Јапиагу 30, 1995



Engineers, Inc.

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Mr. Edward Braxton
Vice President of Operations
Pass & Seymour/Legrand
P.O. Box 4822
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Re: Pass

Pass & Seymour Site

Supplemental Investigations and Remediation

File: 365.004

Dear Mr. Braxton:

As per our October 21, 1994 proposal and your subsequent authorization, C&S Engineers, Inc. (C&S) is pleased to submit this letter report documenting the efforts and results of the Supplemental Investigation completed within the Empty Oil Drum Storage Area and the Area South of Building 12 at the Pass & Seymour facility on December 19, 1994. As you will recall, based on discussions with Pass & Seymour personnel and a detailed review of the 1993 Site Investigation Report prepared by O'Brien & Gere Engineers, it was our understanding that three areas of concern for soil contamination exist on the project site. These included the empty oil drum storage area north of Building 15, the former landfill area west of the rear parking lot, and the area outside the maintenance shop South of Building 12. The following sections detail the historical specifics for each site of concern, the supplemental investigation methodologies utilized, and the results, interpretations, and conclusions identified as part of the respective investigations.

A. SITE HISTORY

Former Empty Oil Drum Storage Area

The former empty oil drum storage area is located immediately north of Building 15, behind a concrete retaining wall. Based on the 1993 Site Investigation Report, the area is described as a mound of soil approximately 100 square feet in area and 5-feet deep. During the previous site investigation, a grab sample of surface soil was collected from the area and analyzed for semi-volatile organic compounds. The following compounds were identified above method detection limits.

<u>Parameter</u>	Concentration (ppb)
phenanthrene	2,100,000
anthracene	460,000
flouranthene	2,500,000
pyrene	1,900,000
benzo (a) anthracene	960,000
chrysene	850,000
benzo (b) flouranthene	1,300,000
benzo (k) flouranthene	500,000
benzo (a) pyrene	880,000
indeno (1,2,3-cd) pyrene	520,000
benzo (g,h,i) perylene	430,000

The site investigation report indicated that the source of these contaminants may be attributed to the nature of the fill material used behind the retaining wall rather than a past release from the drum storage area. It was also indicated that although the two surface grab samples did not define the areal or vertical extent of contamination, the volume of potentially contaminated material appeared to be limited to 20-cubic yards, assuming no contamination was present below grade. Since no borings were made in this area, there is no physical description of the nature of the fill which may indicate the presence of coal or coal by-products which could be the source of these contaminants. Additionally, the only monitoring performed consisted of shallow surface soil grabs, which would not be considered representative of the entire mass.

Before proceeding with the excavation and disposal of these materials, it was recommended that the nature of the fill material and the actual area which may require remediation be identified, so as to reduce the potential for additional costs which could arise due to unexpected conditions encountered in the field during remediation. As previously proposed, our approach to remediation of this area included quantifying the nature and extent of these soils and, based on this information, determine the need for remedial work and the classification of the material as hazardous or non-hazardous solid waste.



Area South of Building 12

Consistent with the identification of a closed No. 2 Fuel-Oil Tank, immediately proximate to the Maintenance Shop, OBG subsequently completed a limited field investigation in an effort to assess the potential for soil contamination associated with past usage of the tank. As part of the initial limited (Phase-1) investigation, three subsurface borings were completed, which included continuous sampling, field PID screening, and separate laboratory analysis of specific soil samples. Following receipt of the Phase-1 data, an additional five subsurface soil borings were subsequently completed to evaluate both this area of concern and the alley outside the former electroplating area. Similar to the initial limited (Phase-1) investigation, tasks including field PID screening, soil sampling, and laboratory organic compound analysis were performed during the completion of the additional five subsurface soil borings, as shown on Figure 1.

In general, the analytical results of the initial Phase-1 investigation, performed in 1993, revealed the detectable elevated presence of total petroleum hydrocarbons (TPH) within two of three soil samples collected and the elevated presence of TCE (980 ppb) within the third soil sample collected as part of this investigation. Based on these initial results, a second phase of soil borings (5-soil borings) were completed. Only one of the five additional borings (SB-4) revealed the presence of significantly elevated VOC concentrations, including;

Parameter	Boring SB-4	NYSDEC Guidance
<u>Parameter</u>	Concentration	Concentration
1,2-dichloroethylene	1,300 ppb	300 ppb
tetrachloroethylene	2,600 ppb	1,400 ppb
trichloroethylene	3,800 pp b	700 ppb
vinyl chloride	550 ppb	200 ppb

Similarly, only one of the five borings (SB-5) revealed the elevated presence of semi-volatile organic compounds above method detection limits.

As indicated in the 1993 Site Investigation Report, while several volatile and semi-volatile organic compounds were detected in the area proximate to the maintenance shop, the specific compounds identified are not generally associated with No. 2 fuel oil. In general, little evidence was therefore found that the identified organic compounds originated as a result of the former No. 2 fuel oil tank. The contaminants of concern identified in this area are organic solvents, including, tetrachloroethylene (PCE) and trichloroethylene (TCE), as well as 1,2-dichloroethylene (DCE) and vinyl chloride, which are often associated with the decomposition of TCE. This was complicated somewhat by the presence of relatively high Total Petroleum Hydrocarbon (TPH) readings in the area which may have been indicative of petroleum contaminated soils or coal and cinders. As with the other sites, the apparent target media is soil. Previous studies completed at the site have not indicated a concern with groundwater contamination and therefore a supplemental investigation, focused on the assessment of soil contamination, was proposed.



Due to the high unit cost of off-site disposal associated with solvent contaminated soils, estimates of the quantity of impacted soil are critical. The previous data indicated that the highest solvent concentrations were at or near the surface in an area proximate to boring SB-4. However, data at boring B-15, which was approximately 30-feet to the southeast of boring SB-4, also showed a significant presence of TCE at a depth of 7-feet just above the weathered shale bedrock. This is typical for dense non-aqueous phase liquids such as TCE which tend to concentrate with depth, over time, in the soil. Given the layout of the original borings and the lack of continuous field screening or analytical sample data with depth, there was insufficient data available from which to estimate the quantity of the impacted soils.

As outlined in our proposal, since current transport and disposal fees for solvent contaminated soils may exceed \$800 per ton, a difference of just 50 cubic yards could result in charges of over \$60,000. As such, it was recommended that the quantity of affected soil be accurately determined prior to making any decisions relative to proceeding with remedial efforts.

B. SUPPLEMENTAL INVESTIGATIONS METHODOLOGIES

Former Empty Oil Drum Storage Area

Although the investigations previously performed adjacent to the Former Empty Oil Drum Storage Area appear to indicate that the presence of semi-volatile organic compound contamination is physically limited to a volume of approximately 20-cubic yards within the mounded area, and the area is horizontally limited on three sides by an adjacent building foundation and retaining wall, the vertical extent of contamination was undetermined. As previously noted, because no borings or test pits were made in this area, there is no physical description of the nature of fill which may indicate the presence of coal or coal by-products which could be the source of these contaminants.

In an effort to quantify the nature, vertical extent, and hazardous waste potential of the soils/materials within the respective area, one subsurface boring was completed manually by Parratt-Wolff, Inc. using a tripod apparatus within the center portion of the mounded area on December 19, 1994. During the completion of tripod continuous soil sampling efforts at the one boring location, retrieved soil samples were field screened (via headspace analysis) for the presence of total volatile organic compounds using a ThermoEnvironmental photoionization detector (PID), while separate soil samples, collected from 10 to 3 feet below grade, were submitted to Certified Environmental Services, Inc. (CES) for semi-volatile organic compound analysis in an effort to identify the vertical limits of semi-volatile organic compound Additionally, as part of the subsurface investigations within this area, a contamination. composite sample was collected from those depth intervals which were identified as non-native material. In an effort to identify the characteristics of the respective non-native material, for disposal purposes, the composite soil sample was submitted to the laboratory for EPA 624 volatile organic compound, TCLP total metals, PCB, pH, flashpoint, cyanide reactivity, sulfide reactivity, and total petroleum hydrocarbon (TPH) analyses.



Area South of Building 12

Although the investigations performed previously within the area South of Building 12 appear to indicate that a limited area of soil has been impacted by VOC contamination, suggesting that a limited soil excavation and removal remedial effort may be necessary, the actual horizontal and vertical limits of the respective contamination were undetermined. In an effort to better delineate the extent of volatile organic compound (VOC) contamination immediately proximate to the maintenance shop area, a total of five additional subsurface soil borings, incorporating continuous soil sampling followed by hollow-stem auger (HSA) advancement, were completed by Parratt-Wolff, Inc. to the bedrock surface within the respective area. The locations of the five subsurface borings are shown in Figure 1. During the completion of continuous soil sampling efforts at the five boring locations, retrieved soil samples were field screened (via the headspace method) for the presence of total volatile organic compounds with a PID, while separate soil samples, collected from various depths at each boring, were submitted to the CES laboratory for volatile organic compound analysis in an effort to identify the vertical limits of volatile organic compound contamination.

C. SUPPLEMENTAL INVESTIGATION RESULTS

Former Empty Oil Drum Storage Area

During the completion of the subsurface boring adjacent to the Former Empty Oil Drum Storage Area, black cinders, ash, and gravel fill materials were identified from grade elevation to a subsurface depth of 3-feet below grade. Native soils, consisting of red-brown clay, silt and some fine-coarse sand (glacial till), were subsequently identified at a subsurface depth of 3-feet below grade and were confirmed to a depth of 6-feet below grade. A description of the subsurface conditions encountered during the completion of the respective subsurface boring is detailed in the boring logs included within Appendix A. The results of field volatile organic compound screening, by means of PID, completed on the cinders and ash fill material samples collected at this location did not reveal the detectable presence of total volatile organic compounds above a concentration of 1 ppm.

Subsequent to distinguishing the maximum depth of the black cinders, ash, and gravel fill materials, a discrete sample of the respective fill was collected from the 0 to 3 foot depth interval for EPA 8270 semi-volatile organic compound analysis in an effort to identify the semi-volatile organic compounds of concern within the fill material. In an effort to assess the vertical migration potential of the semi-volatile organic compounds within the fill material, a separate sample of the immediately underlying native soils was similarly collected, from a depth of 4 to 6-feet below grade, and submitted to the CES laboratory for EPA 8270 semi-volatile organic compound analysis. The results of the semi-volatile organic compound analysis, completed on the cinder/ash fill material, are listed within Table 1A and are summarized as follows for those parameters detected above the method detection limit.



Darameter	Concentration
Parameter	Concentration
acenaphthene	630 ug/kg
anthracene	1,300 ug/kg
benzo(a) anthracene	1,900 ug/kg
benzo(b) fluoranthene	1,000 ug/kg
benzo(k) fluoranthene	1,200 ug/kg
benzo(g,h,i) perylene	790 ug/kg
benzo(a) pyrene	1,200 ug/kg
chrysene	1,800 ug/kg
dibenzo(a,h) anthracene	430 ug/kg
fluorene	590 ug/kg
indeno(1,2,3-cd) pyrene	760 ug/kg
naphthalene	330 ug/kg
phenanthrene	4,900 ug/kg
pyrene	3,400 ug/kg

Although the fill materials revealed the elevated presence of the previously listed semi-volatile organic compounds, these compounds, or other semi-volatile organic compounds, were not identified within the native soil sample at a concentration greater than 160 ug/kg. As a supplemental task, a composite sample of the fill material was also collected and submitted to the laboratory for EPA 624 volatile organic compound, TCLP total metals, PCB, pH, flashpoint, cyanide reactivity, sulfide reactivity, and total petroleum hydrocarbon (TPH) analyses. This task was completed in an effort to identify the waste characteristics of the fill materials, as typically required for disposal purposes by disposal facilities. As shown on Table 1B, analysis of the composite fill material sample, for the previously listed hazardous waste characterization parameters, revealed the following detectable characteristics.

<u>Parameter</u>	Concentration
pH in Water	8.19 SU
Total Arsenic	15.6 mg/kg
Total Cadmium	0.98 mg/kg
Total Chromium	5.35 mg/kg
Total Lead	168 mg/kg
Total Mercury	0.22 mg/kg
Total Selenium	12.8 mg/kg
Trichloroethene	1.30 mg/kg
DOH-310-13 TPH Scan	Positive; 700 mg/kg;
	resembles motor oil

Analysis for total barium, total silver, cyanide reactivity, sulfide reactivity, and the six-PCB aroclors, revealed concentrations or values less than the respective parameter detection limits, while the flashpoint of the fill material was less than 80 degrees celsius. The analytical results for subsurface soil samples collected within the Former Empty Oil Drum Storage Area are included within Appendix B.



Area South of Building 12

As previously mentioned, a total of five (5) subsurface borings were completed within the Area South of Building 12, at the locations shown in Figure 1, in an effort to confirm and delineate the potential extent of volatile organic compound (VOC) contamination within the respective area. During the completion of the five (5) subsurface borings within the Area South of Building 12, the subsurface soils were generally characterized as; 2 to 4 feet of asphalt and unconsolidated fill materials overlying 5.2 to 6.0-feet of red-brown clay, silt, and some fine-coarse sand (glacial till), overlying weathered green Vernon Shale bedrock. Descriptions of the subsurface conditions encountered during the completion of the respective subsurface borings, proximate to the Area South of Building 12, are detailed in the boring logs included within Appendix A.

In general, the top of the Vernon Shale bedrock was identified at subsurface depths ranging from 7.0 to 7.8 feet below grade within this area. The results of field volatile organic compound screening, by means of PID, completed on the soil samples collected from each of the five borings, revealed only low-level total volatile organic compound readings, ranging from 2.0 ppm to 6.5 ppm. In addition to exhibiting a noticeable petroleum odor, the soil sample collected from boring CS-5 (in closest proximity to the former underground petroleum storage tanks) at a depth of 6 to 8-feet below grade, exhibited a PID reading of 110 ppm.

In an effort to qualify and quantify the potential extent of volatile organic compound (VOC) contamination within the Area South of Building 12, a number of soil samples were also separately collected from various depths at each boring for volatile organic compound analysis. More specifically, soil samples were collected from the following borings and depth intervals and scheduled for volatile organic compound analysis in accordance with EPA Method 8240.

Boring	Depth.
CS-1	0-2 feet
	4-6 feet
	6-8 feet
CS-2	2-4 feet
	6-8 feet
CS-3	2-4 feet
	6-8 feet
CS-4	0-2 feet
	2-4 feet
	6-8 feet
CS-5	4-6 feet
	6-8 feet



Although discrete analysis of samples from each depth interval were requested from the laboratory, the samples were composited in the laboratory and therefore represent the average concentration across the depth of the boring. As shown in Table 2A, the results of the composite samples did reveal the significantly elevated presence of trichloroethene within the soils collected from borings CS-1 and CS-4, at concentrations of 1,000 ug/kg and 4,600 ug/kg, respectively.

In addition to trichloroethene, tetrachloroethene was also identified at a significantly elevated concentration (7,600 ug/kg) within the composited soils of boring CS-4. Although the approximate horizontal extent of trichloroethene and tetrachloroethene contamination was identified by the results of these samples, the vertical extent of contamination could not be delineated. Upon reviewing the initial laboratory data, C&S requested the completion of volatile organic compound analysis, by means of EPA Method 8010/8020, on a duplicate set of discrete-depth soil samples. Although a holding time of approximately 21-days was incurred for these samples, the results are useable for determining the approximate vertical extent of contamination. As shown in Table 2B, the analysis of the discrete-depth soil samples, as originally proposed, revealed the elevated presence of trichloroethene and tetrachloroethene as follows;

Boring	<u>Depth</u>	Trichloroethene	Tetrachloroethene
CS-1	0-2 feet	15,000 ug/kg	9,500 ug/kg
	4-6 feet	<50 ug/kg	90 ug/kg
	6-8 feet	<50 ug/kg	60 ug/kg
CS-2	2-4 feet	420 ug/kg	810 ug/kg
	6-8 feet	70 ug/kg	190 ug/kg
CS-3	2-4 feet	500 ug/kg	540 ug/kg
	6-8 feet	90 ug/kg	90 ug/kg
CS-4	0-2 feet	88,000 ug/kg	78,000 ug/kg
	2-4 feet	77,000 ug/kg	60,000 ug/kg
	6-8 feet	740 ug/kg	880 ug/kg
CS-5	4-6 feet	190 ug/kg	10 ug/kg
	6-8 feet	<5 ug/kg	<5 ug/kg

In general, the subsequent analysis of soil samples collected during the subsurface soil boring program within the Area South of Building 12 revealed that the highest concentrations of trichloroethene and tetrachloroethene exist immediately proximate to boring CS-4, to a depth slightly above the bedrock surface, while the upper two-feet of soils immediately proximate to boring CS-1 also exhibited the significantly elevated presence of these compounds. Although the soil samples collected from borings CS-3, CS-4, and CS-5 exhibited the trace to low-level presence of trichloroethene and tetrachloroethene, the respective concentrations are significantly (2 to 3 orders of magnitude) lower than those concentrations identified within the soil samples collected from borings CS-1 and CS-4.



It should also be noted that although the soil samples collected from boring CS-5, at a depth of 6 to 8-feet below grade, exhibited a noticeable petroleum odor and a PID reading of 110 ppm upon collection, subsequent analysis of the composite soil sample, as well as the discrete-depth soil samples collected from this boring, did not reveal the detectable presence of benzene, toluene, xylene, ethylbenzene, or other petroleum related compounds which are typically identified as a result of petroleum contamination. The results of the 1993 Site Investigation and more recent Supplemental Investigation, completed proximate to the Area South of Building 12, have been compiled on Figure 2, for each of the site specific subsurface borings. The analytical results for subsurface soil samples collected proximate to the Area South of Building 12 are included within Appendix B.

The analytical data for the composited soil samples appears to coincide similarly with the results of analyses completed on duplicate discrete soil samples collected from these borings. More specifically, volatile organic compound analysis of both the composited and discrete soil samples revealed the significant presence of trichloroethene and tetrachloroethene within the soil samples collected from borings CS-1 (0-2 feet) and CS-4 (0-8 feet). Upon comparison of the respective data with the locations of the respective soil borings, as shown in Figure 2, it is apparent that the existence of trichloroethene and tetrachloroethene contamination is primarily limited to the area immediately proximate to borings CS-1, CS-4, and former boring SB-4.

D. INTERPRETATIONS AND CONCLUSIONS

The following investigative result interpretations and subsequent recommendations have been provided consistent with the Supplemental Investigation efforts and previous site investigations completed to date at the Pass & Seymour facility.

Former Empty Oil Drum Storage Area

The results of the subsurface boring completed within the central portion of the Former Empty Oil Drum Storage Area indicate that a limited thickness (3-feet) of apparently non-native cinders, ash, and gravel immediately overlie native glacial till deposits within the respective 100-square foot area. Consistent with the results of previous site investigations, the results of the supplemental investigation indicate that elevated concentrations of a number of semi-volatile organic compounds, trichloroethene, and heavy metals, including arsenic, chromium, lead, and selenium, are present within cinders and ash fill of the area. More specifically the following parameters were identified within the cinder/ash sample collected from the 0-3 foot depth interval at concentrations greater than the NYSDEC soil cleanup objectives and cleanup levels, as listed within the November 16, 1992 NYSDEC TAGM - "Determination of Soil Cleanup Objectives and Cleanup Levels."



