5052 Commercial Circle	Project Number: 41053901	Report Created:
Concorde, CA 94520	Project Manager: Maija Seppanen	05/05/05 16:32

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method

North Creek Analytical - Portland

Analyte	-	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5D0366-01	**Soil**	**Comp-1**	**Sampled: 04/07/05 10:00**								
Diesel Range Organics		NWTPH-Dx	**27.8**	-----	25.0	mg/kg dry	1x	5040385	04/11/05	04/12/05 20:47	**A-01**
Heavy Oil Range Hydrocarbons		"	**117**	-----	50.0	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			*Recovery: 97.2%*		*Limits: 50 - 150 %*		"			"	

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Amended Report

TRC	Project Name: **Myers Container Management**	
5052 Commercial Circle	Project Number: 41053901	Report Created:
Concorde, CA 94520	Project Manager: Maija Seppanen	05/05/05 16:32

Total Mercury per EPA Method 7471A

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5D0366-01 Soil	**Comp-1**	**Sampled: 04/07/05 10:00**								
Mercury	EPA 7471A	ND	-----	0.0833	mg/kg dry	1x	5040534	04/13/05	04/13/05 15:05	

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Amended Report

TRC
5052 Commercial Circle
Concorde, CA 94520

Project Name: **Myers Container Management**
Project Number: 41053901
Project Manager: Maija Seppanen

Report Created:
05/05/05 16:32

Polychlorinated Biphenyls per EPA Method 8082

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5D0366-01 Soil	**Comp-1**	**Sampled: 04/07/05 10:00**								
Aroclor 1016	EPA 8082	ND	-----	33.3	ug/kg dry	1x	5040447	04/12/05	04/18/05 11:29	
Aroclor 1221	"	ND	-----	67.0	"	"	"	"	"	
Aroclor 1232	"	ND	-----	33.3	"	"	"	"	"	
Aroclor 1242	"	ND	-----	33.3	"	"	"	"	"	
Aroclor 1248	"	ND	-----	33.3	"	"	"	"	"	
Aroclor 1254	"	ND	-----	33.3	"	"	"	"	"	
Aroclor 1260	"	ND	-----	33.3	"	"	"	"	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 106%*		*Limits: 36 - 140 %*		"			"	
Decachlorobiphenyl		*90.4%*		*16 - 149 %*		"			"	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amended Report

Lisa Domenighini, Project Manager

North Creek Analytical, Inc.
Environmental Laboratory Network

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Amended Report

TRC	Project Name: **Myers Container Management**	
5052 Commercial Circle	Project Number: 41053901	Report Created:
Concorde, CA 94520	Project Manager: Maija Seppanen	05/05/05 16:32

Percent Dry Weight (Solids) per Standard Methods

North Creek Analytical - Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5D0366-01	**Soil**	**Comp-1**	**Sampled: 04/07/05 10:00**								
% Solids		NCA SOP	**77.6**	-----	1.00	% by Weight	1x	5040522	04/13/05	04/14/05 10:01	

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Amended Report

TRC	Project Name: **Myers Container Management**	
5052 Commercial Circle	Project Number: 41053901	Report Created:
Concorde, CA 94520	Project Manager: Maija Seppanen	05/05/05 16:32

TCLP Metals by EPA 1311/6000/7000 Series Methods

North Creek Analytical - Bothell

Analyte	-	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5D0366-01	**Soil**	**Comp-1**	**Sampled: 04/07/05 10:00**								
Lead		EPA 6010B	ND	-----	0.100	mg/l	1x	5E03040	05/03/05	05/04/05 15:22	

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Amended Report

TRC	Project Name: **Myers Container Management**	
5052 Commercial Circle	Project Number: 41053901	Report Created:
Concorde, CA 94520	Project Manager: Maija Seppanen	05/05/05 16:32

Total Metals by EPA 6000/7000 Series Methods

North Creek Analytical - Bothell

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5D0366-01 Soil	**Comp-1**	**Sampled: 04/07/05 10:00**								
Antimony	EPA 6020	ND	-----	1.50	mg/kg dry	1x	5D13017	04/13/05	04/18/05 12:39	
Arsenic	"	**1.94**	-----	0.500	"	"	"	"	04/14/05 12:34	
Barium	"	**114**	-----	5.00	"	"	"	"	"	
Beryllium	"	ND	-----	0.500	"	"	"	"	04/18/05 12:39	
Cadmium	"	**0.651**	-----	0.500	"	"	"	"	04/14/05 12:34	
Chromium	"	**23.1**	-----	0.500	"	"	"	"	"	
Cobalt	"	**11.6**	-----	0.500	"	"	"	"	"	
Copper	"	**29.8**	-----	0.500	"	"	"	"	"	
Lead	"	**103**	-----	0.500	"	"	"	"	"	
Molybdenum	"	ND	-----	2.50	"	"	"	"	"	
Nickel	"	**14.8**	-----	0.500	"	"	"	"	"	
Selenium	"	ND	-----	0.500	"	"	"	"	"	
Silver	"	ND	-----	0.500	"	"	"	"	"	
Titanium	"	**1920**	-----	5.00	"	10x	"	"	04/21/05 11:07	
Vanadium	"	**68.6**	-----	0.500	"	1x	"	"	04/14/05 12:34	
Zinc	"	**123**	-----	5.00	"	"	"	"	"	

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Amended Report

TRC
5052 Commercial Circle
Concorde, CA 94520

Project Name: **Myers Container Management**
Project Number: 41053901
Project Manager: Maija Seppanen

Report Created:
05/05/05 16:32

Physical Parameters by APHA/ASTM/EPA Methods

North Creek Analytical - Bothell

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5D0366-01	**Soil**	**Comp-1**	**Sampled: 04/07/05 10:00**								
Dry Weight		BSOPSPL003R0	**92.5**	-----	1.00	%	1x	5D17007	04/17/05	04/18/05 00:00	

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Amended Report

TRC	Project Name: **Myers Container Management**	
5052 Commercial Circle	Project Number: 41053901	Report Created:
Concorde, CA 94520	Project Manager: Maija Seppanen	05/05/05 16:32

Gasoline Hydrocarbons per NW TPH-Gx Method and BTEX per EPA Method 8021B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5040464 **Soil Preparation Method: EPA 5035 Modified**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5040464-BLK1)								Extracted: 04/12/05 14:45						
Benzene	NW-G, 8021B	ND	---	0.0500	mg/kg	1x	--	--	--	--	--	--	04/13/05 06:08	
Toluene	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"	
Gasoline Range Hydrocarbons	"	ND	---	4.00	"	"	--	--	--	--	--	--	"	
Surrogate(s): a,a,a-TFT (PID)		*Recovery:*	*109%*		*Limits:*	*60-130%*	"						*04/13/05 06:08*	
a,a,a-TFT (FID)			*105%*			*50-150%*	"						"	
LCS (5040464-BS1)								Extracted: 04/12/05 14:45						
Benzene	NW-G, 8021B	0.460	---	0.0500	mg/kg	1x	--	0.496	92.7%	(65-130)	--	--	04/13/05 05:36	
Toluene	"	0.480	---	0.0500	"	"	--	"	96.8%	"	--	--	"	
Ethylbenzene	"	0.489	---	0.0500	"	"	--	"	98.6%	"	--	--	"	
Xylenes (total)	"	1.44	---	0.0500	"	"	--	1.49	96.6%	"	--	--	"	
Surrogate(s): a,a,a-TFT (PID)		*Recovery:*	*110%*		*Limits:*	*60-130%*	"						*04/13/05 05:36*	
LCS (5040464-BS2)								Extracted: 04/12/05 14:45						
Gasoline Range Hydrocarbons	NW-G, 8021B	40.5	---	7.81	mg/kg	1x	--	48.8	83.0%	(50-150)	--	--	04/13/05 05:05	
Surrogate(s): a,a,a-TFT (FID)		*Recovery:*	*127%*		*Limits:*	*50-150%*	"						*04/13/05 05:05*	
Duplicate (5040464-DUP1)					QC Source: P5D0467-04			Extracted: 04/12/05 14:45						
Gasoline Range Hydrocarbons	NW-G, 8021B	179	---	76.6	mg/kg dry	10x	154	--	--	--	15.0%	(50)	04/13/05 19:40	
Surrogate(s): a,a,a-TFT (FID)		*Recovery:*	*126%*		*Limits:*	*50-150%*	"						*04/13/05 19:40*	
Matrix Spike (5040464-MS1)					QC Source: P5D0366-01			Extracted: 04/12/05 14:45						
Benzene	NW-G, 8021B	0.455	---	0.0500	mg/kg dry	1x	ND	0.622	73.2%	(65-130)	--	--	04/13/05 07:12	
Toluene	"	0.467	---	0.0500	"	"	ND	"	75.1%	"	--	--	"	
Ethylbenzene	"	0.477	---	0.0500	"	"	ND	"	76.7%	"	--	--	"	
Xylenes (total)	"	1.42	---	0.0500	"	"	ND	1.86	76.3%	"	--	--	"	
Surrogate(s): a,a,a-TFT (PID)		*Recovery:*	*68.4%*		*Limits:*	*60-130%*	"						*04/13/05 07:12*	
Matrix Spike (5040464-MS2)					QC Source: P5D0467-01			Extracted: 04/12/05 14:46						
Gasoline Range Hydrocarbons	NW-G, 8021B	47.8	---	7.76	mg/kg dry	1x	ND	62.1	77.0%	(65-130)	--	--	04/13/05 17:31	
Surrogate(s): a,a,a-TFT (FID)		*Recovery:*	*103%*		*Limits:*	*50-150%*	"						*04/13/05 17:31*	

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Amended Report

TRC	Project Name: **Myers Container Management**	
5052 Commercial Circle	Project Number: 41053901	Report Created:
Concorde, CA 94520	Project Manager: Maija Seppanen	05/05/05 16:32

Gasoline Hydrocarbons per NW TPH-Gx Method and BTEX per EPA Method 8021B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5040464 **Soil Preparation Method: EPA 5035 Modified**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (5040464-MSD1)					QC Source: P5D0366-01			Extracted: 04/12/05 14:45						
Benzene	NW-G, 8021B	0.496	---	0.0500	mg/kg dry	1x	ND	0.643	77.1%	(65-130)	8.62%	(20)	04/13/05 07:44	
Toluene	"	0.510	---	0.0500	"	"	ND	"	79.3%	"	8.80%	"	"	
Ethylbenzene	"	0.520	---	0.0500	"	"	ND	"	80.9%	"	8.63%	"	"	
Xylenes (total)	"	1.54	---	0.0500	"	"	ND	1.93	79.8%	"	8.11%	"	"	
Surrogate(s): a,a,a-TFT (PID)		*Recovery: 79.5%*		*Limits: 60-130%*		"							*04/13/05 07:44*	

North Creek Analytical - Portland

Lisa Domenighini

Lisa Domenighini, Project Manager

Amended Report

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TRC
5052 Commercial Circle
Concorde, CA 94520

Project Name: **Myers Container Management**
Project Number: 41053901
Project Manager: Maija Seppanen

Report Created:
05/05/05 16:32

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5040385 **Soil Preparation Method: EPA 3550 Fuels**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5040385-BLK1)								Extracted: 04/11/05 10:12						
Diesel Range Organics	NWTPH-Dx	ND	---	25.0	mg/kg	1x	--	--	--	--	--	--	04/12/05 17:57	
Heavy Oil Range Hydrocarbons	"	ND	---	50.0	"	"	--	--	--	--	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 94.2%*			*Limits: 50-150%*	"							*04/12/05 17:57*	
LCS (5040385-BS1)								Extracted: 04/11/05 10:12						
Diesel Range Organics	NWTPH-Dx	118	---	25.0	mg/kg	1x	--	125	94.4%	(50-150)	--	--	04/12/05 18:31	
Heavy Oil Range Hydrocarbons	"	68.7	---	50.0	"	"	--	75.2	91.4%	"	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 101%*			*Limits: 50-150%*	"							*04/12/05 18:31*	
Duplicate (5040385-DUP1)					QC Source: P5D0138-01			Extracted: 04/11/05 10:12						
Diesel Range Organics	NWTPH-Dx	2520	---	1250	mg/kg dry	50x	2440	--	--	--	3.23%	(50)	04/12/05 19:05	
Heavy Oil Range Hydrocarbons	"	5770	---	2500	"	"	5780	--	--	--	0.173%	"	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: NR*			*Limits: 50-150%*	"							*04/12/05 19:05*	*S-01*
Duplicate (5040385-DUP2)					QC Source: P5D0138-02			Extracted: 04/11/05 10:12						
Diesel Range Organics	NWTPH-Dx	129	---	25.0	mg/kg dry	1x	96.0	--	--	--	29.3%	(50)	04/12/05 19:39	
Heavy Oil Range Hydrocarbons	"	236	---	50.0	"	"	181	--	--	--	26.4%	"	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 93.7%*			*Limits: 50-150%*	"							*04/12/05 19:39*	

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Amended Report

TRC	Project Name: **Myers Container Management**	
5052 Commercial Circle	Project Number: 41053901	Report Created:
Concorde, CA 94520	Project Manager: Maija Seppanen	05/05/05 16:32

Total Mercury per EPA Method 7471A - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5040534 **Soil Preparation Method: EPA 7471A**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5040534-BLK1)								Extracted: 04/13/05 14:36						
Mercury	EPA 7471A	ND	---	0.100	mg/kg	1x	--	--	--	--	--	--	04/13/05 14:47	
LCS (5040534-BS1)								Extracted: 04/13/05 14:36						
Mercury	EPA 7471A	1.01	---	0.100	mg/kg	1x	--	1.00	101%	(80-120)	--	--	04/13/05 14:49	
LCS Dup (5040534-BSD1)								Extracted: 04/13/05 14:36						
Mercury	EPA 7471A	0.980	---	0.100	mg/kg	1x	--	1.00	98.0%	(80-120)	3.02%	(20)	04/13/05 14:51	
Duplicate (5040534-DUP1)					QC Source: P5D0504-11			Extracted: 04/13/05 14:36						
Mercury	EPA 7471A	ND	---	0.0862	mg/kg dry	1x	ND	--	--	--	NR	(40)	04/13/05 14:54	
Matrix Spike (5040534-MS1)					QC Source: P5D0504-11			Extracted: 04/13/05 14:36						
Mercury	EPA 7471A	1.03	---	0.0833	mg/kg dry	1x	ND	1.07	96.3%	(75-125)	--	--	04/13/05 14:56	
Matrix Spike Dup (5040534-MSD1)					QC Source: P5D0504-11			Extracted: 04/13/05 14:36						
Mercury	EPA 7471A	1.15	---	0.100	mg/kg dry	1x	ND	1.19	96.6%	(75-125)	11.0%	(40)	04/13/05 14:58	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amended Report

Lisa Domenighini, Project Manager

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Amended Report

TRC
5052 Commercial Circle
Concorde, CA 94520

Project Name: **Myers Container Management**
Project Number: 41053901
Project Manager: Maija Seppanen

Report Created: 05/05/05 16:32

Polychlorinated Biphenyls per EPA Method 8082 - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5040447 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5040447-BLK1)								**Extracted: 04/12/05 14:45**						
Aroclor 1016	EPA 8082	ND	---	33.3	ug/kg	1x	--	--	--	--	--	--	04/12/05 22:59	
Aroclor 1221	"	ND	---	67.0	"	"	--	--	--	--	--	--	"	
Aroclor 1232	"	ND	---	33.3	"	"	--	--	--	--	--	--	"	
Aroclor 1242	"	ND	---	33.3	"	"	--	--	--	--	--	--	"	
Aroclor 1248	"	ND	---	33.3	"	"	--	--	--	--	--	--	"	
Aroclor 1254	"	ND	---	33.3	"	"	--	--	--	--	--	--	"	
Aroclor 1260	"	ND	---	33.3	"	"	--	--	--	--	--	--	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 110%*			*Limits: 36-140%*	"							*04/12/05 22:59*	
Decachlorobiphenyl		*97.3%*			*16-149%*	"							"	
LCS (5040447-BS2)								**Extracted: 04/12/05 14:45**						
Aroclor 1016	EPA 8082	310	---	33.3	ug/kg	1x	--	331	93.7%	(57-135)	--	--	04/12/05 22:03	
Aroclor 1260	"	316	---	33.3	"	"	--	"	95.5%	(60-135)	--	--	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 105%*			*Limits: 36-140%*	"							*04/12/05 22:03*	
Decachlorobiphenyl		*101%*			*16-149%*	"							"	
LCS Dup (5040447-BSD2)								**Extracted: 04/12/05 14:45**						
Aroclor 1016	EPA 8082	290	---	33.3	ug/kg	1x	--	329	88.1%	(57-135)	6.67%	(25)	04/12/05 22:21	
Aroclor 1260	"	291	---	33.3	"	"	--	"	88.4%	(60-135)	8.24%	(27)	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 94.5%*			*Limits: 36-140%*	"							*04/12/05 22:21*	
Decachlorobiphenyl		*91.5%*			*16-149%*	"							"	

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Amended Report

TRC	Project Name: **Myers Container Management**	
5052 Commercial Circle	Project Number: 41053901	Report Created:
Concorde, CA 94520	Project Manager: Maija Seppanen	05/05/05 16:32

Percent Dry Weight (Solids) per Standard Methods - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5040522 **Soil Preparation Method: Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (5040522-DUP1)					QC Source: P5D0231-01			Extracted: 04/13/05 12:20						
% Solids	NCA SOP	78.2	---	1.00	% by Weight	1x	78.0	--	--	--	0.256%	(20)	04/14/05 10:01	
Duplicate (5040522-DUP2)					QC Source: P5D0231-02			Extracted: 04/13/05 12:20						
% Solids	NCA SOP	77.2	---	1.00	% by Weight	1x	77.4	--	--	--	0.259%	(20)	04/14/05 10:01	
Duplicate (5040522-DUP3)					QC Source: P5D0343-01			Extracted: 04/13/05 12:20						
% Solids	NCA SOP	73.8	---	1.00	% by Weight	1x	75.9	--	--	--	2.81%	(20)	04/14/05 10:01	

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Amended Report

TRC
5052 Commercial Circle
Concorde, CA 94520

Project Name: **Myers Container Management**
Project Number: 41053901
Project Manager: Maija Seppanen

Report Created:
05/05/05 16:32

TCLP Metals by EPA 1311/6000/7000 Series Methods - Laboratory Quality Control Results

North Creek Analytical - Bothell

QC Batch: 5E03040 **TCLP Preparation Method: EPA 3010A**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5E03040-BLK1)								**Extracted: 05/03/05 10:30**						
Lead	EPA 6010B	ND	---	0.100	mg/l	1x	--	--	--	--	--	--	05/04/05 13:22	
LCS (5E03040-BS1)								**Extracted: 05/03/05 10:30**						
Lead	EPA 6010B	53.2	---	0.100	mg/l	1x	--	50.0	106%	(80-120)	--	--	05/04/05 13:35	
LCS Dup (5E03040-BSD1)								**Extracted: 05/03/05 10:30**						
Lead	EPA 6010B	52.2	---	0.100	mg/l	1x	--	50.0	104%	(80-120)	1.90%	(20)	05/04/05 13:41	
Matrix Spike (5E03040-MS1)				**QC Source: B5D0918-05**				**Extracted: 05/03/05 10:30**						
Lead	EPA 6010B	49.2	---	0.100	mg/l	1x	ND	50.0	98.4%	(80-120)	--	--	05/04/05 13:47	
Matrix Spike Dup (5E03040-MSD1)				**QC Source: B5D0918-05**				**Extracted: 05/03/05 10:30**						
Lead	EPA 6010B	49.4	---	0.100	mg/l	1x	ND	50.0	98.8%	(80-120)	0.406%	(20)	05/04/05 13:53	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amended Report

Lisa Domenighini, Project Manager

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Amended Report

TRC	Project Name: **Myers Container Management**	
5052 Commercial Circle	Project Number: 41053901	Report Created:
Concorde, CA 94520	Project Manager: Maija Seppanen	05/05/05 16:32

Total Metals by EPA 6000/7000 Series Methods - Laboratory Quality Control Results

North Creek Analytical - Bothell

QC Batch: 5D13017 **Soil Preparation Method: EPA 3050B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5D13017-BLK1)								Extracted: 04/13/05 08:22						
Titanium	EPA 6020	ND	---	0.500	mg/kg	1x	--	--	--	--	--	--	04/21/05 10:26	
Lead	"	ND	---	0.500	"	"	--	--	--	--	--	--	04/14/05 12:00	
Silver	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Vanadium	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Cobalt	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Arsenic	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Barium	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Cadmium	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Chromium	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Selenium	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Zinc	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Beryllium	"	ND	---	0.500	"	"	--	--	--	--	--	--	04/18/05 12:04	
Antimony	"	ND	---	1.50	"	"	--	--	--	--	--	--	"	
Nickel	"	ND	---	0.500	"	"	--	--	--	--	--	--	04/14/05 12:00	
Molybdenum	"	ND	---	2.50	"	"	--	--	--	--	--	--	"	
Copper	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
LCS (5D13017-BS1)								Extracted: 04/13/05 08:22						
Zinc	EPA 6020	39.1	---	5.00	mg/kg	1x	--	40.0	97.8%	(80-120)	--	--	04/14/05 12:06	
Lead	"	38.4	---	0.500	"	"	--	"	96.0%	"	--	--	"	
Molybdenum	"	42.0	---	2.50	"	"	--	"	105%	"	--	--	"	
Nickel	"	39.3	---	0.500	"	"	--	"	98.2%	"	--	--	"	
Antimony	"	40.3	---	1.50	"	"	--	"	101%	"	--	--	04/18/05 12:10	
Copper	"	37.8	---	0.500	"	"	--	"	94.5%	"	--	--	04/14/05 12:06	
Vanadium	"	40.9	---	0.500	"	"	--	"	102%	"	--	--	"	
Chromium	"	40.8	---	0.500	"	"	--	"	102%	"	--	--	"	
Silver	"	39.3	---	0.500	"	"	--	"	98.2%	"	--	--	"	
Arsenic	"	39.7	---	0.500	"	"	--	"	99.2%	"	--	--	"	
Barium	"	39.9	---	5.00	"	"	--	"	99.8%	"	--	--	"	
Cadmium	"	39.4	---	0.500	"	"	--	"	98.5%	"	--	--	"	
Cobalt	"	38.1	---	0.500	"	"	--	"	95.2%	"	--	--	"	
Beryllium	"	39.5	---	0.500	"	"	--	"	98.8%	"	--	--	04/18/05 12:10	
Selenium	"	41.0	---	0.500	"	"	--	"	102%	"	--	--	04/14/05 12:06	
Titanium	"	42.9	---	0.500	"	"	--	"	107%	"	--	--	04/21/05 10:18	

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Amended Report

TRC	Project Name: **Myers Container Management**	
5052 Commercial Circle	Project Number: 41053901	Report Created:
Concorde, CA 94520	Project Manager: Maija Seppanen	05/05/05 16:32

Total Metals by EPA 6000/7000 Series Methods - Laboratory Quality Control Results

North Creek Analytical - Bothell

QC Batch: 5D13017 **Soil Preparation Method: EPA 3050B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS Dup (5D13017-BSD1)								Extracted: 04/13/05 08:22						
Molybdenum	EPA 6020	42.3	---	2.50	mg/kg	1x	--	40.0	106%	(80-120)	0.712%	(20)	04/14/05 12:11	
Antimony	"	40.7	---	1.50	"	"	--	"	102%	"	0.988%	"	04/18/05 12:16	
Lead	"	38.4	---	0.500	"	"	--	"	96.0%	"	0.00%	"	04/14/05 12:11	
Cobalt	"	37.9	---	0.500	"	"	--	"	94.8%	"	0.526%	"	"	
Zinc	"	38.9	---	5.00	"	"	--	"	97.2%	"	0.513%	"	"	
Titanium	"	43.3	---	0.500	"	"	--	"	108%	"	0.928%	"	04/21/05 10:22	
Nickel	"	39.2	---	0.500	"	"	--	"	98.0%	"	0.255%	"	04/14/05 12:11	
Copper	"	37.9	---	0.500	"	"	--	"	94.8%	"	0.264%	"	"	
Arsenic	"	39.7	---	0.500	"	"	--	"	99.2%	"	0.00%	"	"	
Vanadium	"	41.0	---	0.500	"	"	--	"	102%	"	0.244%	"	"	
Silver	"	39.5	---	0.500	"	"	--	"	98.8%	"	0.508%	"	"	
Beryllium	"	39.8	---	0.500	"	"	--	"	99.5%	"	0.757%	"	04/18/05 12:16	
Barium	"	40.1	---	5.00	"	"	--	"	100%	"	0.500%	"	04/14/05 12:11	
Cadmium	"	39.9	---	0.500	"	"	--	"	99.8%	"	1.26%	"	"	
Chromium	"	40.8	---	0.500	"	"	--	"	102%	"	0.00%	"	"	
Selenium	"	41.0	---	0.500	"	"	--	"	102%	"	0.00%	"	"	
Matrix Spike (5D13017-MS1)					QC Source: B5D0385-01			Extracted: 04/13/05 08:22						
Copper	EPA 6020	47.5	---	0.500	mg/kg wet	1x	8.86	41.2	93.8%	(33-156)	--	--	04/14/05 12:23	
Cadmium	"	42.5	---	0.500	"	"	0.109	"	103%	(75-125)	--	--	"	
Vanadium	"	82.3	---	0.500	"	"	40.0	"	103%	(54-145)	--	--	"	
Titanium	"	972	---	5.00	"	10x	1100	"	NR	(70-130)	--	--	04/21/05 10:47	Q-15
Antimony	"	4.69	---	1.50	"	1x	0.115	"	11.1%	(20-130)	--	--	04/18/05 12:27	Q-13
Nickel	"	46.4	---	0.500	"	"	5.83	"	98.5%	(56-135)	--	--	04/14/05 12:23	
Molybdenum	"	39.3	---	2.50	"	"	0.688	"	93.7%	(41-125)	--	--	"	
Zinc	"	74.3	---	5.00	"	"	36.9	"	90.8%	(20-160)	--	--	"	
Silver	"	40.8	---	0.500	"	"	ND	"	99.0%	(75-125)	--	--	"	
Selenium	"	40.0	---	0.500	"	"	0.203	"	96.6%	"	--	--	"	
Lead	"	44.4	---	0.500	"	"	3.51	"	99.2%	"	--	--	"	
Cobalt	"	44.7	---	0.500	"	"	5.95	"	94.1%	(70-125)	--	--	"	
Arsenic	"	43.7	---	0.500	"	"	4.92	"	94.1%	(75-125)	--	--	"	
Barium	"	138	---	5.00	"	"	89.6	"	117%	"	--	--	"	
Chromium	"	51.6	---	0.500	"	"	9.05	"	103%	"	--	--	"	
Beryllium	"	42.0	---	0.500	"	"	0.219	"	101%	"	--	--	04/18/05 12:27	