Parameter acenaphthene anthracene benzo(a) anthracene benzo(b) fluoranthene benzo(k) fluoranthene benzo(g,h,i) perylene benzo(a) pyrene chrysene dibenzo(a,h) anthracene fluorene indeno(1,2,3-cd) pyrene naphthalene phenanthrene	Concentration 630 ug/kg 1,300 ug/kg 1,900 ug/kg* 1,000 ug/kg 1,200 ug/kg* 790 ug/kg* 1,200 ug/kg* 1,800 ug/kg* 430 ug/kg* 590 ug/kg* 760 ug/kg* 330 ug/kg 4,900 ug/kg	Cleanup Criteria 50,000 ug/kg 50,000 ug/kg 220 ug/kg 1,100 ug/kg 1,100 ug/kg 50,000 ug/kg 61 ug/kg 400 ug/kg 14 ug/kg 50 ug/kg 61 ug/kg 50 ug/kg 61 ug/kg
ругепе	3,400 ug/kg	50,000 ug/kg
Total Arsenic Total Cadmium Total Chromium Total Lead Total Mercury Total Selenium	15.6 mg/kg* 0.98 mg/kg 5.35 mg/kg 168 mg/kg* 0.22 mg/kg* 12.8 mg/kg*	7.5 mg/kg or SB 1.0 mg/kg or SB 10 mg/kg or SB 30 mg/kg or SB 0.10 mg/kg or SB 2 mg/kg or SB
Trichloroethene	1.30 mg/kg*	0.700 mg/kg

Although the cinder/ash fill of the respective area appears to be impacted by the semi-volatile organic compounds previously listed, analysis of native soils collected from a depth immediately below the cinder/ash fill revealed that these compounds, or other semi-volatile organic compounds, were not identified within the native soil sample at a concentration greater than 160 ug/kg. As such, it would appear that the presence of semi-volatile organic compound contamination within the area is limited to the uppermost 3-feet of the 100 square foot area.

The semi-volatile organic compounds and metals detected will typically be identified in coal or cinder samples and may not be indicative of past contaminant release. However, given the historic use of coal tar based coating operations in the area and the exceedance of soil clean-up criteria thresholds, it is advisable to address this area as part of the site remedial efforts.



Consistent with the results of previous site investigations and the supplemental investigation, it is recommended that the uppermost three feet of cinders and ash fill be excavated and removed from the respective area. As previously mentioned, it is estimated that the extent of semi-volatile organic compound contamination is limited to a 10' x 10' x 3' area, which equates to a volume of approximately 12 cubic yards or 18 tons.

Possible disposal scenarios for the minimal volume of cinder/ash fill include disposal, via landfilling, or disposal via asphalt admixing. Transport and disposal costs associated with each of these scenarios are estimated to range from \$70 to \$100 per ton of contaminated material. As such, costs for the disposal of the 12 cubic yards (18 tons) of the cinder/ash fill could range from \$1,260 to \$1,800, with excavation costs ranging from \$1,000 to \$1,500 for the limited volume of cinder/ash material. The benefit of utilization of the cinder/ash material as an asphalt admixture is reduced liability compared with disposal by land burial.

Area South of Building 12

The results of the five subsurface borings completed within the Area South of Building 12 indicate that the shallow bedrock of the area is generally overlain by 5-feet of sandy silt and clay glacial till, with 2 to 3 feet of asphalt/fill materials at the surface. Consistent with the results of previous site investigations, the results of the supplemental investigation completed within this area indicate that significantly elevated concentrations of trichloroethene and tetrachloroethene exist within the upper unconsolidated soils of the northwestern portion of this area, as shown in Figure 3. Although previous site investigations and the supplemental investigation revealed the low-level presence of these volatile organic compounds at subsurface boring locations proximate to the northeastern and central portions of this area (borings SB-3 and B-15, respectively), subsurface soil samples collected during the supplemental investigation confirmed that the majority of significant elevated trichloroethene and tetrachloroethene concentrations was relatively limited to the northwestern portion of the area to a subsurface depth ranging from 2 More specifically, as a result of previous and supplemental to 4-feet below grade. investigations, trichloroethene and tetrachloroethene were identified within the following soildepth intervals, at concentrations above the respective NYSDEC soil cleanup guidance criteria of 700 ppb and 1,400 ppb, for the two compounds respectively.



Previous Site	Investigations	75)
Boring	<u>Depth</u>	Trichloroethene	Tetrachloroethene
SB-4	0-2 feet	3,800 ug/kg	2,600 ug/kg
Supplemental	Investigations		
Boring	<u>Depth</u>	<u>Trichloroethene</u>	Tetrachloroethene
CS-1	0-2 feet	15,000 ug/kg	9,500 ug/kg
CS-4	0-2 feet	88,000 ug/kg	78,000 ug/kg
	2-4 feet	77,000 ug/kg	60,000 ug/kg
	6-8 feet	740 ug/kg	880 ug/kg

As previously mentioned, although low-level concentrations of trichloroethene and tetrachloroethene were identified within the subsurface soils outside of the northwestern portion of the area (borings CS-2 and CS-3), consistent with the results of previous site investigations, the concentrations identified are below the respective soil cleanup criteria for these compounds. It should also be noted that although a trichloroethene concentration of 980 ppb was previously identified within the subsurface soils collected during the 1993 Site Investigation boring B-15, immediately above the bedrock surface, the analysis of subsurface soils collected from confirmatory boring CS-5, immediately adjacent to the boring B-15 location, did not reveal the significantly elevated presence of trichloroethene.

As shown in Figures 3 and 4, the impact of the apparent trichloroethene and tetrachloroethene contamination, within the Area South of Building 12, appears to be specifically limited to an area ranging from 13 feet x 18 feet to 20 feet x 25 feet within the northwestern most portion of the area (immediately proximate to subsurface borings CS-1, CS-4, and SB-4), to subsurface depths ranging from 2 to 4 feet below grade, while relatively low-level concentrations of trichloroethene and tetrachloroethene exist within the subsurface soils immediately below (4 to 8 feet below grade) and outside of this area (proximate to borings CS-2 and CS-3). It is thus estimated that the respective volume of trichloroethene and tetrachloroethene contamination, which exceeds the NYSDEC soil cleanup criteria, would range as follows:

Minimum

Area = 18 feet x 13 feet; Depth = 4 feet Volume = 936 cubic feet = 35 cubic yards = 52 tons

<u>Average</u>

Area = 21 feet x 16 feet; Depth = 6 feet Volume = 2,016 cubic feet = 75 cubic yards = 112 tons

<u>Maximum</u>

Area = 20 feet x 25 feet; Depth = 8 feet Volume = 4,000 cubic feet = 148 cubic yards = 223 tons



Possible remediation scenarios for these volumes of trichloroethene and tetrachloroethene contaminated soil include excavation and disposal (via incineration), soil vapor extraction, or excavation and ex-situ bioremediation/aeration (land farming). Descriptions of the technological specifics and estimated costs for each of these potential remediation scenarios are described as follows.

Excavation and Disposal/Treatment

Excavation and disposal of organic contaminated soils is one of the simplest and most effective remedial options available. Excavation is typically completed by means of an excavator or trackhoe, with sampling and analysis of side wall and floor soils completed as a means to confirm satisfactory contaminant removal. The contaminated soil may then be transported to an approved landfill facility for disposal, or more often, is permanently remediated by incineration methods, depending on the nature of the contaminants and their concentration. Although the excavation and disposal remedial option is relatively simple to implement, the costs associated with disposal or treatment (typically by incineration) may be excessive.

Disposal costs, as identified by Laidlaw Environmental Services in Appendix C, have been estimated to range from \$365/ton, for treatment and disposal at EQ, Ypslanti, Michigan, to \$220/ton, for disposal at the Marine Shale Processors facility, in Morgan City, Louisiana, with transportation costs to the two respective facilities estimated to range from \$102 to \$297 per ton (based on 17 ton/load). As such, it is estimated that transportation and disposal costs, for the two respective scenarios, would range from \$467 to \$517 per ton of contaminated soil. The costs associated with excavation of the 35 to 148 cubic yards of contaminated soil would likely range from \$2,000 to \$3,000, including mobilization, while the completion of confirmatory analyses and inspection of appropriate contaminant removal would be estimated to range from \$1,000 to \$2,000. As previously mentioned, it is estimated that approximately 35 to 148 cubic yards, or 52 to 223 tons of soil proximate to the Area South of Building 12 will require remediation. From the unit costs previously listed, it is estimated that contracting and disposal costs for the various estimated tonnages of contaminated soil would typically likely range as follows.

<u>Minimum</u>	(35 cubic yards = 52 tons)	
Transportat	tion/Disposal Cost = \$467 to \$517 /t	on * 52 tons = \$24,284 - \$26,884
Excavation		\$ 2,000
Confirmation	on Analysis	•
and I	nspection (1-day) =	\$ 1,000
TOTALS	- · · · · · · · · · · · · · · · · · · ·	\$27,284 - \$29,884



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(75 \text{ cubic yards} = 112 \text{ tons})
Average
 Transportation/Disposal Cost = $467 to $517/ton * 112 tons = $52,304 - $57,904
 Excavation =
                                                                 $ 3,000
 Confirmation Analysis
       and Inspection (2-days) =
                                                                 $ 2,000
 TOTALS
                                                                 $57,304 - $62,904
Maximum
              (148 \text{ cubic vards} = 223 \text{ tons})
 Transportation/Disposal Cost = $467 to $517/ton * 223 tons = $104,141 - $115,291
 Excavation =
                                                                $ 3,000
 Confirmation Analysis
      and Inspection (2-days) =
                                                                $ 2,000
 TOTALS
                                                                $109,141 - 120,291
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In addition, costs of \$2,000 to \$5,000 would be incurred for site restoration, including compacted backfill and grading, equipment decontamination, and disposal of project related wastes, assuming no site de-watering. Contingency costs of 15-percent should also be included for planning purposes.

Soil Vapor Extraction

Soil Vapor Extraction (SVE), has been established in recent years as a cost effective insitu treatment for vadose zone soils contaminated with volatile organic compounds. The theory behind SVE is that by applying a vacuum and removing vapors via extraction wells, vapor flow through the unsaturated soil zone is induced. Contaminants volatilize from the soil matrix and are transported by the air flow stream to the extraction wells. In addition, biological activity is enhanced which accelerates decomposition of the organic compounds. Use of SVE is dependent directly on two primary factors including the nature and the concentration of the contaminant and the existence of permeable soils to allow adequate vapor flow rates. A basic SVE system couples extraction wells with blowers or vacuum pumps to remove VOCs from the vadose zone, and thereby reduce residual levels of the volatile organic contaminants within the soil. contaminated vapor is drawn to the recovery well, above ground treatment systems condense, adsorb, or incinerate vapors, and in some cases where vapor concentrations are minimal, vapors are released to the atmosphere through diffuser stacks. Although an SVE systems is relatively easy and cost effective to implement, the dense and relatively impermeable (low porosity) nature of the local glacial till materials would most likely significantly limit the effectiveness of this remedial option. As such, the SVE remedial option does not appear to be applicable or appropriate for site specific use.



Excavation and Land Farming

Land farming is a bioremediation technology that treats wastes in an above-ground system using conventional soil management practices to treat contaminated soil under aerobic conditions. Land farming requires the excavation of the contaminated material. The contaminated material is treated on a lined area to protect the underlying soil from potential contaminant migration. Biological degradation conditions are optimized by aerating the soil with regular tilling and the addition of nutrients, water and microorganism cultures. A leachate collection system is necessary to collect leachate generated during the process. Leachate generated may be reused in the system or may be treated prior to disposal. In a typical land farming operation, soil is excavated from the site and screened to remove oversized material and debris. The remaining finer soil particles are spread evenly over a diked treatment-containment area to a depth of approximately one foot to allow maximum aeration. The pH of the soil may be adjusted for optimal microbial growth. Fertilizer may also be added to optimize the levels of nutrients in the soil necessary for microbial biodegradation. Over time, through consistent aeration and microbial decomposition, the volatile organic contaminants are removed from the respective soils, which upon completion, may be re-used on-site or disposed as fill material. The elements associated with implementation of remediation via land farming include; construction of a landfarming containment bed and leachate collection system; excavation of the contaminated soils; screening of the contaminated soils; fertilizer and microbe application; consistent tilling (aeration) of the contaminated soils; and routine analysis to confirm contaminant removal. Prior to implementation, it is often necessary to complete a pilot study/analysis on a small portion of the contaminated media to insure that the land farming technology will be effective. For the estimated maximum of 150 cubic yards of contaminated soil to be remediated from the Area South of Building 12, it is estimated that the costs associated with the design and construction of a land farming system, for 150 cubic yards of trichloroethene contaminated soil, would range from \$18,000 - \$25,000, while completion of a pilot study and operation and maintenance costs (by Pass & Seymour personnel) over the period of one to two years would range from \$15,000 -\$25,000. construction, operation, and maintenance costs for a land farming system would subsequently be estimated at \$33,000 to \$50,000. Although the site specific effectiveness of this technology for the removal of trichloroethene and tetrachloroethene remains undetermined, this technology would be implementable within the western portion of the site where an unused large former parking area exists. It is estimated that significant reduction of the trichloroethene and tetrachloroethene concentrations, within the respective soils, would be completed within 1 year of land farming initiation. It should be noted that implementation of the on-site landfarming technology will require prior NYSDEC approval and consent, as this remedial option would incorporate the on-site treatment of an apparent listed hazardous waste (trichloroethene). The regulatory framework under which this on-site remediation would take place must be further defined prior to proceeding with this alternative.



From the descriptions provided for these remediation scenarios, it is apparent that since the majority of the impacted soils consist of dense glacial till, with minimal porosity, it would appear that the use of soil vapor extraction would likely prove to be limited or ineffective in the removal (extraction) of the volatile organic compounds of concern from the dense glacial till soils. Although excavation and disposal is the simplest and most expedient remedial technology to implement, the excavation and land farming technology is typically a more cost-effective remedial scenario. Consistent with current site renovations, selection of the most appropriate remedial approach will be dependent upon the Pass & Seymour facility renovation schedule. More specifically, if the schedule for site renovations necessitates a rather prompt response, then it would appear that implementation of the excavation and disposal remedial technology would be most applicable. However, in the event that an extended time frame is available, then implementation of the more cost-effective excavation - (on-site) landfarming remedial technology may be preferable. When budgeting funds for this type of remedial effort, allowance should also be made for engineering and legal expenses associated with procurement of a contractor, project administration, and regulatory agency coordination.

Although the completion of supplemental soil sampling and analysis was also proposed for a specific soil pile within the Former Landfill Area, in an effort to assess the waste characteristics of the respective soils, to date the specific location of this soil pile remains unknown. In an effort to identify the most appropriate sampling location for the assessment of hazardous waste characteristics, C&S can contact O'Brien & Gere for purposes of identifying the specific location of the respective soil pile where samples were previously collected for analysis. Upon identifying the previous former landfill area soil sampling location, C&S will collect a composite sample for the respective area for volatile organic compound, total petroleum hydrocarbon, flashpoint, reactivity, and pH analysis as noted within our October 1994 proposal.

If, during your review, you have any questions or require clarification regarding the subjects discussed within this letter, please contact me or John Kanoza. At your convenience, C&S will be available to discuss the results of the supplemental investigation performed at the Pass & Seymour facility as well as the recommendations pertaining to remediation of soils proximate to the Area South of Building 12 and the Former Empty Oil Drum Storage Area.

Very truly yours,

C&S ENGINEERS, INC.

Robert M. Palladine, Jr., P.E.

Managing Engineer

enclosure

cc. T. Jackson; Pass and Seymour/LeGrande

E. Baumgras; Pass and Seymour/LeGrande



TABLES

TABLE 1A

FORMER EMPTY OIL DRUM STORAGE AREA SUMMARY OF SOIL SAMPLE ANALYTICAL DATA (DISCRETE SOIL SAMPLES)

DISCRETE FILL AND NATIVE SOIL SAMPLES

EPA 8270 Base Neutral Semi-Volatil		D-Fil	D-Native
Organic Compounds	Units	Material	Soil
acenapthene	ug/kg	630	<160
acenaphtylene	ug/kg	<160	<160
anthracene	ug/kg	1300	<160
benzo (a) anthracene	ug/kg	1900	<160
banzo (b) fluoranthene	ид/кд	1000	<160
benzo (k) fluoranthene	ug/kg	1200	<160
benzo (g.h.i) perylene	ug/kg	790	<160
benzo (a) pyrene	ug/kg	1200	<160
benzidene	ug/kg	<1300	<1300
butyl benzyl phthalate	ug/kg	<160	<160
bis (2-chloroethoxy) methane	ug/kg	<160	<160
bis (2-chloroethyl) ether	ug/kg	<160	<160
	B B	<160	<160
bis (2-chloroisopropyl) ether bis (s-ethylhexyl) phthalate	ug/kg	<160 <160	<160
bis (s-emymexy) primalate bromophenylphenyl ether	ug/kg	<160	<160
	ug/kg	a	
2-chloronaphthalene	ug/kg	<160	<160
Chilorophian yiphian yi atmai	ug/kg	<160	<160
chrysene	ug/kg	1800	<160
dibenzo (a,h) anthracene	ug/kg	430	<160
di-n-butyi phthalate	ug/kg	<160	<160
1,2-dichiorobenzene	ug/kg	<160	<160
1,3-dichlorobenzene	па/ка	<160	<160
1,4-dichlorobenzene	na/kg	<160	<160
3,3'-dichiorobenzidene	na/kg	<330	<330
diethyl phthalate	ug/kg	<160	<160
dimethyl phthalate	ug/kg	<160	<160
2,4-dinitrotoluene	nôvka	<160	<160
2,6-dinitrotoluene	ug/kg	<160	<160
dl-n-octyl phthalate	ug/kg	<160	<160
fluoranthene	ug/kg	<160	<160
fluorene	n6/kg	590	<160
hexachlorobenzene	ug/kg	<160	<160
hexachlorobutadiene	ug/kg	<160	<160
hexachlorocyclopentadiene	ис/ка	<160	<160
hexachloroethane	ug/kg	<160	<160
indeno (1,2,3-cd) pyrene	ug/kg	760	<160
isophorone	ug/kg	<160	<160
naphthalene	ug/kg	330	<160
nitrobenzene	ug/kg	<160	<160
n-nitrosodi-n-propylamine	ug/kg	<160	<1.60
n-nitrosodiphenylamine	ug/kg	<160	<160
n-nitrosodimethylamine	ug/kg	<160	<160
1,2-diphenylhydrazine	ug/kg	<160	<160
phenanthrene	ug/kg	4900	<160
pyrene	ug/kg	3400	<160
1,2,4-trichlorobenzene	ug/kg	<160	<160

TABLE 1B

FORMER EMPTY OIL DRUM STORAGE AREA SUMMARY OF SOIL SAMPLE ANALYTICAL DATA (COMPOSITE FILL SOIL SAMPLES)

COMPOSITE FILL SAMPLE

Metals, PCBs, pH, Flashpoint, TPH Cyanide and Sulfide Reactivity Cyanide Reactivity Flashpoint pH in Water Sulfide Reactivity Total Arsenic Total Barium Total Chromium Total Chromium Total Lead Total Mercury Total Selenium Total Se
Cyanide Reactivity Flashpoint pH in Water Sulfide Reactivity Total Arsenic Total Barium Total Cadmium Total Chromium Total Lead Total Mercury Total Selenium Total Selenium Total Silver PCB Aroclor 1221 mg/kg mg/kg selenium mg/kg mg/kg color mg/kg mg/kg color
Fiashpoint deg. C >80 deg. C pH in Water S.U. 8.19 Sulfide Reactivity mg/kg <10 Total Arsenic mg/kg 15.6 Total Barium mg/kg 0.98 Total Cadmium mg/kg 5.35 Total Lead mg/kg 168 Total Mercury mg/kg 0.22 Total Selenium mg/kg 12.8 Total Silver mg/kg <1.0 mg/kg <1.0 mg/kg <1.0
pH in Water S.U. 8.19 Suifide Reactivity mg/kg <10 Total Arsenic mg/kg 15.6 Total Barium mg/kg <5.0 Total Cadmium mg/kg 0.98 Total Chromium mg/kg 5.35 Total Lead mg/kg 168 Total Mercury mg/kg 0.22 Total Selenium mg/kg 12.8 Total Silver mg/kg <1.0 PCB Aroclor 1221 mg/kg <0.05
Sulfide Reactivity Total Arsenic mg/kg 15.6 Total Barium mg/kg 5.0 Total Cadmium mg/kg 0.98 Total Chromium mg/kg 5.35 Total Lead mg/kg 168 Total Mercury mg/kg 0.22 Total Selenium mg/kg 12.8 Total Silver mg/kg <1.0 PCB Aroclor 1221 mg/kg <0.05
Total Arsenic mg/kg 15.6 Total Barium mg/kg c5.0 Total Cadmium mg/kg 0.98 Total Chromium mg/kg 5.35 Total Lead mg/kg 168 Total Mercury mg/kg 0.22 Total Selenium mg/kg 12.8 Total Silver mg/kg c1.0 PCB Aroclor 1221 mg/kg c0.05
Total Barium mg/kg <5.0 Total Cadmium mg/kg 0.98 Total Chromium mg/kg 5.35 Total Lead mg/kg 168 Total Mercury mg/kg 0.22 Total Selenium mg/kg 12.8 Total Silver mg/kg <1.0 PCB Aroclor 1221 mg/kg <0.05
Total Cadmium mg/kg 0.98 Total Chromium mg/kg 5.35 Total Lead mg/kg 168 Total Mercury mg/kg 0.22 Total Selenium mg/kg 12.8 Total Silver mg/kg <1.0
Total Chromium mg/kg 5.35 Total Lead mg/kg 168 Total Mercury mg/kg 0.22 Total Selenium mg/kg 12.8 Total Silver mg/kg <1.0
Total Lead mg/kg 168 Total Mercury mg/kg 0.22 Total Selenium mg/kg 12.8 Total Silver mg/kg <1.0 PCB Arcclor 1221 mg/kg <0.05
Total Mercury mg/kg 0.22 Total Selenium mg/kg 12.8 Total Silver mg/kg <1.0 PCB Arcclor 1221 mg/kg <0.05
Total Selenium mg/kg 12.8 Total Silver mg/kg <1.0
Total Silver mg/kg <1.0 mg/kg <0.05
PCB Aroclor 1221 mg/kg <0.05
PCB Aroclor 1232 mo/kg of <0.05
PCB Aroclor 1242/1016 mg/kg <0.05
PCB Arocior 1248 mg/kg <0.05
PCB Arocfor 1254 mg/kg <0.05
PCB Aroclor 1260 mg/kg <0.05
DOH 310-13 TPH Scan Positive
EPA 624 Volatile Organic Compounds Fill
Organic Compounds Units Composite
chloromethane mg/kg <0.1
bromomethane mg/kg <0.1
vinyl chloride mg/kg <0.1
chloroethane mg/kg <0.1
methylene chloride mg/kg <0.05
1,1-dichloroethene mg/kg <0.05
1,1-dichloroethane mg/kg <0.05
trans-1,2-dichioroethene mg/kg <0.05
chloroform mg/kg <0.05
1,2-dichloroethane mg/kg <0.05
1,1,1-trichloroethane mg/kg <0.05
carbon tetrachloride mg/kg <0.05
bromodichioromethane mg/kg <0.05
1,2-dichloropropane mg/kg <0.05
cis-1,3-dichloropropene mg/kg <0.05
trichloroethene mg/kg 1.3
dibromochloromethane mg/kg <0.05
1,1,2-trichloroethane mg/kg <0.05
trans-1,3-dichloropropene mg/kg <0.05
2-chloroethylvinylether mg/kg <0.1
bromoform mg/kg <0.05
1,1,2,2-tetrachioroethane mg/kg <0.05
tetrachloroethene mg/kg <0.05
I WEST
chiorobenzene mg/kg <0.05
total dichlorobenzene mg/kg <0.05
total dichlorobenzene mg/kg <0.05
total dichiorobenzene mg/kg <0.05 benzene mg/kg <0.05
total dichiorobenzene mg/kg <0.05 benzene mg/kg <0.05 toluene mg/kg <0.05
total dichlorobenzene mg/kg <0.05 benzene mg/kg <0.05

TABLE 2A

AREA SOUTH OF BUILDING 12 SUMMARY OF SOIL SAMPLE ANALYTICAL DATA (COMPOSITED SOIL SAMPLES)

AREA SOUTH OF BUILDING 12

INITIAL COMPOSITE SAMPLE ANALYSES

EPA 624 Volatile Organic Compounds		CS-1	CS-2	CS-3	CS-4	C9-5
Organic Compounds	Units	(0-8')	(2-8')	(2-8")	(0-8')	(4-8')
chloromethane	üg/kg	<100	<10	<10	<100	מני
bromomethane	ug/kg	<100	<10	<10	1	<10
vinyl chloride	ug/kg	<100	<10	<10	<100 <100	<10
chloroethane	ug/kg	<100	<10	<10	<100	<10 <10
methylene chloride	ug/kg	<50	<5	<5	<50	<5
1,1-dichloroethene	ug/kg	<50	<5	<5	<50 <50	7 5
1,1-dichloroethane	ug/kg	<50	√5 <5	<5	<50 <50	<5
trans-1,2-dichloroethene	ug/kg	<50	<5	<5	<50	<5
chloroform	ug/kg	<50	<5	<5	√ 50	<i>√</i> 5
1,2-dichloroethane	ug/kg	<50	< 5	<u>``</u> < 5	~;0 <50	<5
1,1,1-trichloroethane	ug/kg	<50	√ 5	<5	<50	? <5
carbon tetrachloride	ug/kg	<50	<5	<5	<50	? <5
bromodichtoromethane	ug/kg	< 50	< 5	<5	<50	/5
1,2-dichloropropane	ug/kg	<50	√ 5	< 5	<50	<5
cls-1,3-dichloropropene	ug/kg	<50	<5	<5	<50 <50	<5
trichloroethene	ug/kg	1000	< 5	<5	4600	<5
dibromochloromethane	ug/kg	<50	< 5	<5	<50	<5
1,1,2-trichioroethane	ug/kg	<50	< 5	<5	<50	<5
trans-1,3-dichloropropene	ug/kg	<50	< 5	<5	<50	<5
2-chloroethylvinylether	ug/kg	<100	<10	<10	<100	<10
bromotorm	ug/kg	<50	<5	<5	<50	< 5
1,1,2,2-tetrachforoethane	ug/kg	<50	<5	<5	<50	<5
tetrachloroethene	ug/kg	<50	<5	<5 <	7600	<5
chlorobenzene	ug/kg	<50	<5	< 5	<50	<5
total dichlorobenzene	ug/kg	<50	< 5	< 5	<50	<5
репzеле	ug/kg	<50	<5	<5	<50 <50	<5
toluene	ug/kg	<50	< 5	<5	<50	<5
ethylbenzene	ug/kg	<50	<5	<5.	<50	<5
total xylenes	ug/kg	<50	<5	<5	<50	<5

TABLE 2B

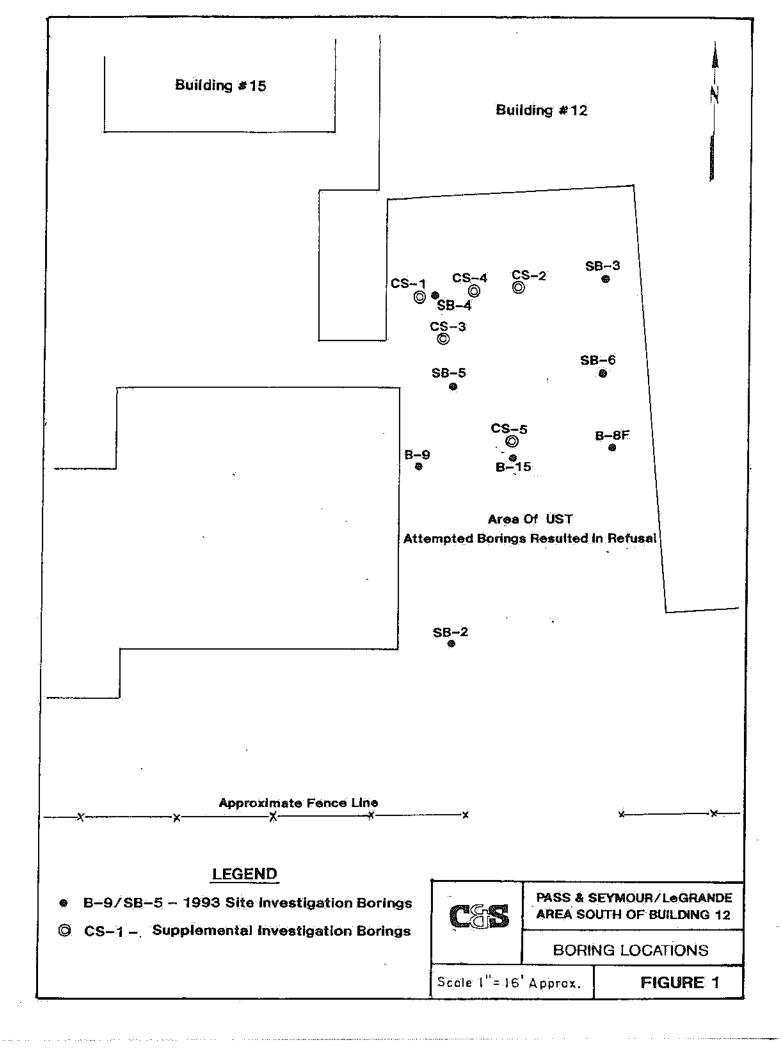
AREA SOUTH OF BUILDING 12 SUMMARY OF SOIL SAMPLE ANALYTICAL DATA (DISCRETE SOIL SAMPLES)