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Amended Report

TRC	Project Name: **Myers Container Management**	
5052 Commercial Circle	Project Number: 41053901	Report Created:
Concorde, CA 94520	Project Manager: Maija Seppanen	05/05/05 16:32

Total Metals by EPA 6000/7000 Series Methods - Laboratory Quality Control Results

North Creek Analytical - Bothell

QC Batch: 5D13017 **Soil Preparation Method: EPA 3050B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (5D13017-MSD1)					QC Source: B5D0385-01				Extracted: 04/13/05 08:22					
Lead	EPA 6020	46.0	---	0.500	mg/kg wet	1x	3.51	42.6	99.7%	(75-125)	3.54%	(20)	04/14/05 12:29	
Copper	"	49.2	---	0.500	"	"	8.86	"	94.7%	(33-156)	3.52%	(30)	"	
Vanadium	"	83.6	---	0.500	"	"	40.0	"	102%	(54-145)	1.57%	"	"	
Titanium	"	939	---	5.00	"	10x	1100	"	NR	(70-130)	3.45%	(20)	04/21/05 10:51	Q-15
Antimony	"	4.49	---	1.50	"	1x	0.115	"	10.3%	(20-130)	4.36%	(30)	04/18/05 12:33	Q-13
Nickel	"	48.1	---	0.500	"	"	5.83	"	99.2%	(56-135)	3.60%	"	04/14/05 12:29	
Molybdenum	"	41.0	---	2.50	"	"	0.688	"	94.6%	(41-125)	4.23%	"	"	
Zinc	"	74.9	---	5.00	"	"	36.9	"	89.2%	(20-160)	0.804%	"	"	
Beryllium	"	43.2	---	0.500	"	"	0.219	"	101%	(75-125)	2.82%	"	04/18/05 12:33	
Selenium	"	42.2	---	0.500	"	"	0.203	"	98.6%	"	5.35%	(20)	04/14/05 12:29	
Chromium	"	53.2	---	0.500	"	"	9.05	"	104%	"	3.05%	"	"	
Cadmium	"	44.0	---	0.500	"	"	0.109	"	103%	"	3.47%	"	"	
Barium	"	135	---	5.00	"	"	89.6	"	107%	"	2.20%	"	"	
Silver	"	42.3	---	0.500	"	"	ND	"	99.3%	"	3.61%	"	"	
Cobalt	"	46.0	---	0.500	"	"	5.95	"	94.0%	(70-125)	2.87%	"	"	
Arsenic	"	45.9	---	0.500	"	"	4.92	"	96.2%	(75-125)	4.91%	"	"	
Post Spike (5D13017-PS1)					QC Source: B5D0385-01				Extracted: 04/13/05 08:22					
Cadmium	EPA 6020	52.6	---	0.500	mg/kg wet	1x	0.109	52.1	101%	(75-125)	--	--	04/14/05 12:17	
Zinc	"	83.7	---	5.00	"	"	36.9	51.8	90.3%	"	--	--	"	
Vanadium	"	95.1	---	0.500	"	"	40.0	52.3	105%	"	--	--	"	
Antimony	"	25.2	---	1.50	"	"	0.115	26.0	96.5%	"	--	--	04/18/05 12:22	
Nickel	"	55.7	---	0.500	"	"	5.83	51.8	96.3%	"	--	--	04/14/05 12:17	
Molybdenum	"	28.8	---	2.50	"	"	0.688	26.3	107%	"	--	--	"	
Copper	"	58.5	---	0.500	"	"	8.86	52.6	94.4%	"	--	--	"	
Cobalt	"	54.9	---	0.500	"	"	5.95	51.8	94.5%	"	--	--	"	
Beryllium	"	51.6	---	0.500	"	"	0.219	52.1	98.6%	"	--	--	04/18/05 12:22	
Chromium	"	63.1	---	0.500	"	"	9.05	52.3	103%	"	--	--	04/14/05 12:17	
Barium	"	145	---	5.00	"	"	89.6	51.8	107%	"	--	--	"	
Arsenic	"	59.6	---	0.500	"	"	4.92	52.1	105%	"	--	--	"	
Silver	"	52.2	---	0.500	"	"	ND	"	100%	"	--	--	"	
Lead	"	53.8	---	0.500	"	"	3.51	51.8	97.1%	"	--	--	"	
Selenium	"	53.3	---	0.500	"	"	0.203	52.1	102%	"	--	--	"	

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Amended Report

TRC	Project Name:	**Myers Container Management**	
5052 Commercial Circle	Project Number:	41053901	Report Created:
Concorde, CA 94520	Project Manager:	Maija Seppanen	05/05/05 16:32

Physical Parameters by APHA/ASTM/EPA Methods - Laboratory Quality Control Results

North Creek Analytical - Bothell

QC Batch: 5D17007 **Soil Preparation Method: Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5D17007-BLK1)													Extracted: 04/17/05 16:05	
Dry Weight	BSOPSPL003R08	100	---	1.00	%	1x	--	--	--	--	--	--	04/18/05 00:00	

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Amended Report

TRC	Project Name:	**Myers Container Management**	
5052 Commercial Circle	Project Number:	41053901	Report Created:
Concorde, CA 94520	Project Manager:	Maija Seppanen	05/05/05 16:32

Notes and Definitions

Report Specific Notes:

A-01 - Detected hydrocarbons appear to be due mainly to overlap from the heavy/oil range; however, there is weathered diesel detected.

Q-13 - Multiple analyses indicate the percent recovery is outside the control limits due to a matrix effect.

Q-15 - Analyses are not controlled on matrix spike RPD and/or percent recoveries when the sample concentration is significantly higher than the spike level.

S-01 - The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.

Laboratory Reporting Conventions:

DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR / NA - Not Reported / Not Available

dry - Sample results reported on a dry weight basis. Reporting Limits are corrected for %Solids when %Solids are <50%.

wet - Sample results and reporting limits reported on a wet weight basis (as received).

RPD - Relative Percent Difference. (RPDs calculated using Results, not Percent Recoveries).

MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

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CHAIN OF CUSTODY REPORT

Work Order #: PSDC3116

NCA CLIENT:

REPORT TO: MAIJA SEPPANEN
ADDRESS: 1590 SOLANO WAY, SUITE A
CONCORD, CA 94520
PHONE: 925-688-1200 FAX: 925-688-0388

INVOICE TO: ACCTS PAYABLE
21 TECHNOLOGY DRIVE
IRVINE, CA 92618

P.O. NUMBER: CON-700755

PROJECT NAME: MYERS CONTAINER MGMT. SERVICES
PROJECT NUMBER: 410539.01
SAMPLED BY: MAIJA SEPPANEN

TURNAROUND REQUEST
in Business Days *
Organic & Inorganic Analyses: STD | 7 | 5 | 4 | 3 | 2 | 1 | <1
Petroleum Hydrocarbon Analyses: STD | 4 | 3 | 2 | 1 | <1
OTHER Specify:
* Turnaround Request less than standard may incur Rush Charges.

PRESERVATIVE: NONE

REQUESTED ANALYSES

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	TPH-G/BTEX	TPH-D	PCBs	ICP Metals*	Hg (Total)	MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	NCA WO ID
1	COMP-1	4/7/05 / 10 am						S	3		
2											
3											
4											
5											
6		* NOTE: ICP METALS				INCLUDES		Ag, As, Ba, Be, Cd, Co, Cr,			
7								Cu, Mo, Ni, Pb, Sb, Se, Ti, V, Zn			
8											
9											
10											

RELEASED BY: [signature] DATE: 4/7/05
PRINT NAME: Maija Seppanen FIRM: TRC TIME: 10:17 am
RECEIVED BY: [signature] DATE: 4/7/05
PRINT NAME: Sabrina Avery FIRM: CMS TIME: 10:17 am

RELEASED BY: [signature] DATE: 4/7/05
PRINT NAME: SABRINA AVERY FIRM: CMS TIME: 1:43 PM
RECEIVED BY: [signature] DATE: 4/7/05
PRINT NAME: Rob F FIRM: NCA TIME: 13:43

ADDITIONAL REMARKS: [signature] NCA 4/7/05 @ 16:30 [signature] NCA 4-7-05 16:30
EMILY JENSEN

TEMP: 38°

COC REV 09/04

PAGE OF

APPENDIX B

Waste Disposal Documentation

TRC

1357759

TRO27
3000 NW St Helens
10-13
Ro-SW

Hillsboro Landfill, Inc.
3205 SE Minter Bridge, Hillsboro 97123
Consumer Comments? We want to know!
PLEASE phone: 503-640-9427

TICKET: 796305
DATE: 05/18/2005
TIME: 09:46 - 10:02

CUSTOMER: 5152334 / TRC
GENERATOR: MYERS CON1 / MYERS CONTAPROFILE #: 6806
SOURCE: PDXM / Portland - Mult Co
TRUCK: 109 BIN: LICENSE:
HAULER: TRASHCO / TRASHCO MANIFEST:
COMMENT:

P.O.:
GROSS: 43440 LBS
TARE: 28140 LBS
NET: 15300 LBS

COMMODITY	UNIT	QNTY	RATE	PRETAX	TAX	AMOUNT
PCSIN / CONTAM.SOILS -	T	7.65	$ 40.22	$307.68	$ 39.49	$ 347.17
EVL / Environmental Fee-L	U	1.00	$ 3.00	$ 3.00	$ 0.00	$ 3.00
				$310.68	$ 39.49	$ 350.17

IN OPERATOR: BRANDIE

OUT OPERATOR: Jennifer

DRIVER:

Hillsboro Landfill, Inc.

3205 SE MINTER BRIDGE ROAD HILLSBORO, OR 97123

PERMIT # 8806

PERMIT TO DISPOSE OF NON-HAZARDOUS MATERIALS

This permit authorizes disposal of Customer's waste materials in accordance with the Industrial Waste & Disposal Services Agreement dated *1/2003*.

EXPIRES: 8/10/2005

GENERATOR: MYERS CONTAINER MANAGEMENT SERVICES

DESCRIPTION: *PCS*	**TONS:** *10*
☐ SPECIAL WASTE ☒ CS ☐ CLEAN-UP MATERIAL	
LOCATION: *PORTLAND, OREGON*	**COUNTY:** *Multnomah*
CONTACT: *MAIJA SEPPANEN*	**PHONE:** *925-688-2480*
	FAX: *925-688-0388*

BILLING: *Landfill account TRC SOLUTIONS, INC.*	**PO#:** *N/A*	**JOB#:** *N/A*

We accept business checks, cash, VISA / Mastercard or charge(with prior approval)

SPECIAL HANDLING : ***NONE:***

MK **TT** **TyT**

APPROVED: JB *Joan Bartz* DATE: ***06/09/05 9:53:18 AM***

A COPY OF THIS PERMIT MUST BE SHOWN BY EACH DRIVER

THERE IS A MINIMUM CHARGE OF $50-$60 FOR EACH LOAD OF SPECIAL WASTE

WASTE MANAGEMENT

HAZARDOUS WASTE IS STRICTLY PROHIBITED

Attachment C
Field Notes

City of Portland
Environmental Services

DAILY FIELD REPORT

Page 1 of 2

Project LOWER HARBOR OF SED SAMPLING
Location WILHELM TRUCKING
Subject FIELD NOTES

Project No. 1020-001
Date 8-25-04
By MJH

9:50 Arrive at WILHELM TRUCKING. MEET W/ WILHELM REPS. THEY ASK FOR SPLIT SAMPLES, AND I TELL THEM THAT I WILL DO THAT, IF QUANTITY ALLOWS. THEY SUPPLY ME WITH 2 GLASS JARS PER SAMPLING LOCATION.

THEY ASK WHAT ANALYSES ARE TO BE PERFORMED AND I SHOW THEM THE COC FORM. CHECK MAKE A COPY OF IT.

1000 I DISCUSS SCOPE OF WORK W/ RANDY BOSTON MY ASSISTANT.

WE WILL START BY COLLECTING THE TWO SAMPLES AT ~~PBN~~ ANB 968.

CURRENT WEATHER IS PARTIAL SUN W/ LIGHT SPRINKLES OF RAIN.

1030 COLLECTED SAMPLE DOWNSTREAM FROM NODE ~~PBN~~ ANB 968.
GOOD SAMPLE. SEE COC FOR DETAILS.

1114 COLLECTED SAMPLE FROM 12" LATERAL NODE ABN 970 UPSTREAM OF ~~PBN~~ ANB 968.
GOOD SAMPLE - SEE COC FOR DETAILS.

Attachments

City of Portland
Environmental Services

DAILY FIELD REPORT

Page 2 of 2

Project LOWER HARBOR OF SED SAMPLING
Location NW ST HELENS RD - WILLBELM TRUEPINT
Subject FIELD NOTES.

Project No. 1020-001
Date 8-25-04
By MJH

1140 Arrived @ Node HAX274 at Wilhelm Trueling; setup.

1147 MJH enters MH to collect sample.

1206 MJH collected sample, SEE FDS FOR DETAILS

1310 DEPART DI CONTAINER MNGMT.
GOOD SAMPLE OPPORTUNITY - SEE FDS
ALL SAMPLES ARE IN A CHILLED COOLER.

1346 - RETURN SAMPLES TO LAB.

1450 - SAMPLES SUBMITTED TO WPCL UNDER CHAIN OF CUSTODY.

Attachments

CITY OF PORTLAND
ENVIRONMENTAL SERVICES
Water Pollution control Laboratory
6543 N. Burlington Ave.,
Portland, OR 97203-5452

LOWER HARBOR OUTFALL SEDIMENT SAMPLING - 1020.001
FIELD DATA SHEET

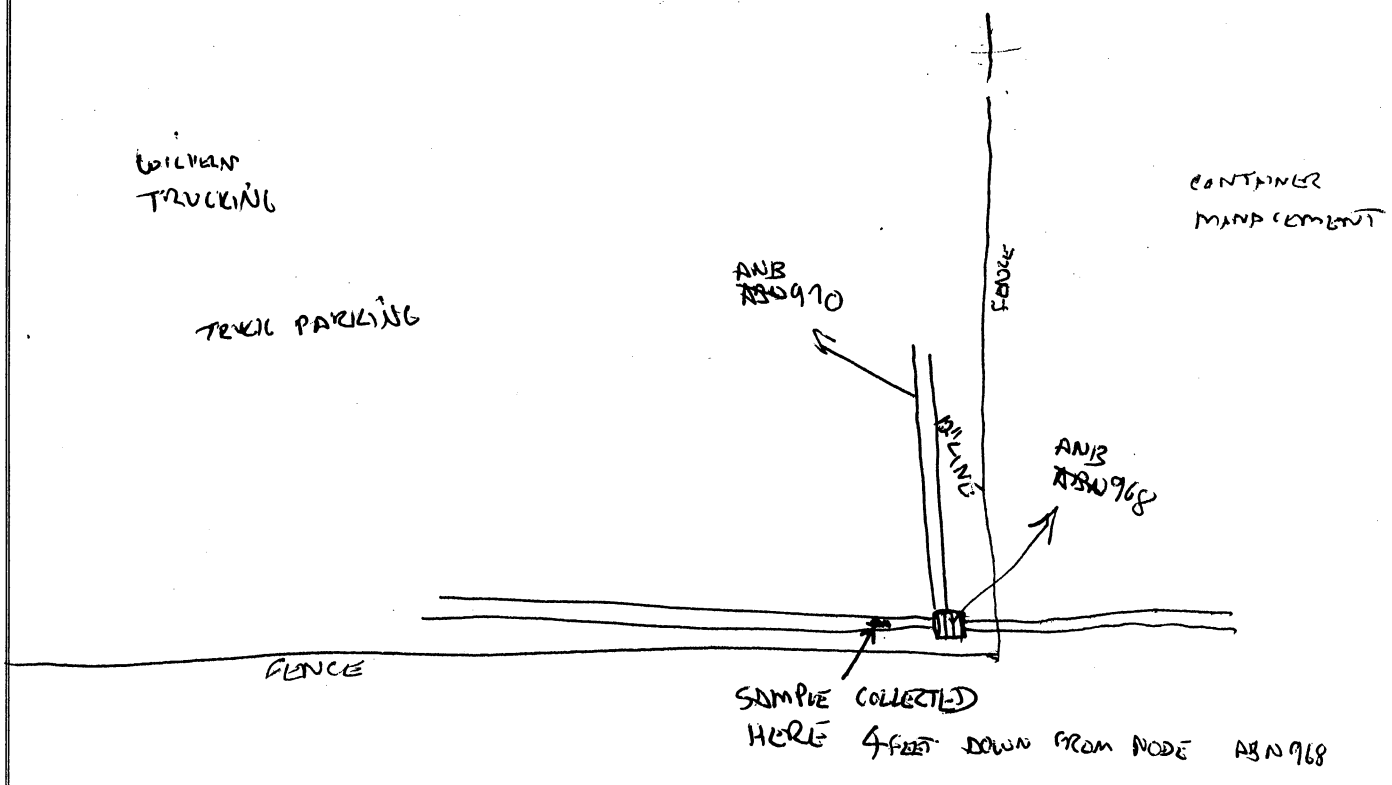
Date: 8-25-04	Time: 1016	Current Weather conditions: PARTIAL SUN | SPRINKLES
Sampling Team Present: MIKE HAUSER | RANDY BELSTON		
Basin: —	Node: ANB ~~ABN~~ 968	Subbasin: —
Address: WILHELM TRUCKING - 3250 NW ST HELENS Rd		

SECTION 1 - PRE-SAMPLING VISUAL OBSERVATION REPORT

Describe any flowing or standing water observed in the line?	FLOWING WATER ABOUT 1" DEEP
Does river appear to back up to this location? Describe rate/color/odor of flow:	NO
Are sediments observed in the line?	YES
Are sample-able quantities of sediments present in the line?	YES
Describe lateral extent of sample-able sediments present in the line:	LATERAL EXTENT IS AS FAR AS VISABLE. VARIES FROM 1" TO 6" (ESTIMATE)

SITE DIAGRAM: Include street intersections/laterals/MH's/driveways cuts and extent of solids accumulation

THIS IS THE DOWNSTREAM SAMPLE



SECTION 2 - SAMPLE COLLECTION REPORT

Node: ANB ~~ABN~~ 968

Sampling Equipment:	STAINLESS STEEL SPOON + BUCKET.
Equipment Decontamination process:	PER SOP 7.01a
Sample date: 8-25-04	Sample time: 1036
Sample Identification: (IL-XX-NNNNNN-mmyy)	IL - DOWNSTREAM ~~ABN~~ ANB 968 - 0804
Sample location: (number of feet from node of entry)	4' DOWN STREAM OF NODE ~~ABN~~ ANB 968
Sample collection technique:	RCB USED SS. SPOON TO COLLECT FULL DEPTH OF SEDIMENT INTO SS BUCKET,
Color of sample:	BROWN
Texture/Particle size:	(SLOPPY LOTS OF WATER) FINE PARTICULATES TO GRAVEL
Visual or olfactory evidence of contamination:	NONE EVIDENT
Depth of solids in area where sample collected:	1.2" DEEP
Amount and type of debris:	-
Compositing notes:	SAMPLE TWOLOCH COMPOSITED PRIOR TO

Sample Jars Collected

If not enough sample to fill all ~~of the~~ jars, then fill jars in this order:	Metals	One 4oz glass jar		
	PAHs/SVOCs	One 4oz glass jar		
	PCBs	One 4oz glass jar		
	TPH (two jars)	Two 4oz glass jars		
	TOC	One 4oz glass jar		

Duplicate sample collected?	NO SAMPLE SPLIT W/ WILHELM.
Duplicate sample fictitious identification # on COC:	
Samples placed in chilled cooler? (Y)/N	
Samples delivered to lab? Y/N	Lab ID Number: FO 040780
Describe any deviations from standard procedures:	

* SAMPLE SPLIT W/ WILHELM TRUCKING - SEE ATTACHED COC

SECTION 3 - PHOTOGRAPH LOG

Photograph Log	In-Pipe sample location	
	Homogenized sample	

CITY OF PORTLAND
ENVIRONMENTAL SERVICES
Water Pollution control Laboratory
6543 N. Burlington Ave.,
Portland, OR 97203-5452

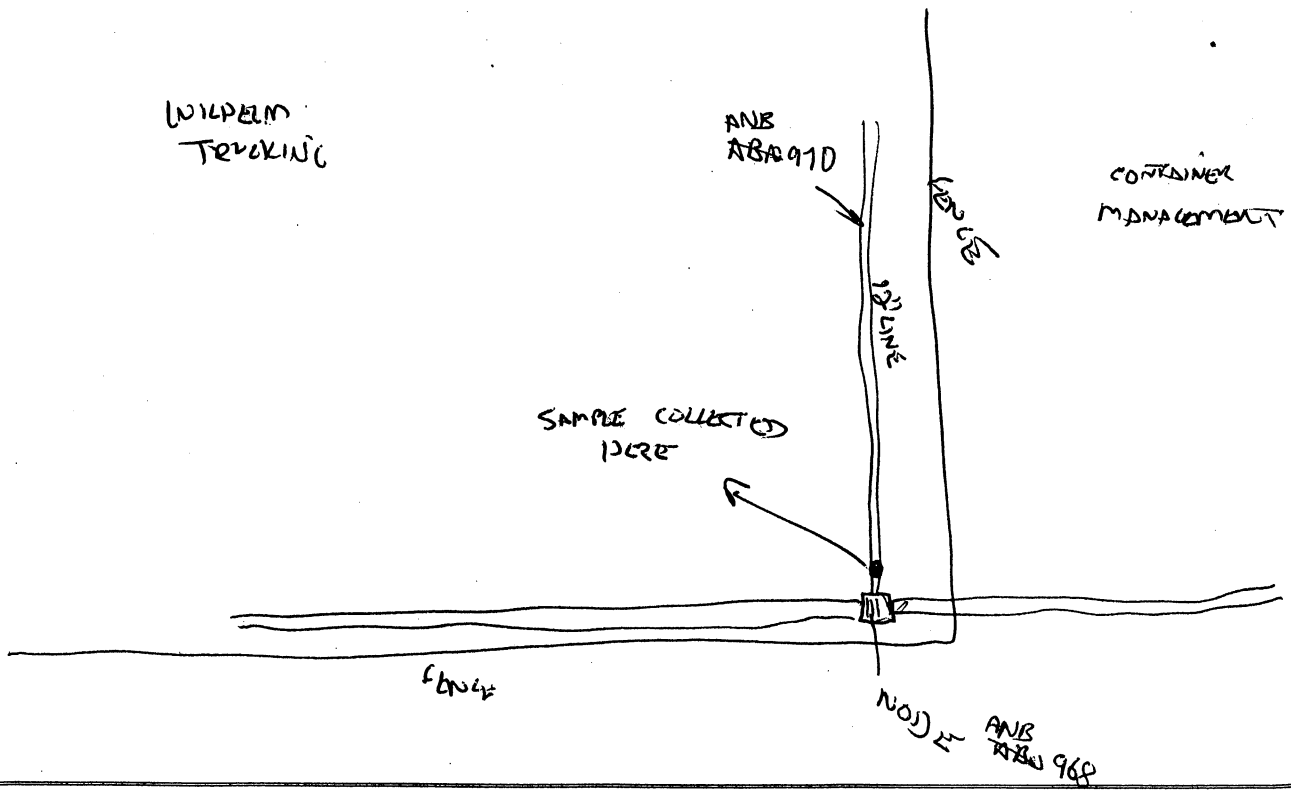
LOWER HARBOR OUTFALL SEDIMENT SAMPLING - 1020.001
FIELD DATA SHEET

Date: 8/25/04	Time: 1105	Current Weather conditions: Light Rain
Sampling Team Present: MIKE HAUSER | RANDY PRESTON		
Basin: —	Node: ~~ABA~~ ANB ABA 970	Subbasin: —
Address: WILLAMETTE TRUCKING - 3250 NW ST HELENS Rd		

SECTION 1 - PRE-SAMPLING VISUAL OBSERVATION REPORT

Describe any flowing or standing water observed in the line?	STANDING WATER IN LINE
Does river appear to back up to this location? Describe rate/color/odor of flow:	NO
Are sediments observed in the line?	YES
Are sample-able quantities of sediments present in the line?	YES
Describe lateral extent of sample-able sediments present in the line:	AS FAR AS VISUALLY ABLE ~ 8'

SITE DIAGRAM: Include street intersections/laterals/MH's/driveways cuts and extent of solids accumulation



SECTION 2 - SAMPLE COLLECTION REPORT

Node: ~~ANB~~ NBN 970

Sampling Equipment:	STAINLESS STEEL SPOON / STAINLESS STEEL BUCKET
Equipment Decontamination process:	PER SOP 7.01a
Sample date: 8-25-04	Sample time: 1117
Sample Identification: (IL-XX-NNNNNN-mmyy)	IL - ~~ANB~~ NBN 970 - 0804
Sample location: (number of feet from node of entry)	1' UP FROM NODE IN ~~12~~ 12" LINE
Sample collection technique:	RCB USED SPOON TO SCOOP SEDS INTO STAINLESS STEEL BUCKET.
Color of sample:	BROWN
Texture/Particle size:	GRAVEL → SILT
Visual or olfactory evidence of contamination:	NO. (SOME NUTS + BOLTS PRESENT)
Depth of solids in area where sample collected:	1.2"
Amount and type of debris:	GRAVEL → SILT.
Compositing notes:	SEDS COMPOSITED HOMOGENIZED PRIOR TO PLACEMENT IN SAMPLE JARS

Sample Jars Collected

If not enough sample to ~~fill all~~ of the jars, then fill jars in this order:				
	Metals	One 4oz glass jar		
	PAHs/SVOCs	One 4oz glass jar		
	PCBs	One 4oz glass jar		
	TPH (~~two~~ jars)	Two 4oz glass jars		
	TOC	One 4oz glass jar		

Duplicate sample collected?	NO
Duplicate sample fictitious identification # on COC:	—
Samples placed in chilled cooler? (Y)/N	
Samples delivered to lab? Y/N	Lab ID Number: FO 040781
Describe any deviations from standard procedures:	

* SPLIT SAMPLE W/ WILDERM TRUCKING, SEE ATTACHED COC

SECTION 3 - PHOTOGRAPH LOG

Photograph Log	In-Pipe sample location	
	Homogenized sample	

CITY OF PORTLAND

ENVIRONMENTAL SERVICES

Water Pollution control Laboratory
6543 N. Burlington Ave.,
Portland, OR 97203-5452