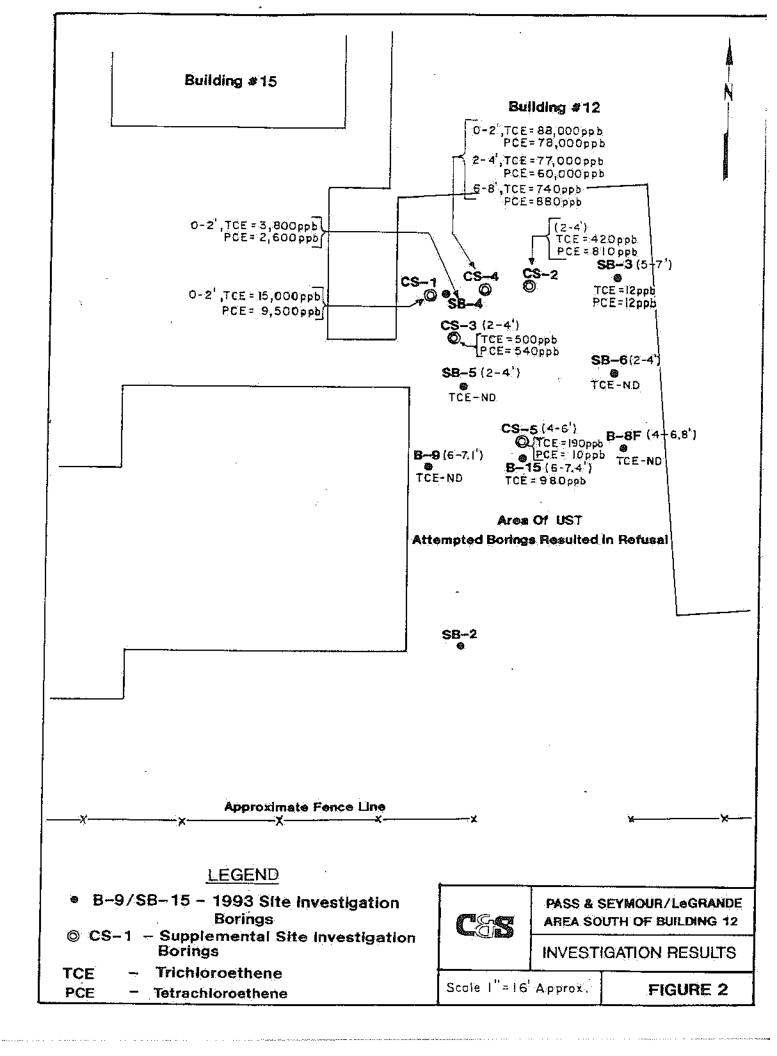
AREA SOUTH OF BUILDING 12

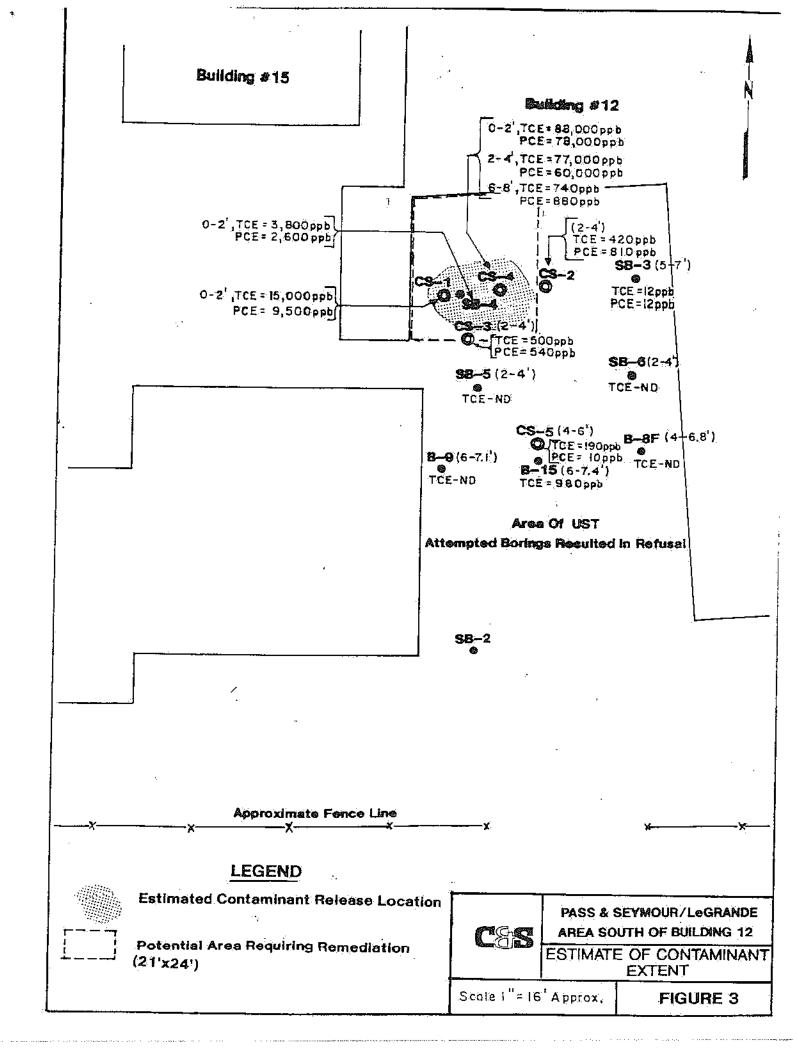
SUPPLEMENTAL DISCRETE SAMPLE ANALYSIS

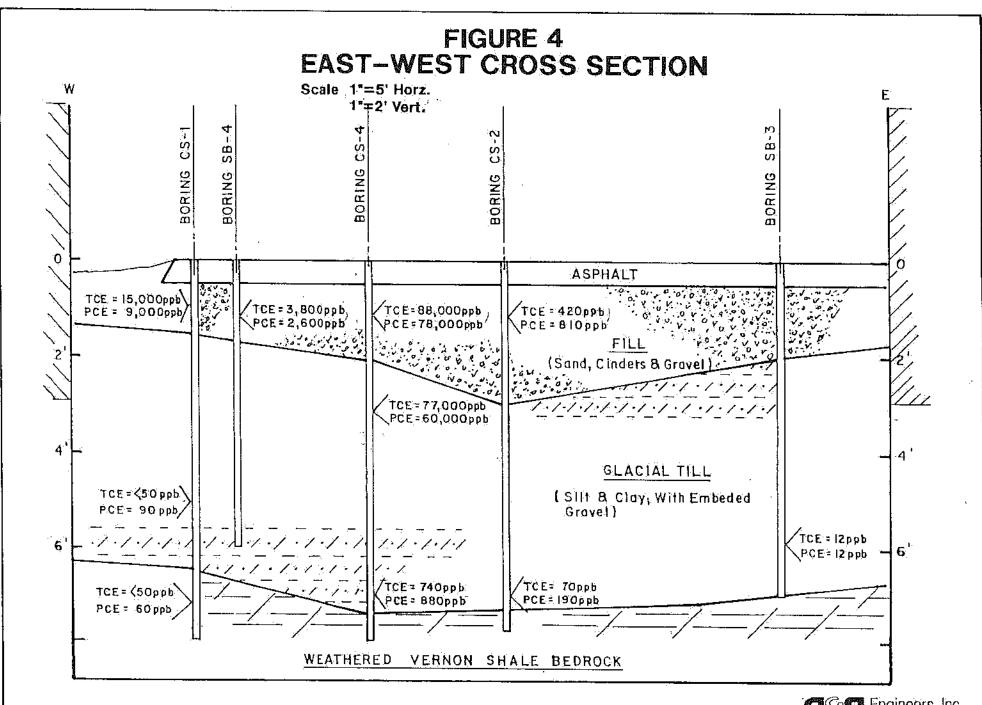
EPA 8010/8020 Volatile	SAMI LE	CS-1	CS-1	CS-1	CS-2	CS-2	CS-3	CS-3	GS-4	CS-4		es paramento	
Organic Compounds	Units	(0-2')	(4-6')	(6-8')	(2-4')	(6-8°)	(2-4')	(6-8')	(0-2')	A Secretary of the Control of the Co	CS-4	CS-5	C6-5
		2007	200 V 40 T 100 C	200 (C) 200	CONTRACTOR AND ADDRESS.		1000 A Table 100	:: (0+0)	~ (U-Z)	(2-4')	(6-8')	(4-6')	(6-8')
dichlorodifluoromethane	ug/kg	<1000	<100	<100	<100	<10	<100	<10	<20000	<20000	<100	- Aries	أمقد
chloromethane	ug/kg	<1000	<100	<100	<100	<10	<100	<10	<20000	<20000	<100	<10 <10	<10 -10
vinyl chloride	ug/kg	<1000	<100	<100	<100	<10	<100	<10	<20000	<20000	<100	<10	<10 <10
bromomethane	ug/kg	<1000	<100	<100	<100	<10	<100	<10	<20000	<20000	<100	<10	
chloroethane	ug/kg	<1000	<100	<100	<100	<10	<100	<10	<20000	<20000	<100	<10	<10
trichiorofluoromethane	ug/kg	<500	<50	<50	<50	<5	<50 <50	√5 <5	<10000	<10000	<50		<10
1,1-dichloroethene	ug/kg	<500	<50	<50	<50	< 5	<50	<5	<10000	<10000	<50 <50	∳ ∵\$	< 5
methylene chloride	ug/kg	<500	<50	<50	<50	<5	<50) <5	<10000	<10000	<50 <50	9 √ 5	< 5
trans-1,2-dichloroethene	ug/kg	<500	<50	<50	<50 <50	< 5	<50	√5	<10000	<10000	<50 <50	<i>9</i> ; <5	< 5
1,1-dichlorcethane	ug/kg	<500	<50	<50	<50	<5	<50	< 5	<10000	<10000	<50 <50	<5	₹ 5
chloroform	ug/kg	<500	<50	<50	<50°	√5 √5	<50 <50	<5	<10000	<10000	<50 <50	<5 <5	√ 5
1,1,1-trichloroethane	ug/kg	<500	<50	<50	<50	<5	<50	~ 5	<10000	<10000	<50	\$ √ 5	<i>?</i> 5
carbon tetrachloride	ug/kg	<500	<50	<50	<50	4 5	<50	<5	<10000	<10000	<50 <50	9 5	₽
1,2-dichloroethane	ug/kg	<500	<50	<50	<50	< 5	<50) <5	<10000	<10000	<50 <50	? 5	? \ 5
trichioroethene	ug/kg	15000	<50	<50	420	70	500	90	88000	77000	740	190	₹ 5
1,2-dichloropropane	ug/kg	<500	<50	< 5 0	<50	<5	<50	<5	<10000	<10000 <10000	<50	<5	
bromodichloromethane	ug/kg	<500	<50	< 50	<50	<5	<50). 45	<10000	<10000	<50	9 5	< 5
cis-1,3-dichloropropene	ug/kg	<500	<50	<50	<50	<5	<50) √ 5	<10000	<10000	<50		<5
trans-1,3-dichloropropene	ug/kg	<500	<50	<50	<50	< 5	<50	₹ 5	<10000	<10000	<50 <50	<5	√ 5 √5
2-chloroethylvinylether	ug/kg	<1000	<100	<100	<100	<10	<100	<10	<20000	<20000	<100	<10	<10
1,1,2-trichloroethane	ug/kg	<500	<50	<50	<50	<5.	<50	<5	<10000	<10000	<50	<5	
tetrachloroethene	ug/kg	9500	90	60	810	190	540	90	78000	60000	880	10	<5
dibromochloromethane	ug/kg	<500	<50	<50	<50.	<5	<50	<5	<10000	<10000	<50	<5	♦
chlorobenzene	ug/kg	<500	<50	<50	<50	<5	<50	<5	<10000	<10000	<50	.9 <5	<i>9</i>
bromoform	ug/kg	<500	<50	<50	<50	<5	<50	< 5	<10000	<10000	<50 <50	₹ 5	
1,1,2,2-letrachioroethane	ug/kg	<500	<50	<50	<50	<5	<50	<5	<10000	<10000	<50 <50	<5	<5 <5
1,3-dichlorobenzene	ug/kg	<500	<50	<50	<50	<5	<50	<5	<10000	<10000	<50 <50	<5 <5	₹ 5
1,4-dichlorobenzene	ug/kg	<500	<50	<50	<50	<5·	<50	<5	<10000	<10000	<50 <50	? √5	
1,2-dichlorobenzene	ug/kg	<500	<50	<50	<50 <50	<5	<50	.≲5	<10000	<10000	<50 <50		<5
benzene	ug/kg	<500	<50	<50	<50	<5·	<50	<u>>3</u> <5	<1000	<1000		<5 <	< <u>5</u>
tofuene	ug/kg	<500	<50	<50	<50	~5 ≪5	<50	√5.	4300	<1000	<50 <50	<5 -5	<5 -
elhyl benzene	ug/kg	<500	<50	<50	<50	<5	<50 <	√5 √5	<1000	<1000 <1000	<50	<5 <5	√ 5
total xylenes	ug/kg	<500	<50	<50	<50	<5	<50 <50	<5 <5	<1000	<1000 <1000	<50 <50	<5 E	< 5
									<1000	<1000	<50	<5	<5

FIGURES











APPENDIX A

SUBSURFACE BORING LOGS AS PROVIDED BY PARRATT-WOLFF, INC.



TEST BORINGS.

PASS AND SEYMOUR

SOLVAY, NEW YORK



December 27, 1994

Mr. John Kanoza C & S Engineers, Inc. 1099 Airport Boulevard North Syracuse, New York 13212

Re:

94187

Pass and Seymour Solvay, New York

Dear Mr. Kanoza:

Enclosed are driller's field logs of six test borings made for you for the above project.

Soil samples from these borings were retained by your representative at the job site.

The borings were made at points located by you. Drilling and sampling were done in accordance with your instructions.

Thank you for this opportunity to work with you.

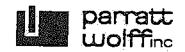
Very truly yours,

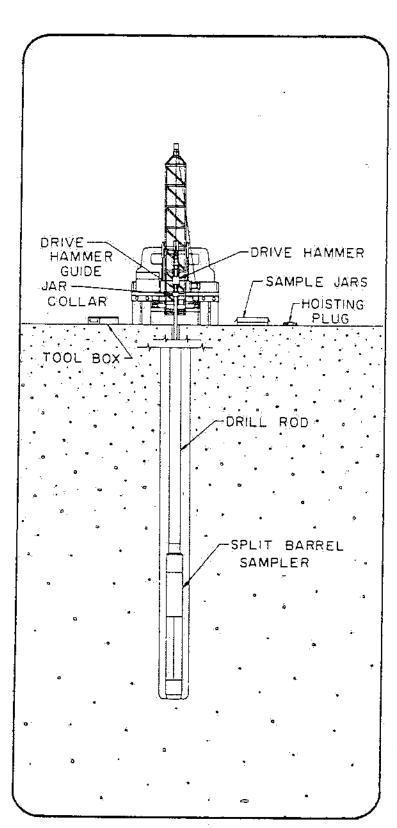
PARATT - WOLFF, INC.

Steffen Wolff

SW/Ic encs:

SOIL SAMPLING-METHODS





Split barrel sampling

The following excerpts are from "Standard Method for penetration test and split-barrel sampling of soils." (ASTM designation: D-1586-67 AASHO Designation: T-206-70.)

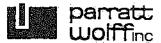
1. Scope

1.1 This method describes a procedure for using a splitbarrel sampler to obtain respresentative samples of soil for identification purposes and other laboratory tests, and to obtain a measure of the resistance of the soil to penetration of the sampler.

2. Apparatus

- 2.1 Drilling Equipment Any drilling equipment shall be acceptable that provides a reasonably, clean hole before insertion of the sampler to ensure that the penetration test is performed on undisturbed soil, and that will permit the driving of the sampler to obtain the sample and penetration record in accordance with the procedure described in 3. Procedure. To avoid "whips" under the blows of the hammer, it is recommended that the drill rod have stiffness equal to or greater than the A-rod. An "A" rod is a hollow drill rod or "steel" having an outside diameter of 1-5/8 in, or 41.2 mm and an inside diameter of 1-1/8 in. or 28.5 mm, through which the rotary motion of drilling is transferred from the drilling motor to the cutting bit. A stiffer drill rod is suggested for holes deeper than 50 ft (15m). The hole shall be limited in diameter to between 2-1/4 and 6 in (57.2 and 152mm).
- 2.2 Split-Barrel Sampler The sampler shall be constructed with the dimensions indicated (in Fig. 1.) The drive shoe shall be of hardened steel and shall be replaced or repaired when it becomes dented or distorted. The coupling head shall have four 1/2-in. (12,7-mm) (minimum diameter) vent ports and shall contain a ball check valve. If sizes other than the 2-in. (50.8-mm) sampler are permitted, the size shall be conspicuously noted on all penetration records.
- 2.3 Drive Weight Assembly The assembly shall consist of a 140-lb (63.5-kg) weight, a driving head, and a guide permitting a free fall of 30 in. (0.76 m). Special precautions shall be taken to ensure that the energy of the falling weight is not reduced by friction between the drive weight and the guides.
- 2.4 Accessory Equipment Labels, data sheets, sample jars, paraffin, and other necessary supplies should accompany the sampling equipment.





GENERAL NOTES

1. Soil boring logs, notes and other data shown are the results of personal observations and interpretations made by Parratt-Wolff, inc.

Exploration records prepared by our drilling foreman in the field form the basis of all logs, and samples of subsurface materials retained by the driller are observed by technical personnel in our laboratory to check field classifications.

- 2. Explanation of the classifications and terms:
 - a. Bedrock Natural solid mineral matter occurring in great thickness and extent in its natural location. It is classified according to geological type and structure (joints, bedding, etc.) and described as solid, weathered, broken or fragmented depending on its condition.
 - b. Soils Sediments or other unconsolidated accumulations of particles produced by the physical and chemical disintegration of rocks and which may or may not contain organic matter.

PENETRATION RESISTANCE

	PENETHATION RES	ISTANCE				
COHESIONLESS SOIL	COHESIVE SOILS					
Blows Per Ft. Relat	ive Density	Blows Per	Ft.	Consistency		
0 to 4 Very	Loose	0 to 2		Very Soft		
4 to 10 Loose	9	2 to 4		Soft		
	um Dense	4 to∈8		Medium Stiff		
30 to 50 Dense	e .	8 to 15		Stiff		
Over 50 Very I	Dense	15 to 30		Very Stiff		
<i>;</i>		Over 30		Hard		
Size Component		Proportion By Weight				
Boulder	8 inches to 3 inches		Major component is shown with all letters capitalized.			
Gravel — coarse	1 inch to 3/8 inch		Minor component percentage terms of total sample are:			
Sand — coarse	2.00 mm to 0.42 mm 0.42 mm to 0.074 mm	(#10 sieve) (#40 sieve) (#200 sieve)	some . 20 to	o 50 percent o 35 percent o 20 percent 10 percent		

- c. Gradation Terms The terms coarse, medium and fine are used to describe gradation of Sand and Gravel.
- d. The terms used to describe the various soil components and proportions are arrived at by visual estimates of the recovered soil samples. Other terms are used when the recovered samples are not truly representative of the natural materials, such as soil containing numerous cobbles and boulders which cannot be sampled, thinly stratified soils, organic soils, and fills.
- e. Ground water The measurement was made during exploration work or immediately after completion, unless otherwise noted. The depth recorded is influenced by exploration methods, soil type and weather conditions during exploration. Where no water was observed it is so indicated. It is anticipated that the ground water will rise during periods of wet weather. In addition, perched ground water above the water levels indicated (or above the bottom of the hole where no ground water is indicated) may be encountered at changes in soil strata or top of rock.



TEST BORING LOG

FISHER ROAD

EAST-SYRACUSE, N.Y. 13057

PROJECT

Pass & Seymour Solvay, New York

HOLENO, CS-1

LOCATION

DATE STARTED

12/19/94

DATE COMPLETED

12/19/94

JOB NO. 94187

GROUND WATER DEPTH WHILE DRILLING Dry

N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FAILING 30" — ASTM D-1586, STANDARD PENETRATION TEST

BEFORE CASING

REMOVED

SURF. EL.

Dry

C - NO. OF BLOWS TO DRIVE CASING 12" W/ */OR - % CORE RECOVERY

HAMMER FALLING

AFTER CASING

REMOVED

CASING TYPE - HOLLOW STEM AUGER DRILLER'S FIELD LOG

SHEET 1 OF 1

DEPŢĤ	SAMPLE DEPTH	SAMPLE NUMBER	SAMPLE DRIVE RECORD PER 6"	,N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
:	0.5'-	<u> </u>	3		Black moist medium dense fine to	
	2.0'		5/5	10	coarse SAND and CINDERS	1.81
,	2.0'-	2	6/6	·	Red-brown moist stiff SILT and fine to)
50	4.0' 4.0'-	3	7/8 5/5	. 13	medium embedded GRAVEL	
			6/8	11		
	6.0'~	4	8/27		·	6.5
	8.01		44/19		Green-brown moist hard weathered	
				· · · · · ·	SHALE	
10.0		·			Bottom of Boring	8.01
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FISHER ROAD

EAST SYRACUSE; N.Y. 13057

PROJECT

Pass & Seymour

HOLE NO CS-2

LOCATION

Solvay, New York

THAKES WULLT INU.

SURF. EL.

DATE STARTED

12/19/94

DATE COMPLETED

12/19/94

JOB NO. 94187

GROUND WATER DEPTH WHILE DRILLING Dry

N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" - ASTM D-1588, STANDARD PENETRATION TEST

BEFORE CASING

REMOVED

Dry

C - NO. OF BLOWS TO DRIVE CASING 12" WI */OR - % CORE RECOVERY

HAMMER FALLING

AFTER CASING REMOVED

Dry

CASING TYPE - HOLLOW STEM AUGER DRILLER'S FIELD LOG

DEPT	H SAMPLE	SAMPLE	SAMPLE DRIVE RECORD		DESCRIPTION OF MATERIAL	STRATA
		(0.22 	PER 61		·.	DEPTH
	0.5'- 2.0'	<u>-</u>	8/7	15	ASPHALT	0.5
	2.0'-	2	6/5	<u> </u>	Gray-black moist medium dense fine to	
	4.0'		5/6	7.0	coarse CRAVEL and fine to coarse SAND, some cinders	
5.0	04_0¹- 6_0'	3	10/7		Red-brown maist medium stiff to stife	3.0'
	6.0'-	<u> </u>	8/10 10/14	15	-2151 BNG TIME to modium ombadded i	
	7.8	- 4.	17/503	3.1	GRAVEL, little fine to coarse sand Green moist hard weathered SHALE	7.2'
10.0					Bottom of Boring	
, 10.10				<u></u>		7.8
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FISHER ROAD:

EAST SYRACUSE, N.Y. 13057

PROJECT

Pass & Seymour

Solvay, New York

HOLENO, CS-3

LOCATION

SURF. EL.

DATE STARTED

12/19/94

DATE COMPLETED 12/19/94

JOS NO.

94187

N -- NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" — ASTM D-1586, STANDARD PENETRATION TEST

GROUND WATER DEPTH WHILE DRILLING Dry

C — NO. OF BLOWS TO DRIVE CASING 12" W/

BEFORE CASING REMOVED

REMOVED

Dry

"/OR - % CORE RECOVERY

HAMMER FALLING

AFTER CASING

Dry

CASING TYPE - HOLLOW STEM AUGER DRILLER'S FIELD LOG

DEPTH	SAMPLE DEPTH	SAMPLE NUMBER	SAMPLE DRIVE RECORD PER 6"	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
:	0.5'-	1	7	'	ASPHALT	0.5
	2.0'		6/4	10	Black moist medium dense fine to	· U.5
	2.0'-		3/4		coarse SAND and CINDERS	2.51
	4.01		4/6	8	Red-brown moist medium stiff SILT and	2,5!
5.0		3	5/4		fine to medium embedded GRAVEL	l <u>.</u>
<u>.</u>	6.01		4/5	8	TIME CARE ON THE	; }
		4	7/28			7.0
4	8.0'		30/16	58		7.0
		.1		-	Bottom of Boring	8.0
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FISHER ROAD

EAST SYRACUSE, N.Y. 13057

PROJECT

Pass & Seymour

HOLE NO. CS-4

LOCATION

Solvay, New York

SURF. EL.

DATE STARTED

12/19/94

DATE COMPLETED

12/19/94

JOB NO.

94187

N — NO OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING

GROUND WATER DEPTH WHILE DRILLING Dry

30" — ASTM D-1586, STANDARD PENETRATION TEST

BEFORE CASING

REMOVED:

Dry

C - NO. OF BLOWS TO DRIVE CASING 12" W/ "/OR -- % CORE RECOVERY

HAMMER FALLING

AFTER CASING REMOVED

Dry

CASING TYPE	- HOL	LOW STEM	AUGER
DRILLER'S			. – – –

DEPTH	SAMPLE DEPTH	SAMPLE NUMBER	Ċ	SAMPLE DRIVE RECORD PER 6"	N	DESCRIPTION OF MATERIAL	Ç	STRATA HANGI DEPTH
		1			·	ASPHALT, CONCRETE and BRICK	 .	
		<u> </u>						2.0^{4}
	2.01-			7/7		Red-brown moist stiff to very stiff	:	
- a	4.0'			8/17		i SILI, some embedded fine to medium		
5.0	4.01-	2		12/9		gravel, little clay	,	
,	6.01	<u> </u>		7/5			:	
	6.0'-			5/4			į.	
	7.7'			17/5021	_21	Brown moist hard weathered SHALE	-	7.5
10.0						Bottom of Boring		7.7
10.0		· · · · · ·		<u> </u>			i	7.7"
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FISHER ROAD

EAST SYRACUSE, N.Y. 13057

PROJECT

Pass & Seymour

HOLENO, CS-5

LOCATION

Solvay, New York

30" — ASTM D-1586, STANDARD PENETRATION TEST

N — NO. OF BLOWS TO DRIVE SAMPLER 12* W/140# HAMMER FALLING

SURF. EL.

DATE STARTED

12/19/94

DATE COMPLETED

12/19/94

JOB NO. 94187

GROUND WATER DEPTH WHILE DRILLING Dry

BEFORE CASING

REMOVED

Dry

HAMMER FALLING

AFTER CASING

REMOVED

Dry

C - NO. OF BLOWS TO DRIVE GASING 12" W/

"/OR - % CORE RECOVERY

CASING TYPE	- HOLLOW	STEM	AUGER
DRILLER'S	FIELD LOG		

						
DEPTH	SAMPLE DEPTH	SAMPLE NUMBER	_ DR	IPLE IVE ORD N R 6"	DESCRIPTION OF MATERIAL	STRATA CHANG DEPTH
	0.5'-	1		3 .	ASPHALT	<u> </u>
ĺ	2.0'			2/1 3		0.5'
	2.5'-	2	1	10	SAND, little cinders, trace brick]
·	4.0'				VOID	2.0
5.0		3		9/5	-	2,5,
	6.0'				Black moist loose fine to coarse SAND, little cinders, trace brick	
Ī		4		.21	Red-brown moist stiff to hard SILT and	4.0'
	6.2'	 		1	fine to medium as hadded Chause	
Ţ	:				fine to medium embedded GRAVEL, trace weathered shale	
100				j	Rottom of Dovin	
į.		······································		;	Bottom of Boring	6.2
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FISHER ROAD

EAST SYRACUSE, N.Y. 13057

PROJECT

Pass ε Seymour

Solvay, New York

N — NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING: 30" — ASTM D-1586, STANDARD PENETRATION TEST

SURF. EL.

LOCATION

DATE STARTED

12/19/94

DATE COMPLETED

12/19/94

JOB NO. 94187

HOLE NO. CS-6

GROUND WATER DEPTH WHILE DRILLING Dry

BEFORE CASING

REMOVED

Dry

C — NO, OF BLOWS TO DRIVE CASING 12" W/

"/OR - % CORE RECOVERY

# HAMMER FALLING

AFTER CASING

REMOVED

Dry

CASING TYPE - 2" SPLIT SPOONS DRILLER'S FIELD LOG

DEPTH	SAMPLE DEPTH	SAMPLE NUMBER	Ċ	SAMPLE DRIVE RECORD PER 6"			STRATA CHANGE DEPTH
	0.0'- 2.0' 2.0'-	1 2		4/2 3/1 5/4		Black moist loose CINDERS and fine to coarse GRAVEL	
5.0	4.0'	3		3/4 12/15	7	Red-brown moist medium stiff to hard	3.01
	6.0'			15/13	30	SILT, some fine to medium embedded gravel, little fine to coarse sand, trace clay	
;   			·			Bottom of Boring	6.0'
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### APPENDIX B

SOIL SAMPLE ANALYTICAL DATA
AS PROVIDED BY CERTIFIED ENVIRONMENTAL SERVICES, INC. (CES)

C & S ENGINEERS, INC. 1099 AIRPORT BLVD.

NORTH SYRACUSE, NY 13212-Attn: ANDREW CALDERWOOD PROJECT NAME: Pass & Seymour

DATE: 01/11/95

SAMPLE NUMBER- 75303 SAMPLE ID- CS-1 (0'-8')

DATE SAMPLED- 12/19/94 LOCATION- Pass & Seymour

DATE RECEIVED- 12/19/94 SAMPLER- Andrew Calderwood TIME RECEIVED- 1625 DELIVERED BY- A. Calderwood SAMPLE MATRIX- SO

RECEIVED BY- BLD TYPE SAMPLE- Grab

		ANALYSIS		
ANALYSIS	METHOD	DATE	TIME BY	RESULT UNITS
EPA 624 VOLATILES	EPA 624	12/29/94	ADR	
CHLOROMETHANE	EPA 624	12/29/94	ADR	< 0.1 mg/Kg
BROMOMETHANE	EPA 624	12/29/94	ADR	< 0.1 mg/Kg
VINYL CHLORIDE	EPA 624	12/29/94	ADR	< 0.1 mg/Kg
CHLOROETHANE	EPA 624	12/29/94	ADR	< 0.1  mg/Kg
METHYLENE CHLORIDE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
1,1-DICHLOROETHENE	EPA 624	12/29/94	ADR	< 0.05  mg/Kg
1,1-DICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.05  mg/Kg
TRANS-1,2-DICHLOROETHENE	EPA 624	12/29/94	ADR	< 0.05  mg/Kg
CHLOROFORM	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
1,2-DICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
1,1,1-TRICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
CARBON TETRACHLORIDE	EPA 524	12/29/94	ADR	< 0.05 mg/Kg
BROMODICHLOROMETHANE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
1,2-DICHLOROPROPANE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
CIS-1,3-DICHLOROPROPENE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
TRICHLOROETHENE	EPA 624	12/29/94	ADR	1.0~mg/Kg
DIBROMOCHLOROMETHANE	EPA 624	12/29/94	ADR	< 0.05  mg/Kg
1,1,2-TRICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
TRANS-1,3-DICHLOROPROPENE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
2-CHLOROETHYLVINYLETHER	EPA 624	12/29/94	ADR	< 0.1 mg/Kg

CONTINUATION OF DATA FOR SAMPLE NUMBER 75303

ANALYSIS	METHOD	ANALYSIS DATE TIM	E BY	RESULT UNITS
BROMOFORM	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
1,1,2,2-TETRACHLOROETHANE	EPA 624	12/29/94	ADR	< 0.05  mg/Kg
TETRACHLOROETHENE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
CHLOROBENZENE	EPA 624	12/29/94	ADR	< 0.05  mg/Kg
TOTAL DICHLOROBENZENE	EPA 624	12/29/94	ADR	< 0.05  mg/Kg
BENZENE	EPA 624	12/29/94	ADR	< 0.05  mg/Kg
TOLUENE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
ETHYLBENZENE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
TOTAL XYLENES	EPA 624	12/29/94	ADR	< 0.05  mg/Kg

Approved By Salan

Note: Analysis performed by ELAP #10709.

NYSDOH ELAP #11246

CES does warrant that laboratory or field services completed by its employees were conducted in accordance with the environmental services and analytical industries recognized methods or standards. CES does not assume any other liabilities other than re-performance of the work if the completed services were determined to be deficient due to the negligence of CES. CES will not accept any liability in whole or in part as a result of data interpretation by the client.

C & S ENGINEERS, INC.

1099 AIRPORT BLVD.

NORTH SYRACUSE, NY 13212-Attn: ANDREW CALDERWOOD PROJECT NAME: Pass & Saymour

DATE: 01/12/95

SAMPLE NUMBER- 75304 SAMPLE ID- CS-2 (2'-8')

DATE SAMPLED- 12/19/94 LOCATION- Pass & Seymour

DATE RECEIVED- 12/19/94 SAMPLER- Andrew Calderwood TIME RECEIVED- 1625 DELIVERED BY- A. Calderwood SAMPLE MATRIX- SO

RECEIVED BY- BLD
TYPE SAMPLE- Grab

		ANALYSIS		
ANALYSIS	METHOD	DATE	TIME BY	RESULT UNITS
EPA 624 VOLATILES	EPA 624	12/29/94	ADR	
CHLOROMETHANE	EPA 624	12/29/94	ADR	< 0.01 mg/Kg
BROMOMETHANE	EPA 624	12/29/94		< 0.01 mg/Kg
VINYL CHLORIDE	EPA 624	12/29/94		< 0.01 mg/Kg
CHLOROETHANE	EPA 624	12/29/94		< 0.01 mg/Kg
METHYLENE CHLORIDE	EPA 624	12/29/94		< 0.005 mg/Kg
	EPA 624	12/29/94		< 0.005 mg/Kg
1,1-DICHLOROETHENE	EPA 624			
1,1-DICHLOROETHANE		12/29/94	ADR	< 0.005 mg/Kg
TRANS-1, 2-DICHLOROETHENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
CHLOROFORM	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
1,2-DICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.005  mg/Kg
1,1,1-TRICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
CARBON TETRACHLORIDE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
BROMODICHLOROMETHANE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
1,2-DICHLOROPROPANE	SPA 624	12/29/94	ADR	< 0.005 mg/Kg
CIS-1,3-DICHLUROPROPENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
TRICHLOROETHENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
DIBROMOCHLOROMETHANE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
1,1,2-TRICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
TRANS-1,3-DICHLOROPROPENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
2-CHLOROETHYLVINYLETHER	EPA 624	12/29/94	ADR	< 0.01  mg/Kg

1401 Erie Blvd. East Syracuse, NY 13210 Phone 315-478-2374 Fax 315-478-2107

Page 2 of 2

CONTINUATION OF DATA FOR SAMPLE NUMBER 75304

ANALYSIS	METHOD	ANALYSIS DATE T	TIME BY	RESULT UNITS
BROMOFORM	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
1,1,2,2-TETRACHLOROETHANE	EPA 624	12/29/94	ÁDR	< 0.005 mg/Kg
TETRACHLOROETHENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
CHLOROBENZENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
TOTAL DICHLOROBENZENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
BENZENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
TOLUENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
ETHYLBENZENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
TOTAL XYLENES	EPA 624	12/29/94	ADR	< 0.005 mg/Kg

ipproved By Indian

lote: Analysis performed by ELAP #10709.

NYSDOH ELAP #11246

ES does warrant that laboratory or field services completed by its employees were conducted in accordance with the environmental services and analytical industries recognized methods or tandards. CES does not assume any other liabilities other than re-performance of the work if he completed services were determined to be deficient due to the negligence of CES. CES will not accept any liability in whole or in part as a result of data interpretation by the client.

C & S ENGINEERS, INC.

1099 AIRPORT BLVD. NORTH SYRACUSE, NY 13212-

Attn: ANDREW CALDERWOOD

PROJECT NAME: Pass & Seymour

DATE: 01/12/95

SAMPLE NUMBER- 75305 SAMPLE ID- CS-3 (2'-8')

SAMPLE MATRIX- SO

DATE SAMPLED- 12/19/94 LOCATION- Pass & Seymour

DATE RECEIVED- 12/19/94 SAMPLER- Andrew Calderwood

RECEIVED BY- BLD

TIME RECEIVED- 1625 DELIVERED BY- A. Calderwood

TYPE SAMPLE- Grab

ANALYSIS	METHOD	ANALYSIS DATE	TIME BY	DOCUMENT INTERC
· · · · · · · · · · · · · · · · · ·	11011100	DAIM	TIME DI	RESULT UNITS
EPA 624 VOLATILES	EPA 624	12/29/94	ADR	
CHLOROMETHANE	EPA 624	12/29/94	ADR	< 0.01 mg/Kg
BROMOMETHANE	EPA 624	12/29/94	ADR	< 0.01 mg/Kg
VINYL CHLORIDE	EPA 624	12/29/94	ADR	< 0.01 mg/Kg
CHLOROETHANE	EPA 624	12/29/94	ADR	< 0.01 mg/Kg
METHYLENE CHLORIDE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
1,1-DICHLOROETHENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
1,1-DICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
TRANS-1,2-DICHLOROETHENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
CHLOROFORM	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
1,2-DICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
1,1,1-TRICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
CARBON TETRACHLORIDE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
BROMODICHLOROMETHANE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
1,2-DICHLOROPROPANE	EPA 624	12/29/94	ADR	< 0.005 mg/kg
CIS-1,3-DICHLOROPROPENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
TRICHLOROETHENE	EPA 624	12/29/94	ADR	< 0.005  mg/Kg
DIBROMOCHLOROMETHANE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
1,1,2-TRICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
TRANS-1,3-DICHLOROPROPENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
2-CHLOROETHYLVINYLETHER	EPA 624	12/29/94	ADR	<0.01 mg/Kg

1401 Erie Blvd. East Syracuse, NY 13210 Phone 315-478-2374 Fax 315-478-2107

Page 2 of 2

CONTINUATION OF DATA FOR SAMPLE NUMBER 75305

ANALYSIS	METHOD	ANALYSIS DATE TIM	E BY	RESULT UNITS
BROMOFORM	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
1,1,2,2-TETRACHLOROETHANE	EPA 624	12/29/94	ADR	•
TETRACHLOROETHENE	EPA 624	12/29/94	ADR	<del>-</del>
CHLOROBENZENE	EPA 624	12/29/94	ADR	
TOTAL DICHLOROBENZENE	EPA 624	12/29/94	ADR	
BENZENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
TOLUENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
ETHYLBENZENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
TOTAL XYLENES	EPA 624	12/29/94	ADR	71.5

Approved By

Note: Analysis performed by ELAP #10709.

NYSDOH ELAP #11246

CES does warrant that laboratory or field services completed by its employees were conducted in accordance with the environmental services and analytical industries recognized methods or standards. CES does not assume any other liabilities other than re-performance of the work if the completed services were determined to be deficient due to the negligence of CES. CES will not accept any liability in whole or in part as a result of data interpretation by the client.

C & S ENGINEERS, INC. 1099 AIRPORT BLVD.

NORTH SYRACUSE, NY 13212-Attn: ANDREW CALDERWOOD PROJECT NAME: Pass & Seymour

DATE: 01/11/95

SAMPLE NUMBER- 75306 SAMPLE ID- CS-4 (0'-8')

DATE SAMPLED- 12/19/94 LOCATION- Pass & Seymour

DATE RECEIVED- 12/19/94 SAMPLER- Andrew Calderwood

TIME RECEIVED- 1625 DELIVERED BY- A. Calderwood

SAMPLE MATRIX- SO

RECEIVED BY- BLD TYPE SAMPLE- Grab

		ANALYSIS		
ANALYSIS	METHOD	DATE	TIME BY	RESULT UNITS
EPA 624 VOLATILES	EPA 624	12/29/94	ADR	
CHLOROMETHANE	EPA 624	12/29/94	ADR	< 0.1 mg/Kg
BROMOMETHANE	EPA 624	12/29/94	ADR	< 0.1 mg/Kg
VINYL CHLORIDE	EPA 624	12/29/94	ADR	< 0.1  mg/Kg
CHLOROETHANE	EPA 624	12/29/94	ADR	< 0.1  mg/Kg
METHYLENE CHLORIDE	EPA 624	12/29/94	ADR	< 0.05  mg/Kg
1,1-DICHLOROETHENE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
1,1-DICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.05  mg/Kg
TRANS-1, 2-DICHLOROETHENE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
CHLOROFORM	EPA 624	12/29/94	ADR	< 0.05  mg/Kg
1,2-DICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.05  mg/Kg
1,1,1-TRICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
CARBON TETRACHLORIDE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
BROMODICHLOROMETHANE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
1,2-DICHLOROPROPANE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
CIS-1,3-DICHLOROPROPENE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
TRICHLOROETHENE	EPA 624	12/29/94	ADR	4.6 mg/Kg
DIBROMOCHLOROMETHANE	EPA 624	12/29/94	ADR	< 0.05  mg/Kg
1,1,2-TRICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.05  mg/Kg
TRANS-1,3-DICHLOROPROPENE	EPA 624	12/29/94	ADR	< 0.05  mg/Kg
2-CHLOROETHYLVINYLETHER	EPA 624	12/29/94	ADR	< 0.1 mg/Kg

CONTINUATION OF DATA FOR SAMPLE NUMBER 75306

		ANALYSIS		
ANALYSIS	METHOD	DATE TIM	E BY	RESULT UNITS
BROMOFORM	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
1,1,2,2-TETRACHLOROETHANE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
TETRACHLOROETHENE	EPA 624	12/29/94	ADR	7.6 mg/Kg
CHLOROBENZENE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
TOTAL DICHLOROBENZENE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
BENZENE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
TOLUENE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
ETHYLBENZENE	EPA 624	12/29/94	ADR	< 0.05 mg/Kg
TOTAL XYLENES	EPA 624	12/29/94	ADR	< 0.05 mg/Kg

Approved By

Note: Analysis performed by ELAP #10709.

NYSDOH ELAP #11246

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C & S ENGINEERS, INC.

PROJECT NAME: Pass & Seymour

1099 AIRPORT BLVD.

DATE: 01/12/95

NORTH SYRACUSE, NY 13212-Attn: ANDREW CALDERWOOD

SAMPLE NUMBER- 75307 SAMPLE ID- CS-5 (4*-8*)

SAMPLE MATRIX- SO

DATE SAMPLED- 12/19/94 LOCATION- Pass & Seymour

RECEIVED BY- BLD

DATE RECEIVED- 12/19/94 SAMPLER- Andrew Calderwood

TIME RECEIVED- 1625 DELIVERED BY- A. Calderwood

TYPE SAMPLE- Grab

		ANALYSIS		
ANALYSIS	METHOD	DATE T	IME BY	RESULT UNITS
EPA 624 VOLATILES	EPA 624	12/29/94	ADR	
CHLOROMETHANE	EPA 624	12/29/94	ADR	< 0.01 mg/Kg
BROMOMETHANE	EPA 624	12/29/94	ADR	< 0.01 mg/Kg
VINYL CHLORIDE	EPA 624	12/29/94	ADR	< 0.01 mg/Kg
CHLOROETHANE	EPA 624	12/29/94	ADR	< 0.01 mg/Kg
METHYLENE CHLORIDE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
1,1-DICHLOROETHENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
1,1-DICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
TRANS-1,2-DICHLOROETHENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
CHLOROFORM	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
1,2-DICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
1,1,1-TRICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
CARBON TETRACHLORIDE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
BROMODICHLOROMETHANE	EPA 624	12/29/94	ADR	< 0.005  mg/Kg
1,2~DICHLOROPROPANE	EPA 624	12/29/94	ADR	< 0.005 mg/kg
CIS-1,3-DICHLOROPROPENE	EPA 624	12/29/94	ADR	< 0.005  mg/Kg
TRICHLOROETHENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
DIBROMOCHLOROMETHANE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
1,1,2-TRICHLOROETHANE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
TRANS-1,3-DICHLOROPROPENE	EPA 624	12/29/94	ADR	< 0.005  mg/Kg
2-CHLOROETHYLVINYLETHER	EPA 624	12/29/94	ADR	< 0.01  mg/Kg

CONTINUATION OF DATA FOR SAMPLE NUMBER 75307

ÄNÄLYSIS	METHOD	ANALYSIS DATE	TIME BY	RESULT UNITS
BROMOFORM	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
1,1,2,2-TETRACHLOROETHANE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
TETRACHLOROETHENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
CHLOROBENZENE	<b>EPA</b> 624	12/29/94	ADR	< 0.005 mg/Kg
TOTAL DICHLOROBENZENE	EPA 624	12/29/94	ADR	< 0.005  mg/Kg
BENZENE	EPA 624	12/29/94	ADR	< 0.005 mg/Kg
TOLUENE	EPA 624	12/29/94	ADR	< 0.005  mg/Kg
ETHYLBENZENE	EPA 624	12/29/94	ADR	< 0.005  mg/Kg
TOTAL XYLENES	EPA 624	12/29/94	ADR	< 0.005  mg/Kg

Approved By

Note: Analysis performed by ELAP #10709.

NYSDOH ELAP #11246

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C & S ENGINEERS, INC. 1099 AIRPORT BLVD.

NORTH SYRACUSE, NY 13212-Attn: ANDREW CALDERWOOD

DATE: 01/12/95

SAMPLE NUMBER- 75308 SAMPLE ID- D-Boring Comp.