LOWER HARBOR OUTFALL SEDIMENT SAMPLING - 1020.001

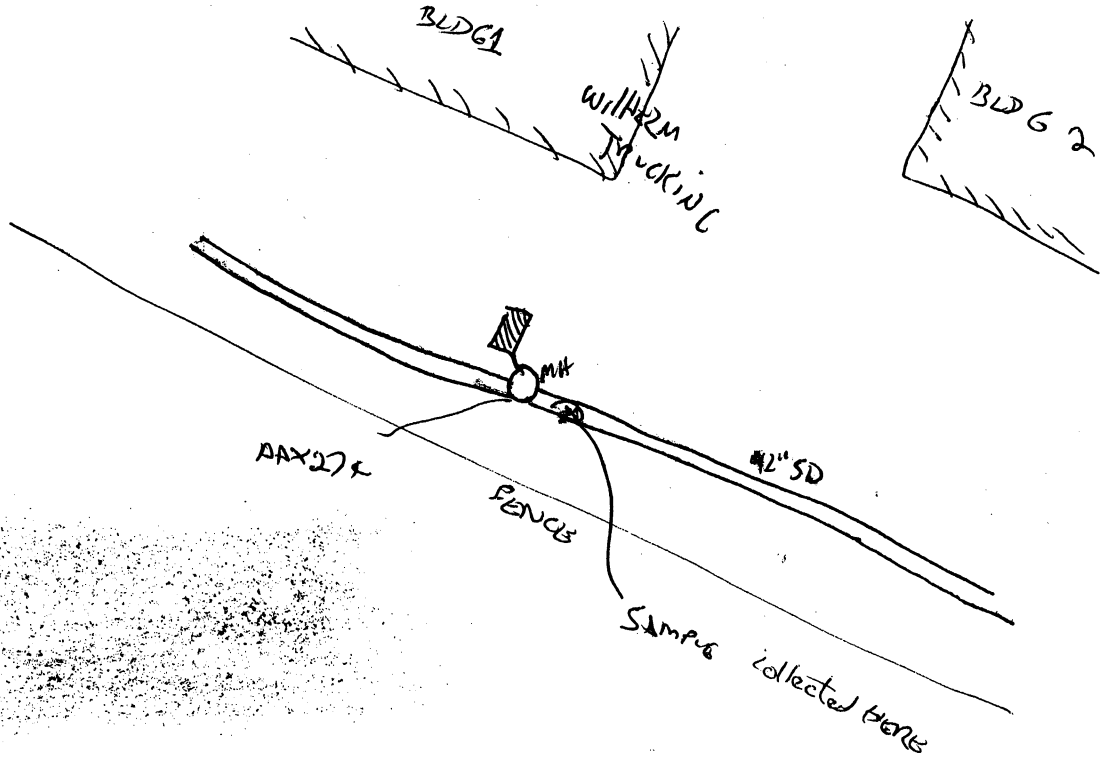
FIELD DATA SHEET

Date: 8/25/04	Time: 1150	Current Weather conditions: Rain
Sampling Team Present: RCB/MJH		
Basin: —	Node: AAX 274	Subbasin: —
Address: WILLAMETTE TRUCKING - 3250 NW ST HELENS RD		

SECTION 1 - PRE-SAMPLING VISUAL OBSERVATION REPORT

Describe any flowing or standing water observed in the line?	Flowing water
Does river appear to back up to this location? Describe rate/color/odor of flow:	NO
Are sediments observed in the line?	YES UP AND DOWNSTREAM FROM NODE
Are sample-able quantities of sediments present in the line?	YES
Describe lateral extent of sample-able sediments present in the line:	AS FAR AS VISIBLITY ALLOWS BOTH UP AND DOWNSTREAM

SITE DIAGRAM: Include street intersections/laterals/MH's/driveways cuts and extent of solids accumulation



SECTION 2 - SAMPLE COLLECTION REPORT

Node: AAX274

Sampling Equipment:	SS SPOON & BUCKET
Equipment Decontamination process:	per SOP 701a
Sample date: 8/25/04	Sample time: 1206
Sample Identification: (IL-XX-NNNNNN-mmyy) IL- AAX274 -0804	
Sample location: (number of feet from node of entry)	~~3' 406~~ 3'-6' UPSTREAM FROM NODE
Sample collection technique:	MJH used SS Spoon to collect full depth of sediment into bucket
Color of sample:	Gray/brown
Texture/Particle size:	Fine - silty clay
Visual or olfactory evidence of contamination:	Degraded petroleum odor
Depth of solids in area where sample collected:	1"
Amount and type of debris:	
Compositing notes:	

Sample Jars Collected

If not enough sample to fill all of the jars, then fill jars in this order:				
	Metals	One 4oz glass jar		
	PAHs/SVOCs	One 4oz glass jar		
	PCBs	One 4oz glass jar		
	TPH (two jars)	Two 4oz glass jars		
	TOC	One 4oz glass jar		

Duplicate sample collected?	NO
Duplicate sample fictitious identification # on COC:	
Samples placed in chilled cooler? (Y)N	
Samples delivered to lab? (Y)N	Lab ID Number: FO 040782
Describe any deviations from standard procedures:	

* SPLIT SAMPLE W/ WILLIAM TRUCKING SEE COC

SECTION 3 - PHOTOGRAPH LOG

Photograph Log	In-Pipe sample location	
	Homogenized sample	

CITY OF PORTLAND
ENVIRONMENTAL SERVICES
Water Pollution control Laboratory
6543 N. Burlington Ave.,
Portland, OR 97203-5452

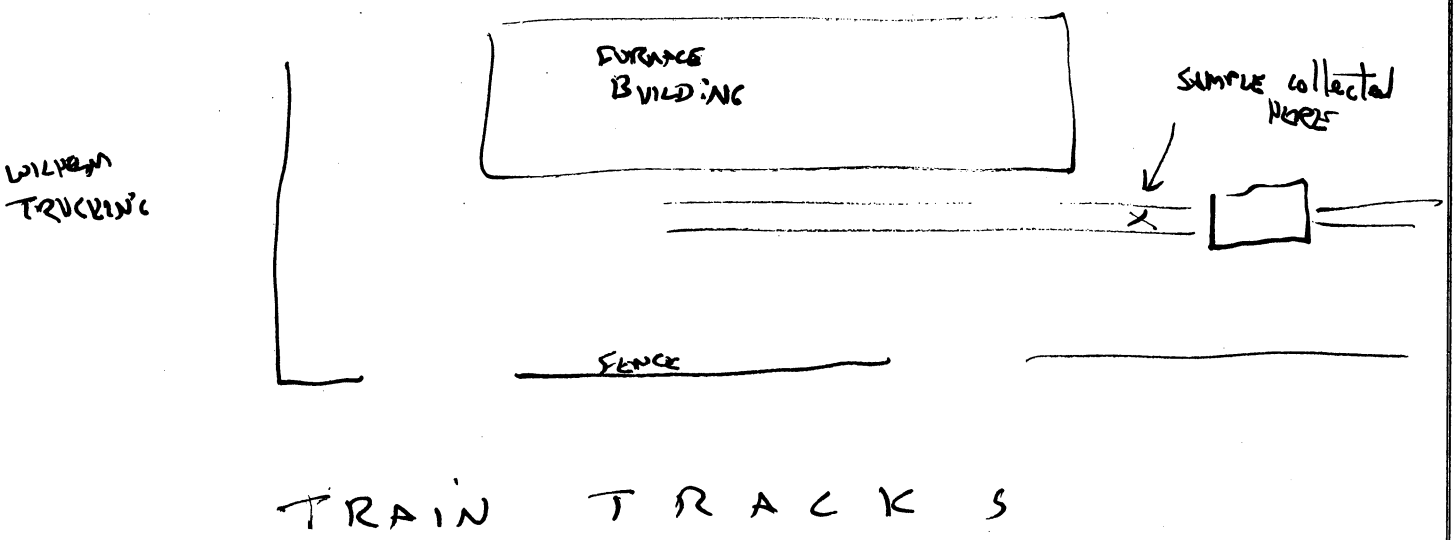
LOWER HARBOR OUTFALL SEDIMENT SAMPLING - 1020.001
FIELD DATA SHEET

Date: 8-26-09	Time: 1310	Current Weather conditions: + RAIN
Sampling Team Present: MIKE HAUSER		
Basin:	Node: AAX281	Subbasin:
Address: CONTAINER MANAGEMENT CORP — 3000 NW ST HELENS HWY		

SECTION 1 - PRE-SAMPLING VISUAL OBSERVATION REPORT

Describe any flowing or standing water observed in the line?	0.7" OF WATER OVER SEDIMENTS
Does river appear to back up to this location? Describe rate/color/odor of flow:	NO
Are sediments observed in the line?	YES 3.5" THICK AT DOWNSTREAM OF NODE
Are sample-able quantities of sediments present in the line?	YES
Describe lateral extent of sample-able sediments present in the line:	AS FAR AS VISIBLE

SITE DIAGRAM: Include street intersections/laterals/MH's/driveways cuts and extent of solids accumulation



SECTION 2 - SAMPLE COLLECTION REPORT		Node: AAX 281
Sampling Equipment:	STAINLESS STEEL SPOON + BUCKET	
Equipment Decontamination process:	PER SOP 7.01a	
Sample date: 8-25 04	Sample time: 1323	
Sample Identification: (IL-XX-NNNNNN-mmyy)	IL - AAX281 - 0804	
Sample location: (number of feet from node of entry)	2' DOWNSTREAM OF NODE	
Sample collection technique:	SS SPOON COLLECTED SAMPLE INTO BUCKET.	
Color of sample:	DARK BROWN	
Texture/Particle size:	FINE SAND/CLAY	
Visual or olfactory evidence of contamination:	XES - HEAVY DEGRADED PETROLEUM ODOR + BEAUTIFUL RAINBOW SHEEN	
Depth of solids in area where sample collected:	3.5"	
Amount and type of debris:	—	
Compositing notes:		

Sample Jars Collected				
If not enough sample to fill all of the jars, then fill jars in this order:	Metals	One 4oz glass jar		
	PAHs/SVOCs	One 4oz glass jar		
	PCBs	One 4oz glass jar		
	TPH (two jars)	Two 4oz glass jars		
	TOC	One 4oz glass jar		

Duplicate sample collected?	NO
Duplicate sample fictitious identification # on COC:	—
Samples placed in chilled cooler? (Y)N	
Samples delivered to lab? (Y)N	Lab ID Numbe FO 040783
Describe any deviations from standard procedures:	

SECTION 3 - PHOTOGRAPH LOG		
Photograph Log	In-Pipe sample location	
	Homogenized sample	

COLUMBIA INSPECTION, INC.

CHAIN OF CUSTODY RECORD AND NON-COMMERCIAL BILL OF LADING

☐ 7133 N. Lombard, Portland, OR 97203 Ph: (503) 286-9464 Fax: (503) 285-7831
☐ 4901 E. 20th Street, Fife, WA 98424 Ph: (253) 922-8781 Fax: (253) 922-8957
☐ 4592 East 2nd Street, Suite A, Benicia, CA 94510 Ph: (707) 748-7587 Fax: (707) 748-7764
☐ 797 Channel Street, San Pedro, CA 90731 Ph: (310) 833-1557 Fax: (310) 833-1585

Customer Name: Wilhelm Trucking
Attention: Sherrie Kastorter
Address:
Phone: ( )
FAX: ( )
Sampler: ☐ Submitted

Project Name: City Split - Soils
Project Number:
P.O. Number:

Testing Priority: ☐ Normal ☐ Rush
Due Date:

Notification Method(s): ☐ Telephone ☐ FAX ☐ Mail

Sample id#	Sample Description/UN Number	Sample Matrix	Sample Date	Sample Time	Analyses To Be Performed
	1L-ANB ABN968-0804	SEDIMENT	8-25-04	1036	
	1L-ANB ABN970-0804	↓	↓	1117	
	1L-ANB AAX274-0804	↓	↓	1206	

Relinquished By:	Date/Time	Received By:	Date/Time
Michael Hauler City of Portland	8-25-04 1251	Nila Fitch	8/25/04 1251 pm
Relinquished By:	Date/Time	Received By:	Date/Time

FOR LABORATORY USE ONLY

Inspection Job Number: PO #
Laboratory Project Number: ☐ Cash/Check #
Due Date: Amount Paid: $

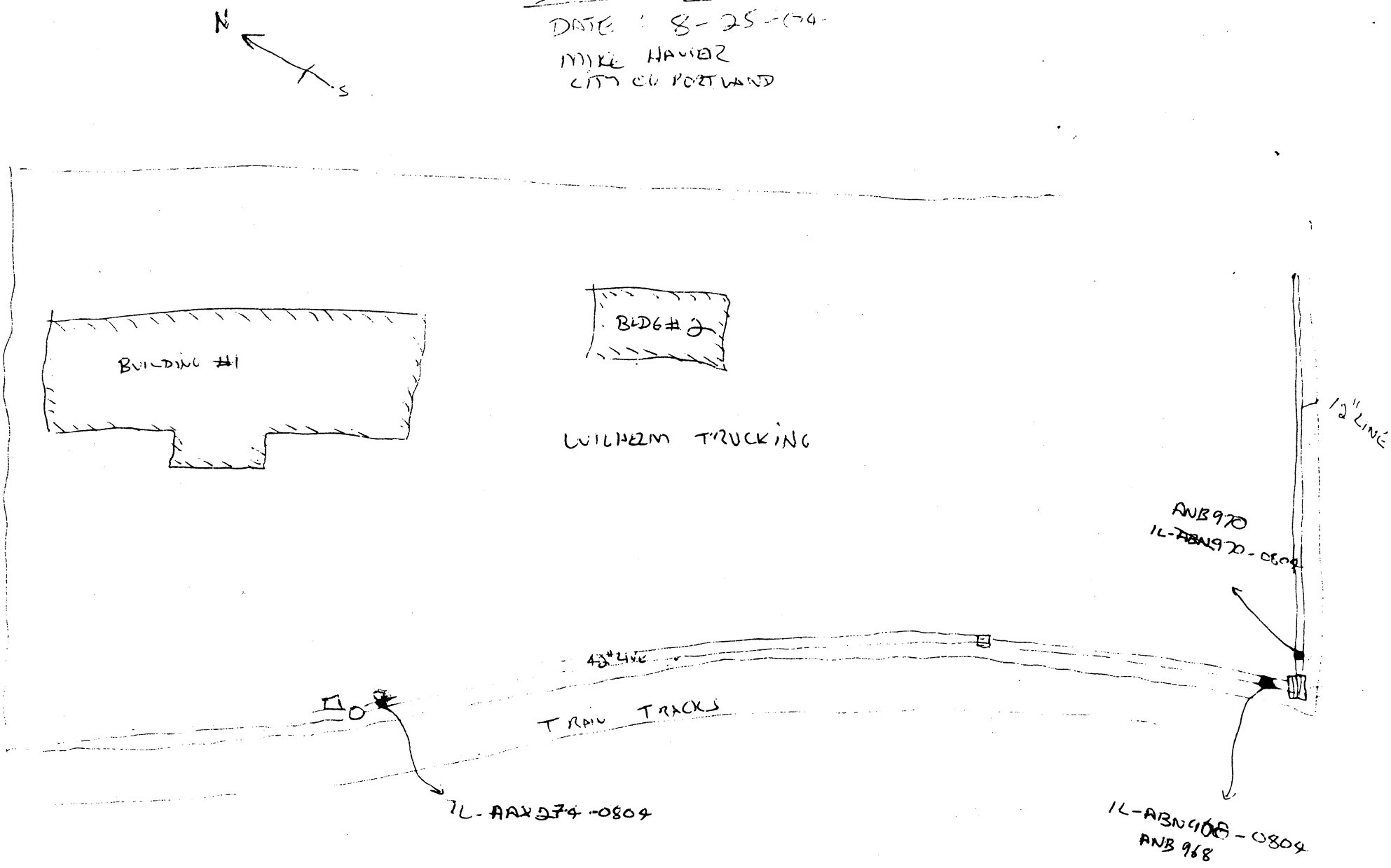
White Copy - Laboratory Yellow Copy - Client Copy

CI Form 100 (COC) Rev B7/7/99

SAMPLE LOCATION MAP

DATE : 8-25-04

MIKE HAVIER
CITY OF PORTLAND



Water Pollution Control Laboratory
6543 N. Burlington Ave.
Portland, Oregon 97203-4552
(503) 823-5696

City of Portland Chain-of-Custody

Bureau of Environmental Services

Date: 8/25/04
Page: 1 of 1
Collected By: MJH / RCB

Project Name: LOWER HARBOR OF SED SAMP
File Number: 1020.001 **Matrix:** SEDIMENT

[1] Run NWTPH-Gx and NWTPH-Dx if detects on NWTPH-HCID
*PCB and PAH analyses will be perforemd by Severn Trent Laboratory, routed through Northcreek. NWTP-Gx analyses to be done at Northcreek

Requested Analyses

WPCL Sample I.D.	Location	Point Code	Sample Date	Sample Time	Sample Type	General: PCBs* (low Level)	General: PAH EPA 8270-SIM (low-leve	General: SVOC's EPA 8270	General: NWTPH-HCID[1]	Metals: Tot Mtls -EPA 6020 (As, Ag, Ba, Cd, Cr, Hg, Pb, Se, Zn)	Field Comments
FO 040780	3250 NW ST HELENS RD Downstream ANB968 Wilhelm Truck	1	8-25-04	1036	G	●	●	●	●	●	FIELD SAMPLE ID ↓ IL-ANB968-0804
FO 040781	3250 NW ST HELENS RD Lateral ANB970 Wilhelm Truck	2	↓	1117	G	●	●	●	●	●	IL-ANB970-0804
FO 040782	3250 NW ST HELENS RD AAX274 Wilhelm Truck	3	↓	1206	G	●	●	●	●	●	IL-AAX~~ANB~~274-0804

Relinquished By: 1.	Relinquished By: 2.	Relinquished By: 3.	Relinquished By: 4.
Signature:	Signature:	Signature:	Signature:
Time: 1450	Time:	Time:	Time:
Printed Name: Michael Hawsley	Printed Name:	Printed Name:	Printed Name:
Date: 8-25-04	Date:	Date:	Date:
Received By: 1.	**Received By:** 2.	**Received By:** 3.	**Received By:** 4.
Signature:	Signature:	Signature:	Signature:
Time:	Time:	Time:	Time:
Printed Name:	Printed Name:	Printed Name:	Printed Name:
Date:	Date:	Date:	Date:

s:\eid\1000\1020.001\Sampdoc\Lower Harbor Sed COC.xls

Water Pollution Control Laboratory
6543 N. Burlington Ave.
Portland, Oregon 97203-4552
(503) 823-5696

City of Portland Chain-of-Custody

Bureau of Environmental Services

Date: 8/25/04
Page: 1 of 1
Collected By: MJH / RCB

Project Name: CONTAINER MANAGEMENT SED SAMP
File Number: 5030.018 **Matrix:** SEDIMENT

[1] Run NWTPH-Gx and NWTPH-Dx if detects on NWTPH-HCID
*PCB and PAH analyses will be perforemd by Severn Trent Laboratory, routed through Northcreek. NWTPH-Gx analyses to be done at Northcreek.

Requested Analyses

WPCL Sample I.D.	Location	Point Code	Sample Date	Sample Time	Sample Type	General: PCBs* (low Level)	General: PAH EPA 8270-SIM (low-level)	General: SVOC's EPA 8270 (low level)	General: NWTPH-HCID[1]	Metals: Tot Mtls -EPA 6020 (As, Ag, Ba, Cd, Cr, Hg, Pb, Se, Zn)	Field Comments: FIELD SAMPLE ID ↓
FO 040783	3000 NW ST HELENS RD CONTAINER MGNT DNSTREAM AAX281	1	8/25/04	1323	G	●	●	●	●	●	1L - AAX281 - 0804

Relinquished By: 1.	Relinquished By: 2.	Relinquished By: 3.	Relinquished By: 4.
Signature: [signature] Time: 1450	Signature: Time:	Signature: Time:	Signature: Time:
Printed Name: MICHAEL HAUSER Date: 8-25-04	Printed Name: Date:	Printed Name: Date:	Printed Name: Date:
Received By: 1.	**Received By:** 2.	**Received By:** 3.	**Received By:** 4.
Signature: Time:	Signature: Time:	Signature: Time:	Signature: Time:
Printed Name: Date:	Printed Name: Date:	Printed Name: Date:	Printed Name: Date:

Attachment D
Laboratory Results

Groundwater Solutions, Inc.
55 SW Yamhill Street, Suite 400 Portland, Oregon 97204
ph: 503.239.8799 fx: 503.239.8940 e: groundwatersolutions.com

Laboratory Data QA/QC Review
Upland Source Control Investigation
City Outfall Basin 18

To: File

From: Eric Collins, RG – GSI
Robyn Cook – GSI

Date: January 3, 2006

This memorandum presents a quality assurance/quality control (QA/QC) review of the laboratory data generated during source control investigation sampling and analyses recently conducted by the City of Portland in Outfall Basin 18. The results of the sampling and analyses are presented in the March 2006, Technical Memorandum No. OF18-1.

The laboratory analyses for these source control program samples were completed by the City's Bureau of Environmental Services (BES) laboratory and by STL, a subcontracted laboratory. The following analyses were conducted at each laboratory:

- BES Laboratory
    - Metals (EPA Method 6020)
    - Total Petroleum Hydrocarbons – Diesel Range Extended (NWTPH-Dx Method)
    - Total Petroleum Hydrocarbons – Identification (NWTPH-HCID Method)
- STL Laboratory
    - Metals (EPA Method 7471)
    - Semivolatile Organic Compounds (EPA Method 8270-SIM)
    - Polychlorinated Biphenyls (EPA Method 8082)
    - Total Petroleum Hydrocarbons – Gasoline Range Extended (NWTPH-Gx Method)

This QA/QC review is based on the available documentation supplied from each laboratory and consisted of reviewing the following for each laboratory report:

- Chain-of-custody complete and correct
- Analysis within holding times

- Chemicals of interest in method blanks
- Surrogate recoveries within accuracy control limits
- Laboratory duplicates within analytical accuracy control limits
- Laboratory blank spike recoveries within accuracy control limits
- Laboratory blank spike duplicate results within analytical precision control limits
- Matrix spike recoveries within accuracy control limits
- Matrix spike duplicate results within analytical precision control limits

The results of the laboratory report QA/QC review are presented below.

Chain-of-Custody

The chain-of-custody forms showed continuous custody of the samples. The chain-of-custody procedures were adequate and the sample integrity was maintained through the sample collection and delivery process.

Analysis Holding Times

Semivolatile Organic Compounds (SVOC) Analyses
All samples were extracted and analyzed within the required holding times.

Metals Analyses
All samples were extracted and analyzed within the required holding times.

Polychlorinated Biphenyls (PCB) Analyses
All samples were extracted and analyzed within the required holding times.

Petroleum Hydrocarbons Analyses
All samples were extracted and analyzed within the required holding times.

Method Blanks

Method blanks were processed during the laboratory analysis of SVOCs, petroleum hydrocarbons, PCBs, and metals. No analytes were detected in the method blanks during the analysis of petroleum hydrocarbons, PCBs, or metals. Low-level bis(2-ethylhexyl)phthalate contamination was detected in the method blank associated with this sample batch. However, the analyte was detected at significantly higher concentrations in the samples; therefore, no data are qualified.

Surrogate Recoveries

Surrogates were added and analyzed during the laboratory analysis of SVOCs, petroleum hydrocarbons, and PCBs. Surrogate recoveries were within laboratory control limits for the analysis of SVOCs and petroleum hydrocarbons. Surrogate recoveries could not be determined for the PCB analysis because of the required dilution. As a result, the detected PCB results should be qualified as estimates and the data flagged with a “J.”

Laboratory Duplicates

Laboratory duplicate analysis was completed during the laboratory analysis of metals. Results for both the field sample and the laboratory duplicate were near the method practical quantitation limit/detection limit; accordingly, relative percent differences (RPD) were not calculated.

Laboratory Control Sample Recoveries

Laboratory control samples were processed during the laboratory analyses of SVOCs, petroleum hydrocarbons, and PCBs. All laboratory control spike recoveries were within laboratory control limits.

Laboratory Control Sample Duplicates

Laboratory blank spike duplicates were processed during the laboratory analyses of SVOCs, petroleum hydrocarbons, and PCBs. The RPDs between the laboratory blank spikes and the laboratory blank spike duplicates were within laboratory control limits for all three analyses.

Matrix Spike Recoveries

Matrix spikes and matrix spike duplicates were processed during the laboratory analysis of SVOCs, PCBs and metals. The matrix spike and matrix spike duplicate recoveries were within the laboratory control limits for the PCB and metals analyses. Fifteen of 23 RPDs between matrix spikes and matrix spike duplicates were outside QC limits for the SVOC analysis. Matrix interference was indicated on the basis of acceptable laboratory blank spike recoveries.

Water Pollution Control Laboratory
6543 N. Burlington Ave.
Portland, Oregon 97203-4552
(503) 823-5696

City of Portland Chain-of-Custody

Bureau of Environmental Services

Date: 8/25/04
Page: 1 of 1
Collected By: MJH /RCB

Project Name: LOWER HARBOR OF SED SAMP
File Number: 1020.001 Matrix: SEDIMENT

$PAHSOL

[1] Run NWTPH-Gx and NWTPH-Dx if detects on NWTPH-HCID
*PCB and PAH analyses will be perforemd by Severn Trent Laboratory, routed through Northcreek. NWTP-Gx analyses to be done at Northcreek

Requested Analyses

WPCL Sample I.D.	Location	Point Code	Sample Date	Sample Time	Sample Type	General: PCBs* (low Level)	General: PAH EPA 8270-SIM (low-leve	General: SVOC's EPA 8270	General: NWTPH-HCID[1]	Metals: Tot Mtls -EPA 6020 (As, Ag, Ba, Cd, Cr, Hg, Pb, Se, Zn)	Field Comments
FO 040780	3250 NW ST HELENS RD Downstream ANB968 Wilhelm Truck	1	8-25-04	1036	G	●	●	●	●	●	FIELD SAMPLE ID ↓ IL-ANB968-0804
FO 040781	3250 NW ST HELENS RD Lateral ANB970 Wilhelm Truck	2	↓	1117	G	●	●	●	●	●	IL-ANB970-0804
FO 040782	3250 NW ST HELENS RD AAX274 Wilhelm Truck	3	↓	1206	G	●	●	●	●	●	IL-~~ANB~~AAX274-0804

Relinquished By: 1.	Relinquished By: 2.	Relinquished By: 3.	Relinquished By: 4.
Signature:	Signature:	Signature:	Signature:
Time: 1450	Time:	Time:	Time:
Printed Name: Michael Hansen	Printed Name:	Printed Name:	Printed Name:
Date: 8-25-04	Date:	Date:	Date:
Received By: 1.	**Received By: 2.**	**Received By: 3.**	**Received By: 4.**
Signature:	Signature:	Signature:	Signature:
Time: 1450	Time:	Time:	Time:
Printed Name: C. Christensen	Printed Name:	Printed Name:	Printed Name:
Date: 8/25/04	Date:	Date:	Date:

s:\eid\1000\1020.001\Sampdoc\Lower Harbor Sed COC.xls

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 8/25/2004 10:36 **System ID** AI07662 **Sample ID** **FO040780**

Page: 1

Proj./Company Name: LOWER HARBOR OUTFALL SED SAMP
Address/Location: IL-18-ANB968-0804-DS
3250 NW ST HELENS RD

Date Received: 8/25/2004
Sample Status: COMPLETE AND VALIDATED

Proj Subcategory: REGULATORY PLAN & EVAL
Sample Point Code: 18_7
IMS File/Invoice #: 1020.001

Sample Type: GRAB
Sample Matrix: SEDIMENT
Collected By: MJH/RCB

Comments: QA/QC: Unless otherwise noted, all analytical QA/QC criteria were met for this sample including holding times, calibration, method blanks, laboratory control sample recoveries, duplicate precision, matrix spike recoveries, and surrogate recoveries, as applicable. Surrogate recoveries for NWTPH-Dx and PCB analysis could not be determined due to the high dilution factors required.