DATE SAMPLED- 12/19/94 LOCATION- Pass & Seymour DATE RECEIVED- 12/19/94 SAMPLER- Andrew Calderwood TIME RECEIVED- 1625 DELIVERED BY- A. Calderwood SAMPLE MATRIX- SO

RECEIVED BY- BLD TYPE SAMPLE- Composite

ANALYSIS	METHOD	SAMPLE P		ANALYSIS DATE	TİME	ВУ	RESULT	UNITS
CYANIDE REACTIVITY FLASHPOINT PH IN WATER SULFIDE REACTIVITY ARSENIC TOTAL (AS) BARIUM, TOTAL (BA) CADMIUM, TOTAL (CD) CHROMIUM, TOTAL (CR) LEAD, TOTAL (PB) MERCURY, TOTAL (HG) SELENIUM, TOTAL (SE) SILVER, TOTAL (AG) PCB'S IN SEDIMENT AROCLOR 1221	SW846 9010 SW846 1010 EPA 150.1 SW846 9030 EPA 206.2 EPA 208.1 EPA 213.1 EPA 218.1 EPA 239.1 EPA 245.1 EPA 270.2 EPA 272.1 EPA 8080	12/23/94 12/23/94 12/23/94 12/23/94 12/23/94 12/23/94 12/23/94 12/23/94	ADR EFP EFP EFP EFP EFP	01/06/95 12/21/94 12/21/94 01/10/95 01/11/95 01/09/95 01/10/95 01/10/95 01/09/95 12/28/94 01/06/95	1400 1145 1000 1100 1500 1615 1700 0810	ADR BJC ADR EFP EFP EFP EFP	<pre></pre>	mg/Kg Degrees C std units mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg
AROCLOR 1232	EPA 8080	12/27/94	KSA	01/03/95		KMS	< 0.5 n	ng/Kg
1 TO 00 TO 1 TO 1 TO 1 TO 1 TO 1 TO 1 TO	EPA 8080	12/27/94	KSA	01/03/95 01/03/95		KMS KMS	< 0.5 n	ng/Kg
AROCLOR 1254	EPA 8080	12/27/94	KSA	01/03/95		KMS	< 0.5 π	ng/Kg
NYSDOH 310-13 TPH	DOH 310-13 : EPA 624	12/27/94	KSA .	01/03/95 12/23/94 12/29/94		KMS KMS ADR	< 0.5 m Positive	ng:/Kg

CONTINUATION OF DATA FOR SAMPLE NUMBER 75308

ANALYSIS	METHOD	SAMPLE PREP DATE BY	ANALYSIS DATE	TIME BY	RESULT UNITS
CHLOROMETHANE	EPA 624		12/29/94	ADR:	4 0 1 mm/m
BROMOMETHANE	EPA 624		12/29/94	ADR.	
VINYL CHLORIDE	EPA 624		12/29/94	ADR.	< 0.1 mg/Kg
CHLOROETHANE	EPA 624		12/29/94	ADR	< 0.1 mg/Kg
METHYLENE CHLORIDE	EPA 624		12/29/94		< 0.1 mg/Kg
1,1-DICHLOROETHENE	EPA 624		12/29/94	ADR ADR	< 0.05 mg/Kg
1,1-DICHLOROETHANE	EPA 624		12/29/94	ADR ADR	< 0.05 mg/Kg
TRANS-1,2-DICHLOROETHENE	EPA 624		12/29/94	ADR	< 0.05 mg/Kg
CHLOROFORM	EPA 624		12/29/94	ADR	< 0.05 mg/Kg < 0.05 mg/Kg
1,2-DICHLOROETHANE	EPA 624		12/29/94	ADR	< 0.05 mg/kg
1,1,1-TRICHLOROETHANE	EPA 624		12/29/94	ADR	< 0.05 mg/kg
CARBON TETRACHLORIDE	EPA 624		12/29/94	ADR	< 0.05 mg/kg
BROMODICHLOROMETHANE	EPA 624		12/29/94	ADR	< 0.05 mg/kg
1,2-DICHLOROPROPANE	EPA 624		12/29/94	ADR	< 0.05 mg/Kg
CIS-1,3-DICHLOROPROPENE	EPA 624		12/29/94	ADR	< 0.05 mg/Kg
TRICHLOROETHENE	EPA 624		12/29/94	ADR	1.3 mg/Kg
DIBROMOCHLOROMETHANE	EPA 624		12/29/94	ADR	< 0.05 mg/Kg
1,1,2-TRICHLOROETHANE	EPA 624		12/29/94	ADR	< 0.05 mg/Kg
TRANS-1, 3-DICHLOROPROPENE	EPA 624		12/29/94	ADR	< 0.05 mg/Kg
2-CHLOROETHYLVINYLETHER	EPA 624		12/29/94	ADR	< 0.1 mg/Kg
BROMOFORM	EPA 624		12/29/94	ADR	< 0.05 mg/Kg
1,1,2,2-TETRACHLOROETHANE	EPA 624		12/29/94	ADR	< 0.05 mg/Kg
TETRACHLOROETHENE	EPA 624		12/29/94	ADR	< 0.05 mg/Kg
CHLOROBENZENE	EPA 624		12/29/94	ADR	< 0.05 mg/Kg
TOTAL DICHLOROBENZENE	EPA 624		12/29/94	ADR	< 0.05 mg/Kg
BENZENE	EPA 624		12/29/94	ADR	< 0.05 mg/Kg
TOLUENE	EPA 624		12/29/94	ADR	< 0.05 mg/Kg
ETHYLBENZENE	EPA 624		12/29/94	ADR	< 0.05 mg/Kg
TOTAL XYLENES	EPA 624		12/29/94	ADR	< 0.05 mg/Kg

ote: EPA 624, Cyanide and Sulfide Reactivity analysis performed by ELAP #10709.

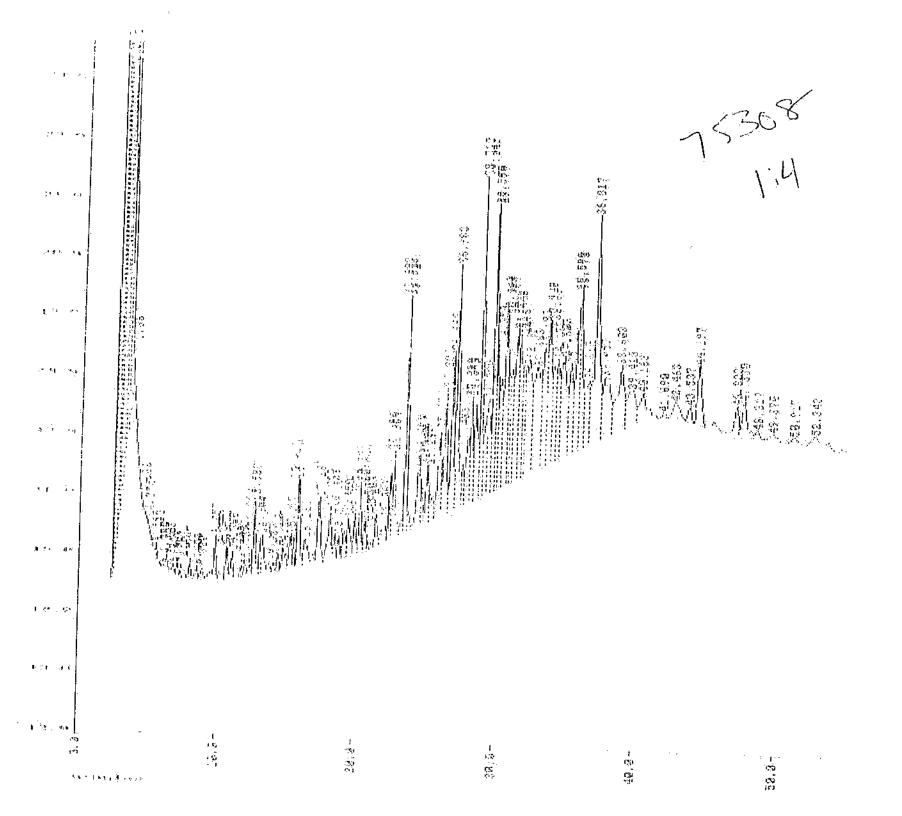
PH - Contaminant identified as Motor Oil, concentration ~7.00ppm.

Please be advised this method is specifically related to the subjective interpretation of the analyst.

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.YSDOH ELAP #11246

APPROVED BY:



(a) (b) (c)

C & S ENGINEERS, INC. 1099 AIRPORT BLVD.

NORTH SYRACUSE, NY 13212-

Attn: ANDREW CALDERWOOD

PROJECT NAME: Pass & Seymour

DATE: 01/11/95

SAMPLE NUMBER- 75309 SAMPLE ID- D-Fill

DATE SAMPLED- 12/19/94 LOCATION- Pass & Seymour

DATE RECEIVED- 12/19/94 SAMPLER- Andrew Calderwood

TIME RECEIVED- 1625 DELIVERED BY- A. Calderwood

SAMPLE MATRIX- SO

RECEIVED BY- BLD TYPE SAMPLE- Grab

(m. ma. = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 =		ANALYSIS		
ANALYSIS	METHOD	DATE	TIME BY	RESULT UNITS
EPA 8270 BASE NEUTRALS	EPA 8270	01/04/94	ADR	
ACENAPHTHENE	EPA 8270	01/04/94	ADR	670 0-12-
ACENAPHTHYLENE	EPA 8270	01/04/94		630 ug/Kg
ANTHRACENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
BENZO (A) ANTHRACENE	EPA 8270		ADR	1300 ug/Kg
BENZO (B) FLUORANTHENE		01/04/94	ADR	1900 ид/Кд
	EPA 8270	01/04/94	ADR	1000 ug/Kg
BENZO(K) FLUORANTHENE	EPA 8270	01/04/94	ADR	1200 ug/Kg
BENZO(G, H, I) PERYLENE	EPA 8270	01/04/94	ÀDR	790 ug/Kg
BENZO(A) PYRENE	EPA 8270	01/04/94	ADR	1200 ug/Kg
BENZIDINE	EPA 8270	01/04/94	ADR	< 1300 ug/Kg
BUTYL BENZYL PHTHALATE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
BIS(2-CHLOROETHOXY)METHANE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
BIS(2-CHLOROETHYL)ETHER	EPA 8270	01/04/94	ADR	< 160 ug/Kg
BIS(2-CHLOROISOPROPYL)ETHER	EPA 8270	01/04/94	ADR	< 160 ug/Kg
BIS (S-ETHYLHEXYL) PHTHALATE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
BROMOPHENYLPHENYL ETHER	EPA 8270	01/04/94	ADR	< 160 ug/Kg
2-CHLORONAPHTHALENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
CHLOROPHENYLPHENYL ETHER	EPA 8270	01/04/94	ADR	< 160 ug/Kg
CHRYSENE	EPA 8270	01/04/94		
DIBENZO(A, H) ANTHRACENE	EPA 8270		ADR	1800 ug/Kg
DI-N-BUTYL PHTHALATE		01/04/94	ADR	430 ug/Kg
	EPA 8270	01/04/94	ADR	< 160 ug/Kg

CONTINUATION OF DATA FOR SAMPLE NUMBER 75309

		ANALYSIS		
ANALYSIS	METHOD.	DATE	TIME BY	RESULT UNITS
1,2-DICHLOROBENZENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
1,3-DICHLOROBENZENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
1,4-DICHLOROBENZENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
3,3'-DICHLOROBENZIDINE	EPA 8270	01/04/94	ADR	< 330 ug/Kg
DIETHYL PHTHALATE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
DIMETHYL PHTHALATE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
2,4-DINITROTOLUENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
2,6-DINITROTOLUENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
DI-N-OCTYL PHTHALATE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
FLUORANTHENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
FLUORENE	EPA 8270	01/04/94	ADR	590 ug/Kg
HEXACHLOROBENZENE	EPA 8270	01/04/94	ADR	< 150 ug/Kg
HEXACHLOROBUTADIENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
HEXACHLOROCYCLOPENTADIENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
HEXACHLOROETHANE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
INDENO(1,2,3-CD)PYRENE	EPA 8270	01/04/94	ADR	760 ug/Kg
ISOPHORONE	EPA 8270	01/04/94	ADR	< 150 ug/Kg
NAPHTHALENE	EPA 8270	01/04/94	ADR	330 ug/Kg
NITROBENZENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
N-NITROSODI-N-PROPYLAMINE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
N-NITROSODIPHENYLAMINE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
N-NITROSODIMETHYLAMINE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
1,2-DIPHENYLHYDRAZINE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
PHENANTHRENE	EPA 8270	01/04/94	ADR	4900 ug/Kg
PYRENE	EPA 8270	01/04/94	ADR	3400 ug/Kg
1,2,4-TRICHLOROBENZENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg

Note: EPA 8270 analysis performed by ELAP #10709.

TES does warrant that laboratory or field services completed by its employees were conducted in scordance with the environmental services and analytical industries recognized methods or tandards. CES does not assume any other liabilities other than re-performance of the work if the completed services were determined to be deficient due to the negligence of CES. CES will not accept any liability in whole or in part as a result of data interpretation by the client.

_YSDOH ELAP #11246

APPROVED BY:

C & S ENGINEERS, INC. 1099 AIRPORT BLVD.

NORTH SYRACUSE, NY 13212-

Attn: ANDREW CALDERWOOD

PROJECT NAME: Pass & Seymour

DATE: 01/11/95

SAMPLE NUMBER- 75310 SAMPLE ID- D-Native DATE SAMPLED- 12/19/94 LOCATION- Pass & Seymour DATE RECEIVED- 12/19/94 SAMPLER- Andrew Calderwood TIME RECEIVED- 1625 DELIVERED BY- A. Calderwood

SAMPLE MATRIX- SO

RECEIVED BY- BLD TYPE SAMPLE- Grab

		ANALYSIS		
ANALYSIS	METHOD	DATE	TIME BY	RESULT UNITS
EPA 8270 BASE NEUTRALS	EPA 8270	01/04/94	ADR	
ACENAPHTHENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
ACENAPHTHYLENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
ANTHRACENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
BENZO(A)ANTHRACENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
BENZO(B) FLUORANTHENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
BENZO(K) FLUORANTHENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
BENZO(G,H,I)PERYLENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
BENZO(A)PYRENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
BENZIDINE	EPA 8270	01/04/94	ADR	< 1300 ug/Kg
BUTYL BENZYL PHTHALATE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
BIS(2-CHLOROETHOXY)METHANE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
BIS(2-CHLOROETHYL)ETHER	EPA 8270	01/04/94	ADR	< 160 ug/Kg
BIS(2-CHLOROISOPROPYL)ETHER	EPA 8270	01/04/94	ADR	< 160 ug/Kg
BIS (S-ETHYLHEXYL) PHTHALATE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
BROMOPHENYLPHENYL ETHER	EPA 8270	01/04/94	ADR	< 160 ug/Kg
2-CHLORONAPHTHALENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
CHLOROPHENYLPHENYL ETHER	EPA 8270	01/04/94	ADR	< 160 ug/Kg
CHRYSENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
DIBENZO(A, H) ANTHRACENE	EPA 8270	01/04/94	ADR.	< 160 ug/Kg
DI-N-BUTYL PHTHALATE	EPA 8270	01/04/94	ADR	< 160 ug/Kg

CONTINUATION OF DATA FOR SAMPLE NUMBER 75310

ANALYSIS	METHOD	ANALYSIS DATE	TIME BY	RESULT UNITS
1,2-DICHLOROBENZENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
1,3-DICHLOROBENZENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
1,4-DICHLOROBENZENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
3,3'-DICHLOROBENZIDINE	EPA 8270	01/04/94	ADR .	< 330 ug/Kg
DIETHYL PHTHALATE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
DINETHYL PHTHALATE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
2,4-DINITROTOLUENE	EPA 8270	01/04/94	ÀDR	< 160 ug/Kg
2,6-DINITROTOLUENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
DI-N-OCTYL PHTHALATE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
FLUORANTHENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
FLUORENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
HEXACHLOROBENZENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
HEXACHLOROBUTADIENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
HEXACHLOROCYCLOPENTADIENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
HEXACHLOROETHANE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
INDENO(1,2,3-CD)PYRENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
ISOPHORONE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
NAPHTHALENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
NITROBENZENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
N-NITROSODI-N-PROPYLAMINE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
N-NITROSODIPHENYLAMINE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
N-NITROSODIMETHYLAMINE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
1,2-DIPHENYLHYDRAZINE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
PHENANTHRENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
PYRENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg
1,2,4-TRICHLOROBENZENE	EPA 8270	01/04/94	ADR	< 160 ug/Kg

Note: EPA 8270 analysis performed by ELAP #10709.

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NYSDOH ELAP #11246

APPROVED BY: Jackou & Com

C & S ENGINEERS, INC. 1099 AIRPORT BLVD. NORTH SYRACUSE, NY 13212-Attn: MR. JOHN KANOZA

PROJECT NAME: Pass & Seymour

DATE: 01/16/95

SAMPLE NUMBER- 76529 SAMPLE ID- CS-1 (0-2)

DATE SAMPLED- 01/12/95 DATE RECEIVED- 01/12/95 SAMPLER- Drew Calderwood

TIME RECEIVED- 1520 DELIVERED BY- Drew Calderwood

SAMPLE MATRIX- SO TIME SAMPLED- 1500 RECEIVED BY- BLD TYPE SAMPLE- Grab

		ANALYSIS		
ANALYSIS	METHOD	DATE	TIME BY	RESULT UNITS
EPA 8010 SCAN	EPA 8010	01/13/95	BLD	
DICHLORODIFLUOROMETHANE	EPA 8010	01/13/95	BLD	<1.0 mg/Kg
CHLOROMETHANE	EPA 8010	01/13/95	BLD	<1.0 mg/Kg
VINYL CHLORIDE	EPA 8010	01/13/95	BLD	<1.0 mg/Kg
BROMOMETHANE	EPA 8010	01/13/95	BLD	<1.0 mg/Kg
CHLOROETHANE	EPA 8010	01/13/95	BLD	<1.0 mg/Kg
TRICHLOROFLUOROMETHANE	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
1,1-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
METHYLENE CHLORIDE	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
TRANS-1,2-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
1,1-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
CHLOROFORM	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
1,1,1-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
CARBON TETRACHLORIDE	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
1,2-DICHLOROETHANE	EPA 8010	01/13/95	BLD	< 0.5 mg/Kg
TRICHLOROETHENE	EPA 8010	01/13/95	BLD	15 mg/Kg
1,2-DICHLOROPROPANE	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
BROMODICHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
CIS-1,3-DICHLOROPROPENE	EPA 8010	01/13/95	BĻD	<0.5 mg/Kg
TRANS-1, 3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
2-CHLOROETHYLVINYL ETHER	EPA 8010	01/13/95	BLD	<1.0 mg/Kg

CONTINUATION OF DATA FOR SAMPLE NUMBER 76529

ANALYSIS	METHOD	ANALYSIS DATE	TIME BY	RESULT UNITS
1,1,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
TETRACHLOROETHENE	EPA 8010	01/13/95	BLD	9.5 mg/Kg
DIBROMOCHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
CHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
BROMOFORM	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
1,1,2,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
1,3-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
1,4-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
1,2-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.5 mg/Kg
EPA 8020 SCAN	EPA 8020	01/13/95	BLD	
BENZENE	EPA 8020	01/13/95	BLD	<0.5 mg/Kg
TOLUENE	EPA 8020	01/13/95	BLD	<0.5 mg/Kg
ETHYLBENZENE	EPA 8020	01/13/95	BLD	<0.5 mg/Kg
TOTAL XYLENES	EPA 8020	01/13/95	BLD	<0.5 mg/Kg

Approved By Daiban And

NYSDOH ELAP #11246

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C & S ENGINEERS, INC. 1099 AIRPORT BLVD. NORTH SYRACUSE, NY 13212-Attn: MR. JOHN KANOZA