Test Parameter	Result	Units	MRL	Method
METALS				
ZINC	847	mg/Kg dry wt	0.50	EPA 6020
RCRA METALS (8) BY EPA 6020				
ARSENIC	8.92	mg/Kg dry wt	0.50	EPA 6020
BARIUM	349	mg/Kg dry wt	0.10	EPA 6020
CADMIUM	1.73	mg/Kg dry wt	0.10	EPA 6020
CHROMIUM	134	mg/Kg dry wt	0.50	EPA 6020
LEAD	898	mg/Kg dry wt	0.10	EPA 6020
MERCURY	2.96	mg/Kg dry wt	0.010	EPA 6020
SELENIUM	<1.00	mg/Kg dry wt	1.00	EPA 6020
SILVER	1.01	mg/Kg dry wt	0.10	EPA 6020
OUTSIDE				
MERCURY	2.03	mg/Kg dry wt	0.0244	EPA 7471
POLYCHLORINATED BIPHENYLS (PCB)				
PCB 1016	<127	µg/Kg dry wt	127	EPA 8082
PCB 1221	<127	µg/Kg dry wt	127	EPA 8082
PCB 1232	<127	µg/Kg dry wt	127	EPA 8082
PCB 1242	2000	µg/Kg dry wt	127	EPA 8082
PCB 1248	<127	µg/Kg dry wt	127	EPA 8082
PCB 1254	1240	µg/Kg dry wt	127	EPA 8082
PCB 1260	376	µg/Kg dry wt	127	EPA 8082
SEMI-VOLATILE ORGANICS - CUSTOM				
1-Methylnaphthalene	29.4	µg/Kg dry wt	7.90	EPA 8270-SIM
2-Methylnaphthalene	72.6	µg/Kg dry wt	7.90	EPA 8270-SIM
Acenaphthene	28.8	µg/Kg dry wt	7.90	EPA 8270-SIM
Acenaphthylene	<7.9	µg/Kg dry wt	7.90	EPA 8270-SIM
Anthracene	61.9	µg/Kg dry wt	7.90	EPA 8270-SIM

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 8/25/2004 10:36 **System ID** AI07662 **Sample ID** **FO040780**

Proj./Company Name: LOWER HARBOR OUTFALL SED SAMP
Address/Location: IL-18-ANB968-0804-DS
3250 NW ST HELENS RD

Date Received: 8/25/2004
Sample Status: COMPLETE AND VALIDATED

Proj Subcategory: REGULATORY PLAN & EVAL
Sample Point Code: 18_7
IMS File/Invoice #: 1020.001

Sample Type: GRAB
Sample Matrix: SEDIMENT
Collected By: MJH/RCB

Comments: QA/QC: Unless otherwise noted, all analytical QA/QC criteria were met for this sample including holding times, calibration, method blanks, laboratory control sample recoveries, duplicate precision, matrix spike recoveries, and surrogate recoveries, as applicable. Surrogate recoveries for NWTPH-Dx and PCB analysis could not be determined due to the high dilution factors required.

Test Parameter	Result	Units	MRL	Method
Benzo(a)anthracene	103	µg/Kg dry wt	7.90	EPA 8270-SIM
Benzo(a)pyrene	123	µg/Kg dry wt	7.90	EPA 8270-SIM
Benzo(g,h,i)perylene	164	µg/Kg dry wt	7.90	EPA 8270-SIM
Benzofluoranthenes	324	µg/Kg dry wt	15.8	EPA 8270-SIM
Bis(2-ethylhexyl) phthalate	3470	µg/Kg dry wt	31.6	EPA 8270-SIM
Butylbenzylphthalate	443	µg/Kg dry wt	31.6	EPA 8270-SIM
Chrysene	184	µg/Kg dry wt	7.90	EPA 8270-SIM
Di-n-butyl phthalate	32.7	µg/Kg dry wt	15.8	EPA 8270-SIM
Di-n-octyl phthalate	56.7	µg/Kg dry wt	31.6	EPA 8270-SIM
Dibenzo(a,h)anthracene	39.6	µg/Kg dry wt	7.90	EPA 8270-SIM
Diethyl phthalate	<15.8	µg/Kg dry wt	15.8	EPA 8270-SIM
Dimethyl phthalate	29.5	µg/Kg dry wt	15.8	EPA 8270-SIM
Fluoranthene	211	µg/Kg dry wt	7.90	EPA 8270-SIM
Fluorene	30.3	µg/Kg dry wt	7.90	EPA 8270-SIM
Indeno(1,2,3-cd)pyrene	128	µg/Kg dry wt	7.90	EPA 8270-SIM
Naphthalene	44.2	µg/Kg dry wt	7.90	EPA 8270-SIM
Phenanthrene	174	µg/Kg dry wt	7.90	EPA 8270-SIM
Pyrene	339	µg/Kg dry wt	7.90	EPA 8270-SIM
NWTPH-Dx				
#6 FUEL OIL	<1000	mg/Kg dry wt	1000	NWTPH-Dx
DIESEL	<500	mg/Kg dry wt	500	NWTPH-Dx
KEROSENE	<500	mg/Kg dry wt	500	NWTPH-Dx
MOTOR OIL	1130	mg/Kg dry wt	1000	NWTPH-Dx
NWTPH-HCID				
DIESEL	<50	mg/Kg dry wt	50	NWTPH-HCID
GASOLINE	<20	mg/Kg dry wt	20	NWTPH-HCID
HEAVY FUEL OIL	DET	mg/Kg dry wt	100	NWTPH-HCID
LUBE OIL	DET	mg/Kg dry wt	100	NWTPH-HCID

6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656

Report Date: 9/30/2004

Validated By: Signature on File

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 8/25/2004 10:36 **System ID** AI07662 **Sample ID** **FO040780**

Page: 3

Proj./Company Name: LOWER HARBOR OUTFALL SED SAMP
Address/Location: IL-18-ANB968-0804-DS
3250 NW ST HELENS RD

Date Received: 8/25/2004
Sample Status: COMPLETE AND VALIDATED

Proj Subcategory: REGULATORY PLAN & EVAL
Sample Point Code: 18_7
IMS File/Invoice #: 1020.001

Sample Type: GRAB
Sample Matrix: SEDIMENT
Collected By: MJH/RCB

Comments: QA/QC: Unless otherwise noted, all analytical QA/QC criteria were met for this sample including holding times, calibration, method blanks, laboratory control sample recoveries, duplicate precision, matrix spike recoveries, and surrogate recoveries, as applicable. Surrogate recoveries for NWTPH-Dx and PCB analysis could not be determined due to the high dilution factors required.

Test Parameter	Result	Units	MRL	Method
OTHER	<100	mg/Kg dry wt	100	NWTPH-HCID
Surrogate Recovery (%)	97	mg/Kg dry wt		NWTPH-HCID

End of Report for Sample ID: FO040780

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Report Date: 9/30/2004

Validated By: Signature on File

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 8/25/2004 11:17 **System ID** AI07663 **Sample ID** **FO040781**

Proj./Company Name: LOWER HARBOR OUTFALL SED SAMP
Address/Location: IL-18-ANB968-0804-LAT
3250 NW ST HELENS RD

Date Received: 8/25/2004
Sample Status: COMPLETE AND VALIDATED

Proj Subcategory: REGULATORY PLAN & EVAL
Sample Point Code: 18_8
IMS File/Invoice #: 1020.001

Sample Type: GRAB
Sample Matrix: SEDIMENT
Collected By: MJH/RCB

Comments: QA/QC: Unless otherwise noted, all analytical QA/QC criteria were met for this sample including holding times, calibration, method blanks, laboratory control sample recoveries, duplicate precision, matrix spike recoveries, and surrogate recoveries, as applicable.Surrogate recoveries for PCB analysis could not be determined due to the high dilution factor required.

Test Parameter	Result	Units	MRL	Method
METALS				
ZINC	516	mg/Kg dry wt	0.50	EPA 6020
RCRA METALS (8) BY EPA 6020				
ARSENIC	9.07	mg/Kg dry wt	0.50	EPA 6020
BARIUM	304	mg/Kg dry wt	0.10	EPA 6020
CADMIUM	1.13	mg/Kg dry wt	0.10	EPA 6020
CHROMIUM	114	mg/Kg dry wt	0.50	EPA 6020
LEAD	731	mg/Kg dry wt	0.10	EPA 6020
MERCURY	1.57	mg/Kg dry wt	0.010	EPA 6020
SELENIUM	<1.00	mg/Kg dry wt	1.00	EPA 6020
SILVER	0.25	mg/Kg dry wt	0.10	EPA 6020
OUTSIDE				
MERCURY	2.46	mg/Kg dry wt	0.237	EPA 7471
POLYCHLORINATED BIPHENYLS (PCB)				
PCB 1016	<121	µg/Kg dry wt	121	EPA 8082
PCB 1221	<121	µg/Kg dry wt	121	EPA 8082
PCB 1232	<121	µg/Kg dry wt	121	EPA 8082
PCB 1242	1440	µg/Kg dry wt	121	EPA 8082
PCB 1248	<121	µg/Kg dry wt	121	EPA 8082
PCB 1254	996	µg/Kg dry wt	121	EPA 8082
PCB 1260	473	µg/Kg dry wt	121	EPA 8082
SEMI-VOLATILE ORGANICS - CUSTOM				
1-Methylnaphthalene	28.3	µg/Kg dry wt	7.76	EPA 8270-SIM
2-Methylnaphthalene	61.8	µg/Kg dry wt	7.76	EPA 8270-SIM
Acenaphthene	50.5	µg/Kg dry wt	7.76	EPA 8270-SIM
Acenaphthylene	25	µg/Kg dry wt	7.76	EPA 8270-SIM
Anthracene	156	µg/Kg dry wt	7.76	EPA 8270-SIM

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 8/25/2004 11:17 **System ID** AI07663 **Sample ID** **FO040781**

Proj./Company Name: LOWER HARBOR OUTFALL SED SAMP
Address/Location: IL-18-ANB968-0804-LAT
3250 NW ST HELENS RD

Date Received: 8/25/2004
Sample Status: COMPLETE AND VALIDATED

Proj Subcategory: REGULATORY PLAN & EVAL
Sample Point Code: 18_8
IMS File/Invoice #: 1020.001

Sample Type: GRAB
Sample Matrix: SEDIMENT
Collected By: MJH/RCB

Comments: QA/QC: Unless otherwise noted, all analytical QA/QC criteria were met for this sample including holding times, calibration, method blanks, laboratory control sample recoveries, duplicate precision, matrix spike recoveries, and surrogate recoveries, as applicable.Surrogate recoveries for PCB analysis could not be determined due to the high dilution factor required.

Test Parameter	Result	Units	MRL	Method
Benzo(a)anthracene	351	µg/Kg dry wt	7.76	EPA 8270-SIM
Benzo(a)pyrene	403	µg/Kg dry wt	7.76	EPA 8270-SIM
Benzo(g,h,i)perylene	510	µg/Kg dry wt	7.76	EPA 8270-SIM
Benzofluoranthenes	746	µg/Kg dry wt	15.5	EPA 8270-SIM
Bis(2-ethylhexyl) phthalate	2810	µg/Kg dry wt	31.0	EPA 8270-SIM
Butylbenzylphthalate	189	µg/Kg dry wt	31.0	EPA 8270-SIM
Chrysene	402	µg/Kg dry wt	7.76	EPA 8270-SIM
Di-n-butyl phthalate	33.4	µg/Kg dry wt	15.5	EPA 8270-SIM
Di-n-octyl phthalate	83.5	µg/Kg dry wt	31.0	EPA 8270-SIM
Dibenzo(a,h)anthracene	91.5	µg/Kg dry wt	7.76	EPA 8270-SIM
Diethyl phthalate	<15.5	µg/Kg dry wt	15.5	EPA 8270-SIM
Dimethyl phthalate	<15.5	µg/Kg dry wt	15.5	EPA 8270-SIM
Fluoranthene	624	µg/Kg dry wt	7.76	EPA 8270-SIM
Fluorene	38.7	µg/Kg dry wt	7.76	EPA 8270-SIM
Indeno(1,2,3-cd)pyrene	381	µg/Kg dry wt	7.76	EPA 8270-SIM
Naphthalene	32.6	µg/Kg dry wt	7.76	EPA 8270-SIM
Phenanthrene	341	µg/Kg dry wt	7.76	EPA 8270-SIM
Pyrene	712	µg/Kg dry wt	7.76	EPA 8270-SIM
NWTPH-Dx				
#6 FUEL OIL	<250	mg/Kg dry wt	250	NWTPH-Dx
DIESEL	<125	mg/Kg dry wt	125	NWTPH-Dx
KEROSENE	<125	mg/Kg dry wt	125	NWTPH-Dx
MOTOR OIL	554	mg/Kg dry wt	250	NWTPH-Dx
NWTPH-HCID				
DIESEL	<50	mg/Kg dry wt	50	NWTPH-HCID
GASOLINE	<20	mg/Kg dry wt	20	NWTPH-HCID
HEAVY FUEL OIL	<100	mg/Kg dry wt	100	NWTPH-HCID
LUBE OIL	DET	mg/Kg dry wt	100	NWTPH-HCID

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Report Date: 9/30/2004

Validated By: Signature on File

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 8/25/2004 11:17 **System ID** AI07663 **Sample ID** **FO040781**

Page: 3

Proj./Company Name: LOWER HARBOR OUTFALL SED SAMP
Address/Location: IL-18-ANB968-0804-LAT
3250 NW ST HELENS RD

Date Received: 8/25/2004
Sample Status: COMPLETE AND VALIDATED

Proj Subcategory: REGULATORY PLAN & EVAL
Sample Point Code: 18_8
IMS File/Invoice #: 1020.001

Sample Type: GRAB
Sample Matrix: SEDIMENT
Collected By: MJH/RCB

Comments: QA/QC: Unless otherwise noted, all analytical QA/QC criteria were met for this sample including holding times, calibration, method blanks, laboratory control sample recoveries, duplicate precision, matrix spike recoveries, and surrogate recoveries, as applicable.Surrogate recoveries for PCB analysis could not be determined due to the high dilution factor required.

Test Parameter	Result	Units	MRL	Method
OTHER	<100	mg/Kg dry wt	100	NWTPH-HCID
Surrogate Recovery (%)	98	mg/Kg dry wt		NWTPH-HCID

End of Report for Sample ID: FO040781

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Report Date: 9/30/2004

Validated By: Signature on File

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 8/25/2004 12:06 **System ID** AI07664 **Sample ID** **FO040782**

Page: 1

Proj./Company Name: LOWER HARBOR OUTFALL SED SAMP
Address/Location: IL-18-AAX274-0804
3250 NW ST HELENS RD

Date Received: 8/25/2004
Sample Status: COMPLETE AND VALIDATED

Proj Subcategory: REGULATORY PLAN & EVAL
Sample Point Code: 18_9
IMS File/Invoice #: 1020.001

Sample Type: GRAB
Sample Matrix: SEDIMENT
Collected By: MJH/RCB

Comments: QA/QC: Unless otherwise noted, all analytical QA/QC criteria were met for this sample including holding times, calibration, method blanks, laboratory control sample recoveries, duplicate precision, matrix spike recoveries, and surrogate recoveries, as applicable. Surrogate recoveries for NWTPH-Dx and PCB analysis could not be determined due to the high dilution factors required.

Test Parameter	Result	Units	MRL	Method
METALS				
ZINC	1230	mg/Kg dry wt	0.50	EPA 6020
RCRA METALS (8) BY EPA 6020				
ARSENIC	4.86	mg/Kg dry wt	0.50	EPA 6020
BARIUM	471	mg/Kg dry wt	0.10	EPA 6020
CADMIUM	3.94	mg/Kg dry wt	0.10	EPA 6020
CHROMIUM	351	mg/Kg dry wt	0.50	EPA 6020
LEAD	2800	mg/Kg dry wt	0.10	EPA 6020
MERCURY	8.04	mg/Kg dry wt	0.010	EPA 6020
SELENIUM	<1.00	mg/Kg dry wt	1.00	EPA 6020
SILVER	0.60	mg/Kg dry wt	0.10	EPA 6020
OUTSIDE				
MERCURY	9.18	mg/Kg dry wt	0.469	EPA 7471
POLYCHLORINATED BIPHENYLS (PCB)				
PCB 1016	<269	µg/Kg dry wt	269	EPA 8082
PCB 1221	<269	µg/Kg dry wt	269	EPA 8082
PCB 1232	<269	µg/Kg dry wt	269	EPA 8082
PCB 1242	11500	µg/Kg dry wt	269	EPA 8082
PCB 1248	<269	µg/Kg dry wt	269	EPA 8082
PCB 1254	7430	µg/Kg dry wt	269	EPA 8082
PCB 1260	4220	µg/Kg dry wt	269	EPA 8082
SEMI-VOLATILE ORGANICS - CUSTOM				
1-Methylnaphthalene	143	µg/Kg dry wt	8.62	EPA 8270-SIM
2-Methylnaphthalene	440	µg/Kg dry wt	8.62	EPA 8270-SIM
Acenaphthene	45.8	µg/Kg dry wt	8.62	EPA 8270-SIM
Acenaphthylene	50.5	µg/Kg dry wt	8.62	EPA 8270-SIM
Anthracene	48.6	µg/Kg dry wt	8.62	EPA 8270-SIM

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 8/25/2004 12:06 **System ID** AI07664 **Sample ID** **FO040782**

Proj./Company Name: LOWER HARBOR OUTFALL SED SAMP
Address/Location: IL-18-AAX274-0804
3250 NW ST HELENS RD

Date Received: 8/25/2004
Sample Status: COMPLETE AND VALIDATED

Proj Subcategory: REGULATORY PLAN & EVAL
Sample Point Code: 18_9
IMS File/Invoice #: 1020.001

Sample Type: GRAB
Sample Matrix: SEDIMENT
Collected By: MJH/RCB

Comments: QA/QC: Unless otherwise noted, all analytical QA/QC criteria were met for this sample including holding times, calibration, method blanks, laboratory control sample recoveries, duplicate precision, matrix spike recoveries, and surrogate recoveries, as applicable. Surrogate recoveries for NWTPH-Dx and PCB analysis could not be determined due to the high dilution factors required.

Test Parameter	Result	Units	MRL	Method
Benzo(a)anthracene	407	µg/Kg dry wt	8.62	EPA 8270-SIM
Benzo(a)pyrene	591	µg/Kg dry wt	8.62	EPA 8270-SIM
Benzo(g,h,i)perylene	676	µg/Kg dry wt	8.62	EPA 8270-SIM
Benzofluoranthenes	1090	µg/Kg dry wt	17.2	EPA 8270-SIM
Bis(2-ethylhexyl) phthalate	11500	µg/Kg dry wt	172	EPA 8270-SIM
Butylbenzylphthalate	1010	µg/Kg dry wt	34.5	EPA 8270-SIM
Chrysene	746	µg/Kg dry wt	8.62	EPA 8270-SIM
Di-n-butyl phthalate	77.7	µg/Kg dry wt	17.2	EPA 8270-SIM
Di-n-octyl phthalate	278	µg/Kg dry wt	34.5	EPA 8270-SIM
Dibenzo(a,h)anthracene	<8.62	µg/Kg dry wt	8.62	EPA 8270-SIM
Diethyl phthalate	<17.2	µg/Kg dry wt	17.2	EPA 8270-SIM
Dimethyl phthalate	39.1	µg/Kg dry wt	17.2	EPA 8270-SIM
Fluoranthene	576	µg/Kg dry wt	8.62	EPA 8270-SIM
Fluorene	28.1	µg/Kg dry wt	8.62	EPA 8270-SIM
Indeno(1,2,3-cd)pyrene	457	µg/Kg dry wt	8.62	EPA 8270-SIM
Naphthalene	210	µg/Kg dry wt	8.62	EPA 8270-SIM
Phenanthrene	187	µg/Kg dry wt	8.62	EPA 8270-SIM
Pyrene	1140	µg/Kg dry wt	8.62	EPA 8270-SIM
NWTPH-Dx				
#6 FUEL OIL	3920	mg/Kg dry wt	2000	NWTPH-Dx
DIESEL	<1000	mg/Kg dry wt	1000	NWTPH-Dx
KEROSENE	<1000	mg/Kg dry wt	1000	NWTPH-Dx
MOTOR OIL	18100	mg/Kg dry wt	2000	NWTPH-Dx
NWTPH-HCID				
DIESEL	<50	mg/Kg dry wt	50	NWTPH-HCID
GASOLINE	<20	mg/Kg dry wt	20	NWTPH-HCID
HEAVY FUEL OIL	DET	mg/Kg dry wt	100	NWTPH-HCID
LUBE OIL	DET	mg/Kg dry wt	100	NWTPH-HCID

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Report Date: 9/30/2004

Validated By: Signature on File

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 8/25/2004 12:06 **System ID** AI07664 **Sample ID** **FO040782**

Proj./Company Name: LOWER HARBOR OUTFALL SED SAMP
Address/Location: IL-18-AAX274-0804
3250 NW ST HELENS RD

Date Received: 8/25/2004
Sample Status: COMPLETE AND VALIDATED

Proj Subcategory: REGULATORY PLAN & EVAL
Sample Point Code: 18_9
IMS File/Invoice #: 1020.001

Sample Type: GRAB
Sample Matrix: SEDIMENT
Collected By: MJH/RCB

Comments: QA/QC: Unless otherwise noted, all analytical QA/QC criteria were met for this sample including holding times, calibration, method blanks, laboratory control sample recoveries, duplicate precision, matrix spike recoveries, and surrogate recoveries, as applicable. Surrogate recoveries for NWTPH-Dx and PCB analysis could not be determined due to the high dilution factors required.

Test Parameter	Result	Units	MRL	Method
OTHER	<100	mg/Kg dry wt	100	NWTPH-HCID
Surrogate Recovery (%)	123	mg/Kg dry wt		NWTPH-HCID

End of Report for Sample ID: FO040782

6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656

Report Date: 9/30/2004

Validated By: Signature on File

Water Pollution Control Laboratory
6543 N. Burlington Ave.
Portland, Oregon 97203-4552
(503) 823-5696

City of Portland Chain-of-Custody

Bureau of Environmental Services

Date: 8/25/04
Page: 1 of 1
Collected By: MJH / RCB

Project Name: CONTAINER MANAGEMENT SED SAMP
File Number: 5030.018 Matrix: SEDIMENT

[1] Run NWTPH-Gx and NWTPH-Dx if detects on NWTPH-HCID
*PCB and PAH analyses will be perforemd by Severn Trent Laboratory, routed through Northcreek. NWTPH-Gx analyses to be done at Northcreek.

Requested Analyses

WPCL Sample I.D.	Location	Point Code	Sample Date	Sample Time	Sample Type	General: PCBs* (low Level)	General: PAH EPA 8270-SIM (low-level)	General: SVOC's EPA 8270 (low level)	General: NWTPH-HCID[1]	Metals: Tot Mtls -EPA 6020 (As, Ag, Ba, Cd, Cr, Hg, Pb, Se, Zn)	Field Comments: FIELD SAMPLE ID ↓
FO 040783	3000 NW ST HELENS RD CONTAINER MGNT DNSTREAM AAX281	1	8/25/04	1323	G	●	●	●	●	●	1L - AAX281 - 0804

Relinquished By: 1.	Relinquished By: 2.	Relinquished By: 3.	Relinquished By: 4.
Signature: [signature] Time: 1450	Signature: Time:	Signature: Time:	Signature: Time:
Printed Name: MICHAEL HAUSER Date: 8-25-04	Printed Name: Date:	Printed Name: Date:	Printed Name: Date:
Received By: 1.	**Received By: 2.**	**Received By: 3.**	**Received By: 4.**
Signature: [signature] Time: 1450	Signature: Time:	Signature: Time:	Signature: Time:
Printed Name: C. Christensen Date: 8/25/04	Printed Name: Date:	Printed Name: Date:	Printed Name: Date:

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 8/25/2004 13:23 **System ID** AI07665 **Sample ID** **FO040783**

Page: 1

Proj./Company Name: CONTAINER MANAGEMENT SED SAMP
Address/Location: IL-18-AAX281-0804
3000 NW ST HELENS RD

Date Received: 8/25/2004
Sample Status: COMPLETE AND VALIDATED

Proj Subcategory: WASTEWATER ENGINEERING
Sample Point Code: 18_10
IMS File/Invoice #: 5030.018

Sample Type: GRAB
Sample Matrix: SEDIMENT
Collected By: MJH/RCB

Comments: QA/QC: Unless otherwise noted, all analytical QA/QC criteria were met for this sample including holding times, calibration, method blanks, laboratory control sample recoveries, duplicate precision, matrix spike recoveries, and surrogate recoveries, as applicable. Surrogate recoveries for NWTPH-Dx and PCB analysis could not be determined due to the high dilution factors required. Components reported as Gasoline may be due to overlap from the Diesel range.