PROJECT NAME: Pass & Seymour

DATE: 01/16/95

SAMPLE NUMBER- 76530 SAMPLE ID- CS-1 (4-6) DATE SAMPLED- 01/12/95

SAMPLE MATRIX- SO TIME SAMPLED- 1500 RECEIVED BY- BLD

DATE RECEIVED- 01/12/95 SAMPLER- Drew Calderwood

TIME RECEIVED- 1520 DELIVERED BY- Drew Calderwood TYPE SAMPLE- Grab

		ANALYSIS			
ANALYSIS	METHOD	DATE	TIME BY	RESULT U	NITS
EPA 8010 SCAN	EPA 8010		BLD		
DICHLORODIFLUOROMETHANE	EPA 8010	01/13/95	BLD	<0.1 m	g/Kg
CHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.1 mg	g/Kg
VINYL CHLORIDE	EPA 8010	01/13/95	BLD	<0.1 mg	g/Kg
BROMOMETHANE	EPA 8010	01/13/95	BLD	<0.1 mg	g/Kg
CHLOROETHANE	EPA 8010	01/13/95	BLD	<0.1 mg	g/Kg
TRICHLOROFLUOROMETHANE	EPA 8010	01/13/95	BLD	<0.05 m	g/Kg
1,1-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<0.05 mg	g/Kg
METHYLENE CHLORIDE	EPA 8010	01/13/95	BLD	<0.05 mg	g/Kg
TRANS-1,2-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<0.05 mg	g/Kg
1,1-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.05 mg	g/Kg
CHLOROFORM	EPA 8010	01/13/95	BLD	<0.05 mg	J/Kg
1,1,1-TRICHLOROETHANE	EPA 8010	01/13/95	BĻD	<0.05 mg	J/Kg
CARBON TETRACHLORIDE	EPA 8010	01/13/95	BLD	<0.05 mg	J/Kg
1,2-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.05 mg	g/Kg
TRICHLOROETHENE	EPA 8010	01/13/95	BLD	<0.05 mg	J/Kg
1,2-DICHLOROPROPANE	EPA 8010	01/13/95	BLD	<0.05 mg	j/Kg
BROMODICHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.05 mg	J/Kg
CIS-1,3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<0.05 mg	r/Kg
TRANS-1,3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<0.05 mg	J/Kg
2-CHLOROETHYLVINYL ETHER	EPA 8010	01/13/95	BLD	<0.1 mg	J/Kg

CONTINUATION OF DATA FOR SAMPLE NUMBER 76530

		ANALYSIS		
ANALYSIS	METHOD	DATE	TIME BY	RESULT UNITS
1,1,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
TETRACHLOROETHENE	EPA 8010	01/13/95	BLD	0.09 mg/Kg
DIBROMOCHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
CHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
BROMOFORM	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,1,2,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	< 0.05  mg/Kg
1,3-DICHLOROBENZENE	EPA 8010	01/13/95	'BLD	< 0.05  mg/Kg
1,4-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,2-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	< 0.05  mg/Kg
EPA 8020 SCAN	EPA 8020	01/13/95	BLD	
BENZENE	EPA 8020	01/13/95	BLD	<0.05 mg/Kg
TOLUENE	EPA 8020	01/13/95	BLD	<0.05 mg/Kg
ETHYLBENZENE	EPA 8020	01/13/95	BLD	<0.05 mg/Kg
TOTAL XYLENES	EPA 8020	01/13/95	BLD	< 0.05  mg/Kg

Approved By

NYSDOH ELAP #11246

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C & S ENGINEERS, INC.

1099 AIRPORT BLVD.

NORTH SYRACUSE, NY 13212-

Attn: MR. JOHN KANOZA

PROJECT NAME: Pass & Seymour

DATE: 01/16/95

SAMPLE NUMBER- 76531 SAMPLE ID- CS-1 (6-8)

DATE SAMPLED- 01/12/95

DATE RECEIVED- 01/12/95 SAMPLER- Drew Calderwood

SAMPLE MATRIX- SO TIME SAMPLED- 1500

RECEIVED BY- BLD TYPE SAMPLE- Grab

TIME RECEIVED- 1520 DELIVERED BY- Drew Calderwood

ANALYSIS	METHOD	ANALYSIS DATE	TIME BY	RESULT UNITS
EPA 8010 SCAN	EPA 8010	01/13/95	BLD	
DICHLORODIFLUOROMETHANE	EPA 8010	01/13/95	BLD	<0.1 mg/Kg
CHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.1 mg/Kg
VINYL CHLORIDE	EPA 8010	01/13/95	BLD	<0.1 mg/Kg
BROMOMETHANE	EPA 8010	01/13/95	BLD	<0.1 mg/Kg
CHLOROETHANE	EPA 8010	01/13/95	BLD	<0.1 mg/Kg
TRICHLOROFLUOROMETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,1-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
METHYLENE CHLORIDE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
TRANS-1,2-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,1-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
CHLOROFORM	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,1,1-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
CARBON TETRACHLORIDE	EPA 8010	01/13/95	BLD	
1,2-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
TRICHLOROETHENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,2-DICHLOROPROPANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
BROMODICHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
CIS-1,3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
TRANS-1, 3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
2-CHLOROETHYLVINYL ETHER	EPA 8010	01/13/95	BLD	<0.1 mg/Kg



CONTINUATION OF DATA FOR SAMPLE NUMBER 76531

		ANALYSIS		
ANALYSIS	METHOD	DATE I	TIME BY	RESULT UNITS
1,1,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.05  mg/Kg
TETRACHLOROETHENE	EPA 8010	01/13/95	BLD	0.06 mg/Kg
DIBROMOCHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
CHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
BROMOFORM	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,1,2,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,3-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,4-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,2-DICHLOROBENZENE	EPA 8010	01/13/95	BLD-	<0.05 mg/Kg
EPA 8020 SCAN	EPA 8020	01/13/95	BLD	
BENZENE	EPA 8020	01/13/95	BLD	<0.05 mg/Kg
TOLUENE	EPA 8020	01/13/95	BLD	< 0.05  mg/Kg
ETHYLBENZENE	EPA 8020	01/13/95	BLD	< 0.05  mg/Kg
TOTAL XYLENES	EPA 8020	01/13/95	BLD	< 0.05  mg/Kg

approved By Jankan Z

NYSDOH ELAP #11246

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C & S ENGINEERS, INC.

1099 AIRPORT BLVD.

NORTH SYRACUSE, NY 13212-

Attn: MR. JOHN KANOZA

PROJECT NAME: Pass & Seymour

DATE: 01/16/95

SAMPLE NUMBER- 76532 SAMPLE ID- CS-2 (2-4)

DATE SAMPLED- 01/12/95

DATE RECEIVED- 01/12/95 SAMPLER- Drew Calderwood

TIME RECEIVED- 1520 DELIVERED BY- Drew Calderwood

SAMPLE MATRIX- 50

TIME SAMPLED- 1500 RECEIVED BY- BLD

TYPE SAMPLE- Grab

			ANALYSIS	3			
ANALYSIS	MET	HOD	DATE	TIME	BY	RESULT	UNITS
EPA 8010 SCAN	EPA	8010	01/13/95	<b>5</b> :	BLD		
DICHLORODIFLUOROMETHANE	EPA	8010	01/13/95	i	BLD	<0.1	mg/Kg
CHLOROMETHANE	EPA	8010	01/13/95	5	BLD	<0.1	mg/Kg
VINYL CHLORIDE	EPA	8010	01/13/95	5	BLD	<0.1	mg/Kg
BROMOMETHANE	EPA	8010	01/13/95	<b>;</b>	BLD	<0.1	mg/Kg
CHLOROETHANE	EPA	8010	01/13/95	<b>\$</b>	BLD	<0.1	mg/Kg
TRICHLOROFLUOROMETHANE	EPA	8010	01/13/95	i:	BLD	<0.05	mg/Kg
1,1-DICHLOROETHENE	EPA	8010	01/13/95	i.	BLD	<0.05	mg/Kg
METHYLENE CHLORIDE	EPA	8010	01/13/95	i	BLD	<0.05	mg/Kg
TRANS-1,2-DICHLOROETHENE	EPA	8010	01/13/95	;	BLD	<0.05	mg/Kg
1,1-DICHLOROETHANE	EPA	8010	01/13/95		BLD	<0.05	mg/Kg
CHLOROFORM	EPA	8010	01/13/95	i	BLD	<0.05	mg/Kg
1,1,1-TRICHLOROETHANE	EPA	8010	01/13/95	i	BLD	<0.05	mg/Kg
CARBON TETRACHLORIDE	EPA	8010	01/13/95	i	BLD	<0.05	mg/Kg
1,2-DICHLOROETHANE	EPA	8010	01/13/95	i	BLD	<0.05	mg/Kg
TRICHLOROETHENE	EPA	8010	01/13/95		BLD		mg/Kg
1,2-DICHLOROPROPANE		8010	01/13/95		BLD	<0.05	
BROMODICHLOROMETHANE	EPA	8010	01/13/95		BLD		mg/Kg
CIS-1,3-DICHLOROPROPENE	EPA	8010	01/13/95		BLD	<0.05	
TRANS-1,3-DICHLOROPROPENE	EPA	8010	01/13/95		BLD	<0.05	
2-CHLOROETHYLVINYL ETHER	EPA	8010	01/13/95		BLD	<0.1	mg/Kg

CONTINUATION OF DATA FOR SAMPLE NUMBER 76532

ANALYSIS	METHOD	ANALYSIS DATE	FIME BY	RESULT UNITS
1,1,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
TETRACHLOROETHENE	EPA 8010	01/13/95	BLD	0.81 mg/Kg
DIBROMOCHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
CHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
BROMOFORM	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,1,2,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,3-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.05  mg/Kg
1,4-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	< 0.05  mg/Kg
1,2-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
EPA 8020 SCAN	EPA 8020	01/13/95	BLD	
BENZENE	EPA 8020	01/13/95	BLD	< 0.05  mg/Kg
TOLUENE	EPA 8020	01/13/95	BLD	<0.05 mg/Kg
ETHYLBENZENE	EPA 8020	01/13/95	BLD	< 0.05  mg/Kg
TOTAL XYLENES	EPA 8020	01/13/95	BLD	<0.05 mg/Kg

Approved By

NYSDOH ELAP #11246

DES does warrant that laboratory or field services completed by its employees were conducted in accordance with the environmental services and analytical industries recognized methods or standards. CES does not assume any other liabilities other than re-performance of the work if the completed services were determined to be deficient due to the negligence of CES. CES will not accept any liability in whole or in part as a result of data interpretation by the client.

C & S ENGINEERS, INC.

1099 AIRPORT BLVD. NORTH SYRACUSE, NY 13212-

Attn: MR. JOHN KANOZA

PROJECT NAME: Pass & Seymour

DATE: 01/16/95

SAMPLE NUMBER- 76533 SAMPLE ID- CS-2 (6-8)

DATE SAMPLED- 01/12/95

DATE RECEIVED- 01/12/95 SAMPLER- Drew Calderwood

TIME RECEIVED- 1520 DELIVERED BY- Drew Calderwood

SAMPLE MATRIX- SO TIME SAMPLED- 1500

RECEIVED BY- BLD

TYPE SAMPLE- Grab

		ANALYSIS		
ANALYSIS	METHOD	DATE	TIME BY	RESULT UNITS
EPA 8010 SCAN				
	EPA 8010	01/13/95	BLD	
DICHLORODIFLUOROMETHANE	EPA 8010	01/13/95	BLD	<0.01 mg/Kg
CHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.01 mg/Kg
VINYL CHLORIDE	EPA 8010	01/13/95	BLD	<0.01 mg/Kg
BROMOMETHANE	EPA 8010	01/13/95	BLD	<0.01 mg/Kg
CHLOROETHANE	EPA 8010	01/13/95	BLD	<0.01 mg/Kg
TRICHLOROFLUOROMETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,1-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
METHYLENE CHLORIDE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
TRANS-1,2-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,1-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
CHLOROFORM	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,1,1-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
CARBON TETRACHLORIDE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,2-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
TRICHLOROETHENE	EPA 8010	01/13/95	BLD	0.07 mg/Kg
1,2-DICHLOROPROPANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
BROMODICHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
CIS-1,3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	< 0.005  mg/Kg
TRANS-1,3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
2-CHLOROETHYLVINYL ETHER	EPA 8010	01/13/95	BLD	<0.01 mg/Kg

CONTINUATION OF DATA FOR SAMPLE NUMBER 76533

ANALYSIS	METHOD	analyšis Date ti	ME BY	RESULT UNITS
1,1,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
TETRACHLOROETHENE	EPA 8010	01/13/95	BLD	0.19 mg/Kg
DIBROMOCHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
CHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
BROMOFORM	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,1,?,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,3-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,4-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,2-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
EPA 8020 SCAN	EPA 8020	01/13/95	BLD	
BENZENE	EPA 8020	01/13/95	BLD	<0.005 mg/Kg
TOLUENE	EPA 8020	01/13/95	BLD	<0.005 mg/Kg
ETHYLBENZENE	EPA 8020	01/13/95	BLD	<0.005 mg/Kg
TOTAL XYLENES	EPA 8020	01/13/95	BLD	<0.005 mg/Kg

Approved By

JYSDOH ELAP \$11246

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C & S ENGINEERS, INC. 1099 AIRPORT BLVD.

NORTH SYRACUSE, NY 13212-

Attn: MR. JOHN KANOZA

PROJECT NAME: Pass & Seymour

DATE: 01/16/95

SAMPLE NUMBER- 76534 SAMPLE ID- CS-3 (2-4)

DATE SAMPLED- 01/12/95

DATE RECEIVED- 01/12/95 SAMPLER- Drew Calderwood

TIME RECEIVED- 1520

DELIVERED BY- Drew Calderwood

MATAT VOTO

SAMPLE MATRIX- SO

TIME SAMPLED- 1500 RECEIVED BY- BLD

TYPE SAMPLE- Grab

		ANALYSIS		
ANALYSIS	METHOD	DATE	TIME BY	RESULT UNITS
EPA 8010 SCAN	EPA 8010	01/13/95	BLD	
DICHLORODIFLUOROMETHANE	EPA 8010	01/13/95	BLD	<0.1 mg/Kg
CHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.1 mg/Kg
VINYL CHLORIDE	EPA 8010	01/13/95	BLD	<0.1 mg/Kg
BROMOMETHANE	EPA 8010	01/13/95	BLD	<0.1 mg/Kg
CHLOROETHANE	EPA 8010	01/13/95	BLD	<0.1 mg/Kg
TRICHLOROFLUOROMETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,1-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
METHYLENE CHLORIDE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
TRANS-1,2-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,1-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
CHLOROFORM	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,1,1-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
CARBON TETRACHLORIDE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,2-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
TRICHLOROETHENE	EPA 8010	01/13/95	BLD	0.50 mg/Kg
1,2-DICHLOROPROPANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
BROMODICHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
CIS-1,3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
TRANS-1,3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
2-CHLOROETHYLVINYL ETHER	EPA 8010	01/13/95	BLD	<0.1 mg/Kg

CONTINUATION OF DATA FOR SAMPLE NUMBER 76534

ANALYSIS	METHOD	ANALYSIS DATE TI	ME BY	RESULT UNITS
1,1,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
TETRACHLOROETHENE	EPA 8010	01/13/95	BLD	0.54 mg/Kg
DIBROMOCHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
CHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
BROMOFORM	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,1,2,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,3-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,4-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,2-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
EPA 8020 SCAN	EPA 8020	01/13/95	BLD	•
BENZENE	EPA 8020	01/13/95	BLD	<0.05 mg/Kg
TOLUENE	EPA 8020	01/13/95	BLD	<0.05 mg/Kg
ETHYLBENZENE	EPA 8020	01/13/95	BLD	<0.05 mg/Kg
TOTAL XYLENES	EPA 8020	01/13/95	BLD	<0.05 mg/Kg

Approved By

WYSDOH ELAP #11246

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C & S ENGINEERS, INC.

1099 AIRPORT BLVD.

NORTH SYRACUSE, NY 13212-

Attn: MR. JOHN KANOZA

PROJECT NAME: Pass & Seymour

DATE: 01/16/95

SAMPLE NUMBER- 76535 SAMPLE ID- CS-3 (6-8)

DATE SAMPLED- 01/12/95

DATE RECEIVED- 01/12/95 SAMPLER- Drew Calderwood

SAMPLE MATRIX- SO TIME SAMPLED- 1500

RECEIVED BY- BLD

TIME RECEIVED- 1520 DELIVERED BY- Drew Calderwood

TYPE SAMPLE- Grab

ANALYSIS	METHOD	ANALYSIS DATE	TIME BY	RESULT UNITS
EPA 8010 SCAN	EPA 8010	01/13/95	BLD	
DICHLORODIFLUOROMETHANE	EPA 8010	01/13/95	BLD	<0.01 mg/Kg
CHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.01 mg/Kg
VINYL CHLORIDE	EPA 8010	01/13/95	BLD	<0.01 mg/Kg
BROMOMETHANE	EPA 8010	01/13/95	BLD	<0.01 mg/Kg
CHLOROETHANE	EPA 8010	01/13/95	BLD	<0.01 mg/Kg
TRICHLOROFLUOROMETHANE	EPA 8010.	01/13/95	BLD	<0.005 mg/Kg
1,1-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
METHYLENE CHLORIDE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
TRANS-1,2-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,1-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
CHLOROFORM	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,1,1-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
CARBON TETRACHLORIDE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,2-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
TRICHLOROETHENE	EPA 8010	01/13/95	BLD	0.09 mg/Kg
1,2-DICHLOROPROPANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
BROMODICHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
CIS-1,3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
TRANS-1, 3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
2-CHLOROETHYLVINYL ETHER	EPA 8010	01/13/95	BLD	<0.01 mg/Kg

CONTINUATION OF DATA FOR SAMPLE NUMBER 76535

ANALYSIS	METHOD	ANALYSIS DATE T	IME BY	RESULT UNITS
1,1,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
TETRACHLOROETHENE	EPA 8010	01/13/95	BLD	0.09 mg/Kg
DIBROMOCHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
CHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
BROMOFORM	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,1,2,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,3-dichlorobenzene	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,4-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,2-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
EPA 8020 SCAN	EPA 8020	01/13/95	BLD	
BENZENE	EPA 8020	01/13/95	BLD	<0.005 mg/Kg
TOLUENE	EPA 8020	01/13/95	BLD	<0.005 mg/Kg
ETHYLBENZENE	EPA 8020	01/13/95	BLD	<0.005 mg/Kg
TOTAL XYLENES	EPA 8020	01/13/95	BLD	<0.005 mg/Kg

Approved By

NYSDOH ELAP #11246

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C & S ENGINEERS, INC. 1099 AIRPORT BLVD. NORTH SYRACUSE, NY 13212-Attn: MR. JOHN KANOZA

PROJECT NAME: Pass & Seymour

DATE: 01/16/95

SAMPLE NUMBER- 76536 SAMPLE ID- CS-4 (0-2)