Test Parameter	Result	Units	MRL	Method
METALS				
ZINC	706	mg/Kg dry wt	0.50	EPA 6020
RCRA METALS (8) BY EPA 6020				
ARSENIC	3.85	mg/Kg dry wt	0.50	EPA 6020
BARIUM	320	mg/Kg dry wt	0.10	EPA 6020
CADMIUM	2.07	mg/Kg dry wt	0.10	EPA 6020
CHROMIUM	110	mg/Kg dry wt	0.50	EPA 6020
LEAD	568	mg/Kg dry wt	0.10	EPA 6020
MERCURY	2.00	mg/Kg dry wt	0.010	EPA 6020
SELENIUM	<1.00	mg/Kg dry wt	1.00	EPA 6020
SILVER	3.78	mg/Kg dry wt	0.10	EPA 6020
TCLP METALS - 2				
CHROMIUM	<0.050	mg/L	0.050	EPA1311/6020
LEAD	0.980	mg/L	0.200	EPA1311/6020
OUTSIDE				
MERCURY	2.2	mg/Kg dry wt	0.0226	EPA 7471
NWTPH-Gx				
GASOLINE RANGE HYDROCARBONS	71.7	mg/Kg dry wt	5.46	NWTPH-Gx
POLYCHLORINATED BIPHENYLS (PCB)				
PCB 1016	<131	µg/Kg dry wt	131	EPA 8082
PCB 1221	<131	µg/Kg dry wt	131	EPA 8082
PCB 1232	<131	µg/Kg dry wt	131	EPA 8082
PCB 1242	3860	µg/Kg dry wt	131	EPA 8082
PCB 1248	<131	µg/Kg dry wt	131	EPA 8082
PCB 1254	1570	µg/Kg dry wt	131	EPA 8082
PCB 1260	745	µg/Kg dry wt	131	EPA 8082

6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656

Report Date: 10/29/2004

Validated By: Signature on File

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 8/25/2004 13:23 **System ID** AI07665 **Sample ID** **FO040783**

Proj./Company Name: CONTAINER MANAGEMENT SED SAMP
Address/Location: IL-18-AAX281-0804
3000 NW ST HELENS RD

Date Received: 8/25/2004
Sample Status: COMPLETE AND VALIDATED

Proj Subcategory: WASTEWATER ENGINEERING
Sample Point Code: 18_10
IMS File/Invoice #: 5030.018

Sample Type: GRAB
Sample Matrix: SEDIMENT
Collected By: MJH/RCB

Comments: QA/QC: Unless otherwise noted, all analytical QA/QC criteria were met for this sample including holding times, calibration, method blanks, laboratory control sample recoveries, duplicate precision, matrix spike recoveries, and surrogate recoveries, as applicable. Surrogate recoveries for NWTPH-Dx and PCB analysis could not be determined due to the high dilution factors required. Components reported as Gasoline may be due to overlap from the Diesel range.

Test Parameter	Result	Units	MRL	Method
SEMI-VOLATILE ORGANICS - CUSTOM				
1-Methylnaphthalene	549	µg/Kg dry wt	8.64	EPA 8270-SIM
2-Methylnaphthalene	946	µg/Kg dry wt	8.64	EPA 8270-SIM
Acenaphthene	1570	µg/Kg dry wt	8.64	EPA 8270-SIM
Acenaphthylene	29.5	µg/Kg dry wt	8.64	EPA 8270-SIM
Anthracene	1430	µg/Kg dry wt	8.64	EPA 8270-SIM
Benzo(a)anthracene	3700	µg/Kg dry wt	8.64	EPA 8270-SIM
Benzo(a)pyrene	2870	µg/Kg dry wt	8.64	EPA 8270-SIM
Benzo(g,h,i)perylene	1740	µg/Kg dry wt	8.64	EPA 8270-SIM
Benzofluoranthenes	4490	µg/Kg dry wt	17.3	EPA 8270-SIM
Bis(2-ethylhexyl) phthalate	22700	µg/Kg dry wt	173	EPA 8270-SIM
Butylbenzylphthalate	3840	µg/Kg dry wt	34.6	EPA 8270-SIM
Chrysene	2750	µg/Kg dry wt	8.64	EPA 8270-SIM
Dibenzo(a,h)anthracene	885	µg/Kg dry wt	8.64	EPA 8270-SIM
Diethyl phthalate	28.3	µg/Kg dry wt	17.3	EPA 8270-SIM
Dimethyl phthalate	130	µg/Kg dry wt	17.3	EPA 8270-SIM
Di-n-butyl phthalate	131	µg/Kg dry wt	17.3	EPA 8270-SIM
Di-n-octyl phthalate	13500	µg/Kg dry wt	173	EPA 8270-SIM
Fluoranthene	5700	µg/Kg dry wt	8.64	EPA 8270-SIM
Fluorene	1180	µg/Kg dry wt	8.64	EPA 8270-SIM
Indeno(1,2,3-cd)pyrene	1680	µg/Kg dry wt	8.64	EPA 8270-SIM
Naphthalene	345	µg/Kg dry wt	8.64	EPA 8270-SIM
Phenanthrene	7130	µg/Kg dry wt	8.64	EPA 8270-SIM
Pyrene	5790	µg/Kg dry wt	8.64	EPA 8270-SIM
TCLP METALS - MERCURY				
MERCURY	<0.002	mg/L	0.002	EPA1311/7471
NWTPH-Dx				
#6 FUEL OIL	<4000	mg/Kg dry wt	4000	NWTPH-Dx

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 8/25/2004 13:23 **System ID** AI07665 **Sample ID** **FO040783**

Page: 3

Proj./Company Name: CONTAINER MANAGEMENT SED SAMP
Address/Location: IL-18-AAX281-0804
3000 NW ST HELENS RD

Date Received: 8/25/2004
Sample Status: COMPLETE AND VALIDATED

Proj Subcategory: WASTEWATER ENGINEERING
Sample Point Code: 18_10
IMS File/Invoice #: 5030.018

Sample Type: GRAB
Sample Matrix: SEDIMENT
Collected By: MJH/RCB

Comments: QA/QC: Unless otherwise noted, all analytical QA/QC criteria were met for this sample including holding times, calibration, method blanks, laboratory control sample recoveries, duplicate precision, matrix spike recoveries, and surrogate recoveries, as applicable. Surrogate recoveries for NWTPH-Dx and PCB analysis could not be determined due to the high dilution factors required. Components reported as Gasoline may be due to overlap from the Diesel range.

Test Parameter	Result	Units	MRL	Method
DIESEL	<2000	mg/Kg dry wt	2000	NWTPH-Dx
KEROSENE	<2000	mg/Kg dry wt	2000	NWTPH-Dx
MOTOR OIL	6630	mg/Kg dry wt	4000	NWTPH-Dx
NWTPH-HCID				
DIESEL	<50	mg/Kg dry wt	50	NWTPH-HCID
GASOLINE	DET	mg/Kg dry wt	20	NWTPH-HCID
HEAVY FUEL OIL	DET	mg/Kg dry wt	100	NWTPH-HCID
LUBE OIL	DET	mg/Kg dry wt	100	NWTPH-HCID
OTHER	<100	mg/Kg dry wt	100	NWTPH-HCID
Surrogate Recovery (%)	116	mg/Kg dry wt		NWTPH-HCID

End of Report for Sample ID: FO040783

6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656

Report Date: 10/29/2004

Validated By: Signature on File

SEVERN TRENT STL

STL Seattle
5755 8th Street East
Tacoma, WA 98424

Tel: 253 922 2310
Fax: 253 922 5047
www.stl-inc.com

TRANSMITTAL MEMORANDUM

DATE: September 21, 2004

TO: Howard Holmes
North Creek Analytical
9405 S. W. Nimbus Ave.
Beaverton, OR 97008

PROJECT:

REPORT NUMBER: 123212

TOTAL NUMBER OF PAGES: _____

Enclosed are the test results for four samples received at STL Seattle on August 27, 2004.

Analytical Narrative: Low-level bis(2-ethylhexyl)phtalate contamination was present in the PAH analysis method blank associated with sample batch SS1182. The data have been flagged "B1" or "B2" as appropriate. No further action was taken on this outlier.

The samples were a difficult matrix and contained complex mixtures of aged and degraded Aroclors and therefore Aroclor indentifications and quantifications are estimate. It is advisable to have these samples analyzed with PCB congener GC/MS confirmation.

The report consists of this transmittal memo, analytical results, quality control reports, a copy of the chain-of-custody, a list of data qualifiers and analytical narrative when applicable, and a copy of any requested raw data.

Should there be any questions regarding this report, please contact me at (253) 922-2310.

Sincerely,

Tom Coyner
Project Manager

STL Seattle

Sample Identification:

Lab. No.	Client ID	Date/Time Sampled	Matrix
123212-1	P4H0976-01	08-25-04 10:36	solid
123212-2	P4H0976-02	08-25-04 11:17	solid
123212-3	P4H0976-03	08-25-04 12:06	solid
123212-4	P4H0976-04	08-25-04 13:23	solid

STL Seattle

Client Name:	North Creek Analytical
Client ID:	P4H0976-01
Lab ID:	123212-01
Date Received:	8/27/2004
Date Prepared:	9/1/2004
Date Analyzed:	9/8/2004
% Solids	78.61
Dilution Factor	25

Semivolatile Organics by EPA Method 8270

			Recovery Limits	
Surrogate	**% Recovery**	**Flags**	**Low**	**High**
Nitrobenzene - d5	61.2		37	156
2 - Fluorobiphenyl	64.5		35	144
p - Terphenyl - d14	73.2		39	158

Sample results are on a dry weight basis.

Analyte	**Result (ug/kg)**	**RL**	**Flags**
Naphthalene	44.2	7.9	
2-Methylnaphthalene	72.6	7.9	
1-Methylnaphthalene	29.4	7.9	
Acenaphthylene	ND	7.9	
Acenaphthene	28.8	7.9	
Fluorene	30.3	7.9	
Phenanthrene	174	7.9	
Anthracene	61.9	7.9	
Fluoranthene	211	7.9	
Pyrene	339	7.9	
Benzo(a)anthracene	103	7.9	
Chrysene	184	7.9	
Benzofluoranthenes	324	15.8	
Benzo(a)pyrene	123	7.9	
Indeno(1,2,3-cd)pyrene	128	7.9	
Dibenz(a,h)anthracene	39.6	7.9	
Benzo(g,h,i)perylene	164	7.9	
Dimethylphthalate	29.5	15.8	
Diethylphthalate	ND	15.8	
Di-n-butylphthalate	32.7	15.8	
Butylbenzylphthalate	443	31.6	
bis(2-Ethylhexyl)phthalate	3470	31.6	B2
Di-n-octylphthalate	56.7	31.6	

STL Seattle

Client Name:	North Creek Analytical
Client ID:	P4H0976-02
Lab ID:	123212-02
Date Received:	8/27/2004
Date Prepared:	9/1/2004
Date Analyzed:	9/8/2004
% Solids	78.47
Dilution Factor	25

Semivolatile Organics by EPA Method 8270

			Recovery Limits	
Surrogate	**% Recovery**	**Flags**	**Low**	**High**
Nitrobenzene - d5	94.2		37	156
2 - Fluorobiphenyl	89.1		35	144
p - Terphenyl - d14	86		39	158

Sample results are on a dry weight basis.

		Result		
Analyte		**(ug/kg)**	**RL**	**Flags**
Naphthalene		32.6	7.76	
2-Methylnaphthalene		61.8	7.76	
1-Methylnaphthalene		28.3	7.76	
Acenaphthylene		25	7.76	
Acenaphthene		50.5	7.76	
Fluorene		38.7	7.76	
Phenanthrene		341	7.76	
Anthracene		156	7.76	
Fluoranthene		624	7.76	
Pyrene		712	7.76	
Benzo(a)anthracene		351	7.76	
Chrysene		402	7.76	
Benzofluoranthenes		746	15.5	
Benzo(a)pyrene		403	7.76	
Indeno(1,2,3-cd)pyrene		381	7.76	
Dibenz(a,h)anthracene		91.5	7.76	
Benzo(g,h,i)perylene		510	7.76	
Dimethylphthalate	ND		15.5	
Diethylphthalate	ND		15.5	
Di-n-butylphthalate		33.4	15.5	
Butylbenzylphthalate		189	31.1	
bis(2-Ethylhexyl)phthalate		2810	31.1	B2
Di-n-octylphthalate		83.5	31.1	

STL Seattle

Client Name:	North Creek Analytical
Client ID:	P4H0976-03
Lab ID:	123212-03
Date Received:	8/27/2004
Date Prepared:	9/1/2004
Date Analyzed:	9/8/2004
% Solids	70.14
Dilution Factor	25

Semivolatile Organics by EPA Method 8270

			Recovery Limits	
Surrogate	**% Recovery**	**Flags**	**Low**	**High**
Nitrobenzene - d5	75.2		37	156
2 - Fluorobiphenyl	67.3		35	144
p - Terphenyl - d14	69.9		39	158

Sample results are on a dry weight basis.

Analyte	**Result (ug/kg)**	**RL**	**Flags**
Naphthalene	210	8.62	
2-Methylnaphthalene	440	8.62	
1-Methylnaphthalene	143	8.62	
Acenaphthylene	50.5	8.62	
Acenaphthene	45.8	8.62	
Fluorene	28.1	8.62	
Phenanthrene	187	8.62	
Anthracene	48.6	8.62	
Fluoranthene	576	8.62	
Pyrene	1140	8.62	
Benzo(a)anthracene	407	8.62	
Chrysene	746	8.62	
Benzofluoranthenes	1090	17.2	
Benzo(a)pyrene	591	8.62	
Indeno(1,2,3-cd)pyrene	457	8.62	
Dibenz(a,h)anthracene	ND	8.62	
Benzo(g,h,i)perylene	676	8.62	
Dimethylphthalate	39.1	17.2	
Diethylphthalate	ND	17.2	
Di-n-butylphthalate	77.7	17.2	
Butylbenzylphthalate	1010	34.5	
bis(2-Ethylhexyl)phthalate	11500	172	B2 D5
Di-n-octylphthalate	278	34.5	

STL Seattle

Client Name:	North Creek Analytical
Client ID:	P4H0976-04
Lab ID:	123212-04
Date Received:	8/27/2004
Date Prepared:	9/1/2004
Date Analyzed:	9/8/2004
% Solids	69.68
Dilution Factor	25

Semivolatile Organics by EPA Method 8270

			Recovery Limits	
Surrogate	**% Recovery**	**Flags**	**Low**	**High**
Nitrobenzene - d5	79.9	N	37	156
2 - Fluorobiphenyl	82.1	N	35	144
p - Terphenyl - d14	83.5	N	39	158

Sample results are on a dry weight basis.

Analyte	**Result (ug/kg)**	**RL**	**Flags**
Naphthalene	345	8.64	
2-Methylnaphthalene	946	8.64	
1-Methylnaphthalene	549	8.64	
Acenaphthylene	29.5	8.64	
Acenaphthene	1570	8.64	
Fluorene	1180	8.64	
Phenanthrene	7130	8.64	
Anthracene	1430	8.64	
Fluoranthene	5700	8.64	
Pyrene	5790	8.64	
Benzo(a)anthracene	3700	8.64	
Chrysene	2750	8.64	
Benzofluoranthenes	4490	17.3	
Benzo(a)pyrene	2870	8.64	
Indeno(1,2,3-cd)pyrene	1680	8.64	
Dibenz(a,h)anthracene	885	8.64	
Benzo(g,h,i)perylene	1740	8.64	
Dimethylphthalate	130	17.3	
Diethylphthalate	28.3	17.3	
Di-n-butylphthalate	131	17.3	
Butylbenzylphthalate	3840	34.6	
bis(2-Ethylhexyl)phthalate	22700	173	B2 D5
Di-n-octylphthalate	13500	173	D5

STL Seattle

Client Name:	North Creek Analytical
Client ID:	P4H0976-04
Lab ID:	123212-04
Date Received:	8/27/04
Date Prepared:	9/8/04
Date Analyzed:	9/8/04
% Solids	69.68
Dilution Factor	1

Gasoline Range Organics by Method NWTPH-Gx

			Recovery Limits	
Surrogate	**% Recovery**	**Flags**	**Low**	**High**
Trifluorotoluene	71.8		50	150
1-Chloro-3-fluorobenzene	119		50	150
Bromofluorobenzene	144		50	150
Pentafluorobenzene	92.9		50	150

Sample results are on a dry weight basis.

Analyte	**Result (mg/kg)**	**RL**	**Flags**
Gasoline by NWTPH-G	71.7	5.46	X1

X1 - Chromatogram suggests this might be overlap from diesel range

STL Seattle

Client Name:	North Creek Analytical
Client ID:	P4H0976-01
Lab ID:	123212-01
Date Received:	8/27/2004
Date Prepared:	9/1/2004
Date Analyzed:	9/15/2004
% Solids	78.61
Dilution Factor	10

PCBs by EPA Method 8082

			Recovery Limits	
Surrogate	**% Recovery**	**Flags**	**Low**	**High**
Tetrachloro-m-xylene	-	X8	60	123
Decachlorobiphenyl	-	X8	65	126

Sample results are on a dry weight basis.

Analyte	**Result (mg/kg)**	**RL**	**Flags**
Aroclor 1016	ND	0.127	
Aroclor 1221	ND	0.127	
Aroclor 1232	ND	0.127	
Aroclor 1242	2	0.127	
Aroclor 1248	ND	0.127	
Aroclor 1254	1.24	0.127	
Aroclor 1260	0.376	0.127	

STL Seattle

Client Name:	North Creek Analytical
Client ID:	P4H0976-02
Lab ID:	123212-02
Date Received:	8/27/2004
Date Prepared:	9/1/2004
Date Analyzed:	9/15/2004
% Solids	78.47
Dilution Factor	10

PCBs by EPA Method 8082

			Recovery Limits	
Surrogate	**% Recovery**	**Flags**	**Low**	**High**
Tetrachloro-m-xylene	-	X8	60	123
Decachlorobiphenyl	-	X8	65	126

Sample results are on a dry weight basis.

Analyte		**Result (mg/kg)**	**RL**	**Flags**
Aroclor 1016	ND		0.121	
Aroclor 1221	ND		0.121	
Aroclor 1232	ND		0.121	
Aroclor 1242		1.44	0.121	
Aroclor 1248	ND		0.121	
Aroclor 1254		0.996	0.121	
Aroclor 1260		0.473	0.121	

STL Seattle

Client Name:	North Creek Analytical
Client ID:	P4H0976-03
Lab ID:	123212-03
Date Received:	8/27/2004
Date Prepared:	9/1/2004
Date Analyzed:	9/15/2004
% Solids	70.14
Dilution Factor	20

PCBs by EPA Method 8082

Surrogate	% Recovery	Flags	Recovery Limits Low	High
Tetrachloro-m-xylene	-	X8	60	123
Decachlorobiphenyl	-	X8	65	126

Sample results are on a dry weight basis.

Analyte		Result (mg/kg)	RL	Flags
Aroclor 1016	ND		0.269	
Aroclor 1221	ND		0.269	
Aroclor 1232	ND		0.269	
Aroclor 1242		11.5	0.269	
Aroclor 1248	ND		0.269	
Aroclor 1254		7.43	0.269	
Aroclor 1260		4.22	0.269	

STL Seattle

Client Name:	North Creek Analytical
Client ID:	P4H0976-04
Lab ID:	123212-04
Date Received:	8/27/2004
Date Prepared:	9/1/2004
Date Analyzed:	9/15/2004
% Solids	69.68
Dilution Factor	10

PCBs by EPA Method 8082

Surrogate	% Recovery	Flags	Recovery Limits Low	High
Tetrachloro-m-xylene	-	X8	60	123
Decachlorobiphenyl	-	X8	65	126

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Aroclor 1016	ND	0.131	
Aroclor 1221	ND	0.131	
Aroclor 1232	ND	0.131	
Aroclor 1242	3.86	0.131	
Aroclor 1248	ND	0.131	
Aroclor 1254	1.57	0.131	
Aroclor 1260	0.745	0.131	

STL Seattle

Client Name	North Creek Analytical
Client ID:	P4H0976-01
Lab ID:	123212-01
Date Received:	8/27/04
Date Prepared:	9/2/04
Date Analyzed:	9/2/04
Dilution Factor	1
% Solids	78.61

Mercury by CVAA - USEPA Method 7471

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Mercury	2.03	0.0244	

STL Seattle

Client Name	North Creek Analytical
Client ID:	P4H0976-02
Lab ID:	123212-02
Date Received:	8/27/04
Date Prepared:	9/2/04
Date Analyzed:	9/3/04
Dilution Factor	10
% Solids	78.47

Mercury by CVAA - USEPA Method 7471

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Mercury	2.46	0.237	

STL Seattle

Client Name	North Creek Analytical
Client ID:	P4H0976-03
Lab ID:	123212-03
Date Received:	8/27/04
Date Prepared:	9/2/04
Date Analyzed:	9/3/04
Dilution Factor	20
% Solids	70.14

Mercury by CVAA - USEPA Method 7471

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Mercury	9.18	0.469	

STL Seattle

Client Name	North Creek Analytical
Client ID:	P4H0976-04
Lab ID:	123212-04
Date Received:	8/27/04
Date Prepared:	9/2/04
Date Analyzed:	9/2/04
Dilution Factor	1
% Solids	69.68

Mercury by CVAA - USEPA Method 7471

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Mercury	2.2	0.0226	

STL Seattle

Lab ID:	Method Blank - SS1182
Date Received:	-
Date Prepared:	9/1/2004
Date Analyzed:	9/8/2004
% Solids	
Dilution Factor	4

Semivolatile Organics by EPA Method 8270

			Recovery Limits	
Surrogate	**% Recovery**	**Flags**	**Low**	**High**
Nitrobenzene - d5	72.2		37	156
2 - Fluorobiphenyl	77.4		35	144
p - Terphenyl - d14	94.3		39	158

Sample results are on an as received basis.

Analyte	**Result (ug/kg)**	**RL**	**Flags**
Naphthalene	ND	1	
2-Methylnaphthalene	ND	1	
1-Methylnaphthalene	ND	1	
Acenaphthylene	ND	1	
Acenaphthene	ND	1	
Fluorene	ND	1	
Phenanthrene	ND	1	
Anthracene	ND	1	
Fluoranthene	ND	1	
Pyrene	ND	1	
Benzo(a)anthracene	ND	1	
Chrysene	ND	1	
Benzofluoranthenes	ND	2	
Benzo(a)pyrene	ND	1	
Indeno(1,2,3-cd)pyrene	ND	1	
Dibenz(a,h)anthracene	ND	1	
Benzo(g,h,i)perylene	ND	1	
Dimethylphthalate	ND	2	
Diethylphthalate	ND	2	
Di-n-butylphthalate	ND	2	
Butylbenzylphthalate	ND	4	
bis(2-Ethylhexyl)phthalate	4.85	4	
Di-n-octylphthalate	ND	4	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID:	SS1182
Date Prepared:	9/1/2004
Date Analyzed:	9/8/2004
QC Batch ID:	SS1182

Semivolatile Organics by EPA Method 8270

Compound Name	Blank Result (ug/kg)	Spike Amount (ug/kg)	BS Result (ug/kg)	BS % Rec.	BSD Result (ug/kg)	BSD % Rec.	RPD	Flag
Naphthalene	0.39	100	68.5	68.1	67	66.6	-2.2	
2-Methylnaphthalene	0	100	70.6	70.6	69.5	69.5	-1.6	
1-Methylnaphthalene	0	100	72.8	72.8	72	72	-1.1	
Acenaphthylene	0	100	71.5	71.5	68.7	68.7	-4	
Acenaphthene	0	100	74.3	74.3	72.2	72.2	-2.9	
Fluorene	0	100	75.5	75.5	73.6	73.6	-2.5	
Phenanthrene	0	100	73.1	73.1	73.5	73.5	0.55	
Anthracene	0	100	71.8	71.8	71.3	71.3	-0.7	
Fluoranthene	0	100	73.5	73.5	71.6	71.6	-2.6	
Pyrene	0	100	77.7	77.7	76.6	76.6	-1.4	
Benzo(a)anthracene	0	100	79.2	79.2	77.6	77.6	-2	
Chrysene	0	100	77.2	77.2	76.1	76.1	-1.4	
Benzofluoranthenes	0	200	158	79.2	162	81.2	2.5	
Benzo(a)pyrene	0	100	78.9	78.9	79.3	79.3	0.51	
Indeno(1,2,3-cd)pyrene	0	100	77.4	77.4	76.7	76.7	-0.91	
Dibenz(a,h)anthracene	0	100	79.5	79.5	78.8	78.8	-0.88	
Benzo(g,h,i)perylene	0	100	77.3	77.3	77.1	77.1	-0.26	
Dimethylphthalate	0	100	77.7	77.7	77.8	77.8	0.13	
Diethylphthalate	0.46	100	79	78.5	76.7	76.3	-2.8	
Di-n-butylphthalate	1.9	100	81.7	79.8	81.1	79.1	-0.88	
Butylbenzylphthalate	0.63	100	80.5	79.9	79	78.4	-1.9	
bis(2-Ethylhexyl)phthalate	4.9	100	80.1	75.2	78.1	73.3	-2.6	
Di-n-octylphthalate	0	100	74.1	74.1	71.3	71.3	-3.9	

STL Seattle

Matrix Spike/Matrix Spike Duplicate Report

Client Sample ID:	P4H0976-01
Lab ID:	123212-01
Date Prepared:	9/1/2004
Date Analyzed:	9/8/2004
QC Batch ID:	SS1182

Semivolatile Organics by EPA Method 8270

Compound Name	Sample Result (ug/kg)	Spike Amount (ug/kg)	MS Result (ug/kg)	MS % Rec.	MSD Result (ug/kg)	MSD % Rec.	RPD	Flag
Naphthalene	44	122	195	124	139	75.1	-49	X7
2-Methylnaphthalene	73	122	229	129	151	62	-70	X7
1-Methylnaphthalene	29	122	152	101	131	80.7	-22	
Acenaphthylene	5.6	122	101	78.4	111	83.1	5.8	
Acenaphthene	29	122	264	194	128	78.9	-84	X7
Fluorene	30	122	205	144	126	76	-62	X7
Phenanthrene	170	122	634	378	243	54.2	-150	X7
Anthracene	62	122	169	88.2	166	82.2	-7	
Fluoranthene	210	122	545	274	341	102	-91	X7
Pyrene	340	122	717	310	455	91.6	-110	X7
Benzo(a)anthracene	100	122	395	240	275	137	-55	X7
Chrysene	180	122	427	200	282	78.4	-87	X7
Benzofluoranthenes	320	243	914	242	620	117	-70	X7
Benzo(a)pyrene	120	122	477	290	325	160	-58	X7
Indeno(1,2,3-cd)pyrene	130	122	409	231	293	131	-55	X7
Dibenz(a,h)anthracene	40	122	233	159	189	119	-29	X7
Benzo(g,h,i)perylene	160	122	436	223	320	124	-57	X7
Dimethylphthalate	30	122	126	79.5	128	78.3	-1.5	
Diethylphthalate	5	122	113	89.1	124	94.1	5.5	
Di-n-butylphthalate	33	122	164	108	157	98.2	-9.5	
Butylbenzylphthalate	440	122	617	143	558	91.2	-44	
bis(2-Ethylhexyl)phthalate	3500	122	1700	0	1160	0	0	X7
Di-n-octylphthalate	57	122	155	80.4	166	86.2	7	

STL Seattle

Lab ID:	Method Blank - GB3928
Date Received:	-
Date Prepared:	9/8/04
Date Analyzed:	9/8/04
% Solids	
Dilution Factor	1

Gasoline Range Organics by Method NWTPH-Gx

			Recovery Limits	
Surrogate	**% Recovery**	**Flags**	**Low**	**High**
Trifluorotoluene	98.8		50	150
1-Chloro-3-fluorobenzene	124		50	150
Bromofluorobenzene	121		50	150
Pentafluorobenzene	97.6		50	150

Sample results are on an as received basis.

Analyte	**Result (mg/kg)**	**RL**	**Flags**
Gasoline by NWTPH-G	ND	4	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID:	GB3928
Date Prepared:	9/8/04
Date Analyzed:	9/8/04
QC Batch ID:	GB3928

Gasoline Range Organics by Method NWTPH-Gx

Compound Name	Blank Result (mg/kg)	Spike Amount (mg/kg)	BS Result (mg/kg)	BS % Rec.	BSD Result (mg/kg)	BSD % Rec.	RPD	Flag
Gasoline by NWTPH-G	0	50	53.3	107	54.7	109	1.9	

STL Seattle

Lab ID:	Method Blank - PB0795
Date Received:	-
Date Prepared:	9/1/2004
Date Analyzed:	9/2/2004
% Solids	
Dilution Factor	1

PCBs by EPA Method 8082

			Recovery Limits	
Surrogate	**% Recovery**	**Flags**	**Low**	**High**
Tetrachloro-m-xylene	84.3		60	123
Decachlorobiphenyl	84.9		65	126

Sample results are on an as received basis.

Analyte	**Result (mg/kg)**	**RL**	**Flags**
Aroclor 1016	ND	0.01	
Aroclor 1221	ND	0.01	
Aroclor 1232	ND	0.01	
Aroclor 1242	ND	0.01	
Aroclor 1248	ND	0.01	
Aroclor 1254	ND	0.01	
Aroclor 1260	ND	0.01	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID:	PB0795
Date Prepared:	9/1/2004
Date Analyzed:	9/3/2004
QC Batch ID:	PB0795

PCBs by EPA Method 8082

Compound Name	Blank Result (mg/kg)	Spike Amount (mg/kg)	BS Result (mg/kg)	BS % Rec.	BSD Result (mg/kg)	BSD % Rec.	RPD	Flag
Aroclor 1242	0	0.1	0.0762	76.2	0.0754	75.4	-1.1	
Aroclor 1260	0	0.1	0.0887	88.7	0.083	83	-6.6	

STL Seattle

Matrix Spike/Matrix Spike Duplicate Report

Client Sample ID:	SITE-15-0-10-01
Lab ID:	123248-03
Date Prepared:	9/1/2004
Date Analyzed:	9/15/2004
QC Batch ID:	PB0795

PCBs by EPA Method 8082

Compound Name	Sample Result (mg/kg)	Spike Amount (mg/kg)	MS Result (mg/kg)	MS % Rec.	MSD Result (mg/kg)	MSD % Rec.	RPD	Flag
Aroclor 1242	0	0.14	0.111	79.4	0.116	82.5	3.8	
Aroclor 1260	0.039	0.14	0.149	79	0.141	72.9	-8	

STL Seattle

Lab ID:	Method Blank - ZS101
Date Received:	-
Date Prepared:	9/2/04
Date Analyzed:	9/2/04
Dilution Factor	1

Mercury by CVAA - USEPA Method 7471

Sample results are on an as received basis.

Analyte	Result (mg/kg)	RL	Flags
Mercury	ND	0.02	

STL Seattle

Matrix Spike Report

Client Sample ID:	082704-1032-010
Lab ID:	123222-10
Date Prepared:	9/2/04
Date Analyzed:	9/2/04
QC Batch ID:	ZS101

Mercury by CVAA - USEPA Method 7471

Parameter Name	Sample Result (mg/kg)	Spike Amount (mg/kg)	MS Result (mg/kg)	MS % Rec.	Flag
Mercury	0	0.2	0.22	110	

STL Seattle

Duplicate Report

Client Sample ID:	082704-1032-010
Lab ID:	123222-10
Date Prepared:	9/2/04
Date Analyzed:	9/2/04
QC Batch ID:	ZS101

Mercury by CVAA - USEPA Method 7471

Parameter Name	Sample Result (mg/kg)	Duplicate Result (mg/kg)	RPD %	Flag
Mercury	0	0.025	-200.0	X4a

SEVERN TRENT STL

STL Seattle
5755 8th Street East
Tacoma, WA 98424

Tel: 253 922 2310
Fax: 253 922 5047
www.stl-inc.com

DATA QUALIFIERS AND ABBREVIATIONS

B1: This analyte was detected in the associated method blank. The analyte concentration was determined not to be significantly higher than the associated method blank (less than ten times the concentration reported in the blank).

B2: This analyte was detected in the associated method blank. The analyte concentration in the sample was determined to be significantly higher than the method blank (greater than ten times the concentration reported in the blank).

C1: Second column confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be < 40%.

C2: Second column confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 40%. The higher result was reported unless anomalies were noted.

C3: Second analysis confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be ≤ 30%.

C4: Second analysis confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 30%. The original analysis was reported unless anomalies were noted.

M: GC/MS confirmation was performed. The result derived from the original analysis was reported.

D: The reported result for this analyte was calculated based on a secondary dilution factor.

E: The concentration of this analyte exceeded the instrument calibration range and should be considered an estimated quantity.

J: The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity.

MCL: Maximum Contaminant Level

MDL: Method Detection Limit

RL: Reporting Limit

N: See analytical narrative

ND: Not Detected

X1: Contaminant does not appear to be "typical" product. Elution pattern suggests it may be _____.

X2: Contaminant does not appear to be "typical" product.

X3: Identification and quantitation of the analyte or surrogate was complicated by matrix interference.

X4: RPD for duplicates was outside advisory QC limits. The sample was re-analyzed with similar results. The sample matrix may be nonhomogeneous.

X4a: RPD for duplicates outside advisory QC limits due to analyte concentration near the method practical quantitation limit/detection limit.

X5: Matrix spike recovery was not determined due to the required dilution.

X6: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Sample was re-analyzed with similar results.

X7: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Matrix interference may be indicated based on acceptable blank spike recovery and/or RPD.

X7a: Recovery and/or RPD values for this spiked analyte outside advisory QC limits due to high concentration of the analyte in the original sample.

X8: Surrogate recovery was not determined due to the required dilution.

X9: Surrogate recovery outside advisory QC limits due to matrix interference.

CHAIN OF CUSTODY

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-9508 425-420-9200 FAX 420-9210
11115 E Montgomery Suite B, Spokane, WA 99206-4776 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave, Beaverton, OR 97008-7132 503-906-9200 FAX 906-9210 ☒
20332 Empire Ave Suite F-1, Bend, OR 99701-5711 541-383-9310 FAX 382-7588
3209 Denali St, Anchorage, AK 99503-4030 907-334-9200 FAX 334-9210

CHAIN OF CUSTODY REPORT

Work Order #: P4H0976

CLIENT: City of Portland
REPORT TO: Jennifer Shackelford
ADDRESS:
PHONE: FAX:

INVOICE TO: Charles Lytle
P.O. NUMBER: 40567

PROJECT NAME: Lower Harbor
PROJECT NUMBER:
SAMPLED BY:

TURNAROUND REQUEST in Business Days *
Organic & Inorganic Analyses: ~~10~~ STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1
Petroleum Hydrocarbon Analyses: 5 STD. | 4 | 3 | 2 | 1 | <1
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES: PCB 8082 LL	* PAH 8270-SIM	Hg 7471A	MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	NCA WO ID
1	FO 040780	8/25/04 1036		X	X	X	S	4		
2	FO 040781	1117		X	X	X	S	4		
3	FO 040782	1206		X	X	X	S	4		
4	FO 040783	1323		X	X	X	S	4		
5										
6										
7										
8										
9										
10										

RELEASED BY: [signature] DATE: ~~8/25~~ 8/26/04 RECEIVED BY: REarnest DATE: 8-26-04
PRINT NAME: Daniel V Kuhlmeier FIRM: COP TIME: 1035 PRINT NAME: Rafi F. FIRM: NCA TIME: 1035
RELEASED BY: REarnest DATE: 8-26-04 RECEIVED BY: Erica Dekkan DATE: 8/26/04
PRINT NAME: Rafi F. FIRM: NCA TIME: 11.25 PRINT NAME: Erica Dekkan FIRM: NCA TIME: 1130

ADDITIONAL REMARKS: * PAH 8270-SIM + phthalates. Keep 1 jar for NWTPHGx pending COP HCID analysis.
TEMP: 24°C

COC REV 1/03 PAGE OF

Organics to STL-Seattle. Send attached sheet w/samples to STL-Seattle.

62000

SUBCONTRACT ORDER

North Creek Analytical - Portland

P4H0976

123212

SENDING LABORATORY:

North Creek Analytical - Portland
9405 SW Nimbus Ave.
Beaverton, OR 97008
Phone: (503) 906-9200
Fax: (503) 906-9210
Project Manager: Howard Holmes

RECEIVING LABORATORY:

Severn Trent Laboratories - Tacoma
5755 8th Street East
Tacoma, WA 98424
Phone :253-922-2310
Fax: 253-922-5047

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: P4H0976-01	**Soil**	**Sampled:08/25/04 10:36**		
Subcontract Outside	09/10/04 16:00	02/21/05 10:36		LL PCB, 8270 SIM PAH, and HG 7471A
Containers Supplied:				
4 oz. jar (A)	4 oz. jar (B)	4 oz. jar (C)	4 oz. jar (D)	
Sample ID: P4H0976-02	**Soil**	**Sampled:08/25/04 11:17**		
Subcontract Outside	09/10/04 16:00	02/21/05 11:17		LL PCB, 8270 SIM PAH, and HG 7471A
Containers Supplied:				
4 oz. jar (A)	4 oz. jar (B)	4 oz. jar (C)	4 oz. jar (D)	
Sample ID: P4H0976-03	**Soil**	**Sampled:08/25/04 12:06**		
Subcontract Outside	09/10/04 16:00	02/21/05 12:06		LL PCB, 8270 SIM PAH, and HG 7471A
Containers Supplied:				
4 oz. jar (A)	4 oz. jar (B)	4 oz. jar (C)	4 oz. jar (D)	
Sample ID: P4H0976-04	**Soil**	**Sampled:08/25/04 13:23**		
Subcontract Outside	09/10/04 16:00	02/21/05 13:23		LL PCB, 8270 SIM PAH, and HG 7471A
Containers Supplied:				
4 oz. jar (A)	4 oz. jar (B)	4 oz. jar (C)	4 oz. jar (D)	

Released By	Date	Received By	Date
[signature]	8/26/04	[signature]	8/27/04 11:00

00030

Attachment E
City References

Form W-89

3074 NW. 10 A.

BUREAU OF BUILDINGS

10-24-21

REPORT OF PLUMBING INSPECTION

Street and No. St Helens Road Permit No. 24246

Owner Oregon Brass Works

Contractor C. J. Kelly

Lot ... Block ... Addition acreage

Stories and class of building 1 sty old frame foundry

Water Closets 2 Sinks 1 Urinals 1

Bath Tubs ... Laundry Tubs ... Slop Sinks ...

Basins ... Floor Drains ... Connected to cesspool

Rain Drains Gals Connected to ...

Kind of Vents ... Kind of Drains ...

No. and Size of Stacks 1-4" Total No. Fixtures ...

Other Plumbing Fixtures Building moved here from 140 N Fron old material to be reused

Water Permits 10/25/21 - 27570

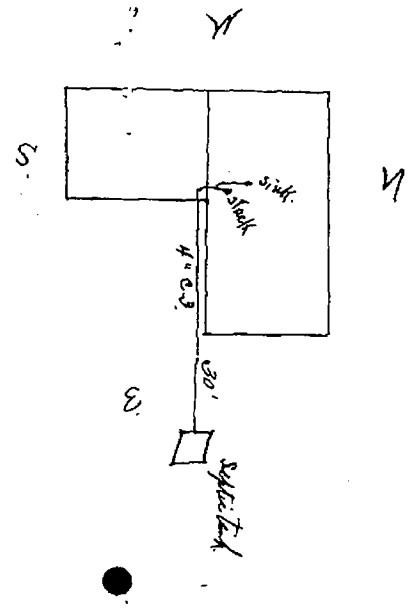
Date of First Inspection Oct 26 1921 Date of Final Inspection Dec 3 1921

Obviated Inspector. Doty Inspector.

Date of First Certificate ... Date of Final Certificate ...

SEE OTHER SIDE FOR REMARKS

2 W.C. on stack.
Sink 1½ to 4 x 2 tee
Septic tank 11/8/21 M.



Form W-89

BUREAU OF BUILDINGS

REPORT OF PLUMBING INSPECTION

Date 8/23/34

Address 3074 N. W. St. Helens Rd. Permit 108440

Lot ..... Block ..... Addition .....

Owner Magnus Co. Inc.

Contractor De Temple Co.

Stories and class of building old fr. 1 sty factory

Water Closets move 2 Sinks 2 Urinals 1

Bath Tubs ..... Laundry Tubs ..... Slop Sinks .....

Basins ..... Floor Drains 1 Shower Baths 2

Rain Drains ..... Catch Basins ..... Soda Fountains .....

Kind of Vents ..... Kind of Drains .....

No. and Size of Stacks ..... Connected to .....

Water Permits 104462 ~ Sewer Permit .....

Other Plumbing Fixtures 1 drinking fountain

Date of First Inspection 8-23-34 Date of Final Inspection 11/15-34

Jacz Inspector. Jacz Inspector.

Date of First Certificate ..... Date of Final Certificate .....

Form W-89 7-16-36

BUREAU OF BUILDINGS
REPORT OF PLUMBING INSPECTION

Date 9/21/36

Address 3704 N. St. Helens Rd. Permit 118821

Block Add Unplatted

Owner Magnus Co. Inc.

Contractor DeTemple Co.

Stories and class of building 1 story new concrete office.

Water Closets 1	Laundry Tubs	Urinals 1
Bath Tubs	Floor Drains	Slop Sinks
Basins 3	Catch Basins	Beer Cabinets
Rain Drains	Shower Baths 1	Refr. Drains
Sinks	Soda Fountains	Water Service

No. and Size of Stacks Connected to Septic Tank

Water Permits 113103 Sewer Permit

Other Plumbing Fixtures Connected to old line in old part of building.

Date of First Inspection 9/24/36 Date of Final Inspection 2-5-37

Inspector. Inspector

Date of First Certificate Date of Final Certificate

1- Urinal
1 Shower bath
1 Basin
2- Basin
Shelving
Shelving

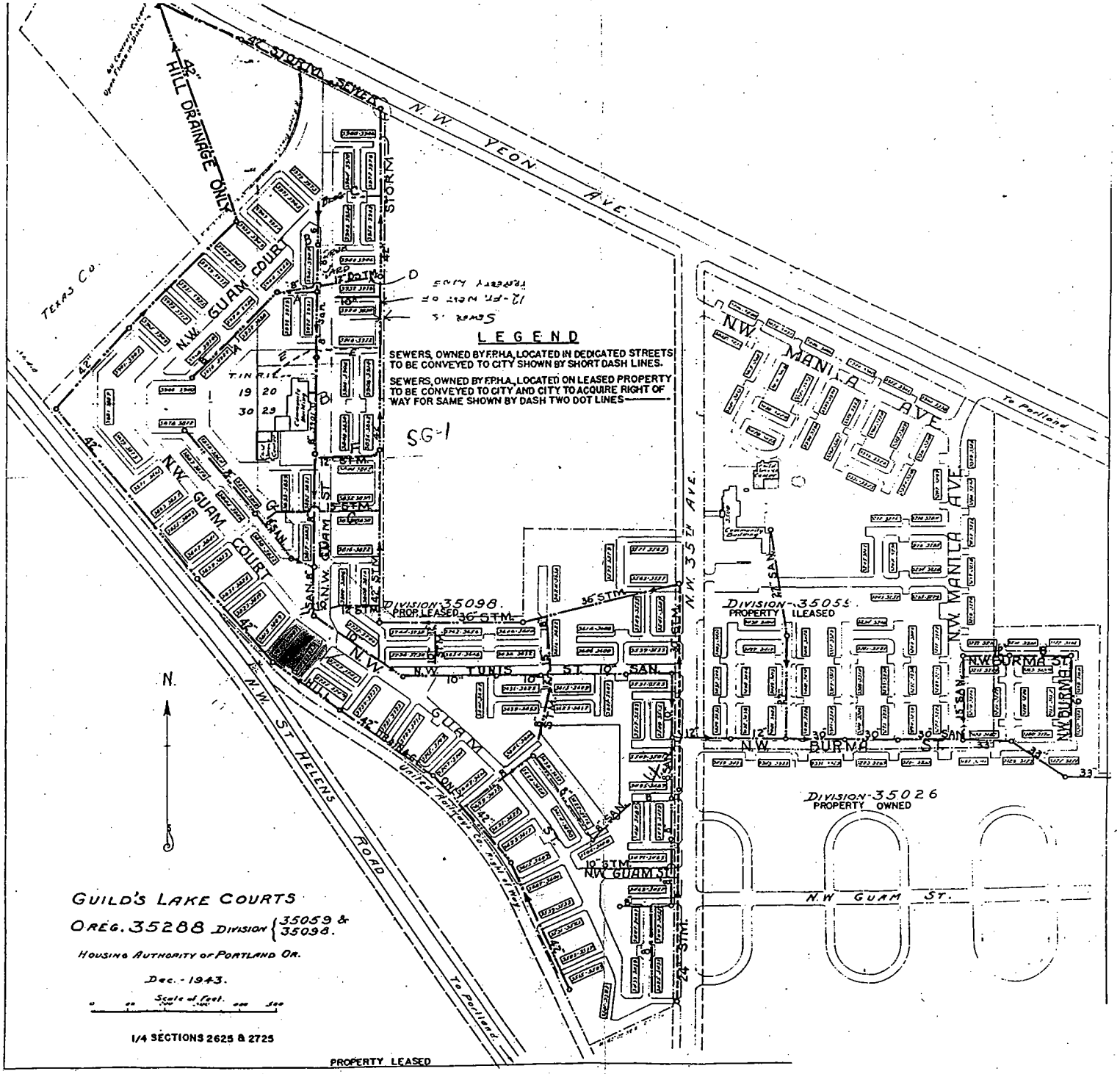
Form W-89
7-10-36

BUREAU OF BUILDINGS
REPORT OF PLUMBING INSPECTION

Date 12/31/36

Address 3074 N. W. St. Helens Rd. Permit 120636
Lot ____ Block ____ Add Acreage
Owner Magnus Co. Inc.
Contractor DeTemple Co.
Stories and class of building 2 story old frame factory
Water Closets 2 Laundry Tubs ____ Urinals ____
Bath Tubs ____ Floor Drains 1 Slop Sinks ____
Basins ~~xxxxxx~~ sumps 2 Beer Cabinets ____
Rain Drains ____ Shower Baths 1 Refr. Drains ____
Sinks 2 ~~Soda~~ Fountains 1 drk. Water Service ____
No. and Size of Stacks ____ Connected to Sewer
Water Permits 114726 Sewer Permit ____
Other Plumbing Fixtures Add to permit 118821

Date of First Inspection ____ Date of Final Inspection ____
____ Inspector. ____ Inspector
Date of First Certificate ____ Date of Final Certificate ____



GUILD'S LAKE COURTS

OREG. 35288 DIVISION { 35059 & 35098.

HOUSING AUTHORITY OF PORTLAND OR.

Dec. - 1943.

Scale of Feet

1/4 SECTIONS 2625 & 2725

FORM W-89
(11-1-43)

BUREAU OF BUILDINGS

REPORT OF PLUMBING INSPECTION

Date 8/3/44

Address 3000 N. W. St. Helens Road Permit 166668

Lot ... Blk ... Add Unplatted

Owner Reimann & McKenney

Contractor Herbert J. Reimann

Stories and class of building 1 story old frame whse.

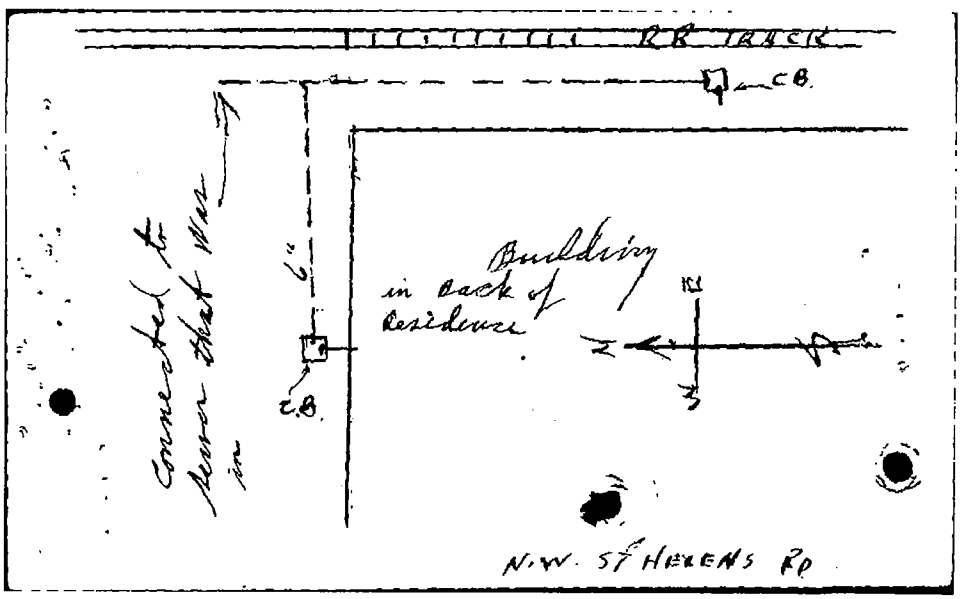
Toilets	Floor Drains	Beer Cab
Bath Tubs	Rain Drains	Refr. Drains
Bath Showers	Fountains	Urinals
Basins	H. W. Tanks	Catch Basins 2 garage
Sinks	Cesspool	Water Service
Laundry Trays	Dry Wells	Connected to
Water Permits		Sewer Permit

Other Plumbing Fixtures

Date of First Inspection 8/4/44 Date of Final Inspection 9/25/44

[illegible] Inspector. [illegible] Inspector

Date of First Certificate ... Date of Final Certificate ...


RR TRACK
C.B.
Building
in back of
Residence
6"
C.B.
Connected to
Sewer that was
in
N.W. ST HELENS RD

[redacted] FORM W-89
(11-1-43)

BUREAU OF BUILDINGS
REPORT OF PLUMBING INSPECTION

Date 10/2/46

Address 3074 N. W. St. Helens Rd. Permit 182292

Lot ..... Blk ..... Add .....

Owner Magnus Brass Company

Contractor Urban Plumbing & Heating Co.

Stories and class of building 1 story old frame, steel ofc. & fdry.

Toilets	Floor Drains	Beer Cab
Bath Tubs	Rain Drains	Refr. Drains
Bath Showers	Fountains	Urinals
Basins	H. W. Tanks	Catch Basins
Sinks	Cesspool	Water Service
Laundry Trays	Dry Wells	Connected to
Water Permits		Sewer Permit

Other Plumbing Fixtures Connect from septic tank to Housing Auth. Sewer. See letter #271191 - Dated Aug. 22, 1946 giving permission

Date of First Inspection 9-28-46 Date of Final Inspection 10-7-46

Farnsworth Inspector. Farnsworth Inspector

Date of First Certificate ..... Date of Final Certificate .....

RAILROAD TRACKS
ST. HELENS RD.
OLD 2" C.I.
6" TO HERE
6" C.I.
4" C.I.
OLD SEPTIC TANK
HOUSING AUTH. SEWER

File Easement on Deed No 4976 9-15-50 Easement to be recorded

ORDINANCE No. 92409

An Ordinance accepting, for sewer purposes, an easement granted by Rudie Wilhelm Warehouse Co., and declaring an emergency.

The City of Portland does ordain as follows:

Section 1. That the following described easement be and is hereby accepted for drainage and sanitation purposes in connection with sewer lines in Guilds Lake Courts.

Each easement is more fully described as: A strip of land 10.0 feet in width, being 5 feet on each side of the following described center lines:

1. Commencing at the northeast corner of the Marcus Neff Donation Land Claim, at the northwest corner of Section 29, T. 1 N., R. 1 E., W.M., in the City of Portland, County of Multnomah and State of Oregon, thence S. 0° 01' 45" E. on the east line of said Donation Land Claim 247.39 feet to the re-entrant corner of the Neff Donation Land Claim, thence S. 45° 00' 30" E. 387.42 feet along the northeast line of said Donation Land Claim to a point which marks the original partition between Tract "A" and Tract "B"; thence S. 44° 01' 30" W. 311 feet, more or less, to a point which is N. 44° 01' 30" E. 16.5 feet from the north line of the United Railways Company right-of-way, and which also marks the true point of beginning of this description; thence running 209 feet southeasterly in a straight line to a manhole which is N. 44° 01' 30" E. 16 feet from the north line of United Railways Company right of way; thence southeasterly in a straight line a distance of 311 feet to a second manhole which is N. 44° 01' 30 " E. 21 feet from the north line of the United Railways Company right of way; thence running southeasterly 223 feet more or less to a point in the partition line between Tract "B" and Tract "D", which point is also N. 44° 01' 30" E. 16.5 feet from the north line of the United Railways Company right of way.

2. Also, beginning at the point in the east line of the Neff Donation Land Claim between Tracts "A" and "B" and running thence S. 44° 01' 30" W. 161 feet to the true point of beginning; thence southeasterly 246 feet more or less to a manhole which is 119 feet S. 44° 01' 30" W. of the east line of the Marcus Neff Donation Land Claim; thence running northeast 169 feet to a point in said east boundary which is 367 feet S. 45° 00' 30" E. from the re-entrant corner between Tracts "A" and "B".

ORDINANCE No.

3. Also, beginning at the point in the east line of the Neff Donation Land Claim between Tracts "A" and "B" and running thence S. 45° 00' 30" E. 75.41 feet on said east line to the true point of beginning; thence S. 0° 19' W. 52 feet, more or less, to a manhole; thence S. 89° 41' E. 52 feet, more or less, to a point in the east boundary of the Neff Donation Land Claim which is 147 feet S. 45° 00' 30" E. from the place of beginning.

It is understood that any portion of the above sewer lines which may become unnecessary because of future construction or developments will be released from this easement upon written application to the City Engineer.

It is also understood that no building shall be constructed upon said strips of land without written consent of the City Engineer.

This instrument does not grant or convey to the City of Portland any right or title to the surface of the soil along the route of said sewer except for the purpose of laying down, inspecting, restoring and replacing the same.

Section 2. That the Auditor be and he is hereby directed to have a certified copy of this ordinance placed on record and a copy of said ordinance forwarded to the County Assessor.