DATE SAMPLED- 01/12/95

SAMPLE MATRIX- SO

DATE RECEIVED- 01/12/95 SAMPLER- Drew Calderwood

TIME SAMPLED- 1500 RECEIVED BY- BLD

TIME RECEIVED- 1520 DELIVERED BY- Drew Calderwood

TYPE SAMPLE- Grab

ANALYSIS	METHOD	ANALYSIS DATE	TIME BY	RESULT UNITS
EPA 8010 SCAN	EPA 8010	01/13/95	BLD	
DICHLORODIFLUOROMETHANE	EPA 8010	01/13/95	BLD	<20 mg/Kg
CHLOROMETHANE	EPA 8010	01/13/95	BLD	<20 mg/Kg
VINYL CHLORIDE	EPA 8010	01/13/95	BLD	<20 mg/Kg
BROMOMETHANE	EPA 8010	01/13/95	BLD	<20 mg/Kg
CHLOROETHANE	EPA 8010	01/13/95	BLD	<20 mg/Kg
TRICHLOROFLUOROMETHANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
1,1-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<10 mg/Kg
METHYLENE CHLORIDE	EPA 8010	01/13/95	BLD	<10 mg/Kg
TRANS-1,2-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<10 mg/Kg
1,1-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
CHLOROFORM	EPA 8010	01/13/95	BLD.	<10 mg/Kg
1,1,1-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
CARBON TETRACHLORIDE	EPA 8010	01/13/95	BLD	<10 mg/Kg
1,2-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
TRICHLOROETHENE	EPA 8010	01/13/95	BLD:	88 mg/Kg
1,2-DICHLOROPROPANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
BROMODICHLOROMETHANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
CIS-1,3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<10 mg/Kg
TRANS-1,3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<10 mg/Kg
2-CHLOROETHYLVINYL ETHER	EPA 8010	01/13/95	BLD	<20 mg/Kg

CONTINUATION OF DATA FOR SAMPLE NUMBER 76536

ANALYSIS.	METHOD	ANALYSIS. DATE TIM	ME BY	RESULT UNITS
1,1,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
TETRACHLOROETHENE	EPA 8010	01/13/95	BLD	78 mg/Kg
DIBROMOCHLOROMETHANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
CHLOROBENZENE	EPA 8010	01/13/95	BLD	<10 mg/Kg
BROMOFORM	EPA 8010	01/13/95	BLD	<10 mg/Kg
1,1,2,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
1,3-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<10 mg/Kg
1,4-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<10 mg/Kg
1,2-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<10 mg/Kg
EPA 8020 SCAN	EPA 8020	01/13/95	BLD	-, -
BENZENE	EPA 8020	01/13/95	BLD	<1.0  mg/Kg
TOLUENE	EPA 8020	01/13/95	BLD	4.3 mg/Kg
ETHYLBENZENE	EPA 8020	01/13/95	BLD	<1.0 mg/Kg
TOTAL XYLENES	EPA 8020	01/13/95	BLD	<1.0 mg/Kg

Approved By

..YSDOH ELAP #11246

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C & S ENGINEERS, INC. 1099 AIRPORT BLVD. NORTH SYRACUSE, NY 13212-Attn: MR. JOHN KANOZA

PROJECT NAME: Pass & Seymour

DATE: 01/16/95

SAMPLE NUMBER- 76537 SAMPLE ID- CS-4 (2-4)

DATE SAMPLED- 01/12/95

DATE RECEIVED- 01/12/95 SAMPLER- Drew Calderwood

TIME RECEIVED- 1520 DELIVERED BY- Drew Calderwood

SAMPLE MATRIX- SO TIME SAMPLED- 1500 RECEIVED BY- BLD

TYPE SAMPLE- Grab

		ANALYSIS		
ANALYSIS	METHOD	DATE	TIME BY	RESULT UNITS
EPA 8010 SCAN	00.0		***	
	EPA 8010	01/13/95	BLD	
DICHLORODIFLUOROMETHANE	EPA 8010	01/13/95	BLD	<20 mg/Kg
CHLOROMETHANE	EPA 8010	01/13/95	BLD	<20 mg/Kg
VINYL CHLORIDE	EPA 8010	01/13/95	BLD	<20 mg/Kg
BROMOMETHANE	EPA 8010	01/13/95	BLD	<20 mg/Kg
CHLOROETHANE	EPA 8010	01/13/95	BLD	<20 mg/Kg
TRICHLOROFLUOROMETHANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
1,1-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<10 mg/Kg
METHYLENE CHLORIDE	EPA 8010	01/13/95	BLD	<10 mg/Kg
TRANS-1,2-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<10 mg/Kg
1,1-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
CHLOROFORM	EPA 8010	01/13/95	BLD	<10 mg/Kg
1,1,1-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
CARBON TETRACHLORIDE	EPA 8010	01/13/95	BLD	<10 mg/Kg
1,2-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
TRICHLOROETHENE	EPA 8010	01/13/95	BLD	77 mg/Kg
1,2-DICHLOROPROPANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
BROMODICHLOROMETHANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
CIS-1,3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<10 mg/Kg
TRANS-1, 3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<10 mg/Kg
2-CHLOROETHYLVINYL ETHER	EPA 8010	01/13/95	BLD	<20 mg/Kg

CONTINUATION OF DATA FOR SAMPLE NUMBER 76537

		ANALYSIS		
ANALYSIS	METHOD	DATE	TIME BY	RESULT UNITS
1,1,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
TETRACHLOROETHENE	EPA 8010	01/13/95	BLD	60 mg/Kg
DIBROMOCHLOROMETHANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
CHLOROBENZENE	EPA 8010	01/13/95	BLD	<10 mg/Kg
BROMOFORM	EPA 8010	01/13/95	BLD	<10 mg/Kg
1,1,2,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<10 mg/Kg
1,3-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<10 mg/Kg
1,4-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<10 mg/Kg
1,2-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<10 mg/Kg
EPA 8020 SCAN	EPA 8020	01/13/95	BLD	
BENZENE	EPA 8020	01/13/95	BLD	<1.0 mg/Kg
TOLUENE	EPA 8020	01/13/95	BLD	<1.0 mg/Kg
ETHYLBENZENE	EPA 8020	01/13/95	BLD	<1.0 mg/Kg
TOTAL XYLENES	EPA 8020	01/13/95	BLD	<1.0 mg/Kg

Approved By Sulan Lukin

NYSDOH ELAP #11246

DES does warrant that laboratory or field services completed by its employees were conducted in accordance with the environmental services and analytical industries recognized methods or standards. CES does not assume any other liabilities other than re-performance of the work if the completed services were determined to be deficient due to the negligence of CES. CES will not accept any liability in whole or in part as a result of data interpretation by the client.

C & S ENGINEERS, INC. 1099 AIRPORT BLVD.

NORTH SYRACUSE, NY 13212-

Attn: MR. JOHN KANOZA

PROJECT NAME: Pass & Seymour

DATE: 01/16/95

SAMPLE NUMBER- 76538 SAMPLE ID- CS-4 (6-8)

DATE SAMPLED- 01/12/95

DATE RECEIVED- 01/12/95 SAMPLER- Drew Calderwood

TIME RECEIVED- 1520 DELIVERED BY- Drew Calderwood

SAMPLE MATRIX- SO TIME SAMPLED- 1500 RECEIVED BY- BLD

TYPE SAMPLE- Grab

ANALYSIS	метног		ANALYSIS DATE	TIME	ву	RESULT	UNITS
EPA 8010 SCAN	EPA 80	010	01/13/95		BLD		
DICHLORODIFLUOROMETHANE	EPA 80		01/13/95		BLD	<0.1	mg/Kg
CHLOROMETHANE	EPA 80	10	01/13/95		BLD		mg/Kg
VINYL CHLORIDE	EPA 80	)IO	01/13/95		BLD		mg/Kg
BROMOMETHANE	EPA 80	10	01/13/95		BLD		mg/Kg
CHLOROETHANE	EPA 80	10	01/13/95		BLD		mg/Kg
TRICHLOROFLUOROMETHANE	EPA 80	10	01/13/95		BLD		mg/Kg
1,1-DICHLOROETHENE	EPA 80	10	01/13/95		BLD		mg/Kg
METHYLENE CHLORIDE	EPA 80	10	01/13/95		BLD		mg/Kg
TRANS-1,2-DICHLOROETHENE	EPA 80		01/13/95		BLD	<0.05	
1,1-DICHLOROETHANE	EPA 80		01/13/95		BLD	<0.05	
CHLOROFORM	EPA 80		01/13/95		BLD	<0.05	
1,1,1-TRICHLOROETHANE	EPA 80		01/13/95		BLD	<0.05	
CARBON TETRACHLORIDE	EPA 80	10 (	01/13/95		BLD	<0.05	
1,2-DICHLOROETHANE	EPA 80		01/13/95		BLD	<0.05	
TRICHLOROETHENE	EPA 80	10 (	01/13/95		BLD	0.74	mg/Kg
1,2-DICHLOROPROPANE	EPA 80		01/13/95		BLD	<005	
BROMODICHLOROMETHANE	EPA 80	10 (	01/13/95		BLD	<0.05	mg/Kg
CIS-1,3-DICHLOROPROPENE	EPA 80	10 (	01/13/95		BLD	<0.05	mg/Kg
TRANS-1, 3-DICHLOROPROPENE	EPA 80	10 (	01/13/95		BLD	<0.05	
2-CHLOROETHYLVINYL ETHER	EPA 80	10 (	01/13/95	:	BLD		mg/Kg

CONTINUATION OF DATA FOR SAMPLE NUMBER 76538

ANALYSIS	METHOD	ANALYSIS DATE TIM	E BY	RESULT UNITS
1,1,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
TETRACHLOROETHENE	EPA 8010	01/13/95	BLD	0.88 mg/Kg
DIBROMOCHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
CHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
BROMOFORM	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,1,2,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,3-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,4-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
1,2-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.05 mg/Kg
EPA 8020 SCAN	EPA 8020	01/13/95	BLD	
BENZENE	EPA 8020	01/13/95	BLD	<0.05 mg/Kg
TOLUENE	EPA 8020	01/13/95	BLD	<0.05 mg/Kg
ETHYLBENZENE	EPA 8020	01/13/95	BLD	<0.05 mg/Kg
TOTAL XYLENES	EPA 8020	01/13/95	BLD	<0.05 mg/Kg

Approved By

MYSDOH ELAP #11246

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C & S ENGINEERS, INC. 1099 AIRPORT BLVD.

NORTH SYRACUSE, NY 13212-

Attn: MR. JOHN KANOZA

PROJECT NAME: Pass & Seymour

DATE: 01/16/95

SAMPLE NUMBER- 76539 SAMPLE ID- CS-5 (4-6) SAMPLE MATRIX- SO
DATE SAMPLED- 01/12/95 TIME SAMPLED- 1500
DATE RECEIVED- 01/12/95 SAMPLER- Drew Calderwood RECEIVED BY- BLD
TIME RECEIVED- 1520 DELIVERED BY- Drew Calderwood TYPE SAMPLE- Grab

		ANALYSIS		
ANALYSIS	METHOD	DATE	TIME BY	RESULT UNITS
EPA 8010 SCAN	EPA 8010	01/13/95	BLD	
DICHLORODIFLUOROMETHANE	EPA 8010	01/13/95	BLD	<0.01 mg/Kg
CHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.01 mg/Kg
VINYL CHLORIDE	EPA 8010	01/13/95	BLD	< 0.01  mg/Kg
BROMOMETHANE	EPA 8010	01/13/95	BLD	<0.01 mg/Kg
CHLOROETHANE	EPA 8010	01/13/95	BLD	<0.01 mg/Kg
TRICHLOROFLUOROMETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,1-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
METHYLENE CHLORIDE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
TRANS-1,2-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,1-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
CHLOROFORM	EPA 8010	01/13/95	BĻD	<0.005 mg/Kg
1,1,1-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	< 0.005  mg/Kg
CARBON TETRACHLORIDE	EPA 8010	01/13/95	BLD	< 0.005  mg/Kg
1,2-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
TRICHLOROETHENE	EPA 8010	01/13/95	BLD	0.19 mg/Kg
1,2-DICHLOROPROPANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
BROMODICHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
CIS-1,3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
TRANS-1,3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
2-CHLOROETHYLVINYL ETHER	EPA 8010	01/13/95	BLD	<0.01 mg/Kg

CONTINUATION OF DATA FOR SAMPLE NUMBER 76539

ANALÝSIS	METHOD	ANALYSIS DATE TIM	Æ BY	RESULT UNITS
1,1,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
TETRACHLOROETHENE	EPA 8010	01/13/95	BLD	0.01 mg/Kg
DIBROMOCHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
CHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
BROMOFORM	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,1,2,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,3-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,4-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,2-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
EPA 8020 SCAN	EPA 8020	01/13/95	BLD	
BENZENE	EPA 8020	01/13/95	BLD	<0.005 mg/Kg
TOLUENE	EPA 8020	01/13/95	BLD	<0.005 mg/Kg
ETHYLBENZENE	EPA 8020	01/13/95	BLD	<0.005 mg/Kg
TOTAL XYLENES	EPA 8020	01/13/95	BLD	<0.005 mg/Kg

Approved By

.IYSDOH ELAP #11246

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C & S ENGINEERS, INC.

1099 AIRPORT BLVD.

NORTH SYRACUSE, NY 13212-

Attn: MR. JOHN KANOZA

PROJECT NAME: Pass & Seymour

DATE: 01/16/95

SAMPLE NUMBER-76540 SAMPLE ID- CS-5 (6-8)

DATE SAMPLED- 01/12/95

DATE RECEIVED- 01/12/95 SAMPLER- Drew Calderwood

TIME RECEIVED- 1520 DELIVERED BY- Drew Calderwood

SAMPLE MATRIX- SO

TIME SAMPLED- 1500

RECEIVED BY- BLD

TYPE SAMPLE- Grab

ANALYSIS	METHOD	ANALYSIS DATE	TIME BY	RESULT UNITS
EPA 8010 SCAN	EPA 8010	01/13/95	BLD	
DICHLORODIFLUOROMETHANE	EPA 8010	01/13/95	BLD	<0.01 mg/Kg
CHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.01 mg/Kg
VINYL CHLORIDE	EPA 8010	01/13/95	BLD	<0.01  mg/Kg
BROMOMETHANE	EPA 8010	01/13/95	BĻD	< 0.01  mg/Kg
CHLOROETHANE	EPA 8010	01/13/95	BLD	< 0.01  mg/Kg
TRICHLOROFLUOROMETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,1-DICHLOROETHENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
METHYLENE CHLORIDE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
TRANS-1,2-DICHLOROETHENE	EPA 8010	01/13/95	BLD	< 0.005  mg/Kg
1,1-DICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
CHLOROFORM	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,1,1-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
CARBON TETRACHLORIDE	EPA 8010	01/13/95	BLD	< 0.005  mg/Kg
1,2-DICHLOROETHANE	EPA 8010	01/13/95	BLD	< 0.005  mg/Kg
TRICHLOROETHENE	EPA 8010	01/13/95	BLD	< 0.005  mg/Kg
1,2-DICHLOROPROPANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
BROMODICHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
CIS-1,3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
TRANS-1,3-DICHLOROPROPENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
2-CHLOROETHYLVINYL ETHER	EPA 8010	01/13/95	BLD	<0.01 mg/Kg

CONTINUATION OF DATA FOR SAMPLE NUMBER 76540

ANALYSIS	METHOD	ANALYSIS DATE TIM	в ву	RESULT UNITS
1,1,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
TETRACHLOROETHENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
DIBROMOCHLOROMETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
CHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
BROMOFORM	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,1,2,2-TRICHLOROETHANE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,3-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,4-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
1,2-DICHLOROBENZENE	EPA 8010	01/13/95	BLD	<0.005 mg/Kg
EFA 8020 SCAN	EPA 8020	01/13/95	BLD	
BENZENE	EPA 8020	.01/13/95	BLD	<0.005 mg/Kg
TOLUENE	EPA 8020	01/13/95	BLD	<0.005 mg/Kg
ETHYLBENZENE	EPA 8020	01/13/95	BLD	<0.005 mg/Kg
TOTAL XYLENES	EPA 8020.	01/13/95	BLD	<0.005 mg/Kg

Approved By

AISDOH ELAP #11246

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# APPENDIX C

ESTIMATED COSTS FOR EXCAVATION AND DISPOSAL AS PROVIDED BY LAIDLAW ENVIRONMENTAL SERVICES



Laidlaw Environmental Services (North East), Inc. 221 Sutton Street North Andover, Massachusetts 01845

# FAX Transmission

·O:	Opt fohn Kanoza  C & S Engineers	
OMPANY:	C&S Engineers	
AX NUMB	1310) 4-1-9667	
ROM:	Charles I. Ward, Ja	
	ages including cover sheet: 3 Pages	
ATE:	×/7/95	
OMMENT:	5: <u> </u>	<del></del>
		_
<del></del>		_
you do not	receive the pages as specified, please call as soon as possible (508)683-	 -100



February 7, 1995

PR-1371

Mr. John Kanoza C&S Engineers 1099 Airport Blvd North Syracuse, NY 13212

RE: Excavition, Transportation and Disposal of Approximately 150 Cubic Yards of F001 Classified Soils in the Syracuse, NY Area

Dear Mr. Kanoza:

Laidlaw Environmental Services (North East), Inc. (LES), is pleased to provide a quotation for the labor, equipment and material necessary to excavate, transport and dispose of soil contaminated with TCE and PCE. Based on information provided by C&S Engineers, LES has developed the following pricing summary.

### Option #1

Disposal at Marine Shale Processors, Morgan City, Louisiana

\$ 220.00/ton*

* Assumes RCRA metals below universal treatment standards

RCRA Metals above Universal Treatment Standards

\$ 375,00/ton

Note: Waste stream is assumed to be soils. No debris or concrete greater than 4 inches in diameter.

Analytical data must be provided for full TCLP analysis for Metals, semi VOA's, VOA's, Pesticides, and Herbicides.

Transportation to MSP, Louisiana

\$5,050.00/load

* Demurrage after 3 hours at \$65/hr

### Option #2

Treatment and disposal at EQ, Ypslanti, MI at \$365/ion

\$ 365.00/ton

Transportation to EQ, Michigan

\$1,725.00/load

Laiglaw Environmental Services (North Engl), Inc. 221 Sytton Street - North Andover, Massachusetts 01845 - Phone 508,883,1002: Fax 808,794,9665

## Labor and Equipment for excavation:

Operator/foreman at \$440/day
Field technician at 300/day
Excavator at \$850/day
Equipment mobilization and demobilization at \$500.00
Travel time at \$50/hr/crew
Service vehicle at \$100/day

This is only an estimate. You will be invoiced for actual labor hours, materials used, and waste generated from the project; however, the estimated costs will not be exceeded without prior authorization. Daily time sheets will be maintained for records of these items as well as a nurrative description of the tasks completed each day.

Any appropriate federal, state, and local fees and taxes will be applied as necessary.

Disposal pricing is based on acceptance at the final disposal facility and submittal of a representative sample and profile of the material.

LES will provide all materials, other than may be specified above, necessary to complete the project safely and efficiently. All LES field work is done in compliance with all pertinent state, federal and local laws and regulations, under strict safety standards.

This quote is valid for thirty days upon receipt. If you have any questions, please contact me or if you wish to schedule the work please contact Dedra Daigle at (508)683-1002 Ext 5387.

We look forward to working with you.

Sincerely,

PAX- 315-455-9667

Charles F. Ward, Jr. Project Manager

CC: Roger Maag, LES

CFW/hh-PC r/winitenders/95/C&S1271.PR TGL: 015-455-2000

BUCE: GI

E-64-01-91 F-1 23:23