Section 3. Inasmuch as this ordinance is necessary for the immediate preservation of the public health in this: To place on record and protect the interests of the City of Portland in sewer lines constructed by the United States Government and turned over to the City of Portland as recorded in Multnomah Deed Records, Book 1315, Page 475; therefore an emergency is hereby declared to exist and this ordinance shall be in force and effect from and after its passage by the Council.

Passed by the Council, SEP 6 1950

Dorothy McCullough Lee
Mayor of the City of Portland

Attest: Will Gibson.
Auditor of the City of Portland

Com'r Bowes

BOOK 1431 PAGE 154

KNOW ALL MEN BY THESE PRESENTS, That

RUDIE WILHELM WAREHOUSE COMPANY

a corporation duly organized and incorporated under the laws of the State of Oregon, in consideration of the sum of One and no/100 Dollars to it paid by the City of Portland, a municipal corporation, does hereby grant unto said City of Portland, the right to maintain sewers through and under the following described property in Section 29, T 1 N., R 1 E., W.M.; being an easement on a strip of land 5 feet on each side of center lines which are described below:

APPROVED AS TO DESCRIPTION
Bureau of Engineering & Right of Way Division

1. Commencing at the northeast corner of the Marcus Neff Donation Claim, at the northwest corner of Section 29, T 1 N., R 1 E., W.M., in the City of Portland, County of Multnomah, and State of Oregon, thence S. 0° 01' 45" E. on the east line of said Donation Land Claim 247.39 feet to the re-entrant corner of the Neff Donation Land Claim, thence S. 45° 00' 30" E. 387.42 feet along the northeast line of said Donation Land Claim to a point which marks the original partition between Tract "A" and Tract "B"; thence S. 44° 01' 30" W. 311 feet more or less to a point which is N. 44° 01' 30" E. 16.5 feet from the north line of the United Railways Company right of way, and which also marks the true point of beginning of this description; thence running 209 feet Southeasterly in a straight line to a manhole which is N. 44° 01' 30" E. 16 feet from the north line of United Railways Company right of way; thence southeasterly in a straight line a distance of 311 feet to a second manhole which is N. 44° 01' 30" E. 21 feet from the north line of the United Railways Company right of way; thence running southeasterly 223 feet more or less to a point in the partition line between Tract "B" and Tract "D", which point is also N. 44° 01' 30" E. 16.5 feet from the north line of the United Railways Company right of way.

2. Also, beginning at the point in the east line of the Neff Donation Land Claim between Tracts "A" and "B" and running thence S. 44° 01' 30" W. 161 feet to the true point of beginning; thence southeasterly 216 feet more or less to a manhole which is 119 feet S. 44° 01' 30" W. of the east line of the Marcus Neff Donation Land Claim; thence running northeast 169 feet to a point in said east boundary which is 367 feet S. 45° 00' 30" E. from the re-entrant corner between Tracts "A" and "B".

3. Also, beginning at the point in the east line of the Neff Donation Land Claim between Tracts "A" and "B" and running thence S. 45° 00' 30" E. 75.41 feet on said east line to the true point of beginning; thence S. 0° 19' W. 52 feet more or less to a manhole; thence S. 89° 41' E. 52 feet more or less to a point in the east boundary of the Neff Donation Land Claim which is 147 feet S. 45° 00' 30" E. from the place of beginning.

It is understood that any portion of the above sewer lines which may become unnecessary because of future construction or developments will be released from this easement upon written application to the City Engineer.

It is also understood that no building shall be constructed upon said strips of land without written consent of the City Engineer.

This instrument does not grant or convey to the City of Portland any right or title to the surface of the soil along the route of said sewer except for the purpose of laying down, inspecting, restoring and replacing the same.

BOOK 1431 PAGE 155

IN WITNESS WHEREOF, RUDIS WILHELM WAREHOUSE COMPANY, pursuant to a resolution of its Board of Directors, duly and legally adopted, has caused these presents to be signed by its President and Secretary, and its corporate seal to be hereunto affixed this 2nd day of August A.D., 1950.

Signed, Sealed and Delivered
In the presence of us as
Witnesses:

RUDIS WILHELM WAREHOUSE COMPANY

By Rudis Wilhelm
President

By Robert J. Wilhelm
Secretary

STATE OF CALIFORNIA }
} ss.
COUNTY OF ALAMEDA }

On this 2nd day of August, 1950, before me appeared Rudis Wilhelm and Robert J. Wilhelm known to me to be the duly elected, qualified and acting President and Secretary of the corporation described in and that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and they acknowledged to me that such corporation executed the within instrument pursuant to its by-laws or a resolution of its board of directors.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal in the County of Alameda, State of California, the day and year in this certificate first above written.

Notary Public in and for said County and State

My Commission expires NOV. 5, 1950

APPROVED AS TO FORM
Deputy City Attorney

(SEAL) DOCUMENT 4359 / RECORDED SEP 15 1950 10:19 P.M. A. L. Shuman, County Clerk

FORM W-8
(5-2-52)

BUREAU OF BUILDINGS
REPORT OF PLUMBING INSPECTION

Date 3/25/53

Address 3250 N. W. St Helens Road Permit 38325

Lot ..... Blk ..... Add .....

Owner Henry Mason Co.

Contractor Lewis Plbg & Htg, Inc

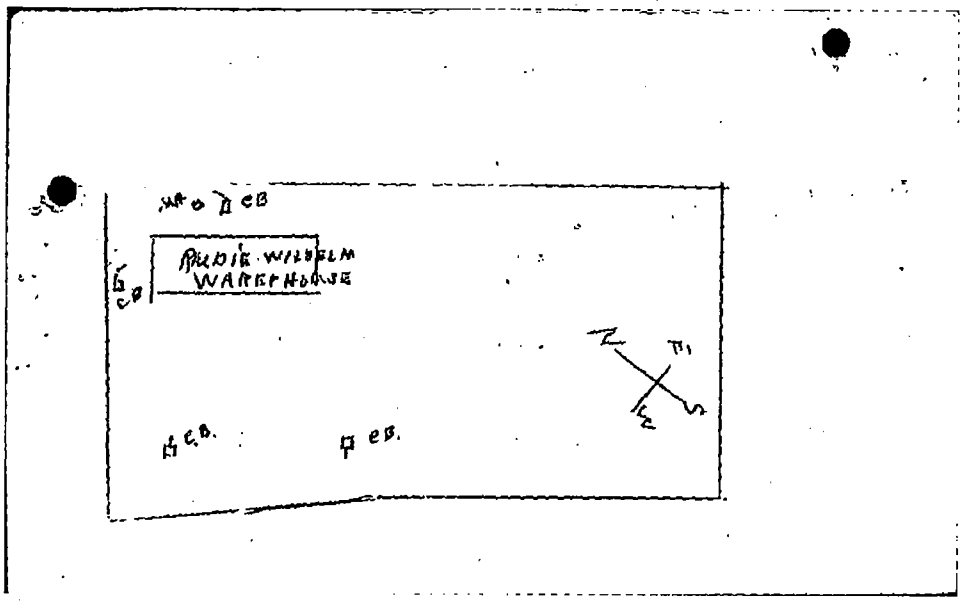
Stories and class of building .....

Toilets	Floor Drains	Beer Cab .....
Bath Tubs	Rain Drains	Refr. Drains .....
Bath Showers	Fountains	Urinals 1
Basins	H. W. Tanks	Catch Basins Yd 4
Sinks	Cesspool	Water Service .....
Laundry Trays	Dry Wells	Conn. To .....
Water Permit	Bldg. Pmt.	Sewer Permit .....

Remarks Addl to Plbg Per #36152.

Date of First Inspection 3-20-53 Date of Final Inspection 4-3-53

G.W. Schroeder Inspector G.W. Schroeder Inspector


RUDIK WILHELM
WAREHOUSE
T1
T2

FORM W-89
(3-56)

BUREAU OF BUILDINGS
REPORT OF PLUMBING INSPECTION

Date 4/22/58

Address 3000 N. W. St. Helens Road Permit 80978

Lot ..... Blk ..... Add .....

Owner Reimann & McKenney Co.

Contractor Gaittens Plbg Service

Stories and class of building 1-story old plant & storage yard

Toilets ..... Floor Drains ..... Beer Cab. for barrels

Bath Tubs ..... Rain Drains ..... Refr. Drains .....

Bath Showers ..... Fountains ..... Urinals .....

Basins ..... H. W. Tanks ..... Catch Basins .....

Sinks ..... Cesspool ..... Water Service .....

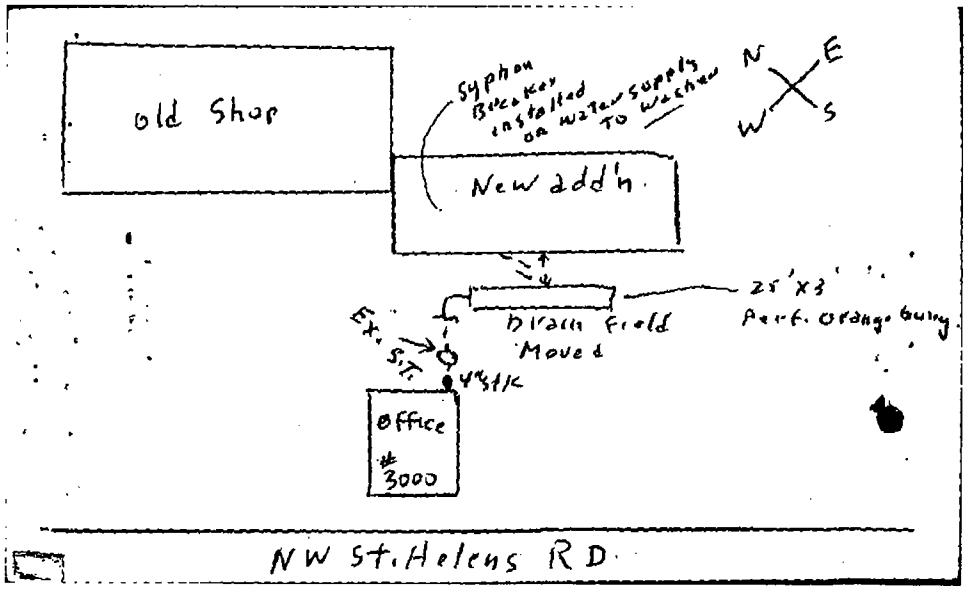
Laundry Trays ..... Dry Wells ..... Conn. To .....

Water Permit ..... Bldg. Pmt. ..... Sewer Permit .....

Remarks Moving drain field.

Date of First Inspection ..... Date of Final Inspection 5/13/58

..... Inspector ..... Inspector


old Shop
Syphon Breaker installed on water supply to washer
N
E
W
S
New addn.
25'x3'
Perf. orange buried
Drain field
Moved
Ext. S.T.
4"stk
office
#3000
NW St. Helens RD.

October 23, 1963

Wilhelm Trucking Company
3250 N.W. St. Helens Road
Portland, Oregon

Gentlemen:

It has been reported by City inspection crews that for some time considerable oil, grease and solvents have been getting into the City sewer from your property. Allowing these substances into the City sewer creates serious problems with the sewage facilities and is a violation of the Public Works Code, Sections 5-1012, 5-1013 and 5-1014 with penalties provided for under Article 2 and Paragraph 5, Section 5-1014.

There may be only the need for repairs or a tighter maintenance schedule; however, if the existing plumbing facilities are inadequate to remove the above waste products which are now reaching the City sewer, then additional oil separation equipment should be installed. Plans for the addition of such equipment must first be approved by the City Engineer and the Oregon State Sanitary Authority before installation.

For further details, please feel free to contact this office, attention Mr. R.C. Yonge, P.E., 228-6141, Extension 401.

Yours very truly,

L. H. ROSENTHAL, P.E.

City Engineer

RCY:bc

cc: Roy C. Jones, Jr., Supt.
Sewage Treatment Plant

FORM W-89
(4-66)

BUREAU OF BUILDINGS
REPORT OF PLUMBING INSPECTION

Date 7-10-70

Address 3000 N. W. St. Helens Road Permit 166594

Lot ____ Blk ____ Add ____

Owner Reiman & McKinney

Contractor Copenhagen Inc.

Stories and class of building new 1 sty office & lunch room

Water Closets	Hot-Water Tank	Cesspool
Bath, Shower	Auto. Clothes Washer	Septic Tank
Bath Tub	Auto. Dishwasher	Dry Well
Basins	Drain Floor	Water Service
Sinks	Drain Area	Connect to Sewer 1
Laundry Trays	Rain Drains	Cesspool, Septic Tank
Water Permit	Bldg. Pmt	Sewer Permit 7-10-70

Remarks Advised No Comm Barrel washer to be floor drain trap

Date of First Inspection July 17-70 Date of Final Inspection 9-14-71

D.W.H. Inspector Inspector

Well Head
Meter Run
Line
CB
RD
CB
Line
Water line connection Need to Connect from Line to Meter Run
Compressor

[redacted]

BUREAU OF BUILDINGS
REPORT OF PLUMBING INSPECTION

Date 9-28-70

Address 3000 N. W. St. Helens Road Permit 167870

Lot ____ Blk ____ Add ____

Owner Remann & McKenney Inc.

Contractor Fullman Mechanical

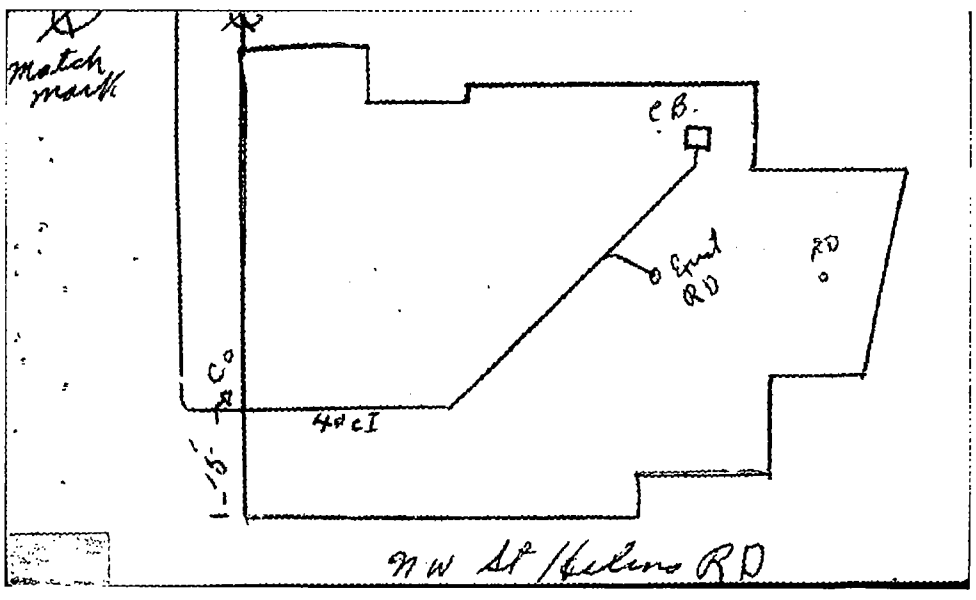
Stories and class of building old office & plant

Water Closets	Hot-Water Tank	Cesspool	
Bath, Shower	Auto. Clothes Washer	Septic Tank	
Bath Tub	Auto. Dishwasher	Dry Well	
Basins	Drain Floor	Water Service	1 rep
Sinks	Drain Area	Connect to Sewer	
Laundry Trays	Rain Drains 5	Cesspool, Septic Tank	
Water Permit 16932	Bldg. Pmt	Sewer Permit	

Remarks Catch basins yard 3 ?
to storm sewer

Date of First Inspection 7-6-71 Date of Final Inspection 4-19-71

Inspector [signature] Inspector [signature]


Match mark
E.B.
End RD
RD
C.O.
4" CI
15'
NW St Helens RD

BUREAU OF BUILDINGS

REPORT OF PLUMBING INSPECTION

Date 9-30-71

Address 3000 N. W. St. Helens Rd Permit 173959

Lot ..... Blk ..... Add .....

Owner Reimann & McKenney

Contractor R. T. Robertson

Stories and class of building .....

Water Closets	Hot-Water Tank	Cesspool .....
Bath, Shower	Auto. Clothes Washer	Septic Tank .....
Bath Tub	Auto. Dishwasher	Dry Well .....
Basins	Drain Floor	Water Service .....
Sinks	Drain Area	Connect to Sewer 1
Laundry Trays	Rain Drains	Cesspool, Septic Tank .....
Water Permit	Bldg. Pmt	Sewer Permit 31036

Remarks .....

Date of First Inspection 12-7-71 Date of Final Inspection 12-14-71

Inspector ..... Inspector

21" City Sewer
Existing
8" cmt Sewer
489'
Barrel Plant
91 W St Helens RD

2725

FORM W 271-1
(4-69)

CITY OF PORTLAND, OREGON
DEPARTMENT OF PUBLIC WORKS
BUREAU OF DESIGN
SEWER BRANCH

SANITARY ONLY SEWER

Prnt. No. 91036

Date 10-7-71

Location 3000 NW St. Helens Road

Between Wye 286 ft w of manhole at NW 35th Ave

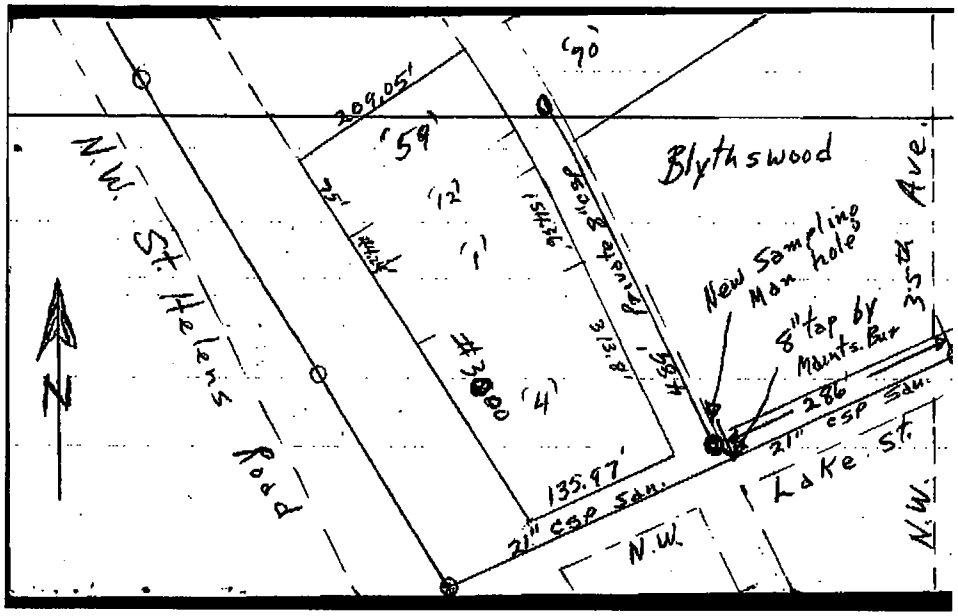
Addition Blythswood Lot 4 of 98 Tl 1,12,59&70' of 97 Blk. —

Applicant R.T. Robertson Waiver No ☐ Yes ☐ #

Remarks A sanitary connection Maint bur tapped 21" san. sewer in NW Lake St. 286 ft W of manhole at NW 35th Ave for 8" CSP br. to sampling manhole east of railroad tracks 9 ft and 9 ft from corner of cyclone fence 9'2" deep to flow line

Inspected 10-12-71 10-18-71 By final Silks

Book 11 Page 328 New Repair


209.05'
'59'
'12'
'1'
#3000
'4'
'70'
Blythswood
New Sampling Man hole
8" tap by Mounts. Bur
286
21" CSP San.
135.97'
21" CSP San.
N.W.
N.W. St. Helens Road
Lake St.
N.W.
3rd Ave.
N

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

March 28, 1973

File: River Pollution Control

Rudie Wilhelm Warehouse Co.
1233 N.W. 12th Avenue
Portland, Oregon 97209

Re: Separation of Storm and Sanitary Sewage
Tax Lot 69, Section 29, T.1N., R.1E.
3250 N.W. St. Helens Road

Gentlemen:

The City of Portland is actively engaged in a program of removing sanitary wastes from sewers designated for storm runoff only which outfall directly to the Willamette River.

A recent review of our records and confirming field investigation indicate that sanitary sewage from the above-referenced property is being discharged to a storm only sewer in the rear of your lot. This sanitary sewage comes from the restroom in the shop, located approximately 60 feet southeast of the main office building on the above-referenced property.

The Code of the City of Portland Section 17.32.090, prohibits the discharge of sanitary sewage to a sewer designated for storm water only.

Since there is a sanitary sewer available for your use in N.W. St. Helens Road, the City requires that you disconnect your shop's sanitary effluent line from the storm sewer and reconnect it to this sanitary sewer.

To meet the requirements of the City of Portland, this office requires that the above-outlined work be completed by June 1, 1973. All work on your property will be at your expense and must be covered by the appropriate permits.

If you have any questions, please call Ed Wilson, Room 403, City Hall, phone 248-4150. Your cooperation in effecting and coordinating a proper changeover will be sincerely appreciated.

Yours very truly,

J.P. Niehuser, Chief
Bureau of Sanitary Engineering

EJW:bc
cc: Bob Gilbert, D.E.Q.
Geo. Wallace, Chief Plbg. Insp.

Memo to File: 7-6-73

Miller and Stong visited Rudie Wilhelm Warehouse Co. and Met with Robert Wilhelm Sr. He was concerned that sump in work area at south end of main building was connected to old sewer lines that were to be abandoned and sealed off. Dye testing revealed that said sump did go to old sewer line but not to ones to be sealed. However, since old sewer line is to which it was connected is for storm sewage only, Mr. Wilhelm was instructed that said sump would have to be reconnected to its sanitary branch to St. Helen's Rd. He was told that he would receive a letter to this effect.

Mr. Wilhelm further stated that rest room facilities referred to in letter from this office dated March 26, had been reconnected to correct sanitary branch as per instructions.

DTM

September 14, 1973

Re: Industrial Waste

Wilhelm Trucking Company
3250 N.W. St. Helens Road
Portland, Oregon 97210

Attention: Mr. Robert J. Wilhelm

Gentlemen:

We are in receipt of your letter to this office, dated 9-5-73, requesting a 90-day time extension "to investigate the matter of one job and one set of costs."

The requested extension relates to the City's requirement (See our letter of 7-26-73) that your firm discontinue discharging its steam cleaning wastewater into the adjacent storm sewer and that this waste be pretreated and connected to the nearby municipal sanitary sewer. This topic was again discussed during yesterday's (9-13-73) telephone conversation between Mr. Robert Wilhelm (Sr.) and Mr. Edmonds of our staff.

As explained by Mr. Edmonds, it is extremely urgent that this pollutant be removed from the storm sewer. We do understand the problem of equipment evaluation, selection and delivery associated with oil-water problems and in this regard will allow a reasonable extension in the original deadline to you. Accordingly, the following time frame is extended to Wilhelm Trucking Co. by the City of Portland.

1. Wilhelm Trucking Co. shall discontinue the use of the adjacent storm sewer for disposal of steam cleaner and other sources of pollution by October 26, 1973.

2. The existing connection to the storm sewer from the steam cleaner area shall be sealed by the owner by not later than 10-26-73 and verified by this office.

3. Should the owner desire to continue operating the cleaner beyond this date, the following additional options are available:

   a. Collect and dispose of steam cleaning waste through an approved private waste collection firm.

   b. Connect to the City sanitary sewer system. In this case, <u>approved</u> pretreatment equipment shall be installed and placed in operation by not later than 1-26-74.

We trust that the above information will provide a reasonable time schedule for the successful resolution of this problem. Please feel free to contact Mr. Harry Edmonds (248-4046) at any time should you have any comments or questions regarding this matter.

Yours very truly,

J. P. NIEHUSER, Chief
Bureau of Sanitary Engineering

HGE:bc

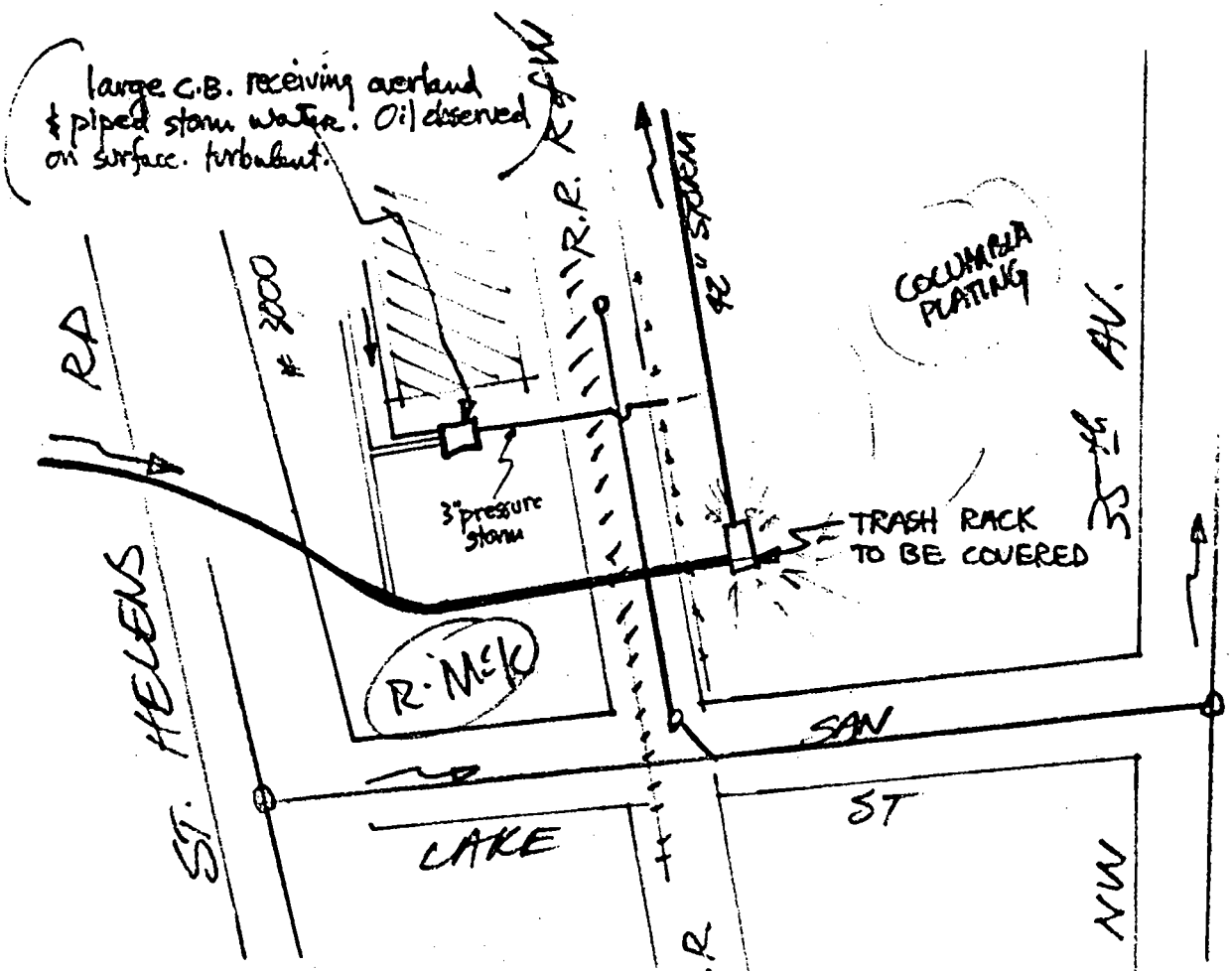
cc: Harl Haas, Dist. Atty.
Robt. E. Gilbert, Dist. Engr., DEQ

4-26-74

MET WITH HAROLD VANZEL FRI P.M. at Reimann-McKenna.

(ON MON. 29 APRIL 74)

He plans to cover over and place lid on TRASH RACK SHOWN BELOW because of large amounts of silt which enter here and clog the sewer. Principal cause appears to be the storm water pumped from R-M^cK under tracks to field where it flows to trash rack area.



1. Review for oil violations
2. HAVE R·M^cK apply for storm connection
3. ADVISE COLUMBIA PLATING a C.B. may be necessary to drain field

JON STONE

Form W-89 (4-74)

BUREAU OF BUILDINGS

REPORT OF PLUMBING INSPECTION

Date 9/16/75

Address 3074 NW St Helens Rd. Permit 0197764

Lot _____ Blk _____ Add _____

Owner Wilhelm Trucking

Contractor Dean Warren Plumbing

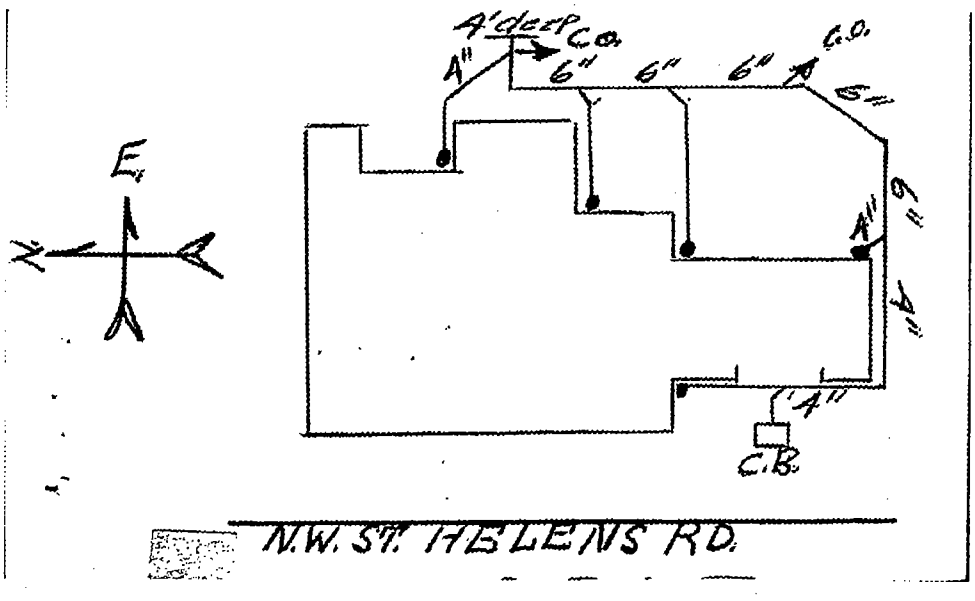
Stories and class of building Old Warehouse

Water Closets _____	Hot-Water Tank _____	Cesspool _____
Bath, Shower _____	Auto. Wl. Washer _____	Conn. Cesspool _____
Bath Tub _____	Auto. Dishwasher _____	Dry Well _____
Basins _____	Drain Floor _____	Conn. Drywell _____
Sinks _____	Drain Area _____	Conn. Sewer _____
Laundry Trays _____	Rain Drains 5N	Storm Sewer _____
Bldg. Pmt. _____	Water Ser. _____	Catch-Basins Yard 1N

Remarks _____

Date of First Inspection 9/16/75 Inspector _____

Date of Final Inspection 9/18/75 Inspector _____


4" deep Co.
C.O.
4"
6"
6"
6"
6"
4"
4"
4"
E.
N
C.B.
N.W. ST. HELENS RD.

September 1, 1977

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Wilhelm Trucking Company
3250 NW St. Helens Road
Portland, Oregon 97210

Attention: Mr. Robert Wilhelm, Sr., President

Gentlemen:

In order to reduce pollution from oil and grease discharges in the municipal sewage system, the City of Portland is increasing its efforts to identify those sources contributing to this problem.

A recent visit to your firm by a representative of this office indicates that a steam cleaning operation on your property discharges to an inlet on your premises. This inlet is connected to the public storm sewer. As a result, oil and grease in the wash water flows into the City storm sewer and the public waterway downstream from your property. This is in violation of both state (OAR 340) and City (17.32.090) statutes. We understand the importance of the steam cleaning operation to your business, but we cannot permit you to continue to discharge pollutants of this type to public storm sewers. You are, therefore, required to disconnect, from the storm sewer, the inlet which receives the steam cleaning effluent.

If you wish to reroute this wastewater to the City sanitary sewer, appropriate preliminary treatment facilities will be required to insure that the concentration of oil and grease (hexane extractable material) into the public sewer does not exceed the 100 milligram per liter limit specified by section 17.32.110 of the Code of the City of Portland. In addition, an approved monitoring facility, such as a standard sampling manhole, will be necessary.

This office recognizes the problems associated with installing pretreatment equipment and can allow up to six months for the installation of these facilities. However, we do expect your written reply to this letter within 5 days of receipt. For more detailed information regarding your specific problem, please contact Brett I. Kesterson of this office 2t 248-4077.

Very truly yours,

L. D. BROWNSON, P.E.
Principal Engineer

BIK:m BJK
Encl.: Code (17.32.090, 17.32.110)

cc: J. A. Cooke

Form W-89
(4-74)

BUREAU OF BUILDINGS
REPORT OF PLUMBING INSPECTION

Date 10-2-78

Address 3250 N.W. St. Helen's Rd. Permit 0213665

Lot _____ Blk _____ Add _____

Owner Wilhelm Trucking Co. Same

Contractor Avery Plumbing & Heating Co.

Stories and class of building _____

Water Closets _____	Hot-Water Tank _____	Cesspool _____
Bath, Shower _____	Auto. Cl. Washer _____	Conn. Cesspool _____
Bath Tub _____	Auto. Dishwasher _____	Dry Well _____
Basins _____	Drain Floor _____	Conn. Drywell _____
Sinks _____	Drain Area _____	Conn. Sewer 1N
Laundry Trays _____	Rain Drains _____	Storm Sewer _____
Bldg. Pmt. _____	Water Ser. _____	Catch-Basins _____

Remarks No Cal for insp. no Records
KLH permit had out filed to get out of Deadfile.

Date of First Inspection _____ Date of Final Inspection 1-29-86

None Inspector Kenneth Hansen Inspector

CITY OF
PORTLAND, OREGON
BUREAU OF ENVIRONMENTAL SERVICES

Earl Blumenauer, Commissioner
John Lang, Administrator
1120 S.W. 5th, Rm. 400
Portland, Oregon 97204-1972
(503) 796-7740
FAX: (503) 796-6995

March 26, 1990

Dave Morris
Myers Container Corporation
3000 N.W. St. Helens Road
Portland, OR 97210

Dear Mr. Morris,

This letter is a follow-up to my facility inspection of March 8, 1990. Included are comments on my findings and the City's requirements if Myers paves the storage area adjacent to the pretreatment area. I would like to comment on my inspection first.

The information we had on file was fairly up to date. If you change any of your processes that are going to effect the discharge characteristics (flow volume, pollutant type,...) you are required to report this change to this office prior to implementation. You would also need to report any changes in your pretreatment system such as flow routing and removal or addition of pretreatment equipment.

One area that needs immediate attention is as follows. Apparently for a time you were taking waste from the Marx Street facility and treating it at the St. Helens facility. Specifically, this involved "drippings" from the barrels prior to processing and consisted primarily of oils and associated pollutants. This is not allowed under your present permit and is not to be conducted. You indicated to me that you had stopped this in an attempt to address the violations you were incurring at the St. Helens facility.

In addition, there apparently is some confusion on your part in regards to pH monitoring and reporting requirements. The original permit is very specific in regards to this issue. However, it was apparently written with the idea that the pH control system was put in after the solids removal centrifuge and would therefore accurately reflect the effluent pH. Presently, the pH control system is placed prior to the baffling tank. Any measured pH excursions may be lessened by the mixing in the baffling tank with wastewater that has an acceptable pH level. Because of this the pH as measured by your pH control probe probably does not accurately reflect the effluent pH when there are pH excursions. Therefore,

Myers Container Corporation St. Helens is not required to submit reports of pH measurements to this office.

However, you are required to continue pH readings and the strip chart recordings as you are presently doing. In addition, you need to start a pH log to record any problems with the pH system and the pretreatment unit. This would include but not be limited to the following: pH probe cleaning and calibration (if this is done on a routine basis a one time entry is adequate), changing of pH probes, pH excursions and corrective actions taken, the dates and times of each and the operators initials. Presently, Myers St. Helens is not required to have a pH monitoring device for their wastewater effluent. However, if future monitoring indicates a pH problem, Myers will be required to install a separate pH monitoring device to be placed at the discharge point from the pretreatment unit and comply with the reporting requirements of its' Industrial Wastewater Discharge Permit.

In regards to the routing of the stormwater from the proposed paved area adjacent to the pretreatment unit, it is this office's policy to encourage the separation of stormwater from sanitary wastewater. To discharge to the storm sewer would require approval by the DEQ. I would encourage you to contact them in regards to your plans and request what would be needed to be able to discharge into the storm sewer. If the stormwater is low enough in contaminants this would be feasible and preferred. The person to contact is Kent Ashbaker (229-5325).

I will be in contact with you with regards to this letter and its' requirements. If you have any questions before then please call me at 796-7584.

Sincerely,

Michael J. Pronold
Industrial Waste Technician

pH cpy

CITY OF
PORTLAND, OREGON
BUREAU OF ENVIRONMENTAL SERVICES

Earl Blumenauer, Commissioner
Mary T. Nolan, Director
1120 S.W. 5th, Rm. 400
Portland, Oregon 97204-1972
(503) 796-7740
FAX: (503) 796-6995

November 19, 1991

Steve Dost
Myers Container Corporation
3000 N.W. St. Helens Road
Portland, OR 97210

Dear Mr. Dost,

This letter is a follw-up to the facility inspection that was performed earlier today. Based on that inspection, the following actions and information are required.

1. Submit MSDS sheets for the various paints used in the tight head and open head lines by December 2, 1991.

2. Permanently disconnect the overflow line in the pretreatment sump that discharges to the storm sewer. Submit a letter that states this has been accomplished and what measures were used. This needs to be accomplished by November 28, 1991 and the letter is due by December 2, 1991.

3. Samples for self-monitoring and reporting are to be taken from the sampling manhole unless other arrangements have been made. To sample at a different point, a written request needs to be made to the City. Included in the request shall be the location of the alternative sample point and why the request is being made. The request must be approved by the City prior to Myers Container Corp. utilizing the alternative sample point.

4. Submit to the City a schedule for installing the pH probe for continuous monitoring of the wastewater discharge. The schedule is due in this office by December 20, 1991.

5. Effective immediately, all self-monitoring for oil and grease shall be for the non-polar fraction only. The lab performing the analysis shall employ the freon extraction method.

If you have any questions regarding this letter or its' requirements please call me at 796-7584.

Sincerely

Michael J. Pronold
Environmental Specialist

DH copy

MYERS CONTAINER CORPORATION

A DIVISION OF IMACC CORPORATION

8435 N.E. Killingsworth
Portland, Oregon 97220
503-255-0553

December 2, 1991

Michael Pronold
Source Control Management
Bureau of Environmental Services
City of Portland
1120 S.W. 5th, Room 400
Portland,Or. 97204-1972

Re: Request for information following the recent St. Helens facility inspection.

Dear Mr. Pronold,

This letter is in response to your request for information following the inspection of the St. Helens facility.

Enclosed are the M.S.D.S. sheets you requested for the paints used in both the tight head and open head lines.

We have decided to disconnect the overflow line in the pretreatment sump rather than obtaining an N.P.D.E.S. permit to use it. The disconnection completed on November 20, 1991 was accomplished by closing off the gate using steel and a cloth gasket. A more permanent disconnection should be accomplished by the end of January 1992 which will involve pumping the sump down to a level where our maintenance people can seal the opening and remove the drainage trough altogether.

We will start taking our self-monitoring samples from the sampling manhole rather than the location we have been using until our request for an alternative sampling location has been decided upon.

The pH probe for continuous monitoring of wastewater discharges should be installed and on line by December 8, 1991.

Beginning in December we will sample our oils and grease for the non-polar fraction only. The lab which performs our analysis has been instructed to use the freon extraction method on our samples.

If you have any questions regarding this letter, please call me at 226-7971.

Sincerely

MYERS CONTAINER CORPORATION

Steve Dost
Quality and Environmental Manager

CITY OF PORTLAND
INDUSTRIAL FACILITY
STORMWATER INSPECTION REPORT

Company Legal Name Wilhelm Trucking Company

Company Common Name _____

Facility Address 3250 NW St Helens Rd

Mailing Address P. O. Box 10363 / Portland 97210

Contact Person ~~Bob Wilhelm, Sr.~~ Ron Murphy manager

Title / Director of Safety, Personnel Phone 227-0561

Environmental control permits held by or issued for the facility:

Title of Permit	Permit No.	Issuing Agency	Issue Date	Expiration Date
Wastewater Discharge	400-047	CoP	8-91	11-95
NPDES General Stormwater	1200-J	DEQ	applied a couple of years ago	

Date of Inspection: May 10, 1995 **Previous Inspection:** none

Time of Inspection: start: 0930 (am)/pm finish: 1045 (am)/pm

City Personnel: Atina Casas **Industry Personnel:** Ron Murphy

Michael Pronold

Ivan Blinderman Ali Dirks

1. Type of Business

(A) Type: Trucking, local (B) SIC Code #: 4213

2. Business Activity is:

(A) ☐ seasonal ☑ continuous

(B) Months of the year during which process discharge occurs: J F M A M J J A S O N D

Comments: batch discharges about 3000 gal 2x/month; 2 hrs discharge

(C) Is there wastewater pretreatment on site? (Y)(N)

If so, what type is used? Add aluminum sulfate, nalco polymer, and lime to wastewater

from pressure washing and steam cleaning of trucks & truck parts. Batch discharge to sanitary as needed

What is the operating status? _____

3. Operating Schedule:

(A) Number of employees: 1st Shift 50 2nd Shift 10 3rd Shift —

Time: 7a - 5p 1:30p - 9:30p —

(B) Daily discharge: from _____ to _____ S M T W T F S

(C) Major cleanup period: from _____ to _____ S M T W T F S

Cleanup activity description: _____

4. Water Usage: (Use 12 months average with operating schedule)

(A) _____ Gallons per calendar day (B) _____ Gallons per product day

5. Water Disposition

Water Usage	Discharged to: Sanitary (gpd)	Storm (gpd)	Batch; Continuous; Intermittent
Employees	100		
Boiler Blowdown	—		
Noncontact Cooling	—		
Washing	200		
Irrigation	—		
Air Compressor	—		
Industrial Process	—		
1			
2			
3			
4			
Other			

6. Stormwater Conveyance System and Maintenance Practices

(A) Attach map(s) indicating drainage and discharge structures, paved areas and buildings, surface flow directions, areas of potential soil erosion, and any other pertinent items noted during inspection.

(B) Are there any other gutters, ditches, drainage channels, or underground lines onsite that are not described on the attached map(s). (Y)(N)

If yes, describe structures and where they lead. _____

_____

_____

(C) Are storm drain inlets periodically inspected, maintained, and/or cleaned? (Y)(N)

Describe the method of cleaning. remove silt

_____

_____

(D) Are there direct piping connections to the storm drains or surface waters not already described? (Y)(N)

Describe connection, source, and drainage area. _____

_____

_____

Is there any potential for non-storm water to drain into this connection? (Y)(N)

(E) Are there any indoor drains or sinks connected to the storm drains? (Y)(N)

(F) Has the facility conducted any tests for illicit connections to the storm drain system (e.g., visual inspections, dye test, etc.). (Y)(N)

Describe type of testing, locations of testing, and results. _____

_____

_____

7. Vehicle and Heavy Equipment Storage and Maintenance

(A) Are trucks and/or heavy equipment parked onsite? (Y)(N)

(B) Are there any drains in the parking area? (Y)(N)

Where do the drains discharge? ☑ storm ☐ sanitary

(C) Do the parking areas or access roads show any signs of leaking from oil and/or motor fluids? (Y)(N)

(D) Is there repair and maintenance onsite? (Y)(N)

Are repair and maintenance areas enclosed? (Y)(N)

(E) Are the parking areas periodically cleaned? (Y)(N)

How often are parking areas cleaned? 1/month

Describe method for cleaning parking, repair and maintenance areas.

power sweeper

(F) Are there areas where vehicles and/or heavy equipment are washed? (Y)(N)
washed parts prior to painting

If Yes:
Are there any drains in the wash area? (Y)(N)

Where do the drains discharge? ☐ storm ☑ sanitary after treatment

Is the wash water recycled? (Y)(N)

Is the wash area covered or enclosed? (Y)(N)

Is there potential for storm water to run-onto or run-off from the wash area? (Y)(N)

Are there any stains or other signs of pollutants on the floor or the wash area? (Y)(N)

Is the wash water captured before entering any drains? (Y)(N)

B. Rooftop Equipment

(A) Describe pollutants from rooftop equipment and their potential for exposure to storm water runoff. (e.g., pipe condensation, exhaust gas emissions, exposed motors / pumps, fugitive dust, etc.).

No rooftop equipment

I. Material Handling Areas

(A) Describe materials being handled and indicate potential pollutants. grease, motor oil, antifreeze, parts cleaner

(B) Describe potential for stormwater to come in contact with handled materials. none

(C) Describe Best Management Practices (BMPs) used to prevent materials in material handling areas from contacting storm water and discharging to storm drains.

self-contained parts washer

non-drain floor

(D) Describe how secondary containment is achieved should a spill occur. on site spill kits

(E) Describe disposal method of any liquid collected by secondary containment structures.

Spencer Environmental

10. Outdoor Manufacturing Areas None

(A) Describe outdoor manufacturing process and indicate potential pollutants.

(B) Describe potential for stormwater to come in contact with the outdoor manufacturing process.

(C) Describe BMPs used to prevent materials from outdoor manufacturing areas from contacting stormwater and discharging to storm drains.

3 spill kits

(D) Describe how secondary containment is achieved should a spill occur.

(E) Describe disposal method of any liquid collected by secondary containment structures. _____

11. Outdoor Storage Areas

(A) Describe what is stored outside and indicate potential pollutants. truck cabs, truck trailers, heavy machinery, rigging cables, pipes, dry transformers, equipment, wood

(B) Describe potential for stormwater to come in contact with stored materials. nothing is covered outside

(C) Describe BMPs used to prevent materials from outdoor storage areas from contacting storm water and discharging to storm drains.

1. Are storage areas periodically swept?	(Y)(N)	5. How often are storage areas swept?	1- mo
2. Are materials stored in designated areas?	(Y)(N)	6. Are materials in containment structures?	(Y)(N)
3. Are containers inspected regularly?	(Y)(N)	7. Are container covers/lids kept closed?	(Y)(N)
4. Is the area paved and impermeable?	(Y)(N)	8. Do spills commonly occur?	(Y)(N)

(D) Describe how secondary containment is achieved should a spill occur. compliance spill kit

(E) Describe disposal method of any liquid collected by secondary containment structures. Spencer Environmental

12. Waste Storage and Disposal Practices

(A) Describe wastes being stored and indicate potential pollutants. _____

(B) Describe BMPs used to prevent pollutants from waste storage and disposal areas from contacting stormwater and discharging to storm drains.

1. Are waste dumpsters and/or trash compactors onsite? wood dumpster (Y)(N)
2. Does the dumpster or trash compactor leak? (Y)(N)
3. Are the lids kept closed? (Y)(N)
4. Is the area kept free of litter? (Y)(N)

(C) Describe any leaks. _____

1. Is any scrap metal stored outside? (Y)(N)
2. Are drums stored outside? (Y)(N)
3. Are the drums covered? (Y)(N)
4. Is there any water in the drums? (Y)(N)

(D) How are the drums cleaned? Pumped out by regulated Hazardous waste.

(E) What are the types and estimated volumes of liquid waste or sludge removed from the plant?

Description	Volume	Removed by (name & address)
sludge from oil water sep.	300/gal 2x/yr	Spencer Environmental 15770 S. Beaver Glen Dr 9145 S. Molalla Ave Ste 204 Oregon City, OR 97045

13. Potential Pollutants

(A) List pollutant categories that may be discharged to the storm sewer (ie. volatiles, solvents, acids, caustics).

oils, greases

14. Conclusions

Items for Follow-up / Comments / Recommendations

Wilhelm applied for a 1200-T in 1991-92. The application was incomplete so DEQ requested info from Wilhelm. Wilhelm never supplied the info and the appl was put on the back burner. I phoned Julie Schmitt, DEQ, and she will follow up by calling Ron Murphy. She will let me know what happens

STORMWATER POLLUTION CONTROL PLAN (SWPCP)

1. General

(A) Does the facility have a SWPCP? (Y)(N)

(B) Is the plan complete? (Y)(N)

(C) Does the facility employ more than 10 people? (Y)(N)
If so, has the plan been prepared and/or reviewed by a registered engineer, architect, or geologist? (Y)(N)

(D) Has the plan been signed by an authorized facility representative? (Y)(N)

2. Site Description

(A) Is the General Location Map present? (Y)(N)

(B) Is the Site Specific Map present? (Y)(N)
Are elevations, slopes, outfalls, buildings, structures and pavement, materials storage and handling areas, wells, springs, wetlands and other surface bodies accurately represented? (Y)(N)

(C) Do the discharge points designated on the Site Specific Maps correspond to the actual discharge points found on site? (Y)(N)

(D) What is the total area of the facility? _____
Does this correspond to the area outlined in the General and Site Specific Maps? (Y)(N)

(E) Is a narrative provided which identifies and lists the potential pollutants on site that could reach and contaminate the stormwater discharge? (Y)(N)

(F) Has the permittee described the discharge process for the stormwater leaving the permitted site? (Y)(N)
Has the name of the street adjacent to the ditch or pipe been names? (Y)(N)
Is the name of the receiving body of water for the runoff given? (Y)(N)

3. Stormwater Pollution Controls

(A) Has the permittee prepared a written account of all stormwater management methods and practices that are in use or will be implemented at the site to comply with the NPDES General Stormwater Permit? (Y)(N)

(B) Are the stormwater pollution controls mentioned in the SWPCP being implemented on the site? (Y)(N)

(C) Are there any pollutant control structures? (Y)(N)

Are they functional and properly maintained? How maintained: _____

_____

_____

_____

_____

(D) Has the permittee developed Spill Prevention Response Procedures for the facility? Other spill prevention plans may be used to satisfy this requirement (such as a SPCC or ASPP prepared for the facility in question) provided these plans are incorporated into the SWPCP. (Y)(N)

(E) Has a Preventative Maintenance Program been developed? (Y)(N)

(F) Has an Employee Awareness Program been developed? (Y)(N)

(G) Have Record Keeping and Internal Reporting Procedures been implemented? (Y)(N)

(H) Has an Annual Review of the SWPCP been conducted by the permittee prior to the onset of the rainy season? (Y)(N)

4. Monitoring

(A) Is monitoring (both for the proper parameters and the proper frequency) being done as noted in Schedule B of the NPDES permit? (Y)(N)

(B) Are required visual observations being made? (Y)(N)

(C) Are reports being sent to DEQ and the City at the proper frequency? (Y)(N)

(D) Is the permittee discharging to any rivers or streams designated as water quality limited by DEQ? (Y)(N)
List _____

5. Conclusions

Items for Follow-up / Comments / Recommendations

Include any recommended storm water monitoring and explain rationale

_____

_____

_____

_____

_____

_____

_____

_____

_____

Inspected by: _____ Date: _____

3250 NW ST HELENS RD 2096479 01-134172-000-00-PT

Plumbing Permit IVR #: 2096479

Commercial/Multifamily/Addition/Alteration/Replace

Recd: 04/10/01

WILHELM TRUCKING SITE IMPROVEMENT

Issued: 04/10/01

240FT STORM SEWER/2 CATCH BASINS FOR NE CORNER OF SITE

R941290690 1N1E29BB 00600

Addition SECTION 29 1 N 1 E

Lot/Blk1/Legal TL 600 4.83 ACRES

Applicant	***Contractor/Builder***
EAGLE ELSNER INC PO BOX 23294 TIGARD, OR 97281 Work 6281137 5036281138	EAGLE ELSNER INC PO BOX 23294 TIGARD, OR 97281 Work 6281137 5036281138
Owner	
WILHELM TRUCKING ACQUISITION CO 3250 NW ST HELENS RD PORTLAND, OR 97210	

Project Details:

New Exterior Installation?	Yes
Occupancy Group - PT	Commercial/Industrial
# of Fixtures	2
Storm sewer # of feet	240
* Catch Basins/Area Drain	2
Total Fees Paid	$305.90

Water Closets		Kitchen Sinks		Area Drains	
Urinals		Dishwashers		Catch Basins	
Wash Basins		Garb. Disposals		Drywells	
Bathtubs		Drink Fountains		Soak Trench	
Showers		2-Comp Sinks		Interceptor	
Bidets		3-Comp Sinks		Sewer Caps	
Water Heaters		Hand Sinks		Conn. Sewer	
Clothes Washers		Floor Sinks		Conn. Storm	
Laundry Trays		Bar Sinks		Rain Drains	
Serv/Mop Sinks		Hub Drains		Bck Wtr Valve	
Floor Drains		Backflow Prvntr		Reversal	

4.16.01 CONSULTATION COMPLETED MB

4.17.01 PARTIAL STORM FROM BY CONC PIPE UPSTREAM TO SAMPLING PORT M/h NOT INSTALLED YET MB

4.18.01 STORM LINE O.K UP TO C/BASINS LEAD CONNECTION TO 42" LINE + M/HOLE. C/O & SAMPLING PORT YARD BOXES NOT INSTALLED YET. PAT MILLER SAID TO GO BY APPROVE PRINT SHOWING 6" OUTLETS ON C/BASINS INSTEAD OF 12" MB

7.16.01 FINAL O.K

James E. Green